



# Full wwPDB/EMDatabank EM Map/Model Validation Report ⓘ

Dec 11, 2019 – 01:47 AM EST

PDB ID : 4V6X  
EMDB ID: : EMD-5592  
Title : Structure of the human 80S ribosome  
Authors : Anger, A.M.; Armache, J.-P.; Berninghausen, O.; Habeck, M.; Subklewe, M.;  
Wilson, D.N.; Beckmann, R.  
Deposited on : 2013-02-27  
Resolution : 5.00 Å(reported)

This is a Full wwPDB/EMDatabank EM Map/Model Validation Report  
for a publicly released PDB/EMDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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MolProbity : 4.02b-467  
Percentile statistics : 20171227.v01 (using entries in the PDB archive December 27th 2017)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.4

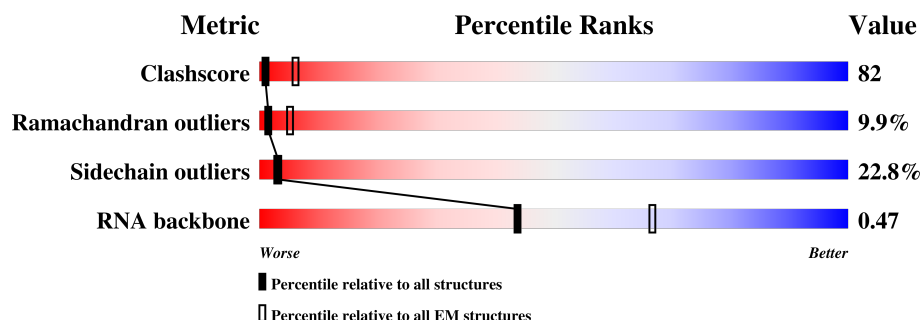
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 5.00 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.




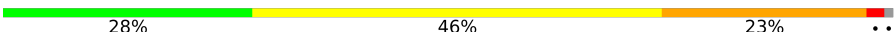
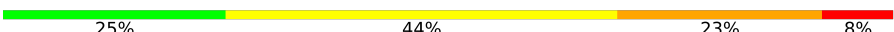

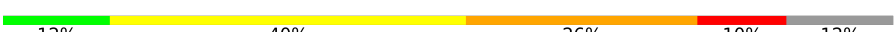
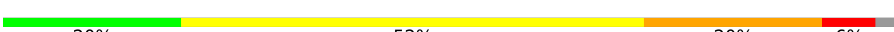
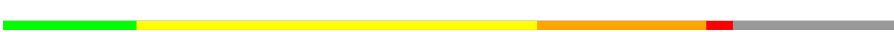





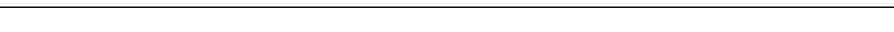

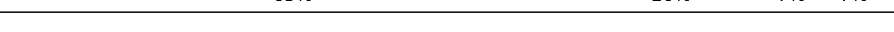

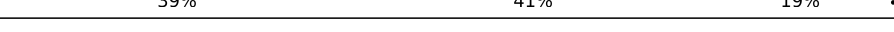
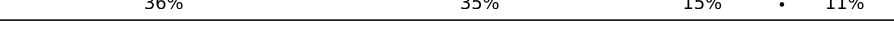

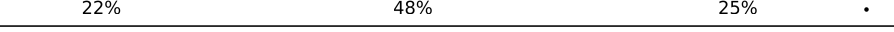




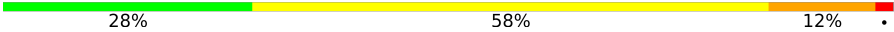
Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	136327	1886
Ramachandran outliers	132723	1663
Sidechain outliers	132532	1531
RNA backbone	3747	458

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ .

Mol	Chain	Length	Quality of chain
1	Az	858	74% 19% 5% .
2	Ag	317	74% 20% . .
3	AU	119	13% 39% 26% 9% 13%
4	AK	165	6% 27% 15% 12% 41%
5	AO	151	16% 48% 24% . 10%
6	AX	143	26% 49% 19% 6% .
7	AM	132	20% 45% 23% 6% 6%
8	AS	152	15% 47% 18% 11% 10%




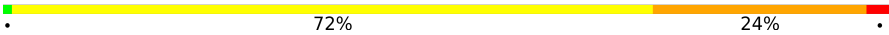


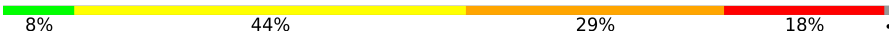
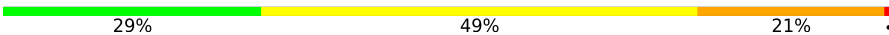
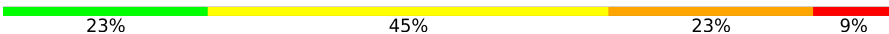
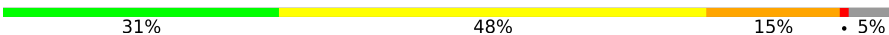


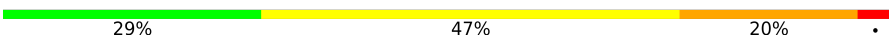
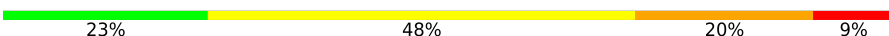
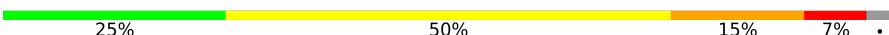

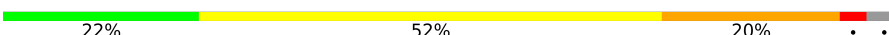








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Mol	Chain	Length	Quality of chain
9	Ad	56	
10	AN	151	
11	AL	158	
12	AR	135	
13	AP	145	
14	AT	145	
15	AB	264	
16	AA	295	
17	AV	83	
18	AY	133	
19	AZ	125	
20	Aa	115	
21	Ab	84	
22	Ac	69	
23	AD	243	
24	Ae	59	
25	Af	80	
26	AJ	194	
27	AE	263	
28	AC	293	
29	AG	249	
30	AF	204	
31	AH	194	
32	AW	130	
33	AI	208	






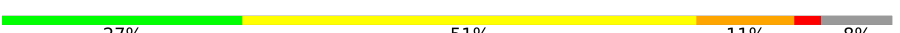
















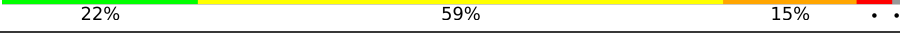


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Mol	Chain	Length	Quality of chain
34	AQ	146	
35	Ah	408	
36	B2	1869	
37	BC	75	
38	Cz	217	
39	Cq	317	
40	CK	165	
41	CO	203	
42	CL	211	
43	CV	140	
44	CM	215	
45	Ca	148	
46	CN	204	
47	CI	214	
48	CD	297	
49	CQ	188	
50	CR	196	
51	CA	257	
52	CS	176	
53	CT	160	
54	CP	184	
55	CU	128	
56	CX	156	
57	CY	145	
58	CW	157	

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Mol	Chain	Length	Quality of chain
59	CZ	136	
60	Cr	137	
61	Ch	123	
62	Cb	159	
63	CB	403	
64	CF	248	
65	Cc	115	
66	Cd	125	
67	Ce	135	
68	Cf	110	
69	Cg	117	
70	Ci	105	
71	Cj	97	
72	Ck	70	
73	Cl	51	
74	CC	427	
75	Cm	52	
76	Cn	25	
77	Cp	92	
78	Co	106	
79	CJ	178	
80	CH	192	
81	CE	288	
82	CG	266	
83	Cs	114	

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Mol	Chain	Length	Quality of chain
83	Ct	114	<div><div></div><div>45%5%50%</div></div>
84	Cu	115	<div><div></div><div>37%12%51%</div></div>
84	Cv	115	<div><div></div><div>39%8%51%</div></div>
85	A5	5070	<div><div></div><div>11%44%24%6%15%</div></div>
86	A7	121	<div><div></div><div>59%31%7%</div></div>
87	A8	157	<div><div></div><div>5%57%27%11%</div></div>

## 2 Entry composition

There are 87 unique types of molecules in this entry. The entry contains 237685 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Elongation factor 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	Az	856	Total	C	N	O	S	0	0
			6673	4234	1148	1247	44		

- Molecule 2 is a protein called Guanine nucleotide-binding protein subunit beta-2-like 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	Ag	313	Total	C	N	O	S	0	0
			2436	1535	424	465	12		

- Molecule 3 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	AU	104	Total	C	N	O	S	0	0
			822	514	156	148	4		

- Molecule 4 is a protein called 40S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	AK	98	Total	C	N	O	S	0	0
			827	539	148	134	6		

- Molecule 5 is a protein called 40S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	AO	136	Total	C	N	O	S	0	0
			1016	621	199	190	6		

- Molecule 6 is a protein called 40S ribosomal protein S23.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	AX	142	Total	C	N	O	S	0	0
			1106	698	220	184	4		

- Molecule 7 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	AM	124	Total	C	N	O	S	0	0
			960	600	171	181	8		

There are 3 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AM	52	GLN	LEU	conflict	UNP P25398
AM	69	LEU	CYS	conflict	UNP P25398
AM	99	ASN	LYS	conflict	UNP P25398

- Molecule 8 is a protein called 40S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AS	137	Total	C	N	O	S	0	0
			1139	714	231	193	1		

- Molecule 9 is a protein called 40S ribosomal protein S29.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	Ad	53	Total	C	N	O	S	0	0
			445	278	90	72	5		

- Molecule 10 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	AN	150	Total	C	N	O	S	0	0
			1208	773	229	205	1		

- Molecule 11 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AL	158	Total	C	N	O	S	0	0
			1296	827	241	221	7		

- Molecule 12 is a protein called 40S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AR	126	Total	C	N	O	S	0	0
			1019	639	188	187	5		



- Molecule 13 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AP	127	Total	C	N	O	S	0	0
			1062	674	202	179	7		

- Molecule 14 is a protein called 40S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AT	141	Total	C	N	O	S	0	0
			1101	690	212	196	3		

- Molecule 15 is a protein called 40S ribosomal protein S3a.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AB	215	Total	C	N	O	S	0	0
			1747	1110	313	310	14		

- Molecule 16 is a protein called 40S ribosomal protein SA.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AA	208	Total	C	N	O	S	0	0
			1642	1045	289	300	8		

- Molecule 17 is a protein called 40S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AV	82	Total	C	N	O	S	0	0
			625	384	116	120	5		

- Molecule 18 is a protein called 40S ribosomal protein S24.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AY	126	Total	C	N	O	S	0	0
			1023	646	200	172	5		

- Molecule 19 is a protein called 40S ribosomal protein S25.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AZ	75	Total	C	N	O	S	0	0
			598	382	111	104	1		

- Molecule 20 is a protein called 40S ribosomal protein S26.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	Aa	107	Total	C	N	O	S	0	0
			847	528	176	138	5		

- Molecule 21 is a protein called 40S ribosomal protein S27.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	Ab	84	Total	C	N	O	S	0	0
			659	413	122	116	8		

- Molecule 22 is a protein called 40S ribosomal protein S28.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	Ac	64	Total	C	N	O	S	0	0
			506	308	102	94	2		

- Molecule 23 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AD	227	Total	C	N	O	S	0	0
			1765	1125	317	315	8		

- Molecule 24 is a protein called 40S ribosomal protein S30.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	Ae	59	Total	C	N	O	S	0	0
			468	290	102	75	1		

- Molecule 25 is a protein called 40S ribosomal protein S27a.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	Af	71	Total	C	N	O	S	0	0
			581	367	109	98	7		

- Molecule 26 is a protein called 40S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AJ	182	Total	C	N	O	S	0	0
			1498	952	300	244	2		

- Molecule 27 is a protein called 40S ribosomal protein S4, X isoform.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	AE	263	Total	C	N	O	S	0	0
			2084	1329	387	359	9		

- Molecule 28 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	AC	226	Total	C	N	O	S	0	0
			1751	1130	301	310	10		

- Molecule 29 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	AG	237	Total	C	N	O	S	0	0
			1923	1200	387	329	7		

- Molecule 30 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	AF	191	Total	C	N	O	S	0	0
			1509	943	286	273	7		

- Molecule 31 is a protein called 40S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	AH	190	Total	C	N	O	S	0	0
			1530	975	281	273	1		

- Molecule 32 is a protein called 40S ribosomal protein S15a.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	AW	129	Total	C	N	O	S	0	0
			1034	659	193	176	6		

- Molecule 33 is a protein called 40S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	AI	206	Total	C	N	O	S	0	0
			1686	1058	332	291	5		

- Molecule 34 is a protein called 40S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	AQ	141	Total	C	N	O	S	0	0
			1124	715	212	194	3		

- Molecule 35 is a protein called Plasminogen activator inhibitor 1 RNA-binding protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	Ah	73	Total	C	N	O	S	0	0
			566	340	116	108	2		

- Molecule 36 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	B2	1861	Total	C	N	O	P	0	0
			38377	17073	6745	12699	1860		

- Molecule 37 is a RNA chain called E-tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	BC	75	Total	C	N	O	P	0	0
			1604	717	298	515	74		

- Molecule 38 is a protein called 60S ribosomal protein L10a.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	Cz	217	Total	C	N	O	S	0	0
			1741	1113	312	307	9		

- Molecule 39 is a protein called 60S acidic ribosomal protein P0.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	Cq	280	Total	C	N	O	S	0	0
			2138	1367	366	395	10		

- Molecule 40 is a protein called 60S ribosomal protein L12.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	CK	163	Total	C	N	O	S	0	0
			1238	773	230	230	5		

- Molecule 41 is a protein called 60S ribosomal protein L13a.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	CO	202	Total	C	N	O	S	0	0
			1655	1066	322	262	5		

- Molecule 42 is a protein called 60S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	CL	210	Total	C	N	O	S	0	0
			1701	1064	352	281	4		

- Molecule 43 is a protein called 60S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	CV	133	Total	C	N	O	S	0	0
			989	623	186	175	5		

- Molecule 44 is a protein called 60S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	CM	139	Total	C	N	O	S	0	0
			1139	730	218	183	8		

- Molecule 45 is a protein called 60S ribosomal protein L27a.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	Ca	147	Total	C	N	O	S	0	0
			1162	736	237	186	3		

- Molecule 46 is a protein called 60S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	CN	203	Total	C	N	O	S	0	0
			1701	1072	359	266	4		

- Molecule 47 is a protein called 60S ribosomal protein L10-like.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	CI	213	Total	C	N	O	S	0	0
			1711	1082	329	285	15		

- Molecule 48 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	CD	289	Total	C	N	O	S	0	0
			2353	1483	429	427	14		

- Molecule 49 is a protein called 60S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	CQ	188	Total	C	N	O	S	0	0
			1521	949	315	251	6		

- Molecule 50 is a protein called 60S ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	CR	189	Total	C	N	O	S	0	0
			1580	979	338	253	10		

- Molecule 51 is a protein called 60S ribosomal protein L8.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	CA	255	Total	C	N	O	S	0	0
			1957	1225	399	327	6		

- Molecule 52 is a protein called 60S ribosomal protein L18a.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	CS	175	Total	C	N	O	S	0	0
			1453	925	283	235	10		

- Molecule 53 is a protein called 60S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	CT	159	Total	C	N	O	S	0	0
			1298	823	252	217	6		

- Molecule 54 is a protein called 60S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	CP	152	Total	C	N	O	S	0	0
			1233	771	240	213	9		

- Molecule 55 is a protein called 60S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	CU	112	Total	C	N	O	S	0	0
			921	583	159	177	2		

- Molecule 56 is a protein called 60S ribosomal protein L23a.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	CX	121	Total	C	N	O	S	0	0
			994	636	187	170	1		

- Molecule 57 is a protein called 60S ribosomal protein L26.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	CY	133	Total	C	N	O	S	0	0
			1107	695	225	185	2		

- Molecule 58 is a protein called 60S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	CW	124	Total	C	N	O	S	0	0
			1015	634	207	170	4		

- Molecule 59 is a protein called 60S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	CZ	135	Total	C	N	O	S	0	0
			1107	714	208	182	3		

- Molecule 60 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	Cr	137	Total	C	N	O	S	0	0
			1104	682	231	185	6		

- Molecule 61 is a protein called 60S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	Ch	123	Total	C	N	O	S	0	0
			1023	646	206	169	2		

- Molecule 62 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	Cb	78	Total	C	N	O	S	0	0
			635	395	135	102	3		

- Molecule 63 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	CB	397	Total	C	N	O	S	0	0
			3202	2039	602	547	14		

- Molecule 64 is a protein called 60S ribosomal protein L7.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	CF	229	Total	C	N	O	S	0	0
			1910	1226	370	305	9		

- Molecule 65 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	Cc	100	Total	C	N	O	S	0	0
			776	492	136	141	7		

- Molecule 66 is a protein called 60S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	Cd	113	Total	C	N	O	S	0	0
			931	586	181	162	2		

- Molecule 67 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	Ce	133	Total	C	N	O	S	0	0
			1096	691	224	175	6		

- Molecule 68 is a protein called 60S ribosomal protein L35a.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	Cf	109	Total	C	N	O	S	0	0
			876	555	174	144	3		

- Molecule 69 is a protein called 60S ribosomal protein L34.



Mol	Chain	Residues	Atoms					AltConf	Trace
69	Cg	114	Total	C	N	O	S	0	0
			906	566	187	147	6		

- Molecule 70 is a protein called 60S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	Ci	103	Total	C	N	O	S	0	0
			840	526	178	130	6		

- Molecule 71 is a protein called 60S ribosomal protein L37.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	Cj	90	Total	C	N	O	S	0	0
			733	451	162	115	5		

- Molecule 72 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	Ck	69	Total	C	N	O	S	0	0
			569	366	103	99	1		

- Molecule 73 is a protein called 60S ribosomal protein L39.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	Cl	50	Total	C	N	O	S	0	0
			444	281	98	64	1		

- Molecule 74 is a protein called 60S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	CC	368	Total	C	N	O	S	0	0
			2925	1840	583	489	13		

- Molecule 75 is a protein called 60S ribosomal protein L40.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	Cm	52	Total	C	N	O	S	0	0
			429	266	90	67	6		

- Molecule 76 is a protein called 60S ribosomal protein L41.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	Cn	25	Total	C	N	O	S	0	0
			240	145	64	28	3		

- Molecule 77 is a protein called 60S ribosomal protein L37a.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	Cp	90	Total	C	N	O	S	0	0
			703	442	135	119	7		

- Molecule 78 is a protein called 60S ribosomal protein L36a.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	Co	105	Total	C	N	O	S	0	0
			863	542	175	140	6		

- Molecule 79 is a protein called 60S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	CJ	168	Total	C	N	O	S	0	0
			1349	853	251	239	6		

- Molecule 80 is a protein called 60S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	CH	191	Total	C	N	O	S	0	0
			1526	960	285	275	6		

- Molecule 81 is a protein called 60S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	CE	262	Total	C	N	O	S	0	0
			2113	1357	403	349	4		

- Molecule 82 is a protein called 60S ribosomal protein L7a.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	CG	246	Total	C	N	O	S	0	0
			1973	1256	379	334	4		

- Molecule 83 is a protein called 60S acidic ribosomal protein P1.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	Cs	57	Total	C	N	O	S	0	0
			426	277	68	79	2		
83	Ct	57	Total	C	N	O	S	0	0
			426	277	68	79	2		

- Molecule 84 is a protein called 60S acidic ribosomal protein P2.

Mol	Chain	Residues	Atoms					AltConf	Trace
84	Cu	56	Total	C	N	O	S	0	0
			419	261	71	86	1		
84	Cv	56	Total	C	N	O	S	0	0
			419	261	71	86	1		

- Molecule 85 is a RNA chain called 28S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
85	A5	4298	Total	C	N	O	P	0	0
			84946	37522	14767	28360	4297		

- Molecule 86 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
86	A7	121	Total	C	N	O	P	0	0
			2578	1150	458	850	120		

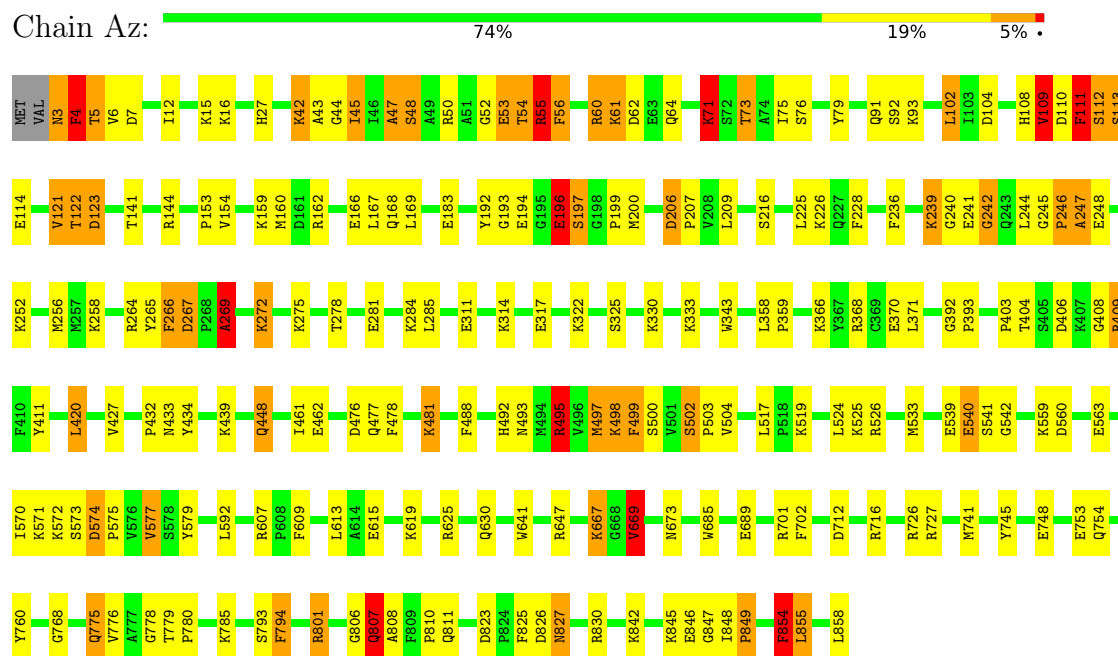
- Molecule 87 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
87	A8	157	Total	C	N	O	P	0	0
			3334	1489	587	1102	156		

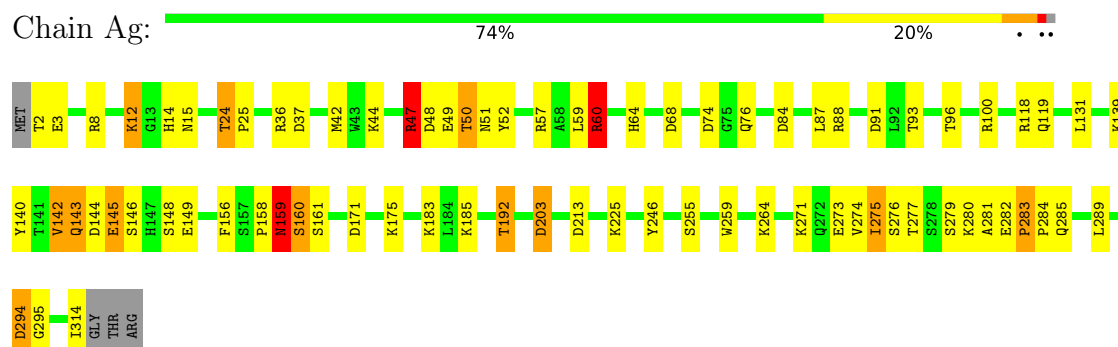
### 3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

#### • Molecule 1: Elongation factor 2

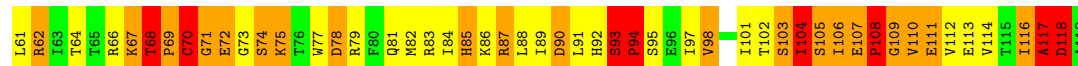


#### • Molecule 2: Guanine nucleotide-binding protein subunit beta-2-like 1



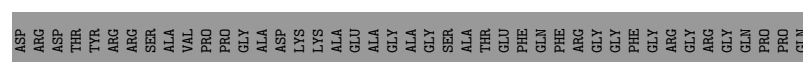
#### • Molecule 3: 40S ribosomal protein S20





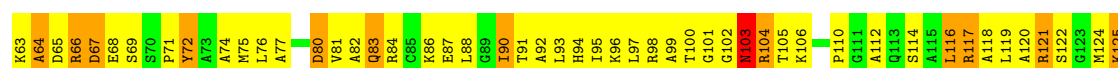
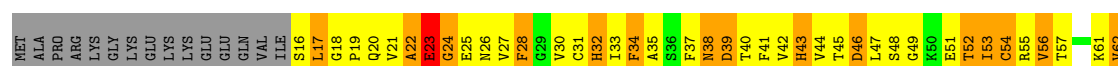
• Molecule 4: 40S ribosomal protein S10

Chain AK: 6% 27% 15% 12% 41%



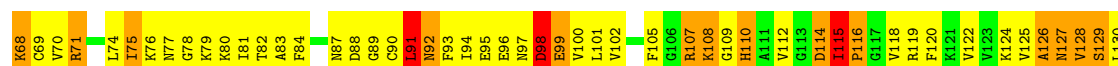
• Molecule 5: 40S ribosomal protein S14

Chain AO: 16% 48% 24% 10%



• Molecule 6: 40S ribosomal protein S23

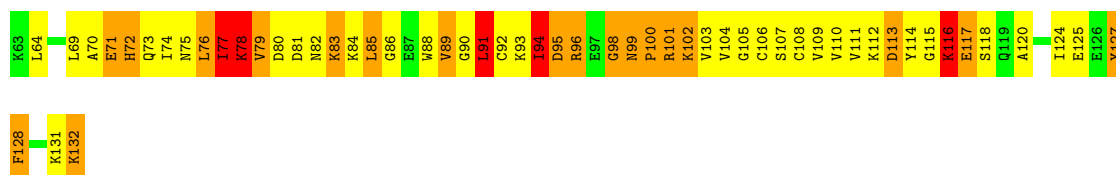
Chain AX: 26% 49% 19% 6%



• Molecule 7: 40S ribosomal protein S12

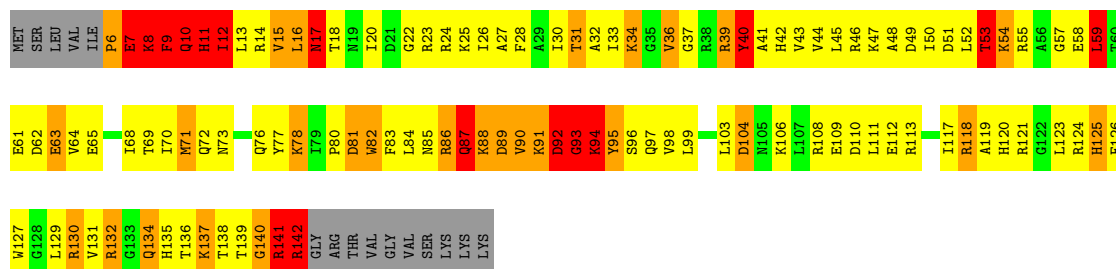
Chain AM: 20% 45% 23% 6% 6%





### • Molecule 8: 40S ribosomal protein S18

Chain AS: 15% 47% 18% 11% 10%



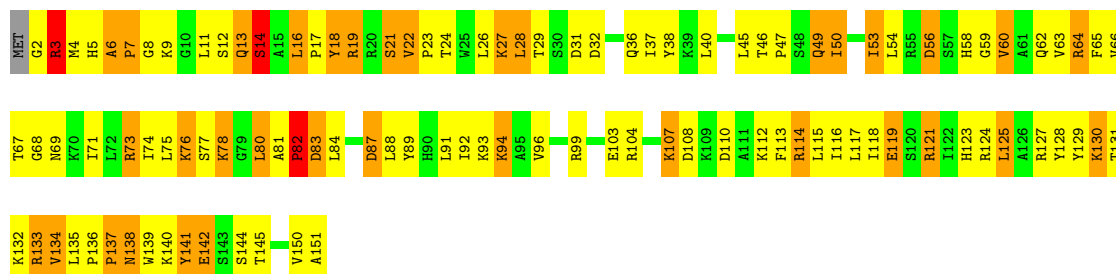
### • Molecule 9: 40S ribosomal protein S29

Chain Ad: 66% 27% 5%



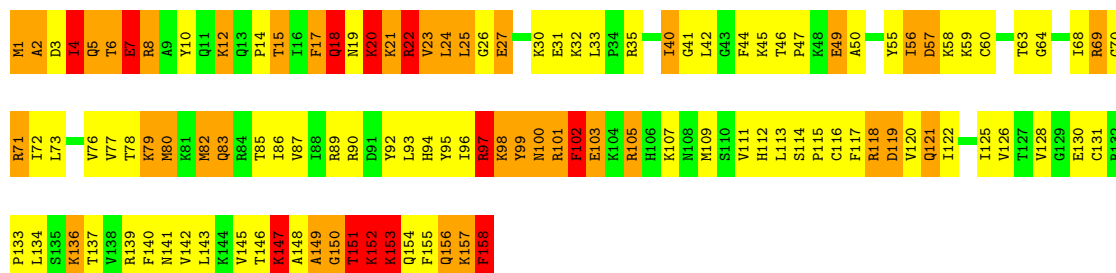
### • Molecule 10: 40S ribosomal protein S13

Chain AN: 28% 46% 23%

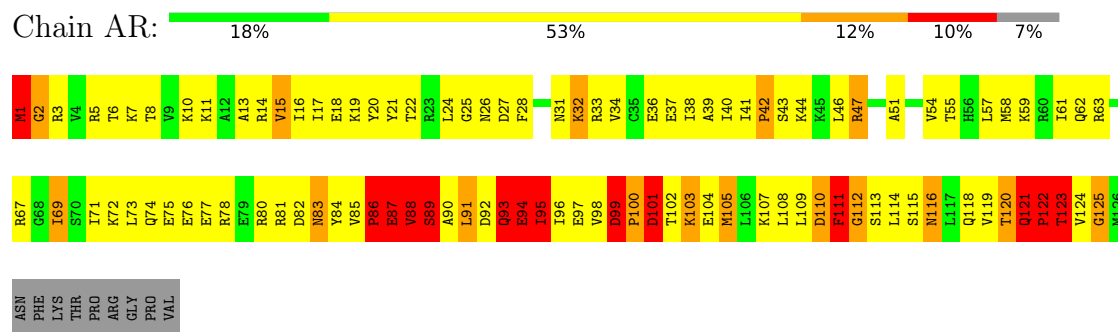


### • Molecule 11: 40S ribosomal protein S11

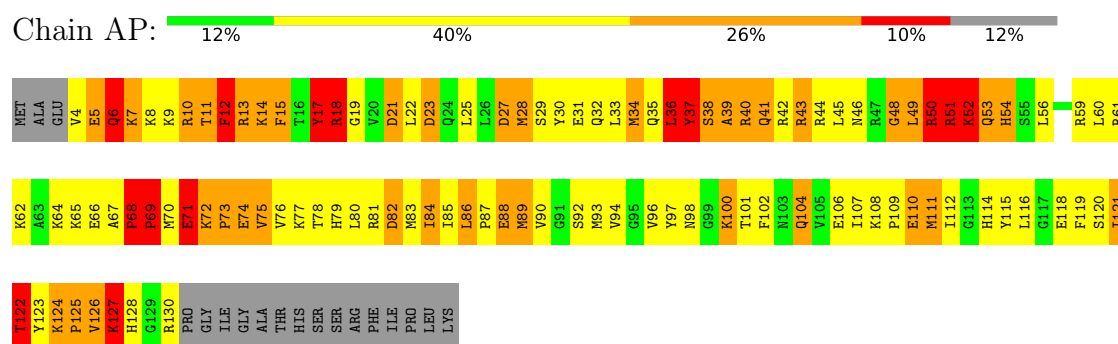
Chain AL: 25% 44% 23% 8%



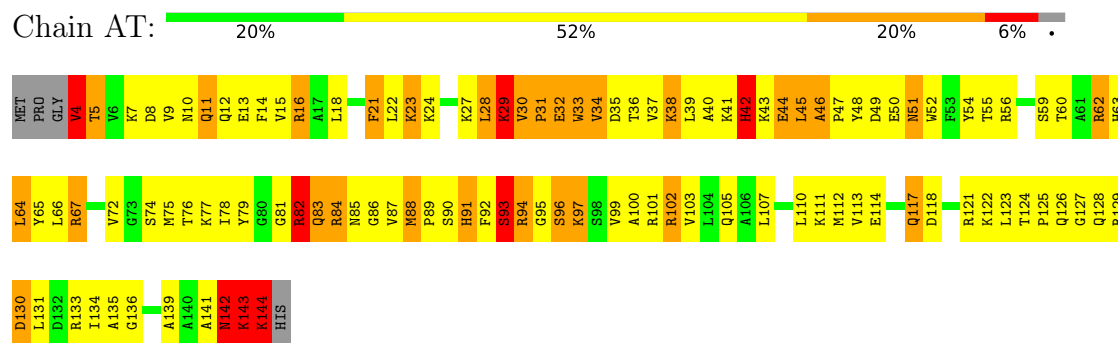
- Molecule 12: 40S ribosomal protein S17



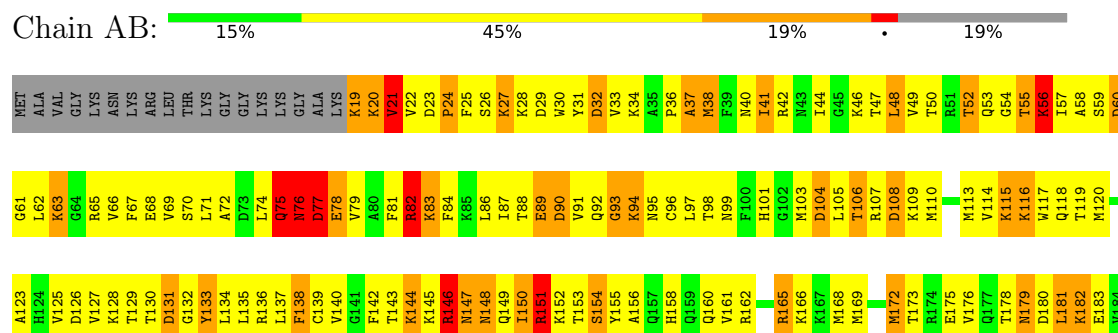
- Molecule 13: 40S ribosomal protein S15



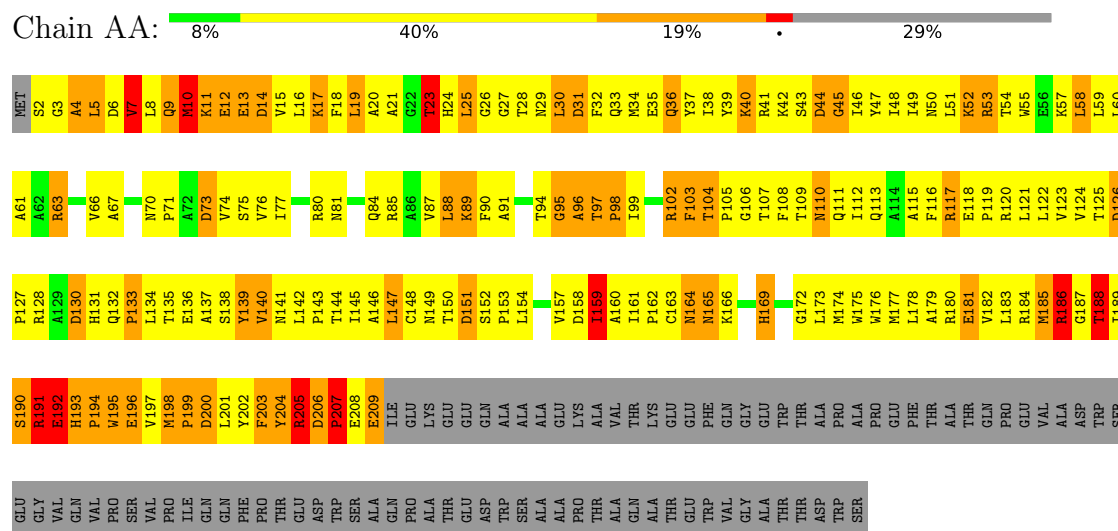
- Molecule 14: 40S ribosomal protein S19



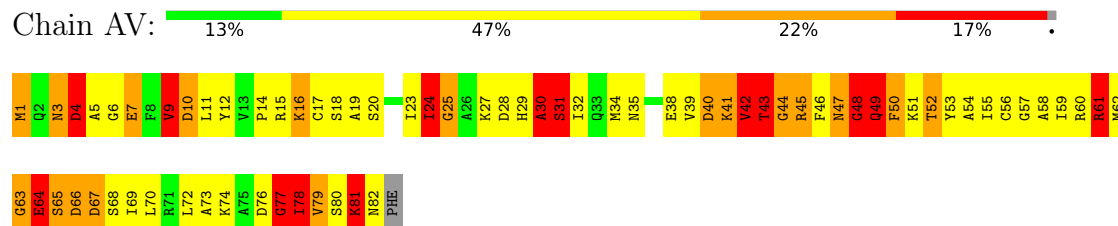
- Molecule 15: 40S ribosomal protein S3a



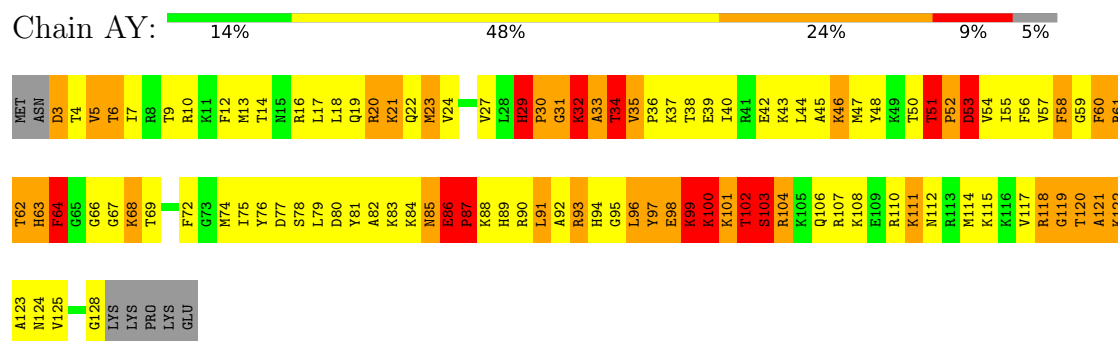
- Molecule 16: 40S ribosomal protein SA



- Molecule 17: 40S ribosomal protein S21



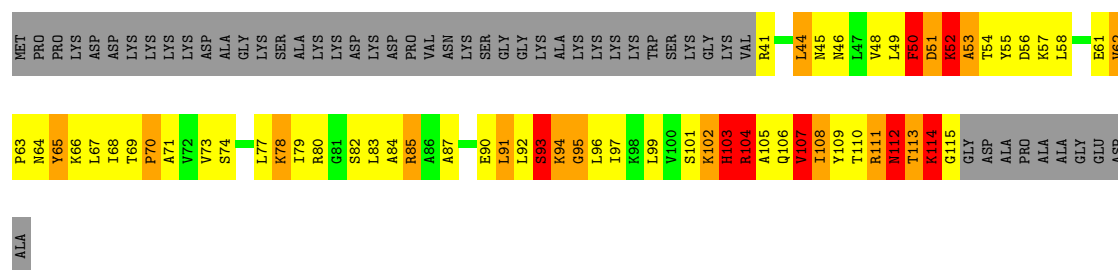
- Molecule 18: 40S ribosomal protein S24



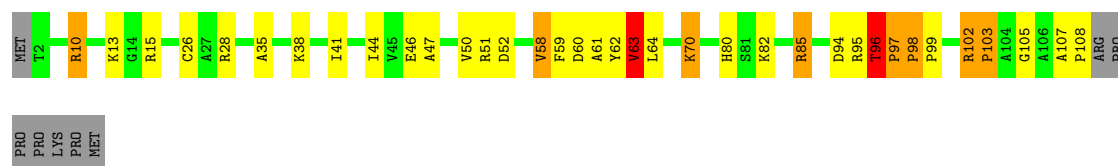
- Molecule 19: 40S ribosomal protein S25



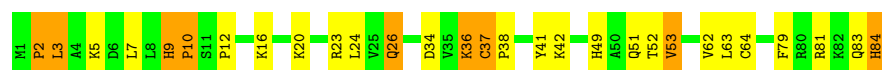




- Molecule 20: 40S ribosomal protein S26



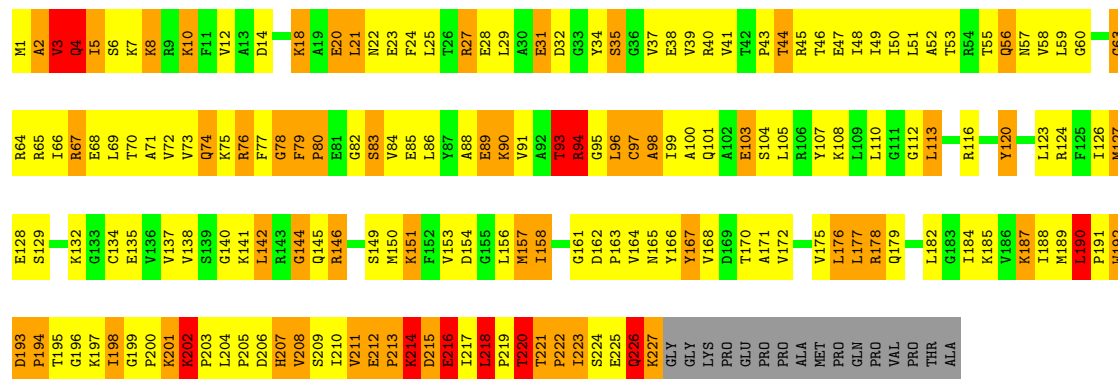
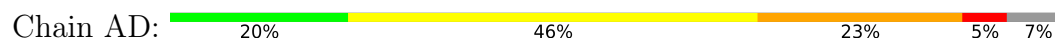
- Molecule 21: 40S ribosomal protein S27



- Molecule 22: 40S ribosomal protein S28

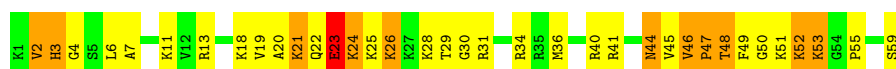


- Molecule 23: 40S ribosomal protein S3



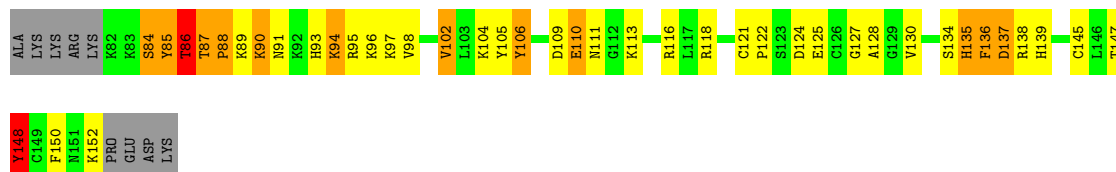
- Molecule 24: 40S ribosomal protein S30





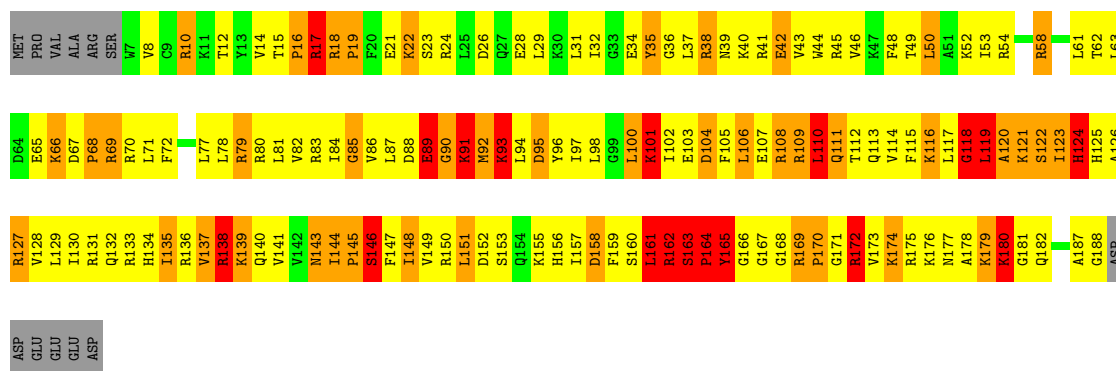
- Molecule 25: 40S ribosomal protein S27a

Chain Af: 36% 35% 15% 11%



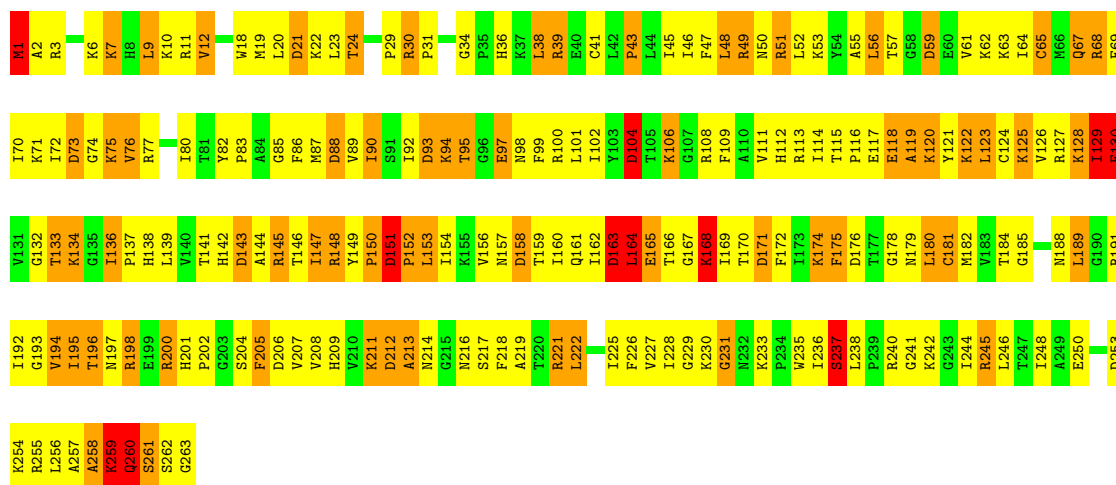
- Molecule 26: 40S ribosomal protein S9

Chain AJ: 14% 48% 22% 9% 6%



- Molecule 27: 40S ribosomal protein S4, X isoform

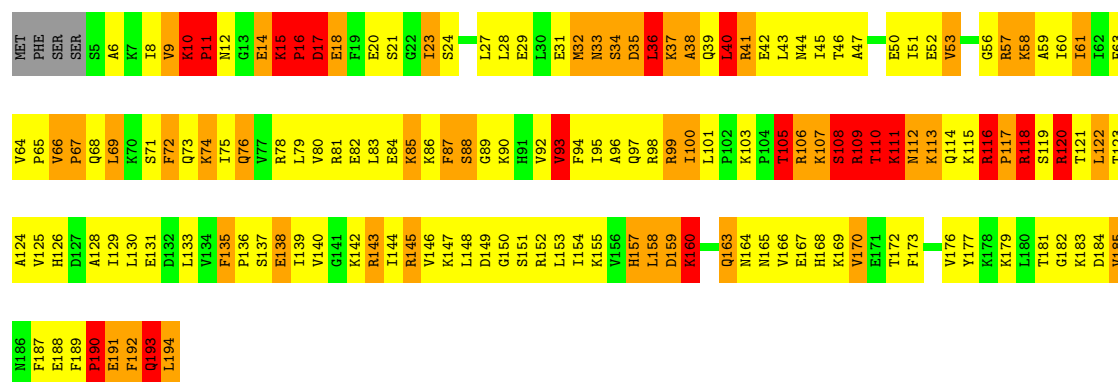
Chain AE: 22% 48% 25%



- Molecule 28: 40S ribosomal protein S2

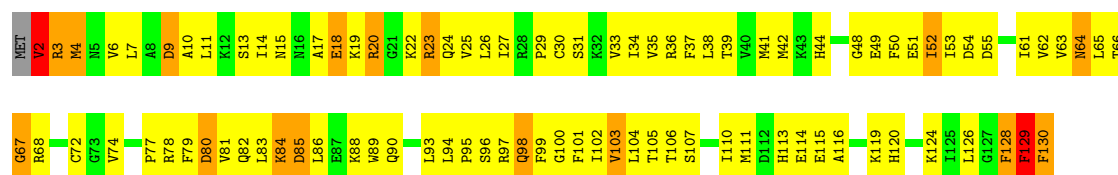
Chain AC: 12% 44% 18% 23%





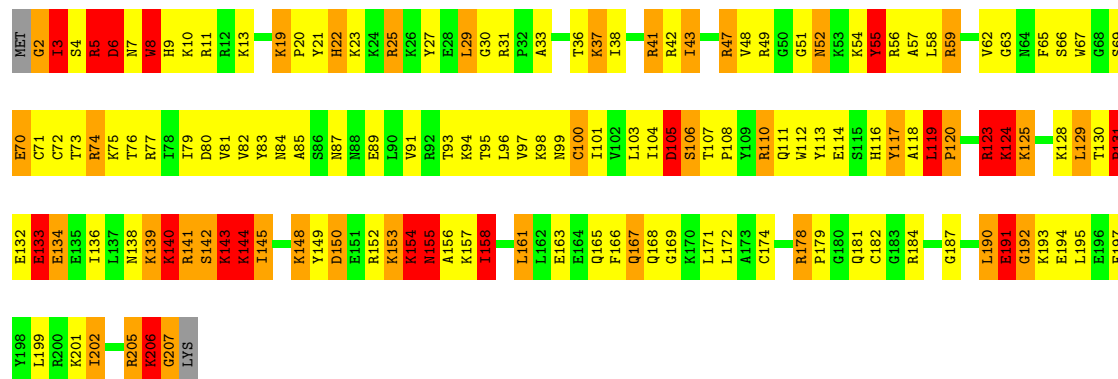
- Molecule 32: 40S ribosomal protein S15a

Chain AW: 28% 58% 12% ..



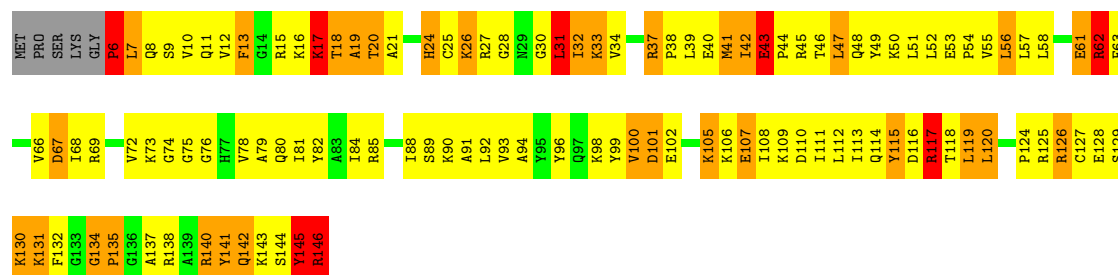
- Molecule 33: 40S ribosomal protein S8

Chain AI: 29% 44% 17% 9% .



- Molecule 34: 40S ribosomal protein S16

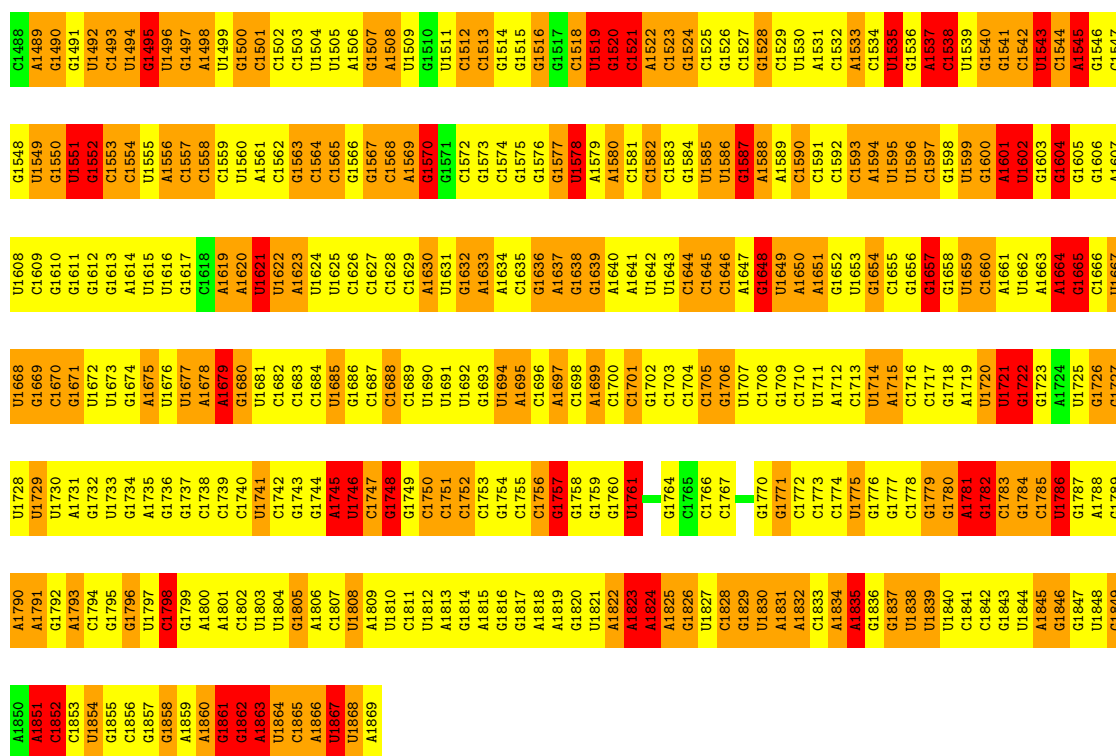
Chain AQ: 18% 52% 21% 5% .



- Molecule 35: Plasminogen activator inhibitor 1 RNA-binding protein

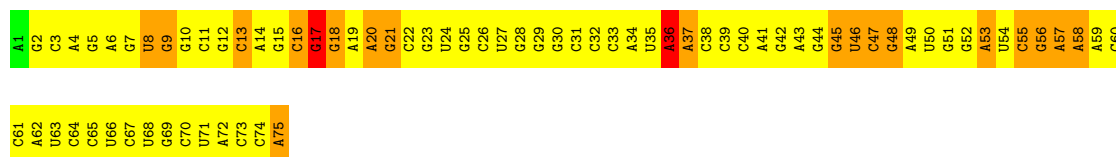
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-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

G1428	U1368	C1247	G1187	G1126	U1066	C1006	U945	U885	A825	U749	C624	A564	G504
G1429	A1369	U1248	A1188	C1127	C1067	C1007	U946	A886	A826	C750	G625	G565	G505
G1430	A1370	C1249	A1189	C1128	U1068	A1008	G947	U887	A827	G751	G626	U566	G506
C1431	U1371	A1250	A1190	G1129	U1069	A1009	C948	U888	G828	G752	U627	C567	G507
C1432	U1372	C1251	C1191	G1130	A1070	G1010	G949	U889	C829	C753	A628	C568	A508
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C1434	C1374	A1253	U1193	C1132	U1072	A1012	C951	G891	G831	C755	U630	C570	G510
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A1438	C1378	G1257	A1197	U1136	G1076	U1016	A955	G895	G835		A634	A574	U514
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C1440	C1380	A1259	A1199	U1138	C1078	U1018	A957	U897	A837		C536	A576	A516
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G1458	G1398	C1277	A1217	U1156	G1096	A1036	G975	G915	G855	A794	A654	A594	G534
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G1461	A1401	G1280	A1220	G1159	G1099	C1039	C978	U918	A858	C797	U657	G597	C537
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C1464	A1343	G1283	A1223	C1162	G1102	A1042	A981	G921	A861	U800	C660	G600	U540
A1465	A1405	A1284	G1224	C1163	C1103	G1043	G982	A922	A862	U801	U661	G601	U541
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C1468	U1408	A1287	G1227	G1166	C1106	U1046	G985	G925	A865	U804	A664	A604	A544
A1469	G1348	U1288	G1228	G1167	G1107	C1047	G986	A926	U866	C730	G665	A605	A545
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G1473	C1352	C1292	U1232	G1171	U1111	G1051	A990	C930	A870	C734	A669	U609	C549
A1474	A1353	G1293	U1233	U1172	U1112	A1052	C991	C931	U871	C735	A670	G610	C550
C1475	G1354	C1294	C1234	A1173	A1113	C1053	A992	G932	A872	C736	A671	G611	U551
G1476	G1416	A1295	G1235	U1174	U1114	G1054	G993	G933	G873	G737	A672	U612	G552
U1477	C1417	U1296	G1236	G1175	U1115	A1055	C994	G934	G874	C738	G673	G613	U553
C1478	U1477	U1297	C1237	G1176	C1116	U1056		G935	A875	C739	C674	C614	A554
G1479	U1388	U1298	U1238	G1177	C1117	C1057		G936	C876	C740	U675	C615	A555
A1480	G1420	A1299	U1239	U1178	U1178	A1058	A998	C937	C877	C741	C676	A616	U556
G1481	G1361	U1300	A1240	G1179	A1119	G1059	G999	A938	G878	U742	G677	G617	U557
C1482	A1421	U1301	A1241	C1180	U1120	U1060	C999	U939	C879	U743	U678	C618	G558
C1483	G1422	G1302	U1242	A1181	G1121	A1061	A1000	U940	G880	G744	A679	A619	G559
A1484	G1424	C1303	U1243	A1182	A1122	A1062	U1002	C941	G881	C745	G680	G620	A560
U1485	G1425	U1304	C1244		C1123	C1063	U1003	G942	U882	C746	G681	C621	A561
A1486	U1486	G1305	G1245	C1185	C1124	C1064	U1004	U943	U883	U747	U682	C622	U562
A1487	C1427	U1306	A1246	U1186	C1125	G1065	G1005	A944	C884	C748	G683	G623	G563



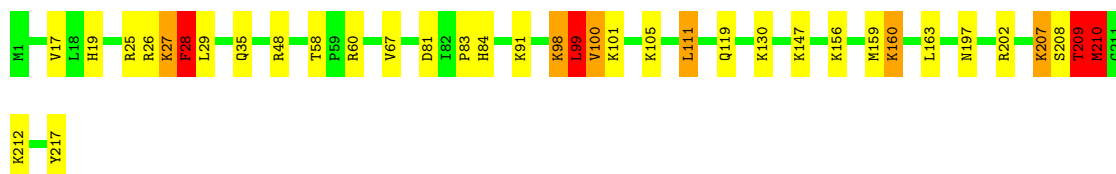
### • Molecule 37: E-tRNA

Chain BC: 72% 24%



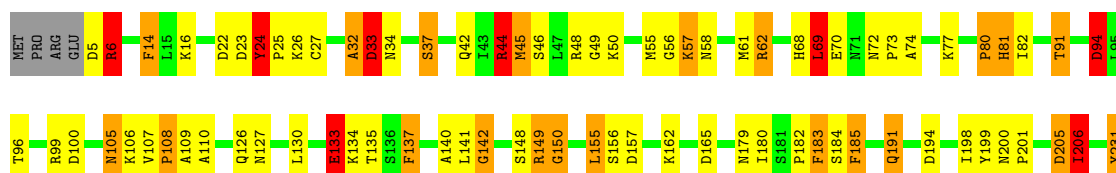
### • Molecule 38: 60S ribosomal protein L10a

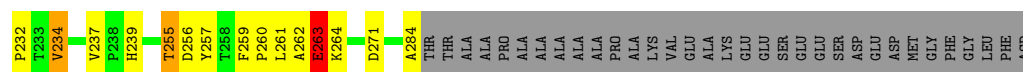
Chain Cz: 83% 12%



### • Molecule 39: 60S acidic ribosomal protein P0

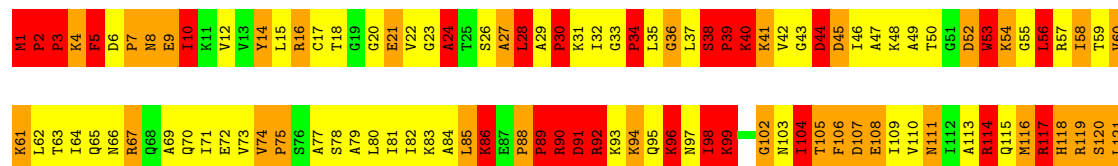
Chain Cq: 58% 20% 7% 12%





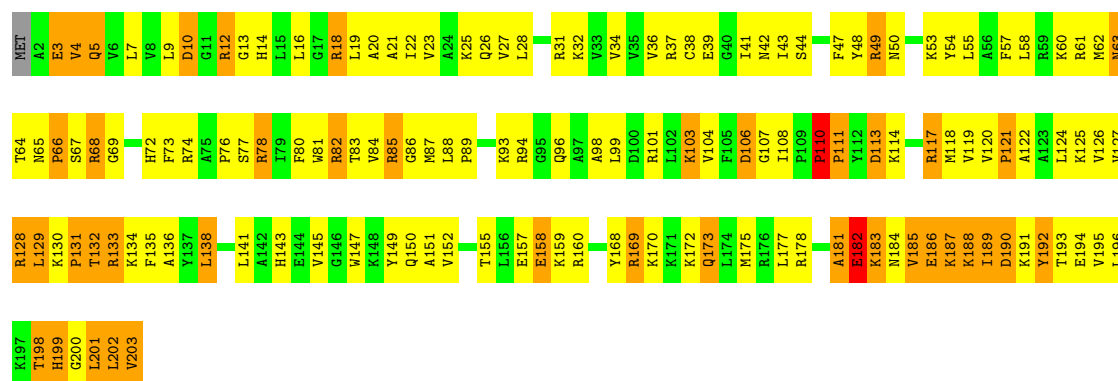
• Molecule 40: 60S ribosomal protein L12

Chain CK: 8% 44% 29% 18%



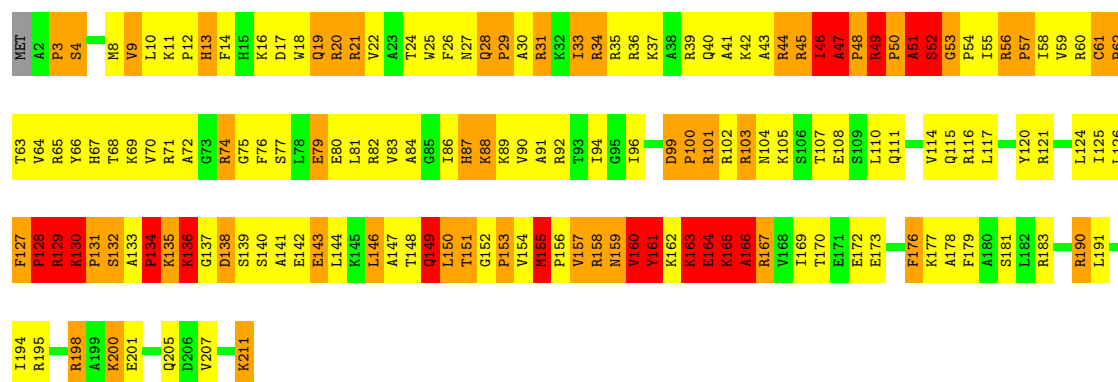
• Molecule 41: 60S ribosomal protein L13a

Chain CO: 29% 49% 21%



• Molecule 42: 60S ribosomal protein L13

Chain CL: 23% 45% 23% 9%

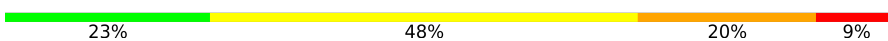


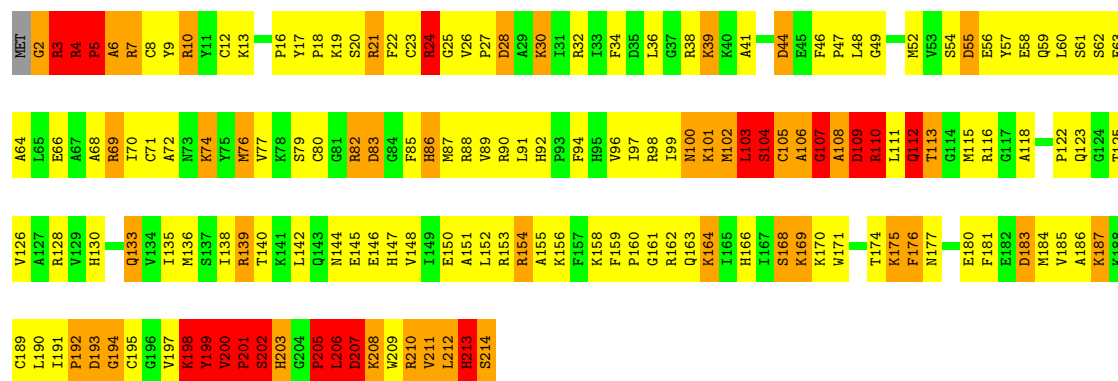
• Molecule 43: 60S ribosomal protein L23

Chain CV: 31% 48% 15% 5%



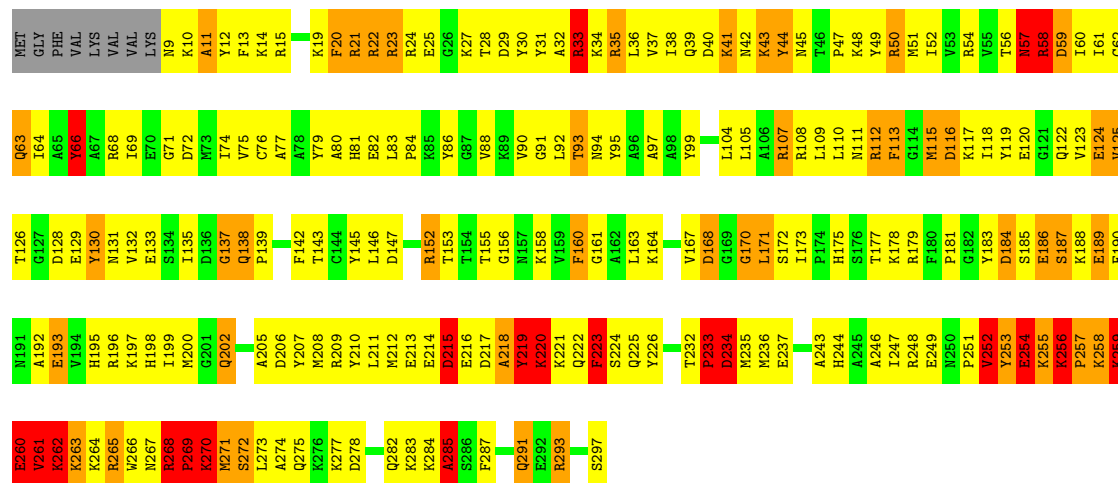


Chain CI: 

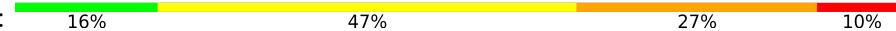


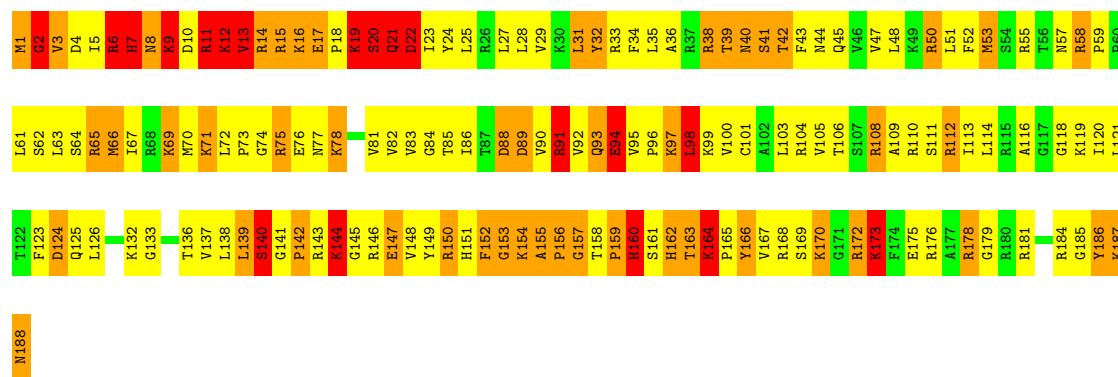
• Molecule 48: 60S ribosomal protein L5

Chain CD: 

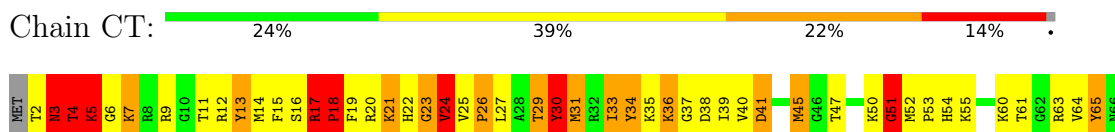
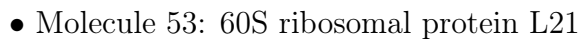
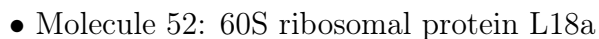
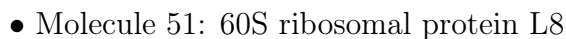


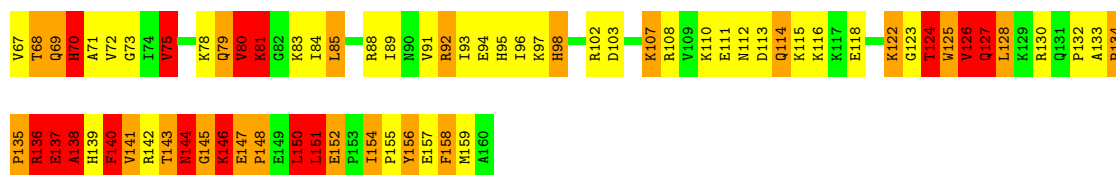
• Molecule 49: 60S ribosomal protein L18

Chain CQ: 



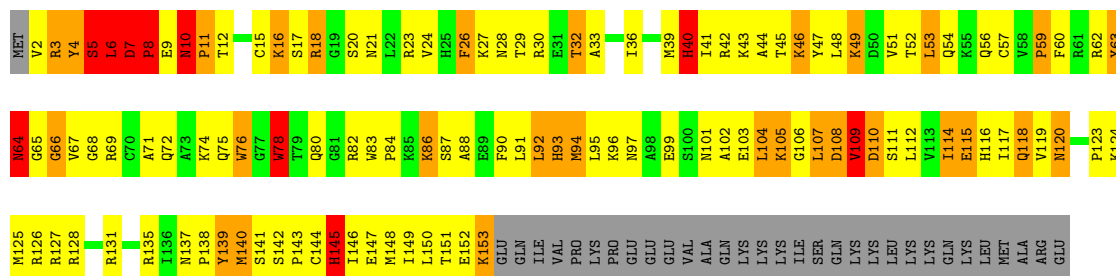
• Molecule 50: 60S ribosomal protein L19

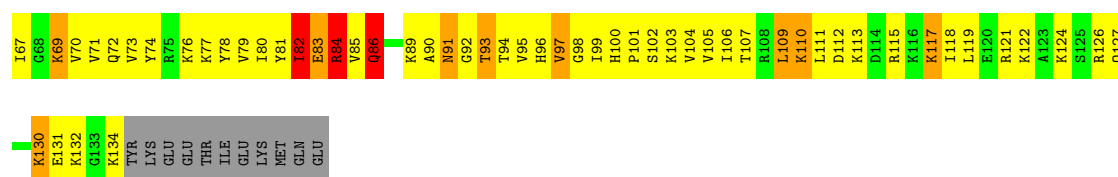




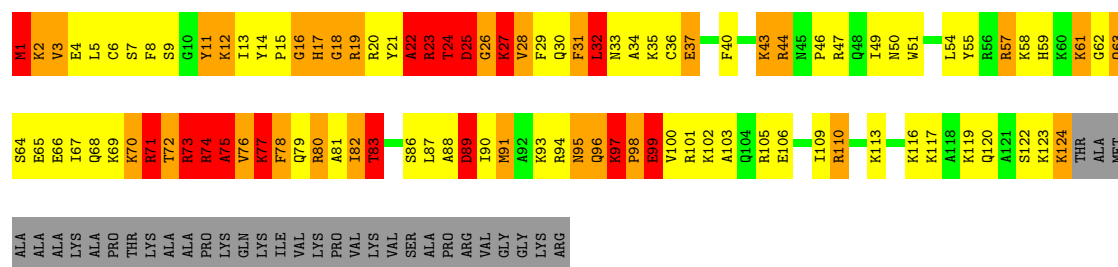
• Molecule 54: 60S ribosomal protein L17

Chain CP: 17% 43% 16% 5% 17%

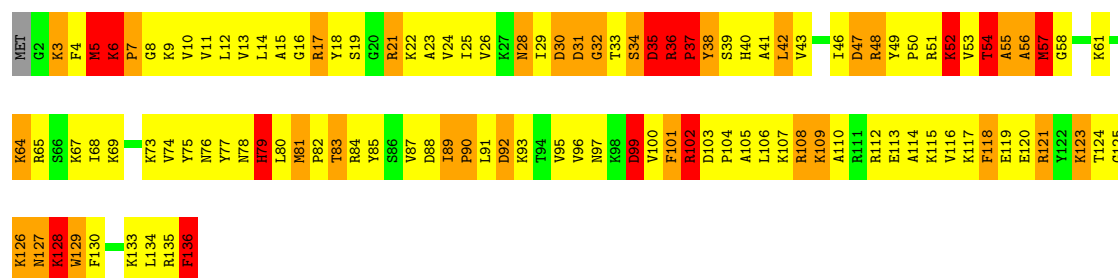
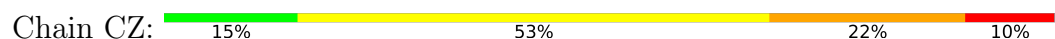




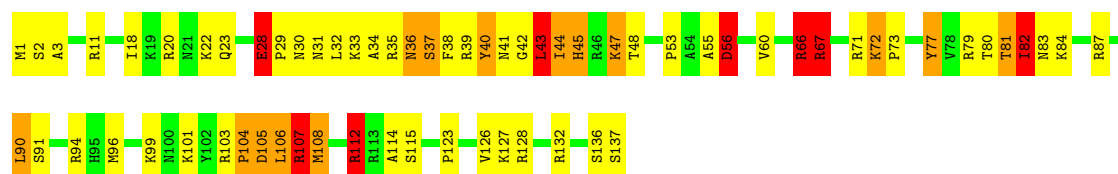
• Molecule 58: 60S ribosomal protein L24



• Molecule 59: 60S ribosomal protein L27



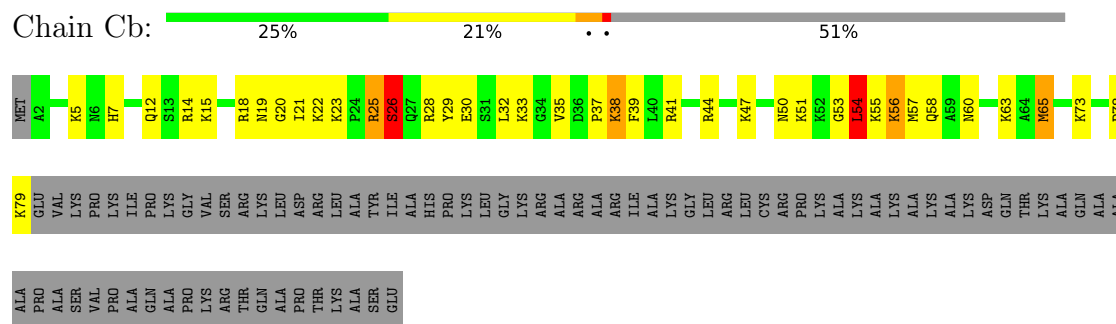
• Molecule 60: 60S ribosomal protein L28



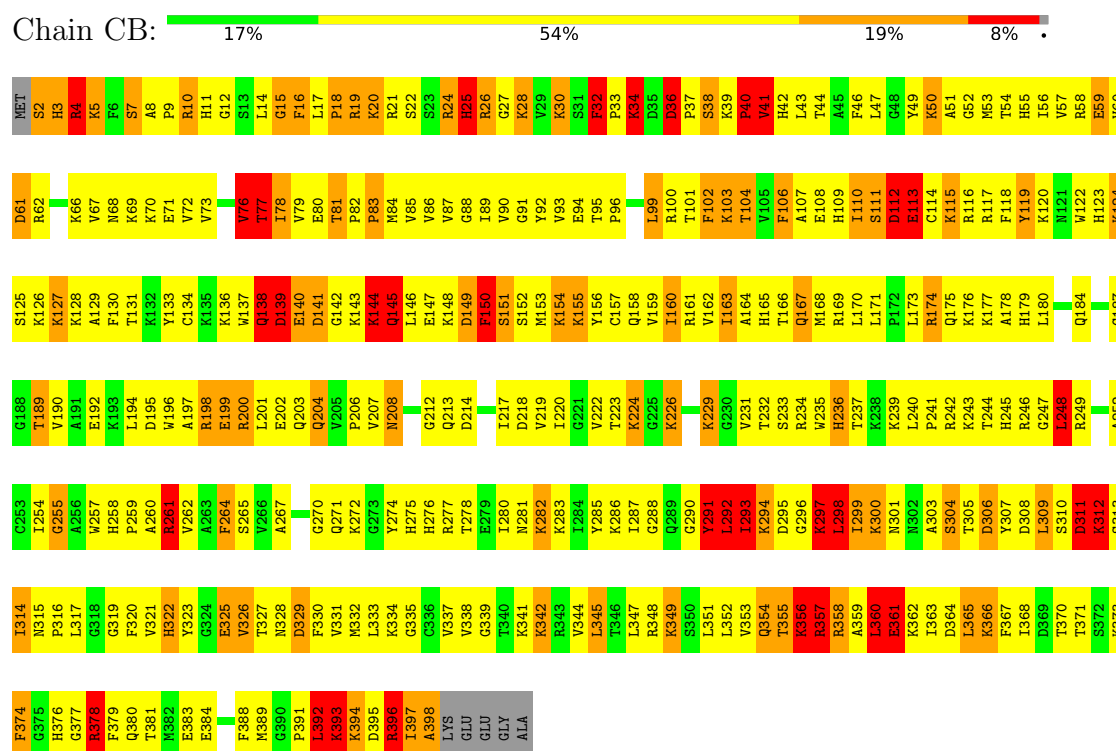
• Molecule 61: 60S ribosomal protein L35



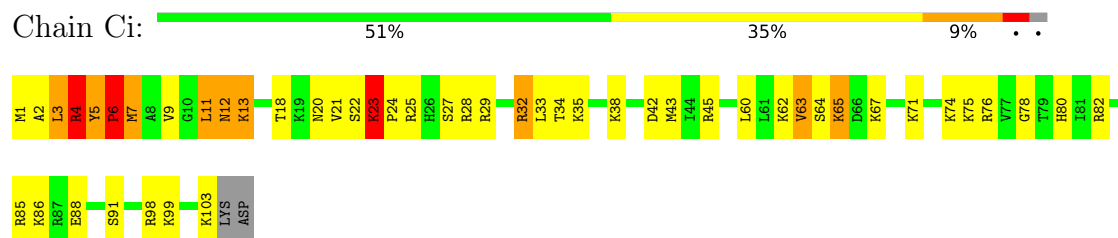
- Molecule 62: 60S ribosomal protein L29



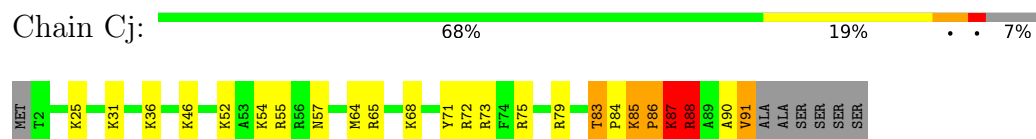
- Molecule 63: 60S ribosomal protein L3



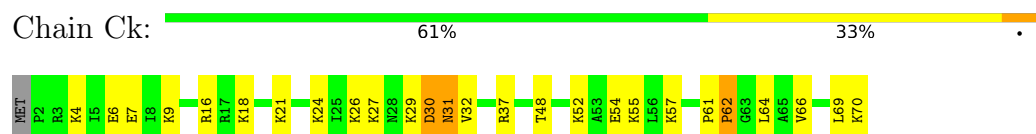




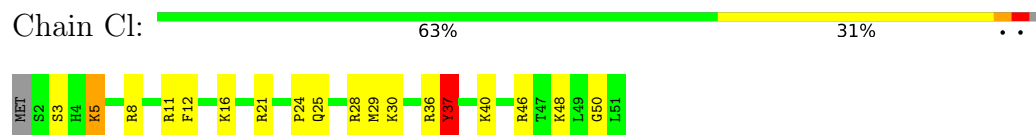
- Molecule 71: 60S ribosomal protein L37



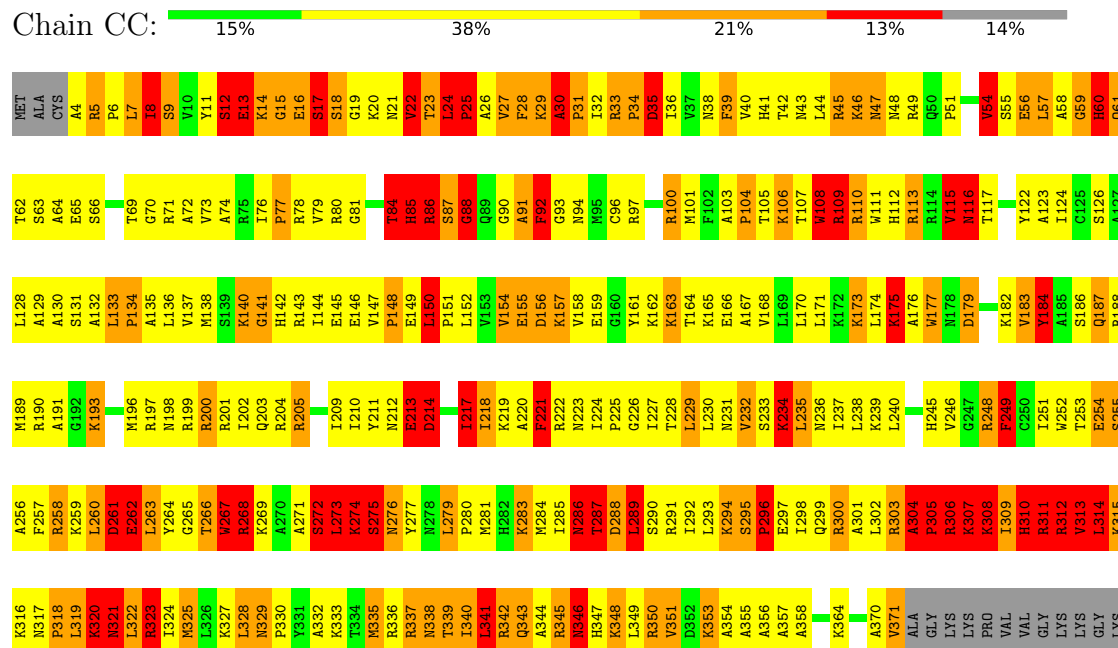
- Molecule 72: 60S ribosomal protein L38



- Molecule 73: 60S ribosomal protein L39



- Molecule 74: 60S ribosomal protein L4





LYS  
ALA  
ALA  
VAL  
GLY  
VAL  
LYS  
LYS  
GLN  
LYS  
LYS  
PRO  
LEU  
VAL  
GLY  
LYS  
LYS  
ALA  
ALA  
ALA  
THR  
LYS  
LYS  
PRO  
ALA  
PRO  
GLU  
LYS  
LYS  
PRO  
ALA  
GLU  
LYS  
LYS  
PRO  
THR  
THR  
GLU  
GLU  
LYS  
LYS  
PRO  
ALA  
ALA

- Molecule 75: 60S ribosomal protein L40

Chain Cm:  60% 31% 8% •

I77  
I78  
E79  
R83  
Q84  
L85  
K88  
C91  
D92  
K93  
R97  
K98  
H104  
P105  
R106  
R111  
K112  
K113  
K114  
K125  
K126  
V127  
K128

- Molecule 76: 60S ribosomal protein L41

Chain Cn:  56% 44%

M1  
W5  
R6  
K7  
K8  
R9  
M10  
R15  
R18  
K19  
R20  
R21  
Q22  
R23  
S24  
K25

- Molecule 77: 60S ribosomal protein L37a

Chain Cp:  68% 27% • •

MET  
ALA  
K3  
R4  
T5  
K6  
R17  
Y18  
K24  
M25  
V26  
K27  
K28  
L29  
E30  
C42  
K46  
K47  
K48  
R49  
R50  
A51  
V52  
S53  
I54  
V55  
H56  
K62  
S75  
R84  
R85  
L86  
K87  
K90  
D91  
Q92

- Molecule 78: 60S ribosomal protein L36a

Chain Co:  53% 36% 8% • •

MET  
Y2  
R3  
K6  
T7  
R8  
K13  
K14  
C15  
T24  
K27  
K28  
D31  
S32  
L33  
T34  
R40  
Y41  
D42  
R43  
K44  
Q45  
I55  
K58  
K59  
A60  
K61  
T62  
T63  
K64  
K65  
T66  
V67  
E71  
C72  
V73  
E74  
P75  
N76  
C77  
R78  
R81  
M82  
L83  
R87  
S88  
R89  
H90  
F91

E92  
L93  
D96  
K97  
K98  
R99  
K100  
I104  
Q105  
F106

- Molecule 79: 60S ribosomal protein L11

Chain CJ:  30% 51% 12% • 6%

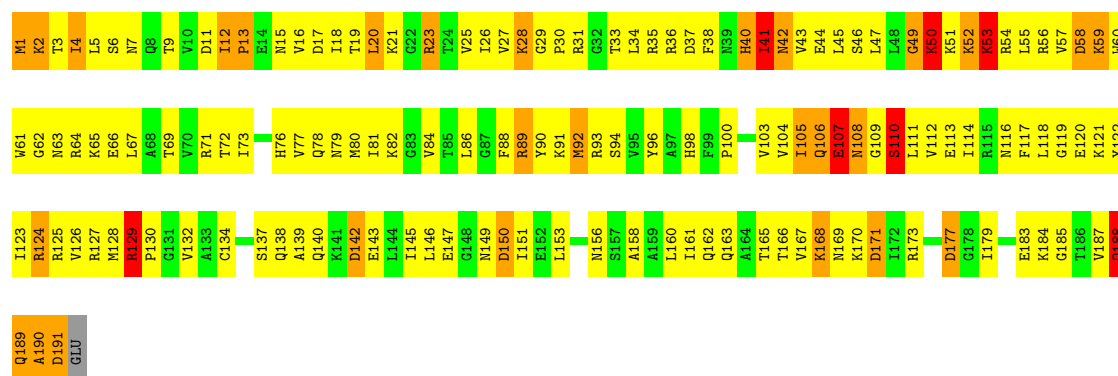
MET  
ALA  
GLN  
ASP  
GLN  
GLY  
GLU  
LYS  
E9  
P10  
P11  
M12  
M13  
R13  
E14  
L15  
R16  
I17  
R18  
K19  
L20  
C21  
L22  
V26  
S29  
G30  
D31  
M32  
R32  
L33  
T34  
R35  
A36  
A37  
K38  
Q42  
L43  
P48  
V49  
F50  
A53  
R54  
Y55  
T56  
P57  
V57  
S58  
S59  
F60  
G61  
I62  
R63  
R64  
N65  
I68  
A69  
V70

H71  
C72  
T73  
V74  
R75  
A79  
I82  
L83  
E84  
K85  
G86  
L87  
R88  
W89  
E90  
E91  
Y92  
E93  
L94  
R95  
K96  
K97  
N98  
F99  
S100  
D101  
M102  
G103  
V104  
N104  
F105  
G106  
F107  
G108  
I109  
Q110  
E111  
H112  
I113  
D114  
L115  
F115  
G116  
I117  
K118  
Y119  
D120  
T120  
P121  
S122  
I123  
G124  
I125  
Y126  
G127  
L128  
D129  
F130  
Y131  
V132  
V133

L134  
G135  
R136  
P137  
G138  
F139  
S140  
I141  
A142  
K143  
K144  
K145  
R146  
R147  
T148  
I151  
K154  
H155  
R156  
I157  
S158  
K159  
E160  
E161  
A162  
M163  
R164  
V165  
F166  
Q167  
Q168  
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Y170  
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G172  
I173  
I174  
L175  
P176  
GLY  
LYS

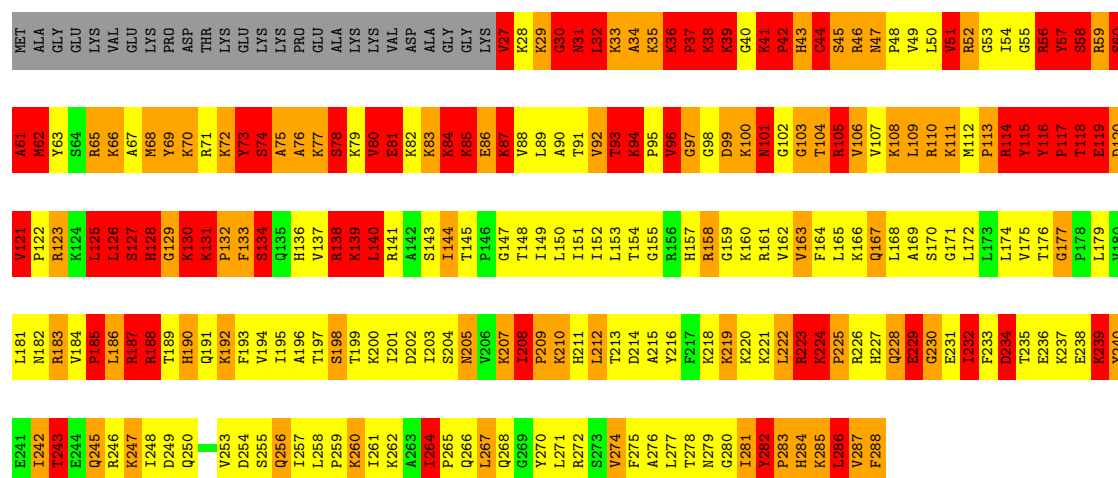
- Molecule 80: 60S ribosomal protein L9

Chain CH:  22% 59% 15% • •



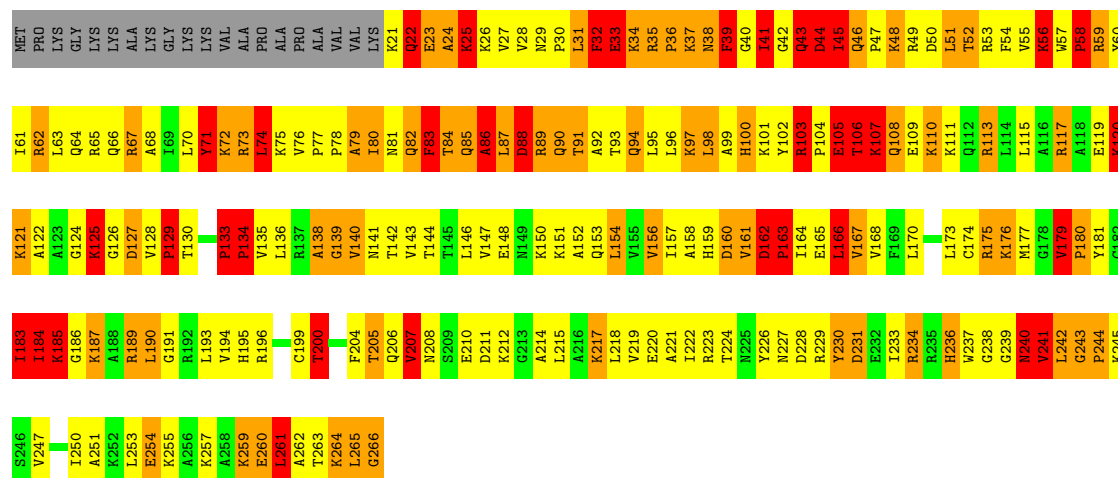
• Molecule 81: 60S ribosomal protein L6

Chain CE: 6% 38% 25% 22% 9%



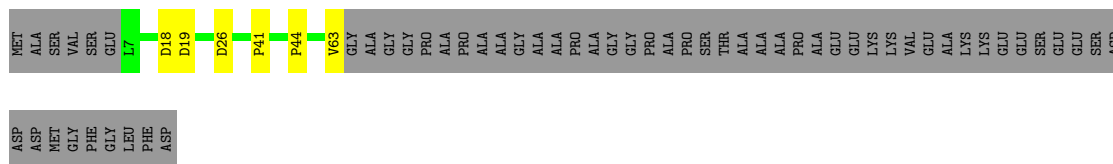
• Molecule 82: 60S ribosomal protein L7a

Chain CG: 14% 41% 24% 14% 8%



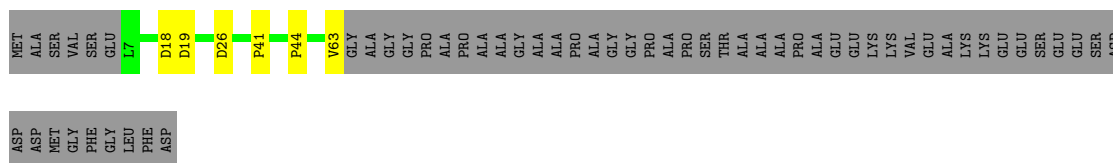
• Molecule 83: 60S acidic ribosomal protein P1

Chain Cs:  45% 5% 50%




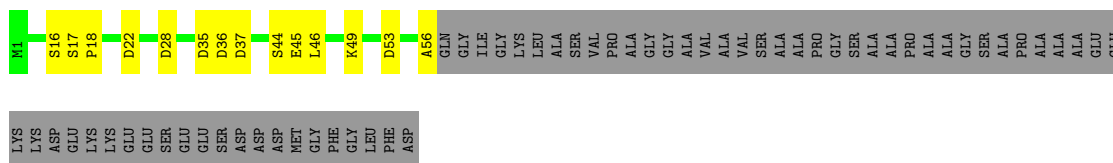
- Molecule 83: 60S acidic ribosomal protein P1

Chain Ct:  45% 5% 50%



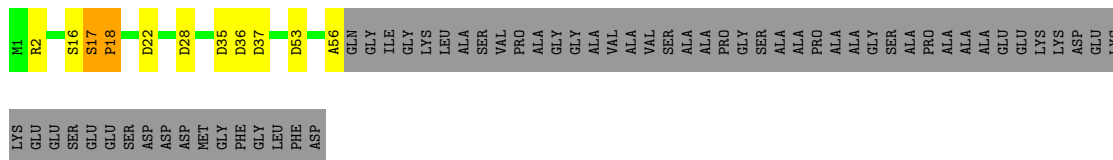
- Molecule 84: 60S acidic ribosomal protein P2

Chain Cu:  37% 12% 51%



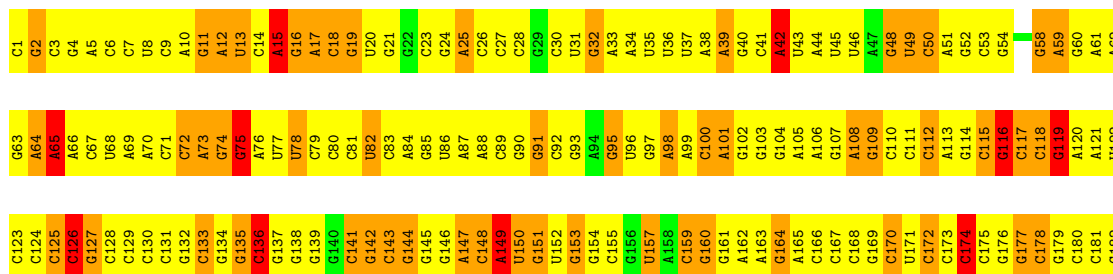
- Molecule 84: 60S acidic ribosomal protein P2

Chain Cv:  39% 8% 51%



- Molecule 85: 28S ribosomal RNA

Chain A5:  11% 44% 24% 6% 15%



A1303	C1243	G1183	C1099	G	C	G	C736	G676	A	C485	U425	G364	C303	A243	C183
C1304	G1244	A1184	U1100	A	G	G	C737	G677	G	C486	A426	U365	C304	G244	U184
C1305	C1245	G1185	C1101	C	G	C	C738	G678	G	C487	A427	A366	A305	C245	C185
C1306	C1246	U1186	U1102	G	G873	C	C739	G679	G	C488	A428	C367	A306	G246	G186
A1307	U1247	G1187	C1103	C	C880	C	G740	G680	G	C489	A429	C368	A307	G247	U187
C1308	C1248	C1188	C1104	G	C881	C	C741	G681	G	C490	G430	C369	G308	G248	G188
C1309	C1249	C1189	C1105	C	C882	C	G742	G682	C	C491	G431	U370	C309	C249	G189
C1310	C1250	C1190	A1106	G	G883	C	G743	G683	C	C492	G432	A371	G310	C250	G190
C1311	C1251	C1191	A1107	U	G884	C	G744	G684	C	U493	A433	A372	G311	C251	G191
C1312	C1252	C1192	C1108	U	G885	C	G745	G685	C599	U494	A434	G373	G312	C252	G192
C1313	C1253	C1193	C1109	C	G886	C	A746	A686	C	U495	A435	G374	U313	G253	G193
C1314	A1254	G1194	C1032	C	C902	C	A747	G687	C608	G496	C436	G375	G314	G254	C194
C1315	A1255	G1195	C1033	U	C903	U	G748	U688	C	G497	G437	A376	G315	C255	C195
G1316	G1256	G1196	G1044	C	C905	C	G749	U689	C	C498	G438	A377	U316	G256	C196
U1317	A1257	G1197	G1045	C	C906	C	U750	C690	C	G499	G439	A378	A317	C257	A197
C1318	G1258	G1198	C1047	C	C907	C	G751	C691	C	G500	U440	G379	A318	G258	A198
U1319	G1259	G1199	G1126	C	C908	C	G752	A692	C	C501	G441	U380	A319	G259	G199
U1320	G1260	G1200	G	U	A909	U	C753	G693	C	C502	G442	U381	C320	C260	U200
C1321	G1261	U1201	C	C	C910	G	U754	C694	C	C503	G443	G382	U321	G261	C201
A1322	G1262	C1202	C	U	U911	G	C755	G695	C	C504	G444	A383	C322	G262	C202
C1323	A1263	C1203	C	G	G912	G	G756	C696	C	G505	U445	A384	C323	G263	U203
A1324	C1264	C1204	C	A	U913	A	G757	G697	C	C506	C446	A385	A324	C264	U204
C1325	G1265	G1205	G	C	U914	C	G758	G698	C	G507	C447	A386	U325	C265	C205
C1326	G1266	C1206	C	C	A915	G	G759	C699	C	G508	G448	G387	C326	C266	U206
C1327	G1267	C1207	C	G	C916	G	G760	G700	C	A509	G449	A388	U327	G267	G207
G1328	G1268	G1208	G	C	A917	C	C768	G701	C	U510	G450	A389	A328	G268	A208
G1329	G1269	U1209	A	G	G918	G	G768	G702	C	C511	C451	C390	A329	G269	U209
C1330	A1270	C1210	C	C	U919	C	G768	G703	C	C512	A452	U391	G330	U270	C210
C1331	G1271	G1211	G	C	G920	C	U	G704	C	U513	G453	U392	G331	C271	G211
C1332	C1272	G1212	C	C	C921	C	C	G705	C	U514	U454	U393	C332	U272	A212
A1333	G1273	G1213	C	G	C922	G	C	G706	C	C515	C455	G394	U333	U273	G213
A1334	A1274	C1214	G	C	C923	G	C	G707	C	C516	C456	A395	A334	C274	G214
G1335	G1275	C1215	G	G	C924	G	U	G708	C	C517	G457	A396	A335	C275	C215
C1336	C1276	G1216	C	C	C925	C	C	G709	C	G518	C458	G397	A336	C276	C216
A1337	G1277	G1217	C1151	U	G926	U	C	G710	C	C519	C459	A398	U337	G277	C217
G1338	C1278	G1218	G1152	C	C927	C	U	A711	C	C520	C460	A399	C338	G278	A218
U1339	A1279	G1219	G1153	G	C928	G	C	G712	C	C521	G461	A400	C339	A279	G219
C1340	G1280	G1220	C1153	G	A929	G	C	G713	C	C522	G462	A402	C340	G280	C220
U1341	G1281	G1221	G1161	C	U930	G	U	G714	C	C523	A463	A403	G341	U281	C221
A1342	A1282	A1222	G1162	C	C931	C	U	G715	C	C524	A464	U404	G342	C282	C222
C1343	G1283	C1223	G1163	C	A932	C	C	G716	C	C525	A465	U405	A343	G283	G223
C1344	G1284	G1224	G1164	G	C933	G	U	U717	C	C526	A466	C406	A344	G284	U224
A1345	U1285	U1225	G1165	C	C934	C	C	G718	C	C527	U467	A407	C345	G285	G225
C1346	G1286	U1226	G1166	G	A935	G	C	G719	C	C528	U468	A408	G346	U286	G226
G1347	G1287	C1227	C1167	C	C936	G	C	G720	C	C529	C469	A409	A347	U287	A227
U1348	G1288	U1228	G1168	C	U937	C	C	G721	C	A660	A470	A410	C348	G288	C228
G1349	C1289	C1229	G1169	C	C938	G	C	G722	C	C661	A471	G411	A349	C289	G229
C1350	G1290	U1230	C997	G	C939	G	U	A723	C	C662	C472	G412	C350	U290	G230
G1351	G1291	G1231	G1170	C	G940	C	C	G724	C	G663	C473	G413	C351	U291	U231
C1352	C1292	G1232	C1171	G	C941	G	U	G725	C	G664	C474	C414	G352	G292	G232
G1353	G1293	G1233	G1172	C	C942	G	U	G726	C	G665	G475	C415	U354	G293	U233
A1354	A1294	C1234	G1173	C	A943	C	C	G727	C	G666	G476	U416	A355	G294	G234
G1355	C1295	G1235	A1175	U	U944	C	C	U728	C	C667	C477	G417	G356	A295	A235
U1356	G1296	C1236	C1176	C	U945	G	G	G729	C	C668	C478	A418	U357	A296	G236
C1357	U1297	C1237	U1177	C	C946	G	C	G730	C	C669	G479	A419	C358	U297	G237
G1358	C1298	G1238	G1178	C	C947	C	C	G731	C	C670	G480	A420	A359	G298	C238
G1359	G1299	C1239	U1179	C	C948	G	C	A732	C	C671	C481	C421	A360	C299	C239
G1360	G1300	G1240	C1180	C	C949	U	C	A733	C	C672	G482	C422	C361	A300	G240
C1361	C1301	G1241	C1181	G	U950	C	C	G734	C	C673	G483	G423	A362	G301	G241
G1362	U1302	G1242	C	C	C951	C	C	G735	C	C675	U484	U424	A363	C302	U242

A2285	U2220	C	U2090	A2030	A1970	G1910	A1850	U1790	U1730	U1664	G1603	G1543	G1483	U1423	C1363
G2286	C2221	G	C2091	C2031	C1971	C1911	G1851	U1791	C1731	C1665	G1604	G1544	G1484	G1424	U1364
G2287	C2222	G	G2092	U2032	G1972	C1913	G1852	U1792	G1732	C1666	G1605	G1545	C1485	G1425	C1365
G2288	C2223	C	A2093	A2033	G1973	C1914	G1853	A1793	G1733	C1667	U1606	C1546	C1486	G1426	G1366
G2289	C2224	G	G2094	G2034	U1974	C1915	G1854	A1794	G1734	A1668	C1607	A1547	G1487	A1427	C1367
G2290	C2225	G	A2095	C2035	G1975	C1916	G1855	A1795	U1735	A1669	G1608	G1548	G1488	U1428	C1368
G2291	G2226	C	G2096	C2036	G1976	G1917	C1856	U1796	A1736	G1670	U1609	G1549	G1489	C1429	C1369
G2292	C2227	G	U2097	C2037	C1977	A1917	C1857	G1797	A1737	U1671	C1610	G1550	G1490	C1430	G1370
G2293	C2228	G	G2098	U2038	G1978	U1918	A1858	G1798	A1738	U1672	C1611	C1551	A1491	C1431	A1371
G2294	C2229	C	G2099	A2039	A1979	G1919	C1859	U1799	G1739	U1673	G1612	G1552	G1492	G1432	A1372
G2295	C2230	G	A2100	G2040	U1980	C1920	U1860	U1800	C1740	C1674	G1613	C1493	A1373	A1373	A1373
G2296	C2231	C	C2101	A2041	G1981	G1921	U1861	A1801	G1741	C1675	G1614	U1494	G1374	G1374	C1375
G2297	C2232	G	G1982	A2042	G1982	G1922	U1862	A1802	A1742	C1676	C1615	G1555	G1495	G1435	C1376
U2298	C2233	G	A1983	A2043	A1983	A1923	U1863	G1803	A1743	U1677	U1616	C1556	G1496	C1436	C1376
G2299	C2234	G	U2044	G2044	A1984	G1924	G1864	A1804	U1744	C1678	G1617	C1557	A1497	U1437	G1377
A2300	G2245	G	G2104	G2045	G1985	G1925	G1865	A1805	A1745	A1679	G1618	C1558	U1498	U1438	C1378
G2301	C2246	G	A2105	U2046	U1986	G1926	U1866	A1806	A1746	G1680	G1619	C1559	C1499	C1439	C1379
C2302	G2247	G	G2106	A2047	U1987	U1927	A1867	C1807	U1747	G1681	U1620	A1560	U1500	U1440	G1380
C2303	U2048	U	C2107	U2048	G1988	C1928	A1868	C1808	U1748	A1682	A1621	G1561	C1501	C1441	U1381
U2304	G2049	G	G1989	G2049	G1989	A1929	G1869	C1809	A1749	U1683	U1622	G1562	G1502	C1442	G1382
U2305	C2050	U	A1990	G2050	A1990	C1930	C1870	G1810	G1750	U1684	A1623	A1563	A1503	A1443	G1383
G2306	C2051	C	G2111	C2051	A1991	A1931	A1871	G1811	A1751	C1685	G1624	A1564	G1504	G1444	C1384
A2307	G2052	G	G2112	G2052	U1992	A1932	G1872	C1812	G1752	C1686	G1625	A1565	C1505	U1445	G1385
A2308	C2053	G	G1993	C2053	G1993	G1933	A1873	U1813	G1753	U1687	G1626	C1566	G1506	C1446	C1386
G2309	U2054	G	C1994	U2054	C1994	A1934	A1874	C1814	U1754	G1688	G1627	U1567	C1507	G1447	A1387
C2310	G2055	U	G1995	G2055	G1995	C1935	C1875	G1815	C1755	G1689	C1628	C1568	A1508	G1448	A1388
G2311	G2251	C	C2116	G2056	C1996	C1936	U1876	C1816	U1756	U1690	G1629	U1569	C1509	C1449	U1389
C2312	G2252	C	G2117	A2057	C1997	C1937	A1877	G1817	U1757	G1691	A1630	G1570	G1510	C1450	C1390
A2313	A2253	C	C2118	G2058	A1998	C1938	G1878	C1818	G1758	C1692	A1631	G1571	U1511	G1451	A1391
G2314	C2247	U	C2119	C2059	A1999	A1939	C1879	G1819	G1759	U1693	A1632	U1572	G1512	A1452	A1392
G2315	G2254	U	G2120	G2060	G2000	G1940	G1880	C1820	G1760	C1694	G1633	G1573	U1513	G1453	G1393
C2316	C2255	C	C2121	U2061	G2001	A1941	C1881	G1821	G1761	U1695	A1634	G1574	U1514	G1454	C1394
C2317	C2256	C	C2122	C2062	A2002	A1942	U1882	U1822	C1762	C1696	C1635	A1575	A1515	G1455	U1395
G2318	C2257	C	G2123	G2063	C2003	A1943	G1883	G1823	C1763	C1697	U1636	G1576	G1516	G1456	C1396
C2319	G2258	C	C2124	G2064	U2004	A1944	C1884	G1824	G1764	C1698	A1637	G1577	G1517	G1457	A1397
G2320	C2259	G	G2125	G2065	G2005	G1945	G1885	A1825	A1765	A1699	U1638	U1578	A1518	C1458	A1398
G2321	C2260	C	C2126	C2066	U2006	G1946	G1886	G1826	A1766	G1700	U1639	U1579	A1519	A1459	A1399
C2322	G2261	C	C2127	C2067	G2007	U1947	G1887	C1827	A1767	A1701	C1640	C1580	G1520	C1460	G1400
G2323	G2262	C	G2128	C2068	U2008	G1948	A1888	C1828	C1768	C1702	G1641	U1581	C1521	C1461	C1401
C2324	C2263	C	C2129	A2069	A2009	U1949	U1889	G1829	G1769	C1703	A1642	U1582	G1522	A1462	C1402
G2325	G2264	C	G2130	U2070	A2010	G1950	G1890	G1830	A1770	C1704	A1643	A1583	A1523	C1463	G1403
C2326	C2265	C	C2131	G2069	C2011	G1951	A1891	G1831	U1771	G1705	C1644	C1584	A1524	G1464	G1404
G2327	C2266	C	G2132	C2070	A2012	G1952	A1892	C1832	C1772	C1706	C1645	C1585	A1525	G1465	C1405
C2328	U2267	C	C2133	C2071	A2013	U1953	C1893	G1833	U1773	G1708	A1646	G1586	G1526	G1466	C1406
A2329	C2268	C	C2134	C2072	G2014	U1954	C1894	U1834	C1774	C1709	U1647	U1587	A1527	C1467	C1407
G2330	C2269	C	G2135	C2073	U2015	G1955	G1895	G1835	A1775	C1714	C1648	U1588	G1528	C1468	G1408
C2331	G2270	C	C2136	G2075	U2016	A1956	A1896	G1836	A1776	C1715	U1649	G1589	G1529	C1469	C1409
A2332	C2271	C	C2144	C2076	A2017	U1957	A1897	A1837	C1777	C1716	A1650	C1590	G1530	C1470	U1410
G2333	C2272	A	G2145	C2077	A2018	G1958	C1898	A1838	C1778	C1717	G1651	U1591	U1531	U1471	C1411
C2334	C2273	C	U2146	G2078	C2019	U1959	G1899	A1839	U1779	C1718	U1652	G1592	G1532	C1472	G1412
C2335	G2274	G	C2147	G2079	U2020	A1960	C1900	G1840	A1780	C1720	A1653	A1593	A1533	U1473	C1413
G2336	C2275	C	G2148	C2081	G1961	G1961	C1901	C1841	U1781	G1721	C1654	C1594	A1534	C1474	C1414
A2337	A2276	U	C2149	G2082	C2021	G1962	G1902	G1842	U1782	C1722	C1655	G1595	C1535	G1475	G1415
C2338	C2277	C	G2150	C2083	C2022	A1963	G1903	A1843	C1783	A1723	U1656	U1596	U1536	C1476	G1416
G2339	G2278	U	G2151	G2084	C2023	A1964	G1904	U1844	G1784	C1724	G1657	C1597	A1537	C1477	C1417
C2340	A2279	U	G2152	A2025	G1965	G1965	U1905	U1845	U1785	U1725	C1657	C1598	U1538	C1478	C1418
C2341	C2280	C	C2153	A2026	G1966	C1966	U1906	G1846	A1786	U1726	U1660	A1599	G1539	G1479	G1419
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U4437	A4376	A4316	A4256	G4196	G4136	G4076	C3979	C3919	G3859	A3799	C3739	C3679	C3619	C
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U4440	A4379	C4319	C4259	G4199	C4139	C4079	C3997	G3922	A3862	U3802	C3742	A3682	C3622	G
A4441	A4380	G4320	U4260	G4200	C4140	C4080		A3923	C3863	A3803	C3743	C3683	C3623	G
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C4444	U4383	A4323	C4263	A4203	G4143	U4083	G4004	C3926	C3866	G3806	C3746	C3686	G3626	C
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U4447	C4386	G4326	G4266	C4206	G4146	G4086		U3929	C3869	C3809	C3749	C3689	A3629	C
C4448	C4387	C4327	G4267	C4207	G4147	G4087	G4014	U3930	C3870	C3810	C3750	U3690	A3630	C
A4449	A4388	G4328	A4268	U4208	C4148	C4088		C3931	A3871	G3811	C3751	G3691	U3631	C
U4450	C4389	G4329	G4269	G4209	C4149	G4089	G4017	U3932	A3872	C3812	C3752	A3692	C3632	C
U4451	A4390	C4270	U4210	G4210	G4150	G4090	G4018	C3933	G3873	A3813	C3753	U3693	C3633	C
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C4453	C4392	C4332	A4272	G4212	G4152	G4092	C4025	C3935	C3875	G3815	C3755	U3695	A3635	G
G4454	A4393	A4333	A4273	A4213	C4153	G4093		A3936	A3876	A3816	C3756	C3696	A3636	G
C4455	A4394	U4334	A4274	G4214	G4154	G4094	G4034	C3937	A3877	A3817	C3757	U3697	U3637	C
U4456	U4395	G4335	G4275	C4215	C4155	G4095	G4035	G3938	C3878	U3818	C3758	C3698	C3638	C
U4457	A4396	A4336	G4276	G4216	G4156	C4096	G4036	G3939	C3879	G3819	C3759	C3699	U3639	C
A4458	A4397	C4337	G4277	G4217	A4157	G4097	C4037	U3940	G3880	G3820	C3760	C3700	U3640	G
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A4467	G4407	U4346	C4286	G4226	G4166	G4106	A4046	A3949	C3889	G3829	C3769	U3709	A3649	C
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U4471	C4411	C4350	U4290	C4230	A4170	C4110	A4050	C3953	C3893	C3833	U3773	U3713	A3653	G
C4472		U4351	G4291	C4231	C4171	U4111	C4051	A3954	A3894	C3834	A3774	G3714	G3654	A
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A4474	A4414	U4353	U4293	A4233	C4173	U4113	A4053	G3956	C3896	A3836	C3776	C3716	A3656	G
U4475	A4415	U4354	C4294	G4234	U4174	C4114	C4054	U3957	C3897	C3837	U3777	A3717	U3657	C
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U4477	C4417	G4356	U4296	G4236	C4176	C4116	A4056	U3959	C3899	G3839	A3779	A3719	G3659	C
G4478	U4418	G4357	G4297	C4237	C4177	U4117	C4057	A3960	G3900	U3840	C3780	C3720	C3660	C
A4479	U4419	U4358	A4298	G4238	A4178	U4118	U4058	G3961	A3901	C3841	C3781	U3721	C3661	G
U4480	U4420	U4359	U4299	A4239	C4179	C4119	C4059	A3962	A3902	C3842	C3782	G3722	A3662	C
U4481	C4421	U4360	U4300	G4240	G4180	U4120	U4060	A3963	A3903	C3843	C3783	A3723	A3663	C
U4482	A4422	U4361	U4301	C4241	U4181	G4121	G4061	U3964	C3904	U3844	A3784	A3724	A3664	G
C4483	U4423	A4362	U4302	U4242	G4182	G4122	A4062	A3965	A3905	C3845	A3785	C3725	C3665	G
A4484	A4424	C4363	C4303	C4243	G4183	C4123	U4063	A3966	A3906	C3846	C3786	A3726	C3666	C
G4485	G4425	A4364	A4304	A4244	G4184	C4124	C4064	G3967	C3907	U3847	C3787	A3727	C3667	C
C4486	C4426	C4365	G4305	G4245	C4185	G4125	G4065	U3968	A3908	U3848	C3788	A3728	C3668	G
A4487	G4427	A4366	U4306	G4246	A4186	C4126	U4066	C3969	A3909	A3849	C3789	U3729	C3669	G
U4488	A4428	G4367	A4307	C4247	G4187	A4127	U4067	G3970	C3910	C3850	U3730	C3670	A3610	U
C4489	C4429	C4368	C4308	A4248	U4188	A4128	U4068	C3971	C3911	U3851	C3791	C3731	A3611	C
U4490	A4430	A4369	C4309	G4249	U4189	G4129	U4069	A3972	U3912	A3852	C3792	A3732	C3672	C
G4491	U4431	G4370	C4310	C4250	U4190	C4130	U4070	C3973	G3913	U3853	A3793	A3733	C3673	C
U4492	C4432	G4371	A4251	A4251	C4191	G4131	U4071	C3974	U3914	C3854	U3734	U3734	C3674	C
U4493	G4433	U4372	U4312	C4252	A4192	C4132	C4072	C3975	U3915	C3855	A3795	G3735	G3675	C
A4494	A4434	G4373	A4193	C4253	C4193	G4133	A4073	C3976	G3916	A3856	A3796	A3736	U3616	C
U4495		U4374	G4254	G4254	U4194	C4134	C4074	C3977	A3857	C3797	C3797	A3737	G3677	C

U4496	U4497	U4498	U4499	U4500	U4501	U4502	U4503	U4504	U4505	U4506	U4507	U4508	U4509	U4510	U4511	U4512	U4513	U4514	U4515	U4516	U4517	U4518	U4519	U4520	U4521	U4522	U4523	U4524	U4525	U4526	U4527	U4528	U4529	U4530	U4531	U4532	U4533	U4534	U4535	U4536	U4537	U4538	U4539	U4540	U4541	U4542	U4543	U4544	U4545	U4546	U4547	U4548	U4549	U4550	U4551	U4552	U4553	U4554	U4555																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
U4556	U4557	U4558	U4559	U4560	U4561	U4562	U4563	U4564	U4565	U4566	U4567	U4568	U4569	U4570	U4571	U4572	U4573	U4574	U4575	U4576	U4577	U4578	U4579	U4580	U4581	U4582	U4583	U4584	U4585	U4586	U4587	U4588	U4589	U4590	U4591	U4592	U4593	U4594	U4595	U4596	U4597	U4598	U4599	U4600	U4601	U4602	U4603	U4604	U4605	U4606	U4607	U4608	U4609	U4610	U4611	U4612	U4613	U4614	U4615	U4616																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
U4617	U4618	U4619	U4620	U4621	U4622	U4623	U4624	U4625	U4626	U4627	U4628	U4629	U4630	U4631	U4632	U4633	U4634	U4635	U4636	U4637	U4638	U4639	U4640	U4641	U4642	U4643	U4644	U4645	U4646	U4647	U4648	U4649	U4650	U4651	U4652	U4653	U4654	U4655	U4656	U4657	U4658	U4659	U4660	U4661	U4662	U4663	U4664	U4665	U4666	U4667	U4668	U4669	U4670	U4671	U4672	U4673	U4674	U4675	U4676																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
U4677	U4678	U4679	U4680	U4681	U4682	U4683	U4684	U4685	U4686	U4687	U4688	U4689	U4690	U4691	U4692	U4693	U4694	U4695	U4696	U4697	U4698	U4699	U4700	U4701	U4702	U4703	U4704	U4705	U4706	U4707	U4708	U4709	U4710	U4711	U4712	U4713	U4714	U4715	U4716	U4717	U4718	U4719	U4720	U4721	U4722	U4723	U4724	U4725	U4726	U4727	U4728	U4729	U4730	U4731	U4732	U4733	U4734	U4735	U4736																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
U4737	U4738	U4739	U4740	U4741	U4742	U4743	U4744	U4745	U4746	U4747	U4748	U4749	U4750	U4751	U4752	U4753	U4754	U4755	U4756	U4757	U4758	U4759	U4760	U4761	U4762	U4763	U4764	U4765	U4766	U4767	U4768	U4769	U4770	U4771	U4772	U4773	U4774	U4775	U4776	U4777	U4778	U4779	U4780	U4781	U4782	U4783	U4784	U4785	U4786	U4787	U4788	U4789	U4790	U4791	U4792	U4793	U4794	U4795	U4796	U4797	U4798	U4799	U4800	U4801	U4802	U4803	U4804	U4805	U4806	U4807	U4808	U4809	U4810	U4811	U4812	U4813	U4814	U4815	U4816	U4817	U4818	U4819	U4820	U4821	U4822	U4823	U4824	U4825	U4826	U4827	U4828	U4829	U4830	U4831	U4832	U4833	U4834	U4835	U4836	U4837	U4838	U4839	U4840	U4841	U4842	U4843	U4844	U4845	U4846	U4847	U4848	U4849	U4850	U4851	U4852	U4853	U4854	U4855	U4856	U4857	U4858	U4859	U4860	U4861	U4862	U4863	U4864	U4865	U4866	U4867	U4868	U4869	U4870	U4871	U4872	U4873	U4874	U4875	U4876	U4877	U4878	U4879	U4880	U4881	U4882	U4883	U4884	U4885	U4886	U4887	U4888	U4889	U4890	U4891	U4892	U4893	U4894	U4895	U4896	U4897	U4898	U4899	U4900	U4901	U4902	U4903	U4904	U4905	U4906	U4907	U4908	U4909	U4910	U4911	U4912	U4913	U4914	U4915	U4916	U4917	U4918	U4919	U4920	U4921	U4922	U4923	U4924	U4925	U4926	U4927	U4928	U4929	U4930	U4931	U4932	U4933	U4934	U4935	U4936	U4937	U4938	U4939	U4940	U4941	U4942	U4943	U4944	U4945	U4946	U4947	U4948	U4949	U4950	U4951	U4952	U4953	U4954	U4955	U4956	U4957	U4958	U4959	U4960	U4961	U4962	U4963	U4964	U4965	U4966	U4967	U4968	U4969	U4970	U4971	U4972	U4973	U4974	U4975	U4976	U4977	U4978	U4979	U4980	U4981	U4982	U4983	U4984	U4985	U4986	U4987	U4988	U4989	U4990	U4991	U4992	U4993	U4994	U4995	U4996	U4997	U4998	U4999	U5000	U5001	U5002	U5003	U5004	U5005	U5006	U5007	U5008	U5009	U5010	U5011	U5012	U5013	U5014	U5015	U5016	U5017	U5018	U5019	U5020	U5021	U5022	U5023	U5024	U5025	U5026	U5027	U5028	U5029	U5030	U5031	U5032	U5033	U5034	U5035	U5036	U5037	U5038	U5039	U5040	U5041	U5042	U5043	U5044	U5045	U5046	U5047	U5048	U5049	U5050	U5051	U5052	U5053	U5054	U5055	U5056	U5057	U5058	U5059	U5060	U5061	U5062	U5063	U5064	U5065	U5066	U5067	U5068	U5069	U5070	U5071	U5072	U5073	U5074	U5075	U5076	U5077	U5078	U5079	U5080	U5081	U5082	U5083	U5084	U5085	U5086	U5087	U5088	U5089	U5090	U5091	U5092	U5093	U5094	U5095	U5096	U5097	U5098	U5099	U5100	U5101	U5102	U5103	U5104	U5105	U5106	U5107	U5108	U5109	U5110	U5111	U5112	U5113	U5114	U5115	U5116	U5117	U5118	U5119	U5120	U5121	U5122	U5123	U5124	U5125	U5126	U5127	U5128	U5129	U5130	U5131	U5132	U5133	U5134	U5135	U5136	U5137	U5138	U5139	U5140	U5141	U5142	U5143	U5144	U5145	U5146	U5147	U5148	U5149	U5150	U5151	U5152	U5153	U5154	U5155	U5156	U5157	U5158	U5159	U5160	U5161	U5162	U5163	U5164	U5165	U5166	U5167	U5168	U5169	U5170	U5171	U5172	U5173	U5174	U5175	U5176	U5177	U5178	U5179	U5180	U5181	U5182	U5183	U5184	U5185	U5186	U5187	U5188	U5189	U5190	U5191	U5192	U5193	U5194	U5195	U5196	U5197	U5198	U5199	U5200	U5201	U5202	U5203	U5204	U5205	U5206	U5207	U5208	U5209	U5210	U5211	U5212	U5213	U5214	U5215	U5216	U5217	U5218	U5219	U5220	U5221	U5222	U5223	U5224	U5225	U5226	U5227	U5228	U5229	U5230	U5231	U5232	U5233	U5234	U5235	U5236	U5237	U5238	U5239	U5240	U5241	U5242	U5243	U5244	U5245	U5246	U5247	U5248	U5249	U5250	U5251	U5252	U5253	U5254	U5255	U5256	U5257	U5258	U5259	U5260	U5261	U5262	U5263	U5264	U5265	U5266	U5267	U5268	U5269	U5270	U5271	U5272	U5273	U5274	U5275	U5276	U5277	U5278	U5279	U5280	U5281	U5282	U5283	U5284	U5285	U5286	U5287	U5288	U5289	U5290	U5291	U5292	U5293	U5294	U5295	U5296	U5297	U5298	U5299	U5300	U5301	U5302	U5303	U5304	U5305	U5306	U5307	U5308	U5309	U5310	U5311	U5312	U5313	U5314	U5315	U5316	U5317	U5318	U5319	U5320	U5321	U5322	U5323	U5324	U5325	U5326	U5327	U5328	U5329	U5330	U5331	U5332	U5333	U5334	U5335	U5336	U5337	U5338	U5339	U5340	U5341	U5342	U5343	U5344	U5345	U5346	U5347	U5348	U5349	U5350	U5351	U5352	U5353	U5354	U5355	U5356	U5357	U5358	U5359	U5360	U5361	U5362	U5363	U5364	U5365	U5366	U5367	U5368	U5369	U5370	U5371	U5372	U5373	U5374	U5375	U5376	U5377	U5378	U5379	U5380	U5381	U5382	U5383	U5384	U5385	U5386	U5387	U5388	U5389	U5390	U5391	U5392	U5393	U5394	U5395	U5396	U5397	U5398	U5399	U5400	U5401	U5402	U5403	U5404	U5405	U5406	U5407	U5408	U5409	U5410	U5411	U5412	U5413	U5414	U5415	U5416	U5417	U5418	U5419	U5420	U5421	U5422	U5423	U5424	U5425	U5426	U5427	U5428	U5429	U5430	U5431	U5432	U5433	U5434	U5435	U5436	U5437	U5438	U5439	U5440	U5441	U5442	U5443	U5444	U5445	U5446	U5447	U5448	U5449	U5450	U5451	U5452	U5453	U5454	U5455	U5456	U5457	U5458	U5459	U5460	U5461	U5462	U5463	U5464	U5465	U5466	U5467	U5468	U5469	U5470	U5471	U5472	U5473	U5474	U5475	U5476	U5477	U5478	U5479	U5480	U5481	U5482	U5483	U5484	U5485	U5486	U5487	U5488	U5489	U5490	U5491	U5492	U5493	U5494	U5495	U5496	U5497	U5498	U5499	U5500	U5501	U5502	U5503	U5504	U5505	U5506	U5507	U5508	U5509	U5510	U5511	U5512	U5513	U5514	U5515	U5516	U5517	U5518	U5519	U5520	U5521	U5522	U5523	U5524	U5525	U5526	U5527	U5528	U5529	U5530	U5531	U5532	U5533	U5534	U5535	U5536	U5537	U5538	U5539	U5540	U5541	U5542	U5543	U5544	U5545	U5546	U5547	U5548	U5549	U5550	U5551	U5552	U5553	U5554	U5555	U5556	U5557	U5558	U5559	U5560	U5561	U5562	U5563	U5564	U5565	U5566	U5567	U5568	U5569	U5570	U5571	U5572	U5573	U5574	U5575	U5576	U5577	U5578	U5579	U5580	U5581	U5582	U5583	U5584	U5585	U5586	U5587	U5588	U5589	U5590	U5591	U5592	U5593	U5594	U5595	U5596	U5597	U5598	U5599	U5600	U5601	U5602	U5603	U5604	U5605	U5606	U5607	U5608	U5609	U5610	U5611	U5612	U5613	U5614	U5615	U5616	U5617	U5618	U5619	U5620	U5621	U5622	U5623	U5624	U5625	U5626	U5627	U5628	U5629	U5630	U5631	U5632	U5633	U5634	U5635	U5636	U5637	U5638	U5639	U5640	U5641	U5642	U5643	U5644	U5645	U5646	U5647	U5648	U5649	U5650	U5651	U5652	U5653	U5654	U5655	U5656	U5657	U5658	U5659	U5660	U5661	U5662	U5663	U5664	U5665	U5666	U5667	U5668	U5669	U5670	U5671	U5672	U5673	U5674	U5675	U5676	U5677	U5678	U5679	U5680	U5681	U5682	U5683	U5684	U5685	U5686	U5687	U5688	U5689	U5690	U5691	U5692	U5693	U5694	U5695	U5696	U5697	U5698	U5699	U5700	U5701	U5702	U5703	U5704	U5705	U5706	U5707	U5708	U5709	U5710	U5711	U5712	U5713	U5714	U5715	U5716	U5717	U



G122	U123	C124	C125	C126	U127	C128	C129	C130	G131	G132	G133	G134	C135	U136	A137	C138	G139	C140	C141	U142	G143	U144	C145	U146	G147	A148	G149	C150	G151	U152	C153	G154	C155	U156	U157
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## 4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	343343	Depositor
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	each subvolume	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	200	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	20	Depositor
Minimum defocus (nm)	800	Depositor
Maximum defocus (nm)	3500	Depositor
Magnification	90000	Depositor
Image detector	FEI EAGLE (4k x 4k)	Depositor

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 5$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z  > 2$	RMSZ	# $ Z  > 2$
1	Az	1.04	25/6804 (0.4%)	1.36	96/9189 (1.0%)
10	AN	0.82	4/1232 (0.3%)	1.00	14/1656 (0.8%)
11	AL	1.10	6/1319 (0.5%)	1.40	17/1761 (1.0%)
12	AR	1.23	10/1031 (1.0%)	1.64	30/1383 (2.2%)
13	AP	0.74	1/1081 (0.1%)	1.43	32/1440 (2.2%)
14	AT	0.96	3/1119 (0.3%)	1.27	13/1499 (0.9%)
15	AB	0.79	7/1774 (0.4%)	1.08	23/2372 (1.0%)
16	AA	0.76	2/1679 (0.1%)	1.05	17/2283 (0.7%)
17	AV	1.20	6/631 (1.0%)	1.69	24/844 (2.8%)
18	AY	0.92	3/1040 (0.3%)	1.42	21/1382 (1.5%)
19	AZ	1.04	6/604 (1.0%)	1.35	17/810 (2.1%)
2	Ag	0.91	1/2493 (0.0%)	1.29	27/3394 (0.8%)
20	Aa	0.96	5/863 (0.6%)	1.62	21/1159 (1.8%)
21	Ab	1.02	2/673 (0.3%)	1.36	13/902 (1.4%)
22	Ac	0.80	1/508 (0.2%)	1.17	8/680 (1.2%)
23	AD	1.03	6/1793 (0.3%)	1.30	22/2414 (0.9%)
24	Ae	1.50	5/474 (1.1%)	1.47	11/623 (1.8%)
25	Af	1.10	4/593 (0.7%)	1.49	16/786 (2.0%)
26	AJ	1.27	19/1522 (1.2%)	1.51	42/2031 (2.1%)
27	AE	0.76	4/2126 (0.2%)	0.98	23/2859 (0.8%)
28	AC	1.03	7/1788 (0.4%)	1.26	22/2414 (0.9%)
29	AG	1.05	17/1946 (0.9%)	1.28	29/2590 (1.1%)
3	AU	0.96	1/832 (0.1%)	1.59	30/1117 (2.7%)
30	AF	0.99	5/1531 (0.3%)	1.21	17/2059 (0.8%)
31	AH	1.09	8/1553 (0.5%)	2.20	29/2079 (1.4%)
32	AW	0.84	4/1051 (0.4%)	0.85	9/1406 (0.6%)
33	AI	1.11	7/1715 (0.4%)	1.51	33/2287 (1.4%)
34	AQ	0.70	3/1142 (0.3%)	1.11	15/1528 (1.0%)
35	Ah	1.51	9/572 (1.6%)	2.04	32/752 (4.3%)
36	B2	2.42	1909/42821 (4.5%)	2.23	2680/66606 (4.0%)
37	BC	2.31	82/1795 (4.6%)	2.06	106/2798 (3.8%)
38	Cz	1.50	16/1768 (0.9%)	1.87	43/2368 (1.8%)
39	Cq	1.02	14/2176 (0.6%)	1.48	58/2951 (2.0%)
4	AK	1.21	7/851 (0.8%)	1.78	32/1147 (2.8%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >2	RMSZ	# Z  >2
40	CK	1.65	17/1257 (1.4%)	2.18	72/1697 (4.2%)
41	CO	0.83	5/1687 (0.3%)	0.87	12/2257 (0.5%)
42	CL	0.99	10/1732 (0.6%)	1.44	41/2315 (1.8%)
43	CV	0.71	3/1003 (0.3%)	0.84	6/1345 (0.4%)
44	CM	0.97	4/1161 (0.3%)	1.45	35/1552 (2.3%)
45	Ca	1.08	14/1191 (1.2%)	1.21	15/1591 (0.9%)
46	CN	0.71	3/1746 (0.2%)	0.96	16/2338 (0.7%)
47	CI	1.23	17/1751 (1.0%)	1.39	51/2340 (2.2%)
48	CD	0.90	11/2398 (0.5%)	1.30	50/3210 (1.6%)
49	CQ	1.40	14/1545 (0.9%)	1.74	36/2062 (1.7%)
5	AO	0.61	0/1029	1.05	12/1380 (0.9%)
50	CR	0.83	5/1596 (0.3%)	0.93	12/2109 (0.6%)
51	CA	0.77	9/1995 (0.5%)	1.07	18/2674 (0.7%)
52	CS	1.10	6/1493 (0.4%)	1.61	40/2003 (2.0%)
53	CT	1.33	17/1326 (1.3%)	1.51	35/1770 (2.0%)
54	CP	0.98	10/1259 (0.8%)	1.19	16/1689 (0.9%)
55	CU	0.89	4/935 (0.4%)	1.25	17/1253 (1.4%)
56	CX	1.19	7/1011 (0.7%)	1.51	29/1356 (2.1%)
57	CY	0.91	6/1124 (0.5%)	1.09	14/1494 (0.9%)
58	CW	1.29	14/1030 (1.4%)	1.76	36/1364 (2.6%)
59	CZ	1.01	6/1130 (0.5%)	1.29	21/1507 (1.4%)
6	AX	0.99	8/1124 (0.7%)	1.24	21/1500 (1.4%)
60	Cr	1.43	16/1120 (1.4%)	2.15	65/1497 (4.3%)
61	Ch	0.87	6/1031 (0.6%)	1.39	26/1361 (1.9%)
62	Cb	1.13	4/646 (0.6%)	1.23	12/853 (1.4%)
63	CB	1.06	13/3270 (0.4%)	1.43	35/4377 (0.8%)
64	CF	1.18	11/1945 (0.6%)	1.27	24/2589 (0.9%)
65	Cc	1.04	4/787 (0.5%)	1.12	8/1057 (0.8%)
66	Cd	1.18	6/946 (0.6%)	1.38	26/1272 (2.0%)
67	Ce	0.98	8/1114 (0.7%)	1.34	20/1485 (1.3%)
68	Cf	1.21	3/895 (0.3%)	1.76	29/1198 (2.4%)
69	Cg	1.23	8/916 (0.9%)	1.39	20/1220 (1.6%)
7	AM	0.99	3/970 (0.3%)	1.22	6/1300 (0.5%)
70	Ci	1.17	3/851 (0.4%)	1.25	13/1125 (1.2%)
71	Cj	0.71	1/748 (0.1%)	0.89	4/990 (0.4%)
72	Ck	1.06	3/575 (0.5%)	1.09	4/761 (0.5%)
73	Cl	1.26	8/454 (1.8%)	1.39	6/599 (1.0%)
74	CC	1.25	30/2979 (1.0%)	1.72	111/4001 (2.8%)
75	Cm	1.07	2/435 (0.5%)	1.04	6/575 (1.0%)
76	Cn	1.12	2/241 (0.8%)	0.46	1/305 (0.3%)
77	Cp	0.88	3/713 (0.4%)	0.93	4/946 (0.4%)
78	Co	1.11	6/877 (0.7%)	1.26	10/1156 (0.9%)
79	CJ	0.51	1/1372 (0.1%)	0.76	8/1836 (0.4%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >2	RMSZ	# Z  >2
8	AS	1.21	11/1157 (1.0%)	1.60	36/1548 (2.3%)
80	CH	0.67	4/1545 (0.3%)	0.85	9/2077 (0.4%)
81	CE	1.59	39/2153 (1.8%)	2.38	153/2878 (5.3%)
82	CG	1.26	10/2006 (0.5%)	1.39	43/2697 (1.6%)
83	Cs	0.73	1/433 (0.2%)	0.84	6/592 (1.0%)
83	Ct	0.72	1/433 (0.2%)	0.85	6/592 (1.0%)
84	Cu	0.74	1/421 (0.2%)	1.08	10/566 (1.8%)
84	Cv	0.71	1/421 (0.2%)	1.26	9/566 (1.6%)
85	A5	2.47	4305/94517 (4.6%)	2.18	5688/146662 (3.9%)
86	A7	2.55	144/2880 (5.0%)	2.04	177/4489 (3.9%)
87	A8	2.37	168/3723 (4.5%)	2.08	216/5800 (3.7%)
9	Ad	0.89	2/455 (0.4%)	0.79	3/603 (0.5%)
All	All	1.98	7227/254452 (2.8%)	1.92	11021/371948 (3.0%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	Az	2	41
10	AN	0	4
11	AL	0	7
12	AR	1	5
13	AP	0	10
14	AT	1	6
15	AB	0	4
16	AA	0	11
17	AV	0	11
18	AY	1	6
19	AZ	0	6
2	Ag	0	13
20	Aa	0	3
21	Ab	0	3
23	AD	0	5
24	Ae	0	5
25	Af	0	6
26	AJ	1	11
27	AE	1	2
28	AC	1	7
29	AG	0	1
3	AU	0	8

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Mol	Chain	#Chirality outliers	#Planarity outliers
30	AF	0	3
31	AH	0	10
32	AW	0	2
33	AI	0	8
34	AQ	0	4
35	Ah	0	4
36	B2	6	0
37	BC	1	0
38	Cz	2	6
39	Cq	0	14
4	AK	0	11
40	CK	1	8
41	CO	0	2
42	CL	0	19
43	CV	0	2
44	CM	0	8
45	Ca	1	9
46	CN	1	3
47	CI	0	13
48	CD	1	15
49	CQ	0	10
5	AO	0	1
50	CR	0	2
51	CA	0	1
52	CS	0	12
53	CT	0	13
54	CP	0	2
55	CU	0	4
56	CX	0	5
57	CY	0	6
58	CW	2	11
59	CZ	1	5
6	AX	0	4
60	Cr	0	14
61	Ch	1	8
62	Cb	0	3
63	CB	0	18
64	CF	1	4
65	Cc	0	3
66	Cd	0	10
67	Ce	1	5
68	Cf	0	14

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Mol	Chain	#Chirality outliers	#Planarity outliers
69	Cg	0	4
7	AM	0	1
70	Ci	0	6
71	Cj	0	1
72	Ck	0	2
74	CC	0	29
75	Cm	0	4
77	Cp	0	1
78	Co	0	4
8	AS	1	10
80	CH	0	8
81	CE	5	36
82	CG	1	10
84	Cu	1	0
85	A5	7	0
All	All	42	587

All (7227) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1359	G	C2'-C1'	-36.90	1.12	1.53
49	CQ	6	ARG	NE-CZ	30.14	1.72	1.33
40	CK	2	PRO	CA-CB	28.43	2.10	1.53
85	A5	1266	G	C2'-C1'	-27.46	1.23	1.53
74	CC	348	LYS	C-N	-26.18	0.73	1.34
36	B2	1326	U	C2'-C1'	-25.54	1.25	1.53
85	A5	1246	G	C2'-C1'	-25.43	1.25	1.53
85	A5	4870	G	C2'-C1'	-25.31	1.25	1.53
85	A5	4606	G	C2'-C1'	-24.88	1.25	1.53
36	B2	66	G	C2'-C1'	-24.70	1.26	1.53
82	CG	243	GLY	C-N	24.41	1.80	1.34
85	A5	2128	G	C2'-C1'	-24.39	1.26	1.53
85	A5	80	C	C2'-C1'	-24.32	1.26	1.53
36	B2	662	G	C2'-C1'	-23.72	1.27	1.53
85	A5	4994	G	C2'-C1'	-23.59	1.27	1.53
36	B2	862	A	C2'-C1'	-23.48	1.27	1.53
85	A5	2770	C	C2'-C1'	-23.48	1.27	1.53
85	A5	1276	C	C2'-C1'	-23.11	1.27	1.53
85	A5	3684	G	C2'-C1'	-22.94	1.28	1.53
85	A5	4966	A	C2'-C1'	-22.92	1.28	1.53
85	A5	4169	G	C2'-C1'	-22.90	1.28	1.53
85	A5	1265	G	C2'-C1'	-22.61	1.28	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1311	C	C2'-C1'	-22.48	1.28	1.53
85	A5	1929	A	C2'-C1'	-22.34	1.28	1.53
36	B2	531	A	C2'-C1'	-22.07	1.29	1.53
38	Cz	28	PHE	CA-C	-21.95	0.95	1.52
40	CK	2	PRO	N-CD	21.89	1.78	1.47
36	B2	1041	G	C2'-C1'	-21.86	1.29	1.53
85	A5	2301	G	C2'-C1'	-21.84	1.29	1.53
85	A5	2058	G	C2'-C1'	-21.72	1.29	1.53
81	CE	74	SER	CA-CB	21.57	1.85	1.52
82	CG	35	ARG	C-N	21.55	1.75	1.34
85	A5	2079	G	C2'-C1'	-21.54	1.29	1.53
85	A5	1242	G	C2'-C1'	21.52	1.77	1.53
36	B2	1237	C	C2'-C1'	-21.50	1.29	1.53
85	A5	3674	G	C2'-C1'	-21.44	1.29	1.53
36	B2	145	G	C2'-C1'	-21.43	1.29	1.53
85	A5	958	G	O4'-C1'	21.27	1.69	1.41
36	B2	296	U	C2'-C1'	-21.20	1.30	1.53
23	AD	5	ILE	C-N	21.16	1.82	1.34
85	A5	2544	G	C2'-C1'	-21.13	1.30	1.53
85	A5	975	C	O4'-C1'	21.09	1.69	1.41
85	A5	39	A	C2'-C1'	-21.08	1.30	1.53
47	CI	205	PRO	C-N	21.04	1.82	1.34
86	A7	54	A	C2'-C1'	-20.82	1.30	1.53
36	B2	1331	C	C2'-C1'	-20.81	1.30	1.53
36	B2	1397	U	C2'-C1'	-20.61	1.30	1.53
85	A5	1361	G	O4'-C1'	-20.54	1.15	1.41
86	A7	99	G	C2'-C1'	-20.52	1.30	1.53
36	B2	308	G	C2'-C1'	-20.47	1.30	1.53
85	A5	688	U	C2'-C1'	-20.34	1.30	1.53
36	B2	218	U	C2'-C1'	-20.27	1.31	1.53
70	Ci	78	GLY	C-N	20.26	1.80	1.34
85	A5	2769	U	C2'-C1'	-20.25	1.31	1.53
41	CO	202	LEU	C-N	20.25	1.80	1.34
36	B2	1507	G	O4'-C1'	-20.21	1.15	1.41
85	A5	1661	C	C2'-C1'	-20.17	1.31	1.53
85	A5	2576	G	C2'-C1'	-20.14	1.31	1.53
85	A5	4676	G	C2'-C1'	-20.11	1.31	1.53
85	A5	1240	G	C2'-C1'	20.02	1.75	1.53
85	A5	2763	U	C2'-C1'	-20.01	1.31	1.53
85	A5	4042	G	C2'-C1'	-19.98	1.31	1.53
36	B2	353	C	C2'-C1'	-19.95	1.31	1.53
85	A5	1363	C	O4'-C1'	19.94	1.67	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1268	G	C2'-C1'	-19.89	1.31	1.53
1	Az	712	ASP	C-N	19.88	1.79	1.34
36	B2	640	A	C2'-C1'	-19.75	1.31	1.53
85	A5	736	C	O4'-C1'	19.71	1.67	1.41
36	B2	183	G	C2'-C1'	-19.69	1.31	1.53
85	A5	5032	C	C2'-C1'	-19.68	1.31	1.53
85	A5	4291	G	C2'-C1'	-19.61	1.31	1.53
85	A5	2390	G	C2'-C1'	-19.58	1.31	1.53
36	B2	1312	G	C2'-C1'	-19.58	1.31	1.53
85	A5	1680	G	C2'-C1'	-19.57	1.31	1.53
36	B2	622	C	C2'-C1'	-19.52	1.31	1.53
53	CT	150	LEU	C-N	19.52	1.78	1.34
36	B2	1411	G	C2'-C1'	-19.51	1.31	1.53
36	B2	1743	G	C2'-C1'	-19.47	1.31	1.53
85	A5	1291	G	C2'-C1'	-19.46	1.31	1.53
36	B2	182	C	O4'-C1'	19.42	1.66	1.41
38	Cz	28	PHE	CA-CB	19.41	1.96	1.53
85	A5	174	C	C2'-C1'	-19.31	1.32	1.53
36	B2	960	U	C2'-C1'	-19.29	1.32	1.53
85	A5	1276	C	O4'-C1'	19.29	1.66	1.41
36	B2	1861	G	C2'-C1'	-19.25	1.32	1.53
36	B2	694	G	C2'-C1'	-19.10	1.32	1.53
85	A5	292	G	C2'-C1'	-19.08	1.32	1.53
85	A5	3967	G	C2'-C1'	-19.01	1.32	1.53
85	A5	1245	C	C2'-C1'	-18.92	1.32	1.53
36	B2	1163	C	C2'-C1'	-18.82	1.32	1.53
85	A5	2427	G	O4'-C1'	18.81	1.66	1.41
85	A5	4152	G	C2'-C1'	-18.77	1.32	1.53
85	A5	1629	G	C2'-C1'	-18.76	1.32	1.53
85	A5	958	G	C2'-C1'	-18.75	1.32	1.53
36	B2	1500	G	C2'-C1'	-18.71	1.32	1.53
85	A5	674	G	C2'-C1'	-18.69	1.32	1.53
85	A5	448	G	C2'-C1'	-18.65	1.32	1.53
87	A8	112	G	C2'-C1'	-18.65	1.32	1.53
36	B2	1231	C	C2'-C1'	-18.62	1.32	1.53
85	A5	2461	G	C2'-C1'	-18.62	1.32	1.53
85	A5	1367	C	C2'-C1'	18.58	1.73	1.53
85	A5	1593	A	C2'-C1'	-18.53	1.32	1.53
85	A5	298	G	C2'-C1'	-18.51	1.32	1.53
85	A5	4943	A	C2'-C1'	-18.51	1.32	1.53
36	B2	1198	G	C2'-C1'	-18.51	1.32	1.53
85	A5	370	U	C2'-C1'	-18.49	1.33	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	Ae	21	LYS	C-N	18.42	1.76	1.34
85	A5	368	C	C2'-C1'	-18.37	1.33	1.53
85	A5	2097	U	O4'-C1'	18.36	1.65	1.41
40	CK	2	PRO	N-CA	-18.32	1.16	1.47
36	B2	528	A	C2'-C1'	-18.31	1.33	1.53
86	A7	101	A	C2'-C1'	-18.26	1.33	1.53
85	A5	2063	G	C2'-C1'	-18.23	1.33	1.53
86	A7	103	A	C2'-C1'	-18.19	1.33	1.53
85	A5	2336	G	C2'-C1'	-18.18	1.33	1.53
85	A5	1280	C	C2'-C1'	-18.05	1.33	1.53
85	A5	1532	G	C2'-C1'	-18.01	1.33	1.53
36	B2	1780	G	C2'-C1'	-18.01	1.33	1.53
85	A5	1855	G	C2'-C1'	-18.01	1.33	1.53
85	A5	2677	G	C2'-C1'	-17.96	1.33	1.53
85	A5	4612	C	C2'-C1'	-17.95	1.33	1.53
85	A5	973	G	C2'-C1'	-17.95	1.33	1.53
85	A5	2109	G	C2'-C1'	-17.95	1.33	1.53
36	B2	184	G	C2'-C1'	-17.94	1.33	1.53
85	A5	1899	G	C2'-C1'	-17.94	1.33	1.53
36	B2	1226	G	C2'-C1'	-17.92	1.33	1.53
85	A5	181	C	C2'-C1'	-17.92	1.33	1.53
85	A5	364	G	C2'-C1'	-17.92	1.33	1.53
36	B2	1230	C	C2'-C1'	-17.87	1.33	1.53
85	A5	126	C	C2'-C1'	-17.86	1.33	1.53
85	A5	1769	G	C2'-C1'	-17.86	1.33	1.53
66	Cd	108	TYR	C-N	17.86	1.75	1.34
87	A8	88	A	C2'-C1'	-17.85	1.33	1.53
85	A5	2120	G	O4'-C1'	17.80	1.64	1.41
85	A5	2439	G	C2'-C1'	-17.78	1.33	1.53
36	B2	863	U	C2'-C1'	-17.73	1.33	1.53
85	A5	2547	G	C2'-C1'	-17.71	1.33	1.53
85	A5	1237	C	C2'-C1'	-17.69	1.33	1.53
36	B2	453	C	C2'-C1'	-17.65	1.33	1.53
85	A5	2427	G	C2'-C1'	-17.65	1.33	1.53
85	A5	1285	U	C2'-C1'	-17.62	1.33	1.53
85	A5	1271	G	C2'-C1'	-17.62	1.33	1.53
36	B2	41	G	C2'-C1'	-17.61	1.33	1.53
85	A5	4672	A	C2'-C1'	-17.61	1.33	1.53
85	A5	499	G	C2'-C1'	-17.60	1.33	1.53
85	A5	1457	G	C2'-C1'	-17.59	1.33	1.53
87	A8	153	C	C2'-C1'	-17.58	1.34	1.53
82	CG	103	ARG	C-N	17.57	1.67	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1912	G	C2'-C1'	-17.57	1.34	1.53
85	A5	3749	C	O4'-C1'	17.50	1.64	1.41
85	A5	2007	G	O4'-C1'	-17.49	1.19	1.41
85	A5	971	U	C2'-C1'	17.45	1.72	1.53
85	A5	4906	C	O4'-C1'	17.44	1.64	1.41
85	A5	1832	C	O4'-C1'	17.44	1.64	1.41
36	B2	1283	C	O4'-C1'	17.43	1.64	1.41
36	B2	616	A	C2'-C1'	-17.43	1.34	1.53
36	B2	1203	G	C2'-C1'	-17.40	1.34	1.53
85	A5	726	G	C2'-C1'	-17.39	1.34	1.53
85	A5	923	C	O4'-C1'	17.39	1.64	1.41
36	B2	399	C	O4'-C1'	17.38	1.64	1.41
85	A5	504	G	C2'-C1'	-17.38	1.34	1.53
36	B2	1014	G	C2'-C1'	-17.36	1.34	1.53
85	A5	4612	C	O4'-C1'	17.31	1.64	1.41
85	A5	2601	A	O4'-C1'	17.30	1.64	1.41
85	A5	1931	C	O4'-C1'	17.30	1.64	1.41
85	A5	4124	G	C2'-C1'	-17.30	1.34	1.53
85	A5	2670	C	O4'-C1'	17.29	1.64	1.41
86	A7	102	U	C2'-C1'	-17.21	1.34	1.53
36	B2	1218	C	C2'-C1'	-17.19	1.34	1.53
85	A5	1928	C	O4'-C1'	17.18	1.64	1.41
85	A5	182	G	C2'-C1'	-17.16	1.34	1.53
85	A5	4696	C	O4'-C1'	17.16	1.64	1.41
36	B2	1476	A	O4'-C1'	-17.14	1.19	1.41
85	A5	922	C	C2'-C1'	-17.12	1.34	1.53
87	A8	115	G	C2'-C1'	-17.12	1.34	1.53
36	B2	988	C	O4'-C1'	17.11	1.63	1.41
85	A5	2851	G	C2'-C1'	-17.10	1.34	1.53
26	AJ	118	GLY	C-N	17.07	1.73	1.34
85	A5	1196	G	C2'-C1'	-17.07	1.34	1.53
85	A5	939	G	C2'-C1'	-17.05	1.34	1.53
49	CQ	6	ARG	CD-NE	17.04	1.75	1.46
85	A5	2670	C	C2'-C1'	-17.03	1.34	1.53
85	A5	1077	C	C2'-C1'	-17.01	1.34	1.53
85	A5	3706	C	O4'-C1'	16.98	1.63	1.41
85	A5	1359	G	O4'-C1'	16.98	1.63	1.41
85	A5	2035	C	O4'-C1'	16.97	1.63	1.41
85	A5	207	G	C2'-C1'	-16.94	1.34	1.53
85	A5	2395	A	O4'-C1'	16.93	1.63	1.41
36	B2	1048	G	C2'-C1'	-16.92	1.34	1.53
85	A5	5015	G	O4'-C1'	16.92	1.63	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	243	A	C2'-C1'	-16.91	1.34	1.53
85	A5	4659	G	C2'-C1'	-16.90	1.34	1.53
85	A5	4238	G	C2'-C1'	-16.89	1.34	1.53
85	A5	1840	G	C2'-C1'	-16.88	1.34	1.53
85	A5	1880	G	C2'-C1'	-16.86	1.34	1.53
86	A7	37	G	O4'-C1'	16.86	1.63	1.41
86	A7	57	C	C2'-C1'	-16.85	1.34	1.53
36	B2	1352	G	C2'-C1'	-16.85	1.34	1.53
85	A5	2101	C	O4'-C1'	16.84	1.63	1.41
85	A5	470	A	C2'-C1'	-16.82	1.34	1.53
85	A5	1641	G	O4'-C1'	16.81	1.63	1.41
85	A5	1368	A	C2'-C1'	-16.78	1.34	1.53
85	A5	2488	C	O4'-C1'	16.78	1.63	1.41
36	B2	1237	C	O4'-C1'	16.78	1.63	1.41
85	A5	2771	G	C2'-C1'	-16.77	1.34	1.53
85	A5	1806	G	C2'-C1'	-16.76	1.34	1.53
85	A5	4196	G	O4'-C1'	16.75	1.63	1.41
85	A5	322	C	O4'-C1'	16.74	1.63	1.41
36	B2	842	C	C2'-C1'	-16.74	1.34	1.53
36	B2	1471	C	O4'-C1'	16.74	1.63	1.41
85	A5	299	C	C2'-C1'	-16.73	1.34	1.53
36	B2	1262	C	C2'-C1'	-16.72	1.34	1.53
85	A5	4347	G	C2'-C1'	-16.72	1.34	1.53
85	A5	3815	G	C2'-C1'	-16.72	1.34	1.53
36	B2	1737	G	C2'-C1'	-16.70	1.34	1.53
50	CR	143	HIS	CD2-NE2	-16.70	1.01	1.38
85	A5	303	C	O4'-C1'	16.67	1.63	1.41
26	AJ	85	GLY	C-N	-16.65	0.95	1.34
85	A5	1208	G	C2'-C1'	-16.65	1.35	1.53
36	B2	636	C	O4'-C1'	16.65	1.63	1.41
85	A5	464	G	C2'-C1'	-16.62	1.35	1.53
85	A5	1483	C	O4'-C1'	16.60	1.63	1.41
36	B2	933	G	C2'-C1'	-16.59	1.35	1.53
85	A5	1568	C	O4'-C1'	16.58	1.63	1.41
85	A5	3744	G	C2'-C1'	-16.57	1.35	1.53
36	B2	614	C	C2'-C1'	-16.55	1.35	1.53
85	A5	4774	C	C2'-C1'	-16.55	1.35	1.53
85	A5	2018	C	O4'-C1'	16.51	1.63	1.41
36	B2	94	G	C2'-C1'	-16.50	1.35	1.53
85	A5	2653	C	C2'-C1'	-16.50	1.35	1.53
85	A5	4896	G	C2'-C1'	-16.49	1.35	1.53
85	A5	663	G	C2'-C1'	-16.48	1.35	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	3893	C	O4'-C1'	16.47	1.63	1.41
85	A5	5050	C	C2'-C1'	-16.46	1.35	1.53
36	B2	848	U	C2'-C1'	-16.46	1.35	1.53
85	A5	2380	G	C2'-C1'	-16.43	1.35	1.53
36	B2	614	C	O4'-C1'	16.43	1.63	1.41
36	B2	445	A	C2'-C1'	-16.41	1.35	1.53
85	A5	1775	A	O4'-C1'	16.41	1.62	1.41
85	A5	449	C	C2'-C1'	-16.41	1.35	1.53
85	A5	2022	C	O4'-C1'	16.40	1.62	1.41
85	A5	2293	U	C2'-C1'	-16.39	1.35	1.53
87	A8	56	G	C2'-C1'	-16.39	1.35	1.53
36	B2	1329	U	C2'-C1'	-16.39	1.35	1.53
85	A5	167	C	C2'-C1'	-16.36	1.35	1.53
85	A5	2463	G	C2'-C1'	-16.35	1.35	1.53
85	A5	2289	C	O4'-C1'	16.34	1.62	1.41
85	A5	1783	C	O4'-C1'	16.34	1.62	1.41
36	B2	1738	C	O4'-C1'	16.29	1.62	1.41
85	A5	1109	C	O4'-C1'	16.29	1.62	1.41
36	B2	1576	G	C2'-C1'	-16.29	1.35	1.53
85	A5	2461	G	O4'-C1'	16.28	1.62	1.41
36	B2	621	C	O4'-C1'	16.28	1.62	1.41
36	B2	1312	G	O4'-C1'	16.27	1.62	1.41
85	A5	3663	A	C2'-C1'	-16.26	1.35	1.53
12	AR	1	MET	N-CA	16.26	1.78	1.46
85	A5	384	A	O4'-C1'	16.25	1.62	1.41
85	A5	2751	G	C2'-C1'	-16.24	1.35	1.53
85	A5	4114	C	C2'-C1'	-16.23	1.35	1.53
36	B2	92	A	C2'-C1'	-16.22	1.35	1.53
86	A7	93	G	C2'-C1'	-16.22	1.35	1.53
36	B2	400	C	O4'-C1'	16.20	1.62	1.41
36	B2	1568	C	C2'-C1'	-16.20	1.35	1.53
36	B2	1671	G	C2'-C1'	-16.20	1.35	1.53
85	A5	1681	G	C2'-C1'	-16.19	1.35	1.53
85	A5	2613	C	C2'-C1'	-16.19	1.35	1.53
85	A5	1486	C	C2'-C1'	-16.18	1.35	1.53
87	A8	100	U	C2'-C1'	-16.17	1.35	1.53
85	A5	308	G	O4'-C1'	-16.16	1.20	1.41
36	B2	699	C	O4'-C1'	16.14	1.62	1.41
85	A5	515	C	O4'-C1'	16.14	1.62	1.41
36	B2	1047	C	O4'-C1'	16.13	1.62	1.41
85	A5	1163	G	C2'-C1'	-16.11	1.35	1.53
85	A5	1519	C	O4'-C1'	16.10	1.62	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	972	C	O4'-C1'	16.10	1.62	1.41
85	A5	4092	G	C2'-C1'	-16.09	1.35	1.53
85	A5	174	C	O4'-C1'	16.09	1.62	1.41
85	A5	4213	A	C2'-C1'	-16.09	1.35	1.53
36	B2	286	U	O4'-C1'	16.08	1.62	1.41
37	BC	70	C	O4'-C1'	16.06	1.62	1.41
86	A7	26	C	C2'-C1'	-16.06	1.35	1.53
36	B2	792	C	C2'-C1'	-16.05	1.35	1.53
36	B2	456	C	C2'-C1'	-16.03	1.35	1.53
85	A5	4283	G	C2'-C1'	-16.00	1.35	1.53
85	A5	3771	C	C2'-C1'	-15.97	1.35	1.53
36	B2	143	U	C2'-C1'	-15.93	1.35	1.53
85	A5	3921	U	C2'-C1'	-15.93	1.35	1.53
85	A5	4110	C	O4'-C1'	15.91	1.62	1.41
36	B2	1853	C	C2'-C1'	-15.90	1.35	1.53
85	A5	1600	A	C2'-C1'	-15.89	1.35	1.53
36	B2	834	C	C2'-C1'	-15.89	1.35	1.53
36	B2	1016	U	O4'-C1'	15.89	1.62	1.41
86	A7	68	C	O4'-C1'	15.89	1.62	1.41
85	A5	4345	C	C2'-C1'	-15.89	1.35	1.53
85	A5	5050	C	O4'-C1'	15.89	1.62	1.41
85	A5	2902	G	O4'-C1'	15.88	1.62	1.41
36	B2	1665	G	C2'-C1'	-15.87	1.35	1.53
85	A5	3961	G	C2'-C1'	-15.87	1.35	1.53
36	B2	1752	C	O4'-C1'	15.84	1.62	1.41
85	A5	2660	A	C2'-C1'	-15.84	1.35	1.53
85	A5	2761	U	O4'-C1'	15.84	1.62	1.41
36	B2	591	U	C2'-C1'	-15.83	1.35	1.53
85	A5	1648	C	O4'-C1'	15.80	1.62	1.41
85	A5	4120	U	O4'-C1'	15.80	1.62	1.41
85	A5	515	C	C2'-C1'	-15.78	1.35	1.53
85	A5	1534	A	O4'-C1'	15.77	1.62	1.41
36	B2	456	C	O4'-C1'	15.77	1.62	1.41
61	Ch	114	TYR	C-N	15.77	1.64	1.34
85	A5	706	C	C2'-C1'	-15.76	1.36	1.53
36	B2	1688	C	C2'-C1'	-15.74	1.36	1.53
85	A5	3594	C	O4'-C1'	15.74	1.62	1.41
36	B2	796	G	C2'-C1'	-15.74	1.36	1.53
36	B2	1231	C	O4'-C1'	15.74	1.62	1.41
85	A5	1657	G	C2'-C1'	-15.72	1.36	1.53
36	B2	295	C	O4'-C1'	15.72	1.62	1.41
85	A5	2770	C	O4'-C1'	15.71	1.62	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1309	C	O4'-C1'	15.70	1.62	1.41
85	A5	161	G	C2'-C1'	-15.70	1.36	1.53
85	A5	1308	C	O4'-C1'	15.70	1.62	1.41
85	A5	1902	G	C2'-C1'	-15.69	1.36	1.53
36	B2	798	G	O4'-C1'	15.68	1.62	1.41
85	A5	940	C	O4'-C1'	15.68	1.62	1.41
85	A5	3945	A	C2'-C1'	15.66	1.70	1.53
85	A5	264	C	O4'-C1'	15.65	1.62	1.41
85	A5	2654	C	O4'-C1'	15.64	1.61	1.41
62	Cb	78	PRO	N-CD	15.64	1.69	1.47
85	A5	1486	C	O4'-C1'	15.63	1.61	1.41
85	A5	996	G	C2'-C1'	-15.63	1.36	1.53
85	A5	4992	G	C2'-C1'	-15.63	1.36	1.53
85	A5	1358	G	C2'-C1'	-15.63	1.36	1.53
36	B2	1741	U	C2'-C1'	-15.61	1.36	1.53
36	B2	1693	G	C2'-C1'	-15.61	1.36	1.53
85	A5	4318	C	O4'-C1'	15.61	1.61	1.41
85	A5	19	G	C2'-C1'	-15.60	1.36	1.53
85	A5	1410	U	C2'-C1'	15.59	1.70	1.53
85	A5	1267	C	O4'-C1'	15.59	1.61	1.41
85	A5	3799	A	C2'-C1'	-15.58	1.36	1.53
85	A5	220	C	C2'-C1'	-15.58	1.36	1.53
85	A5	744	G	C2'-C1'	-15.58	1.36	1.53
85	A5	4176	C	C2'-C1'	-15.57	1.36	1.53
36	B2	551	U	C2'-C1'	-15.57	1.36	1.53
85	A5	383	A	C2'-C1'	-15.56	1.36	1.53
87	A8	88	A	O4'-C1'	15.55	1.61	1.41
36	B2	604	A	O4'-C1'	15.54	1.61	1.41
36	B2	881	G	C2'-C1'	-15.54	1.36	1.53
36	B2	228	C	O4'-C1'	15.52	1.61	1.41
36	B2	1436	C	O4'-C1'	15.52	1.61	1.41
85	A5	3771	C	O4'-C1'	15.52	1.61	1.41
85	A5	142	G	C2'-C1'	-15.51	1.36	1.53
36	B2	179	C	C2'-C1'	-15.51	1.36	1.53
36	B2	1772	C	O4'-C1'	15.50	1.61	1.41
36	B2	913	A	O4'-C1'	15.48	1.61	1.41
36	B2	1456	G	C2'-C1'	-15.48	1.36	1.53
85	A5	437	G	C2'-C1'	-15.47	1.36	1.53
85	A5	189	G	C2'-C1'	-15.46	1.36	1.53
85	A5	4401	G	C2'-C1'	-15.46	1.36	1.53
85	A5	4342	C	C2'-C1'	-15.45	1.36	1.53
36	B2	1016	U	C2'-C1'	-15.44	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4335	C	O4'-C1'	15.44	1.61	1.41
85	A5	4871	C	O4'-C1'	-15.43	1.21	1.41
36	B2	62	G	C2'-C1'	-15.43	1.36	1.53
36	B2	179	C	O4'-C1'	15.43	1.61	1.41
85	A5	4417	C	O4'-C1'	15.41	1.61	1.41
85	A5	929	A	O4'-C1'	15.41	1.61	1.41
36	B2	734	C	O4'-C1'	15.40	1.61	1.41
12	AR	1	MET	CA-CB	15.40	1.87	1.53
85	A5	643	C	O4'-C1'	15.39	1.61	1.41
63	CB	297	LYS	C-N	15.39	1.69	1.34
1	Az	267	ASP	N-CA	15.39	1.77	1.46
85	A5	1313	C	O4'-C1'	15.39	1.61	1.41
36	B2	745	C	O4'-C1'	15.38	1.61	1.41
85	A5	210	C	O4'-C1'	15.38	1.61	1.41
85	A5	2392	C	O4'-C1'	15.38	1.61	1.41
85	A5	1419	G	C2'-C1'	-15.37	1.36	1.53
85	A5	1647	U	C2'-C1'	-15.36	1.36	1.53
36	B2	1292	C	O4'-C1'	15.35	1.61	1.41
36	B2	187	G	C2'-C1'	-15.35	1.36	1.53
85	A5	4259	C	C2'-C1'	-15.35	1.36	1.53
85	A5	4709	U	C2'-C1'	-15.35	1.36	1.53
36	B2	1397	U	O4'-C1'	15.34	1.61	1.41
85	A5	1551	C	C2'-C1'	-15.34	1.36	1.53
85	A5	2270	G	C2'-C1'	-15.34	1.36	1.53
86	A7	25	G	C2'-C1'	-15.34	1.36	1.53
85	A5	3897	G	C2'-C1'	-15.33	1.36	1.53
37	BC	69	G	C2'-C1'	-15.33	1.36	1.53
85	A5	499	G	O4'-C1'	15.33	1.61	1.41
36	B2	225	G	C2'-C1'	-15.32	1.36	1.53
85	A5	919	C	O4'-C1'	15.32	1.61	1.41
85	A5	1516	G	C2'-C1'	-15.32	1.36	1.53
85	A5	3708	C	O4'-C1'	15.32	1.61	1.41
85	A5	2825	A	O4'-C1'	15.30	1.61	1.41
85	A5	106	A	C2'-C1'	-15.29	1.36	1.53
85	A5	459	C	O4'-C1'	15.29	1.61	1.41
86	A7	36	C	C2'-C1'	-15.28	1.36	1.53
85	A5	1929	A	O4'-C1'	15.28	1.61	1.41
85	A5	2814	C	O4'-C1'	15.27	1.61	1.41
85	A5	3861	A	O4'-C1'	15.25	1.61	1.41
36	B2	990	A	C2'-C1'	-15.22	1.36	1.53
36	B2	4	C	C2'-C1'	-15.21	1.36	1.53
36	B2	667	U	C2'-C1'	-15.21	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1175	G	C2'-C1'	-15.21	1.36	1.53
85	A5	1879	C	C2'-C1'	-15.20	1.36	1.53
85	A5	673	C	C2'-C1'	-15.20	1.36	1.53
85	A5	2550	G	C2'-C1'	-15.20	1.36	1.53
36	B2	1664	A	C2'-C1'	-15.19	1.36	1.53
85	A5	1662	C	O4'-C1'	15.19	1.61	1.41
85	A5	4710	C	O4'-C1'	15.18	1.61	1.41
36	B2	1241	A	O4'-C1'	15.18	1.61	1.41
85	A5	4658	G	C2'-C1'	-15.16	1.36	1.53
85	A5	1689	G	C2'-C1'	-15.15	1.36	1.53
36	B2	1620	A	C2'-C1'	-15.15	1.36	1.53
36	B2	217	A	O4'-C1'	15.15	1.61	1.41
36	B2	1022	U	C2'-C1'	-15.15	1.36	1.53
85	A5	4064	C	O4'-C1'	15.14	1.61	1.41
36	B2	738	C	C2'-C1'	-15.13	1.36	1.53
38	Cz	210	MET	C-N	15.13	1.60	1.33
38	Cz	210	MET	N-CA	15.13	1.76	1.46
85	A5	326	C	C2'-C1'	-15.12	1.36	1.53
85	A5	3834	C	C2'-C1'	-15.12	1.36	1.53
85	A5	678	C	O4'-C1'	15.11	1.61	1.41
85	A5	1974	U	C2'-C1'	-15.11	1.36	1.53
85	A5	1913	C	O4'-C1'	15.10	1.61	1.41
85	A5	2351	C	O4'-C1'	15.09	1.61	1.41
85	A5	4050	A	O4'-C1'	15.09	1.61	1.41
85	A5	668	C	C2'-C1'	-15.06	1.36	1.53
85	A5	2563	C	O4'-C1'	15.06	1.61	1.41
85	A5	1593	A	O4'-C1'	15.05	1.61	1.41
85	A5	654	C	O4'-C1'	15.05	1.61	1.41
40	CK	2	PRO	CA-C	15.05	1.82	1.52
85	A5	475	G	C2'-C1'	-15.04	1.36	1.53
85	A5	11	G	C2'-C1'	-15.04	1.36	1.53
36	B2	1529	C	O4'-C1'	15.03	1.61	1.41
36	B2	418	A	C2'-C1'	-15.01	1.36	1.53
85	A5	2084	C	O4'-C1'	15.01	1.61	1.41
85	A5	4259	C	O4'-C1'	15.00	1.61	1.41
36	B2	164	A	C2'-C1'	-14.99	1.36	1.53
85	A5	1722	C	O4'-C1'	14.99	1.61	1.41
36	B2	208	G	C2'-C1'	-14.99	1.36	1.53
85	A5	1070	G	C2'-C1'	-14.98	1.36	1.53
85	A5	1974	U	O4'-C1'	14.98	1.61	1.41
85	A5	4402	C	O4'-C1'	14.97	1.61	1.41
85	A5	390	C	C2'-C1'	-14.96	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1615	U	C2'-C1'	-14.94	1.36	1.53
36	B2	1311	C	O4'-C1'	14.94	1.61	1.41
85	A5	3607	U	C2'-C1'	-14.93	1.36	1.53
85	A5	4952	G	C2'-C1'	-14.92	1.36	1.53
85	A5	1104	C	C2'-C1'	-14.91	1.36	1.53
85	A5	2665	U	C2'-C1'	-14.91	1.36	1.53
36	B2	228	C	C2'-C1'	-14.91	1.36	1.53
85	A5	5018	C	O4'-C1'	14.89	1.61	1.41
36	B2	189	U	C2'-C1'	-14.89	1.36	1.53
85	A5	3683	C	O4'-C1'	14.88	1.60	1.41
85	A5	4054	C	O4'-C1'	14.85	1.60	1.41
85	A5	4608	G	C2'-C1'	-14.84	1.37	1.53
85	A5	1846	G	O4'-C1'	14.83	1.60	1.41
36	B2	1708	C	O4'-C1'	14.82	1.60	1.41
85	A5	2351	C	C2'-C1'	-14.81	1.37	1.53
85	A5	279	A	O4'-C1'	14.81	1.60	1.41
85	A5	3931	C	C2'-C1'	-14.81	1.37	1.53
85	A5	1496	G	C2'-C1'	-14.81	1.37	1.53
85	A5	2110	C	O4'-C1'	14.81	1.60	1.41
85	A5	2458	C	O4'-C1'	14.81	1.60	1.41
85	A5	4141	G	C2'-C1'	-14.80	1.37	1.53
85	A5	2569	G	C2'-C1'	-14.80	1.37	1.53
36	B2	842	C	O4'-C1'	14.80	1.60	1.41
36	B2	1417	C	O4'-C1'	14.78	1.60	1.41
85	A5	126	C	O4'-C1'	14.78	1.60	1.41
85	A5	4211	C	O4'-C1'	14.77	1.60	1.41
85	A5	3807	A	C2'-C1'	-14.76	1.37	1.53
85	A5	4130	C	O4'-C1'	14.76	1.60	1.41
36	B2	1410	C	O4'-C1'	14.75	1.60	1.41
85	A5	4171	C	C2'-C1'	-14.75	1.37	1.53
85	A5	2366	A	O4'-C1'	14.75	1.60	1.41
85	A5	197	A	C2'-C1'	-14.74	1.37	1.53
36	B2	548	C	O4'-C1'	14.73	1.60	1.41
85	A5	4505	C	O4'-C1'	14.73	1.60	1.41
85	A5	4558	U	C2'-C1'	-14.72	1.37	1.53
85	A5	4890	G	C2'-C1'	-14.72	1.37	1.53
85	A5	4271	A	C2'-C1'	-14.72	1.37	1.53
36	B2	1834	A	C2'-C1'	-14.71	1.37	1.53
85	A5	1931	C	C2'-C1'	-14.71	1.37	1.53
85	A5	4660	G	C2'-C1'	-14.71	1.37	1.53
36	B2	1661	A	C2'-C1'	-14.68	1.37	1.53
85	A5	2387	G	C2'-C1'	-14.68	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2791	C	C2'-C1'	-14.68	1.37	1.53
85	A5	4064	C	C2'-C1'	-14.68	1.37	1.53
85	A5	4771	C	O4'-C1'	14.68	1.60	1.41
36	B2	1293	A	O4'-C1'	14.67	1.60	1.41
85	A5	735	G	O4'-C1'	14.66	1.60	1.41
36	B2	974	C	O4'-C1'	14.66	1.60	1.41
36	B2	1146	C	C2'-C1'	-14.65	1.37	1.53
85	A5	4596	C	O4'-C1'	14.65	1.60	1.41
85	A5	1948	G	C2'-C1'	-14.65	1.37	1.53
85	A5	4390	A	C2'-C1'	-14.65	1.37	1.53
36	B2	1094	C	O4'-C1'	14.64	1.60	1.41
85	A5	4639	G	C2'-C1'	-14.63	1.37	1.53
85	A5	4729	A	O4'-C1'	14.63	1.60	1.41
85	A5	1650	A	C2'-C1'	-14.63	1.37	1.53
85	A5	2254	G	C2'-C1'	-14.62	1.37	1.53
85	A5	2386	U	C2'-C1'	-14.63	1.37	1.53
85	A5	1455	G	O4'-C1'	14.62	1.60	1.41
36	B2	1498	A	C2'-C1'	-14.60	1.37	1.53
85	A5	1546	C	C2'-C1'	-14.60	1.37	1.53
85	A5	7	C	O4'-C1'	14.60	1.60	1.41
85	A5	4593	C	C2'-C1'	-14.60	1.37	1.53
85	A5	3867	A	C2'-C1'	-14.59	1.37	1.53
36	B2	1234	C	O4'-C1'	14.58	1.60	1.41
85	A5	3594	C	C2'-C1'	-14.56	1.37	1.53
36	B2	1220	A	C2'-C1'	-14.56	1.37	1.53
85	A5	4518	A	O4'-C1'	14.55	1.60	1.41
36	B2	81	U	C2'-C1'	-14.54	1.37	1.53
85	A5	1541	C	C2'-C1'	-14.53	1.37	1.53
27	AE	263	GLY	C-O	-14.52	1.00	1.23
36	B2	1592	C	O4'-C1'	14.52	1.60	1.41
33	AI	207	GLY	C-O	-14.52	1.00	1.23
19	AZ	115	GLY	C-O	-14.51	1.00	1.23
85	A5	5032	C	O4'-C1'	14.51	1.60	1.41
26	AJ	188	GLY	C-O	-14.50	1.00	1.23
86	A7	74	A	C2'-C1'	14.50	1.69	1.53
18	AY	128	GLY	C-O	-14.49	1.00	1.23
82	CG	266	GLY	C-O	-14.49	1.00	1.23
85	A5	1914	C	O4'-C1'	14.49	1.60	1.41
15	AB	233	GLY	C-O	-14.48	1.00	1.23
85	A5	2319	C	O4'-C1'	14.48	1.60	1.41
85	A5	139	G	C2'-C1'	-14.47	1.37	1.53
85	A5	1183	C	O4'-C1'	14.47	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4120	U	C2'-C1'	-14.46	1.37	1.53
36	B2	732	U	C2'-C1'	-14.46	1.37	1.53
87	A8	6	C	O4'-C1'	14.46	1.60	1.41
36	B2	877	C	O4'-C1'	14.45	1.60	1.41
64	CF	23	ARG	C-N	-14.44	1.00	1.34
85	A5	714	G	C2'-C1'	-14.44	1.37	1.53
85	A5	2571	C	O4'-C1'	14.44	1.60	1.41
3	AU	93	SER	C-N	14.44	1.61	1.34
36	B2	1267	C	C2'-C1'	-14.44	1.37	1.53
36	B2	918	U	C2'-C1'	-14.43	1.37	1.53
87	A8	94	G	O4'-C1'	14.43	1.60	1.41
36	B2	808	A	C2'-C1'	-14.43	1.37	1.53
85	A5	2749	C	O4'-C1'	14.43	1.60	1.41
87	A8	152	U	C2'-C1'	-14.42	1.37	1.53
33	AI	43	ILE	C-N	14.42	1.67	1.34
36	B2	1704	C	O4'-C1'	14.39	1.60	1.41
85	A5	1371	A	C2'-C1'	14.39	1.69	1.53
85	A5	1519	C	C2'-C1'	-14.39	1.37	1.53
36	B2	441	C	O4'-C1'	14.38	1.60	1.41
36	B2	849	A	C2'-C1'	-14.38	1.37	1.53
81	CE	36	LYS	C-N	14.37	1.61	1.34
85	A5	4201	G	C2'-C1'	-14.37	1.37	1.53
85	A5	4114	C	O4'-C1'	14.37	1.60	1.41
85	A5	4584	A	C2'-C1'	-14.35	1.37	1.53
85	A5	4887	C	O4'-C1'	14.35	1.60	1.41
87	A8	11	C	O4'-C1'	14.35	1.60	1.41
85	A5	940	C	C2'-C1'	-14.34	1.37	1.53
85	A5	1382	G	C2'-C1'	-14.34	1.37	1.53
87	A8	46	G	C2'-C1'	-14.33	1.37	1.53
85	A5	1690	C	O4'-C1'	14.33	1.60	1.41
85	A5	2022	C	C2'-C1'	-14.33	1.37	1.53
85	A5	27	C	O4'-C1'	14.32	1.60	1.41
85	A5	8	U	C2'-C1'	-14.31	1.37	1.53
85	A5	1293	G	C2'-C1'	-14.31	1.37	1.53
36	B2	1018	U	C2'-C1'	-14.31	1.37	1.53
36	B2	1233	G	C2'-C1'	-14.30	1.37	1.53
85	A5	2335	C	O4'-C1'	14.30	1.60	1.41
85	A5	4580	U	C2'-C1'	-14.29	1.37	1.53
85	A5	2428	A	C2'-C1'	-14.29	1.37	1.53
36	B2	218	U	O4'-C1'	14.28	1.60	1.41
36	B2	1420	G	C2'-C1'	-14.28	1.37	1.53
85	A5	4080	C	O4'-C1'	14.28	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1463	C	C2'-C1'	-14.28	1.37	1.53
36	B2	1761	U	C2'-C1'	-14.28	1.37	1.53
85	A5	5057	C	O4'-C1'	14.28	1.60	1.41
85	A5	1867	A	C2'-C1'	-14.27	1.37	1.53
85	A5	2689	C	O4'-C1'	14.26	1.60	1.41
85	A5	948	C	C2'-C1'	-14.26	1.37	1.53
85	A5	2395	A	C2'-C1'	-14.26	1.37	1.53
85	A5	4124	G	O4'-C1'	14.25	1.60	1.41
85	A5	3949	A	C2'-C1'	-14.23	1.37	1.53
85	A5	3863	C	C2'-C1'	-14.23	1.37	1.53
85	A5	3909	C	O4'-C1'	14.23	1.60	1.41
36	B2	441	C	C2'-C1'	-14.22	1.37	1.53
36	B2	1380	C	O4'-C1'	14.22	1.60	1.41
36	B2	1616	U	C2'-C1'	-14.21	1.37	1.53
86	A7	73	U	C2'-C1'	-14.21	1.37	1.53
85	A5	1677	U	O4'-C1'	14.20	1.60	1.41
85	A5	4721	G	C2'-C1'	-14.20	1.37	1.53
86	A7	34	C	O4'-C1'	14.18	1.60	1.41
86	A7	31	G	C2'-C1'	-14.17	1.37	1.53
85	A5	3812	C	C2'-C1'	-14.16	1.37	1.53
85	A5	3826	C	C2'-C1'	-14.15	1.37	1.53
85	A5	4130	C	C2'-C1'	-14.15	1.37	1.53
36	B2	188	C	O4'-C1'	14.14	1.60	1.41
85	A5	2571	C	C2'-C1'	-14.14	1.37	1.53
36	B2	35	C	O4'-C1'	14.13	1.60	1.41
36	B2	144	U	O4'-C1'	14.13	1.60	1.41
85	A5	1328	G	C2'-C1'	-14.12	1.37	1.53
85	A5	1504	G	O4'-C1'	14.13	1.60	1.41
85	A5	1374	G	C2'-C1'	-14.11	1.37	1.53
85	A5	5033	G	C2'-C1'	-14.11	1.37	1.53
36	B2	856	C	O4'-C1'	14.11	1.59	1.41
85	A5	638	G	C2'-C1'	-14.11	1.37	1.53
85	A5	2373	C	O4'-C1'	14.11	1.59	1.41
12	AR	1	MET	CA-C	-14.10	1.16	1.52
36	B2	1743	G	O4'-C1'	14.10	1.59	1.41
85	A5	4088	C	O4'-C1'	14.10	1.59	1.41
85	A5	1554	A	C2'-C1'	-14.09	1.37	1.53
85	A5	273	U	O4'-C1'	14.08	1.59	1.41
85	A5	3678	G	O4'-C1'	14.08	1.59	1.41
85	A5	3815	G	O4'-C1'	14.08	1.59	1.41
36	B2	1144	A	C2'-C1'	-14.07	1.37	1.53
36	B2	1148	A	O4'-C1'	-14.07	1.23	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2652	G	C2'-C1'	-14.07	1.37	1.53
85	A5	4713	G	C2'-C1'	-14.06	1.37	1.53
85	A5	1993	C	C2'-C1'	-14.06	1.37	1.53
85	A5	4963	G	C2'-C1'	-14.06	1.37	1.53
85	A5	4341	C	O4'-C1'	14.06	1.59	1.41
36	B2	448	A	O4'-C1'	-14.05	1.23	1.41
85	A5	1330	A	C2'-C1'	-14.04	1.38	1.53
85	A5	4134	C	C2'-C1'	-14.04	1.38	1.53
36	B2	1218	C	O4'-C1'	14.04	1.59	1.41
85	A5	1972	G	C2'-C1'	-14.04	1.38	1.53
36	B2	1188	A	O4'-C1'	14.03	1.59	1.41
85	A5	4921	C	O4'-C1'	14.03	1.59	1.41
85	A5	395	A	C2'-C1'	-14.02	1.38	1.53
85	A5	2828	U	O4'-C1'	14.02	1.59	1.41
36	B2	1696	C	O4'-C1'	14.02	1.59	1.41
85	A5	79	C	C2'-C1'	-14.01	1.38	1.53
85	A5	2855	G	C2'-C1'	-14.01	1.38	1.53
85	A5	3887	C	C2'-C1'	-14.01	1.38	1.53
85	A5	3870	C	C2'-C1'	-14.01	1.38	1.53
85	A5	2073	C	C2'-C1'	-14.00	1.38	1.53
85	A5	4421	C	C2'-C1'	-14.00	1.38	1.53
36	B2	1007	C	O4'-C1'	13.99	1.59	1.41
36	B2	1592	C	C2'-C1'	-13.99	1.38	1.53
36	B2	1607	A	C2'-C1'	-13.98	1.38	1.53
85	A5	4308	C	O4'-C1'	13.98	1.59	1.41
85	A5	2423	A	O4'-C1'	13.98	1.59	1.41
36	B2	834	C	O4'-C1'	13.98	1.59	1.41
85	A5	4593	C	O4'-C1'	13.98	1.59	1.41
85	A5	4277	G	C2'-C1'	-13.97	1.38	1.53
85	A5	4230	C	C2'-C1'	-13.97	1.38	1.53
85	A5	3752	C	O4'-C1'	13.95	1.59	1.41
36	B2	1799	G	C2'-C1'	-13.95	1.38	1.53
85	A5	1731	C	O4'-C1'	13.95	1.59	1.41
85	A5	176	G	C2'-C1'	-13.95	1.38	1.53
85	A5	4368	G	C2'-C1'	-13.95	1.38	1.53
36	B2	1255	G	C2'-C1'	-13.94	1.38	1.53
85	A5	923	C	C2'-C1'	-13.94	1.38	1.53
36	B2	919	A	C2'-C1'	-13.94	1.38	1.53
85	A5	222	C	C2'-C1'	-13.94	1.38	1.53
85	A5	3812	C	O4'-C1'	13.93	1.59	1.41
36	B2	805	U	O4'-C1'	13.93	1.59	1.41
37	BC	65	C	O4'-C1'	13.93	1.59	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1698	C	O4'-C1'	13.92	1.59	1.41
85	A5	2341	A	C2'-C1'	-13.92	1.38	1.53
85	A5	4726	G	C2'-C1'	-13.92	1.38	1.53
36	B2	1807	C	C2'-C1'	-13.91	1.38	1.53
36	B2	1437	C	O4'-C1'	13.91	1.59	1.41
36	B2	739	C	O4'-C1'	13.90	1.59	1.41
85	A5	194	C	O4'-C1'	13.90	1.59	1.41
36	B2	626	G	O4'-C1'	13.90	1.59	1.41
85	A5	200	U	O4'-C1'	13.90	1.59	1.41
85	A5	720	G	C2'-C1'	-13.90	1.38	1.53
85	A5	4517	A	O4'-C1'	13.89	1.59	1.41
38	Cz	26	ARG	CD-NE	13.89	1.70	1.46
85	A5	146	G	C2'-C1'	-13.89	1.38	1.53
85	A5	1363	C	C2'-C1'	-13.89	1.38	1.53
36	B2	1771	G	C2'-C1'	-13.87	1.38	1.53
85	A5	2488	C	C2'-C1'	-13.86	1.38	1.53
85	A5	1411	C	O4'-C1'	13.83	1.59	1.41
36	B2	615	C	O4'-C1'	13.82	1.59	1.41
85	A5	1847	C	O4'-C1'	13.82	1.59	1.41
85	A5	4656	A	C2'-C1'	-13.82	1.38	1.53
36	B2	1741	U	O4'-C1'	13.81	1.59	1.41
85	A5	1529	G	C2'-C1'	-13.81	1.38	1.53
85	A5	3665	G	C2'-C1'	-13.81	1.38	1.53
85	A5	148	C	O4'-C1'	13.80	1.59	1.41
36	B2	1562	C	C2'-C1'	-13.79	1.38	1.53
85	A5	4634	U	O4'-C1'	13.79	1.59	1.41
36	B2	891	G	C2'-C1'	-13.78	1.38	1.53
74	CC	150	LEU	C-N	-13.78	1.08	1.34
36	B2	1006	C	O4'-C1'	13.78	1.59	1.41
85	A5	4459	U	C2'-C1'	-13.77	1.38	1.53
36	B2	168	C	O4'-C1'	13.77	1.59	1.41
36	B2	633	C	C2'-C1'	-13.77	1.38	1.53
85	A5	60	G	C2'-C1'	-13.77	1.38	1.53
36	B2	951	C	O4'-C1'	13.77	1.59	1.41
85	A5	725	G	C2'-C1'	-13.77	1.38	1.53
85	A5	4738	C	O4'-C1'	13.77	1.59	1.41
85	A5	4929	C	O4'-C1'	13.76	1.59	1.41
36	B2	1512	C	O4'-C1'	13.74	1.59	1.41
85	A5	1937	C	O4'-C1'	13.73	1.59	1.41
36	B2	1267	C	O4'-C1'	13.72	1.59	1.41
36	B2	1415	C	O4'-C1'	13.72	1.59	1.41
85	A5	1723	A	C2'-C1'	-13.71	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
87	A8	149	G	O4'-C1'	-13.71	1.23	1.41
36	B2	1431	G	C2'-C1'	-13.71	1.38	1.53
36	B2	387	C	O4'-C1'	13.70	1.59	1.41
85	A5	1789	C	C2'-C1'	-13.70	1.38	1.53
36	B2	1525	C	O4'-C1'	13.68	1.59	1.41
87	A8	106	G	C2'-C1'	-13.68	1.38	1.53
85	A5	1432	G	O4'-C1'	13.68	1.59	1.41
36	B2	1404	U	O4'-C1'	13.68	1.59	1.41
87	A8	90	C	O4'-C1'	13.68	1.59	1.41
85	A5	2597	G	C2'-C1'	-13.67	1.38	1.53
85	A5	4652	G	C2'-C1'	-13.67	1.38	1.53
36	B2	350	C	O4'-C1'	13.67	1.59	1.41
36	B2	856	C	C2'-C1'	-13.66	1.38	1.53
85	A5	1064	G	C2'-C1'	-13.66	1.38	1.53
85	A5	1795	A	C2'-C1'	-13.66	1.38	1.53
85	A5	2797	C	C2'-C1'	-13.65	1.38	1.53
85	A5	1300	G	C2'-C1'	-13.65	1.38	1.53
36	B2	1423	C	O4'-C1'	13.64	1.59	1.41
85	A5	2077	C	O4'-C1'	13.64	1.59	1.41
36	B2	888	U	C2'-C1'	-13.64	1.38	1.53
85	A5	239	C	O4'-C1'	13.64	1.59	1.41
36	B2	13	C	O4'-C1'	13.63	1.59	1.41
85	A5	180	C	O4'-C1'	13.62	1.59	1.41
85	A5	3963	A	O4'-C1'	13.61	1.59	1.41
36	B2	199	C	C2'-C1'	-13.61	1.38	1.53
36	B2	322	C	O4'-C1'	13.61	1.59	1.41
85	A5	4720	C	O4'-C1'	13.61	1.59	1.41
85	A5	9	C	O4'-C1'	13.60	1.59	1.41
85	A5	2594	C	O4'-C1'	13.60	1.59	1.41
36	B2	1622	U	O4'-C1'	13.59	1.59	1.41
85	A5	486	C	C2'-C1'	-13.59	1.38	1.53
85	A5	1979	A	O4'-C1'	13.59	1.59	1.41
85	A5	3670	C	C2'-C1'	-13.59	1.38	1.53
85	A5	1667	G	O4'-C1'	13.59	1.59	1.41
87	A8	59	A	C2'-C1'	-13.58	1.38	1.53
85	A5	1333	A	C2'-C1'	-13.58	1.38	1.53
85	A5	1677	U	C2'-C1'	-13.58	1.38	1.53
85	A5	2419	C	O4'-C1'	13.57	1.59	1.41
1	Az	267	ASP	CA-C	13.57	1.88	1.52
85	A5	4974	C	C2'-C1'	-13.57	1.38	1.53
36	B2	1408	U	O4'-C1'	13.57	1.59	1.41
85	A5	1181	C	O4'-C1'	13.56	1.59	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1382	G	O4'-C1'	13.56	1.59	1.41
85	A5	4536	C	O4'-C1'	13.56	1.59	1.41
36	B2	1026	C	O4'-C1'	13.55	1.59	1.41
36	B2	1475	G	C2'-C1'	-13.55	1.38	1.53
85	A5	5064	G	C2'-C1'	-13.55	1.38	1.53
36	B2	738	C	O4'-C1'	13.54	1.59	1.41
85	A5	4304	A	C2'-C1'	-13.54	1.38	1.53
36	B2	1245	G	C2'-C1'	-13.54	1.38	1.53
85	A5	4444	C	O4'-C1'	13.53	1.59	1.41
85	A5	1309	C	O4'-C1'	13.52	1.59	1.41
36	B2	1440	C	O4'-C1'	13.51	1.59	1.41
85	A5	983	C	O4'-C1'	13.51	1.59	1.41
85	A5	115	C	O4'-C1'	-13.51	1.24	1.41
36	B2	1410	C	C2'-C1'	-13.50	1.38	1.53
36	B2	1459	G	C2'-C1'	-13.50	1.38	1.53
85	A5	3700	C	C2'-C1'	-13.50	1.38	1.53
87	A8	57	C	O4'-C1'	13.50	1.59	1.41
85	A5	4247	G	C2'-C1'	-13.50	1.38	1.53
36	B2	558	G	C2'-C1'	-13.49	1.38	1.53
85	A5	1741	G	C2'-C1'	-13.49	1.38	1.53
85	A5	4953	G	C2'-C1'	-13.49	1.38	1.53
36	B2	1274	G	C2'-C1'	-13.49	1.38	1.53
85	A5	2361	G	O4'-C1'	13.48	1.59	1.41
87	A8	65	A	C2'-C1'	-13.48	1.38	1.53
85	A5	3668	C	O4'-C1'	13.48	1.59	1.41
36	B2	574	A	O4'-C1'	13.48	1.59	1.41
85	A5	949	G	C2'-C1'	-13.48	1.38	1.53
85	A5	4650	G	C2'-C1'	-13.48	1.38	1.53
85	A5	230	G	C2'-C1'	-13.47	1.38	1.53
86	A7	107	G	C2'-C1'	-13.47	1.38	1.53
85	A5	1077	C	O4'-C1'	13.46	1.59	1.41
85	A5	4261	C	O4'-C1'	13.46	1.59	1.41
85	A5	4562	C	O4'-C1'	13.46	1.59	1.41
85	A5	3609	G	C2'-C1'	-13.46	1.38	1.53
85	A5	1656	U	C2'-C1'	-13.45	1.38	1.53
85	A5	1649	U	C2'-C1'	-13.45	1.38	1.53
37	BC	65	C	C2'-C1'	-13.44	1.38	1.53
36	B2	1628	C	C2'-C1'	-13.44	1.38	1.53
52	CS	152	PHE	C-N	13.44	1.59	1.34
85	A5	370	U	O4'-C1'	13.42	1.59	1.41
85	A5	724	C	C2'-C1'	13.42	1.68	1.53
85	A5	1605	G	C2'-C1'	-13.42	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	288	G	C2'-C1'	-13.42	1.38	1.53
85	A5	912	G	C2'-C1'	-13.42	1.38	1.53
36	B2	984	C	C2'-C1'	-13.42	1.38	1.53
85	A5	5036	C	O4'-C1'	13.41	1.59	1.41
36	B2	174	C	O4'-C1'	13.41	1.59	1.41
85	A5	1846	G	C2'-C1'	-13.39	1.38	1.53
85	A5	2100	A	O4'-C1'	13.39	1.59	1.41
36	B2	548	C	C2'-C1'	-13.39	1.38	1.53
85	A5	2535	G	C2'-C1'	-13.38	1.38	1.53
36	B2	1671	G	O4'-C1'	13.38	1.59	1.41
36	B2	1811	C	O4'-C1'	13.38	1.59	1.41
36	B2	412	G	O4'-C1'	13.38	1.59	1.41
85	A5	449	C	O4'-C1'	13.37	1.59	1.41
85	A5	963	G	O4'-C1'	13.37	1.59	1.41
85	A5	2335	C	C2'-C1'	-13.37	1.38	1.53
85	A5	4613	C	O4'-C1'	13.36	1.59	1.41
85	A5	1252	C	O4'-C1'	13.36	1.59	1.41
87	A8	114	G	C2'-C1'	-13.36	1.38	1.53
85	A5	1612	G	C2'-C1'	-13.35	1.38	1.53
85	A5	2797	C	O4'-C1'	13.35	1.59	1.41
85	A5	4686	G	C2'-C1'	-13.35	1.38	1.53
85	A5	4906	C	C2'-C1'	-13.35	1.38	1.53
85	A5	1349	G	C2'-C1'	-13.35	1.38	1.53
36	B2	907	G	C2'-C1'	-13.35	1.38	1.53
36	B2	1582	C	C2'-C1'	-13.35	1.38	1.53
36	B2	1132	C	C2'-C1'	-13.34	1.38	1.53
36	B2	732	U	O4'-C1'	13.34	1.58	1.41
37	BC	67	C	C2'-C1'	-13.34	1.38	1.53
86	A7	24	C	O4'-C1'	13.34	1.58	1.41
85	A5	1407	C	O4'-C1'	13.33	1.58	1.41
36	B2	578	C	O4'-C1'	13.33	1.58	1.41
36	B2	1644	C	C2'-C1'	-13.32	1.38	1.53
85	A5	487	G	C2'-C1'	-13.32	1.38	1.53
85	A5	673	C	O4'-C1'	13.32	1.58	1.41
85	A5	1726	U	C2'-C1'	-13.32	1.38	1.53
85	A5	471	A	O4'-C1'	13.31	1.58	1.41
85	A5	3749	C	C2'-C1'	-13.30	1.38	1.53
36	B2	1754	G	C2'-C1'	-13.30	1.38	1.53
85	A5	4928	C	O4'-C1'	13.29	1.58	1.41
36	B2	54	A	O4'-C1'	13.29	1.58	1.41
36	B2	830	A	O4'-C1'	-13.29	1.24	1.41
85	A5	1509	C	O4'-C1'	13.29	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1437	C	C2'-C1'	-13.28	1.38	1.53
36	B2	862	A	O4'-C1'	13.27	1.58	1.41
85	A5	953	C	O4'-C1'	13.27	1.58	1.41
36	B2	144	U	C2'-C1'	-13.26	1.38	1.53
36	B2	1067	C	O4'-C1'	13.26	1.58	1.41
85	A5	1458	C	O4'-C1'	13.26	1.58	1.41
85	A5	2244	C	O4'-C1'	13.25	1.58	1.41
36	B2	1451	G	O4'-C1'	13.24	1.58	1.41
36	B2	1783	C	O4'-C1'	13.24	1.58	1.41
85	A5	1345	A	O4'-C1'	13.24	1.58	1.41
85	A5	4370	G	O4'-C1'	13.23	1.58	1.41
36	B2	1095	C	C2'-C1'	-13.23	1.38	1.53
85	A5	135	G	O4'-C1'	13.23	1.58	1.41
85	A5	2481	G	C2'-C1'	-13.23	1.38	1.53
85	A5	746	A	C2'-C1'	-13.22	1.38	1.53
85	A5	1478	C	O4'-C1'	13.22	1.58	1.41
85	A5	329	A	C2'-C1'	-13.22	1.38	1.53
85	A5	1245	C	O4'-C1'	13.22	1.58	1.41
85	A5	414	C	O4'-C1'	13.21	1.58	1.41
85	A5	2422	C	C2'-C1'	-13.21	1.38	1.53
36	B2	1271	C	O4'-C1'	13.21	1.58	1.41
36	B2	1853	C	O4'-C1'	13.21	1.58	1.41
85	A5	2791	C	O4'-C1'	13.21	1.58	1.41
85	A5	2306	G	O4'-C1'	13.21	1.58	1.41
85	A5	4327	C	O4'-C1'	13.20	1.58	1.41
85	A5	4169	G	O4'-C1'	13.20	1.58	1.41
85	A5	3671	G	C2'-C1'	-13.19	1.38	1.53
36	B2	790	C	O4'-C1'	13.19	1.58	1.41
85	A5	1470	G	C2'-C1'	-13.19	1.38	1.53
36	B2	520	A	C2'-C1'	-13.19	1.38	1.53
85	A5	1505	C	O4'-C1'	13.18	1.58	1.41
36	B2	575	A	O4'-C1'	13.18	1.58	1.41
85	A5	4145	C	O4'-C1'	13.17	1.58	1.41
85	A5	4503	A	C2'-C1'	-13.17	1.38	1.53
87	A8	118	C	C2'-C1'	-13.17	1.38	1.53
36	B2	552	G	C2'-C1'	-13.16	1.38	1.53
85	A5	2769	U	O4'-C1'	13.16	1.58	1.41
85	A5	1182	C	O4'-C1'	13.16	1.58	1.41
85	A5	4042	G	O4'-C1'	13.16	1.58	1.41
36	B2	296	U	O4'-C1'	13.15	1.58	1.41
85	A5	942	G	C2'-C1'	-13.15	1.38	1.53
85	A5	299	C	O4'-C1'	13.15	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4305	G	C2'-C1'	-13.15	1.38	1.53
85	A5	662	C	O4'-C1'	13.14	1.58	1.41
85	A5	276	C	O4'-C1'	13.13	1.58	1.41
85	A5	2435	G	C2'-C1'	-13.13	1.39	1.53
85	A5	4171	C	O4'-C1'	13.13	1.58	1.41
85	A5	2323	C	C2'-C1'	-13.12	1.39	1.53
85	A5	4625	C	C2'-C1'	-13.12	1.39	1.53
36	B2	990	A	O4'-C1'	13.10	1.58	1.41
85	A5	3701	C	O4'-C1'	13.09	1.58	1.41
85	A5	259	C	O4'-C1'	13.09	1.58	1.41
36	B2	1078	C	C2'-C1'	-13.09	1.39	1.53
36	B2	1777	G	C2'-C1'	-13.09	1.39	1.53
85	A5	4627	U	C2'-C1'	-13.09	1.39	1.53
85	A5	418	A	C2'-C1'	-13.08	1.39	1.53
85	A5	1076	C	C2'-C1'	-13.08	1.39	1.53
85	A5	977	C	O4'-C1'	13.07	1.58	1.41
85	A5	668	C	O4'-C1'	13.07	1.58	1.41
85	A5	2874	U	C2'-C1'	-13.07	1.39	1.53
85	A5	2407	G	O4'-C1'	-13.07	1.24	1.41
36	B2	1019	C	O4'-C1'	13.06	1.58	1.41
36	B2	1547	C	O4'-C1'	13.06	1.58	1.41
85	A5	4092	G	O4'-C1'	13.06	1.58	1.41
36	B2	1588	A	C2'-C1'	-13.05	1.39	1.53
85	A5	2065	G	C2'-C1'	-13.04	1.39	1.53
36	B2	1079	C	O4'-C1'	13.04	1.58	1.41
85	A5	83	C	O4'-C1'	13.04	1.58	1.41
85	A5	4057	C	C2'-C1'	-13.03	1.39	1.53
36	B2	199	C	O4'-C1'	13.02	1.58	1.41
36	B2	1551	U	C2'-C1'	-13.02	1.39	1.53
36	B2	1720	U	C2'-C1'	13.02	1.67	1.53
85	A5	1521	C	O4'-C1'	13.02	1.58	1.41
85	A5	4139	G	C2'-C1'	-13.02	1.39	1.53
85	A5	1789	C	O4'-C1'	13.01	1.58	1.41
36	B2	1236	G	O4'-C1'	-13.01	1.24	1.41
58	CW	71	ARG	CB-CG	13.00	1.87	1.52
36	B2	1126	G	C2'-C1'	-13.00	1.39	1.53
36	B2	1605	G	C2'-C1'	-13.00	1.39	1.53
85	A5	304	C	O4'-C1'	13.00	1.58	1.41
85	A5	178	C	O4'-C1'	12.99	1.58	1.41
85	A5	1596	U	C2'-C1'	-12.98	1.39	1.53
85	A5	3750	G	C2'-C1'	-12.98	1.39	1.53
36	B2	1394	G	C2'-C1'	-12.98	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	929	A	C2'-C1'	-12.98	1.39	1.53
85	A5	4634	U	C2'-C1'	-12.98	1.39	1.53
36	B2	1261	C	O4'-C1'	12.98	1.58	1.41
85	A5	3814	U	C2'-C1'	-12.97	1.39	1.53
85	A5	79	C	O4'-C1'	12.97	1.58	1.41
85	A5	107	G	C2'-C1'	-12.96	1.39	1.53
85	A5	2592	U	C2'-C1'	-12.97	1.39	1.53
85	A5	2727	C	C2'-C1'	-12.96	1.39	1.53
85	A5	4886	C	C2'-C1'	-12.96	1.39	1.53
85	A5	167	C	O4'-C1'	12.95	1.58	1.41
85	A5	696	C	O4'-C1'	12.95	1.58	1.41
85	A5	2860	C	O4'-C1'	12.94	1.58	1.41
85	A5	3804	G	C2'-C1'	-12.94	1.39	1.53
85	A5	1884	C	O4'-C1'	12.94	1.58	1.41
85	A5	2761	U	C2'-C1'	-12.94	1.39	1.53
36	B2	1688	C	O4'-C1'	12.93	1.58	1.41
36	B2	1695	A	O4'-C1'	12.93	1.58	1.41
85	A5	2255	C	O4'-C1'	12.92	1.58	1.41
85	A5	4140	C	O4'-C1'	12.91	1.58	1.41
85	A5	1995	G	C2'-C1'	-12.91	1.39	1.53
85	A5	3873	G	C2'-C1'	-12.91	1.39	1.53
85	A5	2317	C	O4'-C1'	12.90	1.58	1.41
85	A5	1556	C	O4'-C1'	12.90	1.58	1.41
86	A7	30	C	O4'-C1'	12.90	1.58	1.41
36	B2	1520	G	C2'-C1'	-12.89	1.39	1.53
85	A5	2437	C	O4'-C1'	12.89	1.58	1.41
35	Ah	294	LYS	C-N	-12.88	1.04	1.34
85	A5	1614	C	O4'-C1'	12.88	1.58	1.41
85	A5	1810	G	C2'-C1'	-12.88	1.39	1.53
85	A5	2105	A	C2'-C1'	-12.88	1.39	1.53
85	A5	4116	C	O4'-C1'	12.88	1.58	1.41
85	A5	1414	C	O4'-C1'	12.87	1.58	1.41
85	A5	1342	A	O4'-C1'	12.87	1.58	1.41
85	A5	2469	C	C2'-C1'	12.87	1.67	1.53
85	A5	2753	G	C2'-C1'	-12.87	1.39	1.53
85	A5	421	C	C2'-C1'	-12.86	1.39	1.53
36	B2	1091	C	O4'-C1'	12.86	1.58	1.41
85	A5	364	G	O4'-C1'	12.86	1.58	1.41
85	A5	3722	G	C2'-C1'	-12.85	1.39	1.53
36	B2	549	C	O4'-C1'	12.85	1.58	1.41
36	B2	1568	C	O4'-C1'	12.85	1.58	1.41
36	B2	697	G	O4'-C1'	12.84	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	989	C	O4'-C1'	12.84	1.58	1.41
36	B2	1798	C	C2'-C1'	-12.84	1.39	1.53
87	A8	148	A	O4'-C1'	12.84	1.58	1.41
87	A8	118	C	O4'-C1'	12.83	1.58	1.41
85	A5	4411	G	O4'-C1'	12.83	1.58	1.41
85	A5	3632	C	O4'-C1'	12.83	1.58	1.41
85	A5	4038	C	O4'-C1'	12.82	1.58	1.41
85	A5	1599	A	C2'-C1'	-12.82	1.39	1.53
36	B2	730	C	C2'-C1'	-12.82	1.39	1.53
85	A5	4502	C	O4'-C1'	12.82	1.58	1.41
85	A5	5031	G	C2'-C1'	-12.82	1.39	1.53
85	A5	3792	G	C2'-C1'	-12.81	1.39	1.53
36	B2	1544	C	O4'-C1'	12.81	1.58	1.41
85	A5	2629	C	O4'-C1'	12.80	1.58	1.41
85	A5	1303	A	O4'-C1'	12.80	1.58	1.41
85	A5	2400	G	C2'-C1'	-12.79	1.39	1.53
87	A8	54	C	O4'-C1'	12.79	1.58	1.41
85	A5	647	G	O4'-C1'	12.79	1.58	1.41
85	A5	700	G	C2'-C1'	-12.79	1.39	1.53
85	A5	1686	C	O4'-C1'	12.78	1.58	1.41
36	B2	194	C	O4'-C1'	12.77	1.58	1.41
85	A5	3931	C	O4'-C1'	12.77	1.58	1.41
85	A5	472	C	O4'-C1'	12.77	1.58	1.41
85	A5	931	C	O4'-C1'	-12.77	1.25	1.41
85	A5	4047	A	O4'-C1'	12.76	1.58	1.41
85	A5	3751	G	C2'-C1'	-12.76	1.39	1.53
85	A5	4904	G	C2'-C1'	-12.76	1.39	1.53
85	A5	1463	C	O4'-C1'	12.76	1.58	1.41
85	A5	1798	G	C2'-C1'	-12.74	1.39	1.53
36	B2	1843	G	C2'-C1'	-12.73	1.39	1.53
85	A5	2329	U	C2'-C1'	-12.73	1.39	1.53
36	B2	80	G	O4'-C1'	12.73	1.58	1.41
85	A5	2800	G	C2'-C1'	-12.73	1.39	1.53
85	A5	3636	C	C2'-C1'	-12.73	1.39	1.53
85	A5	345	C	O4'-C1'	12.73	1.58	1.41
85	A5	6	C	O4'-C1'	12.72	1.58	1.41
36	B2	1862	G	O4'-C1'	12.72	1.58	1.41
85	A5	133	C	C2'-C1'	-12.71	1.39	1.53
85	A5	486	C	O4'-C1'	12.71	1.58	1.41
85	A5	1478	C	C2'-C1'	-12.71	1.39	1.53
85	A5	1673	U	O4'-C1'	12.71	1.58	1.41
85	A5	2409	U	O4'-C1'	12.70	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	857	U	C2'-C1'	-12.70	1.39	1.53
85	A5	391	U	C2'-C1'	-12.70	1.39	1.53
85	A5	2053	C	C2'-C1'	-12.70	1.39	1.53
36	B2	291	G	C2'-C1'	-12.69	1.39	1.53
85	A5	4586	G	C2'-C1'	-12.69	1.39	1.53
85	A5	148	C	C2'-C1'	-12.69	1.39	1.53
85	A5	4226	G	C2'-C1'	-12.69	1.39	1.53
85	A5	4603	C	O4'-C1'	12.69	1.58	1.41
85	A5	4489	G	O4'-C1'	12.69	1.58	1.41
85	A5	239	C	C2'-C1'	-12.68	1.39	1.53
85	A5	1517	G	C2'-C1'	-12.68	1.39	1.53
36	B2	735	C	O4'-C1'	12.68	1.58	1.41
85	A5	2086	G	C2'-C1'	-12.68	1.39	1.53
85	A5	332	C	O4'-C1'	12.67	1.58	1.41
36	B2	1164	G	C2'-C1'	-12.67	1.39	1.53
85	A5	4866	C	C2'-C1'	-12.67	1.39	1.53
36	B2	334	C	O4'-C1'	12.66	1.58	1.41
85	A5	1726	U	O4'-C1'	12.65	1.58	1.41
36	B2	283	G	C2'-C1'	-12.65	1.39	1.53
85	A5	205	C	C2'-C1'	-12.64	1.39	1.53
36	B2	656	G	C2'-C1'	-12.63	1.39	1.53
85	A5	134	G	O4'-C1'	12.63	1.58	1.41
85	A5	1995	G	O4'-C1'	12.63	1.58	1.41
85	A5	1340	C	O4'-C1'	12.62	1.58	1.41
85	A5	4421	C	O4'-C1'	12.62	1.58	1.41
36	B2	792	C	O4'-C1'	12.62	1.58	1.41
63	CB	298	LEU	CA-C	12.61	1.85	1.52
85	A5	1854	G	O4'-C1'	12.61	1.58	1.41
85	A5	1900	C	C2'-C1'	-12.61	1.39	1.53
85	A5	304	C	C2'-C1'	-12.61	1.39	1.53
36	B2	1455	A	O4'-C1'	12.61	1.58	1.41
36	B2	1117	C	O4'-C1'	-12.60	1.25	1.41
85	A5	410	A	C2'-C1'	-12.60	1.39	1.53
85	A5	422	C	O4'-C1'	12.60	1.58	1.41
85	A5	2787	A	O4'-C1'	-12.60	1.25	1.41
85	A5	1535	C	C2'-C1'	-12.60	1.39	1.53
36	B2	494	C	O4'-C1'	12.59	1.58	1.41
36	B2	985	G	C2'-C1'	-12.59	1.39	1.53
85	A5	1353	G	C2'-C1'	-12.59	1.39	1.53
85	A5	4053	A	C2'-C1'	-12.59	1.39	1.53
36	B2	556	U	C2'-C1'	-12.58	1.39	1.53
36	B2	1792	G	C2'-C1'	-12.58	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1662	C	C2'-C1'	-12.58	1.39	1.53
86	A7	19	C	O4'-C1'	12.57	1.57	1.41
86	A7	85	G	C2'-C1'	-12.57	1.39	1.53
36	B2	1716	C	O4'-C1'	12.56	1.57	1.41
85	A5	81	C	O4'-C1'	12.55	1.57	1.41
85	A5	902	C	O4'-C1'	12.55	1.57	1.41
85	A5	469	C	C2'-C1'	-12.55	1.39	1.53
36	B2	1440	C	C2'-C1'	-12.54	1.39	1.53
85	A5	2455	G	O4'-C1'	12.54	1.57	1.41
85	A5	4643	G	C2'-C1'	-12.54	1.39	1.53
36	B2	48	C	O4'-C1'	12.54	1.57	1.41
36	B2	1330	G	C2'-C1'	-12.54	1.39	1.53
36	B2	155	G	C2'-C1'	-12.53	1.39	1.53
36	B2	977	C	O4'-C1'	12.52	1.57	1.41
36	B2	1263	U	O4'-C1'	12.52	1.57	1.41
85	A5	3745	U	O4'-C1'	12.52	1.57	1.41
36	B2	1511	U	O4'-C1'	12.51	1.57	1.41
85	A5	3880	G	C2'-C1'	-12.51	1.39	1.53
37	BC	55	C	C2'-C1'	-12.51	1.39	1.53
81	CE	36	LYS	CA-C	12.50	1.85	1.52
85	A5	4078	C	O4'-C1'	12.50	1.57	1.41
36	B2	802	A	C2'-C1'	-12.50	1.39	1.53
85	A5	1076	C	O4'-C1'	12.49	1.57	1.41
85	A5	3782	C	O4'-C1'	12.49	1.57	1.41
85	A5	236	G	C2'-C1'	-12.49	1.39	1.53
85	A5	1246	G	O4'-C1'	12.49	1.57	1.41
85	A5	2067	C	O4'-C1'	12.49	1.57	1.41
17	AV	31	SER	CA-C	12.48	1.85	1.52
85	A5	4432	C	O4'-C1'	12.48	1.57	1.41
85	A5	1432	G	C2'-C1'	-12.48	1.39	1.53
36	B2	745	C	C2'-C1'	-12.48	1.39	1.53
36	B2	911	C	C2'-C1'	-12.47	1.39	1.53
85	A5	234	G	O4'-C1'	-12.47	1.25	1.41
85	A5	1079	C	O4'-C1'	12.46	1.57	1.41
85	A5	1298	C	C2'-C1'	-12.47	1.39	1.53
85	A5	2664	G	C2'-C1'	-12.47	1.39	1.53
85	A5	650	C	O4'-C1'	12.46	1.57	1.41
36	B2	1169	G	C2'-C1'	-12.46	1.39	1.53
85	A5	1290	G	C2'-C1'	-12.46	1.39	1.53
85	A5	1624	G	C2'-C1'	-12.46	1.39	1.53
36	B2	1067	C	C2'-C1'	-12.45	1.39	1.53
36	B2	1682	C	O4'-C1'	12.45	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1600	A	O4'-C1'	12.45	1.57	1.41
85	A5	2866	C	O4'-C1'	12.45	1.57	1.41
85	A5	356	G	C2'-C1'	-12.45	1.39	1.53
85	A5	1587	G	O4'-C1'	12.45	1.57	1.41
86	A7	24	C	C2'-C1'	-12.45	1.39	1.53
85	A5	4884	G	C2'-C1'	-12.44	1.39	1.53
37	BC	3	C	O4'-C1'	12.44	1.57	1.41
36	B2	1083	A	C2'-C1'	-12.44	1.39	1.53
85	A5	4206	C	O4'-C1'	12.43	1.57	1.41
36	B2	492	C	O4'-C1'	12.42	1.57	1.41
85	A5	4929	C	C2'-C1'	-12.42	1.39	1.53
86	A7	1	G	O4'-C1'	12.42	1.57	1.41
85	A5	2497	C	O4'-C1'	12.42	1.57	1.41
85	A5	1086	C	O4'-C1'	12.42	1.57	1.41
85	A5	4508	C	O4'-C1'	12.41	1.57	1.41
85	A5	278	G	O4'-C1'	12.41	1.57	1.41
85	A5	1867	A	O4'-C1'	12.40	1.57	1.41
85	A5	1540	C	C2'-C1'	-12.40	1.39	1.53
85	A5	1535	C	O4'-C1'	12.40	1.57	1.41
85	A5	1219	G	C2'-C1'	-12.40	1.39	1.53
85	A5	4951	G	C2'-C1'	-12.39	1.39	1.53
36	B2	748	C	O4'-C1'	12.39	1.57	1.41
47	CI	4	ARG	C-N	12.39	1.57	1.34
85	A5	2015	U	O4'-C1'	12.39	1.57	1.41
36	B2	1266	C	C2'-C1'	-12.38	1.39	1.53
85	A5	447	C	C2'-C1'	-12.38	1.39	1.53
85	A5	2258	C	C2'-C1'	-12.38	1.39	1.53
85	A5	1250	C	C2'-C1'	-12.38	1.39	1.53
85	A5	1254	A	C2'-C1'	-12.38	1.39	1.53
36	B2	1380	C	C2'-C1'	-12.37	1.39	1.53
85	A5	910	G	C2'-C1'	-12.37	1.39	1.53
85	A5	2294	G	C2'-C1'	-12.37	1.39	1.53
36	B2	660	C	O4'-C1'	12.37	1.57	1.41
85	A5	3698	G	C2'-C1'	-12.37	1.39	1.53
85	A5	351	C	O4'-C1'	12.37	1.57	1.41
36	B2	64	A	O4'-C1'	-12.36	1.25	1.41
85	A5	4562	C	C2'-C1'	-12.36	1.39	1.53
36	B2	648	A	C2'-C1'	-12.36	1.39	1.53
85	A5	4614	G	C2'-C1'	-12.35	1.39	1.53
85	A5	1555	G	C2'-C1'	-12.35	1.39	1.53
36	B2	632	C	C2'-C1'	-12.35	1.39	1.53
85	A5	2087	C	O4'-C1'	12.35	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	3622	C	O4'-C1'	12.34	1.57	1.41
85	A5	3638	G	C2'-C1'	-12.34	1.39	1.53
36	B2	750	C	O4'-C1'	12.34	1.57	1.41
86	A7	52	C	O4'-C1'	12.34	1.57	1.41
85	A5	194	C	C2'-C1'	-12.34	1.39	1.53
36	B2	752	G	C2'-C1'	-12.33	1.39	1.53
85	A5	2323	C	O4'-C1'	12.33	1.57	1.41
81	CE	37	PRO	N-CA	12.33	1.68	1.47
85	A5	460	C	O4'-C1'	12.33	1.57	1.41
36	B2	1637	A	C2'-C1'	12.33	1.67	1.53
85	A5	1419	G	O4'-C1'	12.32	1.57	1.41
85	A5	4546	A	O4'-C1'	12.32	1.57	1.41
36	B2	1326	U	O4'-C1'	12.32	1.57	1.41
85	A5	163	A	C2'-C1'	-12.32	1.39	1.53
85	A5	422	C	C2'-C1'	-12.32	1.39	1.53
85	A5	326	C	O4'-C1'	12.31	1.57	1.41
85	A5	1315	C	O4'-C1'	12.31	1.57	1.41
85	A5	1935	C	O4'-C1'	12.31	1.57	1.41
36	B2	1537	A	O4'-C1'	12.30	1.57	1.41
85	A5	371	A	O4'-C1'	12.30	1.57	1.41
85	A5	4905	C	O4'-C1'	12.30	1.57	1.41
85	A5	1384	C	O4'-C1'	12.29	1.57	1.41
85	A5	1430	C	O4'-C1'	12.29	1.57	1.41
36	B2	621	C	C2'-C1'	-12.29	1.39	1.53
85	A5	2422	C	O4'-C1'	12.28	1.57	1.41
85	A5	481	G	C2'-C1'	-12.28	1.39	1.53
85	A5	4261	C	C2'-C1'	-12.28	1.39	1.53
85	A5	421	C	O4'-C1'	12.27	1.57	1.41
85	A5	1102	U	C2'-C1'	12.27	1.66	1.53
85	A5	302	C	O4'-C1'	12.27	1.57	1.41
36	B2	755	C	O4'-C1'	12.26	1.57	1.41
85	A5	4070	U	O4'-C1'	12.26	1.57	1.41
36	B2	1316	C	C2'-C1'	-12.26	1.39	1.53
85	A5	1288	G	O4'-C1'	12.26	1.57	1.41
36	B2	1342	U	O4'-C1'	12.26	1.57	1.41
85	A5	4375	C	O4'-C1'	12.25	1.57	1.41
36	B2	1006	C	C2'-C1'	-12.25	1.39	1.53
85	A5	1644	C	C2'-C1'	-12.25	1.39	1.53
36	B2	201	C	O4'-C1'	12.25	1.57	1.41
85	A5	245	C	O4'-C1'	-12.25	1.25	1.41
85	A5	4662	C	C2'-C1'	-12.24	1.39	1.53
85	A5	1362	G	O4'-C1'	12.24	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4342	C	O4'-C1'	12.23	1.57	1.41
36	B2	1265	A	C2'-C1'	-12.23	1.40	1.53
85	A5	1343	A	O4'-C1'	12.23	1.57	1.41
85	A5	168	C	O4'-C1'	12.22	1.57	1.41
85	A5	476	G	C2'-C1'	-12.22	1.40	1.53
85	A5	934	C	O4'-C1'	12.22	1.57	1.41
87	A8	116	C	O4'-C1'	12.22	1.57	1.41
36	B2	1226	G	O4'-C1'	12.22	1.57	1.41
36	B2	1007	C	C2'-C1'	-12.21	1.40	1.53
87	A8	100	U	O4'-C1'	12.20	1.57	1.41
85	A5	1451	G	C2'-C1'	-12.20	1.40	1.53
37	BC	60	C	C2'-C1'	-12.20	1.40	1.53
85	A5	2455	G	C2'-C1'	-12.20	1.40	1.53
85	A5	2412	A	C2'-C1'	-12.19	1.40	1.53
85	A5	1794	A	O4'-C1'	12.19	1.57	1.41
36	B2	379	C	C2'-C1'	-12.19	1.40	1.53
85	A5	4257	A	O4'-C1'	12.19	1.57	1.41
85	A5	1402	C	O4'-C1'	12.19	1.57	1.41
36	B2	34	U	C2'-C1'	-12.18	1.40	1.53
85	A5	1336	G	C2'-C1'	-12.18	1.40	1.53
85	A5	1573	G	C2'-C1'	-12.18	1.40	1.53
36	B2	1070	A	C2'-C1'	-12.17	1.40	1.53
85	A5	3587	C	C2'-C1'	-12.17	1.40	1.53
85	A5	4461	C	O4'-C1'	12.17	1.57	1.41
85	A5	2058	G	O4'-C1'	12.17	1.57	1.41
85	A5	2653	C	O4'-C1'	12.17	1.57	1.41
36	B2	1304	U	C2'-C1'	-12.16	1.40	1.53
85	A5	1688	G	C2'-C1'	-12.16	1.40	1.53
85	A5	1915	C	C2'-C1'	-12.16	1.40	1.53
85	A5	2014	C	O4'-C1'	12.16	1.57	1.41
81	CE	102	GLY	C-N	12.16	1.54	1.33
85	A5	737	C	C2'-C1'	-12.16	1.40	1.53
36	B2	1547	C	C2'-C1'	-12.16	1.40	1.53
86	A7	102	U	O4'-C1'	12.15	1.57	1.41
36	B2	532	C	O4'-C1'	12.15	1.57	1.41
85	A5	4408	G	C2'-C1'	-12.15	1.40	1.53
36	B2	633	C	O4'-C1'	12.15	1.57	1.41
85	A5	2249	C	O4'-C1'	12.15	1.57	1.41
85	A5	4176	C	O4'-C1'	12.14	1.57	1.41
36	B2	974	C	C2'-C1'	-12.14	1.40	1.53
85	A5	1777	C	O4'-C1'	12.13	1.57	1.41
85	A5	2870	A	O4'-C1'	12.13	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2898	G	C2'-C1'	-12.13	1.40	1.53
85	A5	1585	C	O4'-C1'	12.13	1.57	1.41
85	A5	2271	C	O4'-C1'	12.12	1.57	1.41
85	A5	4115	G	C2'-C1'	-12.12	1.40	1.53
85	A5	4900	C	C2'-C1'	-12.12	1.40	1.53
85	A5	1532	G	O4'-C1'	12.12	1.57	1.41
36	B2	1739	C	O4'-C1'	12.12	1.57	1.41
85	A5	1371	A	O4'-C1'	12.12	1.57	1.41
36	B2	873	G	C2'-C1'	-12.11	1.40	1.53
85	A5	981	C	O4'-C1'	12.11	1.57	1.41
85	A5	2727	C	O4'-C1'	12.11	1.57	1.41
85	A5	2647	A	O4'-C1'	12.10	1.57	1.41
85	A5	3598	C	O4'-C1'	12.10	1.57	1.41
36	B2	1266	C	O4'-C1'	12.09	1.57	1.41
36	B2	1655	C	O4'-C1'	12.09	1.57	1.41
85	A5	4944	C	C2'-C1'	-12.09	1.40	1.53
36	B2	1118	C	C2'-C1'	12.09	1.66	1.53
36	B2	1584	G	C2'-C1'	-12.09	1.40	1.53
59	CZ	136	PHE	C-OXT	-12.09	1.00	1.23
38	Cz	217	TYR	C-O	-12.08	1.00	1.23
81	CE	288	PHE	C-O	-12.08	1.00	1.23
9	Ad	56	ASP	C-OXT	-12.08	1.00	1.23
35	Ah	303	LYS	C-O	-12.08	1.00	1.23
85	A5	4068	U	C2'-C1'	-12.08	1.40	1.53
85	A5	4706	G	O4'-C1'	12.08	1.57	1.41
36	B2	1529	C	C2'-C1'	-12.08	1.40	1.53
14	AT	144	LYS	C-O	-12.07	1.00	1.23
84	Cu	56	ALA	C-O	-12.07	1.00	1.23
29	AG	237	LEU	C-O	-12.07	1.00	1.23
35	Ah	188	ARG	C-O	-12.07	1.00	1.23
70	Ci	103	LYS	C-O	-12.07	1.00	1.23
9	Ad	56	ASP	C-O	-12.07	1.00	1.23
49	CQ	188	ASN	C-O	-12.07	1.00	1.23
67	Ce	133	GLU	C-O	-12.07	1.00	1.23
80	CH	191	ASP	C-O	-12.07	1.00	1.23
51	CA	256	GLU	C-O	-12.07	1.00	1.23
85	A5	4578	G	C2'-C1'	-12.07	1.40	1.53
7	AM	132	LYS	C-O	-12.06	1.00	1.23
30	AF	204	ARG	C-OXT	-12.06	1.00	1.23
56	CX	156	ILE	C-OXT	-12.06	1.00	1.23
60	Cr	137	SER	C-OXT	-12.06	1.00	1.23
62	Cb	79	LYS	C-O	-12.06	1.00	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
77	Cp	92	GLN	C-O	-12.06	1.00	1.23
85	A5	4662	C	O4'-C1'	12.06	1.57	1.41
64	CF	248	ASN	C-OXT	-12.06	1.00	1.23
85	A5	2320	G	C2'-C1'	-12.06	1.40	1.53
85	A5	4678	G	O4'-C1'	-12.06	1.25	1.41
6	AX	142	ARG	C-O	-12.06	1.00	1.23
21	Ab	84	HIS	C-O	-12.06	1.00	1.23
42	CL	211	LYS	C-OXT	-12.06	1.00	1.23
23	AD	227	LYS	C-O	-12.06	1.00	1.23
85	A5	4645	C	O4'-C1'	12.06	1.57	1.41
16	AA	209	GLU	C-O	-12.06	1.00	1.23
24	Ae	59	SER	C-OXT	-12.06	1.00	1.23
30	AF	204	ARG	C-O	-12.06	1.00	1.23
36	B2	56	G	C2'-C1'	-12.06	1.40	1.53
37	BC	60	C	O4'-C1'	12.06	1.57	1.41
38	Cz	217	TYR	C-OXT	-12.06	1.00	1.23
39	Cq	284	ALA	C-O	-12.06	1.00	1.23
47	CI	214	SER	C-O	-12.06	1.00	1.23
59	CZ	136	PHE	C-O	-12.06	1.00	1.23
81	CE	288	PHE	C-OXT	-12.06	1.00	1.23
85	A5	3788	C	O4'-C1'	12.06	1.57	1.41
58	CW	124	LYS	C-O	-12.06	1.00	1.23
78	Co	106	PHE	C-OXT	-12.06	1.00	1.23
85	A5	4090	G	C2'-C1'	-12.06	1.40	1.53
25	Af	152	LYS	C-O	-12.06	1.00	1.23
27	AE	263	GLY	C-OXT	-12.06	1.00	1.23
47	CI	214	SER	C-OXT	-12.06	1.00	1.23
73	Cl	5	LYS	C-N	12.05	1.61	1.34
83	Cs	63	VAL	C-O	-12.06	1.00	1.23
85	A5	1892	A	O4'-C1'	-12.06	1.25	1.41
4	AK	98	ARG	C-O	-12.05	1.00	1.23
42	CL	211	LYS	C-O	-12.05	1.00	1.23
57	CY	134	LYS	C-O	-12.05	1.00	1.23
77	Cp	92	GLN	C-OXT	-12.05	1.00	1.23
60	Cr	137	SER	C-O	-12.05	1.00	1.23
83	Ct	63	VAL	C-O	-12.05	1.00	1.23
85	A5	1278	C	O4'-C1'	12.05	1.57	1.41
10	AN	151	ALA	C-O	-12.05	1.00	1.23
48	CD	297	SER	C-O	-12.05	1.00	1.23
75	Cm	128	LYS	C-OXT	-12.05	1.00	1.23
76	Cn	25	LYS	C-O	-12.05	1.00	1.23
85	A5	1988	G	O4'-C1'	12.05	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	Ab	84	HIS	C-OXT	-12.05	1.00	1.23
28	AC	278	THR	C-O	-12.05	1.00	1.23
32	AW	130	PHE	C-O	-12.05	1.00	1.23
41	CO	203	VAL	C-O	-12.05	1.00	1.23
85	A5	1651	G	O4'-C1'	12.05	1.57	1.41
11	AL	158	PHE	C-O	-12.04	1.00	1.23
11	AL	158	PHE	C-OXT	-12.04	1.00	1.23
41	CO	203	VAL	C-OXT	-12.04	1.00	1.23
44	CM	139	SER	C-O	-12.05	1.00	1.23
49	CQ	188	ASN	C-OXT	-12.04	1.00	1.23
74	CC	371	VAL	C-O	-12.04	1.00	1.23
82	CG	266	GLY	C-OXT	-12.05	1.00	1.23
85	A5	4039	G	C2'-C1'	-12.05	1.40	1.53
85	A5	3586	G	C2'-C1'	-12.04	1.40	1.53
2	Ag	314	ILE	C-O	-12.04	1.00	1.23
24	Ae	59	SER	C-O	-12.04	1.00	1.23
31	AH	194	LEU	C-OXT	-12.04	1.00	1.23
32	AW	130	PHE	C-OXT	-12.04	1.00	1.23
36	B2	593	C	O4'-C1'	12.04	1.57	1.41
50	CR	189	SER	C-O	-12.04	1.00	1.23
56	CX	156	ILE	C-O	-12.04	1.00	1.23
66	Cd	124	GLU	C-O	-12.04	1.00	1.23
69	Cg	115	LYS	C-O	-12.04	1.00	1.23
72	Ck	70	LYS	C-O	-12.04	1.00	1.23
78	Co	106	PHE	C-O	-12.04	1.00	1.23
85	A5	1850	A	C2'-C1'	-12.04	1.40	1.53
7	AM	132	LYS	C-OXT	-12.04	1.00	1.23
22	Ac	68	LEU	C-O	-12.04	1.00	1.23
31	AH	194	LEU	C-O	-12.04	1.00	1.23
55	CU	126	ASP	C-O	-12.04	1.00	1.23
85	A5	1485	C	O4'-C1'	12.04	1.57	1.41
75	Cm	128	LYS	C-O	-12.04	1.00	1.23
85	A5	2434	G	C2'-C1'	-12.04	1.40	1.53
10	AN	151	ALA	C-OXT	-12.04	1.00	1.23
36	B2	308	G	O4'-C1'	12.04	1.57	1.41
64	CF	248	ASN	C-O	-12.03	1.00	1.23
72	Ck	70	LYS	C-OXT	-12.03	1.00	1.23
76	Cn	25	LYS	C-OXT	-12.04	1.00	1.23
85	A5	448	G	O4'-C1'	12.04	1.57	1.41
48	CD	297	SER	C-OXT	-12.03	1.00	1.23
54	CP	153	LYS	C-O	-12.03	1.00	1.23
63	CB	398	ALA	C-O	-12.03	1.00	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	Cv	56	ALA	C-O	-12.03	1.00	1.23
85	A5	4671	C	O4'-C1'	12.03	1.57	1.41
71	Cj	91	VAL	C-O	-12.03	1.00	1.23
85	A5	121	A	C2'-C1'	-12.03	1.40	1.53
85	A5	4426	C	C2'-C1'	-12.03	1.40	1.53
85	A5	3796	U	C2'-C1'	-12.03	1.40	1.53
85	A5	1902	G	O4'-C1'	12.02	1.57	1.41
37	BC	8	U	O4'-C1'	12.02	1.57	1.41
85	A5	2100	A	C2'-C1'	-12.02	1.40	1.53
36	B2	1120	U	C2'-C1'	-12.02	1.40	1.53
85	A5	1295	C	O4'-C1'	12.01	1.57	1.41
86	A7	54	A	O4'-C1'	12.01	1.57	1.41
36	B2	62	G	O4'-C1'	12.01	1.57	1.41
85	A5	4197	G	C2'-C1'	-12.01	1.40	1.53
85	A5	32	G	O4'-C1'	12.01	1.57	1.41
85	A5	462	G	C2'-C1'	-11.99	1.40	1.53
85	A5	4675	U	C2'-C1'	-11.97	1.40	1.53
36	B2	1807	C	O4'-C1'	11.97	1.57	1.41
36	B2	184	G	O4'-C1'	11.96	1.57	1.41
36	B2	328	U	C2'-C1'	-11.96	1.40	1.53
85	A5	2784	C	C2'-C1'	-11.96	1.40	1.53
85	A5	1101	C	O4'-C1'	11.96	1.57	1.41
85	A5	205	C	O4'-C1'	11.95	1.57	1.41
36	B2	1742	C	C2'-C1'	-11.95	1.40	1.53
85	A5	3862	A	O4'-C1'	11.95	1.57	1.41
36	B2	1553	C	O4'-C1'	-11.95	1.26	1.41
85	A5	271	C	O4'-C1'	11.94	1.57	1.41
85	A5	4243	C	O4'-C1'	11.94	1.57	1.41
85	A5	1812	C	O4'-C1'	11.94	1.57	1.41
26	AJ	146	SER	C-N	11.94	1.61	1.34
36	B2	1578	U	C2'-C1'	11.94	1.66	1.53
85	A5	1778	C	C2'-C1'	-11.94	1.40	1.53
85	A5	4057	C	O4'-C1'	11.94	1.57	1.41
85	A5	4736	C	O4'-C1'	11.93	1.57	1.41
85	A5	4996	C	C2'-C1'	-11.93	1.40	1.53
85	A5	340	C	O4'-C1'	11.93	1.57	1.41
85	A5	906	C	C2'-C1'	-11.93	1.40	1.53
85	A5	1812	C	C2'-C1'	-11.93	1.40	1.53
36	B2	183	G	O4'-C1'	11.92	1.57	1.41
85	A5	289	C	O4'-C1'	11.92	1.57	1.41
85	A5	1686	C	C2'-C1'	-11.92	1.40	1.53
87	A8	80	A	C2'-C1'	-11.92	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2044	U	C2'-C1'	-11.92	1.40	1.53
36	B2	608	C	O4'-C1'	11.91	1.57	1.41
85	A5	4270	C	O4'-C1'	11.91	1.57	1.41
85	A5	4528	G	O4'-C1'	11.91	1.57	1.41
85	A5	2820	C	O4'-C1'	11.91	1.57	1.41
36	B2	674	C	C2'-C1'	-11.90	1.40	1.53
85	A5	1489	G	C2'-C1'	-11.90	1.40	1.53
85	A5	2665	U	O4'-C1'	11.90	1.57	1.41
36	B2	311	C	O4'-C1'	11.90	1.57	1.41
85	A5	679	C	O4'-C1'	11.90	1.57	1.41
85	A5	1987	C	O4'-C1'	11.89	1.57	1.41
85	A5	3899	G	O4'-C1'	11.89	1.57	1.41
85	A5	1696	C	O4'-C1'	11.89	1.57	1.41
87	A8	5	U	C2'-C1'	-11.89	1.40	1.53
85	A5	3623	C	O4'-C1'	11.89	1.57	1.41
85	A5	3699	C	O4'-C1'	11.87	1.57	1.41
85	A5	2850	A	C2'-C1'	-11.87	1.40	1.53
85	A5	4321	U	C2'-C1'	-11.87	1.40	1.53
85	A5	5052	C	C2'-C1'	-11.87	1.40	1.53
85	A5	2866	C	C2'-C1'	-11.87	1.40	1.53
85	A5	4446	U	C2'-C1'	-11.86	1.40	1.53
85	A5	2878	G	C2'-C1'	-11.86	1.40	1.53
85	A5	3727	A	O4'-C1'	11.86	1.57	1.41
85	A5	2853	C	C2'-C1'	-11.86	1.40	1.53
85	A5	4134	C	O4'-C1'	11.86	1.57	1.41
85	A5	3882	C	O4'-C1'	11.86	1.57	1.41
36	B2	622	C	O4'-C1'	11.85	1.57	1.41
36	B2	1013	U	C2'-C1'	-11.85	1.40	1.53
36	B2	1408	U	C2'-C1'	-11.85	1.40	1.53
85	A5	1370	G	C2'-C1'	11.85	1.66	1.53
85	A5	4046	A	C2'-C1'	-11.85	1.40	1.53
85	A5	4504	C	O4'-C1'	11.85	1.57	1.41
36	B2	285	U	O4'-C1'	11.85	1.57	1.41
85	A5	1589	C	O4'-C1'	11.85	1.57	1.41
85	A5	1645	C	C2'-C1'	-11.85	1.40	1.53
85	A5	4455	G	C2'-C1'	-11.85	1.40	1.53
81	CE	115	TYR	C-N	11.84	1.61	1.34
85	A5	939	G	O4'-C1'	11.84	1.57	1.41
36	B2	731	G	C2'-C1'	-11.84	1.40	1.53
85	A5	699	C	O4'-C1'	11.83	1.57	1.41
36	B2	18	C	O4'-C1'	11.82	1.57	1.41
85	A5	335	A	O4'-C1'	11.82	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	3816	A	C2'-C1'	-11.82	1.40	1.53
36	B2	475	C	O4'-C1'	11.82	1.57	1.41
85	A5	1520	C	C2'-C1'	-11.82	1.40	1.53
85	A5	1870	C	O4'-C1'	11.82	1.57	1.41
85	A5	2074	C	O4'-C1'	11.81	1.57	1.41
85	A5	4199	C	O4'-C1'	11.81	1.57	1.41
85	A5	2825	A	C2'-C1'	-11.81	1.40	1.53
85	A5	1436	C	O4'-C1'	11.80	1.56	1.41
85	A5	2486	G	C2'-C1'	-11.80	1.40	1.53
85	A5	3708	C	C2'-C1'	-11.80	1.40	1.53
85	A5	2899	C	O4'-C1'	11.80	1.56	1.41
85	A5	4443	C	O4'-C1'	11.80	1.56	1.41
36	B2	1327	G	C2'-C1'	-11.79	1.40	1.53
85	A5	1103	C	O4'-C1'	11.79	1.56	1.41
85	A5	4052	C	O4'-C1'	11.79	1.56	1.41
85	A5	697	G	C2'-C1'	-11.79	1.40	1.53
85	A5	4168	G	C2'-C1'	-11.79	1.40	1.53
36	B2	1391	C	O4'-C1'	11.79	1.56	1.41
87	A8	47	C	O4'-C1'	11.79	1.56	1.41
36	B2	911	C	O4'-C1'	11.78	1.56	1.41
85	A5	1629	G	O4'-C1'	11.78	1.56	1.41
87	A8	113	C	O4'-C1'	11.78	1.56	1.41
37	BC	49	A	C2'-C1'	-11.77	1.40	1.53
85	A5	220	C	O4'-C1'	11.77	1.56	1.41
85	A5	1455	G	C2'-C1'	-11.76	1.40	1.53
85	A5	4734	A	C2'-C1'	-11.76	1.40	1.53
85	A5	1504	G	C2'-C1'	-11.76	1.40	1.53
85	A5	4611	A	C2'-C1'	-11.76	1.40	1.53
56	CX	53	ARG	C-N	11.76	1.61	1.34
85	A5	3712	A	O4'-C1'	-11.76	1.26	1.41
36	B2	67	C	C2'-C1'	11.76	1.66	1.53
85	A5	423	G	C2'-C1'	-11.75	1.40	1.53
85	A5	2662	G	C2'-C1'	-11.75	1.40	1.53
85	A5	1666	C	O4'-C1'	11.75	1.56	1.41
85	A5	3592	G	C2'-C1'	-11.75	1.40	1.53
86	A7	80	U	C2'-C1'	-11.74	1.40	1.53
37	BC	44	G	C2'-C1'	-11.74	1.40	1.53
85	A5	5052	C	O4'-C1'	11.73	1.56	1.41
36	B2	579	C	O4'-C1'	11.72	1.56	1.41
36	B2	1794	C	O4'-C1'	11.72	1.56	1.41
36	B2	563	G	O4'-C1'	11.72	1.56	1.41
85	A5	951	G	C2'-C1'	-11.72	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1994	C	C2'-C1'	-11.72	1.40	1.53
36	B2	48	C	C2'-C1'	-11.71	1.40	1.53
36	B2	555	A	O4'-C1'	11.71	1.56	1.41
36	B2	1064	C	O4'-C1'	11.71	1.56	1.41
85	A5	4615	C	O4'-C1'	11.71	1.56	1.41
85	A5	2410	C	O4'-C1'	11.71	1.56	1.41
36	B2	975	G	C2'-C1'	-11.70	1.40	1.53
85	A5	2317	C	C2'-C1'	-11.70	1.40	1.53
36	B2	335	G	O4'-C1'	-11.70	1.26	1.41
36	B2	868	G	O4'-C1'	11.70	1.56	1.41
36	B2	481	C	C2'-C1'	-11.69	1.40	1.53
36	B2	1199	A	C2'-C1'	-11.69	1.40	1.53
85	A5	1413	C	O4'-C1'	11.69	1.56	1.41
85	A5	4710	C	C2'-C1'	-11.69	1.40	1.53
37	BC	45	G	O4'-C1'	11.68	1.56	1.41
85	A5	4945	G	C2'-C1'	-11.68	1.40	1.53
36	B2	1633	A	O4'-C1'	11.68	1.56	1.41
1	Az	269	ALA	C-N	11.67	1.60	1.34
36	B2	1432	U	O4'-C1'	11.67	1.56	1.41
85	A5	4125	C	C2'-C1'	-11.67	1.40	1.53
36	B2	680	G	C2'-C1'	-11.67	1.40	1.53
85	A5	2736	G	C2'-C1'	-11.67	1.40	1.53
85	A5	4714	C	O4'-C1'	11.67	1.56	1.41
85	A5	903	C	O4'-C1'	11.67	1.56	1.41
85	A5	4051	C	O4'-C1'	11.67	1.56	1.41
85	A5	5063	G	C2'-C1'	-11.66	1.40	1.53
36	B2	406	U	C2'-C1'	-11.66	1.40	1.53
36	B2	1264	C	C2'-C1'	-11.66	1.40	1.53
85	A5	406	C	O4'-C1'	11.66	1.56	1.41
81	CE	74	SER	N-CA	-11.65	1.23	1.46
85	A5	4156	G	O4'-C1'	-11.65	1.26	1.41
85	A5	504	G	O4'-C1'	11.64	1.56	1.41
85	A5	967	C	O4'-C1'	11.64	1.56	1.41
85	A5	2779	C	O4'-C1'	11.64	1.56	1.41
85	A5	90	G	O4'-C1'	11.64	1.56	1.41
85	A5	1480	C	O4'-C1'	11.64	1.56	1.41
85	A5	1186	U	C2'-C1'	11.64	1.66	1.53
85	A5	4640	C	C2'-C1'	-11.64	1.40	1.53
85	A5	3869	C	O4'-C1'	11.63	1.56	1.41
36	B2	677	G	C2'-C1'	-11.63	1.40	1.53
85	A5	1721	G	C2'-C1'	-11.63	1.40	1.53
85	A5	719	C	O4'-C1'	11.63	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
87	A8	49	G	O4'-C1'	11.63	1.56	1.41
36	B2	559	G	C2'-C1'	-11.62	1.40	1.53
85	A5	3794	C	O4'-C1'	11.63	1.56	1.41
37	BC	56	G	O4'-C1'	11.62	1.56	1.41
85	A5	2504	C	O4'-C1'	11.62	1.56	1.41
85	A5	3739	C	O4'-C1'	11.62	1.56	1.41
85	A5	3775	A	O4'-C1'	-11.62	1.26	1.41
85	A5	2733	C	O4'-C1'	11.62	1.56	1.41
85	A5	2753	G	O4'-C1'	11.62	1.56	1.41
85	A5	1832	C	C2'-C1'	-11.61	1.40	1.53
85	A5	4456	C	O4'-C1'	11.61	1.56	1.41
85	A5	3650	C	O4'-C1'	11.61	1.56	1.41
85	A5	1884	C	C2'-C1'	-11.61	1.40	1.53
85	A5	69	A	C2'-C1'	-11.61	1.40	1.53
85	A5	1878	G	C2'-C1'	-11.61	1.40	1.53
36	B2	549	C	C2'-C1'	-11.60	1.40	1.53
85	A5	3969	G	C2'-C1'	-11.60	1.40	1.53
36	B2	649	U	C2'-C1'	-11.60	1.40	1.53
85	A5	1483	C	C2'-C1'	-11.60	1.40	1.53
85	A5	93	G	C2'-C1'	-11.59	1.40	1.53
36	B2	749	U	O4'-C1'	11.59	1.56	1.41
85	A5	390	C	O4'-C1'	11.59	1.56	1.41
85	A5	4974	C	O4'-C1'	11.59	1.56	1.41
85	A5	1485	C	C2'-C1'	-11.56	1.40	1.53
85	A5	4749	C	C2'-C1'	11.56	1.66	1.53
36	B2	910	G	C2'-C1'	-11.56	1.40	1.53
36	B2	417	C	O4'-C1'	11.55	1.56	1.41
36	B2	599	A	C2'-C1'	-11.55	1.40	1.53
36	B2	837	A	C2'-C1'	-11.55	1.40	1.53
85	A5	2131	C	C2'-C1'	-11.55	1.40	1.53
85	A5	1420	A	C2'-C1'	-11.55	1.40	1.53
36	B2	692	G	C2'-C1'	-11.53	1.40	1.53
85	A5	3732	A	C2'-C1'	-11.53	1.40	1.53
36	B2	855	G	C2'-C1'	-11.53	1.40	1.53
86	A7	99	G	O4'-C1'	11.53	1.56	1.41
85	A5	358	C	C2'-C1'	-11.52	1.40	1.53
36	B2	678	U	C2'-C1'	-11.52	1.40	1.53
36	B2	616	A	O4'-C1'	11.52	1.56	1.41
85	A5	753	C	C2'-C1'	-11.52	1.40	1.53
36	B2	1118	C	O4'-C1'	-11.51	1.26	1.41
37	BC	11	C	O4'-C1'	11.51	1.56	1.41
36	B2	809	A	C2'-C1'	-11.51	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4676	G	O4'-C1'	11.51	1.56	1.41
85	A5	3924	C	C2'-C1'	-11.50	1.40	1.53
85	A5	465	G	C2'-C1'	-11.50	1.40	1.53
8	AS	141	ARG	C-N	11.50	1.60	1.34
85	A5	3823	G	O4'-C1'	11.50	1.56	1.41
85	A5	2658	G	C2'-C1'	-11.50	1.40	1.53
85	A5	4546	A	C2'-C1'	-11.50	1.40	1.53
85	A5	972	C	C2'-C1'	11.49	1.66	1.53
36	B2	1703	C	O4'-C1'	11.49	1.56	1.41
37	BC	10	G	O4'-C1'	11.48	1.56	1.41
85	A5	2280	G	C2'-C1'	-11.48	1.40	1.53
85	A5	2603	C	O4'-C1'	11.48	1.56	1.41
36	B2	1737	G	O4'-C1'	11.47	1.56	1.41
85	A5	316	U	O4'-C1'	11.47	1.56	1.41
85	A5	406	C	C2'-C1'	-11.47	1.40	1.53
85	A5	3699	C	C2'-C1'	-11.47	1.40	1.53
85	A5	1841	C	O4'-C1'	-11.46	1.26	1.41
85	A5	2768	C	O4'-C1'	11.46	1.56	1.41
85	A5	3899	G	C2'-C1'	-11.46	1.40	1.53
85	A5	4916	G	C2'-C1'	-11.46	1.40	1.53
85	A5	2602	G	C2'-C1'	-11.45	1.40	1.53
85	A5	5001	U	C2'-C1'	-11.45	1.40	1.53
86	A7	22	A	O4'-C1'	11.45	1.56	1.41
85	A5	1787	A	O4'-C1'	11.44	1.56	1.41
85	A5	2365	C	O4'-C1'	11.44	1.56	1.41
85	A5	419	A	C2'-C1'	-11.44	1.40	1.53
36	B2	1185	C	O4'-C1'	11.44	1.56	1.41
85	A5	2080	U	C2'-C1'	-11.44	1.40	1.53
85	A5	2738	C	O4'-C1'	11.44	1.56	1.41
85	A5	2443	G	C2'-C1'	-11.44	1.40	1.53
85	A5	4300	U	C2'-C1'	-11.44	1.40	1.53
85	A5	4387	C	O4'-C1'	11.43	1.56	1.41
85	A5	4565	C	P-O5'	-11.43	1.48	1.59
36	B2	980	A	C2'-C1'	-11.43	1.40	1.53
85	A5	4509	U	O4'-C1'	11.43	1.56	1.41
85	A5	4314	C	C2'-C1'	-11.43	1.40	1.53
85	A5	112	C	C2'-C1'	-11.43	1.40	1.53
85	A5	4470	G	C2'-C1'	-11.43	1.40	1.53
85	A5	686	A	C2'-C1'	11.42	1.66	1.53
85	A5	2444	U	O4'-C1'	11.42	1.56	1.41
85	A5	185	C	O4'-C1'	11.42	1.56	1.41
85	A5	4217	G	C2'-C1'	-11.42	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4367	G	C2'-C1'	-11.42	1.40	1.53
18	AY	86	GLU	C-N	11.41	1.55	1.34
36	B2	1542	C	O4'-C1'	11.41	1.56	1.41
36	B2	1658	G	C2'-C1'	-11.41	1.40	1.53
85	A5	506	C	C2'-C1'	-11.41	1.40	1.53
36	B2	891	G	O4'-C1'	11.40	1.56	1.41
79	CJ	176	PRO	C-O	-11.40	1.00	1.23
20	Aa	108	PRO	C-O	-11.40	1.00	1.23
36	B2	569	A	C2'-C1'	-11.40	1.40	1.53
40	CK	163	PRO	C-O	-11.40	1.00	1.23
85	A5	2087	C	C2'-C1'	-11.40	1.40	1.53
85	A5	4705	A	C2'-C1'	-11.40	1.40	1.53
85	A5	4887	C	C2'-C1'	-11.40	1.40	1.53
85	A5	1599	A	O4'-C1'	11.39	1.56	1.41
85	A5	4410	G	O4'-C1'	11.38	1.56	1.41
85	A5	3587	C	O4'-C1'	11.38	1.56	1.41
85	A5	1607	C	O4'-C1'	11.37	1.56	1.41
85	A5	4375	C	C2'-C1'	-11.37	1.40	1.53
36	B2	446	G	O4'-C1'	11.37	1.56	1.41
65	Cc	109	PRO	C-O	-11.37	1.00	1.23
85	A5	2872	C	C2'-C1'	-11.37	1.40	1.53
36	B2	940	U	C2'-C1'	-11.37	1.40	1.53
36	B2	297	A	C2'-C1'	-11.37	1.40	1.53
36	B2	333	G	C2'-C1'	-11.36	1.40	1.53
85	A5	2534	C	C2'-C1'	-11.36	1.40	1.53
85	A5	1993	C	O4'-C1'	11.36	1.56	1.41
85	A5	3935	C	C2'-C1'	-11.36	1.40	1.53
85	A5	1362	G	C2'-C1'	-11.35	1.40	1.53
85	A5	4196	G	C2'-C1'	-11.35	1.40	1.53
36	B2	1078	C	O4'-C1'	11.35	1.56	1.41
36	B2	951	C	C2'-C1'	-11.35	1.40	1.53
85	A5	4241	C	O4'-C1'	11.35	1.56	1.41
36	B2	750	C	C2'-C1'	-11.34	1.40	1.53
36	B2	1674	G	O4'-C1'	11.34	1.56	1.41
36	B2	1128	C	O4'-C1'	11.34	1.56	1.41
85	A5	1069	G	C2'-C1'	-11.32	1.40	1.53
85	A5	3962	A	O4'-C1'	-11.32	1.26	1.41
85	A5	4764	A	C2'-C1'	-11.32	1.40	1.53
36	B2	1781	A	C2'-C1'	-11.32	1.41	1.53
85	A5	480	C	O4'-C1'	11.31	1.56	1.41
87	A8	106	G	O4'-C1'	11.31	1.56	1.41
36	B2	345	U	C2'-C1'	-11.31	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
64	CF	183	GLY	C-N	-11.29	1.08	1.34
36	B2	632	C	O4'-C1'	11.29	1.56	1.41
36	B2	904	A	O4'-C1'	11.28	1.56	1.41
36	B2	1242	U	C2'-C1'	-11.28	1.41	1.53
85	A5	1911	C	O4'-C1'	11.28	1.56	1.41
85	A5	2515	G	C2'-C1'	-11.28	1.41	1.53
85	A5	307	A	O4'-C1'	11.28	1.56	1.41
36	B2	1019	C	C2'-C1'	-11.28	1.41	1.53
86	A7	68	C	C2'-C1'	-11.28	1.41	1.53
36	B2	405	G	C2'-C1'	-11.27	1.41	1.53
36	B2	462	C	C2'-C1'	-11.27	1.41	1.53
36	B2	531	A	O4'-C1'	11.27	1.56	1.41
85	A5	4470	G	O4'-C1'	11.27	1.56	1.41
85	A5	1674	C	C2'-C1'	-11.27	1.41	1.53
36	B2	1029	G	C2'-C1'	-11.26	1.41	1.53
36	B2	1798	C	O4'-C1'	11.26	1.56	1.41
85	A5	683	C	C2'-C1'	-11.26	1.41	1.53
85	A5	2816	G	C2'-C1'	-11.26	1.41	1.53
85	A5	4865	C	O4'-C1'	11.25	1.56	1.41
85	A5	1793	A	O4'-C1'	11.25	1.56	1.41
87	A8	33	G	C2'-C1'	-11.24	1.41	1.53
85	A5	1400	G	C2'-C1'	-11.24	1.41	1.53
85	A5	2292	C	O4'-C1'	11.24	1.56	1.41
85	A5	2763	U	O4'-C1'	11.24	1.56	1.41
85	A5	2456	G	C2'-C1'	-11.24	1.41	1.53
85	A5	3703	G	C2'-C1'	-11.24	1.41	1.53
36	B2	1048	G	O4'-C1'	11.23	1.56	1.41
85	A5	1368	A	O4'-C1'	11.23	1.56	1.41
85	A5	1920	C	C2'-C1'	-11.23	1.41	1.53
85	A5	4159	C	O4'-C1'	11.23	1.56	1.41
36	B2	1206	G	C2'-C1'	-11.23	1.41	1.53
85	A5	947	C	C2'-C1'	-11.23	1.41	1.53
85	A5	4902	C	O4'-C1'	11.23	1.56	1.41
36	B2	4	C	O4'-C1'	11.22	1.56	1.41
85	A5	1614	C	C2'-C1'	-11.22	1.41	1.53
36	B2	758	C	O4'-C1'	11.22	1.56	1.41
37	BC	26	C	O4'-C1'	11.22	1.56	1.41
85	A5	4262	C	C2'-C1'	-11.22	1.41	1.53
85	A5	4519	C	O4'-C1'	11.21	1.56	1.41
85	A5	368	C	O4'-C1'	11.21	1.56	1.41
36	B2	84	A	O4'-C1'	11.21	1.56	1.41
85	A5	1386	C	O4'-C1'	11.21	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BC	67	C	O4'-C1'	11.20	1.56	1.41
85	A5	3	C	O4'-C1'	11.20	1.56	1.41
85	A5	1234	G	C2'-C1'	-11.20	1.41	1.53
85	A5	1515	A	C2'-C1'	-11.20	1.41	1.53
85	A5	409	G	O4'-C1'	11.20	1.56	1.41
85	A5	2400	G	O4'-C1'	11.20	1.56	1.41
85	A5	4332	C	O4'-C1'	11.20	1.56	1.41
36	B2	77	A	C2'-C1'	11.19	1.65	1.53
85	A5	130	C	O4'-C1'	11.19	1.56	1.41
36	B2	446	G	C2'-C1'	-11.19	1.41	1.53
36	B2	424	C	O4'-C1'	11.18	1.56	1.41
32	AW	2	VAL	C-N	11.18	1.59	1.34
85	A5	695	G	O4'-C1'	11.17	1.56	1.41
85	A5	2513	A	O4'-C1'	11.17	1.56	1.41
85	A5	2869	U	O4'-C1'	11.16	1.56	1.41
85	A5	244	G	C2'-C1'	-11.16	1.41	1.53
85	A5	1589	C	C2'-C1'	-11.16	1.41	1.53
85	A5	4970	C	O4'-C1'	11.16	1.56	1.41
85	A5	1768	C	O4'-C1'	11.15	1.56	1.41
29	AG	131	ARG	C-N	11.15	1.59	1.34
85	A5	2709	C	O4'-C1'	11.15	1.56	1.41
86	A7	105	C	C2'-C1'	-11.15	1.41	1.53
36	B2	489	A	O4'-C1'	11.14	1.56	1.41
36	B2	412	G	C2'-C1'	-11.13	1.41	1.53
85	A5	3863	C	O4'-C1'	11.13	1.56	1.41
85	A5	1476	C	C2'-C1'	-11.13	1.41	1.53
85	A5	2050	G	C2'-C1'	-11.13	1.41	1.53
85	A5	2483	G	C2'-C1'	-11.13	1.41	1.53
85	A5	1305	C	O4'-C1'	11.12	1.56	1.41
85	A5	1298	C	O4'-C1'	11.12	1.56	1.41
85	A5	1375	C	C2'-C1'	-11.12	1.41	1.53
85	A5	4087	G	C2'-C1'	-11.11	1.41	1.53
85	A5	973	G	O4'-C1'	11.11	1.56	1.41
36	B2	357	C	C2'-C1'	-11.11	1.41	1.53
85	A5	4194	U	C2'-C1'	-11.10	1.41	1.53
36	B2	740	C	O4'-C1'	11.10	1.56	1.41
36	B2	510	G	C2'-C1'	-11.10	1.41	1.53
36	B2	1407	U	C2'-C1'	-11.10	1.41	1.53
36	B2	1573	G	C2'-C1'	-11.10	1.41	1.53
85	A5	916	C	C2'-C1'	-11.10	1.41	1.53
36	B2	1373	C	O4'-C1'	11.09	1.56	1.41
86	A7	94	C	O4'-C1'	11.09	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	905	C	C2'-C1'	-11.09	1.41	1.53
29	AG	131	ARG	CG-CD	11.08	1.79	1.51
85	A5	4037	C	O4'-C1'	11.08	1.56	1.41
12	AR	1	MET	C-N	-11.08	1.13	1.33
36	B2	1105	G	C2'-C1'	-11.08	1.41	1.53
85	A5	444	G	C2'-C1'	-11.08	1.41	1.53
74	CC	323	ARG	CA-C	-11.08	1.24	1.52
85	A5	3791	C	O4'-C1'	11.08	1.56	1.41
86	A7	9	C	O4'-C1'	11.08	1.56	1.41
85	A5	1318	C	O4'-C1'	11.07	1.56	1.41
85	A5	1384	C	C2'-C1'	-11.07	1.41	1.53
85	A5	2841	G	C2'-C1'	-11.07	1.41	1.53
85	A5	1216	C	O4'-C1'	11.07	1.56	1.41
36	B2	1124	C	C2'-C1'	-11.06	1.41	1.53
85	A5	1236	C	C2'-C1'	-11.06	1.41	1.53
85	A5	3599	A	C2'-C1'	-11.06	1.41	1.53
85	A5	2807	A	C2'-C1'	-11.06	1.41	1.53
85	A5	23	C	O4'-C1'	11.06	1.56	1.41
36	B2	968	U	O4'-C1'	11.05	1.56	1.41
85	A5	4749	C	O4'-C1'	-11.05	1.27	1.41
85	A5	4964	C	O4'-C1'	11.05	1.56	1.41
87	A8	145	C	C2'-C1'	-11.05	1.41	1.53
85	A5	1973	G	C2'-C1'	-11.05	1.41	1.53
85	A5	1490	G	C2'-C1'	-11.04	1.41	1.53
86	A7	36	C	O4'-C1'	11.04	1.56	1.41
85	A5	3732	A	O4'-C1'	11.03	1.55	1.41
36	B2	645	C	O4'-C1'	11.03	1.55	1.41
85	A5	208	A	O4'-C1'	11.03	1.55	1.41
85	A5	1181	C	C2'-C1'	-11.03	1.41	1.53
36	B2	942	G	C2'-C1'	-11.03	1.41	1.53
85	A5	1684	A	C2'-C1'	-11.03	1.41	1.53
85	A5	1460	C	O4'-C1'	11.03	1.55	1.41
87	A8	49	G	C2'-C1'	-11.03	1.41	1.53
85	A5	4962	C	O4'-C1'	11.02	1.55	1.41
85	A5	1920	C	O4'-C1'	11.02	1.55	1.41
36	B2	816	A	O4'-C1'	11.02	1.55	1.41
53	CT	75	VAL	C-N	11.02	1.59	1.34
85	A5	2404	A	O4'-C1'	11.01	1.55	1.41
85	A5	1296	G	C2'-C1'	-11.01	1.41	1.53
85	A5	4766	C	O4'-C1'	11.01	1.55	1.41
85	A5	1391	A	C2'-C1'	-10.99	1.41	1.53
36	B2	1608	U	O4'-C1'	10.99	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2279	A	O4'-C1'	10.99	1.55	1.41
85	A5	4430	G	C2'-C1'	-10.99	1.41	1.53
36	B2	1452	A	O4'-C1'	10.99	1.55	1.41
36	B2	317	C	O4'-C1'	10.99	1.55	1.41
85	A5	516	C	O4'-C1'	10.99	1.55	1.41
85	A5	710	G	C2'-C1'	-10.98	1.41	1.53
36	B2	1293	A	C2'-C1'	-10.98	1.41	1.53
36	B2	1224	G	C2'-C1'	-10.98	1.41	1.53
85	A5	4985	U	C2'-C1'	-10.98	1.41	1.53
36	B2	843	C	O4'-C1'	10.97	1.55	1.41
85	A5	4335	C	C2'-C1'	-10.97	1.41	1.53
85	A5	954	C	O4'-C1'	10.97	1.55	1.41
85	A5	1615	C	O4'-C1'	10.97	1.55	1.41
85	A5	199	G	O4'-C1'	10.97	1.55	1.41
36	B2	592	C	O4'-C1'	-10.96	1.27	1.41
85	A5	4241	C	C2'-C1'	-10.96	1.41	1.53
85	A5	4329	G	O4'-C1'	-10.96	1.27	1.41
47	CI	206	LEU	CA-C	-10.96	1.24	1.52
85	A5	2291	G	C2'-C1'	-10.96	1.41	1.53
85	A5	4491	G	C2'-C1'	-10.96	1.41	1.53
85	A5	4659	G	O4'-C1'	10.95	1.55	1.41
36	B2	875	A	O4'-C1'	10.95	1.55	1.41
85	A5	48	G	C2'-C1'	-10.95	1.41	1.53
85	A5	1579	C	O4'-C1'	10.94	1.55	1.41
85	A5	203	U	C2'-C1'	-10.94	1.41	1.53
85	A5	1221	G	C2'-C1'	10.94	1.65	1.53
87	A8	99	U	O4'-C1'	10.94	1.55	1.41
85	A5	69	A	O4'-C1'	10.94	1.55	1.41
85	A5	2861	C	O4'-C1'	10.94	1.55	1.41
36	B2	1230	C	O4'-C1'	10.94	1.55	1.41
85	A5	1910	G	C2'-C1'	-10.93	1.41	1.53
85	A5	175	C	O4'-C1'	10.93	1.55	1.41
36	B2	905	C	O4'-C1'	10.93	1.55	1.41
85	A5	2889	G	C2'-C1'	-10.93	1.41	1.53
85	A5	1950	U	O4'-C1'	10.93	1.55	1.41
85	A5	1074	G	C2'-C1'	-10.92	1.41	1.53
85	A5	4464	A	C2'-C1'	-10.92	1.41	1.53
47	CI	206	LEU	CA-CB	10.92	1.78	1.53
85	A5	459	C	C2'-C1'	-10.92	1.41	1.53
85	A5	3882	C	C2'-C1'	-10.92	1.41	1.53
36	B2	1840	U	C2'-C1'	-10.91	1.41	1.53
85	A5	2713	C	O4'-C1'	10.91	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	A7	26	C	O4'-C1'	10.91	1.55	1.41
85	A5	4288	C	O4'-C1'	10.91	1.55	1.41
36	B2	370	G	C2'-C1'	-10.91	1.41	1.53
85	A5	2250	C	O4'-C1'	10.91	1.55	1.41
85	A5	3678	G	C2'-C1'	-10.91	1.41	1.53
85	A5	2437	C	C2'-C1'	-10.90	1.41	1.53
85	A5	994	G	C2'-C1'	-10.90	1.41	1.53
85	A5	2549	G	C2'-C1'	-10.90	1.41	1.53
85	A5	28	C	O4'-C1'	10.90	1.55	1.41
85	A5	2690	C	O4'-C1'	10.90	1.55	1.41
85	A5	3799	A	O4'-C1'	10.90	1.55	1.41
85	A5	2257	C	O4'-C1'	10.90	1.55	1.41
85	A5	1769	G	O4'-C1'	10.89	1.55	1.41
85	A5	3670	C	O4'-C1'	10.89	1.55	1.41
36	B2	755	C	C2'-C1'	-10.89	1.41	1.53
85	A5	4667	C	O4'-C1'	10.89	1.55	1.41
85	A5	1356	U	C2'-C1'	-10.89	1.41	1.53
85	A5	2621	A	O4'-C1'	10.89	1.55	1.41
85	A5	2742	G	C2'-C1'	-10.88	1.41	1.53
85	A5	4153	C	O4'-C1'	10.88	1.55	1.41
36	B2	1819	A	C2'-C1'	-10.88	1.41	1.53
86	A7	113	G	C2'-C1'	-10.88	1.41	1.53
85	A5	2589	C	C2'-C1'	-10.88	1.41	1.53
36	B2	1054	G	C2'-C1'	-10.88	1.41	1.53
85	A5	1830	G	C2'-C1'	-10.88	1.41	1.53
36	B2	1590	C	O4'-C1'	10.87	1.55	1.41
85	A5	128	C	O4'-C1'	10.87	1.55	1.41
85	A5	4556	U	C2'-C1'	-10.87	1.41	1.53
36	B2	498	C	O4'-C1'	10.86	1.55	1.41
36	B2	674	C	O4'-C1'	10.86	1.55	1.41
85	A5	4158	C	C2'-C1'	-10.86	1.41	1.53
36	B2	424	C	C2'-C1'	-10.86	1.41	1.53
85	A5	916	C	O4'-C1'	10.85	1.55	1.41
85	A5	3591	C	O4'-C1'	10.85	1.55	1.41
36	B2	1813	A	C2'-C1'	-10.84	1.41	1.53
85	A5	988	C	O4'-C1'	10.84	1.55	1.41
36	B2	701	G	C2'-C1'	-10.84	1.41	1.53
36	B2	1583	C	O4'-C1'	10.84	1.55	1.41
85	A5	4642	U	O4'-C1'	10.83	1.55	1.41
85	A5	2716	C	O4'-C1'	10.83	1.55	1.41
85	A5	4741	C	O4'-C1'	10.83	1.55	1.41
85	A5	4036	G	C2'-C1'	-10.82	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	5013	C	O4'-C1'	10.82	1.55	1.41
85	A5	3814	U	O4'-C1'	10.82	1.55	1.41
86	A7	6	C	O4'-C1'	10.82	1.55	1.41
36	B2	874	G	C2'-C1'	-10.81	1.41	1.53
37	BC	55	C	O4'-C1'	10.81	1.55	1.41
85	A5	1429	C	O4'-C1'	10.81	1.55	1.41
85	A5	2534	C	O4'-C1'	10.81	1.55	1.41
36	B2	1552	G	C2'-C1'	10.81	1.65	1.53
85	A5	1469	C	O4'-C1'	10.81	1.55	1.41
85	A5	703	G	O4'-C1'	-10.80	1.27	1.41
85	A5	4590	A	O4'-C1'	10.80	1.55	1.41
87	A8	21	C	O4'-C1'	10.80	1.55	1.41
85	A5	5008	C	C2'-C1'	-10.80	1.41	1.53
36	B2	557	U	C2'-C1'	-10.80	1.41	1.53
85	A5	2076	G	C2'-C1'	-10.80	1.41	1.53
86	A7	110	G	O4'-C1'	10.80	1.55	1.41
85	A5	4137	C	O4'-C1'	10.79	1.55	1.41
85	A5	503	C	O4'-C1'	10.79	1.55	1.41
87	A8	146	U	O4'-C1'	10.79	1.55	1.41
36	B2	472	C	O4'-C1'	10.79	1.55	1.41
85	A5	4218	U	C2'-C1'	-10.79	1.41	1.53
85	A5	1099	C	O4'-C1'	10.79	1.55	1.41
36	B2	442	C	O4'-C1'	10.79	1.55	1.41
36	B2	1721	U	C2'-C1'	10.78	1.65	1.53
85	A5	4119	C	O4'-C1'	-10.78	1.27	1.41
87	A8	9	A	O4'-C1'	10.78	1.55	1.41
85	A5	1907	A	C2'-C1'	-10.78	1.41	1.53
85	A5	2747	U	O4'-C1'	10.77	1.55	1.41
85	A5	33	A	C2'-C1'	-10.77	1.41	1.53
85	A5	4696	C	C2'-C1'	-10.77	1.41	1.53
85	A5	86	U	C2'-C1'	-10.76	1.41	1.53
36	B2	493	A	C2'-C1'	-10.76	1.41	1.53
36	B2	1404	U	C2'-C1'	-10.76	1.41	1.53
85	A5	1438	U	C2'-C1'	-10.76	1.41	1.53
85	A5	241	G	C2'-C1'	-10.76	1.41	1.53
36	B2	1262	C	O4'-C1'	10.76	1.55	1.41
85	A5	1213	G	C2'-C1'	-10.76	1.41	1.53
36	B2	295	C	C2'-C1'	-10.75	1.41	1.53
36	B2	1713	C	O4'-C1'	10.75	1.55	1.41
85	A5	1856	C	O4'-C1'	10.75	1.55	1.41
85	A5	683	C	O4'-C1'	10.75	1.55	1.41
85	A5	1301	C	C2'-C1'	10.75	1.65	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4706	G	C2'-C1'	-10.74	1.41	1.53
85	A5	735	G	C2'-C1'	-10.73	1.41	1.53
85	A5	1249	C	C2'-C1'	-10.73	1.41	1.53
36	B2	1532	C	C2'-C1'	-10.73	1.41	1.53
87	A8	57	C	C2'-C1'	-10.73	1.41	1.53
85	A5	490	C	C2'-C1'	-10.73	1.41	1.53
85	A5	2722	G	C2'-C1'	-10.73	1.41	1.53
85	A5	2702	C	O4'-C1'	10.73	1.55	1.41
85	A5	4556	U	O4'-C1'	10.73	1.55	1.41
85	A5	932	A	C2'-C1'	10.72	1.65	1.53
85	A5	1668	A	C2'-C1'	-10.72	1.41	1.53
85	A5	155	C	O4'-C1'	10.72	1.55	1.41
85	A5	2875	C	O4'-C1'	10.71	1.55	1.41
36	B2	1752	C	C2'-C1'	-10.71	1.41	1.53
85	A5	275	C	O4'-C1'	10.70	1.55	1.41
85	A5	4195	G	C2'-C1'	-10.70	1.41	1.53
85	A5	4772	C	O4'-C1'	10.70	1.55	1.41
85	A5	2492	C	O4'-C1'	10.70	1.55	1.41
85	A5	2580	U	C2'-C1'	-10.70	1.41	1.53
85	A5	5014	A	O4'-C1'	10.70	1.55	1.41
85	A5	1390	G	C2'-C1'	-10.69	1.41	1.53
85	A5	2855	G	O4'-C1'	10.69	1.55	1.41
85	A5	4165	C	O4'-C1'	10.69	1.55	1.41
36	B2	1734	G	C2'-C1'	-10.69	1.41	1.53
85	A5	164	G	C2'-C1'	-10.69	1.41	1.53
85	A5	3752	C	C2'-C1'	-10.69	1.41	1.53
36	B2	643	A	O4'-C1'	10.68	1.55	1.41
36	B2	843	C	C2'-C1'	-10.68	1.41	1.53
36	B2	979	C	O4'-C1'	10.68	1.55	1.41
36	B2	1213	C	O4'-C1'	10.68	1.55	1.41
63	CB	298	LEU	C-N	-10.68	1.09	1.34
85	A5	1698	C	O4'-C1'	10.68	1.55	1.41
36	B2	1052	A	O4'-C1'	10.68	1.55	1.41
85	A5	1628	C	C2'-C1'	-10.68	1.41	1.53
85	A5	521	C	O4'-C1'	10.68	1.55	1.41
85	A5	712	C	O4'-C1'	10.68	1.55	1.41
85	A5	1988	G	C2'-C1'	-10.68	1.41	1.53
36	B2	988	C	C2'-C1'	-10.67	1.41	1.53
40	CK	2	PRO	C-N	10.67	1.54	1.34
85	A5	1331	C	O4'-C1'	10.67	1.55	1.41
85	A5	2	G	C2'-C1'	-10.67	1.41	1.53
85	A5	5013	C	C2'-C1'	-10.67	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	650	A	O4'-C1'	10.66	1.55	1.41
36	B2	395	G	C2'-C1'	-10.66	1.41	1.53
36	B2	1204	A	O4'-C1'	10.66	1.55	1.41
85	A5	1680	G	O4'-C1'	10.66	1.55	1.41
8	AS	54	LYS	N-CA	10.66	1.67	1.46
36	B2	1500	G	O4'-C1'	10.66	1.55	1.41
85	A5	1305	C	C2'-C1'	-10.66	1.41	1.53
85	A5	328	A	C2'-C1'	-10.66	1.41	1.53
85	A5	5017	G	C2'-C1'	-10.66	1.41	1.53
36	B2	1180	C	O4'-C1'	10.65	1.55	1.41
85	A5	2693	G	C2'-C1'	-10.65	1.41	1.53
85	A5	1201	U	C2'-C1'	-10.65	1.41	1.53
36	B2	920	A	C2'-C1'	-10.65	1.41	1.53
36	B2	1689	C	C2'-C1'	-10.65	1.41	1.53
85	A5	3686	G	C2'-C1'	-10.64	1.41	1.53
85	A5	1568	C	C2'-C1'	-10.64	1.41	1.53
36	B2	1212	G	C2'-C1'	-10.64	1.41	1.53
85	A5	966	A	C2'-C1'	-10.64	1.41	1.53
87	A8	103	A	O4'-C1'	10.64	1.55	1.41
36	B2	1261	C	C2'-C1'	-10.64	1.41	1.53
85	A5	1262	G	C2'-C1'	-10.63	1.41	1.53
85	A5	1990	A	O4'-C1'	10.63	1.55	1.41
86	A7	89	G	C2'-C1'	-10.63	1.41	1.53
85	A5	141	C	O4'-C1'	10.63	1.55	1.41
85	A5	1372	A	C2'-C1'	-10.62	1.41	1.53
85	A5	5014	A	C2'-C1'	-10.63	1.41	1.53
36	B2	1305	C	C2'-C1'	-10.62	1.41	1.53
85	A5	105	A	C2'-C1'	-10.62	1.41	1.53
85	A5	4502	C	C2'-C1'	-10.62	1.41	1.53
85	A5	1808	C	O4'-C1'	10.62	1.55	1.41
85	A5	2336	G	O4'-C1'	10.62	1.55	1.41
85	A5	985	C	O4'-C1'	10.62	1.55	1.41
85	A5	1906	U	C2'-C1'	-10.61	1.41	1.53
85	A5	4907	G	C2'-C1'	-10.61	1.41	1.53
85	A5	2731	C	O4'-C1'	10.61	1.55	1.41
36	B2	490	C	O4'-C1'	10.60	1.55	1.41
37	BC	70	C	C2'-C1'	-10.60	1.41	1.53
36	B2	365	C	O4'-C1'	10.60	1.55	1.41
36	B2	1263	U	C2'-C1'	-10.60	1.41	1.53
50	CR	143	HIS	CG-ND1	-10.60	1.15	1.38
85	A5	1787	A	C2'-C1'	-10.60	1.41	1.53
85	A5	1269	G	O4'-C1'	10.60	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4422	A	O4'-C1'	10.60	1.55	1.41
85	A5	2772	C	C2'-C1'	-10.59	1.41	1.53
85	A5	4598	C	O4'-C1'	10.59	1.55	1.41
36	B2	1485	U	C2'-C1'	-10.59	1.41	1.53
87	A8	119	C	O4'-C1'	10.59	1.55	1.41
87	A8	35	C	C2'-C1'	-10.59	1.41	1.53
36	B2	337	C	C2'-C1'	-10.59	1.41	1.53
85	A5	2792	C	C2'-C1'	-10.59	1.41	1.53
85	A5	2874	U	O4'-C1'	10.59	1.55	1.41
85	A5	3864	C	O4'-C1'	10.59	1.55	1.41
85	A5	3966	A	O4'-C1'	10.59	1.55	1.41
87	A8	89	U	C2'-C1'	-10.59	1.41	1.53
36	B2	1163	C	O4'-C1'	10.58	1.55	1.41
36	B2	1211	G	C2'-C1'	-10.58	1.41	1.53
85	A5	2269	C	O4'-C1'	10.58	1.55	1.41
85	A5	693	C	C2'-C1'	-10.58	1.41	1.53
36	B2	1485	U	O4'-C1'	10.57	1.55	1.41
85	A5	4670	C	O4'-C1'	10.57	1.55	1.41
85	A5	1909	G	C2'-C1'	-10.56	1.41	1.53
85	A5	3935	C	O4'-C1'	10.56	1.55	1.41
36	B2	50	A	C2'-C1'	-10.56	1.41	1.53
85	A5	903	C	C2'-C1'	-10.56	1.41	1.53
86	A7	104	C	O4'-C1'	10.55	1.55	1.41
36	B2	326	C	O4'-C1'	10.55	1.55	1.41
36	B2	570	C	O4'-C1'	10.55	1.55	1.41
36	B2	1629	C	C2'-C1'	-10.55	1.41	1.53
85	A5	3837	C	O4'-C1'	10.55	1.55	1.41
87	A8	13	G	C2'-C1'	-10.54	1.41	1.53
36	B2	872	A	O4'-C1'	-10.54	1.27	1.41
36	B2	879	C	C2'-C1'	-10.54	1.41	1.53
8	AS	40	TYR	C-N	-10.54	1.09	1.34
33	AI	43	ILE	CA-C	-10.54	1.25	1.52
85	A5	4354	U	O4'-C1'	-10.54	1.27	1.41
85	A5	658	C	O4'-C1'	10.54	1.55	1.41
85	A5	4672	A	O4'-C1'	10.53	1.55	1.41
85	A5	4870	G	O4'-C1'	10.53	1.55	1.41
29	AG	219	GLU	C-N	-10.53	1.09	1.34
85	A5	3956	G	O4'-C1'	10.53	1.55	1.41
37	BC	74	C	O4'-C1'	10.53	1.55	1.41
85	A5	1520	C	O4'-C1'	10.53	1.55	1.41
85	A5	3660	C	O4'-C1'	10.53	1.55	1.41
74	CC	86	ARG	CA-C	-10.53	1.25	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1276	C	O3'-P	-10.53	1.48	1.61
85	A5	1434	G	C2'-C1'	-10.53	1.41	1.53
85	A5	4445	U	C2'-C1'	-10.52	1.41	1.53
85	A5	4877	G	O4'-C1'	-10.52	1.27	1.41
36	B2	54	A	C2'-C1'	-10.52	1.41	1.53
85	A5	1107	C	O4'-C1'	10.52	1.55	1.41
85	A5	3929	G	C2'-C1'	-10.52	1.41	1.53
85	A5	3939	G	C2'-C1'	-10.52	1.41	1.53
86	A7	4	U	C2'-C1'	-10.52	1.41	1.53
36	B2	517	C	C2'-C1'	-10.52	1.41	1.53
36	B2	1379	A	C2'-C1'	-10.52	1.41	1.53
39	Cq	37	SER	C-N	10.51	1.58	1.34
85	A5	2589	C	O4'-C1'	10.51	1.55	1.41
85	A5	4088	C	C2'-C1'	-10.51	1.41	1.53
85	A5	123	C	O4'-C1'	10.50	1.55	1.41
85	A5	2506	G	C2'-C1'	-10.50	1.41	1.53
85	A5	3605	C	C2'-C1'	-10.50	1.41	1.53
85	A5	367	C	O4'-C1'	10.50	1.55	1.41
85	A5	2261	G	C2'-C1'	-10.50	1.41	1.53
36	B2	16	G	C2'-C1'	-10.49	1.41	1.53
36	B2	1784	G	O4'-C1'	10.49	1.55	1.41
85	A5	1557	C	O4'-C1'	10.49	1.55	1.41
36	B2	459	C	O4'-C1'	10.49	1.55	1.41
85	A5	4537	C	C2'-C1'	-10.49	1.41	1.53
36	B2	143	U	O4'-C1'	10.48	1.55	1.41
85	A5	3924	C	O4'-C1'	10.48	1.55	1.41
85	A5	4409	C	O4'-C1'	10.48	1.55	1.41
85	A5	3782	C	C2'-C1'	-10.47	1.41	1.53
85	A5	4046	A	O4'-C1'	10.47	1.55	1.41
36	B2	539	C	O4'-C1'	10.47	1.55	1.41
85	A5	2506	G	O4'-C1'	10.47	1.55	1.41
85	A5	2850	A	O4'-C1'	10.47	1.55	1.41
85	A5	1249	C	O4'-C1'	10.47	1.55	1.41
36	B2	178	C	C2'-C1'	-10.47	1.41	1.53
36	B2	426	A	O4'-C1'	10.47	1.55	1.41
36	B2	557	U	O4'-C1'	10.47	1.55	1.41
85	A5	3650	C	C2'-C1'	-10.47	1.41	1.53
36	B2	362	C	O4'-C1'	10.46	1.55	1.41
36	B2	1581	C	O4'-C1'	10.46	1.55	1.41
85	A5	2872	C	O4'-C1'	10.46	1.55	1.41
36	B2	1622	U	C2'-C1'	-10.46	1.41	1.53
36	B2	1490	G	C2'-C1'	-10.45	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1783	C	C2'-C1'	-10.45	1.41	1.53
85	A5	2610	G	C2'-C1'	-10.45	1.41	1.53
85	A5	1292	C	O4'-C1'	10.45	1.55	1.41
36	B2	497	C	O4'-C1'	10.44	1.55	1.41
36	B2	1109	C	O4'-C1'	-10.44	1.28	1.41
69	Cg	46	CYS	CA-CB	-10.44	1.30	1.53
85	A5	40	G	C2'-C1'	-10.45	1.41	1.53
36	B2	937	C	O4'-C1'	10.44	1.55	1.41
85	A5	1086	C	C2'-C1'	-10.44	1.41	1.53
85	A5	5056	A	C2'-C1'	-10.44	1.41	1.53
85	A5	2340	C	C2'-C1'	-10.44	1.41	1.53
85	A5	4661	G	C2'-C1'	-10.44	1.41	1.53
85	A5	4874	A	O4'-C1'	-10.44	1.28	1.41
85	A5	1206	C	O4'-C1'	10.44	1.55	1.41
85	A5	244	G	O4'-C1'	10.44	1.55	1.41
36	B2	1758	G	C2'-C1'	-10.44	1.41	1.53
85	A5	1796	U	C2'-C1'	-10.44	1.41	1.53
87	A8	145	C	O4'-C1'	10.44	1.55	1.41
85	A5	1985	G	O4'-C1'	10.43	1.55	1.41
36	B2	1761	U	O4'-C1'	10.43	1.55	1.41
85	A5	348	G	C2'-C1'	-10.43	1.41	1.53
85	A5	2784	C	O4'-C1'	10.43	1.55	1.41
85	A5	2031	C	C2'-C1'	-10.42	1.41	1.53
36	B2	79	A	C2'-C1'	10.42	1.64	1.53
85	A5	1751	A	C2'-C1'	-10.42	1.41	1.53
36	B2	615	C	C2'-C1'	-10.41	1.41	1.53
85	A5	3847	C	O4'-C1'	10.41	1.55	1.41
36	B2	1705	C	O4'-C1'	10.41	1.55	1.41
36	B2	568	C	O4'-C1'	10.41	1.55	1.41
85	A5	991	C	O4'-C1'	10.41	1.55	1.41
36	B2	1402	A	O4'-C1'	10.40	1.55	1.41
85	A5	3860	A	C2'-C1'	-10.40	1.42	1.53
87	A8	138	C	C2'-C1'	-10.40	1.42	1.53
85	A5	1406	G	C2'-C1'	10.39	1.64	1.53
85	A5	410	A	O4'-C1'	10.39	1.55	1.41
85	A5	238	C	O4'-C1'	10.39	1.55	1.41
85	A5	4211	C	C2'-C1'	-10.39	1.42	1.53
85	A5	4912	G	O4'-C1'	10.39	1.55	1.41
85	A5	1464	C	C2'-C1'	-10.39	1.42	1.53
36	B2	170	A	O4'-C1'	-10.38	1.28	1.41
37	BC	30	G	C2'-C1'	-10.38	1.42	1.53
85	A5	2487	G	C2'-C1'	-10.38	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1415	C	C2'-C1'	-10.38	1.42	1.53
36	B2	1687	C	C2'-C1'	-10.38	1.42	1.53
85	A5	485	C	O4'-C1'	10.37	1.55	1.41
36	B2	1583	C	C2'-C1'	-10.36	1.42	1.53
85	A5	1661	C	O4'-C1'	10.36	1.55	1.41
85	A5	1676	C	O4'-C1'	10.36	1.55	1.41
85	A5	2460	A	C2'-C1'	-10.36	1.42	1.53
85	A5	3709	U	C2'-C1'	-10.36	1.42	1.53
85	A5	1598	C	O4'-C1'	10.36	1.55	1.41
85	A5	5069	U	C2'-C1'	-10.35	1.42	1.53
85	A5	4074	C	O4'-C1'	10.35	1.55	1.41
85	A5	1287	G	C2'-C1'	-10.35	1.42	1.53
36	B2	829	C	O4'-C1'	10.35	1.55	1.41
85	A5	2507	A	O4'-C1'	10.35	1.55	1.41
85	A5	2078	C	O4'-C1'	10.35	1.55	1.41
85	A5	4466	C	O4'-C1'	10.35	1.55	1.41
85	A5	339	C	O4'-C1'	10.34	1.55	1.41
86	A7	63	C	O4'-C1'	10.34	1.55	1.41
85	A5	734	G	C2'-C1'	10.34	1.64	1.53
85	A5	1666	C	C2'-C1'	-10.34	1.42	1.53
36	B2	1284	A	O4'-C1'	10.33	1.55	1.41
85	A5	3632	C	C2'-C1'	-10.33	1.42	1.53
85	A5	1050	C	O4'-C1'	10.33	1.55	1.41
85	A5	4273	A	C2'-C1'	-10.33	1.42	1.53
86	A7	91	C	O4'-C1'	10.33	1.55	1.41
85	A5	1853	G	O4'-C1'	-10.32	1.28	1.41
63	CB	255	GLY	C-N	10.31	1.57	1.34
85	A5	4235	G	C2'-C1'	-10.31	1.42	1.53
86	A7	57	C	O4'-C1'	10.31	1.55	1.41
36	B2	362	C	C2'-C1'	-10.31	1.42	1.53
85	A5	1354	A	C2'-C1'	-10.31	1.42	1.53
36	B2	1687	C	O4'-C1'	10.31	1.55	1.41
85	A5	4102	C	O4'-C1'	10.31	1.55	1.41
36	B2	1137	U	O4'-C1'	10.30	1.55	1.41
85	A5	2419	C	C2'-C1'	-10.30	1.42	1.53
87	A8	28	C	O4'-C1'	10.30	1.55	1.41
36	B2	233	C	O4'-C1'	10.30	1.55	1.41
85	A5	4150	G	C2'-C1'	-10.30	1.42	1.53
36	B2	1132	C	O4'-C1'	10.29	1.55	1.41
85	A5	2248	C	O4'-C1'	10.29	1.55	1.41
85	A5	2615	C	O4'-C1'	10.29	1.55	1.41
87	A8	26	C	O4'-C1'	10.29	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4667	C	C2'-C1'	-10.29	1.42	1.53
85	A5	196	C	O4'-C1'	10.29	1.55	1.41
85	A5	2500	U	O4'-C1'	10.29	1.55	1.41
85	A5	381	U	C2'-C1'	-10.28	1.42	1.53
85	A5	1921	C	O4'-C1'	10.28	1.55	1.41
85	A5	3731	C	O4'-C1'	10.28	1.55	1.41
85	A5	980	U	O4'-C1'	10.28	1.55	1.41
85	A5	293	G	C2'-C1'	-10.28	1.42	1.53
85	A5	1096	C	O4'-C1'	10.28	1.55	1.41
85	A5	4216	G	O4'-C1'	10.28	1.55	1.41
85	A5	1663	C	O4'-C1'	10.28	1.55	1.41
85	A5	4453	C	O4'-C1'	10.28	1.55	1.41
36	B2	1185	C	C2'-C1'	-10.27	1.42	1.53
85	A5	2669	C	C2'-C1'	10.27	1.64	1.53
85	A5	1338	G	C2'-C1'	-10.27	1.42	1.53
86	A7	67	C	O4'-C1'	10.27	1.55	1.41
87	A8	138	C	O4'-C1'	10.27	1.54	1.41
85	A5	655	C	O4'-C1'	10.27	1.54	1.41
86	A7	37	G	C2'-C1'	-10.27	1.42	1.53
85	A5	1594	C	O4'-C1'	10.26	1.54	1.41
85	A5	3765	G	O4'-C1'	10.26	1.54	1.41
36	B2	142	C	O4'-C1'	-10.26	1.28	1.41
36	B2	1313	A	C2'-C1'	-10.26	1.42	1.53
36	B2	1841	C	O4'-C1'	10.26	1.54	1.41
85	A5	350	C	O4'-C1'	10.26	1.54	1.41
85	A5	664	G	C2'-C1'	-10.26	1.42	1.53
36	B2	1833	C	O4'-C1'	10.25	1.54	1.41
85	A5	190	G	O4'-C1'	10.25	1.54	1.41
85	A5	1441	C	O4'-C1'	10.25	1.54	1.41
85	A5	2700	G	C2'-C1'	-10.25	1.42	1.53
36	B2	420	G	C2'-C1'	-10.25	1.42	1.53
36	B2	1102	G	C2'-C1'	-10.25	1.42	1.53
85	A5	948	C	O4'-C1'	10.24	1.54	1.41
85	A5	4558	U	O4'-C1'	10.24	1.54	1.41
85	A5	210	C	C2'-C1'	-10.24	1.42	1.53
36	B2	84	A	C2'-C1'	-10.23	1.42	1.53
85	A5	1474	C	C2'-C1'	-10.23	1.42	1.53
85	A5	1759	G	C2'-C1'	-10.23	1.42	1.53
36	B2	733	C	O4'-C1'	10.23	1.54	1.41
85	A5	292	G	O4'-C1'	10.23	1.54	1.41
85	A5	1166	G	C2'-C1'	-10.23	1.42	1.53
36	B2	1169	G	O4'-C1'	10.22	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	141	C	C2'-C1'	-10.22	1.42	1.53
85	A5	2497	C	C2'-C1'	-10.22	1.42	1.53
85	A5	3926	C	C2'-C1'	-10.22	1.42	1.53
36	B2	1234	C	C2'-C1'	-10.21	1.42	1.53
85	A5	688	U	O4'-C1'	10.21	1.54	1.41
85	A5	705	G	C2'-C1'	-10.21	1.42	1.53
36	B2	392	A	O4'-C1'	10.21	1.54	1.41
85	A5	992	C	C2'-C1'	-10.21	1.42	1.53
85	A5	3878	C	O4'-C1'	10.21	1.54	1.41
85	A5	4370	G	C2'-C1'	-10.20	1.42	1.53
85	A5	1250	C	O4'-C1'	10.20	1.54	1.41
85	A5	1307	A	C2'-C1'	-10.20	1.42	1.53
85	A5	3837	C	C2'-C1'	-10.20	1.42	1.53
85	A5	303	C	C2'-C1'	-10.20	1.42	1.53
85	A5	524	C	O4'-C1'	10.20	1.54	1.41
85	A5	2759	G	O4'-C1'	10.20	1.54	1.41
85	A5	2880	U	O4'-C1'	10.20	1.54	1.41
85	A5	1188	C	O4'-C1'	10.20	1.54	1.41
36	B2	598	G	C2'-C1'	-10.19	1.42	1.53
36	B2	1275	G	C2'-C1'	-10.19	1.42	1.53
85	A5	1893	C	C2'-C1'	-10.19	1.42	1.53
85	A5	3819	G	C2'-C1'	-10.19	1.42	1.53
85	A5	1311	G	C2'-C1'	-10.18	1.42	1.53
85	A5	2794	C	O4'-C1'	10.18	1.54	1.41
85	A5	3911	C	C2'-C1'	-10.18	1.42	1.53
85	A5	4613	C	C2'-C1'	-10.18	1.42	1.53
36	B2	1414	A	C2'-C1'	-10.18	1.42	1.53
85	A5	1477	C	O4'-C1'	10.18	1.54	1.41
85	A5	1866	U	C2'-C1'	-10.18	1.42	1.53
85	A5	3915	U	O4'-C1'	10.18	1.54	1.41
85	A5	4327	C	C2'-C1'	-10.18	1.42	1.53
85	A5	1651	G	C2'-C1'	-10.17	1.42	1.53
36	B2	1276	A	O4'-C1'	10.17	1.54	1.41
85	A5	4286	C	O4'-C1'	10.17	1.54	1.41
36	B2	1578	U	O4'-C1'	-10.17	1.28	1.41
36	B2	1789	G	O4'-C1'	10.17	1.54	1.41
85	A5	4154	G	C2'-C1'	-10.17	1.42	1.53
36	B2	244	A	O4'-C1'	10.16	1.54	1.41
36	B2	827	A	C2'-C1'	-10.16	1.42	1.53
85	A5	1807	C	O4'-C1'	10.16	1.54	1.41
36	B2	981	A	O4'-C1'	10.16	1.54	1.41
85	A5	1461	C	O4'-C1'	10.16	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1398	A	O4'-C1'	-10.16	1.28	1.41
85	A5	1895	G	C2'-C1'	-10.16	1.42	1.53
36	B2	1100	A	O4'-C1'	10.15	1.54	1.41
85	A5	4262	C	O4'-C1'	10.15	1.54	1.41
85	A5	4068	U	O4'-C1'	10.15	1.54	1.41
85	A5	675	C	O4'-C1'	10.14	1.54	1.41
85	A5	1499	C	C2'-C1'	-10.14	1.42	1.53
85	A5	2728	U	C2'-C1'	-10.14	1.42	1.53
85	A5	3684	G	O4'-C1'	10.14	1.54	1.41
85	A5	4487	A	O4'-C1'	10.14	1.54	1.41
36	B2	52	G	C2'-C1'	-10.13	1.42	1.53
36	B2	693	A	C2'-C1'	-10.13	1.42	1.53
36	B2	76	U	O4'-C1'	10.13	1.54	1.41
85	A5	2716	C	C2'-C1'	-10.12	1.42	1.53
85	A5	2768	C	C2'-C1'	-10.12	1.42	1.53
87	A8	65	A	O4'-C1'	10.12	1.54	1.41
85	A5	4101	C	O4'-C1'	10.12	1.54	1.41
85	A5	2853	C	O4'-C1'	10.12	1.54	1.41
85	A5	5041	G	O4'-C1'	-10.11	1.28	1.41
36	B2	1328	G	C2'-C1'	-10.11	1.42	1.53
64	CF	210	PRO	N-CD	10.11	1.62	1.47
85	A5	4742	G	C2'-C1'	-10.11	1.42	1.53
85	A5	1097	C	O4'-C1'	10.11	1.54	1.41
85	A5	4153	C	C2'-C1'	-10.11	1.42	1.53
36	B2	663	C	C2'-C1'	-10.10	1.42	1.53
85	A5	1431	C	O4'-C1'	10.10	1.54	1.41
36	B2	323	C	O4'-C1'	10.10	1.54	1.41
36	B2	1080	A	O4'-C1'	-10.10	1.28	1.41
36	B2	75	G	C2'-C1'	-10.09	1.42	1.53
85	A5	1323	A	C2'-C1'	-10.09	1.42	1.53
36	B2	1316	C	O4'-C1'	10.09	1.54	1.41
87	A8	26	C	C2'-C1'	-10.09	1.42	1.53
36	B2	120	U	C2'-C1'	-10.09	1.42	1.53
36	B2	1745	A	C2'-C1'	10.09	1.64	1.53
85	A5	259	C	C2'-C1'	-10.09	1.42	1.53
85	A5	4207	C	C2'-C1'	-10.09	1.42	1.53
85	A5	5070	C	O4'-C1'	10.09	1.54	1.41
85	A5	2820	C	C2'-C1'	-10.08	1.42	1.53
87	A8	155	C	O4'-C1'	10.08	1.54	1.41
85	A5	4584	A	O4'-C1'	10.08	1.54	1.41
85	A5	2616	C	O4'-C1'	10.08	1.54	1.41
87	A8	69	U	C2'-C1'	-10.08	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2817	C	C2'-C1'	-10.07	1.42	1.53
85	A5	255	C	C2'-C1'	-10.07	1.42	1.53
85	A5	2026	A	C2'-C1'	-10.07	1.42	1.53
85	A5	2558	C	O4'-C1'	10.07	1.54	1.41
85	A5	4312	U	C2'-C1'	-10.07	1.42	1.53
36	B2	1143	A	C2'-C1'	-10.07	1.42	1.53
36	B2	1508	A	C2'-C1'	10.07	1.64	1.53
85	A5	1089	G	O4'-C1'	-10.07	1.28	1.41
36	B2	149	A	O4'-C1'	10.07	1.54	1.41
36	B2	1753	C	O4'-C1'	10.06	1.54	1.41
85	A5	983	C	C2'-C1'	-10.06	1.42	1.53
36	B2	1075	C	C2'-C1'	-10.06	1.42	1.53
85	A5	1192	C	O4'-C1'	10.06	1.54	1.41
85	A5	1346	C	O4'-C1'	10.06	1.54	1.41
85	A5	906	C	O4'-C1'	10.06	1.54	1.41
85	A5	2654	C	C2'-C1'	-10.06	1.42	1.53
85	A5	2502	G	C2'-C1'	-10.06	1.42	1.53
85	A5	2330	G	O4'-C1'	10.05	1.54	1.41
85	A5	1628	C	O4'-C1'	10.05	1.54	1.41
85	A5	1762	C	O4'-C1'	10.04	1.54	1.41
85	A5	4540	C	O4'-C1'	10.05	1.54	1.41
85	A5	4760	G	C2'-C1'	-10.05	1.42	1.53
36	B2	813	A	O4'-C1'	10.04	1.54	1.41
85	A5	4900	C	O4'-C1'	10.04	1.54	1.41
60	Cr	103	ARG	C-N	10.04	1.53	1.34
85	A5	346	G	O4'-C1'	-10.04	1.28	1.41
36	B2	325	C	C2'-C1'	10.04	1.64	1.53
85	A5	135	G	C2'-C1'	-10.04	1.42	1.53
36	B2	212	C	O4'-C1'	10.04	1.54	1.41
85	A5	1914	C	C2'-C1'	-10.04	1.42	1.53
85	A5	2760	G	C2'-C1'	10.04	1.64	1.53
85	A5	2321	G	C2'-C1'	-10.03	1.42	1.53
85	A5	5070	C	C2'-C1'	-10.03	1.42	1.53
36	B2	438	G	C2'-C1'	10.03	1.64	1.53
85	A5	464	G	O4'-C1'	10.03	1.54	1.41
85	A5	1479	G	C2'-C1'	-10.03	1.42	1.53
36	B2	196	C	O4'-C1'	10.03	1.54	1.41
46	CN	79	ALA	C-N	10.03	1.57	1.34
36	B2	82	G	C2'-C1'	10.03	1.64	1.53
36	B2	321	C	C2'-C1'	-10.02	1.42	1.53
36	B2	1213	C	C2'-C1'	-10.02	1.42	1.53
37	BC	47	C	O4'-C1'	10.02	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1431	C	C2'-C1'	-10.01	1.42	1.53
85	A5	2706	G	C2'-C1'	-10.01	1.42	1.53
85	A5	4110	C	C2'-C1'	-10.01	1.42	1.53
85	A5	199	G	C2'-C1'	-10.01	1.42	1.53
87	A8	12	G	C2'-C1'	-10.01	1.42	1.53
36	B2	1381	G	O4'-C1'	-10.01	1.28	1.41
85	A5	7	C	C2'-C1'	-10.01	1.42	1.53
36	B2	194	C	C2'-C1'	-10.01	1.42	1.53
36	B2	447	A	C2'-C1'	10.01	1.64	1.53
36	B2	960	U	O4'-C1'	10.01	1.54	1.41
36	B2	1793	A	O4'-C1'	10.01	1.54	1.41
85	A5	65	A	O4'-C1'	-10.00	1.28	1.41
85	A5	4553	A	O4'-C1'	10.00	1.54	1.41
85	A5	1655	C	O4'-C1'	9.99	1.54	1.41
85	A5	2540	C	O4'-C1'	9.99	1.54	1.41
85	A5	4698	C	O4'-C1'	9.99	1.54	1.41
36	B2	1605	G	O4'-C1'	9.98	1.54	1.41
85	A5	925	C	C2'-C1'	-9.98	1.42	1.53
85	A5	1496	G	O4'-C1'	9.98	1.54	1.41
85	A5	1634	A	O4'-C1'	9.98	1.54	1.41
36	B2	1828	C	O4'-C1'	9.98	1.54	1.41
36	B2	1590	C	C2'-C1'	-9.98	1.42	1.53
85	A5	3585	G	C2'-C1'	-9.98	1.42	1.53
85	A5	3649	A	O4'-C1'	9.97	1.54	1.41
85	A5	4771	C	C2'-C1'	-9.97	1.42	1.53
85	A5	2595	C	O4'-C1'	9.97	1.54	1.41
85	A5	4955	A	C2'-C1'	9.97	1.64	1.53
35	Ah	157	ILE	CA-C	9.96	1.78	1.52
85	A5	2620	G	C2'-C1'	-9.96	1.42	1.53
85	A5	2807	A	O4'-C1'	9.96	1.54	1.41
85	A5	2116	C	O4'-C1'	9.96	1.54	1.41
36	B2	496	C	O4'-C1'	9.96	1.54	1.41
74	CC	226	GLY	C-N	-9.96	1.11	1.34
85	A5	755	C	O4'-C1'	9.96	1.54	1.41
36	B2	859	G	C2'-C1'	-9.95	1.42	1.53
85	A5	1264	C	O4'-C1'	9.95	1.54	1.41
36	B2	573	U	C2'-C1'	-9.94	1.42	1.53
85	A5	133	C	O4'-C1'	9.95	1.54	1.41
85	A5	1393	G	O4'-C1'	9.94	1.54	1.41
85	A5	2246	C	O4'-C1'	9.94	1.54	1.41
85	A5	340	C	C2'-C1'	-9.94	1.42	1.53
85	A5	4871	C	C2'-C1'	9.94	1.64	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4505	C	C2'-C1'	-9.93	1.42	1.53
85	A5	501	C	O4'-C1'	9.93	1.54	1.41
85	A5	1619	G	C2'-C1'	-9.93	1.42	1.53
17	AV	31	SER	N-CA	9.93	1.66	1.46
36	B2	66	G	O4'-C1'	9.93	1.54	1.41
85	A5	1893	C	O4'-C1'	9.93	1.54	1.41
36	B2	1033	G	C2'-C1'	-9.92	1.42	1.53
85	A5	904	C	O4'-C1'	9.92	1.54	1.41
85	A5	718	C	O4'-C1'	9.92	1.54	1.41
85	A5	1467	C	O4'-C1'	9.92	1.54	1.41
36	B2	664	A	C2'-C1'	-9.92	1.42	1.53
45	Ca	109	TYR	CD2-CE2	-9.91	1.24	1.39
85	A5	5029	C	O4'-C1'	9.91	1.54	1.41
85	A5	2295	C	O4'-C1'	9.91	1.54	1.41
85	A5	2864	A	O4'-C1'	9.91	1.54	1.41
85	A5	474	C	O4'-C1'	9.91	1.54	1.41
85	A5	4233	A	O4'-C1'	-9.91	1.28	1.41
85	A5	2861	C	C2'-C1'	-9.91	1.42	1.53
85	A5	3789	C	O4'-C1'	9.91	1.54	1.41
85	A5	1279	A	C2'-C1'	-9.90	1.42	1.53
85	A5	2379	A	O4'-C1'	9.90	1.54	1.41
36	B2	570	C	C2'-C1'	-9.90	1.42	1.53
85	A5	1731	C	C2'-C1'	-9.89	1.42	1.53
85	A5	1848	C	O4'-C1'	9.89	1.54	1.41
85	A5	1857	C	O4'-C1'	9.89	1.54	1.41
85	A5	351	C	C2'-C1'	-9.89	1.42	1.53
85	A5	1417	C	C2'-C1'	-9.89	1.42	1.53
36	B2	1656	G	C2'-C1'	-9.89	1.42	1.53
85	A5	1465	G	C2'-C1'	-9.89	1.42	1.53
85	A5	1315	C	C2'-C1'	-9.89	1.42	1.53
87	A8	28	C	C2'-C1'	-9.89	1.42	1.53
85	A5	489	C	O4'-C1'	9.88	1.54	1.41
85	A5	3625	G	O4'-C1'	9.88	1.54	1.41
36	B2	543	C	O4'-C1'	9.88	1.54	1.41
85	A5	4490	C	O4'-C1'	9.88	1.54	1.41
85	A5	4635	A	O4'-C1'	-9.88	1.28	1.41
36	B2	1333	U	C2'-C1'	9.87	1.64	1.53
85	A5	736	C	C2'-C1'	-9.87	1.42	1.53
85	A5	134	G	C2'-C1'	-9.87	1.42	1.53
85	A5	4269	G	C2'-C1'	-9.87	1.42	1.53
85	A5	1796	U	O4'-C1'	9.87	1.54	1.41
85	A5	4892	A	O4'-C1'	9.87	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1683	C	O4'-C1'	9.87	1.54	1.41
85	A5	127	G	C2'-C1'	-9.86	1.42	1.53
85	A5	4606	G	O4'-C1'	9.87	1.54	1.41
36	B2	307	G	O4'-C1'	-9.86	1.28	1.41
36	B2	85	A	C2'-C1'	-9.86	1.42	1.53
36	B2	455	A	O4'-C1'	9.86	1.54	1.41
85	A5	4496	A	O4'-C1'	9.86	1.54	1.41
36	B2	1772	C	C2'-C1'	-9.86	1.42	1.53
85	A5	957	G	O4'-C1'	-9.86	1.28	1.41
85	A5	4527	G	O4'-C1'	-9.86	1.28	1.41
36	B2	111	A	O4'-C1'	-9.85	1.28	1.41
85	A5	274	C	O4'-C1'	9.85	1.54	1.41
85	A5	922	C	O4'-C1'	9.85	1.54	1.41
85	A5	4626	A	C2'-C1'	-9.85	1.42	1.53
36	B2	950	C	O4'-C1'	9.85	1.54	1.41
85	A5	1631	A	C2'-C1'	9.85	1.64	1.53
36	B2	497	C	C2'-C1'	-9.84	1.42	1.53
48	CD	66	TYR	CD2-CE2	-9.84	1.24	1.39
85	A5	2615	C	C2'-C1'	-9.84	1.42	1.53
85	A5	1104	C	O4'-C1'	9.84	1.54	1.41
36	B2	1010	G	O4'-C1'	-9.84	1.28	1.41
85	A5	925	C	O4'-C1'	9.84	1.54	1.41
85	A5	1417	C	O4'-C1'	9.84	1.54	1.41
85	A5	2500	U	C2'-C1'	-9.84	1.42	1.53
35	Ah	157	ILE	C-O	-9.83	1.04	1.23
36	B2	1035	A	C2'-C1'	-9.83	1.42	1.53
85	A5	947	C	O4'-C1'	9.83	1.54	1.41
85	A5	1579	C	C2'-C1'	-9.83	1.42	1.53
85	A5	4251	A	C2'-C1'	-9.83	1.42	1.53
36	B2	1471	C	C2'-C1'	-9.83	1.42	1.53
58	CW	31	PHE	C-N	-9.83	1.11	1.34
85	A5	1240	G	O4'-C1'	-9.82	1.28	1.41
85	A5	2560	C	O4'-C1'	9.81	1.54	1.41
36	B2	458	A	O4'-C1'	9.81	1.54	1.41
36	B2	1059	G	C2'-C1'	-9.81	1.42	1.53
36	B2	1363	C	O4'-C1'	9.81	1.54	1.41
85	A5	1515	A	O4'-C1'	9.81	1.54	1.41
85	A5	2818	C	O4'-C1'	9.81	1.54	1.41
85	A5	4263	C	C2'-C1'	-9.80	1.42	1.53
36	B2	1785	C	C2'-C1'	9.80	1.64	1.53
85	A5	33	A	O4'-C1'	9.80	1.54	1.41
85	A5	986	C	O4'-C1'	9.80	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	A7	72	U	C2'-C1'	-9.80	1.42	1.53
85	A5	4109	G	C2'-C1'	-9.80	1.42	1.53
85	A5	1474	C	O4'-C1'	9.79	1.54	1.41
85	A5	1554	A	O4'-C1'	9.79	1.54	1.41
85	A5	2863	G	O4'-C1'	9.79	1.54	1.41
36	B2	1790	A	C2'-C1'	-9.79	1.42	1.53
85	A5	2060	G	C2'-C1'	-9.79	1.42	1.53
85	A5	2073	C	O4'-C1'	9.79	1.54	1.41
36	B2	1320	G	O4'-C1'	-9.79	1.28	1.41
36	B2	1432	U	C2'-C1'	-9.78	1.42	1.53
85	A5	2247	C	C2'-C1'	9.78	1.64	1.53
85	A5	2701	U	C2'-C1'	-9.78	1.42	1.53
36	B2	936	G	C2'-C1'	-9.78	1.42	1.53
36	B2	1825	A	C2'-C1'	9.78	1.64	1.53
85	A5	3802	U	C2'-C1'	-9.78	1.42	1.53
85	A5	4619	U	C2'-C1'	-9.78	1.42	1.53
36	B2	554	A	C2'-C1'	-9.77	1.42	1.53
36	B2	1751	C	C2'-C1'	-9.77	1.42	1.53
85	A5	4750	G	C2'-C1'	-9.77	1.42	1.53
85	A5	5008	C	O4'-C1'	9.77	1.54	1.41
85	A5	4256	A	O4'-C1'	-9.77	1.28	1.41
36	B2	402	C	O4'-C1'	9.76	1.54	1.41
36	B2	892	U	C2'-C1'	-9.76	1.42	1.53
37	BC	63	U	C2'-C1'	-9.76	1.42	1.53
85	A5	2281	U	C2'-C1'	-9.76	1.42	1.53
85	A5	3829	G	C2'-C1'	-9.76	1.42	1.53
85	A5	2817	C	O4'-C1'	9.76	1.54	1.41
85	A5	4252	C	O4'-C1'	9.76	1.54	1.41
36	B2	1564	C	O4'-C1'	9.75	1.54	1.41
85	A5	2108	G	O4'-C1'	9.75	1.54	1.41
85	A5	3942	A	C2'-C1'	9.75	1.64	1.53
85	A5	4060	U	C2'-C1'	9.75	1.64	1.53
36	B2	67	C	O4'-C1'	-9.74	1.28	1.41
36	B2	655	A	C2'-C1'	-9.74	1.42	1.53
85	A5	63	G	C2'-C1'	-9.74	1.42	1.53
85	A5	3835	C	O4'-C1'	9.74	1.54	1.41
36	B2	1205	C	C2'-C1'	-9.74	1.42	1.53
85	A5	4258	C	C2'-C1'	-9.74	1.42	1.53
85	A5	1801	A	O4'-C1'	9.73	1.54	1.41
85	A5	250	C	C2'-C1'	-9.73	1.42	1.53
85	A5	436	C	O4'-C1'	9.73	1.54	1.41
85	A5	4928	C	C2'-C1'	-9.73	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2264	C	O4'-C1'	9.72	1.54	1.41
85	A5	2613	C	O4'-C1'	9.72	1.54	1.41
85	A5	1727	U	O4'-C1'	9.72	1.54	1.41
85	A5	2418	A	O4'-C1'	9.72	1.54	1.41
85	A5	3938	G	O4'-C1'	-9.72	1.29	1.41
85	A5	4158	C	O4'-C1'	9.72	1.54	1.41
36	B2	96	C	O4'-C1'	9.71	1.54	1.41
85	A5	1430	C	C2'-C1'	-9.72	1.42	1.53
85	A5	1	C	O4'-C1'	9.71	1.54	1.41
85	A5	2045	G	C2'-C1'	-9.71	1.42	1.53
85	A5	4048	A	O4'-C1'	-9.71	1.29	1.41
36	B2	521	A	C2'-C1'	-9.71	1.42	1.53
36	B2	667	U	O4'-C1'	9.70	1.54	1.41
85	A5	1365	C	O4'-C1'	9.70	1.54	1.41
85	A5	4298	A	O4'-C1'	9.70	1.54	1.41
85	A5	1668	A	O4'-C1'	9.70	1.54	1.41
36	B2	1124	C	O4'-C1'	9.70	1.54	1.41
36	B2	429	C	O4'-C1'	9.70	1.54	1.41
85	A5	302	C	C2'-C1'	-9.70	1.42	1.53
85	A5	2366	A	C2'-C1'	-9.69	1.42	1.53
85	A5	4136	G	C2'-C1'	-9.70	1.42	1.53
85	A5	4924	C	C2'-C1'	-9.69	1.42	1.53
36	B2	1814	G	C2'-C1'	-9.69	1.42	1.53
85	A5	2886	U	C2'-C1'	-9.69	1.42	1.53
85	A5	2580	U	O4'-C1'	9.69	1.54	1.41
85	A5	2319	C	C2'-C1'	-9.69	1.42	1.53
85	A5	3636	C	O4'-C1'	9.69	1.54	1.41
85	A5	5	A	O4'-C1'	9.68	1.54	1.41
85	A5	3655	C	O4'-C1'	9.68	1.54	1.41
85	A5	4346	U	C2'-C1'	-9.68	1.42	1.53
85	A5	275	C	C2'-C1'	-9.68	1.42	1.53
36	B2	517	C	O4'-C1'	9.68	1.54	1.41
36	B2	1577	G	O4'-C1'	9.68	1.54	1.41
85	A5	3663	A	O4'-C1'	9.68	1.54	1.41
85	A5	2638	G	C2'-C1'	9.68	1.64	1.53
87	A8	46	G	O4'-C1'	9.68	1.54	1.41
36	B2	294	U	O4'-C1'	9.67	1.54	1.41
36	B2	574	A	C2'-C1'	-9.67	1.42	1.53
85	A5	4155	C	C2'-C1'	-9.67	1.42	1.53
36	B2	13	C	C2'-C1'	-9.67	1.42	1.53
85	A5	1085	C	O4'-C1'	9.67	1.54	1.41
85	A5	2408	U	C2'-C1'	-9.67	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1665	C	C2'-C1'	-9.67	1.42	1.53
85	A5	4208	U	C2'-C1'	-9.67	1.42	1.53
87	A8	115	G	O4'-C1'	9.67	1.54	1.41
85	A5	2887	U	C2'-C1'	9.66	1.64	1.53
85	A5	512	U	O4'-C1'	9.66	1.54	1.41
87	A8	14	U	O4'-C1'	9.66	1.54	1.41
36	B2	150	A	O4'-C1'	9.66	1.54	1.41
36	B2	491	C	C2'-C1'	-9.66	1.42	1.53
36	B2	321	C	O4'-C1'	9.65	1.54	1.41
85	A5	523	C	O4'-C1'	9.65	1.54	1.41
36	B2	1324	G	C2'-C1'	-9.65	1.42	1.53
85	A5	3932	U	O4'-C1'	9.65	1.54	1.41
85	A5	921	C	O4'-C1'	9.65	1.54	1.41
36	B2	1103	C	C2'-C1'	-9.65	1.42	1.53
36	B2	1300	U	O4'-C1'	-9.64	1.29	1.41
85	A5	1575	A	C2'-C1'	-9.64	1.42	1.53
87	A8	121	G	C2'-C1'	-9.64	1.42	1.53
85	A5	1082	C	C2'-C1'	-9.63	1.42	1.53
85	A5	4568	A	O4'-C1'	9.63	1.54	1.41
85	A5	4048	A	C2'-C1'	9.63	1.64	1.53
36	B2	685	A	C2'-C1'	-9.63	1.42	1.53
85	A5	237	G	O4'-C1'	-9.63	1.29	1.41
85	A5	4607	A	C2'-C1'	9.63	1.64	1.53
36	B2	307	G	C2'-C1'	9.62	1.64	1.53
85	A5	1291	G	O4'-C1'	9.62	1.54	1.41
85	A5	2362	U	C2'-C1'	9.63	1.64	1.53
85	A5	1534	A	C2'-C1'	-9.62	1.42	1.53
85	A5	1909	G	O4'-C1'	9.62	1.54	1.41
85	A5	2879	A	O4'-C1'	9.62	1.54	1.41
85	A5	4458	C	O4'-C1'	9.62	1.54	1.41
36	B2	1208	A	C2'-C1'	9.61	1.64	1.53
36	B2	1507	G	C2'-C1'	-9.62	1.42	1.53
85	A5	3673	C	O4'-C1'	9.62	1.54	1.41
85	A5	1167	C	O4'-C1'	9.61	1.54	1.41
36	B2	1674	G	C2'-C1'	-9.61	1.42	1.53
85	A5	2263	A	O4'-C1'	9.61	1.54	1.41
85	A5	3680	U	C2'-C1'	-9.61	1.42	1.53
36	B2	1215	C	C2'-C1'	9.61	1.64	1.53
85	A5	2035	C	C2'-C1'	-9.61	1.42	1.53
86	A7	28	C	C2'-C1'	-9.61	1.42	1.53
36	B2	369	C	C2'-C1'	-9.61	1.42	1.53
85	A5	2393	C	O4'-C1'	9.61	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1587	G	C2'-C1'	-9.60	1.42	1.53
85	A5	3833	C	O4'-C1'	9.60	1.54	1.41
85	A5	1255	A	C2'-C1'	-9.60	1.42	1.53
85	A5	1465	G	O4'-C1'	9.60	1.54	1.41
63	CB	32	PHE	CB-CG	-9.59	1.35	1.51
85	A5	715	G	C2'-C1'	-9.59	1.42	1.53
85	A5	4091	G	C2'-C1'	-9.59	1.42	1.53
85	A5	4621	C	O4'-C1'	9.59	1.54	1.41
85	A5	2892	C	O4'-C1'	9.59	1.54	1.41
85	A5	4488	A	O4'-C1'	-9.59	1.29	1.41
36	B2	1747	C	O3'-P	-9.59	1.49	1.61
85	A5	1280	C	O4'-C1'	9.58	1.54	1.41
85	A5	4345	C	O4'-C1'	9.58	1.54	1.41
85	A5	480	C	C2'-C1'	-9.58	1.42	1.53
36	B2	1116	C	O4'-C1'	-9.57	1.29	1.41
36	B2	1599	U	C2'-C1'	9.57	1.63	1.53
85	A5	928	C	O4'-C1'	9.57	1.54	1.41
85	A5	1625	G	C2'-C1'	-9.57	1.42	1.53
85	A5	2705	G	C2'-C1'	-9.57	1.42	1.53
85	A5	1413	C	C2'-C1'	-9.57	1.42	1.53
85	A5	3834	C	O4'-C1'	9.57	1.54	1.41
87	A8	10	G	C2'-C1'	-9.57	1.42	1.53
85	A5	341	G	C2'-C1'	-9.57	1.42	1.53
26	AJ	35	TYR	CD1-CE1	-9.56	1.25	1.39
87	A8	17	A	O4'-C1'	9.56	1.54	1.41
85	A5	2066	C	O4'-C1'	9.56	1.54	1.41
85	A5	2128	G	O4'-C1'	9.55	1.54	1.41
87	A8	6	C	C2'-C1'	-9.55	1.42	1.53
36	B2	833	C	C2'-C1'	-9.55	1.42	1.53
85	A5	1241	C	O4'-C1'	9.55	1.54	1.41
36	B2	1468	C	O4'-C1'	9.55	1.54	1.41
87	A8	35	C	O4'-C1'	9.54	1.54	1.41
36	B2	1342	U	C2'-C1'	-9.54	1.42	1.53
85	A5	1340	C	C2'-C1'	-9.54	1.42	1.53
85	A5	699	C	C2'-C1'	-9.54	1.42	1.53
85	A5	2750	G	C2'-C1'	-9.54	1.42	1.53
36	B2	1796	G	C2'-C1'	-9.54	1.42	1.53
85	A5	4073	A	C2'-C1'	-9.54	1.42	1.53
36	B2	747	U	O4'-C1'	9.53	1.54	1.41
37	BC	31	C	O4'-C1'	9.54	1.54	1.41
36	B2	88	G	C2'-C1'	-9.53	1.42	1.53
85	A5	1476	C	O4'-C1'	9.53	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4934	A	O4'-C1'	9.53	1.54	1.41
85	A5	1541	C	O4'-C1'	9.53	1.54	1.41
85	A5	1740	C	C2'-C1'	9.53	1.63	1.53
85	A5	3607	U	O4'-C1'	9.53	1.54	1.41
85	A5	4538	G	C2'-C1'	-9.52	1.42	1.53
85	A5	2424	G	C2'-C1'	-9.52	1.42	1.53
85	A5	4739	C	O4'-C1'	9.52	1.54	1.41
87	A8	1	C	C2'-C1'	-9.52	1.42	1.53
85	A5	2781	G	C2'-C1'	-9.52	1.42	1.53
85	A5	1945	G	C2'-C1'	-9.51	1.42	1.53
36	B2	173	A	O4'-C1'	9.51	1.54	1.41
36	B2	1466	G	C2'-C1'	-9.51	1.42	1.53
85	A5	1189	G	C2'-C1'	-9.51	1.42	1.53
85	A5	4594	U	C2'-C1'	-9.51	1.42	1.53
86	A7	52	C	C2'-C1'	-9.51	1.42	1.53
36	B2	215	G	O4'-C1'	9.50	1.54	1.41
36	B2	1343	U	O4'-C1'	9.50	1.54	1.41
36	B2	803	C	C2'-C1'	-9.50	1.43	1.53
36	B2	1332	A	O4'-C1'	9.50	1.53	1.41
85	A5	2775	C	O4'-C1'	9.50	1.53	1.41
85	A5	4486	C	O4'-C1'	9.49	1.53	1.41
85	A5	4553	A	C2'-C1'	-9.49	1.43	1.53
85	A5	4712	C	O4'-C1'	9.49	1.53	1.41
63	CB	15	GLY	C-N	-9.49	1.12	1.34
85	A5	334	A	C2'-C1'	-9.49	1.43	1.53
37	BC	44	G	O4'-C1'	9.49	1.53	1.41
85	A5	273	U	C2'-C1'	-9.49	1.43	1.53
85	A5	469	C	O4'-C1'	9.48	1.53	1.41
85	A5	1692	C	C2'-C1'	-9.48	1.43	1.53
36	B2	1712	A	C2'-C1'	-9.48	1.43	1.53
85	A5	1071	C	O4'-C1'	9.48	1.53	1.41
85	A5	1468	C	O4'-C1'	9.48	1.53	1.41
85	A5	4184	G	C2'-C1'	-9.47	1.43	1.53
85	A5	4763	U	O4'-C1'	9.47	1.53	1.41
60	Cr	37	SER	C-N	9.47	1.55	1.34
85	A5	520	C	O4'-C1'	9.47	1.53	1.41
36	B2	1787	G	C2'-C1'	-9.46	1.43	1.53
36	B2	1341	C	O4'-C1'	9.46	1.53	1.41
85	A5	712	C	C2'-C1'	-9.46	1.43	1.53
85	A5	1908	A	O4'-C1'	9.46	1.53	1.41
85	A5	4995	U	O4'-C1'	9.46	1.53	1.41
85	A5	1900	C	O4'-C1'	9.45	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	984	C	O4'-C1'	9.45	1.53	1.41
37	BC	19	A	C2'-C1'	9.45	1.63	1.53
85	A5	4279	A	O4'-C1'	9.45	1.53	1.41
85	A5	2644	G	C2'-C1'	-9.45	1.43	1.53
85	A5	3973	G	O4'-C1'	9.45	1.53	1.41
85	A5	693	C	O4'-C1'	9.44	1.53	1.41
85	A5	2737	C	O4'-C1'	9.44	1.53	1.41
85	A5	1551	C	O4'-C1'	9.44	1.53	1.41
36	B2	1441	U	C2'-C1'	9.44	1.63	1.53
85	A5	1996	C	O4'-C1'	9.44	1.53	1.41
85	A5	4666	G	C2'-C1'	-9.44	1.43	1.53
36	B2	1444	U	C2'-C1'	-9.44	1.43	1.53
64	CF	23	ARG	CA-C	9.44	1.77	1.52
85	A5	112	C	O4'-C1'	9.44	1.53	1.41
85	A5	2633	U	C2'-C1'	-9.44	1.43	1.53
85	A5	4988	U	C2'-C1'	-9.44	1.43	1.53
36	B2	31	U	C2'-C1'	9.43	1.63	1.53
85	A5	1643	A	O4'-C1'	9.43	1.53	1.41
36	B2	1033	G	O4'-C1'	9.43	1.53	1.41
8	AS	6	PRO	CA-C	9.42	1.71	1.52
85	A5	3797	C	O4'-C1'	9.42	1.53	1.41
85	A5	175	C	C2'-C1'	-9.42	1.43	1.53
85	A5	1409	C	C2'-C1'	9.42	1.63	1.53
36	B2	1436	C	C2'-C1'	-9.41	1.43	1.53
36	B2	467	G	O4'-C1'	9.41	1.53	1.41
85	A5	754	U	C2'-C1'	9.41	1.63	1.53
45	Ca	109	TYR	CD1-CE1	-9.41	1.25	1.39
85	A5	2600	A	C2'-C1'	-9.41	1.43	1.53
85	A5	685	C	O4'-C1'	9.40	1.53	1.41
85	A5	1922	G	C2'-C1'	-9.40	1.43	1.53
85	A5	4076	G	C2'-C1'	-9.40	1.43	1.53
85	A5	1109	C	C2'-C1'	-9.40	1.43	1.53
85	A5	4579	U	C2'-C1'	-9.40	1.43	1.53
36	B2	1855	G	C2'-C1'	-9.40	1.43	1.53
85	A5	197	A	O4'-C1'	9.39	1.53	1.41
85	A5	2507	A	C2'-C1'	-9.39	1.43	1.53
87	A8	107	C	O4'-C1'	9.39	1.53	1.41
36	B2	1406	G	C2'-C1'	-9.39	1.43	1.53
36	B2	1541	G	C2'-C1'	-9.39	1.43	1.53
85	A5	2478	C	O4'-C1'	9.39	1.53	1.41
85	A5	2583	C	O4'-C1'	9.39	1.53	1.41
85	A5	3957	U	O4'-C1'	9.39	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1936	C	O4'-C1'	9.38	1.53	1.41
85	A5	2446	C	C2'-C1'	-9.38	1.43	1.53
85	A5	2054	U	C2'-C1'	9.38	1.63	1.53
85	A5	373	G	O4'-C1'	-9.38	1.29	1.41
85	A5	2045	G	O4'-C1'	9.38	1.53	1.41
85	A5	1436	C	C2'-C1'	-9.37	1.43	1.53
37	BC	22	C	O4'-C1'	9.37	1.53	1.41
36	B2	1105	G	O4'-C1'	9.37	1.53	1.41
85	A5	1283	G	C2'-C1'	-9.37	1.43	1.53
85	A5	1875	C	C2'-C1'	-9.37	1.43	1.53
85	A5	1467	C	C2'-C1'	-9.37	1.43	1.53
36	B2	1553	C	C2'-C1'	9.37	1.63	1.53
36	B2	1749	G	C2'-C1'	-9.37	1.43	1.53
85	A5	1776	A	O4'-C1'	9.37	1.53	1.41
85	A5	4187	G	C2'-C1'	-9.37	1.43	1.53
36	B2	1756	C	O4'-C1'	9.36	1.53	1.41
36	B2	1867	U	C2'-C1'	9.36	1.63	1.53
87	A8	70	G	C2'-C1'	-9.36	1.43	1.53
85	A5	450	G	C2'-C1'	9.36	1.63	1.53
85	A5	1204	C	O4'-C1'	9.36	1.53	1.41
85	A5	4255	A	C2'-C1'	-9.36	1.43	1.53
85	A5	3597	G	C2'-C1'	-9.36	1.43	1.53
48	CD	66	TYR	CB-CG	-9.35	1.37	1.51
85	A5	990	C	C2'-C1'	9.35	1.63	1.53
85	A5	3796	U	O4'-C1'	9.35	1.53	1.41
85	A5	3854	C	C2'-C1'	-9.35	1.43	1.53
85	A5	1443	A	O4'-C1'	9.35	1.53	1.41
85	A5	1724	G	C2'-C1'	9.35	1.63	1.53
85	A5	1938	C	O4'-C1'	9.35	1.53	1.41
36	B2	1305	C	O4'-C1'	9.34	1.53	1.41
85	A5	2579	G	C2'-C1'	9.34	1.63	1.53
86	A7	46	C	O4'-C1'	9.34	1.53	1.41
85	A5	2809	G	C2'-C1'	-9.34	1.43	1.53
85	A5	2034	G	C2'-C1'	-9.33	1.43	1.53
85	A5	4418	G	C2'-C1'	9.33	1.63	1.53
36	B2	730	C	O4'-C1'	9.33	1.53	1.41
85	A5	1768	C	C2'-C1'	9.33	1.63	1.53
36	B2	1255	G	O4'-C1'	9.32	1.53	1.41
85	A5	3835	C	C2'-C1'	-9.32	1.43	1.53
85	A5	5054	C	C2'-C1'	9.32	1.63	1.53
85	A5	361	C	O4'-C1'	9.32	1.53	1.41
85	A5	463	A	O4'-C1'	9.32	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	628	A	O4'-C1'	-9.31	1.29	1.41
36	B2	660	C	C2'-C1'	-9.31	1.43	1.53
36	B2	888	U	O4'-C1'	9.31	1.53	1.41
85	A5	1400	G	O4'-C1'	9.31	1.53	1.41
85	A5	4521	U	O4'-C1'	9.31	1.53	1.41
85	A5	70	A	O4'-C1'	-9.31	1.29	1.41
85	A5	4166	G	C2'-C1'	-9.31	1.43	1.53
86	A7	120	U	C2'-C1'	9.31	1.63	1.53
85	A5	471	A	C2'-C1'	-9.31	1.43	1.53
85	A5	1571	G	C2'-C1'	-9.31	1.43	1.53
85	A5	2585	C	C2'-C1'	9.31	1.63	1.53
85	A5	1187	G	O4'-C1'	9.30	1.53	1.41
36	B2	1369	A	C2'-C1'	-9.29	1.43	1.53
85	A5	3836	A	O4'-C1'	9.29	1.53	1.41
40	CK	1	MET	C-N	9.29	1.51	1.34
86	A7	111	C	O4'-C1'	9.29	1.53	1.41
36	B2	1740	C	O4'-C1'	9.28	1.53	1.41
85	A5	4133	C	O4'-C1'	9.28	1.53	1.41
85	A5	10	A	C2'-C1'	-9.28	1.43	1.53
85	A5	2297	G	C2'-C1'	-9.28	1.43	1.53
85	A5	4215	C	O4'-C1'	9.28	1.53	1.41
36	B2	53	C	O4'-C1'	9.28	1.53	1.41
85	A5	1851	G	C2'-C1'	-9.27	1.43	1.53
85	A5	2029	A	C2'-C1'	-9.27	1.43	1.53
85	A5	322	C	C2'-C1'	-9.27	1.43	1.53
85	A5	4206	C	C2'-C1'	-9.27	1.43	1.53
85	A5	1648	C	C2'-C1'	-9.27	1.43	1.53
36	B2	1562	C	O4'-C1'	9.27	1.53	1.41
60	Cr	115	SER	C-N	9.27	1.55	1.34
85	A5	506	C	O4'-C1'	9.27	1.53	1.41
85	A5	4893	A	C2'-C1'	-9.27	1.43	1.53
36	B2	342	C	O4'-C1'	9.26	1.53	1.41
85	A5	3659	G	C2'-C1'	-9.26	1.43	1.53
23	AD	96	LEU	C-N	9.26	1.55	1.34
36	B2	948	C	O4'-C1'	9.26	1.53	1.41
36	B2	1570	G	O4'-C1'	-9.26	1.29	1.41
36	B2	1627	C	O4'-C1'	9.26	1.53	1.41
85	A5	1800	U	C2'-C1'	-9.26	1.43	1.53
86	A7	101	A	O4'-C1'	9.26	1.53	1.41
36	B2	1612	G	C2'-C1'	9.25	1.63	1.53
36	B2	1464	C	O4'-C1'	9.25	1.53	1.41
85	A5	119	G	O4'-C1'	9.25	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	943	U	O4'-C1'	9.25	1.53	1.41
85	A5	2131	C	O4'-C1'	9.25	1.53	1.41
36	B2	166	A	C2'-C1'	-9.24	1.43	1.53
81	CE	127	SER	CA-CB	9.24	1.66	1.52
85	A5	1985	G	C2'-C1'	-9.24	1.43	1.53
85	A5	4957	C	C2'-C1'	-9.24	1.43	1.53
85	A5	80	C	O4'-C1'	9.24	1.53	1.41
85	A5	4722	G	C2'-C1'	9.24	1.63	1.53
36	B2	1345	G	O4'-C1'	9.24	1.53	1.41
36	B2	1389	C	C2'-C1'	-9.24	1.43	1.53
85	A5	2805	C	C2'-C1'	-9.24	1.43	1.53
36	B2	1122	A	C2'-C1'	9.23	1.63	1.53
36	B2	1481	G	C2'-C1'	-9.23	1.43	1.53
8	AS	40	TYR	CA-C	-9.23	1.28	1.52
36	B2	237	C	C2'-C1'	9.23	1.63	1.53
36	B2	1856	C	O4'-C1'	9.23	1.53	1.41
85	A5	1256	G	C2'-C1'	-9.23	1.43	1.53
85	A5	2053	C	O4'-C1'	9.23	1.53	1.41
36	B2	450	C	C2'-C1'	9.23	1.63	1.53
36	B2	1539	U	C2'-C1'	9.23	1.63	1.53
85	A5	2754	G	P-O5'	-9.23	1.50	1.59
36	B2	794	A	O4'-C1'	9.22	1.53	1.41
36	B2	931	C	O4'-C1'	9.22	1.53	1.41
85	A5	1241	C	C2'-C1'	-9.22	1.43	1.53
85	A5	4648	A	O4'-C1'	9.22	1.53	1.41
87	A8	68	G	C2'-C1'	-9.22	1.43	1.53
85	A5	4072	C	O4'-C1'	9.22	1.53	1.41
85	A5	1760	G	C2'-C1'	-9.21	1.43	1.53
28	AC	62	PRO	N-CD	9.21	1.60	1.47
85	A5	211	G	C2'-C1'	-9.21	1.43	1.53
85	A5	1580	C	O4'-C1'	9.21	1.53	1.41
85	A5	1182	C	C2'-C1'	-9.21	1.43	1.53
85	A5	976	G	C2'-C1'	-9.21	1.43	1.53
85	A5	1098	G	C2'-C1'	-9.21	1.43	1.53
85	A5	215	C	O4'-C1'	9.20	1.53	1.41
85	A5	1791	U	O4'-C1'	9.20	1.53	1.41
85	A5	4446	U	O4'-C1'	9.20	1.53	1.41
85	A5	665	C	O4'-C1'	9.20	1.53	1.41
37	BC	73	C	C2'-C1'	-9.20	1.43	1.53
85	A5	320	C	O4'-C1'	9.20	1.53	1.41
85	A5	4424	A	C2'-C1'	-9.20	1.43	1.53
36	B2	624	C	O4'-C1'	9.20	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1894	C	O4'-C1'	9.20	1.53	1.41
85	A5	2041	A	O4'-C1'	-9.20	1.29	1.41
85	A5	4386	C	C2'-C1'	-9.20	1.43	1.53
86	A7	2	U	O4'-C1'	9.20	1.53	1.41
55	CU	60	VAL	N-CA	-9.19	1.27	1.46
85	A5	3746	A	O4'-C1'	9.19	1.53	1.41
36	B2	1029	G	O4'-C1'	9.19	1.53	1.41
85	A5	648	G	C2'-C1'	-9.18	1.43	1.53
85	A5	681	G	C2'-C1'	-9.18	1.43	1.53
85	A5	1933	G	C2'-C1'	-9.18	1.43	1.53
85	A5	1868	A	C2'-C1'	9.18	1.63	1.53
85	A5	3974	G	C2'-C1'	-9.18	1.43	1.53
85	A5	4244	A	O4'-C1'	9.18	1.53	1.41
36	B2	1718	G	C2'-C1'	-9.18	1.43	1.53
36	B2	1734	G	O4'-C1'	9.18	1.53	1.41
85	A5	4982	A	O4'-C1'	9.18	1.53	1.41
85	A5	3780	G	C2'-C1'	-9.18	1.43	1.53
86	A7	95	C	O4'-C1'	9.18	1.53	1.41
85	A5	1295	C	C2'-C1'	-9.17	1.43	1.53
85	A5	2496	G	C2'-C1'	-9.17	1.43	1.53
85	A5	2773	G	C2'-C1'	-9.17	1.43	1.53
36	B2	1623	A	C2'-C1'	9.17	1.63	1.53
85	A5	1473	U	C2'-C1'	-9.17	1.43	1.53
85	A5	338	A	O4'-C1'	9.17	1.53	1.41
85	A5	1586	G	C2'-C1'	-9.17	1.43	1.53
85	A5	1639	U	O4'-C1'	9.17	1.53	1.41
87	A8	124	U	O4'-C1'	9.17	1.53	1.41
85	A5	41	C	O4'-C1'	9.16	1.53	1.41
36	B2	676	C	O4'-C1'	9.16	1.53	1.41
85	A5	1378	C	O4'-C1'	9.16	1.53	1.41
36	B2	377	G	C2'-C1'	-9.16	1.43	1.53
85	A5	2792	C	O4'-C1'	9.16	1.53	1.41
85	A5	3692	A	C2'-C1'	9.15	1.63	1.53
85	A5	4132	C	O4'-C1'	9.15	1.53	1.41
85	A5	2735	G	C2'-C1'	-9.15	1.43	1.53
85	A5	684	G	O4'-C1'	9.15	1.53	1.41
86	A7	100	A	C2'-C1'	-9.15	1.43	1.53
36	B2	223	C	O4'-C1'	9.14	1.53	1.41
36	B2	899	U	O4'-C1'	9.14	1.53	1.41
36	B2	491	C	O4'-C1'	9.14	1.53	1.41
36	B2	1032	C	C2'-C1'	-9.14	1.43	1.53
85	A5	2804	C	O4'-C1'	9.14	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	3723	A	C2'-C1'	-9.14	1.43	1.53
85	A5	432	U	C2'-C1'	-9.13	1.43	1.53
85	A5	695	G	C2'-C1'	-9.13	1.43	1.53
85	A5	1583	A	C2'-C1'	9.13	1.63	1.53
20	Aa	10	ARG	CD-NE	9.13	1.61	1.46
36	B2	42	A	C2'-C1'	-9.13	1.43	1.53
36	B2	676	C	C2'-C1'	-9.13	1.43	1.53
36	B2	1279	C	C2'-C1'	9.13	1.63	1.53
85	A5	4434	C	O4'-C1'	9.13	1.53	1.41
36	B2	1389	C	O4'-C1'	9.13	1.53	1.41
85	A5	4099	G	C2'-C1'	-9.13	1.43	1.53
85	A5	4329	G	C2'-C1'	9.13	1.63	1.53
85	A5	4386	C	O4'-C1'	9.13	1.53	1.41
86	A7	2	U	C2'-C1'	-9.12	1.43	1.53
87	A8	48	A	C2'-C1'	9.12	1.63	1.53
36	B2	1339	U	P-O5'	-9.12	1.50	1.59
85	A5	4065	G	C2'-C1'	-9.12	1.43	1.53
86	A7	97	G	C2'-C1'	-9.12	1.43	1.53
37	BC	27	U	C2'-C1'	9.12	1.63	1.53
85	A5	50	C	O4'-C1'	9.12	1.53	1.41
85	A5	3676	G	C2'-C1'	-9.12	1.43	1.53
36	B2	1053	C	O4'-C1'	9.11	1.53	1.41
85	A5	4909	A	C2'-C1'	9.11	1.63	1.53
36	B2	49	C	C2'-C1'	-9.11	1.43	1.53
85	A5	4596	C	C2'-C1'	-9.11	1.43	1.53
85	A5	445	U	C2'-C1'	9.11	1.63	1.53
85	A5	2454	U	O4'-C1'	9.11	1.53	1.41
85	A5	1542	U	O4'-C1'	9.10	1.53	1.41
85	A5	125	C	O4'-C1'	9.10	1.53	1.41
85	A5	2457	G	O4'-C1'	9.10	1.53	1.41
36	B2	171	A	O4'-C1'	-9.10	1.29	1.41
85	A5	3651	A	O4'-C1'	9.10	1.53	1.41
85	A5	3953	G	C2'-C1'	-9.10	1.43	1.53
85	A5	2290	C	O4'-C1'	9.09	1.53	1.41
36	B2	1652	G	C2'-C1'	-9.09	1.43	1.53
85	A5	101	A	O4'-C1'	9.09	1.53	1.41
85	A5	1468	C	C2'-C1'	-9.09	1.43	1.53
85	A5	1771	U	C2'-C1'	9.09	1.63	1.53
36	B2	693	A	O4'-C1'	9.08	1.53	1.41
85	A5	1692	C	O4'-C1'	9.08	1.53	1.41
85	A5	4965	U	C2'-C1'	9.08	1.63	1.53
85	A5	283	G	C2'-C1'	-9.08	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1180	C	C2'-C1'	-9.08	1.43	1.53
85	A5	1351	G	O4'-C1'	9.08	1.53	1.41
86	A7	56	G	C2'-C1'	-9.07	1.43	1.53
85	A5	4258	C	O4'-C1'	9.07	1.53	1.41
85	A5	1675	C	O4'-C1'	9.07	1.53	1.41
81	CE	27	VAL	N-CA	-9.07	1.28	1.46
36	B2	383	G	O4'-C1'	9.07	1.53	1.41
85	A5	371	A	C2'-C1'	-9.07	1.43	1.53
85	A5	470	A	O4'-C1'	9.07	1.53	1.41
85	A5	1072	C	C2'-C1'	-9.07	1.43	1.53
85	A5	4628	U	O4'-C1'	9.07	1.53	1.41
36	B2	1181	A	C2'-C1'	-9.06	1.43	1.53
85	A5	1288	G	C2'-C1'	-9.06	1.43	1.53
85	A5	2452	G	C2'-C1'	-9.06	1.43	1.53
85	A5	1299	G	C2'-C1'	-9.06	1.43	1.53
85	A5	1575	A	O4'-C1'	9.06	1.53	1.41
85	A5	4160	C	O4'-C1'	9.06	1.53	1.41
85	A5	2450	G	C2'-C1'	-9.05	1.43	1.53
40	CK	114	ARG	CD-NE	9.05	1.61	1.46
85	A5	6	C	C2'-C1'	-9.05	1.43	1.53
85	A5	1606	U	O4'-C1'	9.05	1.53	1.41
36	B2	1564	C	C2'-C1'	-9.05	1.43	1.53
85	A5	446	C	O4'-C1'	9.05	1.53	1.41
85	A5	502	C	O4'-C1'	9.05	1.53	1.41
85	A5	995	C	O4'-C1'	9.05	1.53	1.41
85	A5	2729	C	O4'-C1'	9.05	1.53	1.41
85	A5	3909	C	C2'-C1'	-9.05	1.43	1.53
85	A5	1569	U	O4'-C1'	9.04	1.53	1.41
85	A5	4285	U	C2'-C1'	-9.04	1.43	1.53
36	B2	741	C	C2'-C1'	-9.04	1.43	1.53
17	AV	78	ILE	CA-C	9.04	1.76	1.52
87	A8	1	C	O4'-C1'	9.03	1.53	1.41
36	B2	1797	U	O4'-C1'	9.03	1.53	1.41
85	A5	113	A	C2'-C1'	-9.03	1.43	1.53
36	B2	808	A	O4'-C1'	9.03	1.53	1.41
85	A5	4921	C	C2'-C1'	-9.03	1.43	1.53
85	A5	1977	C	O4'-C1'	9.03	1.53	1.41
85	A5	4917	C	C2'-C1'	-9.03	1.43	1.53
85	A5	2696	A	C2'-C1'	9.03	1.63	1.53
85	A5	5031	G	O4'-C1'	9.03	1.53	1.41
87	A8	126	C	O4'-C1'	9.02	1.53	1.41
87	A8	154	G	O4'-C1'	-9.02	1.29	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	166	C	O4'-C1'	9.02	1.53	1.41
85	A5	966	A	O4'-C1'	9.02	1.53	1.41
36	B2	1044	G	C2'-C1'	-9.02	1.43	1.53
85	A5	2505	C	C2'-C1'	9.02	1.63	1.53
85	A5	2616	C	C2'-C1'	-9.02	1.43	1.53
31	AH	109	ARG	CA-CB	-9.02	1.34	1.53
37	BC	53	A	O4'-C1'	9.02	1.53	1.41
36	B2	69	C	C2'-C1'	-9.01	1.43	1.53
85	A5	672	C	C2'-C1'	-9.01	1.43	1.53
85	A5	1901	C	O4'-C1'	9.01	1.53	1.41
85	A5	718	C	C2'-C1'	-9.01	1.43	1.53
36	B2	831	G	C2'-C1'	-9.01	1.43	1.53
36	B2	688	U	O4'-C1'	-9.01	1.29	1.41
85	A5	1360	G	O3'-P	-9.00	1.50	1.61
85	A5	1357	C	O4'-C1'	9.00	1.53	1.41
85	A5	4284	C	O4'-C1'	9.00	1.53	1.41
85	A5	5004	C	O4'-C1'	9.00	1.53	1.41
73	Cl	37	TYR	CB-CG	-8.99	1.38	1.51
85	A5	102	G	O4'-C1'	8.99	1.53	1.41
85	A5	2316	G	C2'-C1'	-8.99	1.43	1.53
36	B2	41	G	O4'-C1'	8.98	1.53	1.41
36	B2	1786	U	O4'-C1'	8.98	1.53	1.41
85	A5	2011	C	O4'-C1'	8.98	1.53	1.41
85	A5	282	C	O4'-C1'	8.98	1.53	1.41
85	A5	1598	C	C2'-C1'	-8.98	1.43	1.53
87	A8	104	A	C2'-C1'	-8.98	1.43	1.53
20	Aa	97	PRO	C-N	8.97	1.51	1.34
85	A5	4701	A	O4'-C1'	8.97	1.53	1.41
85	A5	690	C	O4'-C1'	8.97	1.53	1.41
85	A5	4666	G	O4'-C1'	8.97	1.53	1.41
85	A5	2462	C	O4'-C1'	8.96	1.53	1.41
37	BC	57	A	O4'-C1'	8.96	1.53	1.41
85	A5	4477	A	O4'-C1'	8.96	1.53	1.41
85	A5	5004	C	C2'-C1'	-8.96	1.43	1.53
87	A8	59	A	O4'-C1'	8.96	1.53	1.41
36	B2	1819	A	O4'-C1'	8.95	1.53	1.41
36	B2	1651	A	C2'-C1'	8.94	1.63	1.53
36	B2	195	C	O4'-C1'	8.94	1.53	1.41
15	AB	155	TYR	CB-CG	-8.94	1.38	1.51
85	A5	143	C	O4'-C1'	8.94	1.53	1.41
85	A5	1255	A	O4'-C1'	8.93	1.53	1.41
85	A5	4580	U	O4'-C1'	8.93	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	A7	23	A	C2'-C1'	-8.93	1.43	1.53
87	A8	23	C	O4'-C1'	8.92	1.53	1.41
85	A5	660	A	C2'-C1'	8.92	1.63	1.53
36	B2	1058	A	O4'-C1'	8.91	1.53	1.41
85	A5	4922	C	O4'-C1'	8.91	1.53	1.41
87	A8	87	G	O4'-C1'	-8.91	1.30	1.41
85	A5	2302	C	O4'-C1'	8.91	1.53	1.41
85	A5	4275	G	O4'-C1'	-8.91	1.30	1.41
85	A5	5036	C	C2'-C1'	-8.91	1.43	1.53
36	B2	415	A	C2'-C1'	8.91	1.63	1.53
36	B2	1146	C	O4'-C1'	8.90	1.53	1.41
36	B2	520	A	O4'-C1'	8.90	1.53	1.41
36	B2	1340	U	C2'-C1'	8.90	1.63	1.53
36	B2	1438	A	O4'-C1'	8.90	1.53	1.41
36	B2	1538	C	O4'-C1'	8.90	1.53	1.41
74	CC	304	ALA	C-N	-8.90	1.17	1.34
85	A5	124	C	O4'-C1'	8.90	1.53	1.41
85	A5	4537	C	O4'-C1'	8.90	1.53	1.41
36	B2	69	C	O4'-C1'	8.90	1.53	1.41
36	B2	170	A	C2'-C1'	-8.89	1.43	1.53
36	B2	1482	C	O4'-C1'	8.89	1.53	1.41
85	A5	4321	U	O4'-C1'	8.89	1.53	1.41
85	A5	67	C	O4'-C1'	8.89	1.53	1.41
85	A5	4367	G	O4'-C1'	8.89	1.53	1.41
85	A5	1774	C	O4'-C1'	8.89	1.53	1.41
85	A5	2384	U	C2'-C1'	-8.89	1.43	1.53
85	A5	3592	G	O4'-C1'	8.89	1.53	1.41
85	A5	4630	G	C2'-C1'	-8.89	1.43	1.53
85	A5	1356	U	O4'-C1'	8.89	1.53	1.41
85	A5	1380	G	C2'-C1'	-8.89	1.43	1.53
85	A5	2337	C	O4'-C1'	8.89	1.53	1.41
36	B2	1513	C	O4'-C1'	8.89	1.53	1.41
85	A5	2528	G	C2'-C1'	-8.88	1.43	1.53
36	B2	904	A	C2'-C1'	-8.88	1.43	1.53
85	A5	1205	G	O4'-C1'	8.88	1.53	1.41
36	B2	1374	C	O4'-C1'	8.87	1.53	1.41
85	A5	4184	G	O4'-C1'	8.87	1.53	1.41
36	B2	1683	C	C2'-C1'	-8.87	1.43	1.53
36	B2	1835	A	O4'-C1'	8.87	1.53	1.41
85	A5	2481	G	O4'-C1'	8.87	1.53	1.41
85	A5	4451	G	O4'-C1'	8.87	1.53	1.41
37	BC	12	G	C2'-C1'	-8.87	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	301	G	C2'-C1'	-8.86	1.43	1.53
85	A5	1047	C	O4'-C1'	8.86	1.53	1.41
85	A5	3601	C	O4'-C1'	8.87	1.53	1.41
36	B2	178	C	O4'-C1'	8.86	1.53	1.41
86	A7	108	G	C2'-C1'	-8.86	1.43	1.53
85	A5	4429	C	O4'-C1'	8.86	1.53	1.41
87	A8	54	C	C2'-C1'	-8.86	1.43	1.53
36	B2	1022	U	O4'-C1'	8.86	1.53	1.41
85	A5	2315	G	C2'-C1'	-8.86	1.43	1.53
85	A5	366	A	O4'-C1'	8.86	1.53	1.41
85	A5	1776	A	C2'-C1'	-8.86	1.43	1.53
85	A5	2284	G	C2'-C1'	-8.86	1.43	1.53
85	A5	3977	C	O4'-C1'	8.86	1.53	1.41
29	AG	36	VAL	CB-CG1	-8.85	1.34	1.52
85	A5	1180	C	O4'-C1'	8.85	1.53	1.41
85	A5	1332	C	O4'-C1'	8.85	1.53	1.41
85	A5	1572	U	C2'-C1'	-8.85	1.43	1.53
85	A5	2614	C	C2'-C1'	-8.85	1.43	1.53
85	A5	4070	U	C2'-C1'	-8.85	1.43	1.53
85	A5	4371	G	C2'-C1'	-8.85	1.43	1.53
85	A5	1640	C	C2'-C1'	8.85	1.63	1.53
36	B2	857	U	O4'-C1'	8.85	1.53	1.41
85	A5	1237	C	O4'-C1'	8.85	1.53	1.41
85	A5	1778	C	O4'-C1'	8.84	1.53	1.41
36	B2	976	G	C2'-C1'	-8.84	1.43	1.53
85	A5	1361	G	C2'-C1'	8.84	1.63	1.53
85	A5	5069	U	O4'-C1'	8.84	1.53	1.41
58	CW	32	LEU	C-N	-8.84	1.13	1.34
85	A5	109	G	C2'-C1'	-8.84	1.43	1.53
85	A5	1865	G	P-O5'	-8.84	1.50	1.59
86	A7	86	G	C2'-C1'	-8.84	1.43	1.53
85	A5	1446	C	C2'-C1'	-8.84	1.43	1.53
85	A5	1397	A	C2'-C1'	8.83	1.63	1.53
85	A5	2655	C	C2'-C1'	-8.83	1.43	1.53
36	B2	106	C	O4'-C1'	8.83	1.53	1.41
36	B2	97	U	O4'-C1'	8.83	1.53	1.41
85	A5	2421	G	O4'-C1'	-8.82	1.30	1.41
85	A5	2846	G	C2'-C1'	-8.82	1.43	1.53
86	A7	17	C	O4'-C1'	8.82	1.53	1.41
36	B2	943	U	C2'-C1'	-8.82	1.43	1.53
36	B2	1108	G	O4'-C1'	-8.82	1.30	1.41
85	A5	3923	A	O4'-C1'	8.82	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	21	G	C2'-C1'	8.81	1.63	1.53
85	A5	2257	C	C2'-C1'	8.81	1.63	1.53
85	A5	1433	A	C2'-C1'	-8.81	1.43	1.53
85	A5	2307	A	C2'-C1'	-8.81	1.43	1.53
87	A8	44	A	C2'-C1'	-8.81	1.43	1.53
36	B2	214	U	O4'-C1'	8.81	1.53	1.41
38	Cz	28	PHE	C-N	8.81	1.54	1.34
85	A5	332	C	C2'-C1'	-8.81	1.43	1.53
85	A5	2611	A	C2'-C1'	-8.81	1.43	1.53
36	B2	663	C	O4'-C1'	8.81	1.53	1.41
81	CE	85	LYS	CA-C	8.81	1.75	1.52
36	B2	687	C	C2'-C1'	-8.80	1.43	1.53
85	A5	435	A	C2'-C1'	-8.80	1.43	1.53
85	A5	2607	C	O4'-C1'	8.80	1.53	1.41
85	A5	954	C	C2'-C1'	-8.80	1.43	1.53
85	A5	4281	A	C2'-C1'	-8.80	1.43	1.53
86	A7	23	A	O4'-C1'	8.80	1.53	1.41
87	A8	98	C	O4'-C1'	8.80	1.53	1.41
85	A5	697	G	O4'-C1'	8.80	1.53	1.41
85	A5	482	G	O4'-C1'	8.80	1.53	1.41
85	A5	4769	G	C2'-C1'	-8.80	1.43	1.53
36	B2	207	G	C2'-C1'	8.80	1.63	1.53
85	A5	110	C	O4'-C1'	8.80	1.53	1.41
36	B2	584	A	C2'-C1'	-8.79	1.43	1.53
85	A5	1880	G	O4'-C1'	8.79	1.53	1.41
85	A5	3894	A	O4'-C1'	8.79	1.53	1.41
85	A5	5019	A	C2'-C1'	-8.79	1.43	1.53
85	A5	250	C	O4'-C1'	8.79	1.53	1.41
85	A5	2905	C	O4'-C1'	8.79	1.53	1.41
85	A5	3667	C	O4'-C1'	8.79	1.53	1.41
85	A5	703	G	C2'-C1'	8.78	1.63	1.53
85	A5	2498	C	O4'-C1'	8.78	1.53	1.41
36	B2	26	U	O4'-C1'	8.78	1.53	1.41
36	B2	1043	G	C2'-C1'	-8.78	1.43	1.53
85	A5	3593	C	O4'-C1'	8.78	1.53	1.41
87	A8	66	A	C2'-C1'	-8.77	1.43	1.53
36	B2	1292	C	C2'-C1'	-8.77	1.43	1.53
85	A5	2876	G	O4'-C1'	-8.77	1.30	1.41
36	B2	390	C	O4'-C1'	8.77	1.53	1.41
85	A5	4223	C	O4'-C1'	8.77	1.53	1.41
85	A5	1785	C	C2'-C1'	-8.77	1.43	1.53
85	A5	1897	A	C2'-C1'	-8.77	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1189	A	O4'-C1'	8.76	1.53	1.41
85	A5	4640	C	O4'-C1'	8.76	1.53	1.41
85	A5	4595	G	C2'-C1'	-8.76	1.43	1.53
85	A5	2361	G	C2'-C1'	-8.76	1.43	1.53
85	A5	706	C	O4'-C1'	8.76	1.53	1.41
47	CI	212	LEU	N-CA	8.76	1.63	1.46
8	AS	54	LYS	CA-C	8.75	1.75	1.52
85	A5	2290	C	C2'-C1'	-8.75	1.43	1.53
85	A5	2401	A	C2'-C1'	-8.75	1.43	1.53
36	B2	940	U	O4'-C1'	8.75	1.53	1.41
36	B2	1180	C	C2'-C1'	-8.75	1.43	1.53
85	A5	4931	G	C2'-C1'	-8.75	1.43	1.53
36	B2	442	C	C2'-C1'	-8.74	1.43	1.53
85	A5	1507	C	O4'-C1'	8.74	1.53	1.41
85	A5	4142	C	O4'-C1'	8.74	1.53	1.41
36	B2	698	G	C2'-C1'	-8.74	1.43	1.53
36	B2	993	G	C2'-C1'	-8.74	1.43	1.53
85	A5	4423	U	C2'-C1'	8.74	1.62	1.53
85	A5	1665	C	O4'-C1'	8.74	1.53	1.41
85	A5	4687	A	O4'-C1'	8.74	1.53	1.41
17	AV	78	ILE	N-CA	8.73	1.63	1.46
36	B2	17	C	O4'-C1'	8.73	1.53	1.41
85	A5	3969	G	O4'-C1'	8.73	1.53	1.41
86	A7	31	G	O4'-C1'	8.73	1.53	1.41
85	A5	1678	C	O4'-C1'	8.73	1.52	1.41
36	B2	50	A	O4'-C1'	8.73	1.52	1.41
85	A5	2501	C	O4'-C1'	8.73	1.52	1.41
85	A5	4363	A	O4'-C1'	8.72	1.52	1.41
85	A5	482	G	C2'-C1'	-8.72	1.43	1.53
85	A5	729	G	O4'-C1'	8.72	1.52	1.41
85	A5	3910	C	O4'-C1'	8.72	1.52	1.41
36	B2	1089	G	C2'-C1'	-8.72	1.43	1.53
85	A5	3604	A	O4'-C1'	-8.72	1.30	1.41
85	A5	258	G	C2'-C1'	-8.71	1.43	1.53
36	B2	1711	U	C2'-C1'	-8.71	1.43	1.53
85	A5	30	C	O4'-C1'	8.71	1.52	1.41
85	A5	1782	U	C2'-C1'	-8.71	1.43	1.53
85	A5	119	G	C2'-C1'	8.71	1.62	1.53
85	A5	1194	G	C2'-C1'	-8.71	1.43	1.53
85	A5	4200	G	C2'-C1'	-8.71	1.43	1.53
85	A5	4478	G	C2'-C1'	-8.71	1.43	1.53
36	B2	1225	U	O4'-C1'	8.71	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
70	Ci	1	MET	C-N	8.71	1.54	1.34
73	Cl	37	TYR	CD1-CE1	-8.70	1.26	1.39
36	B2	585	C	O4'-C1'	8.70	1.52	1.41
85	A5	1199	G	C2'-C1'	-8.70	1.43	1.53
85	A5	4661	G	O4'-C1'	8.70	1.52	1.41
85	A5	4648	A	C2'-C1'	-8.70	1.43	1.53
85	A5	905	C	O4'-C1'	8.70	1.52	1.41
85	A5	234	G	C2'-C1'	8.70	1.62	1.53
85	A5	2329	U	O4'-C1'	8.70	1.52	1.41
85	A5	4165	C	C2'-C1'	-8.70	1.43	1.53
85	A5	4714	C	C2'-C1'	-8.70	1.43	1.53
86	A7	105	C	O4'-C1'	8.70	1.52	1.41
85	A5	132	G	C2'-C1'	-8.69	1.43	1.53
85	A5	4131	G	C2'-C1'	-8.69	1.43	1.53
36	B2	334	C	C2'-C1'	-8.69	1.43	1.53
36	B2	1565	C	O4'-C1'	8.69	1.52	1.41
85	A5	4886	C	O4'-C1'	8.69	1.52	1.41
85	A5	3700	C	O4'-C1'	8.68	1.52	1.41
85	A5	5019	A	O4'-C1'	8.68	1.52	1.41
86	A7	112	U	C2'-C1'	8.68	1.62	1.53
36	B2	817	G	C2'-C1'	-8.68	1.43	1.53
86	A7	110	G	C2'-C1'	-8.68	1.43	1.53
85	A5	3713	U	O4'-C1'	-8.68	1.30	1.41
85	A5	3871	A	C2'-C1'	-8.67	1.43	1.53
36	B2	550	C	O4'-C1'	8.67	1.52	1.41
85	A5	3954	A	O4'-C1'	8.67	1.52	1.41
36	B2	1828	C	C2'-C1'	-8.67	1.43	1.53
85	A5	4720	C	C2'-C1'	-8.67	1.43	1.53
85	A5	4035	G	C2'-C1'	-8.67	1.43	1.53
85	A5	3696	C	O4'-C1'	8.67	1.52	1.41
36	B2	887	U	O4'-C1'	-8.67	1.30	1.41
85	A5	159	C	O4'-C1'	8.67	1.52	1.41
85	A5	4874	A	C2'-C1'	8.67	1.62	1.53
36	B2	553	U	O4'-C1'	8.66	1.52	1.41
36	B2	848	U	O4'-C1'	8.66	1.52	1.41
36	B2	1411	G	O4'-C1'	8.66	1.52	1.41
85	A5	1105	C	O4'-C1'	8.66	1.52	1.41
85	A5	2578	G	C2'-C1'	-8.66	1.43	1.53
85	A5	3852	A	O4'-C1'	8.66	1.52	1.41
85	A5	751	G	C2'-C1'	-8.66	1.43	1.53
36	B2	1576	G	O4'-C1'	8.66	1.52	1.41
85	A5	4407	G	C2'-C1'	-8.66	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1757	G	C2'-C1'	-8.66	1.43	1.53
86	A7	58	A	C2'-C1'	-8.66	1.43	1.53
36	B2	680	G	O4'-C1'	8.65	1.52	1.41
36	B2	1225	U	C2'-C1'	-8.65	1.43	1.53
85	A5	2306	G	C2'-C1'	-8.65	1.43	1.53
85	A5	3783	A	O4'-C1'	8.65	1.52	1.41
36	B2	301	A	C2'-C1'	8.65	1.62	1.53
36	B2	1813	A	O4'-C1'	8.65	1.52	1.41
85	A5	461	G	C2'-C1'	-8.65	1.43	1.53
85	A5	3598	C	C2'-C1'	-8.65	1.43	1.53
85	A5	4192	A	C2'-C1'	-8.65	1.43	1.53
85	A5	248	C	O4'-C1'	8.64	1.52	1.41
36	B2	1469	A	O4'-C1'	8.64	1.52	1.41
36	B2	453	C	O4'-C1'	8.63	1.52	1.41
85	A5	3588	C	O4'-C1'	8.63	1.52	1.41
87	A8	122	G	C2'-C1'	-8.63	1.43	1.53
81	CE	85	LYS	N-CA	-8.63	1.29	1.46
87	A8	144	U	O4'-C1'	8.63	1.52	1.41
85	A5	222	C	O4'-C1'	8.63	1.52	1.41
85	A5	2031	C	O4'-C1'	8.63	1.52	1.41
86	A7	109	U	C2'-C1'	8.63	1.62	1.53
85	A5	1264	C	C2'-C1'	-8.62	1.43	1.53
85	A5	4930	C	O4'-C1'	8.62	1.52	1.41
86	A7	10	C	O4'-C1'	8.62	1.52	1.41
87	A8	66	A	O4'-C1'	8.62	1.52	1.41
36	B2	190	G	O4'-C1'	8.62	1.52	1.41
36	B2	1227	G	O4'-C1'	8.61	1.52	1.41
85	A5	1082	C	O4'-C1'	8.62	1.52	1.41
85	A5	2070	U	C2'-C1'	8.61	1.62	1.53
85	A5	3895	G	C2'-C1'	-8.61	1.43	1.53
85	A5	170	C	O4'-C1'	8.61	1.52	1.41
85	A5	334	A	C5'-C4'	8.61	1.61	1.51
85	A5	2690	C	C2'-C1'	-8.61	1.43	1.53
36	B2	1162	C	O4'-C1'	8.61	1.52	1.41
36	B2	386	C	C2'-C1'	-8.60	1.43	1.53
85	A5	4192	A	O4'-C1'	8.60	1.52	1.41
85	A5	1360	G	O4'-C1'	8.60	1.52	1.41
85	A5	2561	C	O4'-C1'	8.60	1.52	1.41
36	B2	165	G	C2'-C1'	8.60	1.62	1.53
36	B2	659	G	O4'-C1'	-8.60	1.30	1.41
85	A5	2360	A	O4'-C1'	8.60	1.52	1.41
36	B2	828	G	O4'-C1'	-8.60	1.30	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	3870	C	O4'-C1'	8.60	1.52	1.41
85	A5	2757	A	O4'-C1'	8.60	1.52	1.41
85	A5	1049	C	O4'-C1'	8.60	1.52	1.41
86	A7	91	C	C2'-C1'	-8.59	1.43	1.53
85	A5	4746	C	O4'-C1'	8.59	1.52	1.41
1	Az	267	ASP	C-N	8.59	1.50	1.34
85	A5	2793	G	C2'-C1'	8.59	1.62	1.53
85	A5	4245	G	C2'-C1'	-8.59	1.44	1.53
36	B2	1222	G	C2'-C1'	-8.58	1.44	1.53
85	A5	2439	G	O4'-C1'	8.58	1.52	1.41
36	B2	107	A	C2'-C1'	8.58	1.62	1.53
36	B2	1831	A	O4'-C1'	8.58	1.52	1.41
85	A5	2051	C	O4'-C1'	8.58	1.52	1.41
85	A5	2748	C	O4'-C1'	8.58	1.52	1.41
85	A5	4125	C	O4'-C1'	8.58	1.52	1.41
36	B2	33	G	C2'-C1'	-8.58	1.44	1.53
85	A5	182	G	O4'-C1'	8.58	1.52	1.41
85	A5	1338	G	O4'-C1'	-8.58	1.30	1.41
85	A5	1392	A	C2'-C1'	-8.58	1.44	1.53
85	A5	3617	G	C2'-C1'	-8.57	1.44	1.53
85	A5	3862	A	C2'-C1'	-8.57	1.44	1.53
87	A8	89	U	O4'-C1'	8.57	1.52	1.41
36	B2	419	G	O4'-C1'	8.57	1.52	1.41
85	A5	4053	A	O4'-C1'	8.57	1.52	1.41
36	B2	53	C	C2'-C1'	8.57	1.62	1.53
85	A5	2642	A	O4'-C1'	8.57	1.52	1.41
85	A5	2867	C	O4'-C1'	8.57	1.52	1.41
85	A5	1982	G	O4'-C1'	8.57	1.52	1.41
85	A5	2564	G	C2'-C1'	-8.57	1.44	1.53
36	B2	1494	U	C2'-C1'	8.56	1.62	1.53
85	A5	4861	G	C2'-C1'	-8.56	1.44	1.53
36	B2	1204	A	C2'-C1'	-8.56	1.44	1.53
78	Co	74	GLU	CG-CD	-8.56	1.39	1.51
85	A5	1420	A	O4'-C1'	8.56	1.52	1.41
85	A5	2377	C	O4'-C1'	8.56	1.52	1.41
85	A5	4997	G	C2'-C1'	-8.56	1.44	1.53
58	CW	71	ARG	CD-NE	8.55	1.60	1.46
85	A5	4724	A	O4'-C1'	8.55	1.52	1.41
36	B2	547	G	C2'-C1'	-8.55	1.44	1.53
85	A5	1619	G	O4'-C1'	8.55	1.52	1.41
85	A5	3628	G	C2'-C1'	-8.55	1.44	1.53
36	B2	1781	A	O4'-C1'	8.55	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4221	C	O4'-C1'	8.55	1.52	1.41
36	B2	1172	U	C2'-C1'	8.54	1.62	1.53
85	A5	2605	G	C2'-C1'	-8.54	1.44	1.53
85	A5	3709	U	O4'-C1'	8.54	1.52	1.41
86	A7	118	C	O4'-C1'	8.54	1.52	1.41
85	A5	1777	C	C2'-C1'	-8.54	1.44	1.53
85	A5	2569	G	O4'-C1'	8.54	1.52	1.41
36	B2	1349	G	O4'-C1'	8.54	1.52	1.41
36	B2	1574	C	C2'-C1'	-8.54	1.44	1.53
85	A5	265	C	O4'-C1'	8.54	1.52	1.41
85	A5	2029	A	O4'-C1'	8.54	1.52	1.41
85	A5	4332	C	C2'-C1'	-8.54	1.44	1.53
85	A5	2019	C	O4'-C1'	8.53	1.52	1.41
85	A5	4389	C	O4'-C1'	8.53	1.52	1.41
36	B2	30	C	O4'-C1'	8.53	1.52	1.41
85	A5	4379	A	C2'-C1'	-8.52	1.44	1.53
85	A5	4866	C	O4'-C1'	8.52	1.52	1.41
85	A5	4138	C	O4'-C1'	8.52	1.52	1.41
85	A5	2307	A	O4'-C1'	8.52	1.52	1.41
85	A5	1355	G	C2'-C1'	-8.52	1.44	1.53
36	B2	1697	A	C2'-C1'	8.51	1.62	1.53
85	A5	2845	A	C2'-C1'	-8.51	1.44	1.53
36	B2	1537	A	C2'-C1'	8.51	1.62	1.53
36	B2	238	C	O4'-C1'	8.51	1.52	1.41
36	B2	811	A	C2'-C1'	-8.51	1.44	1.53
85	A5	4249	G	C2'-C1'	-8.51	1.44	1.53
36	B2	1616	U	O4'-C1'	8.51	1.52	1.41
85	A5	2255	C	C2'-C1'	-8.51	1.44	1.53
85	A5	2532	C	O4'-C1'	8.51	1.52	1.41
85	A5	3755	G	C2'-C1'	-8.51	1.44	1.53
86	A7	89	G	O4'-C1'	8.51	1.52	1.41
85	A5	4485	C	O4'-C1'	8.50	1.52	1.41
69	Cg	49	CYS	CB-SG	8.50	1.96	1.82
85	A5	3658	C	O4'-C1'	8.50	1.52	1.41
36	B2	1444	U	O4'-C1'	8.49	1.52	1.41
85	A5	4688	C	O4'-C1'	8.49	1.52	1.41
85	A5	4859	C	O4'-C1'	8.49	1.52	1.41
85	A5	4360	U	O4'-C1'	8.49	1.52	1.41
85	A5	233	U	O4'-C1'	-8.48	1.30	1.41
85	A5	300	A	C2'-C1'	-8.48	1.44	1.53
85	A5	2520	C	C2'-C1'	-8.48	1.44	1.53
36	B2	757	C	O4'-C1'	8.48	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	451	G	C2'-C1'	-8.48	1.44	1.53
85	A5	2090	U	C5'-C4'	8.48	1.61	1.51
36	B2	912	C	O4'-C1'	8.47	1.52	1.41
85	A5	1048	G	C2'-C1'	-8.47	1.44	1.53
85	A5	2732	G	C2'-C1'	-8.47	1.44	1.53
85	A5	4525	C	O4'-C1'	8.47	1.52	1.41
85	A5	4987	C	C2'-C1'	-8.47	1.44	1.53
36	B2	72	C	C2'-C1'	8.47	1.62	1.53
36	B2	1142	G	C2'-C1'	8.47	1.62	1.53
36	B2	1867	U	O4'-C1'	-8.47	1.30	1.41
85	A5	1940	G	C2'-C1'	-8.47	1.44	1.53
36	B2	239	C	O4'-C1'	8.47	1.52	1.41
85	A5	1331	C	C2'-C1'	-8.47	1.44	1.53
86	A7	103	A	O4'-C1'	8.47	1.52	1.41
85	A5	3913	G	O4'-C1'	8.46	1.52	1.41
36	B2	1229	G	C2'-C1'	-8.46	1.44	1.53
85	A5	3666	C	O4'-C1'	8.46	1.52	1.41
36	B2	371	A	C2'-C1'	-8.46	1.44	1.53
85	A5	3806	G	C2'-C1'	-8.46	1.44	1.53
85	A5	1281	G	C2'-C1'	-8.46	1.44	1.53
85	A5	1815	G	C2'-C1'	-8.46	1.44	1.53
85	A5	3887	C	O4'-C1'	8.46	1.52	1.41
85	A5	4319	C	C2'-C1'	-8.46	1.44	1.53
85	A5	4893	A	O4'-C1'	8.45	1.52	1.41
37	BC	33	C	O4'-C1'	8.45	1.52	1.41
85	A5	1358	G	O4'-C1'	8.45	1.52	1.41
85	A5	5058	A	C2'-C1'	8.45	1.62	1.53
36	B2	1072	U	C2'-C1'	8.45	1.62	1.53
36	B2	1480	A	O4'-C1'	8.45	1.52	1.41
36	B2	463	C	O4'-C1'	8.45	1.52	1.41
63	CB	16	PHE	C-N	-8.45	1.14	1.34
85	A5	4382	G	C2'-C1'	-8.45	1.44	1.53
85	A5	106	A	O4'-C1'	8.44	1.52	1.41
85	A5	978	G	O4'-C1'	8.44	1.52	1.41
36	B2	323	C	C2'-C1'	-8.44	1.44	1.53
73	C1	37	TYR	CD2-CE2	-8.44	1.26	1.39
85	A5	3584	C	O4'-C1'	8.44	1.52	1.41
85	A5	4619	U	O4'-C1'	8.44	1.52	1.41
85	A5	3710	G	O4'-C1'	8.44	1.52	1.41
36	B2	969	U	O4'-C1'	8.43	1.52	1.41
85	A5	4709	U	O4'-C1'	8.43	1.52	1.41
87	A8	105	C	C2'-C1'	-8.43	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1629	C	O4'-C1'	8.43	1.52	1.41
85	A5	32	G	C2'-C1'	-8.43	1.44	1.53
85	A5	3781	C	O4'-C1'	8.43	1.52	1.41
36	B2	567	C	O4'-C1'	8.43	1.52	1.41
36	B2	906	U	O4'-C1'	8.43	1.52	1.41
85	A5	1937	C	C2'-C1'	-8.42	1.44	1.53
37	BC	40	C	O4'-C1'	8.42	1.52	1.41
85	A5	1540	C	O4'-C1'	8.42	1.52	1.41
85	A5	3664	G	C2'-C1'	-8.42	1.44	1.53
36	B2	603	C	O4'-C1'	8.42	1.52	1.41
85	A5	956	A	O4'-C1'	8.42	1.52	1.41
85	A5	2275	G	C2'-C1'	-8.42	1.44	1.53
87	A8	132	G	C2'-C1'	-8.42	1.44	1.53
36	B2	1499	U	C2'-C1'	-8.41	1.44	1.53
85	A5	4387	C	C2'-C1'	-8.41	1.44	1.53
85	A5	4236	G	C2'-C1'	-8.41	1.44	1.53
85	A5	911	U	O4'-C1'	8.41	1.52	1.41
85	A5	4774	C	O4'-C1'	8.41	1.52	1.41
36	B2	959	G	C2'-C1'	-8.41	1.44	1.53
69	Cg	21	ARG	C-N	8.41	1.53	1.34
85	A5	3896	C	C2'-C1'	-8.41	1.44	1.53
86	A7	63	C	C2'-C1'	-8.41	1.44	1.53
26	AJ	164	PRO	C-N	8.40	1.53	1.34
36	B2	994	C	C2'-C1'	-8.40	1.44	1.53
86	A7	12	U	O4'-C1'	8.39	1.52	1.41
36	B2	538	U	O4'-C1'	8.39	1.52	1.41
85	A5	4338	G	O4'-C1'	8.39	1.52	1.41
85	A5	3757	G	C2'-C1'	-8.39	1.44	1.53
85	A5	747	A	C2'-C1'	-8.39	1.44	1.53
85	A5	3858	C	O4'-C1'	8.39	1.52	1.41
85	A5	2831	G	C2'-C1'	-8.39	1.44	1.53
36	B2	1079	C	C2'-C1'	-8.38	1.44	1.53
36	B2	1582	C	O4'-C1'	8.38	1.52	1.41
85	A5	984	C	O4'-C1'	8.38	1.52	1.41
85	A5	122	U	O4'-C1'	8.38	1.52	1.41
36	B2	1216	C	O4'-C1'	8.38	1.52	1.41
36	B2	1704	C	C2'-C1'	-8.38	1.44	1.53
36	B2	1846	G	C2'-C1'	-8.38	1.44	1.53
36	B2	147	A	C2'-C1'	8.38	1.62	1.53
85	A5	1071	C	C2'-C1'	8.38	1.62	1.53
85	A5	4468	U	O4'-C1'	8.38	1.52	1.41
85	A5	4326	G	O4'-C1'	8.37	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	927	C	O4'-C1'	8.37	1.52	1.41
85	A5	1405	C	O4'-C1'	8.37	1.52	1.41
36	B2	1268	C	O4'-C1'	8.37	1.52	1.41
85	A5	716	C	O4'-C1'	8.37	1.52	1.41
85	A5	2598	A	C2'-C1'	-8.36	1.44	1.53
36	B2	1106	C	C2'-C1'	8.36	1.62	1.53
36	B2	1256	G	O4'-C1'	8.36	1.52	1.41
36	B2	671	A	C2'-C1'	-8.35	1.44	1.53
85	A5	4717	A	O4'-C1'	-8.35	1.30	1.41
85	A5	3637	U	O4'-C1'	8.35	1.52	1.41
85	A5	4038	C	C2'-C1'	-8.35	1.44	1.53
36	B2	879	C	O4'-C1'	8.35	1.52	1.41
85	A5	4320	G	C2'-C1'	-8.35	1.44	1.53
85	A5	4681	A	O4'-C1'	8.35	1.52	1.41
36	B2	1460	C	O4'-C1'	8.35	1.52	1.41
85	A5	60	G	O4'-C1'	8.35	1.52	1.41
85	A5	1901	C	C2'-C1'	-8.35	1.44	1.53
85	A5	2624	G	C2'-C1'	-8.35	1.44	1.53
85	A5	2858	A	C2'-C1'	-8.35	1.44	1.53
85	A5	1351	G	C2'-C1'	-8.34	1.44	1.53
85	A5	4983	C	O4'-C1'	8.34	1.52	1.41
36	B2	364	A	C2'-C1'	-8.34	1.44	1.53
85	A5	183	C	O4'-C1'	8.34	1.52	1.41
85	A5	128	C	C2'-C1'	-8.34	1.44	1.53
85	A5	2321	G	O4'-C1'	8.33	1.52	1.41
36	B2	1371	U	O4'-C1'	8.33	1.52	1.41
85	A5	1755	C	O4'-C1'	8.33	1.52	1.41
85	A5	2065	G	O4'-C1'	8.33	1.52	1.41
85	A5	2273	G	C2'-C1'	-8.33	1.44	1.53
36	B2	18	C	C2'-C1'	-8.33	1.44	1.53
36	B2	222	U	O4'-C1'	8.33	1.52	1.41
36	B2	1299	A	C2'-C1'	8.33	1.62	1.53
36	B2	1405	A	C2'-C1'	-8.33	1.44	1.53
85	A5	704	C	O4'-C1'	8.33	1.52	1.41
85	A5	3763	A	O4'-C1'	8.33	1.52	1.41
85	A5	4624	A	O4'-C1'	8.33	1.52	1.41
36	B2	1666	C	O4'-C1'	8.32	1.52	1.41
36	B2	1023	A	C2'-C1'	8.32	1.62	1.53
85	A5	733	A	C2'-C1'	-8.32	1.44	1.53
36	B2	1418	C	C2'-C1'	-8.32	1.44	1.53
36	B2	40	A	C2'-C1'	8.31	1.62	1.53
36	B2	1635	C	O4'-C1'	8.31	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1671	U	C2'-C1'	-8.31	1.44	1.53
85	A5	4762	A	C2'-C1'	8.31	1.62	1.53
36	B2	176	U	O4'-C1'	8.31	1.52	1.41
85	A5	1767	A	C2'-C1'	-8.31	1.44	1.53
85	A5	4044	U	C2'-C1'	8.31	1.62	1.53
36	B2	1271	C	C2'-C1'	-8.31	1.44	1.53
85	A5	1174	G	O4'-C1'	-8.31	1.30	1.41
85	A5	2501	C	C2'-C1'	-8.31	1.44	1.53
85	A5	2614	C	O4'-C1'	8.31	1.52	1.41
36	B2	475	C	C2'-C1'	-8.30	1.44	1.53
85	A5	1911	C	C2'-C1'	-8.30	1.44	1.53
85	A5	4290	U	C2'-C1'	8.30	1.62	1.53
36	B2	168	C	C2'-C1'	-8.30	1.44	1.53
36	B2	1335	G	C2'-C1'	-8.30	1.44	1.53
85	A5	3702	A	O4'-C1'	8.30	1.52	1.41
85	A5	731	G	C2'-C1'	-8.30	1.44	1.53
85	A5	4442	U	O4'-C1'	8.29	1.52	1.41
85	A5	4207	C	O4'-C1'	8.29	1.52	1.41
36	B2	635	G	C2'-C1'	-8.29	1.44	1.53
36	B2	1308	U	O4'-C1'	-8.29	1.30	1.41
85	A5	1559	G	C2'-C1'	-8.29	1.44	1.53
85	A5	2737	C	C2'-C1'	-8.28	1.44	1.53
36	B2	945	U	C2'-C1'	-8.28	1.44	1.53
85	A5	987	C	O4'-C1'	8.28	1.52	1.41
85	A5	1831	G	C2'-C1'	-8.28	1.44	1.53
85	A5	1516	G	O4'-C1'	8.28	1.52	1.41
85	A5	692	A	C2'-C1'	8.27	1.62	1.53
85	A5	2079	G	O4'-C1'	8.27	1.52	1.41
23	AD	4	GLN	N-CA	-8.27	1.29	1.46
85	A5	3807	A	O4'-C1'	8.27	1.52	1.41
85	A5	908	G	C2'-C1'	-8.27	1.44	1.53
85	A5	1831	G	O4'-C1'	8.27	1.52	1.41
85	A5	1875	C	O4'-C1'	8.27	1.52	1.41
36	B2	628	A	C2'-C1'	8.27	1.62	1.53
85	A5	2742	G	O4'-C1'	8.27	1.52	1.41
85	A5	5051	C	C2'-C1'	-8.27	1.44	1.53
36	B2	1791	A	O4'-C1'	8.27	1.52	1.41
85	A5	1803	G	O4'-C1'	8.27	1.52	1.41
36	B2	1329	U	O4'-C1'	8.26	1.52	1.41
36	B2	828	G	C2'-C1'	-8.26	1.44	1.53
36	B2	1532	C	O4'-C1'	8.26	1.52	1.41
85	A5	2281	U	O4'-C1'	8.26	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	743	U	O4'-C1'	8.26	1.52	1.41
85	A5	724	C	O4'-C1'	8.26	1.52	1.41
87	A8	40	A	C2'-C1'	-8.26	1.44	1.53
85	A5	2900	U	C2'-C1'	-8.25	1.44	1.53
85	A5	3622	C	C2'-C1'	-8.25	1.44	1.53
85	A5	4433	G	C2'-C1'	-8.25	1.44	1.53
37	BC	51	G	C2'-C1'	-8.25	1.44	1.53
85	A5	66	A	O4'-C1'	8.25	1.52	1.41
85	A5	363	A	C2'-C1'	8.25	1.62	1.53
85	A5	1652	U	C2'-C1'	-8.25	1.44	1.53
85	A5	4101	C	C2'-C1'	-8.24	1.44	1.53
36	B2	1684	C	O4'-C1'	8.24	1.52	1.41
40	CK	130	LYS	CA-CB	8.24	1.72	1.53
85	A5	2632	U	C2'-C1'	-8.24	1.44	1.53
36	B2	1090	C	O4'-C1'	8.24	1.52	1.41
85	A5	391	U	O4'-C1'	8.24	1.52	1.41
85	A5	1188	C	C2'-C1'	-8.24	1.44	1.53
86	A7	7	G	O4'-C1'	8.24	1.52	1.41
36	B2	164	A	O4'-C1'	8.23	1.52	1.41
85	A5	4137	C	C2'-C1'	-8.23	1.44	1.53
87	A8	108	A	C2'-C1'	8.23	1.62	1.53
87	A8	139	G	C2'-C1'	-8.23	1.44	1.53
85	A5	752	G	C2'-C1'	-8.23	1.44	1.53
85	A5	1994	C	O4'-C1'	8.23	1.52	1.41
36	B2	635	G	O4'-C1'	8.23	1.52	1.41
36	B2	1005	G	C2'-C1'	-8.23	1.44	1.53
85	A5	1609	U	C2'-C1'	-8.23	1.44	1.53
85	A5	2023	C	O4'-C1'	8.23	1.52	1.41
85	A5	2072	C	C2'-C1'	-8.23	1.44	1.53
85	A5	2338	C	O4'-C1'	8.23	1.52	1.41
85	A5	3694	U	C2'-C1'	-8.23	1.44	1.53
36	B2	740	C	C2'-C1'	-8.22	1.44	1.53
87	A8	147	G	C2'-C1'	-8.22	1.44	1.53
28	AC	208	PRO	N-CD	8.22	1.59	1.47
36	B2	1083	A	O4'-C1'	8.22	1.52	1.41
85	A5	4242	U	O4'-C1'	8.22	1.52	1.41
36	B2	1677	U	C2'-C1'	8.22	1.62	1.53
36	B2	312	G	C2'-C1'	8.21	1.62	1.53
36	B2	1187	G	O4'-C1'	8.21	1.52	1.41
85	A5	4353	U	C2'-C1'	8.21	1.62	1.53
36	B2	1205	C	O4'-C1'	8.21	1.52	1.41
36	B2	1394	G	O4'-C1'	8.21	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1081	C	O4'-C1'	8.21	1.52	1.41
85	A5	2056	G	C2'-C1'	-8.21	1.44	1.53
85	A5	2081	C	C2'-C1'	-8.21	1.44	1.53
36	B2	188	C	C2'-C1'	-8.21	1.44	1.53
36	B2	786	G	O4'-C1'	8.21	1.52	1.41
85	A5	1869	G	O4'-C1'	-8.21	1.30	1.41
85	A5	3741	C	C2'-C1'	-8.21	1.44	1.53
37	BC	15	G	C2'-C1'	8.20	1.62	1.53
85	A5	1443	A	C2'-C1'	-8.21	1.44	1.53
85	A5	1736	A	C2'-C1'	-8.20	1.44	1.53
85	A5	5012	G	C2'-C1'	8.20	1.62	1.53
85	A5	165	A	C2'-C1'	-8.20	1.44	1.53
87	A8	130	C	O4'-C1'	8.20	1.52	1.41
85	A5	190	G	C2'-C1'	-8.20	1.44	1.53
85	A5	1894	C	C2'-C1'	-8.20	1.44	1.53
36	B2	472	C	C2'-C1'	-8.20	1.44	1.53
85	A5	5	A	C2'-C1'	-8.20	1.44	1.53
36	B2	686	U	C2'-C1'	8.20	1.62	1.53
85	A5	207	G	O4'-C1'	8.19	1.52	1.41
85	A5	743	G	C2'-C1'	-8.20	1.44	1.53
85	A5	1639	U	C2'-C1'	-8.19	1.44	1.53
85	A5	4605	A	O4'-C1'	8.19	1.52	1.41
85	A5	1176	C	O4'-C1'	8.19	1.52	1.41
85	A5	2078	C	C2'-C1'	-8.19	1.44	1.53
85	A5	4314	C	O4'-C1'	8.19	1.52	1.41
36	B2	731	G	O4'-C1'	8.19	1.52	1.41
85	A5	2271	C	C2'-C1'	-8.19	1.44	1.53
87	A8	129	C	O4'-C1'	8.19	1.52	1.41
36	B2	26	U	C2'-C1'	-8.18	1.44	1.53
36	B2	1313	A	O4'-C1'	8.18	1.52	1.41
36	B2	1111	U	O4'-C1'	8.18	1.52	1.41
74	CC	323	ARG	CA-CB	8.18	1.72	1.53
85	A5	1427	A	O4'-C1'	8.17	1.52	1.41
36	B2	1451	G	C2'-C1'	-8.17	1.44	1.53
85	A5	2082	G	C2'-C1'	-8.17	1.44	1.53
85	A5	4622	A	C2'-C1'	8.17	1.62	1.53
87	A8	45	C	C2'-C1'	-8.17	1.44	1.53
36	B2	1308	U	C2'-C1'	8.17	1.62	1.53
85	A5	4574	U	O4'-C1'	8.17	1.52	1.41
85	A5	1847	C	C2'-C1'	-8.16	1.44	1.53
85	A5	4908	G	O4'-C1'	8.16	1.52	1.41
85	A5	4943	A	O4'-C1'	8.16	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1546	C	O4'-C1'	8.16	1.52	1.41
85	A5	1411	C	C2'-C1'	-8.16	1.44	1.53
85	A5	1608	G	C2'-C1'	-8.16	1.44	1.53
85	A5	3937	C	O4'-C1'	8.16	1.52	1.41
85	A5	296	A	O4'-C1'	-8.16	1.31	1.41
85	A5	4425	G	O4'-C1'	8.15	1.52	1.41
85	A5	2503	G	C2'-C1'	-8.15	1.44	1.53
36	B2	159	A	O4'-C1'	8.15	1.52	1.41
36	B2	1265	A	O4'-C1'	8.15	1.52	1.41
85	A5	202	C	O4'-C1'	8.15	1.52	1.41
85	A5	4355	G	O4'-C1'	8.15	1.52	1.41
85	A5	251	C	O4'-C1'	8.14	1.52	1.41
85	A5	1821	G	C2'-C1'	8.14	1.62	1.53
36	B2	327	G	O4'-C1'	-8.14	1.31	1.41
85	A5	1217	G	C2'-C1'	8.14	1.62	1.53
85	A5	2040	A	C2'-C1'	-8.14	1.44	1.53
36	B2	606	G	O4'-C1'	-8.14	1.31	1.41
36	B2	1296	U	C2'-C1'	-8.14	1.44	1.53
85	A5	323	C	O4'-C1'	8.14	1.52	1.41
87	A8	107	C	P-O5'	-8.13	1.51	1.59
36	B2	1491	G	C2'-C1'	-8.13	1.44	1.53
36	B2	1584	G	O4'-C1'	8.13	1.52	1.41
85	A5	5021	C	O4'-C1'	8.13	1.52	1.41
85	A5	691	C	O4'-C1'	8.13	1.52	1.41
85	A5	3808	C	O4'-C1'	8.12	1.52	1.41
85	A5	3929	G	O4'-C1'	8.12	1.52	1.41
85	A5	5055	G	C2'-C1'	-8.12	1.44	1.53
36	B2	148	U	C2'-C1'	8.12	1.62	1.53
36	B2	1863	A	C2'-C1'	8.12	1.62	1.53
87	A8	153	C	C4'-C3'	8.12	1.62	1.53
85	A5	1930	U	O4'-C1'	8.12	1.52	1.41
85	A5	2710	C	O4'-C1'	8.11	1.52	1.41
87	A8	133	G	C2'-C1'	-8.11	1.44	1.53
85	A5	354	U	O4'-C1'	8.11	1.52	1.41
85	A5	4384	U	O4'-C1'	8.11	1.52	1.41
85	A5	1392	A	O4'-C1'	8.11	1.52	1.41
36	B2	922	A	C2'-C1'	8.11	1.62	1.53
85	A5	4895	C	C2'-C1'	8.11	1.62	1.53
85	A5	2453	A	O4'-C1'	8.10	1.52	1.41
85	A5	4253	A	O4'-C1'	8.10	1.52	1.41
36	B2	1050	A	C2'-C1'	-8.10	1.44	1.53
85	A5	2326	G	O4'-C1'	8.10	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1830	U	O4'-C1'	8.10	1.52	1.41
85	A5	163	A	O4'-C1'	8.10	1.52	1.41
85	A5	2044	U	O4'-C1'	8.10	1.52	1.41
85	A5	3826	C	O4'-C1'	8.10	1.52	1.41
85	A5	3738	G	O4'-C1'	8.10	1.52	1.41
36	B2	1657	G	C2'-C1'	-8.09	1.44	1.53
85	A5	4198	G	C2'-C1'	-8.09	1.44	1.53
86	A7	22	A	C2'-C1'	-8.09	1.44	1.53
29	AG	36	VAL	CA-CB	-8.09	1.37	1.54
85	A5	4172	A	O4'-C1'	-8.09	1.31	1.41
85	A5	3937	C	C2'-C1'	-8.09	1.44	1.53
85	A5	2108	G	C5'-C4'	8.09	1.61	1.51
85	A5	2726	G	C2'-C1'	-8.09	1.44	1.53
47	CI	193	ASP	C-N	-8.08	1.18	1.33
85	A5	18	C	O4'-C1'	8.08	1.52	1.41
85	A5	1582	U	O4'-C1'	8.08	1.52	1.41
36	B2	941	C	O4'-C1'	8.07	1.52	1.41
85	A5	68	U	C2'-C1'	-8.07	1.44	1.53
85	A5	4654	C	C2'-C1'	-8.07	1.44	1.53
36	B2	37	C	C2'-C1'	-8.07	1.44	1.53
36	B2	152	U	C2'-C1'	-8.07	1.44	1.53
36	B2	1628	C	O4'-C1'	8.07	1.52	1.41
85	A5	1656	U	O4'-C1'	8.07	1.52	1.41
85	A5	2340	C	O4'-C1'	8.07	1.52	1.41
36	B2	1144	A	O4'-C1'	8.07	1.52	1.41
36	B2	1429	G	O3'-P	-8.07	1.51	1.61
36	B2	196	C	C2'-C1'	-8.06	1.44	1.53
85	A5	310	G	C2'-C1'	-8.06	1.44	1.53
85	A5	3742	G	C2'-C1'	-8.06	1.44	1.53
36	B2	640	A	O4'-C1'	8.06	1.52	1.41
85	A5	1699	A	O4'-C1'	-8.06	1.31	1.41
85	A5	4773	C	O4'-C1'	8.06	1.52	1.41
36	B2	547	G	O4'-C1'	8.06	1.52	1.41
37	BC	43	A	C2'-C1'	-8.06	1.44	1.53
85	A5	662	C	C2'-C1'	-8.06	1.44	1.53
85	A5	2655	C	O4'-C1'	8.06	1.52	1.41
85	A5	4295	U	C2'-C1'	8.05	1.62	1.53
36	B2	1450	G	C2'-C1'	-8.04	1.44	1.53
85	A5	2409	U	C2'-C1'	-8.05	1.44	1.53
85	A5	1879	C	O4'-C1'	8.04	1.52	1.41
85	A5	4585	U	C2'-C1'	-8.04	1.44	1.53
36	B2	457	C	O4'-C1'	8.04	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	57	U	C2'-C1'	8.04	1.62	1.53
36	B2	1063	C	C2'-C1'	-8.04	1.44	1.53
85	A5	201	C	C2'-C1'	-8.04	1.44	1.53
85	A5	2782	U	C2'-C1'	8.04	1.62	1.53
36	B2	1154	U	O4'-C1'	-8.03	1.31	1.41
85	A5	4326	G	C2'-C1'	-8.04	1.44	1.53
87	A8	117	C	O4'-C1'	8.04	1.52	1.41
53	CT	53	PRO	CA-C	-8.03	1.36	1.52
85	A5	3860	A	O4'-C1'	8.03	1.52	1.41
85	A5	985	C	C2'-C1'	-8.03	1.44	1.53
36	B2	358	C	O4'-C1'	8.03	1.52	1.41
36	B2	928	G	C2'-C1'	-8.03	1.44	1.53
36	B2	1032	C	O4'-C1'	8.03	1.52	1.41
85	A5	103	G	C2'-C1'	-8.03	1.44	1.53
85	A5	4432	C	C2'-C1'	-8.03	1.44	1.53
36	B2	190	G	C2'-C1'	-8.02	1.44	1.53
36	B2	947	G	C2'-C1'	-8.02	1.44	1.53
85	A5	1805	A	O4'-C1'	-8.02	1.31	1.41
36	B2	1563	G	C2'-C1'	-8.02	1.44	1.53
36	B2	957	A	C2'-C1'	-8.02	1.44	1.53
36	B2	1484	A	C2'-C1'	-8.02	1.44	1.53
85	A5	2901	G	C2'-C1'	-8.02	1.44	1.53
36	B2	1800	A	O4'-C1'	8.01	1.52	1.41
36	B2	1738	C	C2'-C1'	-8.01	1.44	1.53
36	B2	348	A	C2'-C1'	-8.01	1.44	1.53
85	A5	4482	U	C2'-C1'	-8.01	1.44	1.53
36	B2	86	C	C2'-C1'	-8.01	1.44	1.53
36	B2	617	G	C2'-C1'	-8.01	1.44	1.53
36	B2	1824	A	O4'-C1'	-8.01	1.31	1.41
85	A5	201	C	O4'-C1'	8.01	1.52	1.41
85	A5	1604	G	C2'-C1'	-8.01	1.44	1.53
36	B2	1806	A	C2'-C1'	-8.00	1.44	1.53
85	A5	2890	C	O4'-C1'	8.00	1.52	1.41
36	B2	1484	A	O4'-C1'	8.00	1.52	1.41
85	A5	2446	C	O4'-C1'	8.00	1.52	1.41
85	A5	4960	G	C2'-C1'	-8.00	1.44	1.53
36	B2	1065	G	C2'-C1'	-8.00	1.44	1.53
65	Cc	88	TYR	CB-CG	-8.00	1.39	1.51
85	A5	1473	U	O4'-C1'	8.00	1.52	1.41
85	A5	645	G	C2'-C1'	-8.00	1.44	1.53
85	A5	672	C	O4'-C1'	8.00	1.52	1.41
36	B2	836	G	C2'-C1'	7.99	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1540	G	C2'-C1'	-7.99	1.44	1.53
85	A5	1106	A	O4'-C1'	7.99	1.52	1.41
85	A5	3660	C	C2'-C1'	-7.99	1.44	1.53
8	AS	95	TYR	CD1-CE1	-7.99	1.27	1.39
85	A5	907	C	O4'-C1'	7.99	1.52	1.41
85	A5	2689	C	C2'-C1'	-7.99	1.44	1.53
85	A5	3605	C	O4'-C1'	7.99	1.52	1.41
85	A5	3923	A	C2'-C1'	-7.98	1.44	1.53
85	A5	90	G	C2'-C1'	-7.98	1.44	1.53
36	B2	790	C	C2'-C1'	-7.98	1.44	1.53
85	A5	1236	C	O4'-C1'	7.98	1.52	1.41
85	A5	3926	C	O4'-C1'	7.98	1.52	1.41
85	A5	4075	U	C2'-C1'	7.98	1.62	1.53
85	A5	1108	C	O4'-C1'	7.98	1.52	1.41
36	B2	311	C	C2'-C1'	-7.97	1.44	1.53
36	B2	880	G	C2'-C1'	7.97	1.62	1.53
36	B2	1331	C	O4'-C1'	7.97	1.52	1.41
52	CS	175	PHE	N-CA	-7.97	1.30	1.46
36	B2	1527	C	O4'-C1'	7.97	1.52	1.41
85	A5	4389	C	C2'-C1'	-7.97	1.44	1.53
12	AR	89	SER	CA-C	7.97	1.73	1.52
14	AT	4	VAL	C-N	7.96	1.52	1.34
36	B2	609	U	O4'-C1'	7.96	1.51	1.41
36	B2	850	C	C2'-C1'	-7.96	1.44	1.53
36	B2	496	C	C2'-C1'	-7.96	1.44	1.53
36	B2	867	G	O4'-C1'	7.96	1.51	1.41
36	B2	1668	U	P-O5'	-7.96	1.51	1.59
85	A5	388	A	O4'-C1'	7.96	1.51	1.41
36	B2	379	C	O4'-C1'	7.95	1.51	1.41
85	A5	511	C	O4'-C1'	7.95	1.51	1.41
85	A5	2458	C	C2'-C1'	-7.95	1.44	1.53
36	B2	346	C	O4'-C1'	7.95	1.51	1.41
85	A5	2856	C	O4'-C1'	7.95	1.51	1.41
85	A5	2645	G	C2'-C1'	-7.95	1.44	1.53
85	A5	1566	C	O4'-C1'	7.94	1.51	1.41
37	BC	58	A	C2'-C1'	-7.94	1.44	1.53
85	A5	2603	C	C2'-C1'	-7.94	1.44	1.53
36	B2	833	C	O4'-C1'	7.94	1.51	1.41
36	B2	1486	A	P-O5'	-7.94	1.51	1.59
85	A5	710	G	O4'-C1'	7.94	1.51	1.41
85	A5	1214	C	O4'-C1'	-7.94	1.31	1.41
36	B2	634	A	O4'-C1'	7.94	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1066	G	O4'-C1'	7.94	1.51	1.41
36	B2	1454	A	O4'-C1'	7.93	1.51	1.41
85	A5	4144	C	C2'-C1'	7.93	1.62	1.53
36	B2	884	C	O4'-C1'	7.93	1.51	1.41
36	B2	1710	C	O4'-C1'	7.93	1.51	1.41
85	A5	2360	A	C2'-C1'	-7.93	1.44	1.53
85	A5	4908	G	C2'-C1'	-7.93	1.44	1.53
46	CN	14	LYS	C-N	7.93	1.52	1.34
85	A5	1405	C	C2'-C1'	-7.93	1.44	1.53
36	B2	758	C	C2'-C1'	-7.92	1.44	1.53
85	A5	2114	G	C2'-C1'	-7.92	1.44	1.53
36	B2	952	G	C2'-C1'	-7.92	1.44	1.53
85	A5	2347	A	O4'-C1'	7.92	1.51	1.41
29	AG	131	ARG	N-CA	-7.92	1.30	1.46
85	A5	1694	C	O4'-C1'	7.92	1.51	1.41
85	A5	1987	C	C2'-C1'	-7.92	1.44	1.53
85	A5	3660	C	O3'-P	-7.91	1.51	1.61
85	A5	952	G	O4'-C1'	7.91	1.51	1.41
85	A5	2397	G	O4'-C1'	-7.91	1.31	1.41
36	B2	546	G	O4'-C1'	7.91	1.51	1.41
36	B2	1283	C	C2'-C1'	-7.91	1.44	1.53
85	A5	1456	C	O4'-C1'	7.91	1.51	1.41
36	B2	963	A	O4'-C1'	-7.91	1.31	1.41
63	CB	32	PHE	CD2-CE2	-7.91	1.23	1.39
36	B2	1390	U	C2'-C1'	-7.90	1.44	1.53
85	A5	1257	A	C2'-C1'	7.90	1.62	1.53
85	A5	1506	G	O4'-C1'	7.90	1.51	1.41
85	A5	3730	U	C2'-C1'	-7.90	1.44	1.53
36	B2	1031	A	O4'-C1'	7.90	1.51	1.41
36	B2	1398	G	C2'-C1'	-7.90	1.44	1.53
85	A5	4054	C	C2'-C1'	-7.90	1.44	1.53
85	A5	2867	C	C2'-C1'	-7.90	1.44	1.53
85	A5	3920	U	C2'-C1'	-7.90	1.44	1.53
85	A5	2544	G	O4'-C1'	7.89	1.51	1.41
85	A5	4415	A	O4'-C1'	7.89	1.51	1.41
85	A5	3788	C	C2'-C1'	-7.88	1.44	1.53
85	A5	935	A	C2'-C1'	-7.88	1.44	1.53
85	A5	4254	G	C2'-C1'	-7.88	1.44	1.53
42	CL	163	LYS	C-N	7.88	1.52	1.34
85	A5	463	A	C2'-C1'	7.88	1.62	1.53
85	A5	4506	C	O4'-C1'	7.88	1.51	1.41
37	BC	20	A	C2'-C1'	7.87	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2399	G	C2'-C1'	-7.87	1.44	1.53
85	A5	2405	G	C2'-C1'	-7.87	1.44	1.53
85	A5	522	C	O4'-C1'	7.87	1.51	1.41
36	B2	502	C	O4'-C1'	7.86	1.51	1.41
85	A5	5034	A	C2'-C1'	-7.86	1.44	1.53
36	B2	1542	C	C2'-C1'	-7.86	1.44	1.53
85	A5	1317	U	C2'-C1'	-7.86	1.44	1.53
36	B2	576	A	C2'-C1'	-7.86	1.44	1.53
85	A5	2251	G	C2'-C1'	-7.86	1.44	1.53
53	CT	30	TYR	CB-CG	-7.86	1.39	1.51
85	A5	89	C	O4'-C1'	7.86	1.51	1.41
85	A5	2780	C	C2'-C1'	-7.86	1.44	1.53
85	A5	1580	C	C2'-C1'	-7.86	1.44	1.53
36	B2	409	C	O4'-C1'	7.85	1.51	1.41
36	B2	839	C	C2'-C1'	-7.85	1.44	1.53
85	A5	4059	C	O4'-C1'	7.85	1.51	1.41
85	A5	438	G	C2'-C1'	-7.85	1.44	1.53
85	A5	2557	G	C2'-C1'	-7.85	1.44	1.53
85	A5	4431	U	O4'-C1'	7.85	1.51	1.41
37	BC	73	C	O4'-C1'	7.85	1.51	1.41
85	A5	397	G	O4'-C1'	7.85	1.51	1.41
36	B2	1407	U	O4'-C1'	7.84	1.51	1.41
64	CF	145	PRO	N-CD	7.84	1.58	1.47
85	A5	2684	C	P-O5'	-7.84	1.51	1.59
85	A5	2902	G	C2'-C1'	-7.84	1.44	1.53
85	A5	1961	G	C2'-C1'	7.84	1.61	1.53
85	A5	2695	A	O4'-C1'	-7.84	1.31	1.41
85	A5	3921	U	O4'-C1'	7.83	1.51	1.41
85	A5	312	G	C2'-C1'	-7.83	1.44	1.53
85	A5	944	A	C2'-C1'	7.83	1.61	1.53
80	CH	41	ILE	CA-CB	-7.83	1.36	1.54
85	A5	1096	C	C2'-C1'	-7.83	1.44	1.53
36	B2	1597	C	C2'-C1'	-7.82	1.44	1.53
85	A5	2386	U	O4'-C1'	7.82	1.51	1.41
85	A5	1850	A	O4'-C1'	7.82	1.51	1.41
85	A5	3903	A	C2'-C1'	-7.82	1.44	1.53
85	A5	4725	C	O4'-C1'	7.82	1.51	1.41
36	B2	347	G	O4'-C1'	7.82	1.51	1.41
85	A5	142	G	O4'-C1'	7.82	1.51	1.41
85	A5	2829	U	C2'-C1'	7.82	1.61	1.53
85	A5	3727	A	C2'-C1'	-7.82	1.44	1.53
26	AJ	35	TYR	CD2-CE2	-7.82	1.27	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1268	G	O4'-C1'	7.82	1.51	1.41
36	B2	60	A	O4'-C1'	-7.82	1.31	1.41
86	A7	106	G	C2'-C1'	-7.82	1.44	1.53
85	A5	5062	G	C2'-C1'	-7.81	1.44	1.53
85	A5	1479	G	O4'-C1'	7.81	1.51	1.41
85	A5	4251	A	O4'-C1'	7.81	1.51	1.41
36	B2	171	A	C2'-C1'	7.81	1.61	1.53
36	B2	868	G	C2'-C1'	-7.81	1.44	1.53
36	B2	992	A	O4'-C1'	7.81	1.51	1.41
85	A5	4695	C	C2'-C1'	-7.81	1.44	1.53
36	B2	973	C	O4'-C1'	7.81	1.51	1.41
36	B2	1325	G	O4'-C1'	7.80	1.51	1.41
36	B2	462	C	O4'-C1'	7.80	1.51	1.41
85	A5	2520	C	O4'-C1'	7.80	1.51	1.41
85	A5	2890	C	C2'-C1'	-7.80	1.44	1.53
85	A5	1316	G	C2'-C1'	-7.79	1.44	1.53
85	A5	2023	C	C2'-C1'	-7.79	1.44	1.53
85	A5	2682	G	C2'-C1'	-7.79	1.44	1.53
85	A5	3736	A	O4'-C1'	7.79	1.51	1.41
85	A5	395	A	O4'-C1'	7.79	1.51	1.41
85	A5	1881	C	O4'-C1'	7.79	1.51	1.41
86	A7	47	G	C2'-C1'	-7.79	1.44	1.53
36	B2	573	U	O4'-C1'	7.79	1.51	1.41
85	A5	317	A	O4'-C1'	7.79	1.51	1.41
85	A5	1674	C	O4'-C1'	7.79	1.51	1.41
36	B2	1127	C	O4'-C1'	7.78	1.51	1.41
85	A5	2367	A	O4'-C1'	7.78	1.51	1.41
45	Ca	52	TYR	CB-CG	-7.78	1.40	1.51
85	A5	1237	C	O3'-P	-7.78	1.51	1.61
85	A5	4654	C	O4'-C1'	7.78	1.51	1.41
85	A5	1090	G	C2'-C1'	-7.78	1.44	1.53
85	A5	3918	G	C2'-C1'	-7.78	1.44	1.53
85	A5	2852	U	C2'-C1'	-7.77	1.44	1.53
85	A5	384	A	C2'-C1'	-7.77	1.44	1.53
85	A5	1761	G	C2'-C1'	-7.77	1.44	1.53
85	A5	3786	U	C2'-C1'	-7.77	1.44	1.53
85	A5	1425	G	O4'-C1'	7.76	1.51	1.41
85	A5	1517	G	O4'-C1'	7.76	1.51	1.41
36	B2	191	A	O4'-C1'	7.76	1.51	1.41
36	B2	378	U	C2'-C1'	-7.76	1.44	1.53
86	A7	50	A	C2'-C1'	-7.76	1.44	1.53
36	B2	531	A	O3'-P	-7.76	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1669	G	C2'-C1'	-7.75	1.44	1.53
85	A5	3858	C	C2'-C1'	-7.75	1.44	1.53
86	A7	67	C	C2'-C1'	-7.75	1.44	1.53
36	B2	49	C	O4'-C1'	7.75	1.51	1.41
36	B2	195	C	C2'-C1'	-7.75	1.44	1.53
36	B2	567	C	C2'-C1'	-7.75	1.44	1.53
85	A5	270	U	C2'-C1'	-7.75	1.44	1.53
85	A5	2790	U	O4'-C1'	7.75	1.51	1.41
85	A5	2882	A	C2'-C1'	7.75	1.61	1.53
85	A5	1722	C	C2'-C1'	-7.75	1.44	1.53
85	A5	2562	G	C2'-C1'	7.75	1.61	1.53
85	A5	4071	U	O4'-C1'	7.75	1.51	1.41
85	A5	1596	U	O4'-C1'	7.74	1.51	1.41
85	A5	3633	C	O4'-C1'	7.74	1.51	1.41
85	A5	4214	A	C2'-C1'	7.74	1.61	1.53
85	A5	3751	G	O4'-C1'	7.74	1.51	1.41
37	BC	2	G	O4'-C1'	-7.74	1.31	1.41
85	A5	3714	G	C2'-C1'	-7.74	1.44	1.53
36	B2	1130	G	O4'-C1'	-7.74	1.31	1.41
36	B2	1802	C	O4'-C1'	7.74	1.51	1.41
64	CF	224	THR	CA-CB	-7.74	1.33	1.53
85	A5	4225	G	O4'-C1'	-7.74	1.31	1.41
85	A5	4620	U	O4'-C1'	7.73	1.51	1.41
85	A5	4875	G	C5'-C4'	7.73	1.60	1.51
36	B2	824	C	O4'-C1'	7.73	1.51	1.41
36	B2	1609	C	O4'-C1'	7.73	1.51	1.41
36	B2	203	G	C2'-C1'	-7.73	1.44	1.53
85	A5	1811	G	O4'-C1'	-7.73	1.31	1.41
85	A5	2888	G	C2'-C1'	-7.73	1.44	1.53
85	A5	4174	U	C2'-C1'	-7.73	1.44	1.53
85	A5	1676	C	C2'-C1'	-7.73	1.44	1.53
85	A5	4250	G	O4'-C1'	7.73	1.51	1.41
36	B2	1692	U	C2'-C1'	-7.73	1.44	1.53
85	A5	1260	G	C2'-C1'	-7.73	1.44	1.53
85	A5	2521	G	C2'-C1'	-7.73	1.44	1.53
36	B2	29	G	C2'-C1'	-7.73	1.44	1.53
85	A5	2293	U	O4'-C1'	7.72	1.51	1.41
85	A5	3645	U	O4'-C1'	7.72	1.51	1.41
85	A5	111	C	C2'-C1'	7.72	1.61	1.53
85	A5	2748	C	C2'-C1'	-7.72	1.44	1.53
85	A5	3841	C	C2'-C1'	-7.72	1.44	1.53
36	B2	934	G	C2'-C1'	-7.71	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	3786	U	O4'-C1'	7.71	1.51	1.41
85	A5	347	A	C2'-C1'	-7.71	1.44	1.53
85	A5	1457	G	O4'-C1'	7.71	1.51	1.41
85	A5	3712	A	C2'-C1'	7.71	1.61	1.53
85	A5	1378	C	C2'-C1'	-7.71	1.44	1.53
85	A5	2043	A	C2'-C1'	7.71	1.61	1.53
85	A5	4459	U	O4'-C1'	7.71	1.51	1.41
36	B2	284	C	O4'-C1'	7.71	1.51	1.41
85	A5	498	C	O4'-C1'	7.70	1.51	1.41
36	B2	387	C	C2'-C1'	-7.70	1.44	1.53
85	A5	240	G	C2'-C1'	-7.70	1.44	1.53
36	B2	37	C	O4'-C1'	7.70	1.51	1.41
36	B2	1347	U	O4'-C1'	7.70	1.51	1.41
85	A5	2806	A	O4'-C1'	-7.70	1.31	1.41
36	B2	473	A	O4'-C1'	7.69	1.51	1.41
8	AS	82	TRP	CA-CB	-7.69	1.37	1.53
85	A5	1216	C	C2'-C1'	-7.69	1.44	1.53
85	A5	240	G	O4'-C1'	7.69	1.51	1.41
85	A5	1439	C	C2'-C1'	7.69	1.61	1.53
29	AG	130	PRO	C-N	-7.68	1.16	1.34
85	A5	129	C	O4'-C1'	7.68	1.51	1.41
85	A5	1566	C	C2'-C1'	-7.68	1.45	1.53
85	A5	4319	C	O4'-C1'	7.68	1.51	1.41
65	Cc	88	TYR	CD2-CE2	-7.68	1.27	1.39
85	A5	1969	G	O4'-C1'	-7.68	1.31	1.41
85	A5	4315	A	O4'-C1'	7.68	1.51	1.41
36	B2	1389	C	P-O5'	-7.68	1.52	1.59
85	A5	1978	C	C2'-C1'	-7.68	1.45	1.53
85	A5	926	G	C4'-C3'	7.67	1.61	1.53
85	A5	1647	U	O4'-C1'	7.67	1.51	1.41
85	A5	1889	U	C2'-C1'	-7.67	1.45	1.53
36	B2	495	U	C2'-C1'	-7.67	1.45	1.53
36	B2	554	A	O4'-C1'	-7.67	1.31	1.41
36	B2	729	C	O4'-C1'	7.67	1.51	1.41
85	A5	1567	U	O4'-C1'	7.67	1.51	1.41
85	A5	2107	C	O3'-P	-7.67	1.51	1.61
85	A5	4918	C	O4'-C1'	7.66	1.51	1.41
85	A5	1065	G	C2'-C1'	-7.66	1.45	1.53
85	A5	1802	A	O4'-C1'	7.66	1.51	1.41
85	A5	3743	G	C2'-C1'	-7.66	1.45	1.53
36	B2	850	C	O4'-C1'	7.66	1.51	1.41
37	BC	29	G	C2'-C1'	-7.66	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1427	C	C2'-C1'	7.66	1.61	1.53
85	A5	3795	A	O4'-C1'	7.66	1.51	1.41
85	A5	4096	C	O4'-C1'	7.65	1.51	1.41
85	A5	3668	C	C2'-C1'	-7.65	1.45	1.53
85	A5	383	A	O4'-C1'	7.65	1.51	1.41
85	A5	2618	G	O4'-C1'	-7.65	1.31	1.41
85	A5	1193	C	O4'-C1'	7.65	1.51	1.41
85	A5	3654	G	C2'-C1'	-7.65	1.45	1.53
85	A5	4466	C	C2'-C1'	-7.65	1.45	1.53
86	A7	82	G	C2'-C1'	-7.65	1.45	1.53
36	B2	229	A	C2'-C1'	-7.65	1.45	1.53
85	A5	4117	U	O4'-C1'	-7.65	1.31	1.41
36	B2	95	G	C2'-C1'	-7.64	1.45	1.53
85	A5	34	A	O4'-C1'	7.64	1.51	1.41
85	A5	4164	C	O4'-C1'	7.64	1.51	1.41
36	B2	352	U	O4'-C1'	7.64	1.51	1.41
36	B2	754	G	C2'-C1'	-7.64	1.45	1.53
36	B2	1317	C	O4'-C1'	7.64	1.51	1.41
36	B2	1396	A	C2'-C1'	7.64	1.61	1.53
85	A5	4969	C	C2'-C1'	-7.64	1.45	1.53
36	B2	38	A	C2'-C1'	7.63	1.61	1.53
85	A5	1375	C	O4'-C1'	7.63	1.51	1.41
85	A5	2041	A	C2'-C1'	7.63	1.61	1.53
85	A5	2298	U	C2'-C1'	-7.63	1.45	1.53
45	Ca	109	TYR	CE2-CZ	-7.63	1.28	1.38
85	A5	1321	G	C2'-C1'	-7.63	1.45	1.53
85	A5	4253	A	C2'-C1'	-7.63	1.45	1.53
36	B2	942	G	O4'-C1'	7.63	1.51	1.41
85	A5	1284	G	C2'-C1'	7.63	1.61	1.53
85	A5	2326	G	C2'-C1'	-7.63	1.45	1.53
85	A5	4162	C	O4'-C1'	-7.63	1.31	1.41
85	A5	4288	C	C2'-C1'	-7.63	1.45	1.53
85	A5	11	G	O4'-C1'	7.63	1.51	1.41
85	A5	4498	U	C2'-C1'	7.63	1.61	1.53
85	A5	5018	C	C2'-C1'	-7.63	1.45	1.53
85	A5	3905	A	C2'-C1'	7.62	1.61	1.53
85	A5	1482	G	O4'-C1'	-7.62	1.31	1.41
1	Az	76	SER	C-N	7.62	1.51	1.34
85	A5	4744	A	O4'-C1'	7.62	1.51	1.41
85	A5	1325	C	O4'-C1'	-7.62	1.31	1.41
36	B2	528	A	O4'-C1'	7.61	1.51	1.41
36	B2	1296	U	O4'-C1'	7.61	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1402	A	C2'-C1'	-7.61	1.45	1.53
85	A5	924	C	O4'-C1'	7.61	1.51	1.41
85	A5	3625	G	C2'-C1'	-7.61	1.45	1.53
39	Cq	24	TYR	CD2-CE2	-7.61	1.27	1.39
85	A5	4173	G	O4'-C1'	7.61	1.51	1.41
85	A5	4471	U	O4'-C1'	7.61	1.51	1.41
85	A5	4966	A	O4'-C1'	7.60	1.51	1.41
85	A5	1369	C	C2'-C1'	-7.60	1.45	1.53
85	A5	4963	G	O4'-C1'	7.60	1.51	1.41
85	A5	4975	G	O4'-C1'	-7.60	1.31	1.41
36	B2	1336	C	O4'-C1'	7.60	1.51	1.41
86	A7	6	C	O3'-P	-7.60	1.52	1.61
63	CB	32	PHE	CD1-CE1	-7.60	1.24	1.39
85	A5	257	C	O4'-C1'	7.60	1.51	1.41
85	A5	1907	A	O3'-P	-7.60	1.52	1.61
36	B2	452	G	O4'-C1'	7.60	1.51	1.41
85	A5	1464	C	O4'-C1'	7.59	1.51	1.41
85	A5	4039	G	O4'-C1'	7.59	1.51	1.41
87	A8	69	U	O4'-C1'	7.59	1.51	1.41
36	B2	1573	G	O4'-C1'	7.59	1.51	1.41
85	A5	2342	G	C2'-C1'	-7.59	1.45	1.53
85	A5	5033	G	O4'-C1'	7.59	1.51	1.41
36	B2	1264	C	O4'-C1'	7.59	1.51	1.41
85	A5	4877	G	C2'-C1'	7.59	1.61	1.53
85	A5	4987	C	O4'-C1'	7.59	1.51	1.41
36	B2	365	C	C2'-C1'	-7.59	1.45	1.53
36	B2	1049	A	O4'-C1'	-7.59	1.31	1.41
85	A5	1269	G	C2'-C1'	7.59	1.61	1.53
85	A5	1594	C	C2'-C1'	-7.59	1.45	1.53
36	B2	1010	G	C2'-C1'	7.58	1.61	1.53
85	A5	1404	G	C2'-C1'	7.58	1.61	1.53
85	A5	1438	U	O4'-C1'	7.58	1.51	1.41
85	A5	4916	G	O4'-C1'	7.58	1.51	1.41
36	B2	1427	C	O4'-C1'	7.58	1.51	1.41
85	A5	2906	G	O4'-C1'	7.58	1.51	1.41
85	A5	328	A	O4'-C1'	7.58	1.51	1.41
85	A5	358	C	O4'-C1'	7.58	1.51	1.41
85	A5	964	A	O4'-C1'	7.58	1.51	1.41
36	B2	1643	U	O4'-C1'	7.57	1.51	1.41
85	A5	2574	G	C2'-C1'	7.57	1.61	1.53
85	A5	1459	A	O4'-C1'	7.57	1.51	1.41
36	B2	1303	C	O4'-C1'	-7.57	1.31	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	50	C	C2'-C1'	-7.57	1.45	1.53
38	Cz	100	VAL	N-CA	7.56	1.61	1.46
36	B2	1075	C	O4'-C1'	7.56	1.51	1.41
36	B2	1820	G	C2'-C1'	-7.56	1.45	1.53
36	B2	1804	U	O4'-C1'	7.56	1.51	1.41
85	A5	2261	G	O4'-C1'	7.56	1.51	1.41
36	B2	1497	G	O4'-C1'	7.55	1.51	1.41
85	A5	2102	G	O4'-C1'	-7.55	1.31	1.41
85	A5	309	C	C2'-C1'	7.55	1.61	1.53
85	A5	2856	C	C2'-C1'	-7.54	1.45	1.53
36	B2	1141	G	O4'-C1'	-7.54	1.31	1.41
85	A5	1248	C	O4'-C1'	7.54	1.51	1.41
85	A5	4469	U	C2'-C1'	-7.54	1.45	1.53
85	A5	104	G	P-O5'	-7.54	1.52	1.59
85	A5	3641	U	O4'-C1'	7.54	1.51	1.41
85	A5	4341	C	C2'-C1'	-7.54	1.45	1.53
36	B2	459	C	C2'-C1'	-7.53	1.45	1.53
29	AG	170	ARG	CA-CB	7.53	1.70	1.53
36	B2	1249	C	O4'-C1'	7.53	1.51	1.41
85	A5	5007	A	O4'-C1'	7.52	1.51	1.41
85	A5	2375	A	C2'-C1'	-7.52	1.45	1.53
85	A5	350	C	C2'-C1'	-7.52	1.45	1.53
85	A5	1645	C	O4'-C1'	7.52	1.51	1.41
85	A5	4347	G	O4'-C1'	7.52	1.51	1.41
85	A5	4474	A	C2'-C1'	7.52	1.61	1.53
36	B2	353	C	O4'-C1'	7.52	1.51	1.41
36	B2	1388	A	O4'-C1'	7.52	1.51	1.41
85	A5	91	G	O4'-C1'	7.52	1.51	1.41
85	A5	757	G	C2'-C1'	-7.52	1.45	1.53
85	A5	1107	C	C2'-C1'	-7.52	1.45	1.53
85	A5	1376	C	C2'-C1'	-7.52	1.45	1.53
85	A5	3600	G	O4'-C1'	7.52	1.51	1.41
37	BC	32	C	O4'-C1'	7.52	1.51	1.41
85	A5	758	G	C2'-C1'	-7.52	1.45	1.53
85	A5	988	C	C2'-C1'	-7.52	1.45	1.53
85	A5	2032	U	C2'-C1'	-7.52	1.45	1.53
85	A5	4954	G	C2'-C1'	7.52	1.61	1.53
36	B2	1095	C	O4'-C1'	7.52	1.51	1.41
36	B2	214	U	O3'-P	-7.51	1.52	1.61
36	B2	119	U	C2'-C1'	-7.51	1.45	1.53
36	B2	498	C	C2'-C1'	-7.51	1.45	1.53
36	B2	1386	A	O4'-C1'	7.51	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2044	U	C5'-C4'	7.51	1.60	1.51
36	B2	396	U	O4'-C1'	7.51	1.51	1.41
85	A5	1946	G	C2'-C1'	-7.51	1.45	1.53
36	B2	1814	G	O4'-C1'	7.51	1.51	1.41
85	A5	1303	A	C5'-C4'	7.51	1.60	1.51
85	A5	1444	G	C2'-C1'	-7.51	1.45	1.53
85	A5	4294	C	O4'-C1'	7.51	1.51	1.41
85	A5	2359	U	O4'-C1'	7.51	1.51	1.41
36	B2	1829	G	O4'-C1'	7.51	1.51	1.41
85	A5	4119	C	C2'-C1'	7.51	1.61	1.53
85	A5	683	C	C5'-C4'	7.50	1.60	1.51
86	A7	18	C	C2'-C1'	-7.50	1.45	1.53
85	A5	2572	C	O4'-C1'	7.50	1.51	1.41
87	A8	156	U	O4'-C1'	7.50	1.51	1.41
36	B2	1841	C	C2'-C1'	-7.50	1.45	1.53
85	A5	5027	C	C2'-C1'	-7.50	1.45	1.53
36	B2	280	G	O3'-P	-7.50	1.52	1.61
36	B2	1631	U	C2'-C1'	-7.50	1.45	1.53
36	B2	1856	C	C2'-C1'	-7.50	1.45	1.53
85	A5	4095	G	O4'-C1'	7.50	1.51	1.41
85	A5	4932	U	C2'-C1'	-7.50	1.45	1.53
36	B2	791	C	O3'-P	-7.49	1.52	1.61
85	A5	1304	C	O4'-C1'	7.49	1.51	1.41
36	B2	466	G	C4'-C3'	7.49	1.61	1.53
66	Cd	105	LEU	C-N	-7.49	1.16	1.34
36	B2	1448	A	C2'-C1'	-7.49	1.45	1.53
36	B2	1754	G	O4'-C1'	7.49	1.51	1.41
85	A5	460	C	C2'-C1'	-7.49	1.45	1.53
85	A5	1690	C	C2'-C1'	-7.49	1.45	1.53
85	A5	4219	A	C2'-C1'	-7.49	1.45	1.53
85	A5	2787	A	C2'-C1'	7.49	1.61	1.53
36	B2	901	G	C2'-C1'	-7.49	1.45	1.53
36	B2	470	G	C2'-C1'	-7.48	1.45	1.53
85	A5	4762	A	O4'-C1'	-7.48	1.31	1.41
36	B2	822	U	O4'-C1'	7.48	1.51	1.41
85	A5	288	G	O4'-C1'	7.48	1.51	1.41
85	A5	1283	G	O4'-C1'	7.48	1.51	1.41
85	A5	1764	G	O4'-C1'	-7.48	1.31	1.41
36	B2	1805	G	O4'-C1'	7.48	1.51	1.41
85	A5	952	G	C2'-C1'	-7.48	1.45	1.53
36	B2	1344	A	O4'-C1'	7.47	1.51	1.41
85	A5	8	U	O4'-C1'	7.47	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2599	G	O4'-C1'	7.47	1.51	1.41
86	A7	15	C	O4'-C1'	7.47	1.51	1.41
85	A5	279	A	C2'-C1'	-7.47	1.45	1.53
36	B2	1045	U	O4'-C1'	7.47	1.51	1.41
85	A5	4216	G	C2'-C1'	-7.47	1.45	1.53
85	A5	5064	G	O4'-C1'	7.47	1.51	1.41
85	A5	4495	G	C2'-C1'	-7.46	1.45	1.53
87	A8	83	C	C2'-C1'	7.46	1.61	1.53
85	A5	661	C	O4'-C1'	7.46	1.51	1.41
85	A5	1080	C	C2'-C1'	-7.46	1.45	1.53
85	A5	2449	A	O4'-C1'	7.46	1.51	1.41
85	A5	4100	C	O4'-C1'	7.46	1.51	1.41
86	A7	9	C	C2'-C1'	-7.46	1.45	1.53
26	AJ	164	PRO	N-CA	-7.46	1.34	1.47
36	B2	337	C	O4'-C1'	7.46	1.51	1.41
36	B2	849	A	O4'-C1'	7.46	1.51	1.41
36	B2	287	U	O4'-C1'	7.45	1.51	1.41
36	B2	662	G	O4'-C1'	7.45	1.51	1.41
87	A8	92	U	C2'-C1'	-7.45	1.45	1.53
36	B2	1469	A	C2'-C1'	-7.45	1.45	1.53
36	B2	357	C	O4'-C1'	7.45	1.51	1.41
36	B2	1155	U	O4'-C1'	7.45	1.51	1.41
36	B2	1191	C	O4'-C1'	7.45	1.51	1.41
74	CC	54	VAL	C-N	-7.45	1.17	1.34
85	A5	1733	G	C2'-C1'	7.45	1.61	1.53
85	A5	2577	C	C2'-C1'	-7.45	1.45	1.53
85	A5	3851	U	C2'-C1'	-7.45	1.45	1.53
85	A5	518	G	C2'-C1'	-7.45	1.45	1.53
85	A5	1936	C	C2'-C1'	-7.45	1.45	1.53
85	A5	2055	G	C5'-C4'	7.45	1.60	1.51
85	A5	1928	C	C2'-C1'	-7.44	1.45	1.53
85	A5	2090	U	O4'-C1'	-7.44	1.31	1.41
85	A5	2487	G	O4'-C1'	7.44	1.51	1.41
85	A5	2596	G	O4'-C1'	7.44	1.51	1.41
85	A5	4694	G	O4'-C1'	-7.44	1.31	1.41
85	A5	652	G	C2'-C1'	-7.44	1.45	1.53
85	A5	1446	C	O4'-C1'	7.44	1.51	1.41
85	A5	1510	G	O4'-C1'	7.44	1.51	1.41
85	A5	1441	C	C2'-C1'	-7.44	1.45	1.53
85	A5	2774	C	O4'-C1'	7.44	1.51	1.41
85	A5	2444	U	C2'-C1'	-7.44	1.45	1.53
61	Ch	37	THR	C-N	7.44	1.46	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2815	A	O4'-C1'	7.44	1.51	1.41
36	B2	205	G	C2'-C1'	-7.43	1.45	1.53
85	A5	3698	G	O4'-C1'	7.43	1.51	1.41
78	Co	34	TYR	C-N	7.42	1.51	1.34
85	A5	1203	G	C2'-C1'	-7.42	1.45	1.53
36	B2	878	G	C2'-C1'	-7.42	1.45	1.53
85	A5	978	G	C2'-C1'	-7.42	1.45	1.53
85	A5	4230	C	O4'-C1'	7.42	1.51	1.41
86	A7	92	C	O4'-C1'	7.42	1.51	1.41
85	A5	111	C	O4'-C1'	-7.42	1.32	1.41
85	A5	229	G	O4'-C1'	7.42	1.51	1.41
85	A5	3849	A	C2'-C1'	-7.42	1.45	1.53
17	AV	78	ILE	C-N	7.42	1.51	1.34
36	B2	151	C	P-O5'	-7.42	1.52	1.59
85	A5	363	A	O4'-C1'	-7.42	1.32	1.41
85	A5	655	C	C2'-C1'	-7.42	1.45	1.53
85	A5	2273	G	O4'-C1'	7.41	1.51	1.41
36	B2	1476	A	C2'-C1'	7.41	1.61	1.53
85	A5	4219	A	O4'-C1'	7.41	1.51	1.41
85	A5	637	G	C2'-C1'	-7.41	1.45	1.53
85	A5	1801	A	C2'-C1'	-7.41	1.45	1.53
85	A5	1932	A	O4'-C1'	7.41	1.51	1.41
85	A5	2789	A	C2'-C1'	7.41	1.61	1.53
36	B2	1845	A	C2'-C1'	-7.41	1.45	1.53
85	A5	1075	G	O4'-C1'	-7.41	1.32	1.41
36	B2	666	U	O4'-C1'	7.41	1.51	1.41
85	A5	4772	C	C2'-C1'	-7.41	1.45	1.53
87	A8	64	U	O4'-C1'	7.41	1.51	1.41
36	B2	876	C	O4'-C1'	7.40	1.51	1.41
37	BC	47	C	C2'-C1'	-7.40	1.45	1.53
85	A5	1282	G	C2'-C1'	7.40	1.61	1.53
85	A5	1837	A	O4'-C1'	7.40	1.51	1.41
85	A5	4223	C	C2'-C1'	-7.40	1.45	1.53
36	B2	1750	C	O4'-C1'	7.40	1.51	1.41
36	B2	228	C	O3'-P	-7.40	1.52	1.61
36	B2	1638	G	O4'-C1'	7.40	1.51	1.41
85	A5	4951	G	O4'-C1'	-7.40	1.32	1.41
36	B2	120	U	O4'-C1'	7.40	1.51	1.41
36	B2	1149	A	C2'-C1'	-7.40	1.45	1.53
85	A5	214	G	C2'-C1'	-7.39	1.45	1.53
85	A5	1308	C	C2'-C1'	-7.39	1.45	1.53
36	B2	503	C	O4'-C1'	7.39	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
60	Cr	91	SER	CA-C	-7.39	1.33	1.52
85	A5	41	C	C2'-C1'	-7.39	1.45	1.53
85	A5	411	G	O4'-C1'	7.39	1.51	1.41
36	B2	1142	G	O4'-C1'	-7.39	1.32	1.41
36	B2	1127	C	C2'-C1'	-7.39	1.45	1.53
85	A5	1691	G	O4'-C1'	7.39	1.51	1.41
85	A5	2059	C	C2'-C1'	-7.39	1.45	1.53
85	A5	4403	U	C2'-C1'	-7.39	1.45	1.53
85	A5	1739	G	C2'-C1'	-7.39	1.45	1.53
85	A5	4213	A	O4'-C1'	7.39	1.51	1.41
36	B2	986	G	C2'-C1'	-7.39	1.45	1.53
87	A8	144	U	C2'-C1'	-7.38	1.45	1.53
36	B2	863	U	O4'-C1'	7.38	1.51	1.41
36	B2	1100	A	C2'-C1'	-7.38	1.45	1.53
85	A5	1377	G	O4'-C1'	7.38	1.51	1.41
85	A5	2456	G	O4'-C1'	7.38	1.51	1.41
36	B2	964	A	C2'-C1'	7.38	1.61	1.53
36	B2	1673	U	C2'-C1'	-7.38	1.45	1.53
36	B2	1349	G	C2'-C1'	-7.38	1.45	1.53
85	A5	4638	U	O4'-C1'	7.38	1.51	1.41
36	B2	802	A	O4'-C1'	7.37	1.51	1.41
85	A5	181	C	O4'-C1'	7.37	1.51	1.41
86	A7	94	C	C2'-C1'	-7.37	1.45	1.53
85	A5	1350	C	O4'-C1'	7.37	1.51	1.41
36	B2	226	A	O4'-C1'	7.37	1.51	1.41
85	A5	4277	G	O4'-C1'	7.37	1.51	1.41
36	B2	438	G	O4'-C1'	-7.37	1.32	1.41
85	A5	221	C	O4'-C1'	7.37	1.51	1.41
87	A8	116	C	C2'-C1'	-7.37	1.45	1.53
36	B2	525	A	C2'-C1'	-7.36	1.45	1.53
1	Az	810	PRO	N-CD	7.36	1.58	1.47
85	A5	2541	G	O4'-C1'	7.36	1.51	1.41
36	B2	495	U	O4'-C1'	7.36	1.51	1.41
62	Cb	54	LEU	CA-CB	7.36	1.70	1.53
85	A5	1883	G	C2'-C1'	-7.36	1.45	1.53
85	A5	4044	U	P-O5'	-7.36	1.52	1.59
85	A5	4071	U	C2'-C1'	-7.36	1.45	1.53
36	B2	747	U	O3'-P	-7.35	1.52	1.61
85	A5	1767	A	O4'-C1'	7.35	1.51	1.41
36	B2	414	A	C2'-C1'	7.35	1.61	1.53
36	B2	1049	A	C2'-C1'	7.35	1.61	1.53
36	B2	1227	G	C2'-C1'	-7.35	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1493	C	C2'-C1'	7.35	1.61	1.53
85	A5	1597	G	O4'-C1'	-7.35	1.32	1.41
85	A5	4156	G	C2'-C1'	7.35	1.61	1.53
85	A5	1650	A	O4'-C1'	7.35	1.51	1.41
85	A5	4401	G	O4'-C1'	7.35	1.51	1.41
39	Cq	24	TYR	CD1-CE1	-7.34	1.28	1.39
85	A5	1616	U	O4'-C1'	7.34	1.51	1.41
86	A7	107	G	O4'-C1'	7.34	1.51	1.41
36	B2	1681	U	C2'-C1'	-7.34	1.45	1.53
85	A5	1373	A	C2'-C1'	-7.34	1.45	1.53
85	A5	1747	U	O4'-C1'	7.34	1.51	1.41
85	A5	2565	A	O4'-C1'	7.34	1.51	1.41
85	A5	1199	G	O4'-C1'	7.34	1.51	1.41
85	A5	1254	A	O4'-C1'	7.34	1.51	1.41
85	A5	473	C	O4'-C1'	7.34	1.51	1.41
85	A5	3951	G	O4'-C1'	7.33	1.51	1.41
85	A5	2658	G	O4'-C1'	7.33	1.51	1.41
36	B2	642	U	O4'-C1'	7.33	1.51	1.41
85	A5	23	C	C2'-C1'	-7.33	1.45	1.53
85	A5	1694	C	C2'-C1'	-7.33	1.45	1.53
13	AP	122	THR	CA-CB	7.33	1.72	1.53
85	A5	2860	C	C2'-C1'	-7.33	1.45	1.53
85	A5	2869	U	C2'-C1'	-7.33	1.45	1.53
36	B2	3	C	C2'-C1'	7.33	1.61	1.53
85	A5	1748	U	C2'-C1'	7.32	1.61	1.53
85	A5	3726	A	C2'-C1'	7.32	1.61	1.53
85	A5	155	C	C2'-C1'	-7.32	1.45	1.53
36	B2	1190	A	O4'-C1'	7.32	1.51	1.41
85	A5	1888	A	C2'-C1'	-7.32	1.45	1.53
85	A5	3898	G	C2'-C1'	-7.32	1.45	1.53
85	A5	4058	U	C2'-C1'	7.32	1.61	1.53
85	A5	4937	C	C2'-C1'	7.32	1.61	1.53
87	A8	41	A	C2'-C1'	7.31	1.61	1.53
85	A5	751	G	O4'-C1'	7.31	1.51	1.41
85	A5	2012	A	C2'-C1'	-7.31	1.45	1.53
85	A5	2546	G	C2'-C1'	-7.31	1.45	1.53
85	A5	4610	A	O4'-C1'	7.31	1.51	1.41
85	A5	2435	G	O4'-C1'	7.31	1.51	1.41
85	A5	2880	U	C2'-C1'	-7.31	1.45	1.53
30	AF	108	PRO	N-CD	7.31	1.58	1.47
85	A5	4187	G	O3'-P	-7.30	1.52	1.61
36	B2	524	U	O4'-C1'	7.30	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2509	C	O4'-C1'	7.30	1.51	1.41
36	B2	409	C	C2'-C1'	-7.30	1.45	1.53
26	AJ	91	LYS	C-O	-7.29	1.09	1.23
36	B2	370	G	O4'-C1'	7.29	1.51	1.41
36	B2	824	C	C2'-C1'	-7.29	1.45	1.53
37	BC	28	G	O4'-C1'	-7.29	1.32	1.41
85	A5	193	G	C2'-C1'	-7.29	1.45	1.53
87	A8	95	A	O3'-P	-7.29	1.52	1.61
85	A5	3290	G	P-O5'	-7.29	1.52	1.59
85	A5	4338	G	C2'-C1'	7.29	1.61	1.53
36	B2	1012	A	C2'-C1'	-7.29	1.45	1.53
85	A5	979	C	C2'-C1'	-7.29	1.45	1.53
85	A5	2075	G	C2'-C1'	-7.29	1.45	1.53
36	B2	1784	G	C2'-C1'	-7.28	1.45	1.53
85	A5	2283	G	C2'-C1'	-7.28	1.45	1.53
54	CP	5	SER	CA-C	-7.28	1.34	1.52
85	A5	2010	A	O4'-C1'	7.28	1.51	1.41
36	B2	1428	G	C2'-C1'	7.28	1.61	1.53
85	A5	3934	G	O4'-C1'	-7.28	1.32	1.41
85	A5	1770	A	C2'-C1'	-7.28	1.45	1.53
85	A5	4735	G	O4'-C1'	7.27	1.51	1.41
85	A5	268	G	C2'-C1'	-7.27	1.45	1.53
85	A5	4724	A	C2'-C1'	-7.27	1.45	1.53
67	Ce	17	THR	CA-C	7.27	1.71	1.52
85	A5	2663	G	O4'-C1'	-7.27	1.32	1.41
85	A5	1799	G	O4'-C1'	7.27	1.51	1.41
85	A5	2243	C	O4'-C1'	7.26	1.51	1.41
85	A5	2526	C	O4'-C1'	7.26	1.51	1.41
85	A5	1206	C	C2'-C1'	-7.26	1.45	1.53
85	A5	942	G	O4'-C1'	7.26	1.51	1.41
85	A5	2303	C	O4'-C1'	7.26	1.51	1.41
45	Ca	96	GLY	CA-C	-7.26	1.40	1.51
85	A5	1527	A	O4'-C1'	7.26	1.51	1.41
85	A5	4566	U	C2'-C1'	-7.26	1.45	1.53
36	B2	42	A	O4'-C1'	7.26	1.51	1.41
36	B2	844	U	O4'-C1'	7.26	1.51	1.41
50	CR	57	VAL	N-CA	-7.26	1.31	1.46
85	A5	1858	A	O4'-C1'	7.25	1.51	1.41
36	B2	606	G	C2'-C1'	-7.25	1.45	1.53
36	B2	86	C	P-O5'	-7.25	1.52	1.59
36	B2	1533	A	C2'-C1'	-7.25	1.45	1.53
85	A5	2720	C	O4'-C1'	7.25	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4364	G	O4'-C1'	7.25	1.51	1.41
85	A5	2115	G	O4'-C1'	7.25	1.51	1.41
85	A5	4428	A	O4'-C1'	7.25	1.51	1.41
85	A5	4541	G	C2'-C1'	7.25	1.61	1.53
85	A5	5011	A	O4'-C1'	7.25	1.51	1.41
36	B2	1058	A	C2'-C1'	-7.24	1.45	1.53
85	A5	5030	U	O4'-C1'	7.24	1.51	1.41
85	A5	238	C	C2'-C1'	-7.24	1.45	1.53
85	A5	722	G	O4'-C1'	7.24	1.51	1.41
85	A5	2783	A	O4'-C1'	7.24	1.51	1.41
36	B2	6	G	C2'-C1'	-7.24	1.45	1.53
36	B2	371	A	O4'-C1'	7.24	1.51	1.41
85	A5	270	U	O4'-C1'	7.24	1.51	1.41
85	A5	2839	U	C2'-C1'	-7.24	1.45	1.53
85	A5	4564	A	O4'-C1'	7.24	1.51	1.41
85	A5	4728	U	C2'-C1'	7.24	1.61	1.53
87	A8	117	C	C2'-C1'	-7.24	1.45	1.53
36	B2	85	A	O4'-C1'	7.23	1.51	1.41
36	B2	86	C	O4'-C1'	7.23	1.51	1.41
85	A5	3693	U	O4'-C1'	7.23	1.51	1.41
85	A5	4725	C	C5'-C4'	7.23	1.60	1.51
36	B2	1391	C	C2'-C1'	-7.23	1.45	1.53
36	B2	1764	G	C5'-C4'	7.23	1.60	1.51
85	A5	2048	U	O4'-C1'	7.23	1.51	1.41
85	A5	2622	G	C2'-C1'	7.23	1.61	1.53
85	A5	451	C	O4'-C1'	7.23	1.51	1.41
36	B2	1297	U	C2'-C1'	7.22	1.61	1.53
85	A5	1202	C	O4'-C1'	7.22	1.51	1.41
85	A5	1772	C	O4'-C1'	7.22	1.51	1.41
36	B2	1746	U	O3'-P	7.22	1.69	1.61
36	B2	586	G	O4'-C1'	7.22	1.51	1.41
36	B2	526	A	C2'-C1'	-7.22	1.45	1.53
87	A8	9	A	C2'-C1'	-7.22	1.45	1.53
85	A5	4895	C	O3'-P	-7.22	1.52	1.61
36	B2	864	A	C2'-C1'	-7.22	1.45	1.53
85	A5	2542	G	C2'-C1'	7.22	1.61	1.53
85	A5	1514	U	O4'-C1'	7.21	1.51	1.41
85	A5	4058	U	O4'-C1'	7.21	1.51	1.41
85	A5	3889	G	C2'-C1'	-7.21	1.45	1.53
18	AY	91	LEU	C-N	7.21	1.50	1.34
10	AN	137	PRO	N-CD	7.21	1.57	1.47
85	A5	2593	C	O4'-C1'	7.21	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	3674	G	O4'-C1'	7.21	1.51	1.41
85	A5	4237	C	O4'-C1'	7.21	1.51	1.41
36	B2	1409	A	O4'-C1'	7.21	1.51	1.41
85	A5	4542	U	C2'-C1'	-7.20	1.45	1.53
85	A5	242	U	C2'-C1'	-7.20	1.45	1.53
85	A5	2392	C	C2'-C1'	-7.20	1.45	1.53
85	A5	2565	A	C2'-C1'	7.20	1.61	1.53
85	A5	3672	G	C2'-C1'	-7.20	1.45	1.53
85	A5	4933	C	O4'-C1'	7.20	1.51	1.41
85	A5	1165	G	C2'-C1'	-7.20	1.45	1.53
85	A5	3268	U	C5'-C4'	7.20	1.59	1.51
36	B2	216	C	O4'-C1'	7.19	1.51	1.41
85	A5	4516	G	C2'-C1'	-7.19	1.45	1.53
85	A5	5042	A	O4'-C1'	7.19	1.51	1.41
85	A5	4627	U	O4'-C1'	7.19	1.50	1.41
36	B2	937	C	C2'-C1'	-7.19	1.45	1.53
85	A5	161	G	O4'-C1'	7.19	1.50	1.41
85	A5	1627	G	C2'-C1'	-7.19	1.45	1.53
85	A5	2453	A	C2'-C1'	-7.19	1.45	1.53
85	A5	3774	A	C2'-C1'	-7.19	1.45	1.53
85	A5	4594	U	O4'-C1'	7.19	1.50	1.41
85	A5	3692	A	O4'-C1'	7.19	1.50	1.41
85	A5	4212	A	O4'-C1'	7.19	1.50	1.41
85	A5	5040	U	C2'-C1'	-7.19	1.45	1.53
85	A5	298	G	O4'-C1'	7.18	1.50	1.41
36	B2	81	U	O4'-C1'	7.18	1.50	1.41
85	A5	1804	A	C2'-C1'	-7.18	1.45	1.53
85	A5	2028	C	O4'-C1'	7.18	1.50	1.41
36	B2	941	C	C2'-C1'	-7.18	1.45	1.53
85	A5	2357	G	O4'-C1'	7.18	1.50	1.41
36	B2	1464	C	C2'-C1'	-7.18	1.45	1.53
85	A5	987	C	C2'-C1'	-7.18	1.45	1.53
85	A5	4461	C	C2'-C1'	-7.18	1.45	1.53
36	B2	219	U	O4'-C1'	7.18	1.50	1.41
85	A5	2904	U	O4'-C1'	-7.18	1.32	1.41
29	AG	131	ARG	CB-CG	7.17	1.72	1.52
85	A5	2074	C	C2'-C1'	-7.17	1.45	1.53
85	A5	4094	G	C2'-C1'	7.17	1.61	1.53
33	AI	3	ILE	CA-CB	-7.17	1.38	1.54
85	A5	1408	G	O4'-C1'	7.17	1.50	1.41
85	A5	5020	G	C2'-C1'	-7.17	1.45	1.53
36	B2	1438	A	C2'-C1'	7.17	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	499	G	C2'-C1'	-7.17	1.45	1.53
85	A5	2622	G	O4'-C1'	7.17	1.50	1.41
86	A7	35	U	C2'-C1'	-7.17	1.45	1.53
85	A5	4435	U	C2'-C1'	-7.17	1.45	1.53
36	B2	1367	U	O4'-C1'	7.16	1.50	1.41
85	A5	2893	U	C2'-C1'	-7.16	1.45	1.53
37	BC	7	G	C2'-C1'	7.16	1.61	1.53
85	A5	382	G	O4'-C1'	7.16	1.50	1.41
85	A5	4469	U	O4'-C1'	7.16	1.50	1.41
85	A5	4993	G	O4'-C1'	-7.16	1.32	1.41
85	A5	5010	U	C2'-C1'	7.16	1.61	1.53
85	A5	5046	U	O4'-C1'	7.16	1.50	1.41
85	A5	253	G	C2'-C1'	-7.16	1.45	1.53
85	A5	443	G	C2'-C1'	-7.16	1.45	1.53
85	A5	1285	U	O4'-C1'	7.15	1.50	1.41
85	A5	1490	G	O4'-C1'	7.15	1.50	1.41
85	A5	467	U	O4'-C1'	7.15	1.50	1.41
85	A5	4177	C	O4'-C1'	7.15	1.50	1.41
36	B2	1063	C	O4'-C1'	7.15	1.50	1.41
85	A5	984	C	C2'-C1'	-7.14	1.45	1.53
85	A5	3854	C	O4'-C1'	7.14	1.50	1.41
36	B2	670	A	O4'-C1'	-7.14	1.32	1.41
36	B2	400	C	C2'-C1'	-7.14	1.45	1.53
85	A5	1269	G	O3'-P	-7.14	1.52	1.61
85	A5	4467	A	O4'-C1'	7.14	1.50	1.41
85	A5	1165	G	O4'-C1'	7.13	1.50	1.41
49	CQ	94	GLU	CG-CD	-7.13	1.41	1.51
85	A5	4586	G	O4'-C1'	7.13	1.50	1.41
36	B2	1037	G	C2'-C1'	-7.13	1.45	1.53
85	A5	2675	G	O4'-C1'	-7.13	1.32	1.41
85	A5	4063	U	C2'-C1'	-7.13	1.45	1.53
36	B2	631	U	C2'-C1'	-7.13	1.45	1.53
85	A5	2433	G	C2'-C1'	-7.13	1.45	1.53
85	A5	2909	C	O4'-C1'	7.13	1.50	1.41
85	A5	687	U	O4'-C1'	-7.12	1.32	1.41
85	A5	2661	U	O4'-C1'	7.12	1.50	1.41
36	B2	35	C	C2'-C1'	-7.12	1.45	1.53
36	B2	860	G	O4'-C1'	7.11	1.50	1.41
85	A5	4246	G	C2'-C1'	7.11	1.61	1.53
85	A5	2310	C	O4'-C1'	7.11	1.50	1.41
28	AC	108	LYS	C-N	-7.11	1.17	1.34
36	B2	59	U	C2'-C1'	7.11	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1259	A	O4'-C1'	-7.11	1.32	1.41
85	A5	952	G	O3'-P	-7.11	1.52	1.61
85	A5	4629	U	C2'-C1'	7.11	1.61	1.53
36	B2	1722	G	O4'-C1'	7.10	1.50	1.41
36	B2	642	U	C2'-C1'	-7.10	1.45	1.53
85	A5	2083	C	C2'-C1'	-7.10	1.45	1.53
85	A5	2274	C	O4'-C1'	7.10	1.50	1.41
85	A5	3707	U	O4'-C1'	7.10	1.50	1.41
31	AH	111	LYS	CA-C	-7.10	1.34	1.52
67	Ce	16	ARG	N-CA	-7.10	1.32	1.46
85	A5	379	G	C2'-C1'	-7.10	1.45	1.53
36	B2	1755	C	O4'-C1'	7.10	1.50	1.41
85	A5	1888	A	O4'-C1'	7.10	1.50	1.41
85	A5	4271	A	O4'-C1'	7.10	1.50	1.41
85	A5	2112	G	O4'-C1'	-7.09	1.32	1.41
85	A5	2632	U	O4'-C1'	7.09	1.50	1.41
85	A5	3857	G	C2'-C1'	-7.09	1.45	1.53
85	A5	4142	C	C2'-C1'	-7.09	1.45	1.53
36	B2	696	G	C2'-C1'	-7.09	1.45	1.53
85	A5	255	C	O4'-C1'	7.09	1.50	1.41
85	A5	1508	A	C2'-C1'	-7.09	1.45	1.53
58	CW	72	THR	N-CA	7.09	1.60	1.46
85	A5	53	C	O4'-C1'	7.09	1.50	1.41
85	A5	503	C	C2'-C1'	-7.09	1.45	1.53
36	B2	884	C	C2'-C1'	-7.08	1.45	1.53
36	B2	822	U	C2'-C1'	-7.08	1.45	1.53
85	A5	1884	C	P-O5'	-7.08	1.52	1.59
85	A5	2539	C	C2'-C1'	-7.08	1.45	1.53
85	A5	4221	C	C2'-C1'	-7.08	1.45	1.53
86	A7	10	C	C2'-C1'	-7.08	1.45	1.53
85	A5	4079	C	O4'-C1'	7.08	1.50	1.41
6	AX	24	ASP	CA-C	-7.07	1.34	1.52
85	A5	2546	G	O3'-P	-7.07	1.52	1.61
85	A5	644	G	C2'-C1'	-7.07	1.45	1.53
36	B2	480	G	C2'-C1'	-7.07	1.45	1.53
85	A5	2012	A	O4'-C1'	7.07	1.50	1.41
36	B2	1263	U	C5'-C4'	7.07	1.59	1.51
85	A5	1510	G	C2'-C1'	-7.07	1.45	1.53
58	CW	73	ARG	CA-C	7.06	1.71	1.52
85	A5	3821	A	O4'-C1'	-7.06	1.32	1.41
36	B2	875	A	C2'-C1'	-7.06	1.45	1.53
85	A5	991	C	C2'-C1'	-7.06	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1470	G	O4'-C1'	7.06	1.50	1.41
85	A5	4620	U	P-O5'	-7.06	1.52	1.59
85	A5	937	U	O4'-C1'	7.05	1.50	1.41
85	A5	1239	C	O4'-C1'	7.05	1.50	1.41
85	A5	1913	C	C2'-C1'	-7.05	1.45	1.53
45	Ca	120	GLN	N-CA	-7.05	1.32	1.46
36	B2	74	G	O4'-C1'	7.05	1.50	1.41
85	A5	186	G	O4'-C1'	7.05	1.50	1.41
85	A5	424	U	P-O5'	-7.05	1.52	1.59
85	A5	3639	U	C2'-C1'	-7.05	1.45	1.53
36	B2	880	G	O4'-C1'	-7.05	1.32	1.41
85	A5	4758	U	O4'-C1'	-7.05	1.32	1.41
85	A5	1736	A	O4'-C1'	7.04	1.50	1.41
36	B2	1524	G	O4'-C1'	-7.04	1.32	1.41
36	B2	1588	A	O4'-C1'	7.04	1.50	1.41
85	A5	2633	U	O4'-C1'	7.04	1.50	1.41
85	A5	1201	U	O4'-C1'	7.04	1.50	1.41
87	A8	125	C	C2'-C1'	7.04	1.61	1.53
85	A5	2873	U	C2'-C1'	-7.04	1.45	1.53
85	A5	1941	A	O4'-C1'	7.03	1.50	1.41
87	A8	12	G	O4'-C1'	7.03	1.50	1.41
85	A5	323	C	C2'-C1'	-7.03	1.45	1.53
85	A5	2845	A	O4'-C1'	7.03	1.50	1.41
85	A5	3928	A	O4'-C1'	7.03	1.50	1.41
36	B2	474	G	C2'-C1'	-7.03	1.45	1.53
85	A5	1509	C	C2'-C1'	-7.03	1.45	1.53
85	A5	1070	G	O4'-C1'	7.03	1.50	1.41
85	A5	2038	U	C2'-C1'	-7.03	1.45	1.53
85	A5	3775	A	C2'-C1'	7.03	1.61	1.53
36	B2	619	A	C2'-C1'	7.03	1.61	1.53
36	B2	1359	U	C2'-C1'	7.02	1.61	1.53
36	B2	1423	C	C2'-C1'	-7.02	1.45	1.53
85	A5	4739	C	C2'-C1'	-7.02	1.45	1.53
62	Cb	30	GLU	CB-CG	-7.02	1.38	1.52
85	A5	1253	G	C2'-C1'	-7.02	1.45	1.53
85	A5	1934	A	C2'-C1'	7.02	1.61	1.53
85	A5	4995	U	C2'-C1'	-7.02	1.45	1.53
36	B2	1254	C	O4'-C1'	7.01	1.50	1.41
47	CI	4	ARG	N-CA	-7.01	1.32	1.46
85	A5	4647	G	O4'-C1'	7.01	1.50	1.41
36	B2	787	G	O4'-C1'	7.01	1.50	1.41
36	B2	1129	G	C2'-C1'	-7.01	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2498	C	C2'-C1'	-7.01	1.45	1.53
36	B2	746	C	C2'-C1'	-7.01	1.45	1.53
85	A5	4372	U	C2'-C1'	-7.01	1.45	1.53
36	B2	907	G	O4'-C1'	7.01	1.50	1.41
85	A5	187	U	O4'-C1'	7.01	1.50	1.41
85	A5	965	G	O4'-C1'	7.01	1.50	1.41
85	A5	1960	A	C2'-C1'	7.01	1.61	1.53
37	BC	40	C	P-O5'	-7.00	1.52	1.59
85	A5	310	G	C5'-C4'	7.00	1.59	1.51
85	A5	3817	A	O4'-C1'	7.00	1.50	1.41
74	CC	92	PHE	CD1-CE1	-7.00	1.25	1.39
85	A5	1890	G	O4'-C1'	-7.00	1.32	1.41
36	B2	1686	G	C2'-C1'	-7.00	1.45	1.53
85	A5	93	G	O4'-C1'	7.00	1.50	1.41
85	A5	678	C	C2'-C1'	-7.00	1.45	1.53
85	A5	1740	C	O4'-C1'	6.99	1.50	1.41
86	A7	76	U	O4'-C1'	6.99	1.50	1.41
85	A5	4573	G	C2'-C1'	-6.99	1.45	1.53
36	B2	1025	U	C2'-C1'	6.99	1.61	1.53
85	A5	2597	G	O4'-C1'	6.99	1.50	1.41
85	A5	4723	A	O4'-C1'	6.99	1.50	1.41
36	B2	1260	A	C2'-C1'	-6.99	1.45	1.53
81	CE	32	LEU	N-CA	-6.99	1.32	1.46
85	A5	1981	G	C2'-C1'	-6.99	1.45	1.53
85	A5	4036	G	O4'-C1'	6.99	1.50	1.41
85	A5	4414	A	C2'-C1'	6.99	1.61	1.53
81	CE	125	LEU	C-N	-6.99	1.18	1.34
85	A5	4077	A	O4'-C1'	6.99	1.50	1.41
85	A5	2440	U	C2'-C1'	-6.98	1.45	1.53
36	B2	684	G	C2'-C1'	-6.98	1.45	1.53
85	A5	1330	A	O4'-C1'	6.98	1.50	1.41
85	A5	1528	U	C2'-C1'	-6.98	1.45	1.53
87	A8	98	C	C2'-C1'	-6.98	1.45	1.53
36	B2	1811	C	C2'-C1'	-6.97	1.45	1.53
36	B2	566	U	C2'-C1'	6.97	1.61	1.53
54	CP	78	TRP	CE3-CZ3	-6.97	1.26	1.38
85	A5	3706	C	C2'-C1'	-6.97	1.45	1.53
36	B2	1659	U	O3'-P	-6.97	1.52	1.61
37	BC	36	A	C5'-C4'	6.97	1.59	1.51
85	A5	327	U	C2'-C1'	6.97	1.61	1.53
85	A5	1069	G	O4'-C1'	6.97	1.50	1.41
85	A5	2548	C	O4'-C1'	6.97	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	3961	G	O4'-C1'	6.97	1.50	1.41
36	B2	65	C	C2'-C1'	6.96	1.61	1.53
36	B2	987	A	O4'-C1'	6.96	1.50	1.41
85	A5	1263	A	O4'-C1'	6.96	1.50	1.41
36	B2	815	U	O4'-C1'	6.96	1.50	1.41
85	A5	217	C	O4'-C1'	6.96	1.50	1.41
85	A5	726	G	O4'-C1'	6.96	1.50	1.41
36	B2	428	U	C2'-C1'	6.96	1.61	1.53
85	A5	2790	U	C2'-C1'	-6.96	1.45	1.53
85	A5	4133	C	C2'-C1'	-6.96	1.45	1.53
85	A5	4263	C	O4'-C1'	6.96	1.50	1.41
36	B2	739	C	C2'-C1'	-6.96	1.45	1.53
85	A5	1733	G	O4'-C1'	-6.96	1.32	1.41
85	A5	1986	U	C2'-C1'	-6.95	1.45	1.53
85	A5	2741	U	O4'-C1'	6.95	1.50	1.41
85	A5	3618	C	C2'-C1'	6.95	1.60	1.53
85	A5	4102	C	C2'-C1'	-6.95	1.45	1.53
85	A5	4890	G	O4'-C1'	6.95	1.50	1.41
40	CK	137	GLN	N-CA	6.95	1.60	1.46
85	A5	4082	G	O4'-C1'	6.95	1.50	1.41
36	B2	1287	A	C2'-C1'	6.95	1.60	1.53
85	A5	1342	A	C2'-C1'	-6.95	1.45	1.53
85	A5	2491	C	O4'-C1'	6.95	1.50	1.41
85	A5	2607	C	C2'-C1'	-6.95	1.45	1.53
85	A5	4037	C	C2'-C1'	-6.95	1.45	1.53
85	A5	4047	A	C2'-C1'	-6.95	1.45	1.53
85	A5	4493	U	C2'-C1'	6.95	1.60	1.53
85	A5	221	C	C2'-C1'	-6.95	1.45	1.53
85	A5	4894	A	O4'-C1'	-6.95	1.32	1.41
8	AS	95	TYR	CE1-CZ	-6.95	1.29	1.38
36	B2	903	A	O4'-C1'	-6.95	1.32	1.41
36	B2	1043	G	O4'-C1'	6.95	1.50	1.41
85	A5	455	C	O4'-C1'	6.95	1.50	1.41
85	A5	1968	G	C2'-C1'	-6.95	1.45	1.53
85	A5	4040	C	O4'-C1'	6.95	1.50	1.41
85	A5	104	G	C2'-C1'	-6.94	1.45	1.53
85	A5	4863	G	C2'-C1'	6.94	1.60	1.53
48	CD	66	TYR	CD1-CE1	-6.94	1.28	1.39
85	A5	4520	G	C2'-C1'	-6.94	1.45	1.53
36	B2	1248	U	C2'-C1'	-6.94	1.45	1.53
85	A5	1520	C	O3'-P	-6.94	1.52	1.61
85	A5	3829	G	O4'-C1'	6.94	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	118	C	O4'-C1'	6.94	1.50	1.41
85	A5	26	C	C2'-C1'	-6.94	1.45	1.53
87	A8	105	C	O4'-C1'	6.94	1.50	1.41
85	A5	4945	G	O4'-C1'	6.94	1.50	1.41
36	B2	1626	C	O4'-C1'	6.93	1.50	1.41
85	A5	116	G	O4'-C1'	6.93	1.50	1.41
85	A5	266	C	C2'-C1'	-6.93	1.45	1.53
85	A5	4723	A	C2'-C1'	-6.93	1.45	1.53
85	A5	2403	A	O4'-C1'	6.93	1.50	1.41
86	A7	111	C	C2'-C1'	-6.93	1.45	1.53
85	A5	1675	C	C2'-C1'	-6.93	1.45	1.53
85	A5	960	A	C2'-C1'	-6.93	1.45	1.53
85	A5	1449	C	O4'-C1'	6.93	1.50	1.41
85	A5	936	C	O4'-C1'	6.92	1.50	1.41
85	A5	1210	C	O4'-C1'	6.92	1.50	1.41
85	A5	4688	C	C2'-C1'	-6.92	1.45	1.53
55	CU	60	VAL	C-N	6.92	1.50	1.34
87	A8	91	A	C2'-C1'	-6.92	1.45	1.53
36	B2	324	C	O4'-C1'	-6.92	1.32	1.41
85	A5	48	G	O4'-C1'	6.92	1.50	1.41
85	A5	1693	U	C2'-C1'	-6.92	1.45	1.53
85	A5	1955	G	C2'-C1'	-6.92	1.45	1.53
85	A5	2532	C	C2'-C1'	-6.92	1.45	1.53
36	B2	1178	U	C2'-C1'	-6.92	1.45	1.53
85	A5	4061	G	O3'-P	-6.92	1.52	1.61
86	A7	25	G	O4'-C1'	6.92	1.50	1.41
36	B2	1675	A	O4'-C1'	-6.91	1.32	1.41
85	A5	4501	U	O4'-C1'	6.91	1.50	1.41
36	B2	147	A	O4'-C1'	-6.91	1.32	1.41
74	CC	91	ALA	CA-CB	-6.91	1.38	1.52
85	A5	4427	G	C2'-C1'	-6.91	1.45	1.53
36	B2	827	A	O4'-C1'	6.91	1.50	1.41
36	B2	1399	C	O4'-C1'	6.91	1.50	1.41
56	CX	52	LEU	C-N	6.91	1.50	1.34
85	A5	2071	A	O4'-C1'	6.90	1.50	1.41
85	A5	2480	G	C2'-C1'	-6.90	1.45	1.53
85	A5	264	C	C2'-C1'	-6.90	1.45	1.53
85	A5	4493	U	O4'-C1'	6.89	1.50	1.41
36	B2	182	C	C2'-C1'	-6.89	1.45	1.53
85	A5	738	C	O4'-C1'	6.89	1.50	1.41
85	A5	4957	C	O4'-C1'	6.89	1.50	1.41
85	A5	1336	G	O4'-C1'	6.89	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1612	G	O4'-C1'	6.89	1.50	1.41
85	A5	4759	C	O4'-C1'	6.89	1.50	1.41
36	B2	1307	U	C2'-C1'	6.89	1.60	1.53
85	A5	5044	A	C2'-C1'	-6.89	1.45	1.53
39	Cq	24	TYR	CE1-CZ	-6.88	1.29	1.38
85	A5	1660	U	C2'-C1'	-6.88	1.45	1.53
85	A5	4374	U	O4'-C1'	6.88	1.50	1.41
85	A5	4080	C	C2'-C1'	-6.88	1.45	1.53
36	B2	335	G	C2'-C1'	6.88	1.60	1.53
85	A5	1178	G	C2'-C1'	-6.88	1.45	1.53
85	A5	2725	A	C2'-C1'	6.88	1.60	1.53
85	A5	4889	G	C2'-C1'	-6.88	1.45	1.53
85	A5	4915	G	O4'-C1'	6.88	1.50	1.41
36	B2	104	A	O4'-C1'	6.87	1.50	1.41
85	A5	1785	C	O4'-C1'	6.87	1.50	1.41
85	A5	1874	A	C2'-C1'	-6.87	1.45	1.53
36	B2	611	G	O4'-C1'	6.87	1.50	1.41
37	BC	29	G	O4'-C1'	6.87	1.50	1.41
36	B2	992	A	C2'-C1'	-6.87	1.45	1.53
85	A5	1339	U	O4'-C1'	6.87	1.50	1.41
85	A5	1569	U	C2'-C1'	-6.87	1.45	1.53
85	A5	4104	G	C2'-C1'	-6.87	1.45	1.53
86	A7	18	C	O4'-C1'	6.87	1.50	1.41
36	B2	1153	C	O4'-C1'	-6.86	1.32	1.41
85	A5	3956	G	C2'-C1'	-6.86	1.45	1.53
87	A8	16	G	O3'-P	-6.86	1.52	1.61
85	A5	2549	G	O4'-C1'	6.86	1.50	1.41
36	B2	234	C	C2'-C1'	-6.86	1.45	1.53
36	B2	1456	G	O4'-C1'	6.86	1.50	1.41
85	A5	977	C	C2'-C1'	-6.86	1.45	1.53
86	A7	20	U	C2'-C1'	-6.86	1.45	1.53
36	B2	1701	C	O4'-C1'	6.85	1.50	1.41
85	A5	1103	C	C2'-C1'	-6.85	1.45	1.53
85	A5	1287	G	O4'-C1'	6.85	1.50	1.41
36	B2	1215	C	O4'-C1'	6.85	1.50	1.41
85	A5	4719	G	C2'-C1'	-6.85	1.45	1.53
85	A5	2013	A	C2'-C1'	-6.85	1.45	1.53
85	A5	4674	C	C2'-C1'	-6.85	1.45	1.53
36	B2	1055	A	C5'-C4'	6.85	1.59	1.51
85	A5	2794	C	C2'-C1'	6.85	1.60	1.53
85	A5	3822	U	C2'-C1'	-6.85	1.45	1.53
35	Ah	176	GLY	CA-C	6.84	1.62	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	172	U	O4'-C1'	6.84	1.50	1.41
39	Cq	263	GLU	CA-C	6.84	1.70	1.52
85	A5	514	U	O4'-C1'	6.84	1.50	1.41
37	BC	42	G	C2'-C1'	-6.84	1.45	1.53
40	CK	99	LYS	N-CA	6.84	1.60	1.46
36	B2	638	C	O4'-C1'	6.84	1.50	1.41
36	B2	963	A	C2'-C1'	-6.84	1.45	1.53
85	A5	3662	A	C2'-C1'	-6.84	1.45	1.53
85	A5	1640	C	C5'-C4'	6.84	1.59	1.51
37	BC	7	G	O4'-C1'	6.84	1.50	1.41
36	B2	1036	A	C2'-C1'	-6.84	1.45	1.53
36	B2	1736	G	C2'-C1'	-6.84	1.45	1.53
51	CA	103	PRO	N-CD	6.84	1.57	1.47
85	A5	5053	U	C2'-C1'	6.83	1.60	1.53
85	A5	4439	U	C2'-C1'	-6.83	1.45	1.53
87	A8	90	C	C2'-C1'	-6.83	1.45	1.53
26	AJ	35	TYR	CE1-CZ	-6.83	1.29	1.38
85	A5	2003	G	C2'-C1'	-6.83	1.45	1.53
36	B2	629	A	C2'-C1'	6.83	1.60	1.53
36	B2	920	A	O4'-C1'	6.83	1.50	1.41
36	B2	273	G	O3'-P	-6.83	1.52	1.61
85	A5	452	A	C2'-C1'	6.83	1.60	1.53
85	A5	4637	G	C2'-C1'	-6.82	1.45	1.53
37	BC	9	G	O4'-C1'	6.82	1.50	1.41
85	A5	160	G	O4'-C1'	6.82	1.50	1.41
85	A5	981	C	C2'-C1'	6.82	1.60	1.53
85	A5	2598	A	O4'-C1'	6.82	1.50	1.41
85	A5	4434	C	C2'-C1'	-6.82	1.45	1.53
85	A5	1742	A	C2'-C1'	-6.82	1.45	1.53
85	A5	4115	G	O4'-C1'	6.82	1.50	1.41
36	B2	1849	G	C2'-C1'	-6.82	1.45	1.53
36	B2	1055	A	O4'-C1'	6.82	1.50	1.41
85	A5	1759	G	O4'-C1'	6.82	1.50	1.41
85	A5	2661	U	C2'-C1'	-6.82	1.45	1.53
85	A5	70	A	C2'-C1'	6.81	1.60	1.53
36	B2	1790	A	O4'-C1'	6.81	1.50	1.41
36	B2	392	A	C2'-C1'	-6.81	1.45	1.53
37	BC	43	A	O4'-C1'	6.81	1.50	1.41
85	A5	3806	G	O4'-C1'	6.81	1.50	1.41
36	B2	1395	C	O4'-C1'	6.80	1.50	1.41
36	B2	1842	C	C2'-C1'	-6.80	1.45	1.53
85	A5	3603	G	C2'-C1'	-6.80	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	3941	G	C2'-C1'	-6.80	1.45	1.53
6	AX	126	ALA	CA-CB	-6.80	1.38	1.52
85	A5	2250	C	C2'-C1'	6.80	1.60	1.53
85	A5	4428	A	C2'-C1'	-6.80	1.45	1.53
85	A5	4503	A	O4'-C1'	6.80	1.50	1.41
36	B2	665	G	C2'-C1'	-6.80	1.45	1.53
85	A5	919	C	C2'-C1'	-6.80	1.45	1.53
85	A5	2800	G	O4'-C1'	6.80	1.50	1.41
36	B2	1788	A	O4'-C1'	6.79	1.50	1.41
36	B2	1842	C	O4'-C1'	6.79	1.50	1.41
85	A5	3612	C	O4'-C1'	6.79	1.50	1.41
86	A7	97	G	O3'-P	-6.79	1.53	1.61
36	B2	973	C	C5'-C4'	6.79	1.59	1.51
36	B2	1740	C	C2'-C1'	-6.79	1.45	1.53
36	B2	1035	A	O4'-C1'	6.79	1.50	1.41
85	A5	103	G	O4'-C1'	6.79	1.50	1.41
85	A5	4280	A	C2'-C1'	-6.79	1.45	1.53
36	B2	945	U	O4'-C1'	6.79	1.50	1.41
36	B2	1712	A	O4'-C1'	6.79	1.50	1.41
6	AX	128	VAL	CA-CB	-6.78	1.40	1.54
36	B2	1048	G	C5'-C4'	6.78	1.59	1.51
85	A5	1294	A	C2'-C1'	-6.78	1.45	1.53
85	A5	277	G	C2'-C1'	-6.78	1.45	1.53
36	B2	480	G	O4'-C1'	6.78	1.50	1.41
85	A5	2038	U	O4'-C1'	6.78	1.50	1.41
85	A5	2445	C	C2'-C1'	-6.78	1.45	1.53
36	B2	917	U	C2'-C1'	6.78	1.60	1.53
85	A5	1207	C	C2'-C1'	-6.78	1.45	1.53
85	A5	1274	A	O3'-P	-6.78	1.53	1.61
85	A5	40	G	O4'-C1'	6.78	1.50	1.41
85	A5	2090	U	O3'-P	-6.78	1.53	1.61
85	A5	2801	U	C2'-C1'	6.78	1.60	1.53
85	A5	2533	C	O4'-C1'	6.78	1.50	1.41
85	A5	3715	U	C2'-C1'	-6.78	1.45	1.53
85	A5	4557	U	C2'-C1'	-6.78	1.45	1.53
87	A8	50	C	O4'-C1'	6.78	1.50	1.41
52	CS	151	LYS	N-CA	-6.77	1.32	1.46
85	A5	4576	U	C2'-C1'	-6.77	1.45	1.53
85	A5	1088	C	O4'-C1'	6.77	1.50	1.41
85	A5	4034	G	C2'-C1'	-6.77	1.46	1.53
36	B2	46	A	C2'-C1'	-6.77	1.46	1.53
85	A5	1347	G	O4'-C1'	-6.77	1.32	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2094	G	O4'-C1'	6.77	1.50	1.41
85	A5	2802	C	O4'-C1'	6.77	1.50	1.41
85	A5	1877	G	O4'-C1'	6.77	1.50	1.41
37	BC	63	U	O4'-C1'	6.77	1.50	1.41
85	A5	4072	C	C2'-C1'	-6.76	1.46	1.53
85	A5	5040	U	O4'-C1'	6.76	1.50	1.41
85	A5	2728	U	O4'-C1'	6.76	1.50	1.41
36	B2	1047	C	C2'-C1'	-6.76	1.46	1.53
36	B2	1530	U	O4'-C1'	6.76	1.50	1.41
45	Ca	120	GLN	CA-CB	-6.76	1.39	1.53
81	CE	32	LEU	CB-CG	6.76	1.72	1.52
85	A5	218	A	O4'-C1'	6.76	1.50	1.41
85	A5	5015	G	C2'-C1'	6.76	1.60	1.53
36	B2	900	C	O4'-C1'	6.76	1.50	1.41
85	A5	2093	A	O4'-C1'	-6.76	1.32	1.41
85	A5	3683	C	C2'-C1'	-6.76	1.46	1.53
85	A5	990	C	O4'-C1'	6.76	1.50	1.41
85	A5	1409	C	O4'-C1'	6.76	1.50	1.41
36	B2	477	G	C2'-C1'	-6.75	1.46	1.53
85	A5	2579	G	O4'-C1'	-6.75	1.32	1.41
74	CC	22	VAL	CA-CB	-6.75	1.40	1.54
85	A5	3676	G	O4'-C1'	6.75	1.50	1.41
85	A5	4205	A	C2'-C1'	-6.75	1.46	1.53
36	B2	1639	G	O4'-C1'	6.75	1.50	1.41
85	A5	690	C	C2'-C1'	6.75	1.60	1.53
36	B2	445	A	O4'-C1'	6.75	1.50	1.41
36	B2	1000	C	O4'-C1'	6.75	1.50	1.41
36	B2	1039	C	O4'-C1'	6.75	1.50	1.41
85	A5	107	G	O4'-C1'	-6.75	1.32	1.41
85	A5	4763	U	C2'-C1'	-6.75	1.46	1.53
36	B2	1816	G	C2'-C1'	-6.75	1.46	1.53
85	A5	2822	G	O4'-C1'	-6.75	1.32	1.41
85	A5	2824	C	O4'-C1'	6.75	1.50	1.41
85	A5	4234	A	C2'-C1'	-6.75	1.46	1.53
36	B2	330	G	C2'-C1'	-6.74	1.46	1.53
85	A5	4160	C	C2'-C1'	-6.74	1.46	1.53
85	A5	962	C	O4'-C1'	6.74	1.50	1.41
85	A5	2112	G	C2'-C1'	-6.74	1.46	1.53
85	A5	4112	C	O4'-C1'	6.74	1.50	1.41
36	B2	1848	U	O4'-C1'	6.74	1.50	1.41
85	A5	289	C	C2'-C1'	-6.74	1.46	1.53
85	A5	3943	A	C2'-C1'	6.74	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1728	U	O4'-C1'	6.74	1.50	1.41
85	A5	1978	C	O4'-C1'	6.74	1.50	1.41
36	B2	421	G	O3'-P	-6.73	1.53	1.61
85	A5	4994	G	O4'-C1'	6.73	1.50	1.41
87	A8	2	G	C2'-C1'	-6.73	1.46	1.53
26	AJ	163	SER	C-N	-6.73	1.21	1.34
36	B2	1543	U	P-O5'	-6.73	1.53	1.59
85	A5	670	G	O4'-C1'	-6.73	1.32	1.41
36	B2	160	U	O4'-C1'	6.73	1.50	1.41
36	B2	348	A	O4'-C1'	6.73	1.50	1.41
60	Cr	36	ASN	CA-C	6.73	1.70	1.52
85	A5	2002	A	C2'-C1'	-6.73	1.46	1.53
85	A5	2803	U	C2'-C1'	-6.72	1.46	1.53
86	A7	19	C	C2'-C1'	-6.72	1.46	1.53
85	A5	1685	G	O4'-C1'	6.72	1.50	1.41
85	A5	2799	G	P-O5'	-6.72	1.53	1.59
85	A5	4365	C	O4'-C1'	6.72	1.50	1.41
85	A5	1360	G	C2'-C1'	-6.72	1.46	1.53
85	A5	4344	U	C2'-C1'	-6.72	1.46	1.53
85	A5	66	A	O3'-P	-6.72	1.53	1.61
85	A5	1803	G	C2'-C1'	-6.72	1.46	1.53
85	A5	2285	A	C2'-C1'	6.72	1.60	1.53
85	A5	392	U	C2'-C1'	6.72	1.60	1.53
85	A5	3853	U	O4'-C1'	6.72	1.50	1.41
44	CM	80	ALA	C-N	6.71	1.49	1.34
85	A5	4215	C	C2'-C1'	-6.71	1.46	1.53
85	A5	4208	U	O4'-C1'	6.71	1.50	1.41
85	A5	4970	C	P-O5'	-6.71	1.53	1.59
47	CI	212	LEU	CA-C	6.71	1.70	1.52
85	A5	2414	G	C2'-C1'	-6.71	1.46	1.53
85	A5	3626	G	C2'-C1'	-6.71	1.46	1.53
85	A5	1168	G	C2'-C1'	-6.71	1.46	1.53
85	A5	1620	U	O4'-C1'	6.70	1.50	1.41
85	A5	4674	C	O4'-C1'	6.70	1.50	1.41
85	A5	4914	C	O4'-C1'	6.70	1.50	1.41
36	B2	14	C	O4'-C1'	6.70	1.50	1.41
85	A5	2429	A	O4'-C1'	6.70	1.50	1.41
15	AB	133	TYR	CB-CG	-6.70	1.41	1.51
36	B2	1848	U	C2'-C1'	-6.70	1.46	1.53
85	A5	1891	A	C2'-C1'	-6.70	1.46	1.53
85	A5	4882	U	C5'-C4'	6.70	1.59	1.51
85	A5	488	G	O4'-C1'	-6.70	1.32	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	523	A	O4'-C1'	6.70	1.50	1.41
85	A5	2046	G	C2'-C1'	-6.70	1.46	1.53
85	A5	2127	C	O4'-C1'	6.70	1.50	1.41
85	A5	2720	C	C2'-C1'	-6.70	1.46	1.53
36	B2	448	A	C2'-C1'	6.69	1.60	1.53
36	B2	118	C	C2'-C1'	-6.69	1.46	1.53
36	B2	1519	U	C2'-C1'	6.69	1.60	1.53
85	A5	1795	A	O4'-C1'	6.69	1.50	1.41
85	A5	184	U	C2'-C1'	6.69	1.60	1.53
1	Az	154	VAL	C-N	6.69	1.49	1.34
40	CK	130	LYS	CA-C	-6.69	1.35	1.52
85	A5	2812	A	O4'-C1'	6.69	1.50	1.41
85	A5	2908	U	C2'-C1'	-6.69	1.46	1.53
85	A5	4417	C	C2'-C1'	-6.68	1.46	1.53
54	CP	5	SER	CA-CB	6.68	1.62	1.52
85	A5	4361	U	O4'-C1'	6.68	1.50	1.41
85	A5	3902	A	C2'-C1'	-6.68	1.46	1.53
36	B2	607	U	C2'-C1'	-6.67	1.46	1.53
36	B2	1207	G	O4'-C1'	6.67	1.50	1.41
85	A5	124	C	C2'-C1'	-6.67	1.46	1.53
85	A5	1833	G	C5'-C4'	6.67	1.59	1.51
36	B2	673	G	P-O5'	-6.67	1.53	1.59
85	A5	1215	C	O4'-C1'	6.67	1.50	1.41
85	A5	18	C	C2'-C1'	-6.67	1.46	1.53
85	A5	1696	C	C2'-C1'	-6.67	1.46	1.53
85	A5	2036	C	O4'-C1'	6.67	1.50	1.41
36	B2	816	A	C2'-C1'	-6.67	1.46	1.53
36	B2	1696	C	C2'-C1'	-6.67	1.46	1.53
36	B2	1179	G	C2'-C1'	-6.66	1.46	1.53
85	A5	102	G	C2'-C1'	-6.66	1.46	1.53
85	A5	2783	A	C2'-C1'	6.66	1.60	1.53
36	B2	9	U	O4'-C1'	6.66	1.50	1.41
85	A5	4954	G	O4'-C1'	-6.66	1.32	1.41
36	B2	1236	G	C3'-C2'	6.66	1.60	1.52
36	B2	1717	C	O4'-C1'	6.66	1.50	1.41
36	B2	1382	A	O4'-C1'	6.65	1.50	1.41
36	B2	1418	C	O4'-C1'	-6.65	1.33	1.41
85	A5	3918	G	O4'-C1'	6.65	1.50	1.41
85	A5	1763	C	O4'-C1'	6.65	1.50	1.41
85	A5	4972	U	O4'-C1'	6.65	1.50	1.41
36	B2	444	G	O4'-C1'	-6.64	1.33	1.41
36	B2	962	A	C2'-C1'	6.64	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1247	C	O4'-C1'	6.64	1.50	1.41
85	A5	1806	G	O4'-C1'	6.64	1.50	1.41
85	A5	4186	A	O4'-C1'	6.64	1.50	1.41
85	A5	4969	C	O4'-C1'	6.64	1.50	1.41
36	B2	709	G	C5'-C4'	6.64	1.59	1.51
85	A5	2499	C	C2'-C1'	-6.64	1.46	1.53
36	B2	1148	A	C2'-C1'	6.64	1.60	1.53
85	A5	51	A	O4'-C1'	6.64	1.50	1.41
85	A5	3905	A	O4'-C1'	-6.64	1.33	1.41
36	B2	101	U	C2'-C1'	6.64	1.60	1.53
85	A5	407	A	O4'-C1'	6.64	1.50	1.41
85	A5	2294	G	O4'-C1'	6.64	1.50	1.41
36	B2	358	C	C2'-C1'	-6.63	1.46	1.53
36	B2	1022	U	O3'-P	-6.63	1.53	1.61
85	A5	2020	U	C2'-C1'	6.63	1.60	1.53
85	A5	4309	G	C2'-C1'	6.63	1.60	1.53
36	B2	969	U	C2'-C1'	-6.63	1.46	1.53
85	A5	344	A	C2'-C1'	-6.63	1.46	1.53
87	A8	43	A	C2'-C1'	-6.63	1.46	1.53
36	B2	1739	C	C2'-C1'	-6.63	1.46	1.53
85	A5	1825	A	C2'-C1'	6.63	1.60	1.53
85	A5	4356	G	C2'-C1'	-6.63	1.46	1.53
86	A7	80	U	O4'-C1'	6.63	1.50	1.41
37	BC	49	A	O4'-C1'	6.63	1.50	1.41
85	A5	4918	C	C2'-C1'	-6.63	1.46	1.53
36	B2	678	U	O4'-C1'	6.63	1.50	1.41
85	A5	1321	G	O4'-C1'	6.63	1.50	1.41
36	B2	1076	G	C2'-C1'	-6.62	1.46	1.53
85	A5	1971	C	O4'-C1'	6.62	1.50	1.41
36	B2	208	G	O4'-C1'	6.62	1.50	1.41
85	A5	2129	C	O4'-C1'	6.62	1.50	1.41
85	A5	2445	C	O4'-C1'	6.62	1.50	1.41
36	B2	407	G	C2'-C1'	6.62	1.60	1.53
36	B2	452	G	C2'-C1'	-6.62	1.46	1.53
36	B2	1034	A	C2'-C1'	6.62	1.60	1.53
85	A5	252	C	O4'-C1'	6.61	1.50	1.41
36	B2	504	G	C2'-C1'	-6.61	1.46	1.53
85	A5	305	A	O4'-C1'	6.61	1.50	1.41
85	A5	4615	C	C2'-C1'	-6.61	1.46	1.53
85	A5	1939	A	C2'-C1'	6.61	1.60	1.53
85	A5	4557	U	O4'-C1'	6.61	1.50	1.41
85	A5	3901	A	C2'-C1'	-6.61	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	880	C	P-O5'	-6.60	1.53	1.59
36	B2	230	A	O4'-C1'	6.60	1.50	1.41
85	A5	5056	A	O4'-C1'	6.60	1.50	1.41
85	A5	4222	G	C2'-C1'	-6.60	1.46	1.53
36	B2	414	A	O4'-C1'	6.60	1.50	1.41
85	A5	2008	U	O4'-C1'	-6.60	1.33	1.41
85	A5	3681	G	O4'-C1'	6.60	1.50	1.41
36	B2	799	U	C2'-C1'	-6.60	1.46	1.53
85	A5	2564	G	O4'-C1'	6.60	1.50	1.41
85	A5	4278	C	O4'-C1'	6.60	1.50	1.41
85	A5	4478	G	O4'-C1'	6.60	1.50	1.41
85	A5	1373	A	O3'-P	-6.59	1.53	1.61
85	A5	2577	C	O4'-C1'	6.59	1.50	1.41
85	A5	4646	U	P-O5'	-6.59	1.53	1.59
85	A5	955	G	C2'-C1'	-6.59	1.46	1.53
85	A5	1437	C	C2'-C1'	6.59	1.60	1.53
85	A5	2337	C	C2'-C1'	-6.59	1.46	1.53
85	A5	3716	C	O4'-C1'	6.59	1.50	1.41
85	A5	3968	U	C2'-C1'	6.59	1.60	1.53
42	CL	130	LYS	CB-CG	6.59	1.70	1.52
85	A5	2109	G	O4'-C1'	6.59	1.50	1.41
85	A5	4587	G	C2'-C1'	-6.58	1.46	1.53
85	A5	4659	G	C5'-C4'	6.58	1.59	1.51
74	CC	109	ARG	N-CA	6.58	1.59	1.46
85	A5	4368	G	O4'-C1'	6.58	1.50	1.41
85	A5	1352	C	O4'-C1'	6.58	1.50	1.41
36	B2	1707	U	C2'-C1'	-6.58	1.46	1.53
81	CE	128	HIS	C-N	6.58	1.44	1.33
85	A5	1293	G	P-O5'	-6.58	1.53	1.59
85	A5	2681	G	O4'-C1'	6.58	1.50	1.41
85	A5	1267	C	P-O5'	-6.58	1.53	1.59
85	A5	229	G	C2'-C1'	-6.58	1.46	1.53
85	A5	1338	G	P-O5'	-6.58	1.53	1.59
85	A5	4317	A	C2'-C1'	-6.57	1.46	1.53
85	A5	2760	G	O3'-P	-6.57	1.53	1.61
36	B2	200	G	C2'-C1'	-6.57	1.46	1.53
36	B2	282	G	O4'-C1'	6.57	1.50	1.41
85	A5	2305	U	O4'-C1'	6.57	1.50	1.41
85	A5	3966	A	C2'-C1'	-6.57	1.46	1.53
85	A5	4190	U	C2'-C1'	6.57	1.60	1.53
85	A5	3600	G	C2'-C1'	-6.57	1.46	1.53
85	A5	4937	C	O4'-C1'	-6.57	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	AG	157	VAL	CA-CB	-6.57	1.41	1.54
36	B2	1001	A	C2'-C1'	6.57	1.60	1.53
85	A5	1733	G	P-O5'	-6.57	1.53	1.59
85	A5	2014	C	C2'-C1'	-6.57	1.46	1.53
85	A5	4343	U	O4'-C1'	6.57	1.50	1.41
85	A5	4460	U	C2'-C1'	-6.56	1.46	1.53
85	A5	1209	U	C2'-C1'	6.56	1.60	1.53
85	A5	2252	G	O3'-P	-6.56	1.53	1.61
85	A5	2812	A	C2'-C1'	-6.56	1.46	1.53
85	A5	3621	A	O4'-C1'	6.56	1.50	1.41
85	A5	225	G	O4'-C1'	6.56	1.50	1.41
85	A5	4100	C	C2'-C1'	-6.56	1.46	1.53
85	A5	2251	G	O4'-C1'	6.55	1.50	1.41
1	Az	768	GLY	C-N	6.55	1.49	1.34
49	CQ	13	VAL	CA-CB	-6.55	1.41	1.54
85	A5	5065	U	O4'-C1'	6.55	1.50	1.41
85	A5	2	G	O4'-C1'	6.55	1.50	1.41
85	A5	1547	A	O4'-C1'	6.55	1.50	1.41
85	A5	2390	G	O3'-P	-6.55	1.53	1.61
87	A8	149	G	C2'-C1'	6.55	1.60	1.53
36	B2	398	A	O4'-C1'	6.55	1.50	1.41
36	B2	1608	U	C2'-C1'	-6.55	1.46	1.53
85	A5	2858	A	O4'-C1'	6.55	1.50	1.41
85	A5	1751	A	O4'-C1'	6.54	1.50	1.41
85	A5	2891	U	O4'-C1'	6.54	1.50	1.41
85	A5	3886	G	O4'-C1'	-6.54	1.33	1.41
85	A5	4424	A	O4'-C1'	6.54	1.50	1.41
28	AC	87	PRO	N-CD	6.54	1.57	1.47
37	BC	52	G	C2'-C1'	-6.54	1.46	1.53
38	Cz	98	LYS	C-N	6.54	1.49	1.34
53	CT	30	TYR	CD2-CE2	-6.54	1.29	1.39
85	A5	3867	A	O4'-C1'	6.54	1.50	1.41
85	A5	3828	A	C2'-C1'	6.54	1.60	1.53
85	A5	654	C	C2'-C1'	-6.54	1.46	1.53
85	A5	455	C	C2'-C1'	-6.54	1.46	1.53
85	A5	2588	C	C2'-C1'	6.54	1.60	1.53
85	A5	152	U	C2'-C1'	6.53	1.60	1.53
1	Az	56	PHE	CB-CG	6.53	1.62	1.51
36	B2	1803	U	C2'-C1'	-6.53	1.46	1.53
36	B2	1803	U	O4'-C1'	6.53	1.50	1.41
37	BC	19	A	O4'-C1'	-6.53	1.33	1.41
85	A5	2808	G	C2'-C1'	-6.53	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	A7	79	U	C2'-C1'	6.53	1.60	1.53
85	A5	1416	G	C2'-C1'	-6.53	1.46	1.53
85	A5	1333	A	O4'-C1'	6.53	1.50	1.41
85	A5	10	A	O4'-C1'	6.53	1.50	1.41
85	A5	1663	C	C2'-C1'	-6.53	1.46	1.53
85	A5	2816	G	O4'-C1'	6.53	1.50	1.41
85	A5	707	C	C2'-C1'	-6.52	1.46	1.53
63	CB	7	SER	C-N	6.52	1.49	1.34
85	A5	753	C	O4'-C1'	6.52	1.50	1.41
85	A5	1642	A	O4'-C1'	6.52	1.50	1.41
85	A5	3685	C	O4'-C1'	6.52	1.50	1.41
85	A5	2779	C	C2'-C1'	-6.52	1.46	1.53
85	A5	4720	C	C3'-C2'	6.52	1.60	1.52
85	A5	2847	G	O4'-C1'	-6.52	1.33	1.41
85	A5	2328	G	C2'-C1'	-6.51	1.46	1.53
85	A5	635	G	O4'-C1'	-6.51	1.33	1.41
85	A5	1108	C	C2'-C1'	-6.51	1.46	1.53
36	B2	100	U	O4'-C1'	6.51	1.50	1.41
36	B2	1282	A	O4'-C1'	6.51	1.50	1.41
85	A5	219	G	C2'-C1'	-6.51	1.46	1.53
85	A5	1366	G	C2'-C1'	6.51	1.60	1.53
85	A5	3675	G	C2'-C1'	-6.51	1.46	1.53
36	B2	431	G	C2'-C1'	-6.51	1.46	1.53
36	B2	924	G	P-O5'	-6.51	1.53	1.59
85	A5	3696	C	C2'-C1'	-6.51	1.46	1.53
36	B2	896	U	O4'-C1'	6.51	1.50	1.41
58	CW	73	ARG	N-CA	6.51	1.59	1.46
8	AS	95	TYR	CD2-CE2	-6.50	1.29	1.39
36	B2	1631	U	O4'-C1'	6.50	1.50	1.41
85	A5	4139	G	O4'-C1'	6.50	1.50	1.41
85	A5	2851	G	O4'-C1'	6.50	1.50	1.41
53	CT	13	TYR	CB-CG	-6.50	1.41	1.51
85	A5	1813	U	O4'-C1'	6.50	1.50	1.41
36	B2	1125	C	C2'-C1'	-6.50	1.46	1.53
85	A5	1273	G	O4'-C1'	-6.50	1.33	1.41
85	A5	2576	G	O4'-C1'	6.50	1.50	1.41
85	A5	4638	U	C2'-C1'	-6.50	1.46	1.53
36	B2	468	A	C2'-C1'	-6.50	1.46	1.53
85	A5	1419	G	C5'-C4'	6.50	1.59	1.51
36	B2	103	A	O4'-C1'	-6.50	1.33	1.41
36	B2	30	C	C2'-C1'	-6.49	1.46	1.53
36	B2	204	G	C2'-C1'	6.49	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2705	G	P-O5'	-6.49	1.53	1.59
85	A5	3753	G	O4'-C1'	6.49	1.50	1.41
1	Az	745	TYR	CB-CG	-6.48	1.42	1.51
36	B2	1065	G	O4'-C1'	6.48	1.50	1.41
85	A5	3841	C	O4'-C1'	6.48	1.50	1.41
85	A5	2062	C	O4'-C1'	6.48	1.50	1.41
36	B2	830	A	C2'-C1'	6.48	1.60	1.53
74	CC	307	LYS	CA-CB	6.48	1.68	1.53
85	A5	4349	C	O4'-C1'	6.48	1.50	1.41
85	A5	1451	G	O4'-C1'	6.48	1.50	1.41
85	A5	4440	G	C2'-C1'	-6.48	1.46	1.53
36	B2	649	U	O4'-C1'	6.47	1.50	1.41
85	A5	2725	A	O4'-C1'	6.47	1.50	1.41
85	A5	2745	A	C2'-C1'	6.47	1.60	1.53
85	A5	4704	C	O4'-C1'	6.47	1.50	1.41
36	B2	514	U	C2'-C1'	-6.47	1.46	1.53
74	CC	313	VAL	CA-CB	-6.47	1.41	1.54
85	A5	2675	G	C2'-C1'	-6.47	1.46	1.53
36	B2	950	C	C2'-C1'	-6.47	1.46	1.53
36	B2	309	G	C2'-C1'	-6.47	1.46	1.53
36	B2	1430	C	P-O5'	-6.47	1.53	1.59
85	A5	4605	A	C2'-C1'	-6.47	1.46	1.53
85	A5	5038	A	C2'-C1'	6.47	1.60	1.53
85	A5	2387	G	O4'-C1'	6.47	1.50	1.41
36	B2	1467	C	O4'-C1'	6.47	1.50	1.41
85	A5	522	C	C2'-C1'	-6.47	1.46	1.53
85	A5	4716	C	O4'-C1'	6.47	1.50	1.41
36	B2	803	C	O4'-C1'	6.46	1.50	1.41
87	A8	155	C	C2'-C1'	-6.46	1.46	1.53
85	A5	2509	C	C2'-C1'	-6.46	1.46	1.53
85	A5	4766	C	C2'-C1'	-6.46	1.46	1.53
85	A5	5001	U	O4'-C1'	6.46	1.50	1.41
33	AI	8	TRP	CD2-CE3	-6.46	1.30	1.40
36	B2	201	C	C2'-C1'	-6.46	1.46	1.53
85	A5	333	U	O4'-C1'	6.46	1.50	1.41
85	A5	1367	C	O4'-C1'	6.46	1.50	1.41
85	A5	2842	G	O3'-P	-6.46	1.53	1.61
85	A5	3689	G	C2'-C1'	-6.46	1.46	1.53
85	A5	3710	G	C2'-C1'	-6.46	1.46	1.53
85	A5	258	G	O4'-C1'	6.46	1.50	1.41
85	A5	2267	U	C2'-C1'	-6.46	1.46	1.53
35	Ah	142	LEU	CA-C	-6.45	1.36	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4309	G	O4'-C1'	-6.45	1.33	1.41
36	B2	647	U	O4'-C1'	6.45	1.50	1.41
36	B2	1396	A	O4'-C1'	-6.45	1.33	1.41
85	A5	75	G	O4'-C1'	6.45	1.50	1.41
85	A5	1734	G	O4'-C1'	6.45	1.50	1.41
85	A5	4145	C	C3'-C2'	6.45	1.60	1.52
85	A5	1586	G	O4'-C1'	6.44	1.50	1.41
36	B2	737	G	C2'-C1'	6.44	1.60	1.53
36	B2	1125	C	O4'-C1'	6.44	1.50	1.41
36	B2	810	A	O4'-C1'	6.44	1.50	1.41
36	B2	932	G	C2'-C1'	-6.44	1.46	1.53
85	A5	2684	C	O4'-C1'	6.44	1.50	1.41
85	A5	4198	G	O4'-C1'	6.44	1.50	1.41
85	A5	2322	G	C2'-C1'	-6.44	1.46	1.53
85	A5	759	G	C2'-C1'	6.44	1.60	1.53
85	A5	1499	C	O4'-C1'	6.44	1.50	1.41
85	A5	2523	G	C2'-C1'	-6.44	1.46	1.53
85	A5	2559	G	C2'-C1'	-6.44	1.46	1.53
85	A5	4294	C	C2'-C1'	-6.44	1.46	1.53
23	AD	20	GLU	CG-CD	6.43	1.61	1.51
36	B2	1615	U	O4'-C1'	6.43	1.50	1.41
85	A5	1887	G	O4'-C1'	6.43	1.50	1.41
85	A5	2368	A	O4'-C1'	6.43	1.50	1.41
85	A5	4267	G	C2'-C1'	-6.43	1.46	1.53
36	B2	978	G	C2'-C1'	-6.43	1.46	1.53
36	B2	1627	C	C2'-C1'	-6.43	1.46	1.53
36	B2	1748	G	C2'-C1'	-6.43	1.46	1.53
85	A5	4944	C	O4'-C1'	6.43	1.50	1.41
85	A5	5051	C	O4'-C1'	6.43	1.50	1.41
85	A5	1854	G	C2'-C1'	-6.43	1.46	1.53
36	B2	165	G	O4'-C1'	-6.42	1.33	1.41
36	B2	1238	U	C2'-C1'	-6.42	1.46	1.53
36	B2	1672	U	C2'-C1'	-6.42	1.46	1.53
85	A5	2060	G	O4'-C1'	6.42	1.50	1.41
85	A5	2503	G	O4'-C1'	6.42	1.50	1.41
85	A5	2059	C	O4'-C1'	6.42	1.50	1.41
85	A5	3890	A	O4'-C1'	6.42	1.50	1.41
87	A8	38	U	C2'-C1'	-6.42	1.46	1.53
36	B2	1483	A	C2'-C1'	6.42	1.60	1.53
85	A5	1050	C	C2'-C1'	-6.42	1.46	1.53
85	A5	4305	G	O4'-C1'	6.42	1.50	1.41
36	B2	1503	C	O4'-C1'	6.41	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	Cq	56	GLY	CA-C	6.41	1.62	1.51
85	A5	2762	G	C2'-C1'	-6.41	1.46	1.53
85	A5	1558	A	O4'-C1'	6.41	1.50	1.41
36	B2	139	C	C2'-C1'	6.41	1.60	1.53
85	A5	4086	G	C2'-C1'	6.41	1.60	1.53
85	A5	4155	C	O4'-C1'	6.41	1.50	1.41
85	A5	4235	G	O3'-P	-6.41	1.53	1.61
85	A5	1697	G	C5'-C4'	6.41	1.59	1.51
45	Ca	120	GLN	CA-C	-6.41	1.36	1.52
85	A5	256	G	O4'-C1'	6.41	1.50	1.41
85	A5	1462	A	C2'-C1'	-6.40	1.46	1.53
36	B2	1620	A	O4'-C1'	-6.40	1.33	1.41
74	CC	92	PHE	CD2-CE2	-6.40	1.26	1.39
85	A5	1625	G	O4'-C1'	6.40	1.50	1.41
85	A5	2798	A	O3'-P	-6.40	1.53	1.61
85	A5	4285	U	O4'-C1'	6.40	1.50	1.41
85	A5	4357	G	C2'-C1'	-6.40	1.46	1.53
85	A5	4590	A	C2'-C1'	-6.40	1.46	1.53
85	A5	1626	G	O3'-P	-6.40	1.53	1.61
48	CD	268	ARG	N-CA	-6.39	1.33	1.46
85	A5	1673	U	C2'-C1'	-6.39	1.46	1.53
85	A5	122	U	O3'-P	-6.39	1.53	1.61
85	A5	3785	A	O4'-C1'	-6.39	1.33	1.41
85	A5	2477	A	C2'-C1'	6.39	1.60	1.53
36	B2	902	G	C2'-C1'	-6.39	1.46	1.53
85	A5	1099	C	C2'-C1'	-6.39	1.46	1.53
85	A5	1997	U	C2'-C1'	-6.39	1.46	1.53
85	A5	4152	G	O4'-C1'	6.39	1.50	1.41
85	A5	4224	A	O4'-C1'	6.39	1.50	1.41
36	B2	538	U	C2'-C1'	-6.38	1.46	1.53
53	CT	24	VAL	CA-C	-6.38	1.36	1.52
81	CE	36	LYS	N-CA	-6.38	1.33	1.46
36	B2	883	U	C5'-C4'	6.38	1.59	1.51
85	A5	2751	G	P-O5'	-6.38	1.53	1.59
19	AZ	104	ARG	CD-NE	-6.38	1.35	1.46
36	B2	1142	G	P-O5'	-6.38	1.53	1.59
85	A5	1834	U	O4'-C1'	-6.38	1.33	1.41
85	A5	4627	U	O3'-P	-6.38	1.53	1.61
36	B2	282	G	C2'-C1'	-6.37	1.46	1.53
36	B2	1689	C	O4'-C1'	6.37	1.50	1.41
85	A5	4098	A	O4'-C1'	6.37	1.50	1.41
85	A5	1825	A	O4'-C1'	6.37	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4917	C	O4'-C1'	6.37	1.50	1.41
85	A5	3745	U	C2'-C1'	-6.36	1.46	1.53
85	A5	1067	G	C2'-C1'	-6.36	1.46	1.53
36	B2	966	U	C2'-C1'	-6.36	1.46	1.53
85	A5	2062	C	C2'-C1'	-6.36	1.46	1.53
85	A5	4859	C	C2'-C1'	-6.36	1.46	1.53
36	B2	1094	C	C2'-C1'	-6.36	1.46	1.53
36	B2	471	G	O4'-C1'	-6.36	1.33	1.41
36	B2	1805	G	C2'-C1'	-6.36	1.46	1.53
85	A5	4416	G	C2'-C1'	-6.36	1.46	1.53
36	B2	688	U	C2'-C1'	6.36	1.60	1.53
85	A5	2560	C	C2'-C1'	-6.36	1.46	1.53
85	A5	4159	C	C2'-C1'	-6.35	1.46	1.53
36	B2	299	A	C2'-C1'	6.35	1.60	1.53
36	B2	637	U	C2'-C1'	6.35	1.60	1.53
36	B2	1171	G	C5'-C4'	6.35	1.58	1.51
85	A5	2623	A	O4'-C1'	6.35	1.50	1.41
85	A5	2554	U	C2'-C1'	-6.35	1.46	1.53
85	A5	4514	G	C2'-C1'	6.35	1.60	1.53
12	AR	89	SER	C-N	6.34	1.48	1.34
29	AG	156	TYR	CB-CG	-6.34	1.42	1.51
85	A5	2814	C	C2'-C1'	-6.34	1.46	1.53
85	A5	4552	U	O4'-C1'	6.34	1.49	1.41
36	B2	1237	C	P-O5'	-6.34	1.53	1.59
54	CP	93	HIS	N-CA	-6.34	1.33	1.46
85	A5	1224	G	C5'-C4'	6.34	1.58	1.51
36	B2	374	G	C2'-C1'	-6.34	1.46	1.53
85	A5	3873	G	O4'-C1'	6.34	1.49	1.41
36	B2	399	C	C2'-C1'	-6.34	1.46	1.53
36	B2	577	U	O4'-C1'	6.34	1.49	1.41
85	A5	4193	C	C2'-C1'	-6.34	1.46	1.53
85	A5	928	C	C2'-C1'	-6.34	1.46	1.53
85	A5	2276	A	C2'-C1'	-6.34	1.46	1.53
85	A5	4518	A	C2'-C1'	-6.34	1.46	1.53
86	A7	104	C	C2'-C1'	-6.34	1.46	1.53
36	B2	938	A	C2'-C1'	-6.33	1.46	1.53
36	B2	1036	A	C5'-C4'	6.33	1.58	1.51
85	A5	1550	G	P-O5'	-6.33	1.53	1.59
85	A5	2424	G	O4'-C1'	6.33	1.49	1.41
36	B2	1101	U	C2'-C1'	-6.33	1.46	1.53
36	B2	1846	G	O4'-C1'	6.33	1.49	1.41
85	A5	360	A	C2'-C1'	-6.33	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1260	A	O3'-P	-6.33	1.53	1.61
36	B2	1574	C	O4'-C1'	6.33	1.49	1.41
85	A5	2676	A	C2'-C1'	6.33	1.60	1.53
85	A5	2755	A	O4'-C1'	6.33	1.49	1.41
85	A5	4041	C	C2'-C1'	6.33	1.60	1.53
69	Cg	45	ALA	C-N	-6.33	1.19	1.34
85	A5	3896	C	O4'-C1'	6.33	1.49	1.41
85	A5	4646	U	O4'-C1'	6.33	1.49	1.41
36	B2	380	G	O4'-C1'	-6.33	1.33	1.41
85	A5	1191	C	C2'-C1'	-6.33	1.46	1.53
1	Az	669	VAL	CA-CB	6.32	1.68	1.54
85	A5	4993	G	C2'-C1'	6.32	1.60	1.53
85	A5	3629	A	O4'-C1'	6.32	1.49	1.41
85	A5	4977	A	C2'-C1'	-6.32	1.46	1.53
85	A5	1654	G	C2'-C1'	-6.32	1.46	1.53
85	A5	1864	G	C2'-C1'	-6.32	1.46	1.53
36	B2	611	G	C2'-C1'	-6.32	1.46	1.53
87	A8	76	C	O4'-C1'	6.32	1.49	1.41
36	B2	1177	U	O4'-C1'	6.31	1.49	1.41
36	B2	1315	U	C5'-C4'	6.31	1.58	1.51
85	A5	4875	G	C2'-C1'	6.31	1.60	1.53
85	A5	2277	C	O4'-C1'	6.31	1.49	1.41
36	B2	1106	C	O4'-C1'	6.31	1.49	1.41
36	B2	1759	G	C2'-C1'	-6.31	1.46	1.53
85	A5	1404	G	O4'-C1'	-6.31	1.33	1.41
36	B2	1406	G	O4'-C1'	6.30	1.49	1.41
36	B2	1744	G	C2'-C1'	6.30	1.60	1.53
42	CL	57	PRO	N-CD	6.30	1.56	1.47
85	A5	72	C	P-O5'	-6.30	1.53	1.59
85	A5	4303	C	C2'-C1'	-6.30	1.46	1.53
86	A7	34	C	C2'-C1'	-6.30	1.46	1.53
85	A5	97	G	O4'-C1'	6.30	1.49	1.41
85	A5	101	A	C2'-C1'	-6.30	1.46	1.53
85	A5	320	C	C2'-C1'	-6.30	1.46	1.53
85	A5	430	G	C2'-C1'	-6.30	1.46	1.53
85	A5	2524	U	O4'-C1'	6.30	1.49	1.41
85	A5	3912	U	C2'-C1'	-6.30	1.46	1.53
85	A5	4536	C	C2'-C1'	-6.30	1.46	1.53
85	A5	2055	G	C2'-C1'	6.29	1.60	1.53
36	B2	481	C	O4'-C1'	6.29	1.49	1.41
36	B2	1430	C	C2'-C1'	6.29	1.60	1.53
37	BC	69	G	O4'-C1'	6.29	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4991	U	C2'-C1'	-6.29	1.46	1.53
36	B2	1219	C	O4'-C1'	6.29	1.49	1.41
36	B2	1742	C	O4'-C1'	6.29	1.49	1.41
85	A5	2712	G	O4'-C1'	6.29	1.49	1.41
26	AJ	144	ILE	CA-CB	-6.29	1.40	1.54
85	A5	53	C	C4'-C3'	-6.29	1.46	1.53
85	A5	1085	C	C2'-C1'	-6.29	1.46	1.53
85	A5	1472	C	C2'-C1'	6.29	1.60	1.53
85	A5	4279	A	C2'-C1'	-6.29	1.46	1.53
85	A5	26	C	O3'-P	-6.28	1.53	1.61
85	A5	2839	U	O4'-C1'	6.28	1.49	1.41
85	A5	3692	A	P-O5'	-6.28	1.53	1.59
85	A5	5048	A	C2'-C1'	6.28	1.60	1.53
85	A5	1164	G	C2'-C1'	-6.28	1.46	1.53
85	A5	2648	G	O4'-C1'	-6.28	1.33	1.41
85	A5	714	G	O3'-P	-6.28	1.53	1.61
87	A8	7	U	O4'-C1'	6.28	1.49	1.41
85	A5	1047	C	C2'-C1'	-6.28	1.46	1.53
85	A5	2148	G	C5'-C4'	6.28	1.58	1.51
85	A5	700	G	O4'-C1'	6.27	1.49	1.41
85	A5	1774	C	C2'-C1'	-6.27	1.46	1.53
85	A5	2107	C	O4'-C1'	6.27	1.49	1.41
36	B2	1107	G	C2'-C1'	-6.27	1.46	1.53
85	A5	1882	U	O4'-C1'	-6.27	1.33	1.41
85	A5	4293	U	O4'-C1'	6.27	1.49	1.41
85	A5	25	A	O4'-C1'	6.26	1.49	1.41
85	A5	4193	C	O4'-C1'	6.26	1.49	1.41
86	A7	119	U	O4'-C1'	6.26	1.49	1.41
85	A5	4085	A	O3'-P	-6.26	1.53	1.61
36	B2	1419	C	O4'-C1'	6.26	1.49	1.41
85	A5	3718	A	C2'-C1'	-6.26	1.46	1.53
36	B2	973	C	C2'-C1'	-6.26	1.46	1.53
78	Co	13	LYS	N-CA	-6.26	1.33	1.46
85	A5	1176	C	C2'-C1'	-6.26	1.46	1.53
85	A5	1354	A	O4'-C1'	6.26	1.49	1.41
85	A5	1179	U	C2'-C1'	6.26	1.60	1.53
85	A5	2806	A	C2'-C1'	6.26	1.60	1.53
85	A5	4492	U	C2'-C1'	6.26	1.60	1.53
36	B2	416	U	C2'-C1'	6.25	1.60	1.53
36	B2	998	A	C2'-C1'	6.25	1.60	1.53
85	A5	1922	G	P-O5'	-6.25	1.53	1.59
85	A5	3679	U	O4'-C1'	6.25	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4641	U	C2'-C1'	6.25	1.60	1.53
85	A5	4746	C	C2'-C1'	-6.25	1.46	1.53
27	AE	150	PRO	N-CD	6.25	1.56	1.47
85	A5	2852	U	C5'-C4'	6.25	1.58	1.51
85	A5	343	C	O4'-C1'	6.25	1.49	1.41
85	A5	4178	A	C2'-C1'	6.25	1.60	1.53
85	A5	4423	U	O4'-C1'	-6.25	1.33	1.41
36	B2	223	C	C2'-C1'	-6.25	1.46	1.53
36	B2	1338	G	O4'-C1'	6.25	1.49	1.41
85	A5	754	U	O4'-C1'	6.25	1.49	1.41
85	A5	1452	A	C2'-C1'	-6.25	1.46	1.53
85	A5	1982	G	C2'-C1'	-6.25	1.46	1.53
29	AG	170	ARG	CA-C	-6.25	1.36	1.52
36	B2	347	G	C2'-C1'	-6.24	1.46	1.53
36	B2	1089	G	O4'-C1'	6.24	1.49	1.41
85	A5	3964	U	C2'-C1'	6.24	1.60	1.53
26	AJ	101	LYS	N-CA	6.24	1.58	1.46
85	A5	1882	U	C2'-C1'	6.24	1.60	1.53
85	A5	4041	C	O4'-C1'	6.24	1.49	1.41
85	A5	436	C	C2'-C1'	-6.24	1.46	1.53
85	A5	2522	G	C2'-C1'	-6.24	1.46	1.53
85	A5	1319	U	C2'-C1'	6.24	1.60	1.53
85	A5	4415	A	C2'-C1'	-6.23	1.46	1.53
85	A5	4919	G	C2'-C1'	-6.23	1.46	1.53
36	B2	666	U	O3'-P	-6.23	1.53	1.61
85	A5	2802	C	C2'-C1'	6.22	1.60	1.53
85	A5	4390	A	O4'-C1'	6.22	1.49	1.41
85	A5	4609	G	C2'-C1'	-6.22	1.46	1.53
36	B2	893	U	C2'-C1'	6.22	1.60	1.53
36	B2	1858	G	C2'-C1'	-6.22	1.46	1.53
36	B2	1046	U	O4'-C1'	6.22	1.49	1.41
85	A5	2393	C	C2'-C1'	-6.22	1.46	1.53
36	B2	94	G	O4'-C1'	6.22	1.49	1.41
85	A5	3677	U	O3'-P	-6.22	1.53	1.61
67	Ce	17	THR	N-CA	-6.22	1.33	1.46
85	A5	329	A	O4'-C1'	6.22	1.49	1.41
85	A5	2396	A	C2'-C1'	-6.22	1.46	1.53
85	A5	3864	C	C2'-C1'	-6.21	1.46	1.53
36	B2	479	C	O4'-C1'	6.21	1.49	1.41
85	A5	3722	G	O4'-C1'	6.21	1.49	1.41
85	A5	4087	G	O3'-P	-6.21	1.53	1.61
85	A5	4903	G	C2'-C1'	-6.21	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	A7	7	G	P-O5'	-6.21	1.53	1.59
85	A5	1948	G	O4'-C1'	6.21	1.49	1.41
85	A5	4570	G	C2'-C1'	-6.21	1.46	1.53
36	B2	603	C	C2'-C1'	-6.21	1.46	1.53
81	CE	69	TYR	C-N	6.21	1.48	1.34
85	A5	3759	A	C2'-C1'	6.21	1.60	1.53
36	B2	310	C	C2'-C1'	6.21	1.60	1.53
34	AQ	145	TYR	CD2-CE2	-6.20	1.30	1.39
36	B2	593	C	C2'-C1'	-6.20	1.46	1.53
36	B2	1705	C	C2'-C1'	-6.20	1.46	1.53
85	A5	1687	U	O4'-C1'	6.20	1.49	1.41
36	B2	1051	G	C2'-C1'	-6.20	1.46	1.53
85	A5	2103	G	C2'-C1'	-6.20	1.46	1.53
36	B2	487	U	C4'-C3'	6.20	1.59	1.53
68	Cf	106	TYR	CE1-CZ	-6.20	1.30	1.38
85	A5	475	G	O4'-C1'	6.20	1.49	1.41
36	B2	958	G	O4'-C1'	-6.19	1.33	1.41
36	B2	1633	A	C2'-C1'	-6.19	1.46	1.53
85	A5	3623	C	C2'-C1'	-6.19	1.46	1.53
85	A5	4438	U	O4'-C1'	6.19	1.49	1.41
87	A8	77	A	O4'-C1'	6.19	1.49	1.41
36	B2	1589	A	C2'-C1'	6.19	1.60	1.53
37	BC	35	U	O4'-C1'	6.19	1.49	1.41
85	A5	1432	G	O3'-P	-6.19	1.53	1.61
85	A5	1537	A	O4'-C1'	6.19	1.49	1.41
85	A5	1649	U	O4'-C1'	6.19	1.49	1.41
85	A5	1756	U	O3'-P	-6.19	1.53	1.61
85	A5	3673	C	C5'-C4'	6.19	1.58	1.51
36	B2	1797	U	P-O5'	-6.19	1.53	1.59
86	A7	59	G	O4'-C1'	6.18	1.49	1.41
85	A5	1518	A	O4'-C1'	6.18	1.49	1.41
85	A5	4307	A	O4'-C1'	6.18	1.49	1.41
36	B2	1715	A	O4'-C1'	6.18	1.49	1.41
85	A5	949	G	P-O5'	-6.18	1.53	1.59
87	A8	75	G	C2'-C1'	-6.18	1.46	1.53
85	A5	2039	G	C2'-C1'	-6.18	1.46	1.53
36	B2	359	U	C2'-C1'	-6.17	1.46	1.53
36	B2	675	U	O4'-C1'	6.17	1.49	1.41
85	A5	993	G	C2'-C1'	-6.17	1.46	1.53
85	A5	2638	G	O4'-C1'	6.17	1.49	1.41
85	A5	247	G	C2'-C1'	-6.17	1.46	1.53
85	A5	2877	G	C2'-C1'	-6.17	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1288	U	C5'-C4'	6.17	1.58	1.51
36	B2	1806	A	O4'-C1'	6.17	1.49	1.41
85	A5	692	A	O4'-C1'	6.17	1.49	1.41
85	A5	2554	U	O4'-C1'	6.17	1.49	1.41
85	A5	2371	U	O4'-C1'	6.17	1.49	1.41
85	A5	3638	G	O4'-C1'	6.17	1.49	1.41
85	A5	5016	A	O4'-C1'	-6.17	1.33	1.41
36	B2	895	G	C2'-C1'	-6.17	1.46	1.53
85	A5	1721	G	O4'-C1'	6.17	1.49	1.41
1	Az	825	PHE	CB-CG	-6.17	1.40	1.51
85	A5	729	G	C5'-C4'	6.17	1.58	1.51
36	B2	328	U	O4'-C1'	6.16	1.49	1.41
36	B2	1480	A	C2'-C1'	-6.16	1.46	1.53
36	B2	666	U	C2'-C1'	6.16	1.60	1.53
85	A5	917	A	C5'-C4'	6.16	1.58	1.51
85	A5	3939	G	O4'-C1'	6.16	1.49	1.41
85	A5	4888	U	O4'-C1'	-6.16	1.33	1.41
82	CG	106	THR	C-N	6.16	1.48	1.34
85	A5	2111	G	O3'-P	-6.16	1.53	1.61
85	A5	4457	U	C2'-C1'	-6.16	1.46	1.53
87	A8	136	U	O4'-C1'	6.16	1.49	1.41
28	AC	210	PRO	N-CD	6.15	1.56	1.47
36	B2	352	U	C4'-C3'	-6.15	1.46	1.53
37	BC	56	G	C2'-C1'	-6.15	1.46	1.53
85	A5	1944	A	C2'-C1'	-6.15	1.46	1.53
85	A5	4486	C	C2'-C1'	-6.15	1.46	1.53
85	A5	4528	G	C2'-C1'	-6.15	1.46	1.53
85	A5	2054	U	O3'-P	-6.15	1.53	1.61
85	A5	2277	C	C2'-C1'	-6.15	1.46	1.53
85	A5	3910	C	C2'-C1'	-6.15	1.46	1.53
85	A5	4201	G	O4'-C1'	6.14	1.49	1.41
36	B2	810	A	C2'-C1'	-6.14	1.46	1.53
85	A5	4923	C	O4'-C1'	6.14	1.49	1.41
36	B2	1171	G	C2'-C1'	6.14	1.60	1.53
85	A5	78	U	C2'-C1'	-6.14	1.46	1.53
85	A5	287	U	O4'-C1'	6.14	1.49	1.41
85	A5	737	C	O4'-C1'	6.14	1.49	1.41
85	A5	3774	A	O4'-C1'	6.14	1.49	1.41
85	A5	4264	G	O4'-C1'	6.14	1.49	1.41
85	A5	4871	C	C3'-C2'	6.14	1.59	1.52
85	A5	1257	A	O4'-C1'	6.14	1.49	1.41
85	A5	1266	G	O3'-P	-6.13	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2558	C	C2'-C1'	-6.13	1.46	1.53
36	B2	1448	A	O4'-C1'	6.13	1.49	1.41
36	B2	33	G	O4'-C1'	6.13	1.49	1.41
85	A5	418	A	O4'-C1'	6.13	1.49	1.41
85	A5	1406	G	O4'-C1'	-6.13	1.33	1.41
1	Az	109	VAL	CA-CB	-6.13	1.41	1.54
36	B2	482	G	C2'-C1'	-6.13	1.46	1.53
36	B2	639	C	C2'-C1'	-6.13	1.46	1.53
85	A5	1466	G	C2'-C1'	-6.13	1.46	1.53
85	A5	650	C	C2'-C1'	-6.12	1.46	1.53
36	B2	418	A	O4'-C1'	6.12	1.49	1.41
36	B2	1070	A	O4'-C1'	6.12	1.49	1.41
61	Ch	78	TYR	C-O	-6.12	1.11	1.23
85	A5	671	G	C2'-C1'	-6.12	1.46	1.53
85	A5	1282	G	C5'-C4'	6.12	1.58	1.51
85	A5	1644	C	O4'-C1'	6.12	1.49	1.41
85	A5	2047	A	O4'-C1'	6.12	1.49	1.41
85	A5	2624	G	O4'-C1'	6.12	1.49	1.41
85	A5	4698	C	P-O5'	-6.12	1.53	1.59
86	A7	57	C	P-O5'	-6.12	1.53	1.59
36	B2	801	U	P-O5'	-6.12	1.53	1.59
85	A5	4231	C	O4'-C1'	6.12	1.49	1.41
60	Cr	115	SER	N-CA	-6.12	1.34	1.46
85	A5	1602	U	O4'-C1'	6.12	1.49	1.41
85	A5	2332	A	C4'-C3'	6.12	1.59	1.53
12	AR	111	PHE	CB-CG	-6.12	1.41	1.51
36	B2	1136	U	O4'-C1'	6.12	1.49	1.41
87	A8	15	G	O3'-P	-6.12	1.53	1.61
36	B2	1082	A	O4'-C1'	6.11	1.49	1.41
85	A5	2585	C	P-O5'	-6.11	1.53	1.59
85	A5	4017	G	O3'-P	-6.11	1.53	1.61
36	B2	1569	A	C2'-C1'	6.11	1.60	1.53
45	Ca	52	TYR	CD1-CE1	-6.11	1.30	1.39
64	CF	221	LYS	C-N	6.11	1.48	1.34
85	A5	1938	C	C2'-C1'	-6.11	1.46	1.53
6	AX	116	PRO	CA-C	6.10	1.65	1.52
36	B2	575	A	C2'-C1'	-6.10	1.46	1.53
58	CW	71	ARG	CA-CB	-6.10	1.40	1.53
85	A5	970	G	C2'-C1'	-6.10	1.46	1.53
85	A5	3673	C	C2'-C1'	-6.10	1.46	1.53
85	A5	2825	A	O3'-P	-6.10	1.53	1.61
85	A5	3932	U	C2'-C1'	-6.10	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2721	G	O4'-C1'	6.10	1.49	1.41
85	A5	4306	U	C2'-C1'	6.10	1.60	1.53
85	A5	2260	C	O4'-C1'	6.09	1.49	1.41
85	A5	2448	G	O4'-C1'	-6.09	1.33	1.41
85	A5	3606	U	O4'-C1'	6.09	1.49	1.41
85	A5	3731	C	C2'-C1'	-6.09	1.46	1.53
85	A5	4268	A	C2'-C1'	-6.09	1.46	1.53
36	B2	753	C	C5'-C4'	6.09	1.58	1.51
85	A5	3687	A	C2'-C1'	6.09	1.60	1.53
36	B2	1097	G	O4'-C1'	-6.09	1.33	1.41
85	A5	1940	G	O4'-C1'	6.09	1.49	1.41
85	A5	4716	C	C2'-C1'	-6.09	1.46	1.53
37	BC	52	G	O4'-C1'	6.09	1.49	1.41
85	A5	246	G	C2'-C1'	-6.09	1.46	1.53
85	A5	3747	A	O4'-C1'	6.09	1.49	1.41
85	A5	4340	U	O4'-C1'	6.09	1.49	1.41
36	B2	1657	G	P-O5'	-6.08	1.53	1.59
85	A5	1840	G	O4'-C1'	6.08	1.49	1.41
29	AG	36	VAL	CB-CG2	-6.08	1.40	1.52
86	A7	4	U	O4'-C1'	6.08	1.49	1.41
85	A5	4581	G	C2'-C1'	-6.08	1.46	1.53
36	B2	1268	C	C2'-C1'	-6.08	1.46	1.53
85	A5	2448	G	C2'-C1'	6.08	1.60	1.53
85	A5	4141	G	O4'-C1'	6.08	1.49	1.41
36	B2	366	U	O4'-C1'	6.08	1.49	1.41
67	Ce	125	PRO	N-CD	6.08	1.56	1.47
85	A5	1512	G	C2'-C1'	-6.08	1.46	1.53
85	A5	2256	C	O3'-P	-6.08	1.53	1.61
85	A5	2486	G	O4'-C1'	6.08	1.49	1.41
85	A5	2568	C	O4'-C1'	6.08	1.49	1.41
36	B2	1123	C	C5'-C4'	6.08	1.58	1.51
36	B2	1284	A	C2'-C1'	-6.08	1.46	1.53
36	B2	1036	A	O4'-C1'	6.07	1.49	1.41
85	A5	1243	C	C2'-C1'	-6.07	1.46	1.53
85	A5	2570	U	O4'-C1'	6.07	1.49	1.41
36	B2	1662	U	O4'-C1'	6.07	1.49	1.41
85	A5	1627	G	O4'-C1'	6.07	1.49	1.41
85	A5	1618	G	O4'-C1'	6.07	1.49	1.41
85	A5	4572	U	C2'-C1'	-6.07	1.46	1.53
36	B2	170	A	O3'-P	-6.06	1.53	1.61
85	A5	4148	C	O4'-C1'	6.06	1.49	1.41
55	CU	58	GLY	N-CA	-6.06	1.36	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	CE	93	THR	CA-C	-6.06	1.37	1.52
85	A5	1396	G	C2'-C1'	-6.06	1.46	1.53
85	A5	4695	C	O4'-C1'	6.06	1.49	1.41
36	B2	380	G	P-O5'	-6.06	1.53	1.59
85	A5	2771	G	O4'-C1'	6.06	1.49	1.41
85	A5	1244	G	O4'-C1'	-6.06	1.33	1.41
85	A5	4328	G	C2'-C1'	6.06	1.60	1.53
85	A5	195	C	O4'-C1'	6.06	1.49	1.41
85	A5	4333	C	O4'-C1'	6.06	1.49	1.41
36	B2	1431	G	O4'-C1'	6.05	1.49	1.41
85	A5	4063	U	O4'-C1'	6.05	1.49	1.41
85	A5	447	C	O4'-C1'	6.05	1.49	1.41
85	A5	1919	G	O4'-C1'	6.05	1.49	1.41
85	A5	1923	A	P-O5'	-6.05	1.53	1.59
85	A5	5043	A	O4'-C1'	6.05	1.49	1.41
36	B2	1638	G	C2'-C1'	-6.05	1.46	1.53
85	A5	4870	G	O3'-P	-6.05	1.53	1.61
85	A5	2892	C	C2'-C1'	-6.04	1.46	1.53
85	A5	510	U	P-O5'	-6.04	1.53	1.59
85	A5	1746	A	O4'-C1'	6.04	1.49	1.41
69	Cg	78	TYR	CE2-CZ	-6.04	1.30	1.38
74	CC	109	ARG	CA-C	6.04	1.68	1.52
25	Af	85	TYR	CE2-CZ	-6.04	1.30	1.38
81	CE	37	PRO	CA-C	6.04	1.65	1.52
85	A5	904	C	C2'-C1'	-6.04	1.46	1.53
85	A5	1910	G	O4'-C1'	6.04	1.49	1.41
87	A8	107	C	C2'-C1'	-6.04	1.46	1.53
36	B2	329	G	C2'-C1'	-6.03	1.46	1.53
85	A5	1669	A	C2'-C1'	6.03	1.59	1.53
85	A5	3675	G	O4'-C1'	6.03	1.49	1.41
85	A5	4177	C	C2'-C1'	-6.03	1.46	1.53
1	Az	111	PHE	CA-CB	6.03	1.67	1.53
36	B2	1401	A	C2'-C1'	6.03	1.59	1.53
81	CE	93	THR	CA-CB	6.03	1.69	1.53
36	B2	1020	A	C5'-C4'	6.03	1.58	1.51
81	CE	70	LYS	N-CA	6.03	1.58	1.46
85	A5	689	U	C2'-C1'	-6.03	1.46	1.53
85	A5	1611	C	O4'-C1'	6.03	1.49	1.41
85	A5	2625	U	C2'-C1'	6.03	1.59	1.53
36	B2	504	G	C3'-C2'	-6.03	1.46	1.52
85	A5	209	U	O4'-C1'	6.03	1.49	1.41
85	A5	1842	G	O4'-C1'	6.03	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2324	C	O4'-C1'	6.03	1.49	1.41
87	A8	27	U	O4'-C1'	6.03	1.49	1.41
20	Aa	10	ARG	NE-CZ	6.03	1.40	1.33
36	B2	1780	G	O4'-C1'	6.03	1.49	1.41
85	A5	1823	G	O3'-P	-6.03	1.53	1.61
30	AF	45	TYR	CB-CG	-6.02	1.42	1.51
85	A5	2764	A	C2'-C1'	6.02	1.59	1.53
36	B2	8	U	C2'-C1'	6.02	1.59	1.53
85	A5	1380	G	O3'-P	-6.02	1.53	1.61
36	B2	949	G	C2'-C1'	-6.02	1.46	1.53
36	B2	1646	C	C4'-O4'	-6.02	1.37	1.45
85	A5	435	A	O4'-C1'	6.02	1.49	1.41
85	A5	3583	U	C5'-C4'	6.02	1.58	1.51
85	A5	4274	A	C2'-C1'	-6.02	1.46	1.53
85	A5	2482	C	O4'-C1'	6.02	1.49	1.41
36	B2	345	U	O4'-C1'	6.01	1.49	1.41
36	B2	1745	A	O4'-C1'	-6.01	1.33	1.41
85	A5	1772	C	C2'-C1'	-6.01	1.46	1.53
85	A5	910	G	O4'-C1'	6.01	1.49	1.41
36	B2	555	A	C2'-C1'	-6.01	1.46	1.53
81	CE	74	SER	C-N	6.01	1.47	1.34
85	A5	3671	G	O4'-C1'	6.01	1.49	1.41
85	A5	209	U	O3'-P	-6.01	1.53	1.61
85	A5	1983	A	C5'-C4'	6.01	1.58	1.51
85	A5	3748	A	O4'-C1'	6.01	1.49	1.41
36	B2	1041	G	O4'-C1'	6.01	1.49	1.41
36	B2	1810	U	O4'-C1'	6.01	1.49	1.41
85	A5	1997	U	O4'-C1'	6.01	1.49	1.41
85	A5	3872	A	C2'-C1'	-6.01	1.46	1.53
85	A5	4234	A	C4'-C3'	6.01	1.59	1.53
85	A5	4240	G	C2'-C1'	-6.01	1.46	1.53
85	A5	4747	C	O4'-C1'	6.01	1.49	1.41
85	A5	927	G	O4'-C1'	-6.00	1.33	1.41
85	A5	927	G	C4'-C3'	6.00	1.59	1.53
36	B2	217	A	C2'-C1'	-6.00	1.46	1.53
85	A5	1163	G	O4'-C1'	6.00	1.49	1.41
85	A5	1408	G	C2'-C1'	-6.00	1.46	1.53
36	B2	797	C	O3'-P	-6.00	1.53	1.61
85	A5	1	C	C2'-C1'	-6.00	1.46	1.53
85	A5	1643	A	C2'-C1'	-6.00	1.46	1.53
85	A5	4924	C	O3'-P	-6.00	1.53	1.61
85	A5	3281	C	C5'-C4'	6.00	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
87	A8	150	C	O4'-C1'	6.00	1.49	1.41
85	A5	63	G	O4'-C1'	6.00	1.49	1.41
85	A5	3934	G	C2'-C1'	6.00	1.59	1.53
87	A8	44	A	O4'-C1'	6.00	1.49	1.41
85	A5	1562	G	C5'-C4'	5.99	1.58	1.51
85	A5	1577	G	O3'-P	-5.99	1.53	1.61
51	CA	67	TYR	CG-CD2	5.99	1.47	1.39
85	A5	5049	G	O4'-C1'	-5.99	1.33	1.41
36	B2	1657	G	C4'-C3'	5.99	1.59	1.53
36	B2	1851	A	C2'-C1'	5.99	1.59	1.53
85	A5	4132	C	C2'-C1'	-5.99	1.46	1.53
36	B2	1019	C	C4'-C3'	5.99	1.59	1.53
85	A5	723	A	C2'-C1'	-5.99	1.46	1.53
85	A5	1196	G	C4'-C3'	5.99	1.59	1.53
85	A5	2399	G	O4'-C1'	-5.99	1.33	1.41
49	CQ	11	ARG	CA-CB	5.98	1.67	1.53
85	A5	4092	G	C5'-C4'	5.98	1.58	1.51
36	B2	175	A	O4'-C1'	5.98	1.49	1.41
85	A5	1504	G	P-O5'	-5.98	1.53	1.59
86	A7	116	G	C5'-C4'	5.98	1.58	1.51
36	B2	155	G	O4'-C1'	5.98	1.49	1.41
36	B2	539	C	C2'-C1'	-5.98	1.46	1.53
85	A5	647	G	C2'-C1'	-5.98	1.46	1.53
85	A5	4126	C	C2'-C1'	5.98	1.59	1.53
85	A5	2313	A	O4'-C1'	-5.98	1.33	1.41
85	A5	2374	A	O4'-C1'	5.98	1.49	1.41
37	BC	64	C	C2'-C1'	-5.97	1.46	1.53
85	A5	1972	G	C5'-C4'	5.97	1.58	1.51
85	A5	2530	U	O4'-C1'	5.97	1.49	1.41
85	A5	3902	A	O4'-C1'	5.97	1.49	1.41
36	B2	1655	C	C2'-C1'	-5.97	1.46	1.53
85	A5	1370	G	O3'-P	-5.97	1.53	1.61
36	B2	871	U	O4'-C1'	-5.97	1.33	1.41
36	B2	1815	A	O4'-C1'	5.97	1.49	1.41
85	A5	2415	U	O4'-C1'	5.97	1.49	1.41
85	A5	5027	C	O4'-C1'	-5.97	1.33	1.41
85	A5	3955	G	C2'-C1'	5.97	1.59	1.53
36	B2	1587	G	O4'-C1'	-5.96	1.33	1.41
85	A5	3620	G	C2'-C1'	-5.96	1.46	1.53
27	AE	130	PHE	CB-CG	-5.96	1.41	1.51
81	CE	27	VAL	CB-CG2	5.96	1.65	1.52
36	B2	449	A	C5'-C4'	5.96	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1572	C	O4'-C1'	5.96	1.49	1.41
85	A5	1080	C	O4'-C1'	5.96	1.49	1.41
85	A5	3606	U	C5'-C4'	5.96	1.58	1.51
36	B2	106	C	C2'-C1'	-5.96	1.46	1.53
85	A5	1450	C	O4'-C1'	5.96	1.49	1.41
36	B2	934	G	O4'-C1'	5.96	1.49	1.41
73	C1	37	TYR	CE1-CZ	-5.96	1.30	1.38
85	A5	4479	A	O4'-C1'	5.96	1.49	1.41
85	A5	4751	G	C2'-C1'	-5.96	1.46	1.53
36	B2	361	U	C2'-C1'	5.96	1.59	1.53
36	B2	406	U	O4'-C1'	5.96	1.49	1.41
85	A5	129	C	C2'-C1'	-5.96	1.46	1.53
85	A5	1341	U	C2'-C1'	5.96	1.59	1.53
49	CQ	13	VAL	CB-CG1	-5.96	1.40	1.52
85	A5	1633	G	O4'-C1'	-5.96	1.33	1.41
81	CE	31	ASN	N-CA	5.95	1.58	1.46
85	A5	375	G	O4'-C1'	5.95	1.49	1.41
85	A5	2463	G	O4'-C1'	5.95	1.49	1.41
81	CE	32	LEU	CA-CB	5.95	1.67	1.53
85	A5	2018	C	C2'-C1'	-5.95	1.46	1.53
85	A5	2766	A	O4'-C1'	-5.95	1.33	1.41
85	A5	2847	G	C2'-C1'	5.95	1.59	1.53
85	A5	3790	U	C2'-C1'	5.95	1.59	1.53
36	B2	659	G	C2'-C1'	5.95	1.59	1.53
86	A7	72	U	O4'-C1'	5.95	1.49	1.41
85	A5	1271	G	C5'-C4'	5.95	1.58	1.51
85	A5	2441	C	C2'-C1'	-5.95	1.46	1.53
26	AJ	188	GLY	CA-C	5.94	1.61	1.51
85	A5	4287	G	C2'-C1'	-5.94	1.46	1.53
85	A5	38	A	C2'-C1'	5.94	1.59	1.53
85	A5	1172	C	O4'-C1'	5.94	1.49	1.41
36	B2	1300	U	C2'-C1'	5.94	1.59	1.53
85	A5	960	A	O4'-C1'	5.94	1.49	1.41
36	B2	994	C	O4'-C1'	5.94	1.49	1.41
36	B2	1176	G	O4'-C1'	5.94	1.49	1.41
36	B2	1406	G	C5'-C4'	5.94	1.58	1.51
36	B2	467	G	C2'-C1'	-5.93	1.46	1.53
85	A5	1364	U	P-O5'	-5.93	1.53	1.59
85	A5	2457	G	C2'-C1'	-5.93	1.46	1.53
36	B2	155	G	P-O5'	-5.93	1.53	1.59
36	B2	637	U	C5'-C4'	5.93	1.58	1.51
36	B2	1052	A	O3'-P	-5.93	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1103	C	C5'-C4'	5.93	1.58	1.51
36	B2	401	A	C2'-C1'	5.93	1.59	1.53
74	CC	85	HIS	C-N	5.93	1.47	1.34
85	A5	235	A	C4'-C3'	5.93	1.59	1.53
36	B2	1044	G	O4'-C1'	5.93	1.49	1.41
36	B2	1315	U	O4'-C1'	-5.93	1.33	1.41
85	A5	961	G	C2'-C1'	-5.93	1.46	1.53
85	A5	1300	G	O4'-C1'	5.93	1.49	1.41
85	A5	4260	U	O3'-P	-5.93	1.54	1.61
85	A5	1726	U	C4'-C3'	5.92	1.59	1.53
85	A5	2878	G	O4'-C1'	5.92	1.49	1.41
36	B2	146	G	C3'-O3'	5.92	1.50	1.42
36	B2	791	C	C5'-C4'	5.92	1.58	1.51
85	A5	703	G	O3'-P	-5.92	1.54	1.61
85	A5	2048	U	C2'-C1'	-5.92	1.46	1.53
45	Ca	52	TYR	CE1-CZ	-5.92	1.30	1.38
85	A5	1671	U	O3'-P	-5.92	1.54	1.61
85	A5	3637	U	C2'-C1'	-5.92	1.46	1.53
36	B2	418	A	C5'-C4'	5.91	1.58	1.51
36	B2	746	C	C5'-C4'	5.91	1.58	1.51
85	A5	2729	C	C2'-C1'	-5.91	1.46	1.53
36	B2	1685	U	C5'-C4'	5.91	1.58	1.51
85	A5	4751	G	O4'-C1'	-5.91	1.33	1.41
85	A5	4477	A	C2'-C1'	-5.91	1.46	1.53
36	B2	1596	U	O4'-C1'	5.91	1.49	1.41
36	B2	1851	A	O4'-C1'	5.91	1.49	1.41
85	A5	2376	A	O4'-C1'	5.91	1.49	1.41
36	B2	808	A	O3'-P	-5.90	1.54	1.61
36	B2	1252	C	O4'-C1'	5.90	1.49	1.41
36	B2	1623	A	O4'-C1'	-5.90	1.33	1.41
85	A5	1697	G	C2'-C1'	-5.90	1.46	1.53
23	AD	4	GLN	C-N	-5.90	1.20	1.34
29	AG	131	ARG	C-O	-5.90	1.12	1.23
34	AQ	145	TYR	CD1-CE1	-5.90	1.30	1.39
36	B2	83	A	C2'-C1'	-5.90	1.46	1.53
85	A5	1335	G	C2'-C1'	-5.90	1.46	1.53
85	A5	946	C	C2'-C1'	5.90	1.59	1.53
85	A5	3680	U	O4'-C1'	5.90	1.49	1.41
85	A5	4460	U	O3'-P	-5.90	1.54	1.61
85	A5	4471	U	C5'-C4'	5.90	1.58	1.51
85	A5	4888	U	C2'-C1'	5.90	1.59	1.53
85	A5	274	C	C2'-C1'	-5.90	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
87	A8	8	U	C2'-C1'	5.90	1.59	1.53
36	B2	54	A	C5'-C4'	5.89	1.58	1.51
43	CV	78	PRO	N-CD	5.89	1.56	1.47
85	A5	4125	C	C5'-C4'	5.89	1.58	1.51
85	A5	4233	A	C2'-C1'	5.89	1.59	1.53
85	A5	4898	G	O3'-P	-5.89	1.54	1.61
36	B2	1398	G	O4'-C1'	5.89	1.49	1.41
36	B2	1604	G	C3'-C2'	-5.89	1.46	1.52
85	A5	2683	C	O4'-C1'	5.89	1.49	1.41
37	BC	15	G	O4'-C1'	5.89	1.49	1.41
40	CK	137	GLN	CA-C	5.89	1.68	1.52
85	A5	1768	C	O3'-P	-5.89	1.54	1.61
85	A5	1555	G	O4'-C1'	5.89	1.49	1.41
26	AJ	187	ALA	CA-C	5.88	1.68	1.52
36	B2	809	A	O4'-C1'	5.88	1.49	1.41
85	A5	1188	C	P-O5'	-5.88	1.53	1.59
85	A5	2083	C	O4'-C1'	5.88	1.49	1.41
87	A8	37	A	C2'-C1'	-5.88	1.46	1.53
38	Cz	26	ARG	N-CA	-5.88	1.34	1.46
85	A5	520	C	C2'-C1'	-5.88	1.46	1.53
36	B2	1477	U	O4'-C1'	5.88	1.49	1.41
86	A7	30	C	C2'-C1'	-5.88	1.46	1.53
36	B2	1236	G	C2'-C1'	-5.88	1.46	1.53
85	A5	2085	G	O4'-C1'	-5.88	1.34	1.41
85	A5	721	G	C2'-C1'	-5.88	1.46	1.53
86	A7	11	A	O4'-C1'	5.88	1.49	1.41
40	CK	114	ARG	C-N	-5.87	1.20	1.34
85	A5	2788	U	C2'-C1'	5.87	1.59	1.53
85	A5	3911	C	O4'-C1'	5.87	1.49	1.41
87	A8	18	U	P-O5'	-5.87	1.53	1.59
85	A5	1418	C	O4'-C1'	5.87	1.49	1.41
85	A5	4864	U	O4'-C1'	5.87	1.49	1.41
36	B2	823	U	O4'-C1'	-5.87	1.34	1.41
85	A5	4765	G	O4'-C1'	5.86	1.49	1.41
85	A5	4867	G	P-O5'	-5.86	1.53	1.59
85	A5	4887	C	C5'-C4'	5.86	1.58	1.51
87	A8	38	U	O4'-C1'	5.86	1.49	1.41
85	A5	4266	G	O4'-C1'	5.86	1.49	1.41
85	A5	4579	U	O4'-C1'	5.86	1.49	1.41
85	A5	4865	C	C2'-C1'	-5.86	1.47	1.53
6	AX	23	HIS	N-CA	-5.86	1.34	1.46
85	A5	2304	U	O4'-C1'	-5.86	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	3735	G	C2'-C1'	-5.86	1.47	1.53
31	AH	111	LYS	N-CA	5.86	1.58	1.46
80	CH	190	ALA	N-CA	-5.86	1.34	1.46
38	Cz	99	LEU	C-N	5.85	1.47	1.34
85	A5	4496	A	C2'-C1'	-5.85	1.47	1.53
85	A5	4920	C	O4'-C1'	5.85	1.49	1.41
36	B2	213	G	C2'-C1'	5.85	1.59	1.53
42	CL	166	ALA	N-CA	-5.85	1.34	1.46
82	CG	163	PRO	N-CD	5.85	1.56	1.47
85	A5	1284	G	C4'-C3'	5.85	1.59	1.53
85	A5	4311	A	O4'-C1'	5.85	1.49	1.41
36	B2	918	U	O4'-C1'	5.85	1.49	1.41
85	A5	490	C	O4'-C1'	5.85	1.49	1.41
85	A5	3739	C	C2'-C1'	-5.85	1.47	1.53
36	B2	1582	C	C5'-C4'	5.85	1.58	1.51
85	A5	1791	U	C2'-C1'	-5.85	1.47	1.53
36	B2	1418	C	O3'-P	-5.84	1.54	1.61
36	B2	1506	A	O4'-C1'	5.84	1.49	1.41
85	A5	4416	G	O4'-C1'	5.84	1.49	1.41
12	AR	86	PRO	N-CD	5.84	1.56	1.47
85	A5	2446	C	O3'-P	-5.84	1.54	1.61
85	A5	2544	G	C5'-C4'	5.84	1.58	1.51
85	A5	14	C	O4'-C1'	5.84	1.49	1.41
85	A5	486	C	O3'-P	-5.84	1.54	1.61
85	A5	2435	G	C5'-C4'	5.84	1.58	1.51
37	BC	71	U	O4'-C1'	5.83	1.49	1.41
85	A5	1443	A	O3'-P	-5.83	1.54	1.61
85	A5	2529	A	C2'-C1'	5.83	1.59	1.53
85	A5	4405	G	O4'-C1'	5.83	1.49	1.41
36	B2	459	C	C5'-C4'	5.83	1.58	1.51
85	A5	2680	G	C2'-C1'	-5.83	1.47	1.53
85	A5	2423	A	C2'-C1'	-5.83	1.47	1.53
36	B2	1836	G	C2'-C1'	-5.83	1.47	1.53
85	A5	4408	G	O4'-C1'	5.83	1.49	1.41
1	Az	854	PHE	N-CA	-5.83	1.34	1.46
36	B2	838	G	C2'-C1'	-5.83	1.47	1.53
36	B2	1783	C	C2'-C1'	-5.83	1.47	1.53
85	A5	4471	U	C2'-C1'	-5.83	1.47	1.53
85	A5	5016	A	C5'-C4'	5.83	1.58	1.51
85	A5	152	U	P-O5'	-5.83	1.53	1.59
36	B2	2	A	O4'-C1'	5.82	1.49	1.41
85	A5	4054	C	C5'-C4'	5.82	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	599	A	O4'-C1'	5.82	1.49	1.41
85	A5	77	U	C4'-C3'	-5.82	1.46	1.52
85	A5	640	C	C5'-C4'	5.82	1.58	1.51
85	A5	941	C	C2'-C1'	-5.82	1.47	1.53
85	A5	2341	A	O4'-C1'	5.82	1.49	1.41
85	A5	676	C	C2'-C1'	-5.82	1.47	1.53
85	A5	3709	U	O3'-P	-5.82	1.54	1.61
85	A5	4074	C	C2'-C1'	-5.82	1.47	1.53
36	B2	657	U	O4'-C1'	5.81	1.49	1.41
85	A5	3658	C	C2'-C1'	-5.81	1.47	1.53
85	A5	3798	U	C2'-C1'	5.81	1.59	1.53
85	A5	4776	G	C2'-C1'	-5.81	1.47	1.53
36	B2	1520	G	C4'-C3'	5.81	1.59	1.53
85	A5	2321	G	O3'-P	-5.81	1.54	1.61
36	B2	316	G	C2'-C1'	-5.81	1.47	1.53
85	A5	4776	G	O4'-C1'	5.81	1.49	1.41
32	AW	129	PHE	CB-CG	-5.81	1.41	1.51
36	B2	1716	C	C2'-C1'	-5.81	1.47	1.53
85	A5	1279	A	O4'-C1'	5.81	1.49	1.41
85	A5	2536	A	C2'-C1'	5.81	1.59	1.53
85	A5	2646	C	O4'-C1'	5.81	1.49	1.41
36	B2	1165	G	C2'-C1'	5.80	1.59	1.53
85	A5	4516	G	O4'-C1'	5.80	1.49	1.41
85	A5	4323	A	O4'-C1'	5.80	1.49	1.41
59	CZ	79	HIS	CA-C	-5.80	1.37	1.52
36	B2	97	U	C2'-C1'	-5.80	1.47	1.53
85	A5	1196	G	O4'-C1'	5.80	1.49	1.41
85	A5	2883	G	C2'-C1'	-5.80	1.47	1.53
36	B2	1528	G	O4'-C1'	-5.80	1.34	1.41
85	A5	2813	A	O4'-C1'	-5.80	1.34	1.41
85	A5	3649	A	C2'-C1'	-5.80	1.47	1.53
36	B2	1513	C	C2'-C1'	-5.79	1.47	1.53
85	A5	3907	G	P-O5'	-5.79	1.53	1.59
85	A5	1216	C	C3'-C2'	-5.79	1.46	1.52
85	A5	1625	G	O3'-P	-5.79	1.54	1.61
87	A8	17	A	P-O5'	-5.79	1.53	1.59
36	B2	821	G	O3'-P	-5.79	1.54	1.61
85	A5	1221	G	O4'-C1'	-5.79	1.34	1.41
38	Cz	25	ARG	C-N	-5.79	1.20	1.34
36	B2	68	A	O4'-C1'	5.79	1.49	1.41
36	B2	612	U	C2'-C1'	-5.79	1.47	1.53
36	B2	1077	A	O4'-C1'	5.79	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1377	U	C2'-C1'	-5.79	1.47	1.53
36	B2	1328	G	O4'-C1'	5.79	1.49	1.41
85	A5	4174	U	P-O5'	-5.79	1.53	1.59
85	A5	4899	G	O4'-C1'	5.79	1.49	1.41
86	A7	20	U	O4'-C1'	5.79	1.49	1.41
36	B2	291	G	O4'-C1'	5.78	1.49	1.41
36	B2	1644	C	O4'-C1'	5.78	1.49	1.41
85	A5	1857	C	C2'-C1'	-5.78	1.47	1.53
85	A5	1923	A	O4'-C1'	5.78	1.49	1.41
85	A5	4619	U	P-O5'	-5.78	1.53	1.59
36	B2	560	A	C2'-C1'	-5.78	1.47	1.53
85	A5	1314	C	C2'-C1'	5.78	1.59	1.53
85	A5	2793	G	C5'-C4'	5.78	1.58	1.51
85	A5	3809	G	O4'-C1'	-5.78	1.34	1.41
85	A5	3880	G	O4'-C1'	5.78	1.49	1.41
85	A5	4952	G	O4'-C1'	5.78	1.49	1.41
86	A7	17	C	C2'-C1'	-5.78	1.47	1.53
86	A7	50	A	O4'-C1'	5.78	1.49	1.41
36	B2	288	G	C2'-C1'	5.78	1.59	1.53
74	CC	321	ASN	CA-C	-5.78	1.38	1.52
86	A7	29	C	C2'-C1'	5.78	1.59	1.53
85	A5	675	C	C2'-C1'	-5.77	1.47	1.53
85	A5	1491	A	P-O5'	-5.77	1.53	1.59
60	Cr	36	ASN	N-CA	5.77	1.57	1.46
85	A5	2355	G	C2'-C1'	-5.77	1.47	1.53
85	A5	2538	U	C2'-C1'	-5.77	1.47	1.53
85	A5	3871	A	O4'-C1'	5.77	1.49	1.41
36	B2	1030	A	C2'-C1'	5.77	1.59	1.53
85	A5	284	G	O4'-C1'	-5.77	1.34	1.41
85	A5	4632	U	O4'-C1'	5.77	1.49	1.41
36	B2	353	C	O3'-P	-5.77	1.54	1.61
36	B2	1498	A	C4'-C3'	-5.77	1.46	1.52
85	A5	1557	C	C2'-C1'	-5.77	1.47	1.53
85	A5	1615	C	C2'-C1'	-5.77	1.47	1.53
85	A5	1689	G	O4'-C1'	5.77	1.49	1.41
85	A5	2852	U	O4'-C1'	5.77	1.49	1.41
85	A5	423	G	C4'-C3'	-5.77	1.46	1.52
81	CE	88	VAL	CA-C	-5.76	1.38	1.52
85	A5	1797	G	O4'-C1'	5.76	1.49	1.41
85	A5	1841	C	C2'-C1'	-5.76	1.47	1.53
85	A5	4752	U	O4'-C1'	-5.76	1.34	1.41
36	B2	1314	U	O4'-C1'	-5.76	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BC	2	G	C2'-C1'	-5.76	1.47	1.53
36	B2	1416	C	C2'-C1'	-5.76	1.47	1.53
43	CV	53	PRO	N-CD	5.76	1.55	1.47
85	A5	1078	A	O4'-C1'	5.76	1.49	1.41
85	A5	1274	A	C5'-C4'	5.76	1.58	1.51
85	A5	1652	U	O3'-P	-5.76	1.54	1.61
85	A5	4076	G	O4'-C1'	5.76	1.49	1.41
85	A5	5059	C	O4'-C1'	5.76	1.49	1.41
85	A5	1797	G	C2'-C1'	-5.76	1.47	1.53
85	A5	2226	C	C5'-C4'	5.76	1.58	1.51
85	A5	1533	A	O4'-C1'	5.75	1.49	1.41
85	A5	428	G	O4'-C1'	-5.75	1.34	1.41
85	A5	2460	A	O3'-P	-5.75	1.54	1.61
85	A5	4273	A	O4'-C1'	5.75	1.49	1.41
85	A5	4435	U	O4'-C1'	5.75	1.49	1.41
36	B2	315	C	O4'-C1'	5.75	1.49	1.41
67	Ce	17	THR	C-N	5.75	1.47	1.34
86	A7	33	U	C2'-C1'	-5.75	1.47	1.53
86	A7	60	G	O4'-C1'	5.75	1.49	1.41
36	B2	425	G	P-O5'	-5.75	1.53	1.59
36	B2	1336	C	P-O5'	-5.75	1.54	1.59
85	A5	357	U	C2'-C1'	5.75	1.59	1.53
85	A5	1324	A	C2'-C1'	5.75	1.59	1.53
85	A5	2006	U	C2'-C1'	-5.75	1.47	1.53
85	A5	3919	C	O4'-C1'	5.75	1.49	1.41
36	B2	1210	G	O3'-P	-5.75	1.54	1.61
85	A5	1584	G	C2'-C1'	-5.75	1.47	1.53
85	A5	4252	C	C2'-C1'	-5.75	1.47	1.53
36	B2	1250	A	C2'-C1'	5.75	1.59	1.53
36	B2	1614	A	C2'-C1'	-5.75	1.47	1.53
42	CL	100	PRO	N-CD	5.75	1.55	1.47
54	CP	59	PRO	N-CD	5.75	1.55	1.47
85	A5	3243	C	O3'-P	-5.75	1.54	1.61
85	A5	4775	C	O4'-C1'	5.75	1.49	1.41
53	CT	34	TYR	CD1-CE1	-5.75	1.30	1.39
85	A5	1886	G	C2'-C1'	-5.75	1.47	1.53
85	A5	3602	C	O4'-C1'	5.75	1.49	1.41
85	A5	39	A	O4'-C1'	5.74	1.49	1.41
85	A5	686	A	O4'-C1'	5.74	1.49	1.41
85	A5	4539	U	O4'-C1'	5.74	1.49	1.41
36	B2	887	U	C5'-C4'	5.74	1.58	1.51
25	Af	136	PHE	CB-CG	-5.74	1.41	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	829	C	O3'-P	-5.74	1.54	1.61
36	B2	1701	C	C5'-C4'	5.74	1.58	1.51
36	B2	1419	C	O3'-P	-5.74	1.54	1.61
36	B2	1782	G	C2'-C1'	-5.74	1.47	1.53
57	CY	43	ASN	CA-C	-5.74	1.38	1.52
85	A5	3657	U	C2'-C1'	5.74	1.59	1.53
85	A5	271	C	C2'-C1'	-5.74	1.47	1.53
85	A5	4162	C	C5'-C4'	5.74	1.58	1.51
85	A5	262	G	O4'-C1'	-5.73	1.34	1.41
85	A5	2673	G	C2'-C1'	-5.73	1.47	1.53
87	A8	154	G	O3'-P	-5.73	1.54	1.61
36	B2	576	A	O4'-C1'	5.73	1.49	1.41
48	CD	270	LYS	CA-C	5.73	1.67	1.52
85	A5	285	G	C2'-C1'	-5.73	1.47	1.53
81	CE	70	LYS	C-N	-5.73	1.20	1.34
82	CG	179	VAL	CA-CB	-5.73	1.42	1.54
36	B2	1360	U	C2'-C1'	-5.73	1.47	1.53
42	CL	165	LYS	CA-C	5.73	1.67	1.52
85	A5	2401	A	O4'-C1'	5.73	1.49	1.41
85	A5	5026	U	O3'-P	-5.73	1.54	1.61
85	A5	4306	U	O4'-C1'	5.73	1.49	1.41
85	A5	2747	U	P-O5'	-5.73	1.54	1.59
36	B2	747	U	C2'-C1'	-5.72	1.47	1.53
36	B2	1042	A	O4'-C1'	5.72	1.49	1.41
85	A5	670	G	C2'-C1'	5.72	1.59	1.53
85	A5	1117	C	C5'-C4'	5.72	1.58	1.51
85	A5	1296	G	C5'-C4'	5.72	1.58	1.51
85	A5	1853	G	O3'-P	-5.72	1.54	1.61
85	A5	3839	G	O4'-C1'	-5.72	1.34	1.41
36	B2	281	C	O3'-P	-5.72	1.54	1.61
36	B2	799	U	C3'-C2'	5.72	1.59	1.52
85	A5	1376	C	O4'-C1'	5.72	1.49	1.41
85	A5	1552	G	O4'-C1'	-5.72	1.34	1.41
87	A8	27	U	C2'-C1'	-5.72	1.47	1.53
74	CC	323	ARG	N-CA	5.72	1.57	1.46
85	A5	2697	A	C2'-C1'	-5.72	1.47	1.53
36	B2	98	C	O4'-C1'	5.72	1.49	1.41
36	B2	1561	A	O4'-C1'	5.72	1.49	1.41
36	B2	1652	G	O4'-C1'	5.72	1.49	1.41
85	A5	1839	U	C2'-C1'	-5.72	1.47	1.53
85	A5	4551	U	C2'-C1'	5.72	1.59	1.53
1	Az	794	PHE	CD1-CE1	-5.71	1.27	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2695	A	C2'-C1'	5.71	1.59	1.53
85	A5	4317	A	O4'-C1'	5.71	1.49	1.41
87	A8	14	U	C2'-C1'	-5.71	1.47	1.53
36	B2	1732	G	C2'-C1'	-5.71	1.47	1.53
53	CT	13	TYR	CD1-CE1	-5.71	1.30	1.39
85	A5	1248	C	C2'-C1'	-5.71	1.47	1.53
47	CI	176	PHE	CD2-CE2	-5.71	1.27	1.39
85	A5	139	G	O4'-C1'	5.71	1.49	1.41
36	B2	654	A	O4'-C1'	5.71	1.49	1.41
36	B2	376	A	C2'-C1'	-5.71	1.47	1.53
40	CK	114	ARG	CA-C	-5.71	1.38	1.52
85	A5	3946	G	O3'-P	-5.71	1.54	1.61
85	A5	478	G	C2'-C1'	5.71	1.59	1.53
85	A5	4449	A	O4'-C1'	-5.71	1.34	1.41
53	CT	80	VAL	N-CA	5.71	1.57	1.46
31	AH	67	PRO	N-CD	5.70	1.55	1.47
36	B2	327	G	C5'-C4'	5.70	1.58	1.51
37	BC	12	G	C3'-C2'	-5.70	1.46	1.52
56	CX	40	ILE	CA-C	-5.70	1.38	1.52
85	A5	1363	C	P-O5'	-5.70	1.54	1.59
85	A5	2714	G	C2'-C1'	-5.70	1.47	1.53
85	A5	3917	A	C2'-C1'	-5.70	1.47	1.53
85	A5	4735	G	C2'-C1'	-5.70	1.47	1.53
85	A5	4867	G	C2'-C1'	-5.70	1.47	1.53
36	B2	1730	U	O4'-C1'	5.70	1.49	1.41
85	A5	969	C	O4'-C1'	5.70	1.49	1.41
24	Ae	3	HIS	C-N	5.70	1.43	1.33
1	Az	780	PRO	CA-C	5.70	1.64	1.52
85	A5	148	C	C5'-C4'	5.70	1.58	1.51
85	A5	2561	C	C2'-C1'	-5.70	1.47	1.53
36	B2	322	C	C2'-C1'	-5.70	1.47	1.53
56	CX	53	ARG	CA-C	5.70	1.67	1.52
85	A5	402	A	O4'-C1'	5.70	1.49	1.41
85	A5	4299	U	C2'-C1'	-5.70	1.47	1.53
26	AJ	187	ALA	N-CA	5.69	1.57	1.46
36	B2	1609	C	P-O5'	-5.69	1.54	1.59
85	A5	1583	A	O4'-C1'	-5.69	1.34	1.41
85	A5	674	G	O4'-C1'	5.69	1.49	1.41
85	A5	2297	G	C5'-C4'	5.69	1.58	1.51
36	B2	757	C	C2'-C1'	-5.69	1.47	1.53
85	A5	304	C	O3'-P	-5.69	1.54	1.61
85	A5	367	C	P-O5'	-5.69	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	419	A	O4'-C1'	5.69	1.49	1.41
85	A5	3635	A	C2'-C1'	-5.69	1.47	1.53
85	A5	4333	C	C2'-C1'	-5.69	1.47	1.53
36	B2	99	A	P-O5'	-5.69	1.54	1.59
1	Az	478	PHE	CD1-CE1	-5.68	1.27	1.39
33	AI	6	ASP	N-CA	-5.68	1.34	1.46
85	A5	285	G	O4'-C1'	5.68	1.49	1.41
36	B2	32	U	C2'-C1'	5.68	1.59	1.53
36	B2	1339	U	C2'-C1'	-5.68	1.47	1.53
36	B2	1827	U	O4'-C1'	5.68	1.49	1.41
85	A5	3965	A	O4'-C1'	5.68	1.49	1.41
36	B2	1572	C	C2'-C1'	-5.68	1.47	1.53
36	B2	18	C	O3'-P	-5.67	1.54	1.61
36	B2	234	C	O4'-C1'	5.67	1.49	1.41
36	B2	1383	A	O4'-C1'	5.67	1.49	1.41
81	CE	116	TYR	N-CA	5.67	1.57	1.46
26	AJ	188	GLY	N-CA	5.67	1.54	1.46
36	B2	1663	A	O4'-C1'	5.67	1.49	1.41
85	A5	979	C	O4'-C1'	5.67	1.49	1.41
85	A5	1456	C	C2'-C1'	-5.67	1.47	1.53
85	A5	1956	A	O4'-C1'	5.67	1.49	1.41
36	B2	725	C	P-O5'	5.67	1.65	1.59
86	A7	73	U	O3'-P	-5.67	1.54	1.61
48	CD	223	PHE	CD2-CE2	-5.67	1.27	1.39
85	A5	992	C	O4'-C1'	5.67	1.49	1.41
85	A5	2373	C	C2'-C1'	-5.67	1.47	1.53
85	A5	947	C	P-O5'	-5.67	1.54	1.59
11	AL	103	GLU	CG-CD	5.67	1.60	1.51
85	A5	440	U	O4'-C1'	5.67	1.49	1.41
85	A5	3949	A	O3'-P	-5.67	1.54	1.61
36	B2	1423	C	C5'-C4'	5.66	1.58	1.51
85	A5	1073	G	C2'-C1'	-5.66	1.47	1.53
87	A8	37	A	O3'-P	-5.66	1.54	1.61
85	A5	62	A	O4'-C1'	5.66	1.49	1.41
36	B2	294	U	C2'-C1'	-5.66	1.47	1.53
86	A7	92	C	C2'-C1'	-5.66	1.47	1.53
36	B2	1667	U	C2'-C1'	-5.66	1.47	1.53
85	A5	446	C	C2'-C1'	-5.66	1.47	1.53
85	A5	1310	C	C2'-C1'	-5.66	1.47	1.53
85	A5	2834	C	O4'-C1'	5.66	1.49	1.41
73	Cl	24	PRO	N-CD	5.66	1.55	1.47
85	A5	1107	C	C5'-C4'	5.66	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4187	G	O4'-C1'	5.66	1.49	1.41
34	AQ	145	TYR	CB-CG	-5.66	1.43	1.51
36	B2	1678	A	O4'-C1'	-5.65	1.34	1.41
85	A5	963	G	O3'-P	-5.65	1.54	1.61
85	A5	81	C	C2'-C1'	-5.65	1.47	1.53
36	B2	1646	C	C5'-C4'	5.65	1.58	1.51
61	Ch	78	TYR	N-CA	-5.65	1.35	1.46
85	A5	53	C	C2'-C1'	-5.65	1.47	1.53
85	A5	473	C	C2'-C1'	-5.65	1.47	1.53
85	A5	4283	G	O4'-C1'	5.65	1.49	1.41
4	AK	89	ILE	N-CA	-5.65	1.35	1.46
36	B2	1276	A	P-O5'	-5.65	1.54	1.59
39	Cq	263	GLU	CA-CB	5.64	1.66	1.53
85	A5	2630	U	O3'-P	-5.64	1.54	1.61
85	A5	3667	C	C5'-C4'	5.64	1.58	1.51
81	CE	38	LYS	N-CA	5.64	1.57	1.46
36	B2	1735	A	O4'-C1'	5.64	1.49	1.41
36	B2	735	C	C2'-C1'	-5.64	1.47	1.53
36	B2	1717	C	C2'-C1'	-5.64	1.47	1.53
36	B2	1795	G	C2'-C1'	-5.64	1.47	1.53
36	B2	1805	G	C5'-C4'	5.64	1.58	1.51
85	A5	223	G	C2'-C1'	-5.64	1.47	1.53
85	A5	725	G	C5'-C4'	5.64	1.58	1.51
85	A5	3691	G	O4'-C1'	5.64	1.49	1.41
85	A5	3920	U	O4'-C1'	5.64	1.49	1.41
36	B2	664	A	O4'-C1'	5.64	1.49	1.41
85	A5	1603	C	O4'-C1'	5.64	1.49	1.41
85	A5	4530	U	O4'-C1'	5.64	1.49	1.41
36	B2	914	U	C2'-C1'	5.63	1.59	1.53
36	B2	969	U	C5'-C4'	5.63	1.58	1.51
81	CE	70	LYS	CA-C	-5.63	1.38	1.52
85	A5	980	U	C3'-C2'	5.63	1.59	1.52
85	A5	1294	A	O3'-P	-5.63	1.54	1.61
86	A7	120	U	P-O5'	-5.63	1.54	1.59
36	B2	420	G	O4'-C1'	-5.63	1.34	1.41
51	CA	67	TYR	CB-CG	5.63	1.60	1.51
85	A5	3874	G	C5'-C4'	5.63	1.58	1.51
85	A5	4885	U	C2'-C1'	-5.63	1.47	1.53
85	A5	2845	A	O3'-P	-5.63	1.54	1.61
85	A5	5003	U	C2'-C1'	-5.63	1.47	1.53
86	A7	85	G	O4'-C1'	5.63	1.49	1.41
85	A5	1379	C	C2'-C1'	5.63	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1672	U	P-O5'	-5.63	1.54	1.59
85	A5	36	U	O4'-C1'	5.63	1.49	1.41
85	A5	998	C	O3'-P	-5.63	1.54	1.61
85	A5	4217	G	O4'-C1'	5.63	1.49	1.41
87	A8	119	C	C2'-C1'	-5.63	1.47	1.53
36	B2	800	U	P-O5'	-5.63	1.54	1.59
85	A5	9	C	C2'-C1'	-5.63	1.47	1.53
85	A5	1295	C	O3'-P	-5.63	1.54	1.61
85	A5	4181	U	C5'-C4'	5.63	1.58	1.51
85	A5	4894	A	C2'-C1'	-5.63	1.47	1.53
57	CY	48	PRO	N-CD	5.62	1.55	1.47
85	A5	4062	A	C2'-C1'	5.62	1.59	1.53
85	A5	7	C	O3'-P	-5.62	1.54	1.61
85	A5	3946	G	C2'-C1'	-5.62	1.47	1.53
36	B2	798	G	O3'-P	-5.62	1.54	1.61
85	A5	3688	U	C2'-C1'	5.62	1.59	1.53
86	A7	72	U	P-O5'	-5.62	1.54	1.59
36	B2	384	U	O4'-C1'	5.62	1.49	1.41
36	B2	1825	A	O4'-C1'	-5.62	1.34	1.41
54	CP	78	TRP	CE2-CZ2	-5.62	1.30	1.39
36	B2	1723	G	O4'-C1'	-5.62	1.34	1.41
36	B2	1549	U	O4'-C1'	5.62	1.49	1.41
36	B2	1670	C	O4'-C1'	5.62	1.49	1.41
85	A5	1186	U	O4'-C1'	-5.62	1.34	1.41
85	A5	1723	A	O4'-C1'	5.62	1.49	1.41
85	A5	2272	C	C2'-C1'	-5.62	1.47	1.53
85	A5	2298	U	O4'-C1'	5.62	1.49	1.41
85	A5	4007	G	C4'-C3'	5.62	1.59	1.53
85	A5	4225	G	P-O5'	-5.62	1.54	1.59
12	AR	42	PRO	N-CD	5.61	1.55	1.47
85	A5	2587	A	O3'-P	-5.61	1.54	1.61
85	A5	5067	U	C5'-C4'	5.61	1.58	1.51
87	A8	81	C	C2'-C1'	-5.61	1.47	1.53
82	CG	39	PHE	CD2-CE2	-5.61	1.28	1.39
85	A5	1097	C	C2'-C1'	-5.61	1.47	1.53
36	B2	482	G	O4'-C1'	-5.61	1.34	1.41
36	B2	915	G	O4'-C1'	-5.61	1.34	1.41
47	CI	176	PHE	CD1-CE1	-5.61	1.28	1.39
53	CT	13	TYR	CG-CD1	-5.61	1.31	1.39
85	A5	732	A	O4'-C1'	-5.61	1.34	1.41
85	A5	1309	C	C2'-C1'	-5.61	1.47	1.53
85	A5	1939	A	O3'-P	-5.61	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2115	G	O3'-P	-5.61	1.54	1.61
86	A7	16	A	O4'-C1'	5.61	1.49	1.41
43	CV	120	PRO	N-CD	5.61	1.55	1.47
85	A5	1763	C	C2'-C1'	-5.61	1.47	1.53
39	Cq	62	ARG	N-CA	-5.61	1.35	1.46
85	A5	1782	U	P-O5'	-5.61	1.54	1.59
86	A7	42	A	C5'-C4'	5.61	1.58	1.51
36	B2	822	U	C4'-C3'	5.60	1.59	1.53
36	B2	1491	G	O4'-C1'	5.60	1.49	1.41
85	A5	474	C	C2'-C1'	-5.60	1.47	1.53
85	A5	3888	G	C2'-C1'	5.60	1.59	1.53
85	A5	1866	U	O4'-C1'	5.60	1.49	1.41
58	CW	71	ARG	CG-CD	5.60	1.66	1.51
85	A5	4508	C	C2'-C1'	-5.60	1.47	1.53
85	A5	996	G	O4'-C1'	5.60	1.49	1.41
85	A5	2543	A	O3'-P	-5.60	1.54	1.61
36	B2	595	U	C2'-C1'	-5.60	1.47	1.53
36	B2	596	U	C2'-C1'	-5.60	1.47	1.53
86	A7	78	C	O4'-C1'	5.59	1.49	1.41
74	CC	330	PRO	N-CD	5.59	1.55	1.47
85	A5	2043	A	O4'-C1'	-5.59	1.34	1.41
86	A7	73	U	O4'-C1'	5.59	1.49	1.41
85	A5	219	G	O4'-C1'	5.59	1.49	1.41
85	A5	2333	G	O4'-C1'	-5.59	1.34	1.41
85	A5	3756	A	C2'-C1'	-5.59	1.47	1.53
85	A5	4455	G	O4'-C1'	5.59	1.49	1.41
87	A8	47	C	C2'-C1'	-5.59	1.47	1.53
36	B2	572	U	C2'-C1'	5.58	1.59	1.53
85	A5	513	U	C2'-C1'	-5.58	1.47	1.53
85	A5	2102	G	O3'-P	-5.58	1.54	1.61
85	A5	2359	U	C2'-C1'	-5.58	1.47	1.53
85	A5	2651	C	C2'-C1'	-5.58	1.47	1.53
85	A5	4055	U	C4'-C3'	5.58	1.59	1.53
85	A5	1365	C	C2'-C1'	5.58	1.59	1.53
85	A5	1984	A	O4'-C1'	5.58	1.49	1.41
36	B2	317	C	P-O5'	-5.58	1.54	1.59
36	B2	980	A	O4'-C1'	5.58	1.49	1.41
36	B2	1370	A	O4'-C1'	5.58	1.48	1.41
85	A5	124	C	C5'-C4'	5.58	1.58	1.51
85	A5	499	G	O3'-P	-5.58	1.54	1.61
85	A5	2597	G	C5'-C4'	5.58	1.58	1.51
87	A8	140	C	O4'-C1'	5.57	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
45	Ca	50	PRO	N-CD	5.57	1.55	1.47
85	A5	1122	C	P-O5'	-5.57	1.54	1.59
86	A7	60	G	C2'-C1'	-5.57	1.47	1.53
36	B2	1404	U	C4'-C3'	5.57	1.59	1.53
85	A5	3677	U	O4'-C1'	5.57	1.48	1.41
36	B2	87	U	O4'-C1'	5.57	1.48	1.41
36	B2	1018	U	O4'-C1'	5.57	1.48	1.41
85	A5	2068	C	P-O5'	-5.57	1.54	1.59
36	B2	21	U	C2'-C1'	5.56	1.59	1.53
85	A5	4762	A	O3'-P	-5.56	1.54	1.61
1	Az	196	GLU	CG-CD	5.56	1.60	1.51
35	Ah	180	GLY	N-CA	-5.56	1.37	1.46
36	B2	36	U	O4'-C1'	5.56	1.48	1.41
85	A5	1701	A	C5'-C4'	5.56	1.58	1.51
85	A5	2510	G	C2'-C1'	-5.56	1.47	1.53
86	A7	88	A	O4'-C1'	5.56	1.48	1.41
85	A5	370	U	P-O5'	-5.56	1.54	1.59
36	B2	1731	A	O4'-C1'	5.56	1.48	1.41
85	A5	2343	G	C2'-C1'	-5.56	1.47	1.53
85	A5	2649	G	C2'-C1'	-5.56	1.47	1.53
85	A5	3854	C	O3'-P	-5.56	1.54	1.61
85	A5	3922	G	C2'-C1'	5.56	1.59	1.53
87	A8	67	U	C2'-C1'	5.56	1.59	1.53
36	B2	214	U	C2'-C1'	-5.56	1.47	1.53
85	A5	131	C	O4'-C1'	5.56	1.48	1.41
85	A5	2824	C	C2'-C1'	5.56	1.59	1.53
85	A5	965	G	C2'-C1'	-5.55	1.47	1.53
85	A5	2587	A	O4'-C1'	-5.55	1.34	1.41
4	AK	40	VAL	CB-CG1	-5.55	1.41	1.52
36	B2	507	G	C5'-C4'	5.55	1.58	1.51
85	A5	4887	C	O3'-P	-5.55	1.54	1.61
85	A5	3730	U	O4'-C1'	5.55	1.48	1.41
85	A5	4683	U	C2'-C1'	-5.55	1.47	1.53
85	A5	5060	A	O3'-P	-5.55	1.54	1.61
86	A7	55	A	C2'-C1'	-5.55	1.47	1.53
87	A8	16	G	P-O5'	-5.55	1.54	1.59
59	CZ	102	ARG	CA-C	-5.55	1.38	1.52
85	A5	1075	G	C2'-C1'	-5.55	1.47	1.53
85	A5	2789	A	O4'-C1'	-5.55	1.34	1.41
85	A5	4767	C	O4'-C1'	5.55	1.48	1.41
36	B2	413	G	C2'-C1'	-5.54	1.47	1.53
68	Cf	106	TYR	CA-C	-5.54	1.38	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1708	G	C4'-C3'	5.54	1.59	1.53
85	A5	3693	U	C2'-C1'	-5.54	1.47	1.53
87	A8	25	G	C2'-C1'	-5.54	1.47	1.53
24	Ae	23	GLU	CG-CD	-5.54	1.43	1.51
36	B2	1707	U	O4'-C1'	5.54	1.48	1.41
85	A5	1744	U	O4'-C1'	5.54	1.48	1.41
36	B2	438	G	O3'-P	-5.54	1.54	1.61
36	B2	1449	G	O4'-C1'	5.54	1.48	1.41
85	A5	3652	A	O4'-C1'	5.54	1.48	1.41
85	A5	3677	U	C5'-C4'	5.54	1.57	1.51
36	B2	412	G	C5'-C4'	5.54	1.57	1.51
85	A5	2733	C	C2'-C1'	-5.54	1.47	1.53
74	CC	221	PHE	CB-CG	-5.54	1.42	1.51
36	B2	1428	G	O4'-C1'	-5.54	1.34	1.41
36	B2	1766	C	C4'-C3'	5.54	1.59	1.53
36	B2	77	A	C4'-C3'	5.53	1.59	1.53
74	CC	47	ASN	N-CA	-5.53	1.35	1.46
36	B2	93	U	C2'-C1'	5.53	1.59	1.53
86	A7	41	G	O4'-C1'	-5.53	1.34	1.41
85	A5	739	G	C2'-C1'	-5.53	1.47	1.53
85	A5	3928	A	C3'-C2'	-5.53	1.46	1.52
36	B2	187	G	O4'-C1'	5.53	1.48	1.41
85	A5	110	C	C2'-C1'	-5.52	1.47	1.53
85	A5	685	C	C2'-C1'	5.52	1.59	1.53
25	Af	148	TYR	CD1-CE1	-5.52	1.31	1.39
36	B2	479	C	C2'-C1'	-5.52	1.47	1.53
56	CX	53	ARG	N-CA	-5.52	1.35	1.46
85	A5	2882	A	O4'-C1'	5.52	1.48	1.41
36	B2	190	G	C3'-C2'	-5.52	1.46	1.52
36	B2	1222	G	O4'-C1'	5.52	1.48	1.41
39	Cq	263	GLU	N-CA	-5.52	1.35	1.46
85	A5	408	A	C2'-C1'	5.52	1.59	1.53
85	A5	4242	U	O3'-P	-5.52	1.54	1.61
36	B2	112	U	C5'-C4'	5.51	1.57	1.51
85	A5	2679	G	C2'-C1'	-5.51	1.47	1.53
36	B2	1868	U	C4'-C3'	5.51	1.59	1.53
85	A5	1251	C	O4'-C1'	5.51	1.48	1.41
85	A5	4834	C	C5'-C4'	5.51	1.57	1.51
86	A7	76	U	C2'-C1'	-5.51	1.47	1.53
54	CP	5	SER	C-O	-5.51	1.12	1.23
85	A5	3850	C	O4'-C1'	5.51	1.48	1.41
85	A5	4802	C	O3'-P	-5.51	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	224	A	O4'-C1'	5.51	1.48	1.41
36	B2	324	C	O3'-P	-5.51	1.54	1.61
36	B2	1416	C	O3'-P	-5.51	1.54	1.61
36	B2	1419	C	C2'-C1'	5.51	1.59	1.53
85	A5	14	C	C5'-C4'	5.51	1.57	1.51
85	A5	4376	A	O3'-P	-5.51	1.54	1.61
36	B2	1839	U	O3'-P	-5.50	1.54	1.61
85	A5	441	G	C2'-C1'	-5.50	1.47	1.53
85	A5	2440	U	P-O5'	-5.50	1.54	1.59
36	B2	353	C	P-O5'	-5.50	1.54	1.59
85	A5	1863	U	C2'-C1'	5.50	1.59	1.53
85	A5	2123	C	C4'-C3'	5.50	1.59	1.53
85	A5	4159	C	C5'-C4'	5.50	1.57	1.51
11	AL	102	PHE	C-O	5.50	1.33	1.23
85	A5	1212	G	C2'-C1'	-5.50	1.47	1.53
85	A5	1749	A	O4'-C1'	5.50	1.48	1.41
36	B2	1031	A	C2'-C1'	-5.50	1.47	1.53
85	A5	1306	C	C2'-C1'	-5.50	1.47	1.53
85	A5	4146	G	C2'-C1'	-5.50	1.47	1.53
36	B2	1443	C	O4'-C1'	5.50	1.48	1.41
36	B2	653	A	C2'-C1'	-5.49	1.47	1.53
36	B2	1150	A	C5'-C4'	5.49	1.57	1.51
85	A5	1992	U	C2'-C1'	5.49	1.59	1.53
85	A5	2805	C	O4'-C1'	5.49	1.48	1.41
85	A5	3615	G	C2'-C1'	-5.49	1.47	1.53
85	A5	2526	C	C2'-C1'	5.49	1.59	1.53
85	A5	1253	G	P-O5'	-5.49	1.54	1.59
85	A5	2588	C	P-O5'	-5.49	1.54	1.59
85	A5	4087	G	O4'-C1'	5.49	1.48	1.41
85	A5	4426	C	O4'-C1'	5.49	1.48	1.41
36	B2	959	G	O4'-C1'	5.49	1.48	1.41
85	A5	1326	A	O4'-C1'	5.49	1.48	1.41
85	A5	3725	G	C2'-C1'	-5.49	1.47	1.53
15	AB	155	TYR	CD1-CE1	-5.49	1.31	1.39
36	B2	1072	U	O4'-C1'	5.49	1.48	1.41
85	A5	3953	G	O3'-P	-5.49	1.54	1.61
86	A7	121	U	C2'-C1'	5.49	1.59	1.53
36	B2	152	U	C5'-C4'	5.48	1.57	1.51
36	B2	1827	U	C2'-C1'	-5.48	1.47	1.53
85	A5	2119	C	C2'-C1'	5.48	1.59	1.53
36	B2	1043	G	C5'-C4'	5.48	1.57	1.51
36	B2	1338	G	P-O5'	-5.48	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
38	Cz	26	ARG	C-N	5.48	1.46	1.34
52	CS	152	PHE	N-CA	-5.48	1.35	1.46
85	A5	2539	C	O4'-C1'	5.48	1.48	1.41
36	B2	858	A	O4'-C1'	5.48	1.48	1.41
85	A5	444	G	O3'-P	-5.48	1.54	1.61
85	A5	4306	U	P-O5'	-5.48	1.54	1.59
86	A7	42	A	O4'-C1'	5.48	1.48	1.41
85	A5	1318	C	C2'-C1'	-5.48	1.47	1.53
36	B2	1128	C	O3'-P	-5.48	1.54	1.61
85	A5	1282	G	C4'-C3'	5.48	1.59	1.53
85	A5	1498	G	O4'-C1'	5.48	1.48	1.41
85	A5	4982	A	C5'-C4'	5.48	1.57	1.51
36	B2	1409	A	C5'-C4'	5.47	1.57	1.51
87	A8	93	C	P-O5'	-5.47	1.54	1.59
64	CF	99	ASN	CB-CG	5.47	1.63	1.51
36	B2	679	A	C2'-C1'	-5.47	1.47	1.53
85	A5	513	U	O3'-P	-5.47	1.54	1.61
51	CA	68	ARG	CD-NE	5.47	1.55	1.46
85	A5	1522	G	O4'-C1'	-5.47	1.34	1.41
85	A5	2250	C	P-O5'	-5.47	1.54	1.59
85	A5	4925	U	O4'-C1'	5.47	1.48	1.41
36	B2	405	G	O4'-C1'	5.47	1.48	1.41
85	A5	3881	G	C2'-C1'	5.47	1.59	1.53
85	A5	915	A	C2'-C1'	-5.47	1.47	1.53
85	A5	2947	G	O3'-P	-5.47	1.54	1.61
51	CA	222	PRO	N-CD	5.46	1.55	1.47
53	CT	30	TYR	CG-CD1	-5.46	1.32	1.39
85	A5	2249	C	C2'-C1'	-5.46	1.47	1.53
36	B2	219	U	C5'-C4'	5.46	1.57	1.51
85	A5	599	C	O3'-P	-5.46	1.54	1.61
85	A5	937	U	C2'-C1'	-5.46	1.47	1.53
85	A5	1572	U	O4'-C1'	5.46	1.48	1.41
36	B2	227	U	C5'-C4'	5.46	1.57	1.51
85	A5	1664	U	O4'-C1'	5.46	1.48	1.41
85	A5	4691	A	C2'-C1'	-5.46	1.47	1.53
81	CE	115	TYR	N-CA	-5.46	1.35	1.46
85	A5	2743	A	O4'-C1'	5.46	1.48	1.41
85	A5	4956	A	C2'-C1'	-5.46	1.47	1.53
36	B2	440	G	C2'-C1'	-5.46	1.47	1.53
85	A5	260	C	C2'-C1'	-5.46	1.47	1.53
67	Ce	16	ARG	CA-C	-5.46	1.38	1.52
85	A5	4607	A	O4'-C1'	5.46	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1770	G	C5'-C4'	5.45	1.57	1.51
36	B2	335	G	C4'-C3'	5.45	1.59	1.53
36	B2	639	C	O4'-C1'	5.45	1.48	1.41
85	A5	1834	U	O3'-P	-5.45	1.54	1.61
85	A5	2605	G	P-O5'	-5.45	1.54	1.59
85	A5	5047	C	C2'-C1'	5.45	1.59	1.53
85	A5	5066	U	C2'-C1'	-5.45	1.47	1.53
36	B2	411	G	C2'-C1'	-5.45	1.47	1.53
37	BC	11	C	C2'-C1'	-5.45	1.47	1.53
85	A5	2711	G	C5'-C4'	5.45	1.57	1.51
85	A5	2813	A	O3'-P	-5.45	1.54	1.61
85	A5	2844	A	C2'-C1'	5.45	1.59	1.53
87	A8	75	G	O4'-C1'	5.45	1.48	1.41
36	B2	1786	U	C2'-C1'	-5.45	1.47	1.53
85	A5	3917	A	O4'-C1'	5.45	1.48	1.41
58	CW	71	ARG	CA-C	-5.45	1.38	1.52
85	A5	4264	G	O3'-P	-5.45	1.54	1.61
36	B2	145	G	O4'-C1'	5.45	1.48	1.41
85	A5	1576	G	C2'-C1'	5.45	1.59	1.53
85	A5	477	C	O4'-C1'	5.44	1.48	1.41
85	A5	2709	C	C2'-C1'	-5.44	1.47	1.53
85	A5	4163	U	O3'-P	-5.44	1.54	1.61
85	A5	4179	G	O3'-P	-5.44	1.54	1.61
74	CC	305	PRO	CA-C	-5.44	1.42	1.52
85	A5	4101	C	P-O5'	-5.44	1.54	1.59
85	A5	4883	C	O4'-C1'	5.44	1.48	1.41
36	B2	1200	A	C2'-C1'	-5.44	1.47	1.53
36	B2	1376	A	C3'-C2'	-5.44	1.46	1.52
36	B2	1854	U	C2'-C1'	5.44	1.59	1.53
72	Ck	62	PRO	CA-C	5.44	1.63	1.52
36	B2	244	A	C2'-C1'	5.43	1.59	1.53
36	B2	1569	A	P-O5'	-5.43	1.54	1.59
36	B2	1835	A	C2'-C1'	-5.43	1.47	1.53
85	A5	338	A	C2'-C1'	-5.43	1.47	1.53
85	A5	2327	G	C2'-C1'	-5.43	1.47	1.53
87	A8	51	U	C2'-C1'	-5.43	1.47	1.53
36	B2	34	U	C5'-C4'	5.43	1.57	1.51
85	A5	258	G	C3'-C2'	-5.43	1.46	1.52
36	B2	1374	C	C2'-C1'	-5.43	1.47	1.53
85	A5	3593	C	C2'-C1'	-5.43	1.47	1.53
85	A5	3903	A	O4'-C1'	5.43	1.48	1.41
36	B2	697	G	C2'-C1'	-5.43	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	CI	176	PHE	CE1-CZ	-5.43	1.27	1.37
85	A5	726	G	O3'-P	-5.43	1.54	1.61
85	A5	974	C	O3'-P	-5.43	1.54	1.61
85	A5	1508	A	O4'-C1'	5.43	1.48	1.41
85	A5	4727	A	C5'-C4'	5.43	1.57	1.51
36	B2	946	U	C2'-C1'	-5.43	1.47	1.53
36	B2	1092	G	O4'-C1'	5.43	1.48	1.41
47	CI	160	PRO	N-CD	5.43	1.55	1.47
85	A5	1977	C	O3'-P	-5.43	1.54	1.61
87	A8	34	U	O4'-C1'	5.43	1.48	1.41
37	BC	30	G	O3'-P	-5.42	1.54	1.61
85	A5	4773	C	C2'-C1'	-5.42	1.47	1.53
36	B2	584	A	O4'-C1'	5.42	1.48	1.41
85	A5	4718	G	C2'-C1'	-5.42	1.47	1.53
85	A5	1849	U	C2'-C1'	5.42	1.59	1.53
85	A5	1979	A	C2'-C1'	-5.42	1.47	1.53
85	A5	2263	A	C2'-C1'	5.42	1.59	1.53
36	B2	44	U	C2'-C1'	-5.42	1.47	1.53
37	BC	21	G	C2'-C1'	-5.42	1.47	1.53
85	A5	4743	G	C5'-C4'	5.42	1.57	1.51
36	B2	297	A	C5'-C4'	5.42	1.57	1.51
85	A5	1782	U	O4'-C1'	5.42	1.48	1.41
85	A5	2604	C	O4'-C1'	5.42	1.48	1.41
36	B2	437	G	C2'-C1'	-5.42	1.47	1.53
85	A5	1401	C	O4'-C1'	5.42	1.48	1.41
85	A5	4738	C	C2'-C1'	-5.42	1.47	1.53
85	A5	4726	G	O3'-P	-5.41	1.54	1.61
87	A8	53	G	O4'-C1'	5.41	1.48	1.41
36	B2	1700	C	O4'-C1'	5.41	1.48	1.41
51	CA	206	PRO	N-CD	5.41	1.55	1.47
85	A5	2634	C	O4'-C1'	5.41	1.48	1.41
85	A5	2819	U	O4'-C1'	5.41	1.48	1.41
85	A5	5049	G	C2'-C1'	5.41	1.59	1.53
85	A5	20	U	O4'-C1'	5.41	1.48	1.41
85	A5	1272	C	C5'-C4'	5.41	1.57	1.51
36	B2	1264	C	O3'-P	-5.41	1.54	1.61
36	B2	1386	A	C5'-C4'	5.41	1.57	1.51
51	CA	108	PRO	N-CD	5.41	1.55	1.47
52	CS	153	PRO	CA-C	-5.41	1.42	1.52
36	B2	494	C	C5'-C4'	5.41	1.57	1.51
85	A5	1987	C	P-O5'	-5.41	1.54	1.59
85	A5	2355	G	O4'-C1'	5.41	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2732	G	O4'-C1'	5.41	1.48	1.41
85	A5	3878	C	O3'-P	-5.41	1.54	1.61
4	AK	37	ASP	CB-CG	5.40	1.63	1.51
36	B2	189	U	O4'-C1'	5.40	1.48	1.41
85	A5	3959	U	C5'-C4'	5.40	1.57	1.51
36	B2	299	A	C3'-C2'	-5.40	1.46	1.52
36	B2	1345	G	C2'-C1'	-5.40	1.47	1.53
36	B2	1626	C	C2'-C1'	-5.40	1.47	1.53
85	A5	4307	A	O3'-P	-5.40	1.54	1.61
85	A5	269	G	C2'-C1'	-5.40	1.47	1.53
66	Cd	115	LYS	CA-C	5.40	1.67	1.52
85	A5	2920	G	C5'-C4'	5.40	1.57	1.51
36	B2	276	G	O3'-P	-5.40	1.54	1.61
36	B2	655	A	C5'-C4'	5.40	1.57	1.51
45	Ca	52	TYR	CG-CD1	-5.40	1.32	1.39
57	CY	57	VAL	C-N	-5.40	1.21	1.34
85	A5	166	C	C2'-C1'	-5.40	1.47	1.53
36	B2	583	A	O4'-C1'	5.40	1.48	1.41
85	A5	1931	C	C5'-C4'	5.40	1.57	1.51
85	A5	2751	G	C4'-C3'	5.40	1.59	1.53
36	B2	356	C	C2'-C1'	-5.39	1.47	1.53
36	B2	1508	A	O4'-C1'	-5.39	1.34	1.41
85	A5	108	A	O4'-C1'	5.39	1.48	1.41
85	A5	1316	G	O4'-C1'	5.39	1.48	1.41
26	AJ	144	ILE	C-N	5.39	1.44	1.34
60	Cr	112	ARG	CB-CG	-5.39	1.38	1.52
60	Cr	114	ALA	C-N	-5.39	1.21	1.34
74	CC	321	ASN	N-CA	-5.39	1.35	1.46
85	A5	1638	A	O4'-C1'	5.39	1.48	1.41
85	A5	3896	C	C4'-C3'	5.39	1.59	1.53
85	A5	4236	G	O4'-C1'	-5.39	1.34	1.41
85	A5	4293	U	C5'-C4'	5.39	1.57	1.51
85	A5	4361	U	O3'-P	-5.39	1.54	1.61
36	B2	421	G	C2'-C1'	-5.39	1.47	1.53
85	A5	2340	C	O3'-P	-5.39	1.54	1.61
85	A5	4971	A	C2'-C1'	-5.39	1.47	1.53
85	A5	3947	A	O4'-C1'	5.39	1.48	1.41
85	A5	4603	C	C2'-C1'	-5.39	1.47	1.53
85	A5	4734	A	O4'-C1'	5.39	1.48	1.41
85	A5	1297	U	C2'-C1'	5.38	1.59	1.53
36	B2	94	G	O3'-P	-5.38	1.54	1.61
36	B2	290	U	O3'-P	-5.38	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1291	A	C2'-C1'	5.38	1.59	1.53
69	Cg	82	MET	N-CA	-5.38	1.35	1.46
85	A5	27	C	C2'-C1'	-5.38	1.47	1.53
85	A5	1898	C	C2'-C1'	5.38	1.59	1.53
85	A5	1664	U	C2'-C1'	-5.38	1.47	1.53
85	A5	2821	U	P-O5'	-5.38	1.54	1.59
85	A5	2525	U	O4'-C1'	5.37	1.48	1.41
85	A5	4483	C	O4'-C1'	5.37	1.48	1.41
1	Az	801	ARG	NE-CZ	5.37	1.40	1.33
36	B2	636	C	P-O5'	-5.37	1.54	1.59
36	B2	805	U	C2'-C1'	-5.37	1.47	1.53
36	B2	1176	G	C2'-C1'	-5.37	1.47	1.53
36	B2	1507	G	O3'-P	-5.37	1.54	1.61
49	CQ	6	ARG	CZ-NH2	5.37	1.40	1.33
85	A5	385	A	O3'-P	-5.37	1.54	1.61
85	A5	1630	A	O4'-C1'	5.37	1.48	1.41
36	B2	73	C	O4'-C1'	5.37	1.48	1.41
81	CE	62	MET	C-N	5.37	1.46	1.34
85	A5	768	C	C5'-C4'	5.37	1.57	1.51
85	A5	3627	G	C2'-C1'	-5.37	1.47	1.53
85	A5	3979	C	P-O5'	-5.37	1.54	1.59
29	AG	180	VAL	CA-CB	-5.37	1.43	1.54
36	B2	530	U	O3'-P	-5.37	1.54	1.61
36	B2	1709	G	C2'-C1'	-5.37	1.47	1.53
85	A5	2118	G	O4'-C1'	5.37	1.48	1.41
85	A5	3760	A	O4'-C1'	-5.37	1.34	1.41
85	A5	4964	C	C5'-C4'	5.37	1.57	1.51
85	A5	2385	U	C2'-C1'	-5.37	1.47	1.53
36	B2	905	C	C2'-C1'	-5.37	1.47	1.53
81	CE	57	TYR	CA-C	-5.37	1.39	1.52
85	A5	691	C	C5'-C4'	5.37	1.57	1.51
85	A5	1429	C	P-O5'	-5.37	1.54	1.59
85	A5	2769	U	O3'-P	-5.37	1.54	1.61
85	A5	3259	C	C5'-C4'	5.37	1.57	1.51
85	A5	3741	C	O4'-C1'	5.37	1.48	1.41
85	A5	24	G	O3'-P	-5.36	1.54	1.61
85	A5	2818	C	C5'-C4'	5.36	1.57	1.51
36	B2	966	U	O4'-C1'	5.36	1.48	1.41
86	A7	53	U	C2'-C1'	5.36	1.59	1.53
37	BC	72	A	P-O5'	-5.36	1.54	1.59
47	CI	176	PHE	CE2-CZ	-5.36	1.27	1.37
44	CM	46	ARG	CA-C	-5.36	1.39	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	231	U	O4'-C1'	5.36	1.48	1.41
85	A5	1369	C	C5'-C4'	5.36	1.57	1.51
85	A5	2586	G	C4'-C3'	5.36	1.59	1.53
36	B2	983	A	O4'-C1'	5.36	1.48	1.41
36	B2	1379	A	O4'-C1'	5.36	1.48	1.41
85	A5	1642	A	C2'-C1'	-5.36	1.47	1.53
85	A5	2494	U	C5'-C4'	5.36	1.57	1.51
60	Cr	39	ARG	NE-CZ	5.35	1.40	1.33
33	AI	8	TRP	CB-CG	5.35	1.59	1.50
37	BC	23	G	C2'-C1'	-5.35	1.47	1.53
85	A5	4602	A	O4'-C1'	5.35	1.48	1.41
85	A5	4761	G	C2'-C1'	-5.35	1.47	1.53
36	B2	400	C	C5'-C4'	5.35	1.57	1.51
86	A7	17	C	C4'-C3'	5.35	1.59	1.53
36	B2	786	G	C2'-C1'	-5.35	1.47	1.53
36	B2	1662	U	C2'-C1'	-5.35	1.47	1.53
85	A5	213	G	C3'-C2'	-5.35	1.46	1.52
36	B2	1642	U	C2'-C1'	5.35	1.59	1.53
85	A5	5061	A	O3'-P	-5.35	1.54	1.61
36	B2	1134	G	C2'-C1'	-5.35	1.47	1.53
36	B2	1377	U	O4'-C1'	5.34	1.48	1.41
85	A5	3599	A	O4'-C1'	5.34	1.48	1.41
85	A5	3636	C	O3'-P	-5.34	1.54	1.61
37	BC	54	U	O4'-C1'	5.34	1.48	1.41
85	A5	1093	C	C2'-C1'	5.34	1.59	1.53
85	A5	4213	A	C4'-O4'	-5.34	1.38	1.45
48	CD	66	TYR	CG-CD1	-5.34	1.32	1.39
85	A5	1259	G	C2'-C1'	-5.34	1.47	1.53
36	B2	1394	G	C4'-O4'	5.33	1.52	1.45
59	CZ	90	PRO	N-CD	5.33	1.55	1.47
85	A5	5014	A	P-O5'	-5.33	1.54	1.59
38	Cz	210	MET	CA-C	5.33	1.66	1.52
85	A5	2408	U	O4'-C1'	5.33	1.48	1.41
85	A5	2594	C	C2'-C1'	-5.33	1.47	1.53
19	AZ	104	ARG	N-CA	-5.33	1.35	1.46
61	Ch	38	GLY	CA-C	5.33	1.60	1.51
85	A5	1272	C	O4'-C1'	5.33	1.48	1.41
85	A5	2517	A	O4'-C1'	5.33	1.48	1.41
36	B2	1713	C	C2'-C1'	-5.33	1.47	1.53
36	B2	1801	A	C5'-C4'	5.33	1.57	1.51
11	AL	20	LYS	N-CA	-5.33	1.35	1.46
58	CW	76	VAL	CB-CG2	-5.33	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
66	Cd	114	PHE	C-O	-5.33	1.13	1.23
85	A5	717	U	O4'-C1'	5.33	1.48	1.41
85	A5	2652	G	O4'-C1'	5.33	1.48	1.41
85	A5	4897	G	O4'-C1'	5.33	1.48	1.41
50	CR	89	MET	C-N	-5.33	1.24	1.34
85	A5	1360	G	C3'-O3'	-5.33	1.34	1.42
87	A8	141	C	P-O5'	-5.33	1.54	1.59
85	A5	934	C	C2'-C1'	5.33	1.59	1.53
86	A7	84	U	C2'-C1'	5.33	1.59	1.53
36	B2	756	C	C2'-C1'	-5.32	1.47	1.53
85	A5	2350	U	O4'-C1'	5.32	1.48	1.41
85	A5	3820	G	C2'-C1'	5.32	1.59	1.53
85	A5	4360	U	O3'-P	-5.32	1.54	1.61
85	A5	4424	A	O3'-P	-5.32	1.54	1.61
60	Cr	43	LEU	CG-CD1	-5.32	1.32	1.51
85	A5	986	C	C2'-C1'	-5.32	1.47	1.53
85	A5	4976	U	O4'-C1'	5.32	1.48	1.41
36	B2	428	U	O4'-C1'	-5.32	1.34	1.41
36	B2	1369	A	O4'-C1'	5.32	1.48	1.41
36	B2	1528	G	P-O5'	-5.32	1.54	1.59
49	CQ	13	VAL	CB-CG2	-5.32	1.41	1.52
85	A5	2368	A	C4'-O4'	-5.32	1.38	1.45
87	A8	147	G	O4'-C1'	5.32	1.48	1.41
80	CH	107	GLU	CD-OE2	-5.32	1.19	1.25
36	B2	1013	U	O4'-C1'	5.32	1.48	1.41
85	A5	1947	U	C4'-C3'	5.32	1.58	1.53
85	A5	4095	G	C2'-C1'	-5.32	1.47	1.53
85	A5	4402	C	C2'-C1'	-5.32	1.47	1.53
85	A5	4535	A	O4'-C1'	5.32	1.48	1.41
85	A5	4996	C	C4'-O4'	5.32	1.52	1.45
87	A8	120	G	C2'-C1'	-5.32	1.47	1.53
36	B2	1080	A	O3'-P	-5.32	1.54	1.61
36	B2	1534	C	O4'-C1'	5.32	1.48	1.41
86	A7	83	A	C5'-C4'	5.32	1.57	1.51
1	Az	266	PHE	C-N	5.31	1.46	1.34
36	B2	1714	U	O4'-C1'	5.31	1.48	1.41
85	A5	1205	G	C2'-C1'	-5.31	1.47	1.53
36	B2	1466	G	O3'-P	-5.31	1.54	1.61
85	A5	2426	U	C2'-C1'	-5.31	1.47	1.53
36	B2	290	U	C2'-C1'	5.31	1.59	1.53
36	B2	1336	C	C2'-C1'	-5.31	1.47	1.53
69	Cg	83	CYS	C-N	5.31	1.46	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1768	C	C5'-C4'	5.31	1.57	1.51
85	A5	2222	C	C5'-C4'	5.31	1.57	1.51
85	A5	5062	G	P-O5'	5.31	1.65	1.59
35	Ah	151	PHE	CD2-CE2	-5.31	1.28	1.39
74	CC	134	PRO	N-CD	5.31	1.55	1.47
85	A5	318	A	O3'-P	-5.31	1.54	1.61
7	AM	116	LYS	N-CA	5.30	1.56	1.46
36	B2	1818	A	C5'-C4'	5.30	1.57	1.51
85	A5	3964	U	O3'-P	-5.30	1.54	1.61
37	BC	48	G	C2'-C1'	-5.30	1.47	1.53
40	CK	34	PRO	N-CD	5.30	1.55	1.47
67	Ce	17	THR	CA-CB	-5.30	1.39	1.53
87	A8	119	C	C5'-C4'	5.30	1.57	1.51
85	A5	2089	G	C5'-C4'	5.30	1.57	1.51
85	A5	2385	U	C5'-C4'	5.30	1.57	1.51
85	A5	3959	U	C2'-C1'	5.30	1.59	1.53
36	B2	1145	A	C2'-C1'	5.30	1.59	1.53
85	A5	1189	G	O4'-C1'	5.30	1.48	1.41
31	AH	111	LYS	CA-CB	5.30	1.65	1.53
85	A5	1521	C	P-O5'	-5.29	1.54	1.59
10	AN	136	PRO	N-CD	5.29	1.55	1.47
36	B2	45	A	C2'-C1'	-5.29	1.47	1.53
36	B2	470	G	O4'-C1'	5.29	1.48	1.41
36	B2	1632	G	O4'-C1'	-5.29	1.34	1.41
85	A5	3760	A	C2'-C1'	-5.29	1.47	1.53
85	A5	1566	C	C5'-C4'	5.29	1.57	1.51
85	A5	2563	C	C2'-C1'	-5.29	1.47	1.53
28	AC	197	PRO	N-CD	5.29	1.55	1.47
36	B2	275	C	C5'-C4'	5.29	1.57	1.51
36	B2	843	C	O3'-P	-5.29	1.54	1.61
36	B2	1433	C	O3'-P	5.29	1.67	1.61
47	CI	2	GLY	CA-C	5.29	1.60	1.51
85	A5	293	G	O4'-C1'	5.29	1.48	1.41
85	A5	1518	A	C2'-C1'	5.29	1.59	1.53
85	A5	4191	G	C2'-C1'	-5.29	1.47	1.53
85	A5	4639	G	O4'-C1'	5.29	1.48	1.41
85	A5	4736	C	C2'-C1'	-5.29	1.47	1.53
87	A8	110	U	O3'-P	5.29	1.67	1.61
85	A5	1735	U	O4'-C1'	5.29	1.48	1.41
85	A5	1598	C	P-O5'	-5.29	1.54	1.59
85	A5	2673	G	O4'-C1'	-5.29	1.34	1.41
85	A5	2879	A	C2'-C1'	5.29	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1098	C	O4'-C1'	5.28	1.48	1.41
85	A5	2523	G	O4'-C1'	-5.28	1.34	1.41
86	A7	29	C	P-O5'	-5.28	1.54	1.59
87	A8	82	A	O4'-C1'	-5.28	1.34	1.41
85	A5	1504	G	O3'-P	-5.28	1.54	1.61
29	AG	169	PRO	N-CD	5.28	1.55	1.47
36	B2	1672	U	O4'-C1'	5.28	1.48	1.41
85	A5	4903	G	C5'-C4'	5.28	1.57	1.51
36	B2	90	G	O4'-C1'	5.28	1.48	1.41
85	A5	1487	G	O4'-C1'	5.28	1.48	1.41
85	A5	1523	A	O4'-C1'	5.28	1.48	1.41
36	B2	140	C	C2'-C1'	-5.28	1.47	1.53
85	A5	3264	C	C5'-C4'	5.28	1.57	1.51
85	A5	1169	G	P-O5'	-5.27	1.54	1.59
36	B2	563	G	C5'-C4'	5.27	1.57	1.51
58	CW	72	THR	CA-C	5.27	1.66	1.52
74	CC	322	LEU	C-N	5.27	1.46	1.34
85	A5	3929	G	O3'-P	-5.27	1.54	1.61
1	Az	4	PHE	CD1-CE1	-5.27	1.28	1.39
36	B2	832	G	C2'-C1'	-5.27	1.47	1.53
85	A5	2848	G	P-O5'	-5.27	1.54	1.59
85	A5	4869	U	O4'-C1'	5.27	1.48	1.41
30	AF	130	ARG	N-CA	5.27	1.56	1.46
36	B2	317	C	C2'-C1'	-5.27	1.47	1.53
36	B2	346	C	P-O5'	-5.27	1.54	1.59
36	B2	693	A	C4'-O4'	5.27	1.52	1.45
36	B2	1306	U	C2'-C1'	-5.27	1.47	1.53
59	CZ	50	PRO	N-CD	5.27	1.55	1.47
85	A5	3665	G	O4'-C1'	5.27	1.48	1.41
85	A5	4726	G	O4'-C1'	5.27	1.48	1.41
36	B2	221	A	C2'-C1'	-5.27	1.47	1.53
85	A5	216	C	O4'-C1'	5.27	1.48	1.41
85	A5	1870	C	C2'-C1'	-5.27	1.47	1.53
36	B2	98	C	C4'-C3'	5.26	1.58	1.53
85	A5	1087	A	O4'-C1'	5.26	1.48	1.41
85	A5	1950	U	C2'-C1'	-5.26	1.47	1.53
85	A5	80	C	O3'-P	-5.26	1.54	1.61
85	A5	4944	C	P-O5'	-5.26	1.54	1.59
36	B2	139	C	O3'-P	-5.26	1.54	1.61
36	B2	1318	G	C2'-C1'	-5.26	1.47	1.53
36	B2	1782	G	C5'-C4'	5.26	1.57	1.51
85	A5	1919	G	C2'-C1'	-5.26	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	2449	A	C5'-C4'	5.26	1.57	1.51
85	A5	3964	U	C5'-C4'	5.26	1.57	1.51
85	A5	1653	A	C5'-C4'	5.26	1.57	1.51
85	A5	3629	A	C2'-C1'	-5.26	1.47	1.53
85	A5	4127	A	O4'-C1'	-5.26	1.34	1.41
68	Cf	6	TRP	C-N	5.26	1.46	1.34
85	A5	1166	G	O4'-C1'	5.26	1.48	1.41
36	B2	397	G	O4'-C1'	5.26	1.48	1.41
36	B2	1152	U	O4'-C1'	5.26	1.48	1.41
36	B2	1399	C	C2'-C1'	-5.26	1.47	1.53
85	A5	485	C	C2'-C1'	-5.26	1.47	1.53
85	A5	2715	G	C2'-C1'	-5.26	1.47	1.53
36	B2	1654	G	C2'-C1'	-5.25	1.47	1.53
81	CE	128	HIS	N-CA	-5.25	1.35	1.46
85	A5	3664	G	P-O5'	-5.25	1.54	1.59
85	A5	1322	A	O3'-P	-5.25	1.54	1.61
85	A5	4364	G	P-O5'	-5.25	1.54	1.59
87	A8	81	C	O4'-C1'	-5.25	1.34	1.41
36	B2	871	U	C3'-O3'	5.25	1.49	1.42
36	B2	1123	C	O4'-C1'	5.25	1.48	1.41
41	CO	131	PRO	N-CD	5.25	1.55	1.47
85	A5	1247	U	O4'-C1'	5.25	1.48	1.41
85	A5	1415	G	C4'-C3'	5.25	1.58	1.53
85	A5	3839	G	C2'-C1'	-5.25	1.47	1.53
85	A5	4976	U	P-O5'	-5.25	1.54	1.59
36	B2	21	U	O4'-C1'	5.25	1.48	1.41
36	B2	287	U	C5'-C4'	5.25	1.57	1.51
77	Cp	91	ASP	CB-CG	-5.25	1.40	1.51
85	A5	3859	G	C2'-C1'	-5.25	1.47	1.53
85	A5	918	G	C2'-C1'	-5.25	1.47	1.53
85	A5	1259	G	O3'-P	-5.25	1.54	1.61
85	A5	1500	A	C2'-C1'	-5.25	1.47	1.53
85	A5	2009	A	O3'-P	-5.25	1.54	1.61
85	A5	4372	U	C5'-C4'	5.25	1.57	1.51
36	B2	83	A	O4'-C1'	5.25	1.48	1.41
36	B2	1171	G	O3'-P	-5.25	1.54	1.61
49	CQ	142	PRO	N-CD	5.25	1.55	1.47
60	Cr	106	LEU	N-CA	-5.25	1.35	1.46
85	A5	2275	G	O3'-P	-5.25	1.54	1.61
85	A5	4377	G	O4'-C1'	-5.25	1.34	1.41
36	B2	1798	C	C5'-C4'	5.24	1.57	1.51
85	A5	3682	A	C2'-C1'	-5.24	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4698	C	C5'-C4'	5.24	1.57	1.51
36	B2	1606	G	O4'-C1'	-5.24	1.34	1.41
85	A5	731	G	O4'-C1'	5.24	1.48	1.41
85	A5	962	C	C2'-C1'	-5.24	1.47	1.53
85	A5	4202	U	O4'-C1'	5.24	1.48	1.41
85	A5	4882	U	C2'-C1'	5.24	1.59	1.53
44	CM	69	HIS	N-CA	-5.24	1.35	1.46
85	A5	2734	U	O4'-C1'	5.24	1.48	1.41
36	B2	527	C	O4'-C1'	5.24	1.48	1.41
36	B2	734	C	O3'-P	-5.24	1.54	1.61
36	B2	1268	C	P-O5'	-5.24	1.54	1.59
85	A5	2388	A	C2'-C1'	-5.24	1.47	1.53
85	A5	4175	G	C2'-C1'	-5.24	1.47	1.53
85	A5	4234	A	C5'-C4'	5.24	1.57	1.51
36	B2	587	A	C2'-C1'	-5.23	1.47	1.53
36	B2	1735	A	C2'-C1'	-5.23	1.47	1.53
85	A5	1442	C	C2'-C1'	-5.23	1.47	1.53
85	A5	1814	C	O4'-C1'	5.23	1.48	1.41
85	A5	2681	G	C5'-C4'	5.23	1.57	1.51
26	AJ	89	GLU	CG-CD	-5.23	1.44	1.51
36	B2	1422	G	C2'-C1'	5.23	1.59	1.53
85	A5	642	G	O3'-P	-5.23	1.54	1.61
85	A5	1277	G	O4'-C1'	5.23	1.48	1.41
85	A5	1429	C	C3'-O3'	5.23	1.49	1.42
85	A5	2414	G	O3'-P	-5.23	1.54	1.61
85	A5	4495	G	O4'-C1'	5.23	1.48	1.41
37	BC	13	C	O4'-C1'	5.23	1.48	1.41
85	A5	2477	A	O4'-C1'	5.23	1.48	1.41
85	A5	4312	U	O4'-C1'	5.23	1.48	1.41
85	A5	4526	U	C5'-C4'	5.23	1.57	1.51
85	A5	4972	U	O3'-P	-5.23	1.54	1.61
85	A5	1416	G	O4'-C1'	5.23	1.48	1.41
36	B2	336	A	C2'-C1'	5.23	1.59	1.53
36	B2	1538	C	O3'-P	-5.23	1.54	1.61
85	A5	1401	C	C2'-C1'	5.23	1.59	1.53
85	A5	2325	C	C2'-C1'	-5.23	1.47	1.53
85	A5	2900	U	O4'-C1'	5.23	1.48	1.41
85	A5	3900	G	C2'-C1'	-5.23	1.47	1.53
85	A5	2568	C	C2'-C1'	-5.23	1.47	1.53
87	A8	6	C	C5'-C4'	5.22	1.57	1.51
36	B2	1528	G	C5'-C4'	-5.22	1.45	1.51
85	A5	85	G	C2'-C1'	-5.22	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	271	C	P-O5'	-5.22	1.54	1.59
39	Cq	24	TYR	N-CA	5.22	1.56	1.46
85	A5	192	G	C2'-C1'	-5.22	1.47	1.53
85	A5	4185	G	C2'-C1'	-5.22	1.47	1.53
36	B2	82	G	O3'-P	-5.22	1.54	1.61
36	B2	1367	U	C2'-C1'	-5.22	1.47	1.53
36	B2	1420	G	O4'-C1'	5.22	1.48	1.41
42	CL	128	PRO	N-CD	5.22	1.55	1.47
85	A5	78	U	O4'-C1'	5.22	1.48	1.41
85	A5	955	G	C5'-C4'	5.22	1.57	1.51
85	A5	1531	U	C2'-C1'	-5.22	1.47	1.53
85	A5	1605	G	P-O5'	-5.22	1.54	1.59
85	A5	1693	U	O3'-P	-5.22	1.54	1.61
85	A5	1908	A	C5'-C4'	5.22	1.57	1.51
85	A5	2904	U	C2'-C1'	5.22	1.59	1.53
85	A5	4644	G	C2'-C1'	-5.22	1.47	1.53
85	A5	4722	G	O3'-P	-5.22	1.54	1.61
36	B2	1543	U	O4'-C1'	5.22	1.48	1.41
85	A5	2734	U	C2'-C1'	-5.22	1.47	1.53
36	B2	78	C	C3'-C2'	5.22	1.58	1.52
36	B2	370	G	C4'-C3'	5.22	1.58	1.53
36	B2	1614	A	P-O5'	-5.22	1.54	1.59
85	A5	1621	A	O4'-C1'	5.22	1.48	1.41
85	A5	2887	U	O4'-C1'	-5.22	1.34	1.41
85	A5	3959	U	C4'-C3'	5.21	1.58	1.53
85	A5	489	C	C2'-C1'	-5.21	1.47	1.53
85	A5	1261	G	C2'-C1'	-5.21	1.47	1.53
85	A5	2265	G	O3'-P	-5.21	1.54	1.61
36	B2	1172	U	O3'-P	-5.21	1.54	1.61
36	B2	1772	C	C3'-C2'	-5.21	1.47	1.52
60	Cr	36	ASN	C-N	5.21	1.46	1.34
85	A5	1750	G	O4'-C1'	5.21	1.48	1.41
85	A5	3707	U	C5'-C4'	5.21	1.57	1.51
36	B2	672	A	C4'-C3'	5.21	1.58	1.53
85	A5	3919	C	C2'-C1'	-5.21	1.47	1.53
36	B2	921	G	O4'-C1'	5.20	1.48	1.41
36	B2	1641	A	O3'-P	-5.20	1.54	1.61
36	B2	1643	U	C2'-C1'	-5.20	1.47	1.53
57	CY	62	TYR	CE1-CZ	-5.20	1.31	1.38
82	CG	108	GLN	C-N	-5.20	1.22	1.34
85	A5	109	G	O4'-C1'	5.20	1.48	1.41
36	B2	1767	C	C4'-C3'	5.20	1.58	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	936	G	C5'-C4'	5.20	1.57	1.51
66	Cd	111	VAL	CB-CG1	-5.20	1.42	1.52
85	A5	212	A	O4'-C1'	5.20	1.48	1.41
85	A5	420	A	O4'-C1'	5.20	1.48	1.41
85	A5	2747	U	C4'-C3'	5.20	1.58	1.53
85	A5	4075	U	O3'-P	-5.20	1.54	1.61
87	A8	142	U	C2'-C1'	5.20	1.59	1.53
38	Cz	27	LYS	C-N	5.20	1.46	1.34
85	A5	1445	U	C2'-C1'	-5.20	1.47	1.53
85	A5	4089	G	O3'-P	-5.20	1.54	1.61
85	A5	2526	C	O3'-P	-5.20	1.54	1.61
85	A5	4197	G	O4'-C1'	5.20	1.48	1.41
36	B2	359	U	C5'-C4'	5.20	1.57	1.51
57	CY	43	ASN	N-CA	-5.20	1.35	1.46
85	A5	1049	C	C5'-C4'	5.20	1.57	1.51
85	A5	1899	G	P-O5'	-5.20	1.54	1.59
86	A7	41	G	O3'-P	-5.20	1.54	1.61
85	A5	1369	C	O4'-C1'	5.19	1.48	1.41
47	CI	194	GLY	C-N	-5.19	1.22	1.34
85	A5	698	G	C2'-C1'	-5.19	1.47	1.53
85	A5	2239	C	P-O5'	-5.19	1.54	1.59
36	B2	1210	G	O4'-C1'	-5.19	1.34	1.41
36	B2	1236	G	C4'-C3'	-5.19	1.47	1.52
85	A5	279	A	P-O5'	-5.19	1.54	1.59
36	B2	1568	C	C5'-C4'	5.19	1.57	1.51
85	A5	3949	A	O4'-C1'	5.19	1.48	1.41
6	AX	139	GLU	CB-CG	5.19	1.62	1.52
36	B2	112	U	C2'-C1'	5.19	1.59	1.53
36	B2	882	U	C4'-C3'	5.19	1.58	1.53
36	B2	1068	G	C2'-C1'	-5.19	1.47	1.53
73	Cl	37	TYR	CG-CD2	-5.19	1.32	1.39
85	A5	1306	C	O4'-C1'	5.19	1.48	1.41
85	A5	2311	C	O3'-P	-5.19	1.54	1.61
85	A5	2685	C	P-O5'	-5.19	1.54	1.59
1	Az	478	PHE	CD2-CE2	-5.19	1.28	1.39
86	A7	51	G	P-O5'	5.19	1.65	1.59
19	AZ	104	ARG	CG-CD	5.18	1.65	1.51
39	Cq	68	HIS	C-N	5.18	1.46	1.34
53	CT	80	VAL	CA-C	5.18	1.66	1.52
85	A5	2456	G	O3'-P	-5.18	1.54	1.61
85	A5	2677	G	O4'-C1'	5.18	1.48	1.41
15	AB	41	ILE	N-CA	-5.18	1.35	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	CE	126	LEU	CA-C	-5.18	1.39	1.52
85	A5	1097	C	C5'-C4'	5.18	1.57	1.51
85	A5	1415	G	C5'-C4'	5.18	1.57	1.51
85	A5	2828	U	C5'-C4'	5.18	1.57	1.51
85	A5	4284	C	C4'-C3'	5.18	1.58	1.53
85	A5	5059	C	C2'-C1'	-5.18	1.47	1.53
85	A5	2865	U	O4'-C1'	5.18	1.48	1.41
4	AK	35	LEU	N-CA	-5.18	1.35	1.46
36	B2	112	U	O3'-P	-5.18	1.54	1.61
85	A5	3825	A	O4'-C1'	5.18	1.48	1.41
36	B2	607	U	O4'-C1'	5.18	1.48	1.41
36	B2	1853	C	P-O5'	-5.18	1.54	1.59
85	A5	4972	U	C2'-C1'	-5.18	1.47	1.53
37	BC	72	A	O4'-C1'	5.17	1.48	1.41
36	B2	795	A	O4'-C1'	5.17	1.48	1.41
85	A5	2724	G	C5'-C4'	5.17	1.57	1.51
36	B2	865	A	C5'-C4'	5.17	1.57	1.51
36	B2	102	A	O3'-P	-5.17	1.54	1.61
36	B2	1685	U	C2'-C1'	-5.17	1.47	1.53
36	B2	1161	U	C2'-C1'	5.17	1.59	1.53
45	Ca	52	TYR	CE2-CZ	-5.17	1.31	1.38
85	A5	4695	C	O3'-P	-5.17	1.54	1.61
49	CQ	91	ARG	N-CA	-5.17	1.36	1.46
85	A5	3768	U	C2'-C1'	-5.17	1.47	1.53
12	AR	89	SER	N-CA	5.16	1.56	1.46
36	B2	739	C	O3'-P	-5.16	1.54	1.61
48	CD	43	LYS	CA-CB	-5.16	1.42	1.53
85	A5	2057	A	C2'-C1'	-5.16	1.47	1.53
17	AV	31	SER	C-N	5.16	1.46	1.34
20	Aa	97	PRO	CA-C	5.16	1.63	1.52
85	A5	1434	G	O4'-C1'	5.16	1.48	1.41
36	B2	857	U	P-O5'	5.16	1.65	1.59
85	A5	3803	A	C5'-C4'	5.16	1.57	1.51
36	B2	202	G	P-O5'	-5.16	1.54	1.59
85	A5	4248	A	O4'-C1'	5.16	1.48	1.41
36	B2	982	G	C2'-C1'	-5.16	1.47	1.53
85	A5	347	A	O4'-C1'	5.16	1.48	1.41
36	B2	1203	G	O4'-C1'	5.16	1.48	1.41
85	A5	187	U	C2'-C1'	-5.15	1.47	1.53
85	A5	468	U	C2'-C1'	5.15	1.59	1.53
85	A5	2687	U	O4'-C1'	5.15	1.48	1.41
46	CN	127	TYR	CE2-CZ	-5.15	1.31	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	329	A	C5'-C4'	5.15	1.57	1.51
85	A5	1052	G	O3'-P	-5.15	1.54	1.61
85	A5	1425	G	C5'-C4'	5.15	1.57	1.51
51	CA	197	PRO	N-CD	5.15	1.55	1.47
36	B2	220	U	P-O5'	-5.15	1.54	1.59
85	A5	2516	G	C2'-C1'	-5.15	1.47	1.53
85	A5	2581	A	O3'-P	-5.15	1.54	1.61
36	B2	1315	U	C2'-C1'	5.15	1.59	1.53
54	CP	138	PRO	N-CD	5.14	1.55	1.47
85	A5	2647	A	C2'-C1'	-5.14	1.47	1.53
53	CT	24	VAL	CA-CB	-5.14	1.44	1.54
85	A5	176	G	O4'-C1'	5.14	1.48	1.41
85	A5	3883	U	O4'-C1'	5.14	1.48	1.41
85	A5	4614	G	C4'-C3'	5.14	1.58	1.53
85	A5	4961	G	C2'-C1'	-5.14	1.47	1.53
85	A5	2466	G	O4'-C1'	5.14	1.48	1.41
36	B2	1384	C	O4'-C1'	5.14	1.48	1.41
36	B2	1623	A	C4'-C3'	-5.14	1.47	1.52
85	A5	2047	A	C5'-C4'	5.14	1.57	1.51
85	A5	2750	G	O4'-C1'	5.14	1.48	1.41
85	A5	2939	G	O3'-P	-5.14	1.54	1.61
36	B2	800	U	C4'-C3'	-5.14	1.47	1.52
85	A5	33	A	O3'-P	-5.14	1.54	1.61
85	A5	2088	A	O3'-P	-5.14	1.54	1.61
85	A5	4484	A	C2'-C1'	-5.14	1.47	1.53
85	A5	4636	U	C2'-C1'	5.14	1.59	1.53
36	B2	1074	C	O4'-C1'	5.13	1.48	1.41
85	A5	111	C	O3'-P	-5.13	1.54	1.61
85	A5	968	C	O4'-C1'	5.13	1.48	1.41
85	A5	951	G	O3'-P	-5.13	1.54	1.61
36	B2	1283	C	O3'-P	-5.13	1.54	1.61
36	B2	1343	U	O3'-P	-5.13	1.54	1.61
37	BC	2	G	O3'-P	-5.13	1.54	1.61
85	A5	84	A	O4'-C1'	5.13	1.48	1.41
85	A5	1389	U	O4'-C1'	5.13	1.48	1.41
85	A5	1595	G	C2'-C1'	-5.13	1.47	1.53
85	A5	2737	C	O3'-P	-5.13	1.54	1.61
85	A5	4986	G	C2'-C1'	5.13	1.58	1.53
36	B2	1421	A	O4'-C1'	5.13	1.48	1.41
36	B2	1852	C	C2'-C1'	-5.13	1.47	1.53
36	B2	553	U	P-O5'	-5.13	1.54	1.59
85	A5	2453	A	P-O5'	-5.13	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	4967	A	O4'-C1'	5.13	1.48	1.41
85	A5	3941	G	C5'-C4'	5.12	1.57	1.51
85	A5	4996	C	C5'-C4'	5.12	1.57	1.51
4	AK	93	THR	CA-C	5.12	1.66	1.52
36	B2	1464	C	O3'-P	-5.12	1.55	1.61
85	A5	759	G	O4'-C1'	-5.12	1.34	1.41
85	A5	1207	C	C5'-C4'	5.12	1.57	1.51
85	A5	1241	C	C5'-C4'	5.12	1.57	1.51
85	A5	4730	C	P-O5'	5.12	1.64	1.59
36	B2	151	C	C2'-C1'	-5.12	1.47	1.53
36	B2	1718	G	P-O5'	-5.12	1.54	1.59
61	Ch	115	PRO	N-CD	5.12	1.55	1.47
85	A5	3740	G	C5'-C4'	5.12	1.57	1.51
6	AX	115	ILE	CA-C	-5.12	1.39	1.52
36	B2	669	A	O3'-P	-5.12	1.55	1.61
85	A5	4081	G	C2'-C1'	-5.12	1.47	1.53
85	A5	4699	U	O3'-P	-5.12	1.55	1.61
85	A5	1549	G	O4'-C1'	5.12	1.48	1.41
85	A5	3568	G	C4'-C3'	5.12	1.58	1.53
85	A5	5003	U	C5'-C4'	5.12	1.57	1.51
85	A5	637	G	O4'-C1'	5.12	1.48	1.41
85	A5	1222	A	C2'-C1'	5.12	1.58	1.53
85	A5	1611	C	C2'-C1'	5.12	1.58	1.53
85	A5	1662	C	C5'-C4'	5.12	1.57	1.51
85	A5	2657	G	C2'-C1'	-5.12	1.47	1.53
85	A5	3711	A	O4'-C1'	-5.12	1.35	1.41
74	CC	4	ALA	C-N	5.11	1.45	1.34
36	B2	95	G	O4'-C1'	5.11	1.48	1.41
36	B2	1814	G	C5'-C4'	5.11	1.57	1.51
85	A5	2080	U	O4'-C1'	5.11	1.48	1.41
85	A5	4322	G	O4'-C1'	5.11	1.48	1.41
36	B2	577	U	C2'-C1'	-5.11	1.47	1.53
36	B2	1332	A	P-O5'	-5.11	1.54	1.59
65	Cc	88	TYR	CE2-CZ	-5.11	1.31	1.38
85	A5	297	U	O4'-C1'	5.11	1.48	1.41
85	A5	3863	C	O3'-P	-5.11	1.55	1.61
36	B2	1424	G	C5'-C4'	5.11	1.57	1.51
36	B2	821	G	C2'-C1'	5.11	1.58	1.53
36	B2	1060	A	C2'-C1'	-5.11	1.47	1.53
36	B2	1691	U	C2'-C1'	-5.11	1.47	1.53
85	A5	1162	G	C2'-C1'	-5.11	1.47	1.53
85	A5	3896	C	O3'-P	-5.11	1.55	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1607	A	O4'-C1'	5.10	1.48	1.41
85	A5	1142	G	C4'-C3'	5.10	1.58	1.53
85	A5	1679	A	O4'-C1'	5.10	1.48	1.41
85	A5	4309	G	C5'-C4'	5.10	1.57	1.51
58	CW	24	THR	N-CA	-5.10	1.36	1.46
85	A5	1294	A	P-O5'	-5.10	1.54	1.59
85	A5	3933	G	C2'-C1'	-5.10	1.47	1.53
36	B2	1343	U	C2'-C1'	-5.10	1.47	1.53
85	A5	1231	C	O4'-C1'	5.10	1.48	1.41
85	A5	4668	U	O3'-P	-5.10	1.55	1.61
36	B2	1348	G	O3'-P	-5.10	1.55	1.61
37	BC	33	C	C2'-C1'	-5.10	1.47	1.53
53	CT	13	TYR	CE1-CZ	-5.10	1.31	1.38
85	A5	1197	C	O4'-C1'	5.10	1.48	1.41
85	A5	3702	A	C2'-C1'	-5.10	1.47	1.53
85	A5	4572	U	O4'-C1'	5.10	1.48	1.41
36	B2	1348	G	C2'-C1'	5.10	1.58	1.53
45	Ca	52	TYR	CD2-CE2	-5.10	1.31	1.39
48	CD	12	TYR	CE2-CZ	-5.10	1.31	1.38
54	CP	110	ASP	CA-C	-5.10	1.39	1.52
85	A5	3682	A	C5'-C4'	5.10	1.57	1.51
85	A5	3705	G	O3'-P	-5.10	1.55	1.61
85	A5	3823	G	C5'-C4'	5.10	1.57	1.51
11	AL	152	LYS	C-N	5.09	1.45	1.34
36	B2	1033	G	O3'-P	-5.09	1.55	1.61
85	A5	4311	A	C2'-C1'	5.09	1.58	1.53
85	A5	1274	A	C2'-C1'	5.09	1.58	1.53
85	A5	1881	C	C2'-C1'	-5.09	1.47	1.53
85	A5	713	C	O4'-C1'	5.09	1.48	1.41
36	B2	552	G	O4'-C1'	5.09	1.48	1.41
85	A5	1940	G	C5'-C4'	5.09	1.57	1.51
85	A5	2516	G	C5'-C4'	5.09	1.57	1.51
86	A7	106	G	O4'-C1'	-5.09	1.35	1.41
1	Az	794	PHE	CD2-CE2	-5.09	1.29	1.39
15	AB	155	TYR	CD2-CE2	-5.09	1.31	1.39
85	A5	3954	A	C2'-C1'	-5.09	1.47	1.53
85	A5	4448	G	O4'-C1'	5.09	1.48	1.41
36	B2	271	C	C4'-C3'	5.09	1.58	1.53
36	B2	471	G	C2'-C1'	5.09	1.58	1.53
36	B2	629	A	C5'-C4'	5.09	1.57	1.51
85	A5	1547	A	C2'-C1'	5.09	1.58	1.53
85	A5	4191	G	O3'-P	-5.09	1.55	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1152	G	O3'-P	-5.08	1.55	1.61
85	A5	114	G	O4'-C1'	5.08	1.48	1.41
85	A5	5035	U	C2'-C1'	-5.08	1.47	1.53
53	CT	137	GLU	CD-OE1	-5.08	1.20	1.25
85	A5	287	U	C2'-C1'	-5.08	1.47	1.53
85	A5	516	C	C4'-C3'	5.08	1.58	1.53
85	A5	3737	A	C2'-C1'	-5.08	1.47	1.53
85	A5	4160	C	O3'-P	-5.08	1.55	1.61
36	B2	1246	A	C2'-C1'	-5.08	1.47	1.53
85	A5	1590	C	C5'-C4'	5.08	1.57	1.51
85	A5	2268	A	C2'-C1'	-5.08	1.47	1.53
19	AZ	103	HIS	C-N	-5.08	1.22	1.34
36	B2	1106	C	C5'-C4'	5.08	1.57	1.51
85	A5	2885	A	O4'-C1'	5.08	1.48	1.41
85	A5	4273	A	C5'-C4'	5.08	1.57	1.51
85	A5	4296	U	C2'-C1'	-5.08	1.47	1.53
87	A8	155	C	P-O5'	-5.08	1.54	1.59
42	CL	4	SER	N-CA	-5.08	1.36	1.46
85	A5	3290	G	C4'-C3'	5.08	1.58	1.53
8	AS	6	PRO	N-CA	5.07	1.55	1.47
36	B2	1181	A	C5'-C4'	5.07	1.57	1.51
49	CQ	12	LYS	N-CA	-5.07	1.36	1.46
74	CC	25	PRO	N-CD	5.07	1.54	1.47
85	A5	1095	A	O4'-C1'	5.07	1.48	1.41
85	A5	4145	C	C5'-C4'	5.07	1.57	1.51
36	B2	1102	G	O4'-C1'	5.07	1.48	1.41
52	CS	20	PRO	CA-C	-5.07	1.42	1.52
85	A5	2883	G	O4'-C1'	5.07	1.48	1.41
36	B2	746	C	O4'-C1'	5.07	1.48	1.41
36	B2	799	U	O4'-C1'	5.07	1.48	1.41
36	B2	967	C	O4'-C1'	5.07	1.48	1.41
36	B2	1227	G	C5'-C4'	5.07	1.57	1.51
85	A5	1877	G	C5'-C4'	5.07	1.57	1.51
87	A8	29	G	C4'-C3'	5.07	1.58	1.53
36	B2	1362	U	O4'-C1'	-5.07	1.35	1.41
36	B2	1494	U	O4'-C1'	-5.07	1.35	1.41
39	Cq	127	ASN	CA-C	-5.07	1.39	1.52
78	Co	67	VAL	C-N	5.07	1.45	1.34
81	CE	27	VAL	CA-C	-5.07	1.39	1.52
85	A5	2595	C	C2'-C1'	-5.07	1.47	1.53
37	BC	59	A	O4'-C1'	5.07	1.48	1.41
41	CO	4	VAL	CB-CG2	-5.07	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A5	1732	C	O4'-C1'	5.07	1.48	1.41
85	A5	2012	A	C5'-C4'	5.07	1.57	1.51
85	A5	3672	G	C5'-C4'	5.07	1.57	1.51
36	B2	691	G	C2'-C1'	-5.07	1.47	1.53
36	B2	855	G	O3'-P	-5.07	1.55	1.61
36	B2	955	A	C5'-C4'	5.07	1.57	1.51
85	A5	1071	C	C4'-C3'	5.07	1.58	1.53
85	A5	3821	A	C2'-C1'	5.07	1.58	1.53
85	A5	906	C	C5'-C4'	5.06	1.57	1.51
85	A5	1807	C	C2'-C1'	-5.06	1.47	1.53
85	A5	3874	G	C2'-C1'	-5.06	1.47	1.53
31	AH	118	ARG	CA-CB	-5.06	1.42	1.53
85	A5	1391	A	P-O5'	-5.06	1.54	1.59
85	A5	3908	A	C2'-C1'	-5.06	1.47	1.53
36	B2	404	G	C5'-C4'	5.06	1.57	1.51
85	A5	1530	G	C2'-C1'	-5.06	1.47	1.53
85	A5	2059	C	O3'-P	-5.06	1.55	1.61
85	A5	2643	G	C2'-C1'	-5.06	1.47	1.53
39	Cq	234	VAL	CA-CB	-5.06	1.44	1.54
85	A5	1184	A	O4'-C1'	5.06	1.48	1.41
85	A5	1848	C	C2'-C1'	-5.06	1.47	1.53
85	A5	2404	A	C2'-C1'	-5.06	1.47	1.53
85	A5	2781	G	P-O5'	-5.06	1.54	1.59
87	A8	40	A	O4'-C1'	5.06	1.48	1.41
36	B2	113	G	C4'-C3'	5.06	1.58	1.53
85	A5	346	G	C4'-C3'	5.06	1.58	1.53
85	A5	2516	G	O4'-C1'	5.06	1.48	1.41
36	B2	307	G	O3'-P	-5.05	1.55	1.61
63	CB	83	PRO	N-CD	5.05	1.54	1.47
85	A5	3715	U	P-O5'	-5.05	1.54	1.59
74	CC	266	THR	CA-C	-5.05	1.39	1.52
36	B2	1753	C	C2'-C1'	-5.05	1.47	1.53
85	A5	86	U	O3'-P	-5.05	1.55	1.61
85	A5	5020	G	O4'-C1'	5.05	1.48	1.41
36	B2	682	U	P-O5'	-5.05	1.54	1.59
36	B2	1774	C	O4'-C1'	5.05	1.48	1.41
37	BC	18	G	C2'-C1'	-5.05	1.47	1.53
53	CT	30	TYR	CD1-CE1	-5.05	1.31	1.39
81	CE	126	LEU	N-CA	5.05	1.56	1.46
85	A5	71	C	O4'-C1'	-5.05	1.35	1.41
85	A5	1170	G	C2'-C1'	-5.05	1.47	1.53
85	A5	1751	A	C5'-C4'	5.05	1.57	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
87	A8	151	G	C2'-C1'	5.05	1.58	1.53
36	B2	116	U	O4'-C1'	5.04	1.48	1.41
36	B2	370	G	O3'-P	-5.04	1.55	1.61
40	CK	30	PRO	CA-C	-5.04	1.42	1.52
85	A5	1032	U	O3'-P	-5.04	1.55	1.61
85	A5	2756	G	C4'-C3'	5.04	1.58	1.53
85	A5	3656	A	O3'-P	-5.04	1.55	1.61
85	A5	3955	G	P-O5'	-5.04	1.54	1.59
85	A5	68	U	P-O5'	-5.04	1.54	1.59
85	A5	639	U	O4'-C1'	5.04	1.48	1.41
49	CQ	7	HIS	CA-C	5.04	1.66	1.52
85	A5	4229	U	C2'-C1'	-5.04	1.47	1.53
19	AZ	104	ARG	CB-CG	-5.04	1.39	1.52
36	B2	1551	U	O3'-P	-5.04	1.55	1.61
60	Cr	106	LEU	C-N	5.04	1.45	1.34
85	A5	83	C	C2'-C1'	-5.04	1.47	1.53
14	AT	82	ARG	CD-NE	5.04	1.55	1.46
36	B2	982	G	C5'-C4'	5.04	1.57	1.51
85	A5	651	C	O4'-C1'	5.04	1.48	1.41
85	A5	4068	U	C3'-O3'	5.04	1.49	1.42
85	A5	4589	A	O4'-C1'	5.04	1.48	1.41
85	A5	4744	A	C2'-C1'	-5.04	1.47	1.53
36	B2	1781	A	C5'-C4'	5.03	1.57	1.51
85	A5	182	G	C5'-C4'	5.03	1.57	1.51
85	A5	4531	U	C2'-C1'	-5.03	1.47	1.53
85	A5	4623	G	O4'-C1'	5.03	1.48	1.41
36	B2	404	G	O4'-C1'	-5.03	1.35	1.41
36	B2	677	G	O4'-C1'	5.03	1.48	1.41
85	A5	4212	A	C2'-C1'	-5.03	1.47	1.53
85	A5	4670	C	O3'-P	-5.03	1.55	1.61
36	B2	1350	U	O4'-C1'	5.03	1.48	1.41
85	A5	59	A	O4'-C1'	5.03	1.48	1.41
85	A5	1247	U	C2'-C1'	-5.03	1.47	1.53
85	A5	2885	A	C2'-C1'	-5.03	1.47	1.53
85	A5	4492	U	O3'-P	-5.03	1.55	1.61
85	A5	4718	G	O4'-C1'	5.03	1.48	1.41
87	A8	92	U	O4'-C1'	5.03	1.48	1.41
64	CF	103	PRO	N-CD	5.03	1.54	1.47
85	A5	2301	G	O4'-C1'	5.03	1.48	1.41
85	A5	2322	G	P-O5'	-5.03	1.54	1.59
36	B2	545	A	C2'-C1'	5.03	1.58	1.53
36	B2	1694	U	C5'-C4'	5.03	1.57	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
63	CB	112	ASP	CB-CG	-5.03	1.41	1.51
85	A5	1286	C	C5'-C4'	5.03	1.57	1.51
36	B2	1700	C	C2'-C1'	5.03	1.58	1.53
85	A5	369	G	C2'-C1'	-5.03	1.47	1.53
85	A5	743	G	O4'-C1'	5.03	1.48	1.41
85	A5	1892	A	C4'-C3'	5.03	1.58	1.53
85	A5	2886	U	O4'-C1'	5.03	1.48	1.41
85	A5	1212	G	O4'-C1'	-5.02	1.35	1.41
85	A5	2324	C	O3'-P	-5.02	1.55	1.61
85	A5	4007	G	C5'-C4'	5.02	1.57	1.51
85	A5	4504	C	C2'-C1'	-5.02	1.47	1.53
85	A5	2578	G	C3'-C2'	-5.02	1.47	1.52
87	A8	35	C	C5'-C4'	5.02	1.57	1.51
87	A8	137	A	C5'-C4'	5.02	1.57	1.51
4	AK	31	LYS	N-CA	-5.02	1.36	1.46
36	B2	1481	G	O3'-P	-5.02	1.55	1.61
36	B2	1864	U	O4'-C1'	5.02	1.48	1.41
85	A5	4332	C	P-O5'	-5.02	1.54	1.59
85	A5	1574	G	C2'-C1'	5.02	1.58	1.53
85	A5	2703	G	C2'-C1'	-5.02	1.47	1.53
85	A5	4476	C	O4'-C1'	-5.02	1.35	1.41
86	A7	119	U	C2'-C1'	-5.02	1.47	1.53
36	B2	1123	C	O3'-P	-5.02	1.55	1.61
36	B2	1554	C	O3'-P	-5.02	1.55	1.61
36	B2	407	G	O4'-C1'	-5.01	1.35	1.41
36	B2	671	A	O3'-P	-5.01	1.55	1.61
36	B2	684	G	C4'-C3'	5.01	1.58	1.53
85	A5	2899	C	C2'-C1'	-5.01	1.47	1.53
85	A5	5008	C	O3'-P	-5.01	1.55	1.61
36	B2	178	C	C3'-O3'	5.01	1.49	1.42
36	B2	658	U	C2'-C1'	-5.01	1.47	1.53
36	B2	1730	U	C2'-C1'	-5.01	1.47	1.53
85	A5	2112	G	P-O5'	-5.01	1.54	1.59
85	A5	2268	A	O4'-C1'	5.01	1.48	1.41
36	B2	770	U	C5'-C4'	5.01	1.57	1.51
37	BC	70	C	P-O5'	-5.01	1.54	1.59
85	A5	2333	G	C5'-C4'	5.01	1.57	1.51
85	A5	3824	A	O4'-C1'	5.01	1.48	1.41
85	A5	4525	C	C2'-C1'	-5.01	1.47	1.53
85	A5	5028	G	P-O5'	-5.01	1.54	1.59
15	AB	221	PRO	N-CD	5.01	1.54	1.47
36	B2	1403	C	O4'-C1'	-5.01	1.35	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1563	G	C4'-C3'	5.01	1.58	1.53
37	BC	54	U	O3'-P	-5.01	1.55	1.61
85	A5	161	G	P-O5'	-5.01	1.54	1.59
85	A5	2101	C	C2'-C1'	-5.01	1.47	1.53
85	A5	2396	A	P-O5'	-5.01	1.54	1.59
16	AA	200	ASP	CA-C	-5.00	1.40	1.52
36	B2	1443	C	O3'-P	-5.00	1.55	1.61
85	A5	1364	U	C2'-C1'	5.00	1.58	1.53
85	A5	1588	U	O4'-C1'	5.00	1.48	1.41
85	A5	2123	C	C2'-C1'	5.00	1.58	1.53
85	A5	2415	U	C2'-C1'	-5.00	1.47	1.53
36	B2	225	G	O3'-P	-5.00	1.55	1.61
36	B2	449	A	O4'-C1'	5.00	1.48	1.41
73	C1	37	TYR	CG-CD1	-5.00	1.32	1.39
85	A5	393	U	C2'-C1'	5.00	1.58	1.53
85	A5	2110	C	C3'-O3'	5.00	1.49	1.42
85	A5	2686	G	O3'-P	-5.00	1.55	1.61
85	A5	2873	U	O4'-C1'	5.00	1.48	1.41
85	A5	3604	A	O3'-P	-5.00	1.55	1.61
36	B2	661	U	C5'-C4'	5.00	1.57	1.51
36	B2	1519	U	O3'-P	-5.00	1.55	1.61
85	A5	1359	G	C4'-C3'	-5.00	1.47	1.52
85	A5	4157	A	C2'-C1'	-5.00	1.47	1.53

All (11021) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	AH	109	ARG	NE-CZ-NH2	-53.46	93.57	120.30
31	AH	109	ARG	NE-CZ-NH1	42.77	141.69	120.30
63	CB	248	LEU	O-C-N	-38.89	60.47	122.70
36	B2	1780	G	P-O3'-C3'	38.27	165.63	119.70
49	CQ	6	ARG	NE-CZ-NH2	-36.36	102.12	120.30
36	B2	1118	C	O4'-C1'-N1	35.26	136.41	108.20
85	A5	1274	A	P-O3'-C3'	32.93	159.22	119.70
36	B2	592	C	O4'-C1'-N1	32.58	134.26	108.20
85	A5	2124	G	P-O3'-C3'	32.37	158.55	119.70
85	A5	2760	G	P-O3'-C3'	32.15	158.28	119.70
85	A5	2546	G	P-O3'-C3'	31.51	157.51	119.70
36	B2	67	C	O4'-C1'-N1	31.22	133.18	108.20
85	A5	4423	U	O4'-C1'-N1	31.16	133.13	108.20
85	A5	245	C	O4'-C1'-N1	30.88	132.90	108.20
36	B2	72	C	O4'-C1'-N1	30.45	132.56	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	5060	A	P-O3'-C3'	30.37	156.14	119.70
85	A5	1442	C	P-O3'-C3'	30.07	155.79	119.70
37	BC	16	C	P-O3'-C3'	29.98	155.68	119.70
85	A5	1360	G	P-O3'-C3'	29.79	155.44	119.70
40	CK	2	PRO	N-CA-CB	-29.71	67.65	103.30
31	AH	118	ARG	NE-CZ-NH1	29.66	135.13	120.30
85	A5	971	U	P-O3'-C3'	29.29	154.85	119.70
85	A5	4749	C	O4'-C1'-N1	29.19	131.55	108.20
36	B2	688	U	O4'-C1'-N1	29.04	131.43	108.20
85	A5	1481	C	O4'-C1'-N1	28.93	131.35	108.20
36	B2	1553	C	O4'-C1'-N1	28.90	131.32	108.20
85	A5	3968	U	P-O3'-C3'	28.68	154.12	119.70
36	B2	887	U	P-O3'-C3'	28.34	153.70	119.70
36	B2	742	U	O4'-C1'-N1	28.32	130.86	108.20
36	B2	797	C	O4'-C1'-N1	28.31	130.85	108.20
85	A5	955	G	P-O3'-C3'	28.19	153.53	119.70
85	A5	183	C	P-O3'-C3'	27.93	153.21	119.70
85	A5	971	U	O4'-C1'-N1	27.76	130.41	108.20
36	B2	1303	C	O4'-C1'-N1	27.75	130.40	108.20
85	A5	4989	U	P-O3'-C3'	27.54	152.74	119.70
36	B2	1117	C	O4'-C1'-N1	27.45	130.16	108.20
36	B2	1823	A	P-O3'-C3'	27.30	152.46	119.70
36	B2	1084	A	P-O3'-C3'	27.27	152.42	119.70
36	B2	428	U	O4'-C1'-N1	27.26	130.01	108.20
85	A5	711	A	P-O3'-C3'	27.18	152.32	119.70
85	A5	2761	U	P-O3'-C3'	27.10	152.22	119.70
85	A5	2091	C	O4'-C1'-N1	26.91	129.73	108.20
36	B2	531	A	P-O3'-C3'	26.76	151.81	119.70
36	B2	750	C	P-O3'-C3'	26.20	151.14	119.70
85	A5	4871	C	O4'-C1'-N1	26.09	129.07	108.20
85	A5	4747	C	P-O3'-C3'	26.02	150.93	119.70
85	A5	1269	G	P-O3'-C3'	25.72	150.56	119.70
36	B2	1109	C	O4'-C1'-N1	25.58	128.66	108.20
85	A5	4924	C	P-O3'-C3'	25.36	150.14	119.70
36	B2	1315	U	O4'-C1'-N1	25.33	128.46	108.20
85	A5	1292	C	P-O3'-C3'	25.24	149.99	119.70
63	CB	248	LEU	CA-C-N	25.19	172.62	117.20
85	A5	4014	G	P-O3'-C3'	25.18	149.91	119.70
85	A5	2266	C	P-O3'-C3'	24.93	149.61	119.70
85	A5	1167	C	P-O3'-C3'	24.90	149.59	119.70
85	A5	4758	U	O4'-C1'-N1	24.88	128.10	108.20
85	A5	3977	C	P-O3'-C3'	24.78	149.43	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1396	A	O4'-C1'-N9	24.75	128.00	108.20
87	A8	111	U	P-O3'-C3'	24.59	149.20	119.70
85	A5	3775	A	O4'-C1'-N9	24.57	127.86	108.20
85	A5	115	C	O4'-C1'-N1	24.48	127.78	108.20
85	A5	4119	C	O4'-C1'-N1	24.45	127.76	108.20
85	A5	1841	C	O4'-C1'-N1	24.39	127.71	108.20
85	A5	308	G	O4'-C1'-N9	24.37	127.70	108.20
36	B2	1632	G	P-O3'-C3'	24.34	148.91	119.70
36	B2	871	U	O4'-C1'-N1	24.18	127.54	108.20
85	A5	1445	U	P-O3'-C3'	24.09	148.61	119.70
85	A5	5027	C	P-O3'-C3'	23.86	148.33	119.70
36	B2	327	G	P-O3'-C3'	23.80	148.26	119.70
36	B2	734	C	P-O3'-C3'	23.79	148.25	119.70
36	B2	1569	A	O4'-C1'-N9	23.77	127.21	108.20
36	B2	1474	A	P-O3'-C3'	23.58	148.00	119.70
36	B2	1154	U	O4'-C1'-N1	23.49	126.99	108.20
49	CQ	6	ARG	NE-CZ-NH1	23.45	132.03	120.30
36	B2	165	G	O4'-C1'-N9	23.38	126.91	108.20
85	A5	693	C	P-O3'-C3'	23.25	147.60	119.70
36	B2	66	G	P-O3'-C3'	23.14	147.47	119.70
85	A5	4877	G	O4'-C1'-N9	22.84	126.47	108.20
85	A5	1699	A	O4'-C1'-N9	22.84	126.47	108.20
36	B2	214	U	P-O3'-C3'	22.82	147.09	119.70
36	B2	1308	U	O4'-C1'-N1	22.76	126.41	108.20
36	B2	1476	A	O4'-C1'-N9	22.73	126.38	108.20
36	B2	554	A	O4'-C1'-N9	22.66	126.33	108.20
85	A5	1221	G	O4'-C1'-N9	22.66	126.33	108.20
36	B2	797	C	P-O3'-C3'	22.65	146.88	119.70
26	AJ	146	SER	O-C-N	-22.62	86.51	122.70
85	A5	1211	G	P-O3'-C3'	22.52	146.73	119.70
85	A5	4991	U	P-O3'-C3'	22.48	146.67	119.70
36	B2	140	C	P-O3'-C3'	22.47	146.67	119.70
58	CW	71	ARG	O-C-N	-22.47	86.75	122.70
84	Cv	17	SER	C-N-CD	-22.43	71.25	120.60
85	A5	1356	U	P-O3'-C3'	22.41	146.59	119.70
85	A5	1443	A	P-O3'-C3'	22.36	146.53	119.70
60	Cr	112	ARG	CD-NE-CZ	-22.27	92.43	123.60
36	B2	840	C	P-O3'-C3'	22.22	146.37	119.70
85	A5	1696	C	P-O3'-C3'	22.21	146.36	119.70
85	A5	703	G	O4'-C1'-N9	22.21	125.97	108.20
85	A5	1719	A	P-O3'-C3'	22.18	146.32	119.70
85	A5	2115	G	P-O3'-C3'	22.18	146.32	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4162	C	O4'-C1'-N1	22.16	125.93	108.20
81	CE	30	GLY	O-C-N	-22.09	87.36	122.70
36	B2	880	G	O4'-C1'-N9	22.07	125.86	108.20
36	B2	1578	U	O4'-C1'-N1	22.04	125.83	108.20
85	A5	3663	A	P-O3'-C3'	22.03	146.13	119.70
87	A8	95	A	P-O3'-C3'	-22.00	93.30	119.70
36	B2	324	C	O4'-C1'-N1	21.99	125.79	108.20
31	AH	118	ARG	NE-CZ-NH2	-21.98	109.31	120.30
85	A5	4947	U	P-O3'-C3'	21.88	145.96	119.70
85	A5	982	U	O4'-C1'-N1	21.81	125.65	108.20
36	B2	1782	G	O4'-C1'-N9	21.81	125.65	108.20
36	B2	1557	C	O4'-C1'-N1	21.78	125.63	108.20
85	A5	4635	A	O4'-C1'-N9	21.70	125.56	108.20
85	A5	1214	C	O4'-C1'-N1	21.69	125.56	108.20
85	A5	4164	C	P-O3'-C3'	21.69	145.73	119.70
36	B2	695	C	P-O3'-C3'	21.69	145.72	119.70
85	A5	3712	A	O4'-C1'-N9	21.67	125.54	108.20
36	B2	754	G	P-O3'-C3'	21.64	145.66	119.70
36	B2	1300	U	O4'-C1'-N1	21.56	125.45	108.20
36	B2	307	G	O4'-C1'-N9	21.54	125.43	108.20
58	CW	71	ARG	CA-C-N	21.53	164.56	117.20
85	A5	4874	A	O4'-C1'-N9	21.45	125.36	108.20
36	B2	1521	C	P-O3'-C3'	21.43	145.41	119.70
85	A5	3810	C	O4'-C1'-N1	21.38	125.31	108.20
1	Az	768	GLY	O-C-N	21.37	156.90	122.70
85	A5	1379	C	P-O3'-C3'	21.36	145.33	119.70
36	B2	747	U	P-O3'-C3'	21.33	145.29	119.70
36	B2	1669	G	P-O5'-C5'	21.31	155.00	120.90
85	A5	432	U	O4'-C1'-N1	21.27	125.21	108.20
85	A5	2090	U	O4'-C1'-N1	21.18	125.14	108.20
36	B2	726	C	P-O3'-C3'	21.16	145.09	119.70
85	A5	234	G	O4'-C1'-N9	21.10	125.08	108.20
85	A5	3261	C	P-O3'-C3'	21.08	144.99	119.70
85	A5	2147	C	P-O3'-C3'	21.07	144.98	119.70
85	A5	296	A	O4'-C1'-N9	21.06	125.05	108.20
36	B2	1567	G	O4'-C1'-N9	21.01	125.00	108.20
36	B2	1477	U	P-O3'-C3'	20.95	144.83	119.70
85	A5	3643	A	P-O3'-C3'	20.86	144.74	119.70
85	A5	2256	C	O4'-C1'-N1	20.84	124.87	108.20
85	A5	4476	C	O4'-C1'-N1	20.76	124.81	108.20
85	A5	125	C	P-O3'-C3'	20.74	144.59	119.70
36	B2	1395	C	P-O3'-C3'	20.68	144.51	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1237	C	P-O3'-C3'	20.67	144.50	119.70
36	B2	273	G	P-O3'-C3'	20.66	144.50	119.70
85	A5	2695	A	O4'-C1'-N9	20.66	124.73	108.20
40	CK	1	MET	O-C-N	20.65	160.34	121.10
36	B2	1507	G	O4'-C1'-C2'	20.61	126.41	105.80
85	A5	1276	C	P-O3'-C3'	20.58	144.40	119.70
85	A5	2669	C	P-O3'-C3'	20.56	144.37	119.70
85	A5	668	C	P-O3'-C3'	20.55	144.36	119.70
85	A5	664	G	P-O3'-C3'	20.55	144.36	119.70
85	A5	4237	C	P-O3'-C3'	20.55	144.36	119.70
85	A5	2490	U	P-O3'-C3'	20.49	144.29	119.70
85	A5	1240	G	O4'-C1'-N9	20.48	124.58	108.20
85	A5	2257	C	P-O3'-C3'	20.46	144.25	119.70
36	B2	1825	A	O4'-C1'-N9	20.45	124.56	108.20
85	A5	4048	A	O4'-C1'-N9	20.39	124.51	108.20
85	A5	2111	G	O4'-C1'-N9	20.38	124.50	108.20
74	CC	323	ARG	CB-CA-C	-20.37	69.66	110.40
85	A5	3711	A	O4'-C1'-N9	20.35	124.48	108.20
85	A5	3594	C	N1-C1'-C2'	20.33	140.43	114.00
85	A5	2105	A	P-O3'-C3'	20.24	143.98	119.70
36	B2	335	G	O4'-C1'-N9	20.17	124.34	108.20
85	A5	4117	U	O4'-C1'-N1	20.15	124.32	108.20
36	B2	628	A	O4'-C1'-N9	20.15	124.32	108.20
85	A5	2106	G	O4'-C1'-N9	20.11	124.29	108.20
36	B2	1116	C	O4'-C1'-N1	20.08	124.27	108.20
36	B2	1418	C	C3'-C2'-C1'	-20.07	85.44	101.50
85	A5	2671	C	P-O3'-C3'	-20.03	95.67	119.70
85	A5	931	C	O4'-C1'-N1	20.02	124.21	108.20
85	A5	1338	G	O4'-C1'-N9	20.02	124.21	108.20
85	A5	1753	G	P-O3'-C3'	19.96	143.65	119.70
36	B2	1396	A	P-O3'-C3'	19.94	143.62	119.70
85	A5	1364	U	O4'-C1'-N1	19.89	124.11	108.20
85	A5	1302	U	O4'-C1'-N1	19.84	124.08	108.20
85	A5	2123	C	O4'-C1'-N1	19.82	124.06	108.20
38	Cz	209	THR	O-C-N	-19.80	91.03	122.70
85	A5	4156	G	O4'-C1'-N9	19.78	124.03	108.20
85	A5	1280	C	P-O3'-C3'	19.77	143.43	119.70
36	B2	329	G	P-O3'-C3'	19.75	143.40	119.70
85	A5	450	G	P-O3'-C3'	19.73	143.38	119.70
36	B2	1721	U	O4'-C1'-N1	19.72	123.98	108.20
85	A5	4954	G	O4'-C1'-N9	19.72	123.98	108.20
85	A5	703	G	P-O3'-C3'	19.69	143.33	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1756	C	P-O3'-C3'	19.68	143.32	119.70
36	B2	1430	C	O4'-C1'-N1	19.62	123.89	108.20
48	CD	170	GLY	O-C-N	-19.61	91.33	122.70
85	A5	2007	G	O4'-C1'-N9	19.59	123.87	108.20
85	A5	1245	C	P-O3'-C3'	19.53	143.13	119.70
36	B2	1825	A	P-O3'-C3'	19.51	143.11	119.70
85	A5	1915	C	O4'-C1'-N1	19.50	123.80	108.20
85	A5	1241	C	P-O3'-C3'	19.49	143.09	119.70
85	A5	2246	C	P-O3'-C3'	19.49	143.09	119.70
85	A5	2008	U	O4'-C1'-N1	19.38	123.70	108.20
12	AR	1	MET	CA-C-N	-19.36	77.49	116.20
85	A5	1273	G	O4'-C1'-N9	19.35	123.68	108.20
36	B2	327	G	O4'-C1'-N9	19.29	123.63	108.20
37	BC	17	G	P-O3'-C3'	19.27	142.82	119.70
85	A5	499	G	P-O3'-C3'	19.23	142.78	119.70
85	A5	4233	A	O4'-C1'-N9	19.19	123.56	108.20
36	B2	228	C	P-O3'-C3'	19.19	142.73	119.70
81	CE	118	THR	O-C-N	-19.19	92.00	122.70
85	A5	3962	A	O4'-C1'-N9	19.18	123.54	108.20
85	A5	1360	G	O4'-C1'-N9	19.13	123.50	108.20
36	B2	1475	G	P-O3'-C3'	19.12	142.64	119.70
85	A5	1482	G	O4'-C1'-N9	19.10	123.48	108.20
36	B2	1362	U	O4'-C1'-N1	19.03	123.42	108.20
81	CE	74	SER	CB-CA-C	19.02	146.24	110.10
85	A5	2256	C	P-O3'-C3'	19.01	142.51	119.70
85	A5	1484	G	P-O3'-C3'	18.97	142.47	119.70
85	A5	3938	G	O4'-C1'-N9	18.97	123.38	108.20
85	A5	655	C	P-O3'-C3'	18.96	142.45	119.70
87	A8	82	A	O4'-C1'-N9	18.93	123.35	108.20
85	A5	4748	U	O4'-C1'-N1	18.93	123.35	108.20
36	B2	142	C	O4'-C1'-N1	18.92	123.34	108.20
85	A5	4869	U	P-O3'-C3'	18.91	142.39	119.70
85	A5	1380	G	P-O3'-C3'	18.91	142.39	119.70
85	A5	4044	U	O4'-C1'-N1	18.90	123.32	108.20
85	A5	4946	U	O4'-C1'-N1	18.90	123.32	108.20
85	A5	4885	U	O4'-C1'-N1	18.88	123.31	108.20
85	A5	4722	G	O4'-C1'-N9	18.85	123.28	108.20
85	A5	4951	G	P-O3'-C3'	18.83	142.30	119.70
85	A5	3922	G	O4'-C1'-N9	18.80	123.24	108.20
36	B2	1155	U	N1-C1'-C2'	18.78	138.42	114.00
85	A5	2107	C	P-O3'-C3'	18.76	142.21	119.70
85	A5	1407	C	P-O3'-C3'	18.71	142.15	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2112	G	C3'-C2'-C1'	-18.70	86.54	101.50
36	B2	78	C	P-O3'-C3'	18.70	142.14	119.70
36	B2	707	C	P-O3'-C3'	18.68	142.11	119.70
85	A5	1455	G	P-O3'-C3'	18.68	142.12	119.70
36	B2	698	G	P-O3'-C3'	18.67	142.11	119.70
36	B2	1678	A	O4'-C1'-N9	18.63	123.10	108.20
36	B2	751	G	P-O3'-C3'	18.62	142.05	119.70
36	B2	126	G	P-O3'-C3'	18.62	142.04	119.70
36	B2	958	G	O4'-C1'-N9	18.59	123.07	108.20
85	A5	2769	U	P-O3'-C3'	18.59	142.00	119.70
85	A5	488	G	O4'-C1'-N9	18.58	123.06	108.20
85	A5	4072	C	P-O3'-C3'	18.58	141.99	119.70
82	CG	59	ARG	N-CA-CB	18.57	144.03	110.60
85	A5	4731	G	O4'-C1'-N9	18.51	123.01	108.20
36	B2	180	G	P-O3'-C3'	-18.50	97.50	119.70
36	B2	753	C	P-O5'-C5'	18.49	150.49	120.90
85	A5	2123	C	P-O3'-C3'	18.49	141.89	119.70
85	A5	1063	U	P-O3'-C3'	18.48	141.88	119.70
85	A5	1358	G	P-O3'-C3'	18.46	141.85	119.70
85	A5	2489	C	C4'-C3'-O3'	18.46	149.92	113.00
85	A5	4943	A	P-O3'-C3'	18.43	141.82	119.70
36	B2	915	G	O4'-C1'-N9	18.41	122.93	108.20
85	A5	444	G	P-O3'-C3'	18.38	141.75	119.70
85	A5	1834	U	O4'-C1'-N1	18.37	122.90	108.20
85	A5	1295	C	P-O3'-C3'	18.37	141.74	119.70
86	A7	48	G	P-O3'-C3'	18.32	141.68	119.70
85	A5	734	G	O4'-C1'-N9	18.26	122.81	108.20
85	A5	2152	G	P-O3'-C3'	18.24	141.59	119.70
87	A8	109	C	P-O3'-C3'	18.23	141.57	119.70
74	CC	323	ARG	N-CA-CB	18.19	143.34	110.60
85	A5	1443	A	P-O5'-C5'	18.18	150.00	120.90
85	A5	4172	A	O4'-C1'-N9	18.18	122.74	108.20
36	B2	887	U	O4'-C1'-N1	18.18	122.74	108.20
36	B2	1397	U	N1-C1'-C2'	18.17	137.62	114.00
85	A5	2575	U	O4'-C1'-N1	18.16	122.72	108.20
36	B2	903	A	O4'-C1'-N9	18.15	122.72	108.20
36	B2	72	C	P-O3'-C3'	18.13	141.46	119.70
85	A5	1444	G	P-O3'-C3'	18.10	141.42	119.70
85	A5	1774	C	P-O3'-C3'	18.09	141.41	119.70
85	A5	670	G	O4'-C1'-N9	18.09	122.67	108.20
36	B2	1137	U	P-O3'-C3'	18.08	141.40	119.70
36	B2	740	C	P-O3'-C3'	18.08	141.39	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	233	U	O4'-C1'-N1	18.06	122.64	108.20
36	B2	1549	U	P-O3'-C3'	18.03	141.34	119.70
51	CA	67	TYR	CB-CG-CD2	18.03	131.82	121.00
36	B2	1230	C	N1-C1'-C2'	18.03	137.43	114.00
85	A5	1805	A	O4'-C1'-N9	18.01	122.61	108.20
85	A5	143	C	P-O3'-C3'	17.97	141.26	119.70
36	B2	1381	G	O4'-C1'-N9	17.93	122.54	108.20
85	A5	1398	A	O4'-C1'-N9	17.92	122.53	108.20
85	A5	2806	A	O4'-C1'-N9	17.91	122.53	108.20
87	A8	81	C	O4'-C1'-N1	17.90	122.52	108.20
36	B2	1745	A	O4'-C1'-N9	17.81	122.45	108.20
36	B2	731	G	P-O3'-C3'	17.77	141.02	119.70
36	B2	438	G	O4'-C1'-N9	17.75	122.40	108.20
85	A5	245	C	P-O3'-C3'	17.73	140.97	119.70
49	CQ	1	MET	C-N-CA	17.70	159.47	122.30
36	B2	1016	U	N1-C1'-C2'	17.69	137.00	114.00
85	A5	4256	A	O4'-C1'-N9	17.68	122.34	108.20
85	A5	2448	G	O4'-C1'-N9	17.66	122.33	108.20
85	A5	3715	U	O4'-C1'-N1	17.60	122.28	108.20
85	A5	3713	U	O4'-C1'-N1	17.57	122.26	108.20
36	B2	266	G	P-O3'-C3'	17.55	140.76	119.70
38	Cz	28	PHE	CB-CA-C	-17.53	75.33	110.40
20	Aa	10	ARG	NE-CZ-NH2	17.51	129.06	120.30
85	A5	1186	U	O4'-C1'-N1	17.48	122.18	108.20
29	AG	131	ARG	CB-CA-C	17.43	145.27	110.40
85	A5	1072	C	O4'-C1'-N1	17.40	122.12	108.20
40	CK	114	ARG	NE-CZ-NH1	17.38	128.99	120.30
85	A5	4942	C	P-O3'-C3'	17.38	140.56	119.70
85	A5	1764	G	O4'-C1'-N9	17.38	122.10	108.20
85	A5	4120	U	N1-C1'-C2'	17.37	136.58	114.00
85	A5	4779	U	P-O3'-C3'	17.37	140.54	119.70
36	B2	1320	G	O4'-C1'-N9	17.34	122.07	108.20
36	B2	190	G	P-O3'-C3'	17.34	140.50	119.70
85	A5	5053	U	O4'-C1'-N1	17.33	122.07	108.20
36	B2	1049	A	O4'-C1'-N9	17.33	122.06	108.20
36	B2	534	G	P-O3'-C3'	17.31	140.47	119.70
85	A5	1481	C	P-O3'-C3'	17.23	140.37	119.70
74	CC	24	LEU	C-N-CD	-17.21	82.73	120.60
12	AR	1	MET	N-CA-CB	17.21	141.58	110.60
85	A5	4943	A	C1'-O4'-C4'	-17.20	96.14	109.90
36	B2	135	U	P-O3'-C3'	17.18	140.32	119.70
85	A5	3604	A	O4'-C1'-N9	17.18	121.95	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2228	C	P-O3'-C3'	17.18	140.32	119.70
36	B2	356	C	O4'-C1'-N1	17.18	121.94	108.20
85	A5	5062	G	P-O3'-C3'	17.16	140.30	119.70
36	B2	1326	U	N1-C1'-C2'	17.15	136.30	114.00
85	A5	4329	G	O4'-C1'-N9	17.15	121.92	108.20
36	B2	1153	C	O4'-C1'-N1	17.15	121.92	108.20
85	A5	974	C	P-O3'-C3'	17.10	140.22	119.70
85	A5	3279	A	P-O3'-C3'	17.09	140.20	119.70
36	B2	74	G	O4'-C1'-N9	17.06	121.85	108.20
85	A5	2089	G	O4'-C1'-N9	17.05	121.84	108.20
36	B2	872	A	O4'-C1'-N9	17.02	121.82	108.20
17	AV	61	ARG	NE-CZ-NH2	-17.00	111.80	120.30
85	A5	2017	A	P-O3'-C3'	-16.99	99.31	119.70
36	B2	225	G	P-O3'-C3'	16.98	140.08	119.70
85	A5	2487	G	P-O3'-C3'	16.98	140.08	119.70
85	A5	452	A	O4'-C1'-N9	16.98	121.78	108.20
85	A5	1442	C	O4'-C1'-N1	16.98	121.78	108.20
36	B2	830	A	O4'-C1'-N9	16.97	121.77	108.20
36	B2	1403	C	O4'-C1'-N1	16.97	121.77	108.20
85	A5	2117	G	O4'-C1'-N9	16.96	121.77	108.20
85	A5	963	G	P-O3'-C3'	16.95	140.03	119.70
87	A8	111	U	C4'-C3'-O3'	-16.93	73.86	109.40
85	A5	2290	C	P-O3'-C3'	16.92	140.01	119.70
36	B2	242	U	P-O3'-C3'	16.92	140.00	119.70
36	B2	136	C	P-O3'-C3'	16.91	139.99	119.70
85	A5	65	A	O4'-C1'-N9	16.90	121.72	108.20
36	B2	889	U	O4'-C1'-N1	16.90	121.72	108.20
85	A5	4888	U	O4'-C1'-N1	16.89	121.71	108.20
85	A5	2153	G	P-O3'-C3'	16.87	139.94	119.70
36	B2	1623	A	O4'-C1'-N9	16.85	121.68	108.20
85	A5	727	C	O4'-C1'-N1	16.84	121.68	108.20
36	B2	823	U	O4'-C1'-N1	16.82	121.66	108.20
85	A5	4937	C	O4'-C1'-N1	16.81	121.64	108.20
85	A5	4143	G	P-O3'-C3'	16.80	139.87	119.70
38	Cz	210	MET	CG-SD-CE	-16.80	73.31	100.20
85	A5	1361	G	O4'-C1'-N9	16.80	121.64	108.20
36	B2	1568	C	N1-C1'-C2'	16.80	135.83	114.00
60	Cr	90	LEU	O-C-N	-16.76	95.89	122.70
36	B2	198	U	O4'-C1'-N1	16.75	121.60	108.20
85	A5	2767	U	O4'-C1'-N1	16.74	121.59	108.20
85	A5	2787	A	O4'-C1'-N9	16.69	121.55	108.20
85	A5	2904	U	O4'-C1'-N1	16.69	121.55	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1939	A	P-O3'-C3'	16.64	139.67	119.70
85	A5	1217	G	O4'-C1'-N9	16.62	121.50	108.20
85	A5	293	G	P-O3'-C3'	16.62	139.64	119.70
36	B2	1474	A	O4'-C1'-N9	16.61	121.49	108.20
85	A5	733	A	O4'-C1'-N9	16.61	121.49	108.20
85	A5	4119	C	P-O3'-C3'	16.60	139.62	119.70
29	AG	131	ARG	CB-CG-CD	16.60	154.75	111.60
85	A5	486	C	P-O3'-C3'	16.60	139.62	119.70
36	B2	171	A	O4'-C1'-N9	16.57	121.46	108.20
81	CE	70	LYS	CB-CA-C	-16.56	77.29	110.40
85	A5	1398	A	P-O3'-C3'	16.55	139.56	119.70
85	A5	3876	A	P-O3'-C3'	16.53	139.54	119.70
85	A5	4748	U	P-O3'-C3'	16.53	139.54	119.70
36	B2	1298	G	O4'-C1'-N9	16.53	121.42	108.20
39	Cq	57	LYS	CA-CB-CG	16.53	149.76	113.40
87	A8	87	G	O4'-C1'-N9	16.52	121.42	108.20
85	A5	4749	C	P-O3'-C3'	16.51	139.51	119.70
85	A5	4993	G	O4'-C1'-N9	16.50	121.40	108.20
85	A5	4730	C	P-O3'-C3'	16.49	139.49	119.70
36	B2	368	U	P-O3'-C3'	16.47	139.46	119.70
85	A5	946	C	P-O3'-C3'	16.45	139.44	119.70
85	A5	2789	A	O4'-C1'-N9	16.42	121.34	108.20
85	A5	1821	G	O4'-C1'-N9	16.41	121.33	108.20
85	A5	2089	G	P-O3'-C3'	16.40	139.38	119.70
1	Az	768	GLY	CA-C-N	-16.40	81.12	117.20
13	AP	37	TYR	N-CA-CB	-16.40	81.08	110.60
73	Cl	5	LYS	O-C-N	16.39	148.93	122.70
85	A5	13	U	O4'-C1'-N1	16.37	121.29	108.20
85	A5	1704	C	P-O3'-C3'	16.36	139.34	119.70
85	A5	406	C	P-O3'-C3'	16.36	139.34	119.70
85	A5	2824	C	P-O3'-C3'	16.36	139.33	119.70
85	A5	967	C	P-O3'-C3'	16.36	139.33	119.70
85	A5	190	G	P-O3'-C3'	16.35	139.32	119.70
81	CE	32	LEU	CB-CG-CD1	16.35	138.79	111.00
85	A5	1440	U	P-O3'-C3'	16.27	139.22	119.70
85	A5	1266	G	O4'-C1'-C2'	16.22	122.20	107.60
36	B2	752	G	P-O3'-C3'	16.22	139.16	119.70
36	B2	308	G	N9-C1'-C2'	16.21	135.08	114.00
85	A5	2766	A	P-O3'-C3'	16.21	139.15	119.70
81	CE	126	LEU	C-N-CA	-16.20	81.20	121.70
85	A5	2669	C	O4'-C1'-N1	16.20	121.16	108.20
85	A5	1296	G	O4'-C1'-N9	16.16	121.13	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2670	C	P-O3'-C3'	16.15	139.08	119.70
85	A5	3809	G	O4'-C1'-N9	16.14	121.11	108.20
85	A5	1561	G	O4'-C1'-N9	16.12	121.10	108.20
85	A5	2144	C	P-O3'-C3'	16.11	139.03	119.70
85	A5	2088	A	P-O3'-C3'	16.09	139.01	119.70
85	A5	3256	G	P-O3'-C3'	16.09	139.01	119.70
1	Az	154	VAL	CB-CA-C	16.09	141.97	111.40
40	CK	114	ARG	CD-NE-CZ	16.09	146.12	123.60
85	A5	1371	A	O4'-C1'-C2'	-16.08	89.72	105.80
85	A5	4751	G	O4'-C1'-N9	16.06	121.05	108.20
85	A5	1410	U	O4'-C1'-N1	16.04	121.03	108.20
85	A5	3785	A	O4'-C1'-N9	16.02	121.02	108.20
85	A5	2940	C	P-O3'-C3'	16.00	138.90	119.70
70	Ci	6	PRO	N-CA-CB	-16.00	84.11	103.30
36	B2	1237	C	N1-C1'-C2'	15.93	134.71	114.00
85	A5	1221	G	P-O3'-C3'	15.93	138.82	119.70
85	A5	1426	G	P-O3'-C3'	15.93	138.81	119.70
85	A5	926	G	O4'-C1'-N9	15.92	120.94	108.20
85	A5	1153	C	P-O3'-C3'	15.92	138.80	119.70
85	A5	3595	U	O4'-C1'-N1	15.89	120.92	108.20
85	A5	70	A	O4'-C1'-N9	15.89	120.91	108.20
36	B2	141	A	P-O3'-C3'	15.88	138.75	119.70
85	A5	2947	G	P-O3'-C3'	15.88	138.75	119.70
38	Cz	28	PHE	N-CA-C	15.87	153.85	111.00
85	A5	450	G	O4'-C1'-N9	15.87	120.89	108.20
81	CE	93	THR	N-CA-CB	15.85	140.42	110.30
85	A5	1771	U	O4'-C1'-N1	15.84	120.87	108.20
63	CB	248	LEU	C-N-CA	15.82	161.26	121.70
36	B2	73	C	O4'-C1'-N1	15.81	120.85	108.20
85	A5	177	G	P-O3'-C3'	15.80	138.66	119.70
33	AI	134	GLU	N-CA-CB	15.79	139.02	110.60
85	A5	2083	C	P-O3'-C3'	15.79	138.64	119.70
36	B2	630	U	O4'-C1'-N1	15.78	120.83	108.20
81	CE	127	SER	CB-CA-C	15.77	140.06	110.10
36	B2	1148	A	O4'-C1'-N9	15.77	120.81	108.20
85	A5	2252	G	P-O3'-C3'	15.77	138.62	119.70
85	A5	4061	G	P-O3'-C3'	15.76	138.61	119.70
85	A5	4075	U	P-O3'-C3'	15.76	138.61	119.70
85	A5	2920	G	P-O3'-C3'	15.75	138.60	119.70
85	A5	1578	U	P-O5'-C5'	-15.71	95.76	120.90
85	A5	4876	U	P-O3'-C3'	15.71	138.56	119.70
36	B2	1429	G	P-O3'-C3'	15.70	138.54	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2489	C	P-O3'-C3'	15.68	138.52	119.70
85	A5	4309	G	O4'-C1'-N9	15.68	120.75	108.20
85	A5	137	G	O4'-C1'-N9	15.67	120.74	108.20
85	A5	931	C	P-O3'-C3'	15.67	138.50	119.70
85	A5	1700	G	P-O3'-C3'	15.64	138.47	119.70
85	A5	1833	G	P-O3'-C3'	15.64	138.47	119.70
36	B2	138	C	P-O3'-C3'	15.64	138.47	119.70
85	A5	1435	G	O4'-C1'-N9	15.64	120.71	108.20
36	B2	1010	G	O4'-C1'-N9	15.63	120.70	108.20
85	A5	4094	G	O4'-C1'-N9	15.62	120.70	108.20
85	A5	2267	U	O4'-C1'-N1	15.62	120.70	108.20
85	A5	2265	G	P-O3'-C3'	15.62	138.44	119.70
85	A5	963	G	O4'-C1'-C2'	-15.60	90.20	105.80
85	A5	1832	C	P-O3'-C3'	15.60	138.42	119.70
85	A5	4694	G	O4'-C1'-N9	15.59	120.67	108.20
85	A5	4906	C	P-O5'-C5'	15.59	145.84	120.90
86	A7	84	U	O4'-C1'-N1	15.59	120.67	108.20
18	AY	86	GLU	C-N-CD	-15.58	86.32	120.60
85	A5	424	U	O4'-C1'-N1	15.56	120.64	108.20
23	AD	5	ILE	O-C-N	-15.55	97.82	122.70
36	B2	1060	A	O4'-C1'-N9	15.54	120.63	108.20
85	A5	2041	A	O4'-C1'-N9	15.53	120.62	108.20
36	B2	1331	C	N1-C1'-C2'	15.53	134.19	114.00
38	Cz	99	LEU	CA-C-N	15.48	151.26	117.20
36	B2	304	C	P-O3'-C3'	15.48	138.28	119.70
53	CT	150	LEU	O-C-N	-15.47	97.94	122.70
85	A5	4943	A	N9-C1'-C2'	15.46	134.10	114.00
85	A5	4752	U	O4'-C1'-N1	15.44	120.55	108.20
85	A5	2112	G	C1'-O4'-C4'	-15.43	97.56	109.90
85	A5	2112	G	O4'-C1'-N9	15.42	120.54	108.20
85	A5	927	G	O4'-C1'-N9	15.39	120.51	108.20
85	A5	2887	U	O4'-C1'-N1	15.39	120.51	108.20
39	Cq	263	GLU	N-CA-CB	-15.38	82.91	110.60
85	A5	1238	A	P-O3'-C3'	15.36	138.14	119.70
85	A5	1920	C	P-O3'-C3'	15.35	138.12	119.70
36	B2	64	A	O4'-C1'-N9	15.31	120.45	108.20
85	A5	4852	C	P-O3'-C3'	15.31	138.07	119.70
85	A5	1929	A	N9-C1'-C2'	15.31	133.90	114.00
85	A5	4793	G	P-O3'-C3'	15.29	138.05	119.70
85	A5	2226	C	P-O3'-C3'	15.29	138.04	119.70
36	B2	721	G	P-O3'-C3'	15.28	138.03	119.70
85	A5	4170	A	P-O3'-C3'	15.24	137.99	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4488	A	O4'-C1'-N9	15.24	120.39	108.20
85	A5	2519	U	O4'-C1'-N1	15.24	120.39	108.20
26	AJ	146	SER	CA-C-N	15.22	150.68	117.20
85	A5	2562	G	O4'-C1'-N9	15.20	120.36	108.20
36	B2	1668	U	O4'-C1'-N1	15.20	120.36	108.20
36	B2	406	U	P-O3'-C3'	15.19	137.93	119.70
36	B2	1283	C	P-O3'-C3'	15.18	137.92	119.70
85	A5	927	G	P-O3'-C3'	15.18	137.92	119.70
85	A5	1211	G	O4'-C1'-N9	15.18	120.34	108.20
36	B2	60	A	O4'-C1'-N9	15.16	120.33	108.20
36	B2	79	A	O4'-C1'-C2'	-15.15	90.64	105.80
85	A5	972	C	P-O5'-C5'	15.15	145.15	120.90
85	A5	1804	A	P-O3'-C3'	15.15	137.88	119.70
81	CE	85	LYS	N-CA-CB	-15.14	83.35	110.60
74	CC	323	ARG	CA-CB-CG	15.13	146.69	113.40
85	A5	342	G	O4'-C1'-N9	15.13	120.30	108.20
58	CW	83	THR	N-CA-CB	15.12	139.03	110.30
67	Ce	16	ARG	O-C-N	-15.12	98.51	122.70
85	A5	3907	G	P-O3'-C3'	15.10	137.81	119.70
85	A5	2876	G	O4'-C1'-N9	15.08	120.27	108.20
85	A5	687	U	O4'-C1'-N1	15.08	120.26	108.20
20	Aa	102	ARG	C-N-CD	-15.08	87.43	120.60
36	B2	1612	G	O4'-C1'-N9	15.07	120.25	108.20
33	AI	43	ILE	O-C-N	-15.06	98.60	122.70
85	A5	1052	G	P-O3'-C3'	15.05	137.76	119.70
85	A5	971	U	O4'-C1'-C2'	-15.02	90.78	105.80
36	B2	1548	G	O4'-C1'-N9	15.01	120.21	108.20
87	A8	96	C	P-O3'-C3'	14.98	137.68	119.70
36	B2	738	C	P-O3'-C3'	14.98	137.67	119.70
85	A5	1524	A	O4'-C1'-N9	14.97	120.17	108.20
85	A5	1170	G	O4'-C1'-N9	14.95	120.16	108.20
85	A5	1072	C	N1-C1'-C2'	14.95	133.43	114.00
36	B2	1675	A	O4'-C1'-N9	14.94	120.15	108.20
85	A5	392	U	O4'-C1'-N1	14.94	120.15	108.20
31	AH	109	ARG	CD-NE-CZ	14.94	144.51	123.60
67	Ce	16	ARG	C-N-CA	14.94	159.04	121.70
60	Cr	91	SER	N-CA-CB	14.93	132.89	110.50
85	A5	1302	U	C3'-C2'-C1'	-14.92	89.57	101.50
36	B2	1496	U	P-O3'-C3'	14.89	137.57	119.70
85	A5	489	C	P-O3'-C3'	14.89	137.57	119.70
36	B2	111	A	O4'-C1'-N9	14.87	120.10	108.20
85	A5	3934	G	O4'-C1'-N9	14.86	120.09	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	3672	G	P-O3'-C3'	14.85	137.52	119.70
39	Cq	263	GLU	CB-CA-C	14.84	140.08	110.40
85	A5	1338	G	O4'-C1'-C2'	14.83	120.95	107.60
36	B2	218	U	N1-C1'-C2'	14.82	133.26	114.00
85	A5	499	G	N9-C1'-C2'	14.80	133.24	114.00
37	BC	20	A	O4'-C1'-N9	14.80	120.04	108.20
20	Aa	97	PRO	N-CA-C	14.80	150.57	112.10
85	A5	505	G	P-O3'-C3'	14.79	137.45	119.70
85	A5	2372	U	O4'-C1'-N1	14.77	120.02	108.20
36	B2	785	C	P-O3'-C3'	14.77	137.43	119.70
85	A5	1426	G	O4'-C1'-N9	14.77	120.01	108.20
36	B2	1428	G	O4'-C1'-N9	14.75	120.00	108.20
85	A5	2239	C	P-O3'-C3'	14.75	137.40	119.70
85	A5	740	G	P-O3'-C3'	14.72	137.37	119.70
85	A5	1474	C	P-O3'-C3'	14.71	137.35	119.70
38	Cz	28	PHE	CA-C-O	-14.70	89.23	120.10
85	A5	4281	A	O4'-C1'-N9	14.70	119.96	108.20
85	A5	1853	G	O4'-C1'-N9	14.70	119.96	108.20
85	A5	224	U	O4'-C1'-N1	14.68	119.94	108.20
85	A5	4871	C	P-O3'-C3'	14.68	137.31	119.70
85	A5	1822	U	O4'-C1'-N1	14.67	119.94	108.20
85	A5	3818	U	O4'-C1'-N1	14.67	119.93	108.20
36	B2	488	U	P-O3'-C3'	14.66	137.29	119.70
36	B2	839	C	N1-C1'-C2'	14.66	133.06	114.00
85	A5	1282	G	P-O3'-C3'	14.66	137.29	119.70
85	A5	4181	U	O4'-C1'-N1	14.65	119.92	108.20
36	B2	839	C	C3'-C2'-C1'	-14.65	89.78	101.50
85	A5	972	C	C3'-C2'-C1'	14.64	113.21	101.50
85	A5	4108	G	O4'-C1'-N9	14.63	119.90	108.20
85	A5	172	C	P-O3'-C3'	-14.63	102.15	119.70
36	B2	861	A	O4'-C1'-N9	14.62	119.89	108.20
17	AV	78	ILE	N-CA-C	14.62	150.46	111.00
85	A5	1235	G	O4'-C1'-N9	14.60	119.88	108.20
85	A5	742	G	O4'-C1'-N9	14.58	119.86	108.20
81	CE	59	ARG	O-C-N	14.57	146.01	122.70
85	A5	4887	C	P-O3'-C3'	14.57	137.19	119.70
85	A5	746	A	P-O3'-C3'	14.57	137.18	119.70
85	A5	4127	A	P-O3'-C3'	14.57	137.18	119.70
36	B2	548	C	P-O3'-C3'	14.55	137.16	119.70
36	B2	1231	C	N1-C1'-C2'	14.55	132.91	114.00
36	B2	1394	G	P-O3'-C3'	14.54	137.15	119.70
85	A5	2473	A	P-O3'-C3'	14.54	137.15	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1779	G	O4'-C1'-N9	14.53	119.82	108.20
85	A5	4894	A	O4'-C1'-N9	14.52	119.81	108.20
36	B2	1599	U	O4'-C1'-N1	14.51	119.81	108.20
85	A5	215	C	P-O3'-C3'	14.50	137.10	119.70
85	A5	2825	A	P-O3'-C3'	14.49	137.09	119.70
49	CQ	6	ARG	N-CA-CB	-14.49	84.52	110.60
85	A5	955	G	O4'-C1'-N9	14.49	119.79	108.20
85	A5	975	C	O4'-C1'-C2'	-14.49	91.31	105.80
85	A5	4175	G	O4'-C1'-N9	14.49	119.79	108.20
36	B2	393	U	O4'-C1'-N1	14.48	119.79	108.20
36	B2	790	C	P-O3'-C3'	14.48	137.08	119.70
36	B2	724	A	P-O3'-C3'	14.47	137.07	119.70
85	A5	1186	U	N1-C1'-C2'	-14.47	95.19	114.00
36	B2	553	U	O4'-C1'-N1	14.46	119.77	108.20
64	CF	23	ARG	CA-C-N	-14.46	85.39	117.20
85	A5	4449	A	O4'-C1'-N9	14.45	119.76	108.20
38	Cz	209	THR	CA-C-N	14.45	148.99	117.20
85	A5	2663	G	O4'-C1'-N9	14.44	119.75	108.20
85	A5	4949	G	P-O3'-C3'	14.44	137.02	119.70
85	A5	2421	G	O4'-C1'-N9	14.43	119.75	108.20
49	CQ	6	ARG	CB-CA-C	14.43	139.26	110.40
85	A5	3945	A	O4'-C1'-N9	14.43	119.74	108.20
36	B2	1014	G	O4'-C1'-C2'	14.42	120.58	107.60
74	CC	108	TRP	O-C-N	-14.41	99.64	122.70
85	A5	1724	G	O4'-C1'-N9	14.40	119.72	108.20
85	A5	2116	C	P-O3'-C3'	14.40	136.98	119.70
14	AT	93	SER	N-CA-CB	14.40	132.09	110.50
85	A5	1294	A	P-O3'-C3'	14.39	136.97	119.70
42	CL	166	ALA	C-N-CA	14.38	157.66	121.70
85	A5	4936	G	P-O5'-C5'	-14.38	97.89	120.90
85	A5	5059	C	P-O3'-C3'	14.38	136.96	119.70
36	B2	1479	G	O4'-C1'-N9	14.36	119.69	108.20
85	A5	2268	A	P-O3'-C3'	14.36	136.93	119.70
36	B2	133	C	P-O3'-C3'	14.35	136.92	119.70
85	A5	2413	U	O4'-C1'-N1	14.34	119.67	108.20
85	A5	3941	G	O4'-C1'-N9	14.34	119.67	108.20
85	A5	373	G	O4'-C1'-N9	14.33	119.67	108.20
36	B2	1416	C	O4'-C1'-N1	14.31	119.65	108.20
36	B2	1416	C	P-O3'-C3'	14.29	136.84	119.70
36	B2	591	U	O4'-C1'-N1	14.27	119.62	108.20
36	B2	213	G	O4'-C1'-N9	14.25	119.60	108.20
85	A5	452	A	P-O3'-C3'	14.23	136.78	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	AN	81	ALA	C-N-CD	-14.21	89.33	120.60
36	B2	1830	U	P-O3'-C3'	14.21	136.75	119.70
85	A5	1892	A	O4'-C1'-N9	14.20	119.56	108.20
18	AY	103	SER	O-C-N	-14.20	99.98	122.70
60	Cr	112	ARG	NE-CZ-NH2	-14.20	113.20	120.30
33	AI	184	ARG	NE-CZ-NH1	-14.20	113.20	120.30
36	B2	692	G	P-O3'-C3'	14.18	136.72	119.70
85	A5	497	G	P-O3'-C3'	14.17	136.71	119.70
36	B2	1239	U	P-O3'-C3'	-14.16	102.71	119.70
85	A5	1222	A	P-O3'-C3'	14.16	136.69	119.70
85	A5	5041	G	O4'-C1'-N9	14.16	119.53	108.20
36	B2	1418	C	O4'-C1'-N1	14.15	119.52	108.20
60	Cr	115	SER	CB-CA-C	14.15	136.98	110.10
85	A5	2651	C	P-O3'-C3'	14.14	136.66	119.70
36	B2	1348	G	O4'-C1'-N9	14.13	119.50	108.20
85	A5	2695	A	P-O3'-C3'	14.12	136.65	119.70
85	A5	1446	C	P-O3'-C3'	14.12	136.64	119.70
85	A5	1471	U	O4'-C1'-N1	14.11	119.49	108.20
36	B2	1824	A	O4'-C1'-N9	14.11	119.49	108.20
29	AG	170	ARG	CA-CB-CG	14.10	144.43	113.40
85	A5	972	C	O4'-C1'-C2'	-14.09	91.71	105.80
85	A5	5059	C	O4'-C1'-N1	14.09	119.47	108.20
35	Ah	294	LYS	C-N-CA	14.08	156.91	121.70
85	A5	1368	A	N9-C1'-C2'	14.08	132.31	114.00
85	A5	5034	A	O4'-C1'-N9	14.06	119.45	108.20
85	A5	712	C	N1-C1'-C2'	14.04	132.25	114.00
18	AY	86	GLU	N-CA-C	14.03	148.88	111.00
36	B2	687	C	O4'-C1'-N1	14.02	119.42	108.20
85	A5	4336	A	P-O3'-C3'	14.02	136.52	119.70
8	AS	40	TYR	CB-CG-CD1	14.02	129.41	121.00
85	A5	1995	G	N9-C1'-C2'	14.02	132.22	114.00
85	A5	1590	C	P-O3'-C3'	14.00	136.50	119.70
85	A5	4232	U	P-O3'-C3'	14.00	136.50	119.70
36	B2	304	C	C4'-C3'-O3'	-13.98	80.04	109.40
36	B2	1867	U	O4'-C1'-N1	13.97	119.38	108.20
36	B2	798	G	P-O3'-C3'	13.96	136.45	119.70
85	A5	4303	C	O4'-C1'-N1	13.96	119.37	108.20
36	B2	1417	C	O4'-C1'-C2'	-13.96	91.84	105.80
85	A5	727	C	P-O3'-C3'	13.95	136.44	119.70
81	CE	126	LEU	N-CA-CB	13.94	138.28	110.40
85	A5	1287	G	P-O3'-C3'	13.93	136.42	119.70
85	A5	1501	C	P-O3'-C3'	13.93	136.42	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	144	G	O4'-C1'-N9	13.93	119.34	108.20
36	B2	1642	U	O4'-C1'-N1	13.92	119.33	108.20
36	B2	1297	U	O4'-C1'-N1	13.91	119.33	108.20
85	A5	666	G	P-O3'-C3'	13.91	136.39	119.70
36	B2	916	A	O4'-C1'-N9	13.90	119.32	108.20
85	A5	2258	C	C1'-O4'-C4'	-13.89	98.79	109.90
85	A5	737	C	P-O5'-C5'	13.88	143.11	120.90
85	A5	2258	C	C3'-C2'-C1'	-13.88	90.40	101.50
1	Az	266	PHE	O-C-N	-13.88	100.50	122.70
85	A5	2426	U	O4'-C1'-N1	13.88	119.30	108.20
85	A5	425	U	O4'-C1'-N1	13.87	119.30	108.20
38	Cz	99	LEU	CA-C-O	-13.87	90.98	120.10
1	Az	121	VAL	O-C-N	-13.86	100.53	122.70
85	A5	886	C	P-O3'-C3'	13.85	136.32	119.70
85	A5	5048	A	O4'-C1'-N9	13.85	119.28	108.20
85	A5	445	U	O4'-C1'-N1	13.85	119.28	108.20
36	B2	1022	U	N1-C1'-C2'	13.84	132.00	114.00
85	A5	2552	G	P-O3'-C3'	-13.83	103.10	119.70
36	B2	659	G	O4'-C1'-N9	13.83	119.27	108.20
85	A5	3908	A	O4'-C1'-N9	13.82	119.26	108.20
85	A5	2033	A	O4'-C1'-N9	13.82	119.26	108.20
85	A5	5061	A	P-O3'-C3'	13.81	136.27	119.70
85	A5	2046	G	P-O3'-C3'	13.80	136.26	119.70
85	A5	2902	G	O4'-C1'-N9	-13.78	97.18	108.20
40	CK	2	PRO	N-CD-CG	13.76	123.84	103.20
85	A5	1266	G	P-O3'-C3'	13.76	136.21	119.70
85	A5	5049	G	O4'-C1'-N9	13.75	119.20	108.20
36	B2	243	C	P-O3'-C3'	13.75	136.20	119.70
36	B2	1779	G	P-O3'-C3'	13.74	136.19	119.70
1	Az	269	ALA	O-C-N	-13.72	100.75	122.70
85	A5	1270	A	P-O3'-C3'	13.72	136.17	119.70
36	B2	464	A	P-O3'-C3'	-13.72	103.24	119.70
36	B2	197	U	O4'-C1'-N1	13.72	119.17	108.20
85	A5	2085	G	O4'-C1'-N9	13.72	119.17	108.20
60	Cr	96	MET	CG-SD-CE	-13.70	78.28	100.20
21	Ab	36	LYS	C-N-CA	13.70	155.94	121.70
85	A5	957	G	P-O3'-C3'	13.69	136.13	119.70
85	A5	4629	U	O4'-C1'-N1	13.70	119.16	108.20
85	A5	4093	G	O4'-C1'-N9	13.69	119.15	108.20
85	A5	1303	A	O4'-C1'-C2'	-13.69	92.11	105.80
85	A5	3268	U	P-O3'-C3'	13.68	136.11	119.70
85	A5	2043	A	O4'-C1'-N9	13.67	119.14	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	AS	141	ARG	O-C-N	-13.67	100.83	122.70
85	A5	5002	U	O4'-C1'-N1	13.66	119.13	108.20
68	Cf	59	THR	N-CA-CB	13.66	136.25	110.30
85	A5	2362	U	O4'-C1'-N1	13.65	119.12	108.20
36	B2	323	C	P-O3'-C3'	13.65	136.07	119.70
36	B2	285	U	P-O3'-C3'	13.64	136.07	119.70
85	A5	4085	A	P-O3'-C3'	13.64	136.06	119.70
40	CK	1	MET	CA-C-N	-13.64	78.92	117.10
85	A5	1266	G	C1'-O4'-C4'	-13.63	98.99	109.90
36	B2	1726	G	O4'-C1'-N9	13.63	119.10	108.20
85	A5	654	C	P-O3'-C3'	13.62	136.04	119.70
85	A5	5027	C	O4'-C1'-N1	13.61	119.09	108.20
85	A5	4872	G	O4'-C1'-N9	13.61	119.08	108.20
85	A5	5068	G	O4'-C1'-N9	13.60	119.08	108.20
36	B2	1760	G	O4'-C1'-N9	13.60	119.08	108.20
85	A5	5054	C	O4'-C1'-N1	13.59	119.07	108.20
37	BC	27	U	O4'-C1'-N1	13.57	119.06	108.20
85	A5	1811	G	O4'-C1'-N9	13.56	119.05	108.20
85	A5	1790	U	O4'-C1'-N1	13.56	119.05	108.20
36	B2	296	U	N1-C1'-C2'	13.56	131.63	114.00
85	A5	1367	C	O4'-C1'-C2'	-13.56	92.24	105.80
36	B2	488	U	O4'-C1'-N1	13.55	119.04	108.20
85	A5	2225	C	P-O3'-C3'	13.54	135.95	119.70
85	A5	1513	U	O4'-C1'-N1	13.54	119.03	108.20
85	A5	3927	U	O4'-C1'-N1	13.53	119.03	108.20
36	B2	1397	U	O4'-C1'-N1	-13.53	97.38	108.20
47	CI	206	LEU	CB-CA-C	-13.52	84.51	110.20
36	B2	1015	U	O4'-C1'-N1	13.52	119.01	108.20
85	A5	4050	A	C3'-C2'-C1'	13.52	112.31	101.50
85	A5	636	G	O4'-C1'-N9	13.51	119.01	108.20
36	B2	834	C	N1-C1'-C2'	13.51	131.56	114.00
85	A5	4895	C	O4'-C1'-N1	13.51	119.01	108.20
14	AT	4	VAL	N-CA-C	13.50	147.45	111.00
85	A5	1705	G	P-O3'-C3'	13.50	135.90	119.70
36	B2	1453	C	O4'-C1'-N1	13.49	118.99	108.20
36	B2	1868	U	P-O3'-C3'	13.48	135.88	119.70
36	B2	1775	U	O4'-C1'-N1	13.48	118.98	108.20
85	A5	4888	U	P-O3'-C3'	13.48	135.87	119.70
51	CA	67	TYR	CB-CG-CD1	-13.46	112.93	121.00
51	CA	229	ALA	C-N-CD	-13.45	91.01	120.60
85	A5	4084	G	P-O3'-C3'	13.45	135.83	119.70
85	A5	2119	C	P-O3'-C3'	13.44	135.83	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2370	A	P-O3'-C3'	13.43	135.82	119.70
85	A5	2512	A	O4'-C1'-N9	13.43	118.95	108.20
36	B2	566	U	O4'-C1'-N1	13.43	118.94	108.20
85	A5	479	G	P-O3'-C3'	13.43	135.81	119.70
85	A5	4004	G	P-O3'-C3'	13.41	135.80	119.70
85	A5	1365	C	P-O3'-C3'	13.41	135.79	119.70
36	B2	558	G	O4'-C1'-N9	13.41	118.92	108.20
36	B2	529	A	P-O3'-C3'	-13.40	103.61	119.70
36	B2	893	U	O4'-C1'-N1	13.40	118.92	108.20
36	B2	1515	G	O4'-C1'-N9	13.40	118.92	108.20
87	A8	100	U	N1-C1'-C2'	13.40	131.42	114.00
85	A5	1454	G	O4'-C1'-N9	13.39	118.91	108.20
85	A5	4569	U	P-O3'-C3'	13.39	135.76	119.70
85	A5	82	U	O4'-C1'-N1	13.38	118.90	108.20
60	Cr	66	ARG	N-CA-CB	-13.38	86.52	110.60
85	A5	314	G	P-O3'-C3'	-13.38	103.65	119.70
38	Cz	98	LYS	O-C-N	13.37	144.09	122.70
85	A5	702	U	O4'-C1'-N1	13.36	118.89	108.20
85	A5	3766	A	P-O3'-C3'	-13.35	103.68	119.70
36	B2	448	A	O4'-C1'-N9	13.35	118.88	108.20
85	A5	4770	U	O4'-C1'-N1	13.34	118.87	108.20
36	B2	964	A	O4'-C1'-N9	13.34	118.87	108.20
85	A5	917	A	P-O3'-C3'	13.32	135.69	119.70
85	A5	4532	U	P-O3'-C3'	13.32	135.69	119.70
85	A5	2427	G	N9-C1'-C2'	13.31	131.31	114.00
85	A5	4885	U	P-O3'-C3'	13.31	135.68	119.70
85	A5	2121	C	C4'-C3'-O3'	-13.31	81.45	109.40
36	B2	1746	U	P-O3'-C3'	13.31	135.67	119.70
36	B2	147	A	O4'-C1'-N9	13.30	118.84	108.20
85	A5	2585	C	O4'-C1'-N1	13.30	118.84	108.20
85	A5	2559	G	O4'-C1'-N9	13.29	118.83	108.20
85	A5	1089	G	O4'-C1'-N9	13.29	118.83	108.20
85	A5	4641	U	O4'-C1'-N1	13.28	118.83	108.20
36	B2	833	C	P-O3'-C3'	13.28	135.64	119.70
36	B2	1621	U	O4'-C1'-N1	13.28	118.82	108.20
36	B2	24	C	P-O3'-C3'	13.28	135.63	119.70
36	B2	637	U	O4'-C1'-N1	13.28	118.82	108.20
85	A5	186	G	P-O3'-C3'	13.27	135.62	119.70
85	A5	1239	C	P-O3'-C3'	13.27	135.62	119.70
85	A5	58	G	O4'-C1'-N9	13.27	118.81	108.20
85	A5	972	C	P-O3'-C3'	13.26	135.62	119.70
85	A5	4067	U	O4'-C1'-N1	13.26	118.81	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	540	U	O4'-C1'-N1	13.26	118.81	108.20
29	AG	131	ARG	CA-CB-CG	13.25	142.54	113.40
85	A5	3881	G	O4'-C1'-N9	13.25	118.80	108.20
36	B2	841	G	O4'-C1'-N9	13.24	118.79	108.20
85	A5	3946	G	P-O3'-C3'	13.24	135.59	119.70
85	A5	2253	A	O4'-C1'-N9	13.23	118.78	108.20
85	A5	2397	G	O4'-C1'-N9	13.22	118.78	108.20
85	A5	1348	U	O4'-C1'-N1	13.22	118.77	108.20
36	B2	1553	C	C3'-C2'-C1'	-13.21	90.93	101.50
36	B2	1519	U	O4'-C1'-N1	13.21	118.77	108.20
36	B2	286	U	O4'-C1'-N1	-13.20	97.64	108.20
20	Aa	97	PRO	CB-CA-C	-13.20	78.99	112.00
85	A5	930	G	O4'-C1'-N9	13.20	118.76	108.20
85	A5	2111	G	P-O3'-C3'	13.20	135.54	119.70
85	A5	2670	C	N1-C1'-C2'	13.20	131.16	114.00
86	A7	72	U	P-O3'-C3'	13.18	135.52	119.70
36	B2	1265	A	N9-C1'-C2'	13.18	131.13	114.00
36	B2	752	G	O4'-C1'-N9	13.18	118.74	108.20
85	A5	4036	G	P-O3'-C3'	13.17	135.51	119.70
85	A5	4903	G	P-O3'-C3'	13.16	135.49	119.70
87	A8	94	G	O4'-C1'-C2'	-13.16	92.64	105.80
39	Cq	37	SER	N-CA-CB	-13.16	90.77	110.50
85	A5	1293	G	P-O3'-C3'	13.15	135.48	119.70
85	A5	1347	G	O4'-C1'-N9	13.14	118.72	108.20
85	A5	1310	C	O4'-C1'-N1	13.14	118.71	108.20
85	A5	4680	G	O4'-C1'-N9	13.14	118.71	108.20
85	A5	750	U	O4'-C1'-N1	13.14	118.71	108.20
85	A5	4697	U	O4'-C1'-N1	13.13	118.71	108.20
85	A5	4735	G	P-O3'-C3'	13.13	135.45	119.70
85	A5	911	U	P-O3'-C3'	13.12	135.45	119.70
36	B2	772	G	P-O3'-C3'	13.12	135.45	119.70
36	B2	746	C	P-O3'-C3'	13.12	135.44	119.70
36	B2	416	U	O4'-C1'-N1	13.11	118.69	108.20
85	A5	2766	A	O4'-C1'-N9	13.11	118.69	108.20
85	A5	3940	U	P-O3'-C3'	13.11	135.43	119.70
85	A5	2272	C	P-O3'-C3'	13.10	135.42	119.70
52	CS	174	THR	O-C-N	-13.10	101.74	122.70
36	B2	1847	G	O4'-C1'-N9	13.08	118.67	108.20
85	A5	413	G	O4'-C1'-N9	13.08	118.67	108.20
85	A5	3972	A	P-O3'-C3'	13.08	135.40	119.70
85	A5	4875	G	O4'-C1'-N9	13.08	118.66	108.20
36	B2	1261	C	N1-C1'-C2'	13.07	131.00	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AK	55	ARG	CG-CD-NE	13.07	139.25	111.80
85	A5	4751	G	O4'-C1'-C2'	13.07	119.36	107.60
56	CX	52	LEU	O-C-N	-13.06	101.80	122.70
35	Ah	157	ILE	O-C-N	13.04	143.57	122.70
36	B2	1507	G	O4'-C1'-N9	13.04	118.64	108.20
85	A5	1367	C	N1-C1'-C2'	-13.04	97.05	114.00
85	A5	1240	G	C1'-O4'-C4'	13.03	120.32	109.90
74	CC	155	GLU	N-CA-CB	13.02	134.04	110.60
85	A5	4075	U	O4'-C1'-N1	13.02	118.61	108.20
74	CC	307	LYS	CB-CG-CD	13.01	145.43	111.60
85	A5	3821	A	O4'-C1'-N9	13.01	118.61	108.20
36	B2	1528	G	O4'-C1'-N9	13.00	118.60	108.20
85	A5	4978	G	O4'-C1'-N9	12.99	118.59	108.20
36	B2	1720	U	P-O3'-C3'	12.98	135.28	119.70
85	A5	976	G	O4'-C1'-N9	12.98	118.58	108.20
36	B2	1463	U	C4'-C3'-O3'	-12.97	82.17	109.40
36	B2	1486	A	O4'-C1'-N9	12.97	118.57	108.20
87	A8	149	G	O4'-C1'-N9	12.96	118.57	108.20
85	A5	2801	U	O4'-C1'-N1	12.96	118.57	108.20
85	A5	3967	G	C1'-O4'-C4'	-12.96	99.53	109.90
36	B2	183	G	C1'-O4'-C4'	-12.94	99.55	109.90
85	A5	2102	G	O4'-C1'-N9	12.93	118.55	108.20
85	A5	478	G	O4'-C1'-N9	12.93	118.54	108.20
85	A5	2665	U	N1-C1'-C2'	12.93	130.81	114.00
36	B2	1311	C	N1-C1'-C2'	12.92	130.79	114.00
85	A5	1313	C	O4'-C1'-C2'	-12.92	92.88	105.80
36	B2	880	G	P-O3'-C3'	12.91	135.19	119.70
85	A5	4229	U	O4'-C1'-N1	12.91	118.53	108.20
85	A5	2806	A	P-O3'-C3'	12.91	135.19	119.70
36	B2	466	G	O4'-C1'-N9	12.91	118.53	108.20
85	A5	4118	U	O4'-C1'-N1	12.90	118.52	108.20
85	A5	4150	G	O4'-C1'-N9	12.90	118.52	108.20
36	B2	425	G	O4'-C1'-N9	12.89	118.52	108.20
87	A8	63	U	O4'-C1'-N1	12.89	118.51	108.20
85	A5	4196	G	C3'-C2'-C1'	12.89	111.81	101.50
36	B2	751	G	O4'-C1'-N9	12.89	118.51	108.20
85	A5	2505	C	O4'-C1'-N1	12.88	118.50	108.20
85	A5	1268	G	N9-C1'-C2'	12.88	130.74	114.00
36	B2	873	G	P-O3'-C3'	12.87	135.15	119.70
85	A5	946	C	O4'-C1'-C2'	-12.87	92.93	105.80
85	A5	188	G	O4'-C1'-N9	12.87	118.49	108.20
85	A5	2018	C	P-O5'-C5'	12.87	141.49	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	969	C	P-O3'-C3'	12.87	135.14	119.70
85	A5	2093	A	O4'-C1'-N9	12.87	118.49	108.20
85	A5	2829	U	O4'-C1'-N1	12.87	118.49	108.20
85	A5	4062	A	O4'-C1'-N9	12.86	118.49	108.20
85	A5	4945	G	O4'-C1'-N9	12.86	118.48	108.20
39	Cq	57	LYS	CB-CA-C	-12.86	84.69	110.40
85	A5	1214	C	P-O3'-C3'	12.84	135.10	119.70
87	A8	154	G	O4'-C1'-N9	12.84	118.47	108.20
36	B2	1410	C	N1-C1'-C2'	12.82	130.67	114.00
40	CK	111	ASN	N-CA-CB	12.82	133.67	110.60
36	B2	604	A	P-O3'-C3'	12.80	135.06	119.70
36	B2	725	C	P-O3'-C3'	12.80	135.06	119.70
86	A7	72	U	P-O5'-C5'	12.80	141.39	120.90
36	B2	1	U	O4'-C1'-N1	12.80	118.44	108.20
36	B2	1433	C	O3'-P-O5'	-12.80	79.68	104.00
85	A5	5026	U	O4'-C1'-N1	12.80	118.44	108.20
36	B2	1406	G	P-O3'-C3'	12.80	135.06	119.70
36	B2	126	G	C4'-C3'-O3'	-12.79	82.53	109.40
61	Ch	119	TYR	CB-CG-CD1	12.79	128.68	121.00
85	A5	4708	A	O4'-C1'-N9	12.79	118.43	108.20
36	B2	75	G	O4'-C1'-N9	12.79	118.43	108.20
85	A5	938	C	P-O3'-C3'	12.79	135.04	119.70
85	A5	1447	C	O4'-C1'-N1	12.79	118.43	108.20
85	A5	2289	C	C3'-C2'-C1'	12.78	111.73	101.50
36	B2	1253	A	O4'-C1'-N9	12.78	118.42	108.20
38	Cz	98	LYS	CA-C-N	-12.77	89.10	117.20
85	A5	2025	A	P-O3'-C3'	12.77	135.03	119.70
37	BC	21	G	O4'-C1'-N9	12.77	118.41	108.20
85	A5	2447	U	O4'-C1'-N1	12.77	118.42	108.20
85	A5	2107	C	O4'-C1'-C2'	-12.77	93.03	105.80
36	B2	1570	G	O4'-C1'-N9	12.76	118.41	108.20
85	A5	4334	U	O4'-C1'-N1	12.76	118.41	108.20
85	A5	4685	U	O4'-C1'-N1	12.76	118.41	108.20
85	A5	385	A	O4'-C1'-N9	12.76	118.41	108.20
85	A5	3832	U	O4'-C1'-N1	12.75	118.40	108.20
38	Cz	28	PHE	O-C-N	12.73	143.08	122.70
36	B2	1172	U	O4'-C1'-N1	12.73	118.38	108.20
85	A5	1274	A	P-O5'-C5'	12.73	141.26	120.90
36	B2	1538	C	P-O3'-C3'	12.72	134.97	119.70
40	CK	130	LYS	CB-CA-C	-12.71	84.97	110.40
85	A5	3933	G	O4'-C1'-N9	12.71	118.37	108.20
36	B2	38	A	O4'-C1'-N9	12.71	118.37	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2850	A	N9-C1'-C2'	12.70	130.50	114.00
78	Co	34	TYR	O-C-N	-12.68	102.41	122.70
81	CE	100	LYS	O-C-N	-12.68	102.42	122.70
85	A5	754	U	O4'-C1'-N1	12.68	118.34	108.20
85	A5	428	G	O4'-C1'-N9	12.67	118.34	108.20
36	B2	170	A	O4'-C1'-C2'	12.67	119.00	107.60
36	B2	139	C	P-O3'-C3'	12.66	134.89	119.70
36	B2	123	G	O4'-C1'-N9	12.66	118.33	108.20
36	B2	1242	U	N1-C1'-C2'	12.66	130.46	114.00
85	A5	3268	U	C5'-C4'-C3'	12.65	136.24	116.00
61	Ch	78	TYR	CB-CG-CD1	-12.64	113.42	121.00
38	Cz	100	VAL	CA-C-O	-12.63	93.57	120.10
36	B2	632	C	N1-C1'-C2'	12.63	130.42	114.00
36	B2	820	U	O4'-C1'-N1	12.63	118.30	108.20
85	A5	2009	A	P-O3'-C3'	12.63	134.85	119.70
36	B2	59	U	O4'-C1'-N1	12.62	118.30	108.20
85	A5	1410	U	P-O3'-C3'	12.61	134.84	119.70
85	A5	708	G	P-O3'-C3'	12.61	134.84	119.70
85	A5	1757	U	P-O5'-C5'	-12.61	100.72	120.90
85	A5	1532	G	N9-C1'-C2'	12.61	130.39	114.00
36	B2	1244	U	O4'-C1'-N1	12.60	118.28	108.20
85	A5	2123	C	O4'-C1'-C2'	-12.60	93.20	105.80
85	A5	2649	G	P-O3'-C3'	12.60	134.81	119.70
85	A5	4081	G	O4'-C1'-N9	12.60	118.28	108.20
12	AR	88	VAL	O-C-N	-12.59	102.56	122.70
85	A5	4738	C	P-O3'-C3'	12.59	134.81	119.70
34	AQ	18	THR	N-CA-CB	12.58	134.19	110.30
6	AX	23	HIS	O-C-N	-12.57	102.58	122.70
36	B2	24	C	C1'-C2'-O2'	-12.57	72.89	110.60
36	B2	722	C	P-O3'-C3'	12.57	134.78	119.70
85	A5	2250	C	P-O3'-C3'	12.56	134.78	119.70
85	A5	2304	U	O4'-C1'-N1	12.56	118.25	108.20
54	CP	10	ASN	C-N-CD	-12.56	92.97	120.60
85	A5	688	U	N1-C1'-C2'	12.56	130.33	114.00
85	A5	1369	C	N1-C1'-C2'	12.56	130.33	114.00
36	B2	77	A	P-O3'-C3'	12.56	134.77	119.70
85	A5	272	U	O4'-C1'-N1	12.56	118.25	108.20
85	A5	1404	G	O4'-C1'-N9	12.55	118.24	108.20
12	AR	89	SER	N-CA-C	12.55	144.89	111.00
85	A5	2821	U	O4'-C1'-N1	12.54	118.23	108.20
85	A5	3760	A	O4'-C1'-N9	12.54	118.23	108.20
36	B2	1593	C	P-O3'-C3'	12.53	134.74	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4260	U	O4'-C1'-N1	12.52	118.22	108.20
85	A5	981	C	O4'-C1'-C2'	-12.51	93.29	105.80
85	A5	1869	G	O4'-C1'-N9	12.50	118.20	108.20
40	CK	2	PRO	CB-CA-C	12.49	143.23	112.00
36	B2	1149	A	O4'-C1'-N9	12.49	118.19	108.20
85	A5	3838	U	O4'-C1'-N1	12.49	118.19	108.20
85	A5	641	G	O4'-C1'-N9	12.48	118.19	108.20
85	A5	2911	G	P-O3'-C3'	12.48	134.68	119.70
85	A5	4889	G	P-O3'-C3'	12.48	134.68	119.70
63	CB	298	LEU	N-CA-CB	12.48	135.35	110.40
35	Ah	179	MET	C-N-CA	12.47	148.49	122.30
85	A5	405	U	O4'-C1'-N1	12.47	118.18	108.20
36	B2	885	U	O4'-C1'-N1	12.47	118.17	108.20
36	B2	789	G	O4'-C1'-N9	12.46	118.17	108.20
85	A5	882	G	P-O3'-C3'	12.45	134.64	119.70
49	CQ	6	ARG	CD-NE-CZ	12.44	141.02	123.60
85	A5	1994	C	N1-C1'-C2'	12.44	130.17	114.00
29	AG	170	ARG	N-CA-CB	12.44	132.99	110.60
85	A5	250	C	P-O3'-C3'	12.44	134.63	119.70
85	A5	1174	G	O4'-C1'-N9	12.44	118.15	108.20
85	A5	2686	G	O4'-C1'-N9	12.44	118.15	108.20
85	A5	4111	U	O4'-C1'-N1	12.44	118.15	108.20
85	A5	281	U	O4'-C1'-N1	12.43	118.15	108.20
36	B2	1108	G	O4'-C1'-N9	12.43	118.14	108.20
85	A5	1897	A	O4'-C1'-N9	12.43	118.14	108.20
85	A5	4060	U	O4'-C1'-N1	12.43	118.14	108.20
85	A5	4135	G	P-O3'-C3'	12.43	134.61	119.70
85	A5	4527	G	O4'-C1'-N9	12.43	118.14	108.20
85	A5	4671	C	O4'-C1'-C2'	-12.41	93.39	105.80
36	B2	66	G	C1'-O4'-C4'	-12.40	99.98	109.90
73	Cl	5	LYS	C-N-CA	-12.40	90.69	121.70
68	Cf	104	MET	CG-SD-CE	12.40	120.04	100.20
85	A5	4089	G	O4'-C1'-N9	12.40	118.12	108.20
85	A5	4570	G	O4'-C1'-N9	12.40	118.12	108.20
85	A5	4189	U	O4'-C1'-N1	12.39	118.11	108.20
85	A5	4838	U	P-O3'-C3'	12.39	134.57	119.70
85	A5	4941	G	O3'-P-O5'	-12.39	80.46	104.00
87	A8	80	A	O4'-C1'-N9	12.39	118.11	108.20
85	A5	1522	G	O4'-C1'-N9	12.38	118.10	108.20
85	A5	2133	C	P-O3'-C3'	12.37	134.54	119.70
85	A5	2232	C	P-O3'-C3'	12.37	134.54	119.70
85	A5	2630	U	O4'-C1'-N1	12.37	118.09	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4130	C	P-O3'-C3'	12.37	134.54	119.70
36	B2	741	C	O4'-C1'-N1	12.37	118.09	108.20
85	A5	4806	C	P-O3'-C3'	12.37	134.54	119.70
36	B2	1759	G	O4'-C1'-N9	12.36	118.09	108.20
85	A5	1578	U	P-O3'-C3'	-12.36	104.87	119.70
36	B2	20	G	O4'-C1'-N9	12.35	118.08	108.20
85	A5	1612	G	N9-C1'-C2'	12.35	130.05	114.00
36	B2	870	A	O4'-C1'-N9	12.34	118.07	108.20
36	B2	706	U	P-O3'-C3'	12.34	134.51	119.70
36	B2	369	C	O4'-C1'-N1	12.34	118.07	108.20
36	B2	835	C	P-O5'-C5'	12.34	140.64	120.90
85	A5	2768	C	N1-C1'-C2'	12.33	130.03	114.00
85	A5	3657	U	O4'-C1'-N1	12.32	118.06	108.20
13	AP	17	TYR	CB-CG-CD2	-12.32	113.61	121.00
50	CR	143	HIS	ND1-CE1-NE2	-12.32	82.79	109.90
85	A5	1075	G	O4'-C1'-N9	12.32	118.06	108.20
85	A5	3731	C	P-O3'-C3'	12.31	134.47	119.70
37	BC	37	A	P-O3'-C3'	-12.30	104.94	119.70
85	A5	3690	U	O4'-C1'-N1	12.30	118.04	108.20
85	A5	1890	G	O4'-C1'-N9	12.30	118.04	108.20
85	A5	2146	U	P-O3'-C3'	12.30	134.46	119.70
87	A8	88	A	N9-C1'-C2'	12.30	129.99	114.00
74	CC	133	LEU	C-N-CD	-12.29	93.56	120.60
81	CE	101	ASN	N-CA-CB	12.28	132.71	110.60
85	A5	333	U	O4'-C1'-N1	12.28	118.02	108.20
85	A5	958	G	P-O3'-C3'	12.28	134.43	119.70
85	A5	2549	G	P-O3'-C3'	12.28	134.43	119.70
85	A5	4066	U	O4'-C1'-N1	12.28	118.02	108.20
36	B2	4	C	N1-C1'-C2'	12.27	129.95	114.00
40	CK	99	LYS	N-CA-CB	12.27	132.69	110.60
49	CQ	6	ARG	CB-CG-CD	12.27	143.49	111.60
85	A5	1429	C	O4'-C1'-C2'	-12.27	93.53	105.80
36	B2	262	G	P-O3'-C3'	12.26	134.41	119.70
85	A5	2120	G	C3'-C2'-C1'	12.26	111.31	101.50
85	A5	2691	U	P-O3'-C3'	-12.26	104.99	119.70
36	B2	552	G	P-O3'-C3'	12.26	134.41	119.70
36	B2	1048	G	N9-C1'-C2'	12.26	129.93	114.00
85	A5	3887	C	P-O3'-C3'	12.25	134.41	119.70
85	A5	2260	C	P-O3'-C3'	12.25	134.40	119.70
85	A5	4863	G	O4'-C1'-N9	12.25	118.00	108.20
36	B2	289	G	O4'-C1'-N9	12.25	118.00	108.20
36	B2	1721	U	N1-C1'-C2'	-12.25	98.08	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	626	G	C3'-C2'-C1'	12.24	111.29	101.50
36	B2	1434	C	P-O3'-C3'	12.24	134.39	119.70
87	A8	111	U	O5'-C5'-C4'	12.23	134.94	111.70
36	B2	1418	C	O4'-C1'-C2'	12.23	118.61	107.60
85	A5	444	G	O4'-C1'-N9	12.23	117.98	108.20
85	A5	2313	A	P-O3'-C3'	12.22	134.37	119.70
58	CW	71	ARG	CA-CB-CG	12.22	140.28	113.40
36	B2	339	A	C4'-C3'-O3'	-12.21	83.75	109.40
85	A5	1401	C	O4'-C1'-N1	12.21	117.97	108.20
74	CC	4	ALA	CA-C-N	12.21	144.06	117.20
85	A5	2826	U	O4'-C1'-N1	12.21	117.97	108.20
85	A5	2696	A	O4'-C1'-N9	12.21	117.97	108.20
36	B2	990	A	N9-C1'-C2'	12.20	129.87	114.00
85	A5	1197	C	P-O3'-C3'	12.21	134.35	119.70
36	B2	1130	G	O4'-C1'-N9	12.20	117.96	108.20
85	A5	1361	G	N9-C1'-C2'	-12.20	98.14	114.00
86	A7	112	U	O4'-C1'-N1	12.20	117.96	108.20
36	B2	1085	C	P-O5'-C5'	-12.20	101.38	120.90
85	A5	3753	G	P-O3'-C3'	12.20	134.34	119.70
85	A5	4087	G	P-O3'-C3'	12.20	134.34	119.70
85	A5	966	A	P-O3'-C3'	12.20	134.34	119.70
85	A5	184	U	P-O3'-C3'	12.19	134.33	119.70
34	AQ	146	ARG	NE-CZ-NH2	12.18	126.39	120.30
85	A5	923	C	N1-C1'-C2'	12.18	129.83	114.00
85	A5	4874	A	P-O3'-C3'	12.17	134.31	119.70
85	A5	4762	A	O4'-C1'-N9	12.17	117.94	108.20
85	A5	64	A	P-O3'-C3'	12.16	134.29	119.70
36	B2	1567	G	C3'-C2'-C1'	-12.15	91.78	101.50
85	A5	2495	U	O4'-C1'-N1	12.15	117.92	108.20
85	A5	4093	G	P-O3'-C3'	12.15	134.28	119.70
87	A8	110	U	P-O3'-C3'	12.15	134.28	119.70
85	A5	468	U	O4'-C1'-N1	12.14	117.92	108.20
85	A5	3948	C	P-O3'-C3'	12.14	134.27	119.70
87	A8	123	U	O4'-C1'-N1	12.14	117.92	108.20
36	B2	146	G	O4'-C1'-N9	12.14	117.91	108.20
36	B2	541	U	O4'-C1'-N1	12.14	117.91	108.20
82	CG	106	THR	CA-C-O	-12.13	94.62	120.10
85	A5	4267	G	O4'-C1'-N9	12.13	117.91	108.20
85	A5	5015	G	O4'-C1'-C2'	-12.13	93.67	105.80
23	AD	4	GLN	CG-CD-OE1	-12.13	97.34	121.60
85	A5	149	A	C2'-C3'-O3'	12.13	136.18	109.50
85	A5	1809	C	O4'-C1'-N1	12.12	117.90	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1171	G	O4'-C1'-N9	12.12	117.90	108.20
85	A5	1381	U	O4'-C1'-N1	12.12	117.90	108.20
85	A5	1397	A	O4'-C1'-N9	12.11	117.89	108.20
36	B2	422	U	O4'-C1'-N1	12.11	117.89	108.20
85	A5	5047	C	O4'-C1'-N1	12.11	117.89	108.20
36	B2	1844	U	O4'-C1'-N1	12.10	117.88	108.20
36	B2	1473	G	O3'-P-O5'	12.10	126.99	104.00
36	B2	1259	A	O4'-C1'-N9	12.09	117.88	108.20
18	AY	86	GLU	CA-C-O	-12.09	94.71	120.10
85	A5	4541	G	O4'-C1'-N9	12.09	117.87	108.20
85	A5	934	C	P-O5'-C5'	12.09	140.24	120.90
85	A5	2255	C	C3'-C2'-C1'	12.09	111.17	101.50
85	A5	2242	C	O4'-C1'-N1	12.08	117.86	108.20
2	Ag	24	THR	C-N-CD	-12.08	94.03	120.60
36	B2	240	G	P-O3'-C3'	12.07	134.19	119.70
36	B2	1192	U	O4'-C1'-N1	12.07	117.86	108.20
36	B2	1401	A	P-O3'-C3'	12.07	134.19	119.70
85	A5	674	G	C1'-O4'-C4'	-12.07	100.25	109.90
53	CT	151	LEU	C-N-CA	12.06	151.86	121.70
85	A5	1616	U	O4'-C1'-N1	12.06	117.85	108.20
85	A5	4395	U	O4'-C1'-N1	12.06	117.85	108.20
85	A5	671	G	O4'-C1'-N9	12.06	117.85	108.20
85	A5	4942	C	N1-C1'-C2'	12.05	129.67	114.00
24	Ae	21	LYS	O-C-N	-12.04	103.43	122.70
85	A5	1359	G	O4'-C1'-N9	-12.05	98.56	108.20
36	B2	861	A	N9-C1'-C2'	-12.04	98.35	114.00
85	A5	1051	G	O4'-C1'-N9	12.03	117.83	108.20
85	A5	2574	G	P-O3'-C3'	12.03	134.14	119.70
85	A5	4065	G	O4'-C1'-N9	12.03	117.83	108.20
37	BC	64	C	O4'-C1'-N1	12.03	117.82	108.20
36	B2	919	A	P-O3'-C3'	12.02	134.12	119.70
85	A5	1360	G	O3'-P-O5'	-12.02	81.16	104.00
36	B2	1555	U	O4'-C1'-N1	12.02	117.82	108.20
85	A5	3861	A	C3'-C2'-C1'	12.02	111.11	101.50
85	A5	4069	U	O4'-C1'-N1	12.01	117.81	108.20
36	B2	530	U	O4'-C1'-N1	12.01	117.81	108.20
78	Co	3	ASN	O-C-N	-12.00	103.50	122.70
85	A5	5010	U	O4'-C1'-N1	12.00	117.80	108.20
58	CW	97	LYS	C-N-CD	-12.00	94.20	120.60
85	A5	1359	G	C1'-O4'-C4'	-12.00	100.30	109.90
84	Cu	45	GLU	N-CA-CB	12.00	132.19	110.60
85	A5	445	U	P-O3'-C3'	12.00	134.10	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	287	U	P-O3'-C3'	11.99	134.09	119.70
87	A8	142	U	O4'-C1'-N1	11.99	117.79	108.20
85	A5	2609	G	O4'-C1'-N9	11.99	117.79	108.20
36	B2	839	C	O4'-C1'-N1	11.98	117.78	108.20
36	B2	740	C	N1-C1'-C2'	11.97	129.57	114.00
36	B2	1101	U	O4'-C1'-N1	11.97	117.78	108.20
86	A7	119	U	O4'-C1'-N1	11.97	117.78	108.20
36	B2	227	U	O4'-C1'-N1	11.96	117.77	108.20
85	A5	2814	C	C3'-C2'-C1'	11.97	111.07	101.50
36	B2	1676	U	O4'-C1'-N1	11.96	117.77	108.20
36	B2	1376	A	O4'-C1'-N9	11.96	117.77	108.20
85	A5	1102	U	O4'-C1'-N1	11.96	117.77	108.20
36	B2	1664	A	P-O3'-C3'	11.96	134.05	119.70
85	A5	4163	U	P-O3'-C3'	11.96	134.05	119.70
36	B2	1314	U	O4'-C1'-N1	11.95	117.76	108.20
85	A5	2831	G	O4'-C1'-N9	11.95	117.76	108.20
85	A5	4664	A	O3'-P-O5'	11.95	126.70	104.00
85	A5	1610	C	O4'-C1'-N1	11.94	117.75	108.20
36	B2	471	G	O4'-C1'-N9	11.94	117.75	108.20
85	A5	676	C	O4'-C1'-N1	11.94	117.75	108.20
85	A5	1240	G	N9-C1'-C2'	-11.93	98.49	114.00
4	AK	1	MET	N-CA-CB	-11.93	89.13	110.60
36	B2	1543	U	P-O3'-C3'	11.93	134.01	119.70
85	A5	2220	U	P-O3'-C3'	11.93	134.01	119.70
36	B2	1359	U	O4'-C1'-N1	11.92	117.74	108.20
85	A5	945	U	P-O3'-C3'	11.91	134.00	119.70
1	Az	278	THR	O-C-N	-11.91	103.65	122.70
36	B2	1107	G	O4'-C1'-N9	11.91	117.73	108.20
36	B2	436	G	O4'-C1'-N9	11.91	117.72	108.20
85	A5	3861	A	O4'-C1'-C2'	-11.90	93.90	105.80
50	CR	53	LYS	C-N-CD	-11.89	94.43	120.60
85	A5	185	C	O4'-C1'-C2'	-11.89	93.91	105.80
85	A5	4350	C	O5'-P-OP1	-11.89	95.00	105.70
85	A5	724	C	O4'-C1'-C2'	-11.89	93.91	105.80
85	A5	3663	A	N9-C1'-C2'	11.88	129.45	114.00
36	B2	179	C	N1-C1'-C2'	11.88	129.44	114.00
42	CL	163	LYS	CA-C-N	-11.88	91.07	117.20
23	AD	4	GLN	N-CA-CB	-11.88	89.22	110.60
45	Ca	147	VAL	O-C-N	-11.87	103.70	122.70
85	A5	1633	G	P-O3'-C3'	11.88	133.95	119.70
64	CF	220	MET	C-N-CA	11.87	151.36	121.70
85	A5	1179	U	O4'-C1'-N1	11.85	117.68	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	3283	G	P-O3'-C3'	11.85	133.92	119.70
53	CT	75	VAL	O-C-N	-11.85	103.74	122.70
36	B2	606	G	O4'-C1'-N9	11.85	117.68	108.20
36	B2	1612	G	N9-C1'-C2'	-11.85	98.60	114.00
85	A5	3888	G	P-O3'-C3'	11.85	133.92	119.70
38	Cz	28	PHE	C-N-CA	-11.84	92.09	121.70
85	A5	3886	G	O4'-C1'-N9	11.84	117.67	108.20
82	CG	103	ARG	C-N-CD	-11.84	94.55	120.60
38	Cz	26	ARG	N-CA-C	11.84	142.96	111.00
36	B2	1554	C	O3'-P-O5'	-11.84	81.51	104.00
85	A5	4265	U	O4'-C1'-N1	11.84	117.67	108.20
85	A5	940	C	P-O3'-C3'	11.83	133.89	119.70
36	B2	811	A	P-O3'-C3'	11.82	133.88	119.70
36	B2	872	A	P-O3'-C3'	11.82	133.88	119.70
85	A5	384	A	C3'-C2'-C1'	11.82	110.95	101.50
85	A5	1275	G	O4'-C1'-N9	11.82	117.65	108.20
87	A8	30	U	O4'-C1'-N1	11.81	117.65	108.20
85	A5	4768	G	O4'-C1'-N9	11.80	117.64	108.20
82	CG	162	ASP	C-N-CD	-11.79	94.65	120.60
85	A5	1714	C	P-O3'-C3'	11.79	133.85	119.70
85	A5	1175	A	O4'-C1'-N9	11.78	117.62	108.20
85	A5	1768	C	O4'-C1'-C2'	-11.78	94.02	105.80
36	B2	1319	U	O4'-C1'-N1	11.78	117.62	108.20
63	CB	292	LEU	O-C-N	-11.78	103.86	122.70
85	A5	2450	G	O4'-C1'-N9	11.78	117.62	108.20
12	AR	1	MET	C-N-CA	-11.77	97.57	122.30
36	B2	1323	U	O4'-C1'-N1	11.77	117.62	108.20
74	CC	34	PRO	O-C-N	-11.77	103.87	122.70
85	A5	2097	U	O4'-C1'-C2'	-11.77	94.03	105.80
85	A5	4751	G	C3'-C2'-C1'	-11.77	92.08	101.50
40	CK	24	ALA	O-C-N	-11.76	103.89	122.70
85	A5	142	G	P-O3'-C3'	11.75	133.80	119.70
36	B2	791	C	P-O3'-C3'	11.74	133.79	119.70
85	A5	2638	G	N9-C1'-C2'	-11.74	98.73	114.00
85	A5	934	C	C3'-C2'-C1'	11.74	110.89	101.50
85	A5	508	G	O4'-C1'-N9	11.73	117.58	108.20
7	AM	99	ASN	C-N-CD	-11.73	94.80	120.60
36	B2	1237	C	C1'-O4'-C4'	-11.72	100.52	109.90
85	A5	4994	G	C1'-O4'-C4'	-11.72	100.53	109.90
85	A5	3959	U	P-O3'-C3'	11.72	133.76	119.70
85	A5	1285	U	P-O3'-C3'	11.71	133.76	119.70
85	A5	4739	C	O4'-C1'-N1	11.71	117.57	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AB	41	ILE	CB-CA-C	11.71	135.01	111.60
36	B2	1839	U	O4'-C1'-N1	11.70	117.56	108.20
85	A5	1235	G	P-O5'-C5'	11.70	139.61	120.90
85	A5	1367	C	C1'-O4'-C4'	11.69	119.25	109.90
85	A5	3593	C	P-O3'-C3'	11.69	133.73	119.70
36	B2	1812	U	O4'-C1'-N1	11.69	117.55	108.20
85	A5	1907	A	P-O3'-C3'	11.69	133.72	119.70
36	B2	1675	A	N9-C1'-C2'	-11.68	98.82	114.00
85	A5	105	A	O4'-C1'-N9	11.68	117.54	108.20
36	B2	1422	G	O4'-C1'-N9	11.67	117.54	108.20
36	B2	1235	G	O4'-C1'-N9	11.67	117.54	108.20
36	B2	1520	G	N9-C1'-C2'	11.67	129.17	114.00
36	B2	286	U	C3'-C2'-C1'	11.66	110.83	101.50
36	B2	738	C	N1-C1'-C2'	11.66	129.16	114.00
85	A5	2506	G	P-O3'-C3'	11.65	133.68	119.70
36	B2	580	U	P-O3'-C3'	-11.65	105.72	119.70
38	Cz	28	PHE	CA-CB-CG	11.64	141.84	113.90
85	A5	1265	G	N9-C1'-C2'	11.64	129.14	114.00
36	B2	800	U	O4'-C1'-N1	11.64	117.51	108.20
85	A5	404	U	O4'-C1'-N1	11.63	117.50	108.20
85	A5	1410	U	C1'-O4'-C4'	11.63	119.20	109.90
33	AI	134	GLU	CB-CA-C	-11.63	87.15	110.40
36	B2	1450	G	O4'-C1'-N9	11.62	117.50	108.20
36	B2	821	G	O4'-C1'-N9	11.62	117.50	108.20
36	B2	1834	A	N9-C1'-C2'	11.62	129.11	114.00
85	A5	1445	U	O4'-C1'-N1	11.62	117.50	108.20
85	A5	2313	A	O4'-C1'-N9	11.61	117.49	108.20
85	A5	652	G	O4'-C1'-N9	11.61	117.49	108.20
36	B2	536	A	P-O3'-C3'	-11.61	105.77	119.70
85	A5	2399	G	O4'-C1'-N9	11.61	117.49	108.20
45	Ca	97	ALA	CB-CA-C	11.60	127.50	110.10
36	B2	375	U	O4'-C1'-N1	11.59	117.47	108.20
36	B2	804	U	O4'-C1'-N1	11.59	117.47	108.20
73	Cl	5	LYS	CA-C-N	-11.59	91.69	117.20
85	A5	1787	A	C3'-C2'-C1'	11.59	110.78	101.50
85	A5	2542	G	O4'-C1'-N9	11.59	117.48	108.20
60	Cr	90	LEU	CA-C-N	11.59	142.70	117.20
85	A5	2648	G	O4'-C1'-N9	11.59	117.47	108.20
85	A5	2939	G	P-O3'-C3'	11.59	133.61	119.70
41	CO	202	LEU	O-C-N	-11.59	104.16	122.70
36	B2	1498	A	C1'-O4'-C4'	-11.58	100.63	109.90
85	A5	3925	U	O4'-C1'-N1	11.58	117.46	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	479	G	O4'-C1'-N9	11.57	117.46	108.20
37	BC	66	U	O4'-C1'-N1	11.57	117.46	108.20
39	Cq	231	TYR	CB-CA-C	11.57	133.54	110.40
36	B2	1441	U	O4'-C1'-N1	11.56	117.45	108.20
85	A5	2506	G	N9-C1'-C2'	11.56	129.03	114.00
36	B2	1161	U	O4'-C1'-N1	11.56	117.45	108.20
85	A5	1163	G	P-O3'-C3'	11.56	133.57	119.70
86	A7	33	U	O4'-C1'-N1	11.56	117.45	108.20
36	B2	228	C	C3'-C2'-C1'	11.56	110.75	101.50
12	AR	1	MET	N-CA-C	-11.55	79.81	111.00
36	B2	1011	A	O4'-C1'-N9	11.55	117.44	108.20
36	B2	1723	G	O4'-C1'-N9	11.54	117.43	108.20
85	A5	4673	U	O4'-C1'-N1	11.54	117.43	108.20
36	B2	933	G	C1'-O4'-C4'	-11.54	100.67	109.90
36	B2	682	U	O4'-C1'-N1	11.53	117.42	108.20
36	B2	732	U	P-O3'-C3'	11.53	133.53	119.70
85	A5	2471	G	N9-C1'-C2'	-11.52	99.02	114.00
85	A5	2286	G	O4'-C1'-N9	11.51	117.41	108.20
36	B2	378	U	O4'-C1'-N1	11.51	117.41	108.20
1	Az	768	GLY	C-N-CA	-11.51	92.93	121.70
85	A5	141	C	P-O3'-C3'	11.51	133.51	119.70
26	AJ	146	SER	C-N-CA	11.50	150.45	121.70
85	A5	1670	G	O4'-C1'-N9	11.50	117.40	108.20
85	A5	1853	G	P-O3'-C3'	11.49	133.49	119.70
85	A5	936	C	P-O3'-C3'	11.48	133.48	119.70
85	A5	1286	C	O4'-C1'-N1	11.48	117.39	108.20
85	A5	484	U	O4'-C1'-N1	11.48	117.38	108.20
36	B2	1004	U	O4'-C1'-N1	11.48	117.38	108.20
81	CE	74	SER	N-CA-CB	-11.48	93.28	110.50
11	AL	153	LYS	O-C-N	-11.48	104.34	122.70
35	Ah	170	ARG	C-N-CA	-11.48	98.20	122.30
36	B2	1557	C	P-O3'-C3'	11.46	133.46	119.70
85	A5	4906	C	N1-C1'-C2'	11.45	128.89	114.00
36	B2	31	U	O4'-C1'-N1	11.45	117.36	108.20
86	A7	55	A	O4'-C1'-N9	11.45	117.36	108.20
85	A5	4295	U	O4'-C1'-N1	11.45	117.36	108.20
36	B2	427	U	O4'-C1'-N1	11.44	117.35	108.20
54	CP	5	SER	CA-CB-OG	11.44	142.09	111.20
38	Cz	160	LYS	CB-CA-C	11.44	133.27	110.40
85	A5	4944	C	O4'-C1'-N1	11.43	117.34	108.20
36	B2	183	G	N9-C1'-C2'	11.41	128.84	114.00
87	A8	85	U	P-O3'-C3'	11.41	133.40	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	423	U	O4'-C1'-N1	11.40	117.32	108.20
85	A5	117	C	C4'-C3'-O3'	-11.40	85.46	109.40
85	A5	2653	C	N1-C1'-C2'	11.40	128.82	114.00
85	A5	2070	U	O4'-C1'-N1	11.40	117.32	108.20
85	A5	1254	A	N9-C1'-C2'	11.39	128.81	114.00
85	A5	2042	A	O4'-C1'-N9	11.39	117.31	108.20
85	A5	3684	G	C1'-O4'-C4'	-11.39	100.79	109.90
85	A5	4124	G	C3'-C2'-C1'	11.38	110.61	101.50
36	B2	732	U	P-O5'-C5'	11.38	139.10	120.90
36	B2	1210	G	O4'-C1'-N9	11.38	117.30	108.20
85	A5	2312	U	O4'-C1'-N1	11.37	117.30	108.20
85	A5	2546	G	P-O5'-C5'	11.37	139.09	120.90
36	B2	368	U	O4'-C1'-N1	11.37	117.29	108.20
42	CL	48	PRO	N-CA-C	11.36	141.64	112.10
85	A5	2483	G	O4'-C1'-N9	11.36	117.29	108.20
85	A5	3749	C	N1-C1'-C2'	11.36	128.77	114.00
85	A5	2490	U	P-O5'-C5'	-11.35	102.74	120.90
85	A5	2406	G	P-O3'-C3'	11.35	133.32	119.70
33	AI	6	ASP	CB-CG-OD2	-11.35	108.09	118.30
85	A5	149	A	C4'-C3'-O3'	-11.35	85.57	109.40
85	A5	1590	C	O4'-C1'-N1	11.35	117.28	108.20
85	A5	4743	G	O4'-C1'-N9	11.35	117.28	108.20
38	Cz	26	ARG	CB-CA-C	-11.34	87.72	110.40
85	A5	2258	C	N1-C1'-C2'	11.34	128.74	114.00
85	A5	16	G	P-O3'-C3'	11.34	133.30	119.70
85	A5	1423	U	O4'-C1'-N1	11.34	117.27	108.20
85	A5	4639	G	P-O3'-C3'	11.34	133.30	119.70
85	A5	5041	G	O4'-C1'-C2'	11.33	117.80	107.60
85	A5	107	G	O4'-C1'-C2'	11.33	117.80	107.60
85	A5	4500	U	O4'-C1'-N1	11.33	117.27	108.20
81	CE	57	TYR	N-CA-CB	11.32	130.98	110.60
36	B2	546	G	P-O3'-C3'	11.32	133.28	119.70
36	B2	1504	U	O4'-C1'-N1	11.32	117.25	108.20
85	A5	701	G	O4'-C1'-N9	11.32	117.25	108.20
86	A7	106	G	O4'-C1'-N9	11.32	117.25	108.20
35	Ah	170	ARG	N-CA-C	11.30	141.51	111.00
36	B2	1648	G	C4'-C3'-O3'	11.30	135.59	113.00
64	CF	23	ARG	C-N-CA	11.30	149.95	121.70
85	A5	2109	G	N9-C1'-C2'	11.30	128.69	114.00
74	CC	4	ALA	CA-C-O	-11.29	96.38	120.10
81	CE	43	HIS	C-N-CA	11.29	149.93	121.70
85	A5	970	G	N9-C1'-C2'	11.29	128.68	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1325	C	O4'-C1'-N1	11.29	117.23	108.20
85	A5	2344	U	O4'-C1'-N1	11.29	117.23	108.20
35	Ah	169	GLY	O-C-N	11.28	140.75	122.70
35	Ah	169	GLY	CA-C-N	-11.28	92.39	117.20
85	A5	2390	G	O4'-C1'-C2'	11.26	117.74	107.60
85	A5	363	A	O4'-C1'-N9	11.25	117.20	108.20
85	A5	4591	U	O4'-C1'-N1	11.25	117.20	108.20
87	A8	51	U	O4'-C1'-N1	11.25	117.20	108.20
74	CC	268	ARG	NE-CZ-NH2	-11.24	114.68	120.30
85	A5	2522	G	O4'-C1'-N9	11.24	117.19	108.20
85	A5	486	C	P-O5'-C5'	11.24	138.89	120.90
48	CD	268	ARG	C-N-CD	11.24	152.00	128.40
63	CB	298	LEU	CA-C-N	-11.24	92.48	117.20
37	BC	62	A	O4'-C1'-N9	11.23	117.19	108.20
85	A5	4448	G	P-O3'-C3'	11.23	133.18	119.70
36	B2	865	A	O4'-C1'-N9	11.23	117.19	108.20
85	A5	346	G	O4'-C1'-C2'	11.23	117.71	107.60
85	A5	4380	A	O4'-C1'-N9	11.23	117.18	108.20
87	A8	90	C	P-O5'-C5'	11.23	138.87	120.90
85	A5	2068	C	P-O3'-C3'	11.22	133.17	119.70
85	A5	4200	G	O4'-C1'-N9	11.22	117.18	108.20
85	A5	4864	U	O4'-C1'-N1	11.22	117.18	108.20
85	A5	2267	U	P-O3'-C3'	11.22	133.16	119.70
23	AD	5	ILE	CA-C-N	11.21	141.87	117.20
85	A5	1604	G	O4'-C1'-N9	11.21	117.17	108.20
77	Cp	91	ASP	CB-CG-OD1	-11.20	108.22	118.30
85	A5	1488	G	O4'-C1'-N9	11.20	117.16	108.20
85	A5	3800	A	P-O3'-C3'	-11.20	106.26	119.70
85	A5	262	G	O4'-C1'-N9	11.19	117.15	108.20
20	Aa	98	PRO	C-N-CD	-11.19	95.99	120.60
85	A5	268	G	O4'-C1'-N9	11.19	117.15	108.20
85	A5	945	U	O4'-C1'-N1	11.19	117.15	108.20
85	A5	5060	A	O4'-C1'-N9	11.19	117.15	108.20
11	AL	20	LYS	N-CA-CB	-11.18	90.47	110.60
36	B2	145	G	C1'-O4'-C4'	-11.18	100.95	109.90
48	CD	259	LYS	C-N-CA	11.18	149.66	121.70
36	B2	484	A	P-O3'-C3'	11.18	133.12	119.70
36	B2	421	G	O4'-C1'-N9	11.18	117.14	108.20
58	CW	31	PHE	O-C-N	11.18	140.58	122.70
85	A5	4719	G	P-O3'-C3'	11.18	133.11	119.70
85	A5	958	G	C3'-C2'-C1'	11.17	110.44	101.50
36	B2	1720	U	O4'-C1'-N1	11.17	117.14	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1241	A	C3'-C2'-C1'	11.17	110.43	101.50
36	B2	1418	C	P-O3'-C3'	11.17	133.10	119.70
85	A5	738	C	O4'-C1'-N1	11.16	117.13	108.20
36	B2	1747	C	P-O3'-C3'	11.16	133.09	119.70
36	B2	1821	U	O4'-C1'-N1	11.15	117.12	108.20
85	A5	733	A	C3'-C2'-C1'	-11.15	92.58	101.50
36	B2	1409	A	P-O3'-C3'	11.15	133.08	119.70
85	A5	4618	G	O4'-C1'-N9	11.15	117.12	108.20
47	CI	206	LEU	CB-CG-CD2	11.14	129.94	111.00
85	A5	4083	U	P-O3'-C3'	-11.14	106.33	119.70
85	A5	1681	G	C1'-O4'-C4'	-11.14	100.99	109.90
85	A5	2110	C	O4'-C1'-C2'	-11.14	94.66	105.80
85	A5	4899	G	P-O3'-C3'	11.14	133.06	119.70
85	A5	989	U	O4'-C1'-N1	11.13	117.11	108.20
36	B2	1854	U	O4'-C1'-N1	11.13	117.11	108.20
36	B2	753	C	O4'-C1'-N1	11.13	117.10	108.20
85	A5	1255	A	N9-C1'-C2'	11.12	128.46	114.00
36	B2	1352	G	C1'-O4'-C4'	-11.12	101.00	109.90
1	Az	4	PHE	N-CA-C	11.12	141.01	111.00
36	B2	530	U	C4'-C3'-O3'	-11.10	86.08	109.40
36	B2	1500	G	N9-C1'-C2'	11.10	128.43	114.00
85	A5	3631	U	O4'-C1'-N1	11.10	117.08	108.20
36	B2	170	A	C1'-O4'-C4'	-11.10	101.02	109.90
85	A5	1841	C	P-O3'-C3'	11.09	133.01	119.70
85	A5	2601	A	O4'-C1'-N9	-11.09	99.33	108.20
85	A5	3720	G	O4'-C1'-N9	11.09	117.07	108.20
85	A5	4404	U	O4'-C1'-N1	11.09	117.07	108.20
85	A5	2094	G	O4'-C1'-N9	11.07	117.06	108.20
85	A5	1244	G	O4'-C1'-N9	11.07	117.05	108.20
61	Ch	121	VAL	O-C-N	-11.06	105.00	122.70
36	B2	917	U	O4'-C1'-N1	11.05	117.04	108.20
36	B2	952	G	O4'-C1'-N9	11.05	117.04	108.20
36	B2	1653	U	O4'-C1'-N1	11.04	117.03	108.20
85	A5	4626	A	O4'-C1'-N9	11.04	117.03	108.20
36	B2	641	A	O4'-C1'-N9	11.04	117.03	108.20
36	B2	1028	A	P-O3'-C3'	-11.04	106.46	119.70
36	B2	1198	G	O4'-C1'-C2'	11.03	117.53	107.60
86	A7	6	C	O4'-C1'-C2'	-11.02	94.78	105.80
39	Cq	14	PHE	CB-CG-CD2	-11.01	113.09	120.80
36	B2	395	G	O4'-C1'-N9	11.01	117.01	108.20
36	B2	1743	G	N9-C1'-C2'	11.01	128.31	114.00
62	Cb	54	LEU	CA-CB-CG	11.01	140.62	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2414	G	O4'-C1'-N9	11.01	117.01	108.20
85	A5	2415	U	P-O3'-C3'	11.01	132.91	119.70
36	B2	1778	C	O4'-C1'-N1	11.00	117.00	108.20
85	A5	2460	A	N9-C1'-C2'	11.00	128.30	114.00
85	A5	4759	C	O4'-C1'-N1	11.00	117.00	108.20
85	A5	1272	C	P-O5'-C5'	11.00	138.49	120.90
85	A5	333	U	P-O3'-C3'	10.99	132.89	119.70
36	B2	951	C	C3'-C2'-C1'	10.99	110.29	101.50
85	A5	112	C	N1-C1'-C2'	10.99	128.28	114.00
85	A5	1733	G	O4'-C1'-N9	10.98	116.99	108.20
86	A7	98	G	O4'-C1'-N9	10.98	116.99	108.20
85	A5	2708	U	O4'-C1'-N1	10.98	116.98	108.20
36	B2	1412	C	P-O3'-C3'	10.98	132.87	119.70
36	B2	1142	G	O4'-C1'-N9	10.98	116.98	108.20
85	A5	4954	G	N9-C1'-C2'	-10.98	99.73	114.00
85	A5	4744	A	P-O3'-C3'	10.97	132.87	119.70
81	CE	115	TYR	C-N-CA	10.97	149.12	121.70
85	A5	946	C	O4'-C1'-N1	10.97	116.98	108.20
44	CM	80	ALA	O-C-N	10.97	140.25	122.70
60	Cr	81	THR	O-C-N	-10.97	105.15	122.70
36	B2	210	U	P-O3'-C3'	10.96	132.86	119.70
85	A5	1220	G	O4'-C1'-N9	10.96	116.97	108.20
36	B2	831	G	O4'-C1'-N9	10.96	116.97	108.20
36	B2	694	G	O4'-C1'-N9	10.96	116.97	108.20
85	A5	4728	U	O4'-C1'-N1	10.95	116.96	108.20
87	A8	78	G	O4'-C1'-N9	10.95	116.96	108.20
85	A5	2618	G	O4'-C1'-N9	10.95	116.96	108.20
55	CU	60	VAL	N-CA-CB	-10.94	87.43	111.50
85	A5	1581	G	O4'-C1'-N9	10.94	116.95	108.20
85	A5	1084	C	O4'-C1'-N1	10.94	116.95	108.20
6	AX	91	LEU	CA-CB-CG	10.93	140.44	115.30
36	B2	350	C	O4'-C1'-C2'	-10.93	94.87	105.80
85	A5	2761	U	P-O5'-C5'	10.93	138.38	120.90
85	A5	4238	G	C1'-O4'-C4'	-10.93	101.16	109.90
36	B2	922	A	O4'-C1'-N9	10.92	116.94	108.20
38	Cz	130	LYS	CB-CA-C	10.92	132.24	110.40
85	A5	3980	G	P-O3'-C3'	10.92	132.81	119.70
39	Cq	57	LYS	N-CA-CB	10.92	130.25	110.60
36	B2	1158	G	O4'-C1'-N9	10.91	116.93	108.20
81	CE	58	SER	O-C-N	-10.91	105.24	122.70
81	CE	70	LYS	N-CA-CB	10.91	130.25	110.60
38	Cz	207	LYS	N-CA-CB	-10.91	90.96	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1086	C	P-O3'-C3'	10.91	132.79	119.70
85	A5	2673	G	O4'-C1'-N9	10.91	116.93	108.20
36	B2	1418	C	C1'-O4'-C4'	-10.91	101.17	109.90
85	A5	661	C	P-O3'-C3'	10.91	132.79	119.70
36	B2	103	A	O4'-C1'-N9	10.89	116.91	108.20
85	A5	4715	C	O4'-C1'-N1	10.88	116.91	108.20
36	B2	203	G	O4'-C1'-N9	10.88	116.91	108.20
46	CN	79	ALA	CB-CA-C	10.88	126.42	110.10
85	A5	35	U	O4'-C1'-N1	10.88	116.91	108.20
36	B2	836	G	O4'-C1'-N9	10.88	116.90	108.20
85	A5	4656	A	P-O3'-C3'	10.88	132.75	119.70
85	A5	1705	G	P-O5'-C5'	10.88	138.30	120.90
85	A5	1308	C	C3'-C2'-C1'	10.87	110.20	101.50
87	A8	104	A	O4'-C1'-N9	10.87	116.89	108.20
36	B2	1197	G	O4'-C1'-N9	10.86	116.89	108.20
36	B2	1259	A	O4'-C1'-C2'	10.86	117.38	107.60
36	B2	1436	C	C3'-C2'-C1'	10.86	110.19	101.50
85	A5	1289	C	O4'-C1'-N1	10.86	116.89	108.20
85	A5	1872	G	O4'-C1'-N9	10.86	116.89	108.20
85	A5	3730	U	O4'-C1'-N1	10.86	116.89	108.20
85	A5	4114	C	N1-C1'-C2'	10.86	128.12	114.00
85	A5	2544	G	N9-C1'-C2'	10.85	128.11	114.00
36	B2	1677	U	O4'-C1'-N1	10.85	116.88	108.20
36	B2	61	A	O4'-C1'-N9	10.84	116.88	108.20
85	A5	346	G	O4'-C1'-N9	10.83	116.87	108.20
38	Cz	160	LYS	N-CA-CB	-10.83	91.11	110.60
85	A5	1568	C	N1-C1'-C2'	10.82	128.07	114.00
36	B2	1066	U	O4'-C1'-N1	10.82	116.86	108.20
85	A5	1441	C	P-O3'-C3'	10.82	132.68	119.70
47	CI	194	GLY	O-C-N	10.82	140.01	122.70
36	B2	686	U	O4'-C1'-N1	10.81	116.85	108.20
85	A5	2666	U	P-O3'-C3'	-10.81	106.72	119.70
74	CC	54	VAL	CA-C-N	-10.81	93.42	117.20
36	B2	1637	A	P-O3'-C3'	10.81	132.67	119.70
85	A5	3613	U	O4'-C1'-N1	10.81	116.84	108.20
36	B2	995	G	O4'-C1'-N9	10.81	116.84	108.20
85	A5	2246	C	O4'-C1'-N1	10.80	116.84	108.20
85	A5	1245	C	C1'-O4'-C4'	-10.80	101.26	109.90
85	A5	1472	C	O4'-C1'-N1	10.80	116.84	108.20
85	A5	2022	C	N1-C1'-C2'	10.80	128.04	114.00
19	AZ	107	VAL	N-CA-CB	-10.80	87.74	111.50
81	CE	38	LYS	N-CA-C	10.80	140.15	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1102	U	P-O3'-C3'	10.79	132.65	119.70
53	CT	147	GLU	C-N-CD	-10.79	96.86	120.60
85	A5	930	G	P-O3'-C3'	10.79	132.64	119.70
85	A5	1372	A	O4'-C1'-N9	10.79	116.83	108.20
85	A5	2576	G	C1'-O4'-C4'	-10.79	101.27	109.90
12	AR	89	SER	CA-C-N	10.78	140.92	117.20
36	B2	882	U	O4'-C1'-N1	10.78	116.83	108.20
85	A5	3697	U	O4'-C1'-N1	10.78	116.83	108.20
36	B2	1729	U	O4'-C1'-N1	10.78	116.83	108.20
67	Ce	16	ARG	CA-C-N	10.78	140.92	117.20
36	B2	694	G	O4'-C1'-C2'	10.78	117.30	107.60
85	A5	932	A	O4'-C1'-N9	10.78	116.82	108.20
85	A5	3646	A	N9-C1'-C2'	-10.78	99.99	114.00
85	A5	3695	U	O4'-C1'-N1	10.78	116.82	108.20
85	A5	1532	G	C1'-O4'-C4'	-10.77	101.29	109.90
85	A5	669	C	O4'-C1'-C2'	-10.77	95.03	105.80
85	A5	1231	C	O4'-C1'-N1	10.77	116.81	108.20
85	A5	2679	G	O4'-C1'-N9	10.77	116.81	108.20
85	A5	4973	U	O4'-C1'-N1	10.77	116.81	108.20
36	B2	487	U	P-O3'-C3'	10.76	132.62	119.70
85	A5	4861	G	O4'-C1'-N9	10.76	116.81	108.20
36	B2	446	G	N9-C1'-C2'	10.76	127.99	114.00
85	A5	138	G	O4'-C1'-N9	10.76	116.81	108.20
85	A5	909	A	O4'-C1'-N9	10.76	116.81	108.20
36	B2	1358	U	O4'-C1'-N1	10.76	116.81	108.20
86	A7	79	U	O4'-C1'-N1	10.75	116.80	108.20
85	A5	4709	U	N1-C1'-C2'	10.75	127.97	114.00
85	A5	1972	G	C1'-O4'-C4'	-10.74	101.31	109.90
86	A7	101	A	C1'-O4'-C4'	-10.74	101.31	109.90
54	CP	7	ASP	C-N-CD	-10.74	96.97	120.60
85	A5	3252	A	P-O3'-C3'	10.74	132.59	119.70
85	A5	1071	C	P-O3'-C3'	10.73	132.58	119.70
33	AI	6	ASP	CB-CG-OD1	10.73	127.96	118.30
63	CB	298	LEU	C-N-CA	10.73	148.51	121.70
85	A5	4559	A	O3'-P-O5'	-10.72	83.62	104.00
87	A8	124	U	P-O3'-C3'	10.72	132.57	119.70
36	B2	1748	G	O4'-C1'-N9	10.72	116.78	108.20
81	CE	73	TYR	C-N-CA	-10.72	94.90	121.70
85	A5	80	C	N1-C1'-C2'	10.72	127.93	114.00
85	A5	1835	G	P-O3'-C3'	10.71	132.55	119.70
36	B2	681	U	O4'-C1'-N1	10.71	116.77	108.20
8	AS	87	GLN	O-C-N	-10.71	105.57	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1294	G	O4'-C1'-N9	10.71	116.77	108.20
36	B2	692	G	O4'-C1'-N9	10.70	116.76	108.20
85	A5	2902	G	C3'-C2'-C1'	10.70	110.06	101.50
12	AR	86	PRO	CA-N-CD	-10.70	96.52	111.50
36	B2	911	C	P-O5'-C5'	10.70	138.02	120.90
85	A5	2651	C	O4'-C1'-N1	10.70	116.76	108.20
36	B2	1115	U	O4'-C1'-N1	10.70	116.76	108.20
85	A5	2064	G	O4'-C1'-N9	10.70	116.76	108.20
85	A5	456	C	O4'-C1'-N1	10.70	116.76	108.20
74	CC	307	LYS	CA-CB-CG	10.69	136.91	113.40
85	A5	644	G	O4'-C1'-N9	10.69	116.75	108.20
85	A5	135	G	C3'-C2'-C1'	10.69	110.05	101.50
85	A5	2020	U	O4'-C1'-N1	10.69	116.75	108.20
85	A5	4481	U	O4'-C1'-N1	10.69	116.75	108.20
86	A7	81	G	O4'-C1'-N9	10.69	116.75	108.20
8	AS	40	TYR	CB-CG-CD2	-10.68	114.59	121.00
36	B2	1041	G	C1'-O4'-C4'	-10.68	101.36	109.90
85	A5	1591	U	O4'-C1'-N1	10.67	116.74	108.20
85	A5	2847	G	O4'-C1'-N9	10.67	116.73	108.20
85	A5	1233	G	O4'-C1'-N9	10.66	116.73	108.20
85	A5	2333	G	O4'-C1'-N9	10.66	116.73	108.20
85	A5	2090	U	P-O5'-C5'	10.66	137.95	120.90
85	A5	4302	U	O4'-C1'-N1	10.66	116.72	108.20
47	CI	107	GLY	N-CA-C	-10.65	86.47	113.10
85	A5	1928	C	O4'-C1'-N1	-10.65	99.68	108.20
36	B2	1025	U	O4'-C1'-N1	10.65	116.72	108.20
36	B2	1560	U	O4'-C1'-N1	10.65	116.72	108.20
36	B2	602	G	O4'-C1'-N9	10.65	116.72	108.20
85	A5	68	U	O4'-C1'-N1	10.65	116.72	108.20
85	A5	4732	G	O3'-P-O5'	10.65	124.23	104.00
36	B2	79	A	O4'-C1'-N9	10.64	116.71	108.20
37	BC	55	C	N1-C1'-C2'	10.63	127.83	114.00
85	A5	1409	C	O4'-C1'-C2'	-10.64	95.16	105.80
85	A5	4230	C	C1'-O4'-C4'	-10.63	101.39	109.90
86	A7	1	G	C3'-C2'-C1'	10.63	110.01	101.50
36	B2	1620	A	N9-C1'-C2'	10.63	127.82	114.00
85	A5	1296	G	P-O3'-C3'	10.63	132.45	119.70
85	A5	2625	U	O4'-C1'-N1	10.63	116.70	108.20
85	A5	2761	U	C3'-C2'-C1'	10.63	110.00	101.50
85	A5	1840	G	C1'-O4'-C4'	-10.62	101.40	109.90
36	B2	866	U	O4'-C1'-N1	10.62	116.70	108.20
85	A5	1833	G	O4'-C1'-N9	10.62	116.70	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1093	C	O4'-C1'-N1	10.62	116.70	108.20
85	A5	2004	U	C4'-C3'-O3'	-10.62	87.09	109.40
36	B2	57	U	O4'-C1'-N1	10.62	116.70	108.20
36	B2	1679	A	P-O3'-C3'	10.62	132.44	119.70
85	A5	1680	G	C1'-O4'-C4'	-10.62	101.41	109.90
85	A5	2760	G	O4'-C1'-N9	10.62	116.69	108.20
63	CB	298	LEU	CB-CA-C	10.62	130.37	110.20
85	A5	1882	U	O4'-C1'-N1	10.61	116.69	108.20
60	Cr	112	ARG	N-CA-CB	-10.61	91.50	110.60
81	CE	232	ILE	CB-CA-C	-10.61	90.38	111.60
68	Cf	59	THR	CB-CA-C	-10.61	82.96	111.60
36	B2	1541	G	O4'-C1'-N9	10.61	116.68	108.20
49	CQ	6	ARG	CG-CD-NE	10.60	134.07	111.80
85	A5	4689	U	O4'-C1'-N1	10.60	116.68	108.20
36	B2	532	C	O4'-C1'-C2'	-10.60	95.20	105.80
52	CS	175	PHE	CB-CG-CD1	10.60	128.22	120.80
74	CC	335	MET	CB-CA-C	-10.60	89.21	110.40
85	A5	2480	G	O4'-C1'-N9	10.60	116.68	108.20
85	A5	2579	G	O4'-C1'-N9	10.59	116.67	108.20
85	A5	265	C	O4'-C1'-C2'	-10.59	95.21	105.80
85	A5	1552	G	O4'-C1'-N9	10.59	116.67	108.20
36	B2	862	A	N9-C1'-C2'	10.59	127.77	114.00
52	CS	175	PHE	CA-C-O	-10.58	97.87	120.10
85	A5	4894	A	C3'-C2'-C1'	-10.58	93.03	101.50
1	Az	539	GLU	C-N-CA	-10.58	95.25	121.70
37	BC	18	G	P-O3'-C3'	10.58	132.39	119.70
1	Az	111	PHE	CA-CB-CG	10.57	139.28	113.90
36	B2	1512	C	C3'-C2'-C1'	10.57	109.96	101.50
85	A5	2001	G	P-O3'-C3'	10.57	132.39	119.70
36	B2	743	U	O4'-C1'-N1	10.57	116.66	108.20
85	A5	2407	G	O4'-C1'-N9	10.57	116.66	108.20
36	B2	1016	U	C3'-C2'-C1'	10.57	109.96	101.50
85	A5	2499	C	O4'-C1'-N1	10.57	116.65	108.20
85	A5	4942	C	C4'-C3'-O3'	-10.57	87.21	109.40
85	A5	2574	G	O4'-C1'-N9	10.57	116.65	108.20
36	B2	531	A	C1'-O4'-C4'	-10.56	101.45	109.90
85	A5	926	G	P-O3'-C3'	10.56	132.38	119.70
85	A5	3697	U	P-O3'-C3'	10.56	132.38	119.70
36	B2	154	U	O4'-C1'-N1	10.56	116.65	108.20
85	A5	4267	G	C1'-O4'-C4'	-10.56	101.45	109.90
48	CD	33	ARG	CD-NE-CZ	10.55	138.38	123.60
36	B2	1575	G	O4'-C1'-N9	10.55	116.64	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	143	U	N1-C1'-C2'	10.55	127.72	114.00
85	A5	4894	A	O4'-C1'-C2'	10.55	117.09	107.60
36	B2	839	C	C1'-O4'-C4'	-10.55	101.46	109.90
85	A5	2027	U	O4'-C1'-N1	10.55	116.64	108.20
85	A5	2638	G	O4'-C1'-N9	10.55	116.64	108.20
81	CE	102	GLY	N-CA-C	-10.54	86.74	113.10
85	A5	1068	G	O4'-C1'-N9	10.54	116.63	108.20
85	A5	519	C	O4'-C1'-N1	10.54	116.63	108.20
85	A5	1302	U	P-O3'-C3'	10.54	132.35	119.70
36	B2	919	A	N9-C1'-C2'	10.54	127.70	114.00
60	Cr	108	MET	CG-SD-CE	-10.54	83.34	100.20
86	A7	63	C	N1-C1'-C2'	10.54	127.70	114.00
36	B2	1303	C	C3'-C2'-C1'	-10.53	93.07	101.50
36	B2	898	U	P-O3'-C3'	10.53	132.34	119.70
85	A5	1306	C	O4'-C1'-N1	10.53	116.62	108.20
36	B2	1862	G	O4'-C1'-C2'	-10.52	95.28	105.80
85	A5	1971	C	O4'-C1'-N1	10.52	116.61	108.20
20	Aa	10	ARG	CD-NE-CZ	10.51	138.31	123.60
85	A5	1957	U	O4'-C1'-N1	10.51	116.61	108.20
85	A5	4683	U	O4'-C1'-N1	10.51	116.60	108.20
36	B2	1589	A	O4'-C1'-N9	10.50	116.60	108.20
85	A5	451	C	P-O3'-C3'	10.50	132.30	119.70
36	B2	1299	A	O4'-C1'-N9	10.49	116.59	108.20
36	B2	1333	U	O4'-C1'-N1	10.49	116.59	108.20
1	Az	154	VAL	CA-CB-CG1	10.49	126.63	110.90
86	A7	109	U	O4'-C1'-N1	10.49	116.59	108.20
85	A5	2717	G	O4'-C1'-N9	10.48	116.59	108.20
8	AS	88	LYS	CB-CA-C	10.48	131.36	110.40
85	A5	1270	A	C4'-C3'-C2'	-10.48	92.12	102.60
85	A5	2767	U	P-O5'-C5'	10.48	137.67	120.90
85	A5	4151	G	O4'-C1'-N9	10.48	116.58	108.20
36	B2	332	G	O4'-C1'-N9	10.47	116.58	108.20
85	A5	136	C	P-O3'-C3'	10.47	132.27	119.70
85	A5	1698	C	N1-C1'-C2'	10.47	127.62	114.00
81	CE	101	ASN	C-N-CA	10.47	144.29	122.30
85	A5	2612	G	O4'-C1'-N9	10.47	116.58	108.20
85	A5	5003	U	O4'-C1'-N1	10.46	116.57	108.20
85	A5	4406	U	O4'-C1'-N1	10.46	116.57	108.20
85	A5	15	A	O4'-C1'-N9	10.46	116.57	108.20
85	A5	4122	G	C4'-C3'-O3'	-10.46	87.44	109.40
85	A5	4757	C	O4'-C1'-N1	10.46	116.57	108.20
36	B2	600	G	O4'-C1'-N9	10.46	116.56	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1214	A	P-O3'-C3'	10.45	132.25	119.70
36	B2	1483	A	O4'-C1'-N9	10.45	116.56	108.20
85	A5	2556	G	O4'-C1'-N9	10.45	116.56	108.20
85	A5	2908	U	O4'-C1'-N1	10.45	116.56	108.20
85	A5	2471	G	C4'-C3'-O3'	-10.45	87.46	109.40
36	B2	1350	U	O4'-C1'-N1	10.44	116.55	108.20
36	B2	1551	U	O4'-C1'-C2'	10.44	117.00	107.60
85	A5	3892	U	C4'-C3'-O3'	-10.44	87.48	109.40
36	B2	93	U	O4'-C1'-N1	10.43	116.55	108.20
85	A5	1794	A	C3'-C2'-C1'	10.43	109.84	101.50
36	B2	552	G	O4'-C1'-N9	10.43	116.55	108.20
85	A5	187	U	P-O3'-C3'	10.43	132.22	119.70
85	A5	1722	C	C3'-C2'-C1'	10.43	109.84	101.50
36	B2	796	G	O4'-C1'-N9	10.43	116.54	108.20
85	A5	1067	G	O4'-C1'-N9	10.43	116.54	108.20
61	Ch	38	GLY	C-N-CA	10.42	144.19	122.30
85	A5	4959	U	O4'-C1'-N1	10.42	116.54	108.20
85	A5	237	G	O4'-C1'-N9	10.42	116.54	108.20
85	A5	1861	U	O4'-C1'-N1	10.42	116.54	108.20
36	B2	798	G	O4'-C1'-C2'	-10.42	95.38	105.80
85	A5	3704	U	O4'-C1'-N1	10.42	116.53	108.20
86	A7	64	G	P-O3'-C3'	-10.42	107.20	119.70
36	B2	1083	A	C1'-O4'-C4'	-10.41	101.57	109.90
85	A5	4174	U	O4'-C1'-N1	10.41	116.53	108.20
55	CU	123	GLU	N-CA-CB	-10.41	91.86	110.60
36	B2	395	G	C1'-O4'-C4'	-10.41	101.57	109.90
36	B2	415	A	O4'-C1'-N9	10.41	116.53	108.20
85	A5	1343	A	C3'-C2'-C1'	10.41	109.83	101.50
85	A5	1836	G	O4'-C1'-N9	10.41	116.53	108.20
85	A5	1740	C	O4'-C1'-N1	10.40	116.52	108.20
85	A5	4713	G	P-O3'-C3'	10.40	132.18	119.70
85	A5	2301	G	C1'-O4'-C4'	-10.39	101.58	109.90
85	A5	4325	A	P-O3'-C3'	10.39	132.17	119.70
85	A5	1446	C	O4'-C1'-N1	10.39	116.51	108.20
36	B2	1259	A	C3'-C2'-C1'	-10.39	93.19	101.50
74	CC	267	TRP	O-C-N	-10.39	106.08	122.70
36	B2	500	A	O3'-P-O5'	-10.38	84.27	104.00
36	B2	1078	C	N1-C1'-C2'	10.39	127.50	114.00
85	A5	931	C	O4'-C1'-C2'	10.39	116.95	107.60
85	A5	3616	U	P-O3'-C3'	10.38	132.16	119.70
36	B2	1408	U	N1-C1'-C2'	10.38	127.49	114.00
85	A5	1270	A	O4'-C1'-N9	10.38	116.50	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1432	G	P-O3'-C3'	10.38	132.16	119.70
85	A5	2108	G	P-O5'-C5'	10.38	137.50	120.90
29	AG	170	ARG	CB-CG-CD	10.37	138.57	111.60
85	A5	2263	A	P-O3'-C3'	10.37	132.14	119.70
85	A5	2397	G	P-O3'-C3'	10.37	132.14	119.70
1	Az	123	ASP	O-C-N	-10.36	105.58	123.20
85	A5	2395	A	N9-C1'-C2'	10.36	127.47	114.00
85	A5	3703	G	O4'-C1'-N9	10.37	116.49	108.20
85	A5	2488	C	N1-C1'-C2'	10.36	127.47	114.00
36	B2	1312	G	O4'-C1'-N9	-10.36	99.91	108.20
85	A5	980	U	P-O3'-C3'	10.36	132.13	119.70
85	A5	4185	G	O4'-C1'-N9	10.36	116.49	108.20
85	A5	1031	C	P-O3'-C3'	10.35	132.12	119.70
85	A5	4710	C	N1-C1'-C2'	10.35	127.46	114.00
36	B2	1174	U	O4'-C1'-N1	10.35	116.48	108.20
85	A5	1269	G	O4'-C1'-C2'	-10.35	95.45	105.80
85	A5	4431	U	O4'-C1'-N1	10.35	116.48	108.20
85	A5	4636	U	O4'-C1'-N1	10.35	116.48	108.20
36	B2	141	A	O4'-C1'-C2'	-10.35	95.45	105.80
36	B2	1863	A	O4'-C1'-C2'	-10.35	95.45	105.80
48	CD	270	LYS	N-CA-C	10.35	138.93	111.00
85	A5	1269	G	C3'-C2'-C1'	10.35	109.78	101.50
40	CK	1	MET	C-N-CA	-10.34	78.56	122.00
85	A5	974	C	O4'-C1'-N1	10.34	116.47	108.20
5	AO	129	ILE	CB-CA-C	-10.34	90.92	111.60
36	B2	1292	C	C3'-C2'-C1'	10.34	109.77	101.50
85	A5	690	C	O4'-C1'-C2'	-10.34	95.46	105.80
36	B2	1411	G	C1'-O4'-C4'	-10.33	101.64	109.90
36	B2	167	G	O4'-C1'-N9	10.33	116.46	108.20
61	Ch	78	TYR	CB-CG-CD2	10.33	127.20	121.00
85	A5	276	C	O4'-C1'-N1	-10.33	99.94	108.20
85	A5	1286	C	P-O5'-C5'	10.33	137.42	120.90
85	A5	1700	G	O4'-C1'-N9	10.33	116.46	108.20
36	B2	207	G	O4'-C1'-N9	10.32	116.46	108.20
36	B2	19	A	O4'-C1'-N9	10.31	116.45	108.20
85	A5	736	C	O4'-C1'-C2'	-10.31	95.49	105.80
85	A5	4862	G	O4'-C1'-N9	10.31	116.45	108.20
85	A5	446	C	O4'-C1'-N1	10.31	116.45	108.20
1	Az	854	PHE	CB-CA-C	10.30	131.01	110.40
49	CQ	11	ARG	CA-C-N	-10.30	94.53	117.20
85	A5	493	G	O4'-C1'-N9	10.30	116.44	108.20
85	A5	975	C	C3'-C2'-C1'	10.30	109.74	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	Ch	38	GLY	N-CA-C	10.30	138.84	113.10
85	A5	4267	G	O4'-C1'-C2'	10.30	116.87	107.60
35	Ah	294	LYS	O-C-N	-10.29	106.23	122.70
36	B2	819	G	O4'-C1'-N9	10.29	116.43	108.20
36	B2	1079	C	C3'-C2'-C1'	10.29	109.73	101.50
85	A5	2718	U	O4'-C1'-N1	10.29	116.43	108.20
35	Ah	141	PRO	C-N-CA	10.29	147.41	121.70
85	A5	1639	U	P-O3'-C3'	10.29	132.04	119.70
37	BC	2	G	O4'-C1'-N9	10.28	116.42	108.20
55	CU	60	VAL	CG1-CB-CG2	10.27	127.34	110.90
85	A5	1975	G	P-O3'-C3'	10.27	132.03	119.70
85	A5	1242	G	C1'-O4'-C4'	10.27	118.12	109.90
74	CC	287	THR	OG1-CB-CG2	10.27	133.62	110.00
85	A5	2120	G	O4'-C1'-C2'	-10.27	95.53	105.80
85	A5	1255	A	C3'-C2'-C1'	10.27	109.71	101.50
26	AJ	138	ARG	N-CA-C	10.26	138.70	111.00
36	B2	1620	A	O4'-C1'-N9	10.26	116.41	108.20
85	A5	437	G	C1'-O4'-C4'	-10.26	101.69	109.90
36	B2	556	U	P-O5'-C5'	10.26	137.31	120.90
85	A5	724	C	P-O3'-C3'	10.25	132.00	119.70
36	B2	1780	G	C1'-O4'-C4'	-10.25	101.70	109.90
85	A5	4149	C	O4'-C1'-N1	10.25	116.40	108.20
85	A5	2103	G	O4'-C1'-N9	10.25	116.40	108.20
35	Ah	170	ARG	CA-C-N	10.24	136.69	116.20
85	A5	2550	G	O4'-C1'-N9	10.24	116.39	108.20
36	B2	170	A	C3'-C2'-C1'	-10.24	93.31	101.50
36	B2	1727	G	O4'-C1'-N9	10.24	116.39	108.20
85	A5	1224	G	P-O3'-C3'	10.24	131.99	119.70
36	B2	793	G	O4'-C1'-N9	10.23	116.39	108.20
39	Cq	231	TYR	C-N-CD	-10.23	98.09	120.60
85	A5	958	G	N9-C1'-C2'	10.23	127.29	114.00
85	A5	4674	C	O4'-C1'-N1	10.22	116.38	108.20
74	CC	307	LYS	CB-CA-C	-10.22	89.96	110.40
85	A5	7	C	N1-C1'-C2'	10.22	127.28	114.00
85	A5	1355	G	O4'-C1'-N9	10.21	116.37	108.20
85	A5	3770	U	O4'-C1'-N1	10.22	116.37	108.20
85	A5	654	C	N1-C1'-C2'	10.21	127.28	114.00
85	A5	1302	U	C1'-O4'-C4'	-10.21	101.73	109.90
36	B2	296	U	C1'-O4'-C4'	-10.21	101.73	109.90
85	A5	646	G	O4'-C1'-N9	10.21	116.37	108.20
85	A5	2258	C	O4'-C1'-N1	10.21	116.37	108.20
85	A5	4218	U	O4'-C1'-N1	10.21	116.37	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4338	G	O4'-C1'-C2'	-10.21	95.59	105.80
85	A5	2697	A	O4'-C1'-N9	10.21	116.37	108.20
85	A5	2746	A	O4'-C1'-N9	10.21	116.36	108.20
85	A5	2647	A	O4'-C1'-C2'	-10.20	95.60	105.80
36	B2	527	C	O4'-C1'-N1	10.20	116.36	108.20
27	AE	171	ASP	N-CA-C	10.20	138.53	111.00
36	B2	753	C	P-O3'-C3'	10.19	131.93	119.70
85	A5	4749	C	C1'-O4'-C4'	10.19	118.05	109.90
36	B2	1817	G	O4'-C1'-N9	10.19	116.35	108.20
85	A5	2508	U	O4'-C1'-N1	10.19	116.35	108.20
85	A5	4900	C	P-O3'-C3'	10.19	131.92	119.70
36	B2	74	G	C3'-C2'-C1'	10.18	109.65	101.50
85	A5	2570	U	P-O3'-C3'	10.18	131.92	119.70
40	CK	2	PRO	CA-CB-CG	10.18	124.14	104.80
85	A5	4146	G	O4'-C1'-N9	10.18	116.34	108.20
36	B2	102	A	P-O3'-C3'	10.17	131.91	119.70
36	B2	1236	G	O4'-C1'-C2'	10.17	116.76	107.60
85	A5	1862	U	O4'-C1'-N1	10.17	116.34	108.20
36	B2	975	G	O4'-C1'-N9	10.17	116.33	108.20
86	A7	99	G	C1'-O4'-C4'	-10.17	101.77	109.90
81	CE	74	SER	CA-CB-OG	10.16	138.64	111.20
85	A5	1399	G	O4'-C1'-N9	10.16	116.33	108.20
85	A5	4514	G	O4'-C1'-N9	10.16	116.33	108.20
85	A5	4452	U	O4'-C1'-N1	10.15	116.32	108.20
36	B2	65	C	P-O3'-C3'	10.15	131.88	119.70
3	AU	71	GLY	N-CA-C	10.15	138.47	113.10
85	A5	4951	G	O4'-C1'-N9	10.15	116.32	108.20
36	B2	672	A	O4'-C1'-N9	10.14	116.31	108.20
85	A5	4965	U	O4'-C1'-N1	10.14	116.31	108.20
85	A5	1724	G	P-O3'-C3'	10.14	131.87	119.70
85	A5	1314	C	O4'-C1'-N1	10.14	116.31	108.20
36	B2	168	C	N1-C1'-C2'	10.14	127.18	114.00
85	A5	4873	G	O4'-C1'-N9	10.14	116.31	108.20
4	AK	43	LEU	CA-CB-CG	10.13	138.61	115.30
85	A5	2555	G	O4'-C1'-N9	10.13	116.31	108.20
85	A5	4982	A	O4'-C1'-C2'	-10.13	95.67	105.80
85	A5	2894	A	O4'-C1'-N9	10.13	116.31	108.20
85	A5	2112	G	O4'-C1'-C2'	10.13	116.71	107.60
36	B2	1667	U	O4'-C1'-N1	10.12	116.30	108.20
41	CO	4	VAL	CB-CA-C	-10.12	92.17	111.40
85	A5	1301	C	P-O3'-C3'	10.12	131.85	119.70
85	A5	650	C	P-O5'-C5'	10.12	137.09	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4668	U	O3'-P-O5'	10.12	123.22	104.00
40	CK	34	PRO	CA-N-CD	-10.12	97.34	111.50
36	B2	595	U	O4'-C1'-N1	10.11	116.29	108.20
40	CK	38	SER	C-N-CD	-10.11	98.36	120.60
85	A5	1517	G	N9-C1'-C2'	10.11	127.14	114.00
85	A5	3879	G	O4'-C1'-N9	10.11	116.28	108.20
85	A5	1094	G	O4'-C1'-N9	10.10	116.28	108.20
85	A5	4626	A	C1'-O4'-C4'	-10.10	101.82	109.90
85	A5	2002	A	O4'-C1'-N9	10.10	116.28	108.20
85	A5	182	G	P-O3'-C3'	10.10	131.82	119.70
85	A5	150	U	P-O5'-C5'	10.10	137.06	120.90
85	A5	4113	U	P-O3'-C3'	10.10	131.81	119.70
36	B2	1556	A	P-O3'-C3'	10.09	131.81	119.70
50	CR	143	HIS	ND1-CG-CD2	-10.09	91.87	106.00
85	A5	4730	C	O4'-C1'-N1	10.09	116.27	108.20
36	B2	939	U	O4'-C1'-N1	10.09	116.27	108.20
36	B2	560	A	P-O3'-C3'	10.09	131.80	119.70
85	A5	431	G	P-O3'-C3'	10.09	131.80	119.70
85	A5	4986	G	O4'-C1'-N9	10.09	116.27	108.20
86	A7	69	U	O4'-C1'-N1	10.09	116.27	108.20
87	A8	126	C	O4'-C1'-C2'	-10.09	95.72	105.80
12	AR	2	GLY	O-C-N	-10.08	106.57	122.70
36	B2	869	A	P-O3'-C3'	10.08	131.80	119.70
36	B2	309	G	O4'-C1'-N9	10.08	116.26	108.20
87	A8	86	U	O4'-C1'-N1	10.07	116.26	108.20
85	A5	1681	G	N9-C1'-C2'	10.07	127.09	114.00
36	B2	1307	U	P-O3'-C3'	10.07	131.78	119.70
82	CG	183	ILE	CB-CA-C	-10.07	91.46	111.60
85	A5	1366	G	P-O3'-C3'	10.07	131.79	119.70
36	B2	675	U	O4'-C1'-N1	10.07	116.25	108.20
87	A8	127	U	O3'-P-O5'	-10.07	84.87	104.00
85	A5	2576	G	O4'-C1'-C2'	10.06	116.66	107.60
85	A5	1955	G	O4'-C1'-N9	10.06	116.25	108.20
85	A5	364	G	N9-C1'-C2'	10.06	127.08	114.00
85	A5	4932	U	O4'-C1'-N1	10.05	116.24	108.20
85	A5	4463	U	P-O3'-C3'	10.05	131.76	119.70
85	A5	2423	A	C3'-C2'-C1'	10.05	109.54	101.50
36	B2	359	U	O4'-C1'-N1	10.05	116.24	108.20
81	CE	104	THR	C-N-CA	-10.04	96.59	121.70
85	A5	1232	G	P-O3'-C3'	10.04	131.75	119.70
85	A5	2439	G	C1'-O4'-C4'	-10.04	101.87	109.90
85	A5	4042	G	N9-C1'-C2'	10.04	127.05	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4457	U	O4'-C1'-N1	10.04	116.23	108.20
4	AK	55	ARG	NE-CZ-NH1	10.03	125.32	120.30
85	A5	351	C	N1-C1'-C2'	10.04	127.05	114.00
36	B2	1014	G	O4'-C1'-N9	10.03	116.23	108.20
85	A5	1729	A	O4'-C1'-N9	10.03	116.23	108.20
85	A5	2021	G	O4'-C1'-N9	10.03	116.23	108.20
81	CE	73	TYR	O-C-N	10.03	138.75	122.70
85	A5	3634	G	O4'-C1'-N9	10.03	116.22	108.20
36	B2	1509	U	P-O3'-C3'	10.03	131.73	119.70
85	A5	1358	G	N9-C1'-C2'	10.02	127.03	114.00
33	AI	43	ILE	CA-C-O	10.02	141.14	120.10
36	B2	1262	C	N1-C1'-C2'	10.02	127.02	114.00
74	CC	330	PRO	CA-N-CD	-10.02	97.47	111.50
36	B2	1418	C	P-O5'-C5'	10.02	136.93	120.90
85	A5	416	U	P-O3'-C3'	-10.02	107.68	119.70
85	A5	1259	G	O4'-C1'-N9	10.02	116.21	108.20
36	B2	1720	U	C1'-O4'-C4'	10.01	117.91	109.90
42	CL	165	LYS	N-CA-C	10.01	138.03	111.00
85	A5	1739	G	O4'-C1'-N9	10.01	116.21	108.20
36	B2	799	U	O4'-C1'-N1	10.01	116.21	108.20
36	B2	1280	G	O4'-C1'-N9	10.01	116.21	108.20
36	B2	1412	C	O3'-P-O5'	-10.01	84.98	104.00
85	A5	4310	A	O4'-C1'-N9	10.01	116.21	108.20
85	A5	461	G	O4'-C1'-N9	10.01	116.21	108.20
36	B2	1215	C	O4'-C1'-C2'	-10.01	95.80	105.80
86	A7	73	U	P-O3'-C3'	10.00	131.70	119.70
36	B2	31	U	P-O3'-C3'	10.00	131.70	119.70
85	A5	292	G	N9-C1'-C2'	10.00	127.00	114.00
85	A5	4437	U	O4'-C1'-N1	10.00	116.20	108.20
36	B2	80	G	C3'-C2'-C1'	10.00	109.50	101.50
85	A5	3912	U	O4'-C1'-N1	10.00	116.20	108.20
85	A5	1166	G	N9-C1'-C2'	9.99	126.99	114.00
85	A5	2626	U	O4'-C1'-N1	9.99	116.19	108.20
36	B2	1537	A	O4'-C1'-C2'	-9.99	95.81	105.80
67	Ce	108	ARG	NE-CZ-NH2	-9.99	115.31	120.30
85	A5	530	U	P-O3'-C3'	9.99	131.68	119.70
60	Cr	106	LEU	CA-C-O	-9.98	99.14	120.10
85	A5	4051	C	C3'-C2'-C1'	9.98	109.49	101.50
85	A5	2638	G	O4'-C1'-C2'	-9.98	95.82	105.80
87	A8	55	U	O4'-C1'-N1	9.98	116.19	108.20
31	AH	110	THR	CA-C-O	-9.98	99.15	120.10
36	B2	557	U	N1-C1'-C2'	9.98	126.97	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1285	G	C4'-C3'-O3'	9.98	132.95	113.00
85	A5	4601	U	O4'-C1'-N1	9.98	116.18	108.20
85	A5	4949	G	C4'-C3'-O3'	9.97	132.95	113.00
4	AK	1	MET	CB-CG-SD	9.97	142.32	112.40
36	B2	73	C	O4'-C1'-C2'	-9.97	95.83	105.80
36	B2	918	U	N1-C1'-C2'	9.97	126.96	114.00
1	Az	807	GLN	N-CA-C	-9.97	84.09	111.00
85	A5	2409	U	C3'-C2'-C1'	9.97	109.47	101.50
85	A5	4209	G	O4'-C1'-N9	9.97	116.17	108.20
36	B2	1777	G	C3'-C2'-C1'	-9.96	93.53	101.50
37	BC	5	G	O4'-C1'-N9	9.96	116.17	108.20
85	A5	1194	G	P-O3'-C3'	9.96	131.66	119.70
85	A5	4945	G	C1'-O4'-C4'	-9.96	101.93	109.90
81	CE	59	ARG	C-N-CA	9.96	146.60	121.70
85	A5	4871	C	P-O5'-C5'	9.96	136.84	120.90
85	A5	3820	G	O4'-C1'-N9	9.96	116.17	108.20
85	A5	2469	C	O4'-C1'-N1	9.95	116.16	108.20
42	CL	166	ALA	N-CA-C	-9.95	84.14	111.00
85	A5	1730	U	O4'-C1'-N1	9.95	116.16	108.20
85	A5	1997	U	O4'-C1'-N1	9.95	116.16	108.20
85	A5	4129	G	P-O3'-C3'	-9.95	107.76	119.70
6	AX	23	HIS	CB-CA-C	9.95	130.29	110.40
36	B2	556	U	C4'-C3'-C2'	-9.95	92.65	102.60
85	A5	1597	G	O4'-C1'-N9	9.95	116.16	108.20
36	B2	1476	A	N9-C1'-C2'	-9.94	101.06	112.00
85	A5	957	G	O4'-C1'-N9	9.95	116.16	108.20
23	AD	4	GLN	CG-CD-NE2	9.94	140.56	116.70
54	CP	110	ASP	CB-CA-C	-9.94	90.52	110.40
85	A5	322	C	C3'-C2'-C1'	9.94	109.45	101.50
85	A5	1177	U	O4'-C1'-N1	9.94	116.15	108.20
85	A5	1274	A	O4'-C1'-C2'	-9.94	95.86	105.80
85	A5	2895	A	O4'-C1'-N9	9.94	116.15	108.20
86	A7	74	A	C1'-O4'-C4'	9.94	117.85	109.90
85	A5	1952	G	O4'-C1'-N9	9.94	116.15	108.20
36	B2	207	G	N9-C1'-C2'	-9.93	101.07	112.00
36	B2	1420	G	C1'-O4'-C4'	-9.93	101.95	109.90
85	A5	2107	C	N1-C1'-C2'	9.93	126.91	114.00
85	A5	113	A	O4'-C1'-N9	9.93	116.14	108.20
36	B2	5	U	O4'-C1'-N1	9.93	116.14	108.20
85	A5	4939	C	O3'-P-O5'	-9.93	85.14	104.00
85	A5	4044	U	P-O3'-C3'	9.92	131.61	119.70
85	A5	2126	G	O4'-C1'-N9	9.92	116.14	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2813	A	O4'-C1'-N9	9.92	116.14	108.20
38	Cz	207	LYS	CB-CA-C	-9.92	90.56	110.40
85	A5	4622	A	O4'-C1'-N9	9.92	116.14	108.20
36	B2	1155	U	O4'-C1'-N1	9.92	116.13	108.20
85	A5	1371	A	O4'-C1'-N9	-9.92	100.27	108.20
85	A5	1961	G	O4'-C1'-N9	9.92	116.13	108.20
29	AG	180	VAL	CB-CA-C	-9.91	92.57	111.40
85	A5	934	C	O4'-C1'-C2'	-9.91	95.89	105.80
85	A5	492	U	O4'-C1'-N1	9.91	116.12	108.20
85	A5	1065	G	O4'-C1'-N9	9.90	116.12	108.20
85	A5	958	G	O4'-C1'-N9	-9.90	100.28	108.20
85	A5	1242	G	O4'-C1'-C2'	-9.90	95.90	105.80
36	B2	626	G	O4'-C1'-C2'	-9.90	95.90	105.80
36	B2	1648	G	P-O3'-C3'	9.90	131.58	119.70
85	A5	1880	G	C1'-O4'-C4'	-9.90	101.98	109.90
85	A5	4349	C	P-O3'-C3'	9.90	131.58	119.70
85	A5	1288	G	C5'-C4'-O4'	9.89	120.97	109.10
85	A5	1954	U	O4'-C1'-N1	9.89	116.12	108.20
85	A5	37	U	O4'-C1'-N1	9.89	116.11	108.20
85	A5	2753	G	N9-C1'-C2'	9.89	126.86	114.00
36	B2	932	G	O4'-C1'-N9	9.89	116.11	108.20
85	A5	3614	G	O4'-C1'-N9	9.89	116.11	108.20
85	A5	1313	C	C3'-C2'-C1'	9.89	109.41	101.50
85	A5	3793	U	O4'-C1'-N1	9.89	116.11	108.20
85	A5	1335	G	O4'-C1'-N9	9.88	116.11	108.20
85	A5	1924	C	O4'-C1'-N1	9.88	116.11	108.20
85	A5	4663	G	O4'-C1'-N9	9.88	116.11	108.20
36	B2	1040	G	O4'-C1'-N9	9.87	116.10	108.20
85	A5	4750	G	P-O3'-C3'	9.87	131.55	119.70
85	A5	307	A	O4'-C1'-C2'	-9.87	95.93	105.80
36	B2	190	G	C1'-O4'-C4'	-9.86	102.01	109.90
12	AR	42	PRO	CA-N-CD	-9.86	97.69	111.50
86	A7	102	U	N1-C1'-C2'	9.86	126.82	114.00
36	B2	814	U	O4'-C1'-N1	9.86	116.09	108.20
36	B2	752	G	C3'-C2'-C1'	-9.85	93.62	101.50
36	B2	1439	A	O4'-C1'-N9	9.85	116.08	108.20
85	A5	2024	G	O4'-C1'-N9	9.85	116.08	108.20
85	A5	4472	G	O4'-C1'-N9	9.85	116.08	108.20
85	A5	4998	G	O4'-C1'-N9	9.85	116.08	108.20
36	B2	1401	A	O4'-C1'-N9	9.85	116.08	108.20
36	B2	1809	A	O4'-C1'-N9	9.85	116.08	108.20
36	B2	1014	G	C1'-O4'-C4'	-9.84	102.03	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4719	G	C3'-C2'-C1'	-9.84	93.63	101.50
36	B2	1253	A	P-O3'-C3'	9.84	131.50	119.70
85	A5	2907	G	O4'-C1'-N9	9.84	116.07	108.20
85	A5	1363	C	C3'-C2'-C1'	9.83	109.36	101.50
85	A5	1795	A	N9-C1'-C2'	9.83	126.78	114.00
85	A5	3948	C	O4'-C1'-N1	9.83	116.06	108.20
85	A5	4891	G	P-O5'-C5'	9.83	136.62	120.90
36	B2	92	A	N9-C1'-C2'	9.82	126.77	114.00
40	CK	30	PRO	CA-N-CD	-9.82	97.75	111.50
85	A5	1720	C	C4'-C3'-O3'	-9.82	88.77	109.40
85	A5	4344	U	O4'-C1'-N1	9.82	116.06	108.20
36	B2	673	G	O4'-C1'-N9	9.82	116.06	108.20
85	A5	983	C	P-O5'-C5'	9.82	136.61	120.90
85	A5	2784	C	N1-C1'-C2'	9.82	126.77	114.00
85	A5	2390	G	C1'-O4'-C4'	-9.81	102.05	109.90
36	B2	1238	U	O4'-C1'-N1	9.81	116.05	108.20
85	A5	463	A	O4'-C1'-C2'	-9.81	95.99	105.80
85	A5	2390	G	N9-C1'-C2'	9.81	126.75	114.00
86	A7	43	U	P-O3'-C3'	-9.81	107.93	119.70
36	B2	1008	A	P-O3'-C3'	9.80	131.47	119.70
36	B2	1003	U	O4'-C1'-N1	9.80	116.04	108.20
85	A5	2127	C	P-O3'-C3'	9.80	131.46	119.70
85	A5	4411	G	C3'-C2'-C1'	9.80	109.34	101.50
38	Cz	210	MET	N-CA-C	9.80	137.46	111.00
81	CE	31	ASN	O-C-N	-9.79	107.03	122.70
85	A5	1925	G	O4'-C1'-N9	9.79	116.03	108.20
85	A5	4907	G	P-O3'-C3'	9.79	131.45	119.70
85	A5	3733	A	O4'-C1'-N9	9.79	116.03	108.20
85	A5	4942	C	O3'-P-O5'	-9.79	85.40	104.00
36	B2	105	U	O4'-C1'-N1	9.78	116.03	108.20
85	A5	207	G	N9-C1'-C2'	9.78	126.72	114.00
85	A5	4891	G	O4'-C1'-N9	9.78	116.03	108.20
36	B2	1777	G	O4'-C1'-N9	9.78	116.02	108.20
85	A5	2096	G	P-O3'-C3'	9.78	131.44	119.70
85	A5	2685	C	O4'-C1'-N1	9.78	116.02	108.20
36	B2	1081	U	O4'-C1'-N1	9.77	116.02	108.20
85	A5	286	U	O4'-C1'-N1	9.77	116.02	108.20
85	A5	2537	A	O4'-C1'-N9	9.77	116.02	108.20
85	A5	3945	A	C1'-O4'-C4'	9.77	117.72	109.90
85	A5	5058	A	O4'-C1'-N9	9.77	116.02	108.20
86	A7	121	U	P-O5'-C5'	9.77	136.53	120.90
85	A5	1562	G	O4'-C1'-N9	9.77	116.02	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2686	G	P-O3'-C3'	9.77	131.42	119.70
87	A8	111	U	C5'-C4'-C3'	9.76	131.62	116.00
36	B2	1076	G	O4'-C1'-N9	9.76	116.01	108.20
85	A5	4349	C	OP2-P-O3'	9.76	126.67	105.20
36	B2	1119	A	O4'-C1'-N9	9.76	116.01	108.20
36	B2	1436	C	P-O3'-C3'	9.76	131.41	119.70
85	A5	346	G	C3'-C2'-C1'	-9.76	93.69	101.50
85	A5	4953	G	C1'-O4'-C4'	-9.76	102.09	109.90
8	AS	91	LYS	CG-CD-CE	9.76	141.17	111.90
85	A5	136	C	O4'-C1'-N1	9.76	116.00	108.20
85	A5	3855	C	O4'-C1'-N1	9.76	116.00	108.20
85	A5	4439	U	O4'-C1'-N1	9.75	116.00	108.20
47	CI	4	ARG	NE-CZ-NH2	-9.75	115.43	120.30
2	Ag	142	VAL	CA-C-N	-9.74	95.77	117.20
85	A5	246	G	P-O5'-C5'	9.74	136.48	120.90
85	A5	1288	G	P-O3'-C3'	9.73	131.38	119.70
85	A5	4751	G	C1'-O4'-C4'	-9.73	102.11	109.90
21	Ab	36	LYS	N-CA-C	9.73	137.27	111.00
36	B2	407	G	O4'-C1'-N9	9.73	115.98	108.20
85	A5	2285	A	O4'-C1'-N9	9.73	115.99	108.20
85	A5	4114	C	P-O3'-C3'	9.73	131.38	119.70
85	A5	3728	A	O4'-C1'-N9	9.73	115.98	108.20
16	AA	200	ASP	CB-CA-C	-9.73	90.95	110.40
52	CS	37	HIS	CB-CA-C	-9.72	90.95	110.40
85	A5	1277	G	O4'-C1'-N9	9.72	115.98	108.20
85	A5	4740	G	O4'-C1'-N9	9.72	115.98	108.20
28	AC	108	LYS	C-N-CA	9.72	146.00	121.70
85	A5	2661	U	P-O3'-C3'	9.72	131.37	119.70
36	B2	883	U	O4'-C1'-N1	9.72	115.97	108.20
85	A5	686	A	O4'-C1'-C2'	-9.71	96.09	105.80
85	A5	1754	U	O4'-C1'-N1	9.71	115.97	108.20
85	A5	2108	G	P-O3'-C3'	9.72	131.36	119.70
36	B2	1332	A	O4'-C1'-C2'	-9.71	96.09	105.80
36	B2	1556	A	O4'-C1'-N9	9.71	115.97	108.20
36	B2	1721	U	P-O3'-C3'	9.71	131.35	119.70
85	A5	448	G	N9-C1'-C2'	9.71	126.62	114.00
36	B2	747	U	O4'-C1'-N1	9.71	115.97	108.20
56	CX	53	ARG	N-CA-CB	-9.71	93.12	110.60
74	CC	266	THR	O-C-N	-9.71	107.17	122.70
85	A5	442	G	O4'-C1'-N9	9.71	115.97	108.20
36	B2	530	U	O4'-C4'-C3'	-9.71	94.30	104.00
85	A5	1209	U	O4'-C1'-N1	9.71	115.96	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BC	75	A	P-O5'-C5'	9.70	136.43	120.90
85	A5	1370	G	C1'-O4'-C4'	-9.70	102.14	109.90
2	Ag	159	ASN	N-CA-C	9.70	137.19	111.00
86	A7	66	G	O4'-C1'-N9	9.70	115.96	108.20
36	B2	1664	A	N9-C1'-C2'	9.70	126.61	114.00
85	A5	80	C	C1'-O4'-C4'	-9.70	102.14	109.90
85	A5	3892	U	O4'-C4'-C3'	-9.70	94.31	104.00
3	AU	104	ILE	N-CA-C	-9.69	84.83	111.00
36	B2	1604	G	O4'-C1'-N9	9.69	115.95	108.20
85	A5	1398	A	O4'-C1'-C2'	9.69	116.32	107.60
85	A5	4944	C	C1'-O4'-C4'	-9.69	102.15	109.90
85	A5	4996	C	O4'-C1'-N1	9.69	115.95	108.20
85	A5	4997	G	P-O3'-C3'	9.69	131.32	119.70
85	A5	171	U	O4'-C1'-N1	9.69	115.95	108.20
85	A5	938	C	O4'-C1'-N1	9.68	115.94	108.20
85	A5	1337	A	P-O3'-C3'	-9.68	108.09	119.70
85	A5	2740	U	O4'-C1'-N1	9.68	115.94	108.20
85	A5	1291	G	C1'-O4'-C4'	-9.68	102.16	109.90
85	A5	2439	G	N9-C1'-C2'	9.68	126.58	114.00
85	A5	147	A	O4'-C1'-N9	9.67	115.94	108.20
85	A5	220	C	N1-C1'-C2'	9.67	126.57	114.00
85	A5	2058	G	C1'-O4'-C4'	-9.67	102.17	109.90
26	AJ	89	GLU	N-CA-C	9.66	137.10	111.00
36	B2	354	U	O4'-C1'-N1	9.66	115.93	108.20
36	B2	1535	U	P-O3'-C3'	9.66	131.29	119.70
85	A5	21	G	N9-C1'-C2'	-9.66	101.37	112.00
36	B2	66	G	N9-C1'-C2'	9.66	126.56	114.00
85	A5	1921	C	P-O3'-C3'	9.66	131.29	119.70
85	A5	4909	A	O4'-C1'-N9	9.66	115.92	108.20
85	A5	161	G	C1'-O4'-C4'	-9.65	102.18	109.90
85	A5	660	A	O4'-C1'-N9	9.65	115.92	108.20
85	A5	746	A	C1'-O4'-C4'	-9.65	102.18	109.90
85	A5	1824	G	P-O3'-C3'	-9.65	108.12	119.70
59	CZ	90	PRO	CA-N-CD	-9.64	98.00	111.50
81	CE	134	SER	O-C-N	-9.64	107.27	122.70
85	A5	4764	A	O4'-C1'-C2'	9.64	116.28	107.60
36	B2	834	C	C1'-O4'-C4'	-9.64	102.19	109.90
85	A5	3769	C	O4'-C1'-N1	9.64	115.91	108.20
33	AI	105	ASP	CB-CG-OD2	9.64	126.97	118.30
36	B2	1130	G	N9-C1'-C2'	-9.63	101.40	112.00
36	B2	331	C	O4'-C1'-N1	9.63	115.91	108.20
87	A8	48	A	O4'-C1'-N9	9.63	115.91	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	AS	54	LYS	N-CA-C	9.63	137.00	111.00
85	A5	2545	U	P-O3'-C3'	9.63	131.26	119.70
85	A5	4626	A	O4'-C1'-C2'	9.63	116.27	107.60
36	B2	1136	U	O4'-C1'-N1	9.63	115.90	108.20
39	Cq	68	HIS	CA-C-O	-9.63	99.88	120.10
42	CL	161	TYR	N-CA-CB	9.63	127.93	110.60
85	A5	294	G	P-O3'-C3'	9.63	131.25	119.70
17	AV	31	SER	N-CA-C	9.63	136.99	111.00
36	B2	1417	C	C3'-C2'-C1'	9.62	109.20	101.50
85	A5	1641	G	C3'-C2'-C1'	9.62	109.20	101.50
85	A5	1947	U	O4'-C1'-N1	9.62	115.90	108.20
85	A5	4299	U	O4'-C1'-N1	9.62	115.90	108.20
85	A5	1612	G	C1'-O4'-C4'	-9.62	102.20	109.90
85	A5	3752	C	N1-C1'-C2'	9.62	126.50	114.00
85	A5	3963	A	P-O3'-C3'	9.62	131.24	119.70
37	BC	71	U	O4'-C1'-N1	9.61	115.89	108.20
85	A5	157	U	O4'-C1'-N1	9.61	115.89	108.20
36	B2	1337	C	O4'-C1'-N1	9.61	115.89	108.20
85	A5	1210	C	O4'-C1'-C2'	-9.61	96.19	105.80
85	A5	1709	C	O3'-P-O5'	-9.61	85.74	104.00
85	A5	968	C	O4'-C1'-C2'	-9.61	96.19	105.80
85	A5	1367	C	O4'-C1'-N1	9.61	115.89	108.20
85	A5	1406	G	N9-C1'-C2'	-9.61	101.43	112.00
29	AG	219	GLU	C-N-CA	9.60	145.71	121.70
36	B2	1198	G	C1'-O4'-C4'	-9.60	102.22	109.90
36	B2	1292	C	O4'-C1'-N1	-9.60	100.52	108.20
36	B2	1804	U	O4'-C1'-N1	9.60	115.88	108.20
85	A5	1092	G	O4'-C1'-N9	9.60	115.88	108.20
85	A5	204	U	O4'-C1'-N1	9.60	115.88	108.20
85	A5	4652	G	O4'-C1'-N9	9.60	115.88	108.20
36	B2	842	C	C3'-C2'-C1'	9.60	109.18	101.50
36	B2	1295	A	O4'-C1'-N9	9.60	115.88	108.20
85	A5	228	C	O4'-C1'-N1	9.60	115.88	108.20
85	A5	2016	C	O3'-P-O5'	-9.60	85.77	104.00
85	A5	4965	U	O4'-C1'-C2'	-9.59	96.21	105.80
36	B2	636	C	C3'-C2'-C1'	9.59	109.17	101.50
85	A5	1102	U	N1-C1'-C2'	-9.59	101.45	112.00
85	A5	2547	G	C1'-O4'-C4'	-9.59	102.23	109.90
85	A5	4563	U	O4'-C1'-N1	9.59	115.87	108.20
37	BC	23	G	O4'-C1'-N9	9.59	115.87	108.20
85	A5	3701	C	O4'-C1'-C2'	-9.59	96.21	105.80
36	B2	844	U	O4'-C1'-N1	9.58	115.86	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1494	U	P-O3'-C3'	9.58	131.19	119.70
85	A5	2111	G	C3'-C2'-C1'	9.58	109.16	101.50
85	A5	1428	U	P-O3'-C3'	9.58	131.19	119.70
36	B2	1167	G	O4'-C1'-N9	9.57	115.86	108.20
85	A5	2711	G	O4'-C1'-N9	9.57	115.86	108.20
36	B2	121	U	O4'-C1'-N1	9.57	115.86	108.20
85	A5	220	C	P-O3'-C3'	9.57	131.19	119.70
85	A5	1708	G	P-O5'-C5'	9.57	136.22	120.90
85	A5	2730	U	O4'-C1'-N1	9.57	115.86	108.20
85	A5	1828	C	C2'-C3'-O3'	9.57	130.56	109.50
85	A5	700	G	C1'-O4'-C4'	-9.57	102.25	109.90
85	A5	1703	C	P-O3'-C3'	9.57	131.18	119.70
36	B2	478	G	O4'-C1'-N9	9.57	115.85	108.20
40	CK	106	PHE	CB-CG-CD1	9.57	127.50	120.80
85	A5	1972	G	O4'-C1'-C2'	9.57	116.21	107.60
48	CD	170	GLY	CA-C-N	9.56	138.24	117.20
85	A5	685	C	P-O3'-C3'	9.56	131.18	119.70
85	A5	2093	A	P-O3'-C3'	9.56	131.18	119.70
85	A5	2316	G	O4'-C1'-N9	9.56	115.85	108.20
85	A5	3887	C	N1-C1'-C2'	9.56	126.43	114.00
37	BC	68	U	O4'-C1'-N1	9.56	115.85	108.20
85	A5	1834	U	P-O3'-C3'	9.56	131.17	119.70
85	A5	4210	U	O4'-C1'-N1	9.56	115.84	108.20
36	B2	1551	U	O4'-C1'-N1	9.56	115.84	108.20
81	CE	37	PRO	N-CA-C	9.55	136.94	112.10
85	A5	1273	G	C3'-C2'-C1'	-9.56	93.86	101.50
85	A5	2235	C	P-O3'-C3'	9.56	131.17	119.70
12	AR	1	MET	CA-C-O	9.55	140.16	120.10
74	CC	322	LEU	O-C-N	-9.55	107.42	122.70
85	A5	107	G	O4'-C1'-N9	9.55	115.84	108.20
36	B2	791	C	O4'-C1'-N1	9.55	115.84	108.20
36	B2	391	C	O4'-C1'-N1	9.55	115.84	108.20
85	A5	759	G	O4'-C1'-N9	9.54	115.83	108.20
85	A5	1641	G	O4'-C1'-N9	-9.54	100.56	108.20
85	A5	4936	G	C5'-C4'-O4'	-9.54	97.65	109.10
40	CK	148	PRO	CA-N-CD	-9.54	98.14	111.50
85	A5	1316	G	O4'-C1'-N9	9.54	115.83	108.20
36	B2	1255	G	C1'-O4'-C4'	-9.54	102.27	109.90
85	A5	449	C	P-O3'-C3'	9.54	131.15	119.70
36	B2	444	G	O4'-C1'-N9	9.54	115.83	108.20
87	A8	115	G	C1'-O4'-C4'	-9.54	102.27	109.90
36	B2	828	G	O4'-C1'-C2'	9.53	116.18	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	717	U	O4'-C1'-N1	9.53	115.83	108.20
85	A5	2028	C	O4'-C1'-N1	9.53	115.82	108.20
36	B2	1507	G	C1'-O4'-C4'	-9.52	102.28	109.90
23	AD	193	ASP	N-CA-C	-9.52	85.29	111.00
85	A5	1070	G	P-O3'-C3'	9.52	131.13	119.70
85	A5	942	G	N9-C1'-C2'	9.52	126.38	114.00
85	A5	648	G	P-O3'-C3'	9.51	131.11	119.70
82	CG	163	PRO	CA-N-CD	-9.51	98.19	111.50
85	A5	316	U	O4'-C1'-C2'	-9.51	96.30	105.80
85	A5	374	G	O4'-C1'-N9	9.50	115.80	108.20
85	A5	2020	U	O4'-C1'-C2'	-9.50	96.30	105.80
85	A5	1815	G	O4'-C1'-N9	9.50	115.80	108.20
85	A5	4444	C	C3'-C2'-C1'	9.50	109.10	101.50
85	A5	4729	A	O4'-C1'-C2'	-9.50	96.30	105.80
85	A5	657	C	P-O5'-C5'	9.49	136.09	120.90
12	AR	3	ARG	N-CA-CB	9.49	127.68	110.60
85	A5	651	C	O4'-C1'-N1	9.49	115.79	108.20
74	CC	305	PRO	CA-N-CD	-9.48	98.22	111.50
47	CI	206	LEU	CA-C-O	-9.48	100.19	120.10
36	B2	404	G	O4'-C1'-N9	9.48	115.78	108.20
85	A5	3889	G	O4'-C1'-N9	9.48	115.78	108.20
85	A5	269	G	O4'-C1'-N9	9.47	115.78	108.20
36	B2	1219	C	O4'-C1'-N1	9.47	115.78	108.20
85	A5	331	G	O4'-C1'-N9	9.47	115.78	108.20
85	A5	1195	G	O4'-C1'-N9	9.46	115.77	108.20
85	A5	1371	A	C1'-O4'-C4'	9.46	117.47	109.90
85	A5	316	U	C3'-C2'-C1'	9.46	109.07	101.50
36	B2	913	A	C3'-C2'-C1'	9.46	109.07	101.50
36	B2	1129	G	O4'-C1'-N9	9.46	115.77	108.20
36	B2	1494	U	O4'-C1'-N1	9.46	115.77	108.20
36	B2	661	U	O4'-C1'-N1	9.46	115.77	108.20
85	A5	2084	C	C3'-C2'-C1'	9.45	109.06	101.50
20	Aa	63	VAL	C-N-CA	9.45	145.32	121.70
36	B2	160	U	P-O3'-C3'	9.45	131.04	119.70
85	A5	4764	A	O4'-C1'-N9	9.45	115.76	108.20
36	B2	555	A	P-O3'-C3'	9.45	131.04	119.70
40	CK	2	PRO	N-CA-C	9.45	136.66	112.10
85	A5	2572	C	O4'-C1'-N1	9.45	115.76	108.20
85	A5	1564	A	O4'-C1'-N9	9.44	115.76	108.20
85	A5	5016	A	O4'-C1'-N9	9.44	115.75	108.20
36	B2	1851	A	O4'-C1'-C2'	-9.44	96.36	105.80
60	Cr	91	SER	CB-CA-C	-9.44	92.16	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	659	G	O4'-C1'-N9	9.44	115.75	108.20
85	A5	1844	G	O4'-C1'-N9	9.44	115.75	108.20
66	Cd	103	TYR	CB-CA-C	-9.44	91.52	110.40
87	A8	68	G	O4'-C1'-N9	9.44	115.75	108.20
49	CQ	12	LYS	N-CA-C	-9.44	85.52	111.00
81	CE	35	LYS	N-CA-CB	-9.44	93.61	110.60
31	AH	111	LYS	N-CA-CB	9.44	127.58	110.60
67	Ce	7	LEU	C-N-CA	-9.44	98.11	121.70
74	CC	31	PRO	CA-N-CD	-9.44	98.29	111.50
85	A5	2100	A	P-O3'-C3'	9.44	131.02	119.70
85	A5	3754	G	O4'-C1'-N9	9.44	115.75	108.20
85	A5	2325	C	O4'-C1'-N1	9.43	115.75	108.20
36	B2	1448	A	P-O3'-C3'	9.43	131.02	119.70
85	A5	203	U	C1'-O4'-C4'	-9.43	102.36	109.90
85	A5	1458	C	C3'-C2'-C1'	9.43	109.04	101.50
36	B2	1792	G	O4'-C1'-C2'	9.43	116.08	107.60
85	A5	740	G	O4'-C1'-N9	9.42	115.74	108.20
85	A5	2015	U	O4'-C1'-C2'	-9.42	96.38	105.80
85	A5	3802	U	O4'-C1'-N1	9.42	115.74	108.20
36	B2	830	A	C3'-C2'-C1'	-9.42	93.96	101.50
40	CK	2	PRO	CA-N-CD	-9.42	98.31	111.50
36	B2	657	U	O4'-C1'-N1	9.42	115.73	108.20
36	B2	1236	G	O4'-C1'-N9	9.42	115.73	108.20
54	CP	110	ASP	C-N-CA	-9.42	98.16	121.70
85	A5	2650	G	O4'-C1'-N9	9.42	115.73	108.20
52	CS	152	PHE	CB-CA-C	9.41	129.23	110.40
85	A5	1905	U	O4'-C1'-N1	9.41	115.73	108.20
85	A5	1980	U	O4'-C1'-N1	9.41	115.73	108.20
18	AY	103	SER	CA-C-N	9.41	137.91	117.20
20	Aa	10	ARG	CB-CG-CD	9.41	136.07	111.60
74	CC	304	ALA	C-N-CD	-9.41	99.90	120.60
36	B2	79	A	C5'-C4'-O4'	9.41	120.39	109.10
36	B2	1144	A	N9-C1'-C2'	9.41	126.23	114.00
85	A5	69	A	N9-C1'-C2'	9.41	126.23	114.00
85	A5	1422	G	O4'-C1'-N9	9.41	115.73	108.20
85	A5	2047	A	O4'-C1'-C2'	-9.41	96.39	105.80
36	B2	1590	C	N1-C1'-C2'	9.40	126.22	114.00
85	A5	499	G	C1'-O4'-C4'	-9.40	102.38	109.90
42	CL	166	ALA	O-C-N	-9.40	107.66	122.70
85	A5	3822	U	O4'-C1'-N1	9.40	115.72	108.20
42	CL	165	LYS	N-CA-CB	-9.40	93.68	110.60
61	Ch	119	TYR	CB-CG-CD2	-9.40	115.36	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	422	C	N1-C1'-C2'	9.40	126.22	114.00
86	A7	45	U	O4'-C1'-N1	9.40	115.72	108.20
17	AV	61	ARG	NE-CZ-NH1	9.39	125.00	120.30
36	B2	652	U	O4'-C1'-N1	9.39	115.72	108.20
85	A5	956	A	O4'-C1'-C2'	-9.39	96.41	105.80
85	A5	1825	A	O4'-C1'-C2'	-9.39	96.41	105.80
85	A5	4144	C	O4'-C1'-N1	9.39	115.71	108.20
85	A5	2521	G	O4'-C1'-N9	9.39	115.71	108.20
85	A5	4940	C	P-O3'-C3'	-9.39	108.44	119.70
85	A5	4938	A	P-O3'-C3'	9.39	130.96	119.70
86	A7	106	G	O4'-C1'-C2'	9.39	116.05	107.60
81	CE	85	LYS	CB-CA-C	9.38	129.16	110.40
85	A5	4749	C	P-O5'-C5'	9.38	135.91	120.90
36	B2	1041	G	O4'-C1'-C2'	9.38	116.04	107.60
85	A5	1640	C	O4'-C1'-N1	9.38	115.70	108.20
85	A5	2505	C	O4'-C1'-C2'	-9.38	96.42	105.80
86	A7	53	U	O4'-C1'-N1	9.38	115.70	108.20
36	B2	67	C	C3'-C2'-C1'	-9.38	94.00	101.50
36	B2	797	C	C3'-C2'-C1'	9.38	109.00	101.50
85	A5	4306	U	O4'-C1'-C2'	-9.38	96.42	105.80
36	B2	1157	G	O4'-C1'-N9	9.37	115.70	108.20
85	A5	3768	U	O4'-C1'-N1	9.37	115.70	108.20
86	A7	80	U	O4'-C1'-N1	9.37	115.70	108.20
36	B2	670	A	O4'-C1'-N9	9.37	115.70	108.20
85	A5	2264	C	O3'-P-O5'	-9.37	86.20	104.00
85	A5	4592	C	O4'-C1'-N1	9.37	115.69	108.20
85	A5	1210	C	P-O3'-C3'	9.37	130.94	119.70
85	A5	656	C	C4'-C3'-O3'	9.36	131.73	113.00
36	B2	909	G	O3'-P-O5'	9.36	121.79	104.00
85	A5	4049	U	O4'-C1'-N1	9.36	115.69	108.20
36	B2	1459	G	C1'-O4'-C4'	-9.36	102.41	109.90
85	A5	3911	C	N1-C1'-C2'	9.36	126.16	114.00
85	A5	907	C	O4'-C1'-N1	9.35	115.68	108.20
85	A5	4084	G	O3'-P-O5'	9.35	121.77	104.00
85	A5	3842	C	O3'-P-O5'	9.35	121.76	104.00
23	AD	82	GLY	C-N-CA	-9.35	98.33	121.70
85	A5	4658	G	C1'-O4'-C4'	-9.35	102.42	109.90
36	B2	965	U	O4'-C1'-N1	9.35	115.68	108.20
85	A5	2369	U	P-O3'-C3'	9.35	130.91	119.70
36	B2	887	U	P-O5'-C5'	9.34	135.85	120.90
70	Ci	78	GLY	O-C-N	9.34	137.65	122.70
85	A5	1303	A	P-O3'-C3'	9.34	130.91	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	409	G	O4'-C1'-C2'	-9.34	96.46	105.80
74	CC	335	MET	CA-C-O	-9.34	100.49	120.10
87	A8	111	U	O4'-C1'-N1	9.34	115.67	108.20
36	B2	514	U	O4'-C1'-N1	9.34	115.67	108.20
36	B2	201	C	C3'-C2'-C1'	9.33	108.97	101.50
36	B2	1808	U	O4'-C1'-N1	9.33	115.67	108.20
85	A5	5015	G	C3'-C2'-C1'	9.33	108.97	101.50
87	A8	120	G	O4'-C1'-N9	9.33	115.67	108.20
36	B2	1569	A	O5'-P-OP2	-9.33	97.30	105.70
85	A5	1899	G	C1'-O4'-C4'	-9.33	102.44	109.90
46	CN	74	PRO	CA-N-CD	-9.33	98.44	111.50
85	A5	3605	C	P-O3'-C3'	9.33	130.89	119.70
85	A5	4289	U	O4'-C1'-N1	9.32	115.66	108.20
33	AI	105	ASP	CB-CG-OD1	-9.32	109.91	118.30
36	B2	210	U	C4'-C3'-O3'	9.32	131.64	113.00
81	CE	32	LEU	CB-CG-CD2	9.32	126.84	111.00
85	A5	4529	G	O4'-C1'-N9	9.32	115.66	108.20
85	A5	1661	C	C1'-O4'-C4'	-9.32	102.45	109.90
85	A5	2076	G	O4'-C1'-N9	9.32	115.65	108.20
85	A5	2314	G	O4'-C1'-N9	9.31	115.65	108.20
85	A5	4769	G	O4'-C1'-N9	9.31	115.65	108.20
87	A8	131	G	O4'-C1'-N9	9.31	115.65	108.20
36	B2	1587	G	O4'-C1'-N9	9.31	115.65	108.20
36	B2	434	G	C4'-C3'-O3'	-9.31	89.84	109.40
85	A5	462	G	C3'-C2'-C1'	-9.31	94.05	101.50
85	A5	4577	U	O4'-C1'-N1	9.31	115.65	108.20
36	B2	1072	U	O4'-C1'-N1	9.31	115.65	108.20
81	CE	118	THR	C-N-CA	9.31	144.97	121.70
36	B2	859	G	O4'-C1'-N9	9.31	115.65	108.20
36	B2	955	A	O4'-C1'-N9	9.31	115.65	108.20
41	CO	66	PRO	CA-N-CD	-9.31	98.47	111.50
85	A5	2489	C	C2'-C3'-O3'	-9.31	89.02	109.50
85	A5	423	G	C1'-O4'-C4'	-9.31	102.45	109.90
36	B2	441	C	N1-C1'-C2'	9.30	126.09	114.00
74	CC	261	ASP	C-N-CA	9.30	144.94	121.70
85	A5	4370	G	N9-C1'-C2'	9.30	126.09	114.00
48	CD	285	ALA	N-CA-CB	9.30	123.11	110.10
36	B2	1106	C	O4'-C1'-N1	9.29	115.63	108.20
38	Cz	28	PHE	CB-CG-CD2	-9.29	114.30	120.80
44	CM	90	ARG	NE-CZ-NH1	9.29	124.95	120.30
85	A5	48	G	P-O3'-C3'	9.29	130.85	119.70
85	A5	394	G	O4'-C1'-N9	9.29	115.63	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	534	G	O3'-P-O5'	-9.29	86.35	104.00
40	CK	75	PRO	CA-N-CD	-9.29	98.50	111.50
85	A5	1407	C	O4'-C1'-C2'	-9.29	96.51	105.80
36	B2	1270	G	O4'-C1'-N9	9.29	115.63	108.20
74	CC	134	PRO	CA-N-CD	-9.29	98.50	111.50
85	A5	1294	A	O4'-C1'-N9	9.29	115.63	108.20
85	A5	2102	G	P-O3'-C3'	9.29	130.84	119.70
85	A5	2430	C	O4'-C1'-N1	9.29	115.63	108.20
85	A5	642	G	O4'-C1'-N9	9.28	115.62	108.20
85	A5	3968	U	O4'-C1'-N1	9.28	115.63	108.20
36	B2	51	U	O4'-C1'-N1	9.28	115.62	108.20
85	A5	3776	G	O4'-C1'-N9	9.28	115.62	108.20
36	B2	1647	A	O4'-C1'-N9	9.28	115.62	108.20
36	B2	53	C	O4'-C1'-C2'	-9.27	96.53	105.80
62	Cb	50	ASN	CB-CA-C	9.27	128.95	110.40
36	B2	60	A	C3'-C2'-C1'	-9.27	94.08	101.50
36	B2	1201	U	O4'-C1'-N1	9.27	115.62	108.20
60	Cr	43	LEU	CB-CG-CD2	9.27	126.76	111.00
85	A5	174	C	N1-C1'-C2'	9.27	126.05	114.00
85	A5	3586	G	C1'-O4'-C4'	-9.27	102.48	109.90
29	AG	122	PRO	CA-N-CD	-9.27	98.53	111.50
85	A5	1345	A	O4'-C1'-C2'	-9.27	96.53	105.80
85	A5	2769	U	N1-C1'-C2'	9.27	126.05	114.00
1	Az	267	ASP	N-CA-C	9.26	136.01	111.00
39	Cq	68	HIS	O-C-N	9.26	137.52	122.70
85	A5	1953	U	O4'-C1'-N1	9.26	115.61	108.20
85	A5	2402	G	O4'-C1'-N9	9.26	115.61	108.20
36	B2	1208	A	O4'-C1'-N9	9.26	115.61	108.20
53	CT	124	THR	CB-CA-C	-9.26	86.61	111.60
85	A5	2707	U	O4'-C1'-N1	9.26	115.61	108.20
50	CR	57	VAL	CB-CA-C	9.25	128.98	111.40
85	A5	677	G	O4'-C1'-N9	9.25	115.60	108.20
36	B2	1622	U	O4'-C1'-N1	-9.25	100.80	108.20
87	A8	127	U	P-O3'-C3'	9.25	130.80	119.70
1	Az	825	PHE	C-N-CA	-9.25	98.57	121.70
3	AU	94	PRO	CA-N-CD	-9.25	98.55	111.50
19	AZ	104	ARG	CD-NE-CZ	-9.25	110.65	123.60
36	B2	732	U	N1-C1'-C2'	9.25	126.02	114.00
85	A5	4331	G	O4'-C1'-N9	9.25	115.60	108.20
36	B2	1511	U	O4'-C1'-C2'	-9.25	96.55	105.80
85	A5	1287	G	O5'-C5'-C4'	9.25	129.27	111.70
85	A5	4588	U	O4'-C1'-N1	9.25	115.60	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	AL	17	PHE	O-C-N	9.24	137.49	122.70
85	A5	1371	A	C3'-C2'-C1'	9.24	108.89	101.50
85	A5	4913	G	O4'-C1'-N9	9.24	115.59	108.20
36	B2	1741	U	N1-C1'-C2'	9.24	126.01	114.00
85	A5	1317	U	O4'-C1'-N1	9.24	115.59	108.20
63	CB	298	LEU	N-CA-C	-9.24	86.06	111.00
85	A5	417	G	P-O3'-C3'	-9.24	108.62	119.70
36	B2	1017	U	O4'-C1'-N1	9.23	115.59	108.20
85	A5	2122	G	P-O5'-C5'	-9.23	106.13	120.90
85	A5	2528	G	O4'-C1'-C2'	9.23	115.91	107.60
36	B2	561	A	C4'-C3'-O3'	-9.23	90.01	109.40
2	Ag	274	VAL	O-C-N	-9.23	107.93	122.70
85	A5	1671	U	O4'-C1'-N1	9.23	115.58	108.20
36	B2	1816	G	O4'-C1'-N9	9.23	115.58	108.20
85	A5	1246	G	C1'-O4'-C4'	-9.23	102.52	109.90
15	AB	40	ASN	C-N-CA	-9.23	98.64	121.70
85	A5	640	C	O4'-C1'-C2'	-9.23	96.57	105.80
85	A5	1339	U	O4'-C1'-N1	9.22	115.58	108.20
40	CK	2	PRO	CB-CG-CD	-9.22	70.53	106.50
85	A5	934	C	P-O3'-C3'	9.22	130.77	119.70
85	A5	2395	A	O4'-C1'-C2'	-9.22	96.58	105.80
85	A5	2683	C	O4'-C1'-N1	9.22	115.58	108.20
85	A5	2063	G	O4'-C1'-C2'	9.22	115.89	107.60
42	CL	100	PRO	CA-N-CD	-9.22	98.60	111.50
85	A5	4058	U	O4'-C1'-C2'	-9.22	96.58	105.80
8	AS	40	TYR	N-CA-C	9.21	135.88	111.00
85	A5	5035	U	O4'-C1'-N1	9.21	115.57	108.20
36	B2	418	A	N9-C1'-C2'	9.21	125.98	114.00
36	B2	651	U	O4'-C1'-N1	9.21	115.57	108.20
36	B2	1069	U	P-O3'-C3'	9.21	130.75	119.70
58	CW	71	ARG	CB-CG-CD	9.21	135.56	111.60
85	A5	78	U	O4'-C1'-N1	9.21	115.57	108.20
85	A5	1222	A	O4'-C1'-N9	9.21	115.57	108.20
86	A7	74	A	N9-C1'-C2'	-9.21	101.86	112.00
36	B2	307	G	C3'-C2'-C1'	-9.21	94.13	101.50
36	B2	1364	U	O3'-P-O5'	9.21	121.50	104.00
85	A5	3848	U	O4'-C1'-N1	9.21	115.57	108.20
85	A5	1979	A	C3'-C2'-C1'	9.21	108.87	101.50
85	A5	4518	A	O4'-C1'-N9	-9.21	100.83	108.20
36	B2	914	U	O4'-C1'-N1	9.21	115.56	108.20
87	A8	133	G	O4'-C1'-N9	9.21	115.56	108.20
1	Az	206	ASP	C-N-CD	-9.20	100.36	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	CG	103	ARG	O-C-N	-9.20	103.62	121.10
85	A5	288	G	C1'-O4'-C4'	-9.20	102.54	109.90
85	A5	1077	C	N1-C1'-C2'	9.20	125.96	114.00
85	A5	3734	U	O4'-C1'-N1	9.20	115.56	108.20
3	AU	53	PRO	CA-N-CD	-9.20	98.62	111.50
29	AG	157	VAL	N-CA-C	9.20	135.84	111.00
85	A5	483	G	O4'-C1'-N9	9.20	115.56	108.20
85	A5	1380	G	O4'-C1'-N9	9.20	115.56	108.20
85	A5	3805	U	O4'-C1'-N1	9.20	115.56	108.20
85	A5	3874	G	O4'-C1'-N9	9.20	115.56	108.20
85	A5	1485	C	P-O3'-C3'	9.19	130.73	119.70
85	A5	1662	C	C3'-C2'-C1'	9.19	108.85	101.50
36	B2	1407	U	N1-C1'-C2'	9.19	125.95	114.00
85	A5	683	C	N1-C1'-C2'	9.19	125.95	114.00
67	Ce	129	LEU	CA-CB-CG	-9.19	94.17	115.30
36	B2	629	A	O4'-C1'-N9	9.19	115.55	108.20
39	Cq	14	PHE	CB-CG-CD1	9.19	127.23	120.80
36	B2	147	A	N9-C1'-C2'	-9.18	101.90	112.00
85	A5	1319	U	O4'-C1'-N1	9.18	115.55	108.20
85	A5	2675	G	O4'-C1'-N9	9.18	115.55	108.20
85	A5	2666	U	O3'-P-O5'	9.18	121.44	104.00
36	B2	1321	G	O4'-C1'-N9	9.18	115.54	108.20
58	CW	73	ARG	O-C-N	9.18	137.38	122.70
85	A5	2066	C	N1-C1'-C2'	9.18	125.93	114.00
85	A5	4933	C	P-O5'-C5'	9.18	135.58	120.90
85	A5	327	U	O4'-C1'-C2'	-9.17	96.63	105.80
36	B2	1292	C	N1-C1'-C2'	9.17	125.92	114.00
85	A5	189	G	O4'-C1'-C2'	9.17	115.85	107.60
85	A5	1267	C	C3'-C2'-C1'	9.17	108.83	101.50
85	A5	1814	C	O4'-C1'-N1	9.17	115.53	108.20
36	B2	1203	G	N9-C1'-C2'	9.16	125.91	114.00
85	A5	3783	A	C3'-C2'-C1'	9.16	108.83	101.50
85	A5	4196	G	N9-C1'-C2'	9.16	125.92	114.00
85	A5	254	G	O4'-C1'-N9	9.16	115.53	108.20
13	AP	37	TYR	CB-CG-CD2	-9.16	115.50	121.00
36	B2	991	G	O4'-C1'-N9	9.16	115.53	108.20
54	CP	109	VAL	CB-CA-C	-9.16	93.99	111.40
66	Cd	43	PRO	CA-N-CD	-9.16	98.68	111.50
85	A5	111	C	O4'-C1'-N1	9.16	115.53	108.20
85	A5	4228	G	O4'-C1'-N9	9.16	115.53	108.20
48	CD	218	ALA	N-CA-CB	9.15	122.92	110.10
85	A5	2356	U	O4'-C1'-N1	9.15	115.52	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
87	A8	108	A	N9-C1'-C2'	-9.15	101.93	112.00
85	A5	2485	U	O4'-C1'-N1	9.15	115.52	108.20
86	A7	58	A	O4'-C1'-N9	9.15	115.52	108.20
36	B2	107	A	O4'-C1'-N9	9.15	115.52	108.20
36	B2	896	U	O4'-C1'-N1	9.14	115.52	108.20
85	A5	4058	U	O4'-C1'-N1	9.14	115.51	108.20
85	A5	1962	A	P-O3'-C3'	-9.14	108.73	119.70
85	A5	4383	U	O4'-C1'-N1	9.14	115.51	108.20
36	B2	217	A	C3'-C2'-C1'	9.13	108.81	101.50
39	Cq	80	PRO	CA-N-CD	-9.14	98.71	111.50
85	A5	1052	G	O4'-C1'-N9	9.13	115.51	108.20
74	CC	305	PRO	CA-C-O	-9.13	98.28	120.20
37	BC	75	A	O4'-C1'-N9	9.13	115.50	108.20
56	CX	142	PRO	CA-N-CD	-9.13	98.72	111.50
85	A5	292	G	C1'-O4'-C4'	-9.13	102.60	109.90
85	A5	4113	U	O4'-C1'-N1	9.13	115.50	108.20
51	CA	206	PRO	CA-N-CD	-9.13	98.72	111.50
82	CG	59	ARG	N-CA-C	-9.12	86.37	111.00
85	A5	741	C	O4'-C1'-N1	9.12	115.50	108.20
81	CE	88	VAL	N-CA-CB	9.12	131.57	111.50
85	A5	692	A	O4'-C1'-C2'	-9.12	96.68	105.80
85	A5	4646	U	O4'-C1'-N1	9.12	115.49	108.20
36	B2	1232	U	O4'-C1'-N1	9.11	115.49	108.20
36	B2	456	C	N1-C1'-C2'	9.11	125.84	114.00
85	A5	4867	G	O4'-C1'-N9	9.11	115.49	108.20
36	B2	650	A	C3'-C2'-C1'	9.11	108.79	101.50
36	B2	999	G	O4'-C1'-N9	9.11	115.49	108.20
85	A5	1276	C	O3'-P-O5'	-9.11	86.70	104.00
36	B2	828	G	C3'-C2'-C1'	-9.11	94.22	101.50
85	A5	1939	A	O4'-C1'-N9	9.11	115.48	108.20
85	A5	273	U	N1-C1'-C2'	9.10	125.83	114.00
85	A5	2248	C	C3'-C2'-C1'	9.10	108.78	101.50
36	B2	780	U	P-O3'-C3'	9.10	130.62	119.70
85	A5	4051	C	O4'-C1'-C2'	-9.10	96.70	105.80
85	A5	2470	C	C4'-C3'-O3'	9.10	131.20	113.00
36	B2	739	C	N1-C1'-C2'	9.10	125.83	114.00
81	CE	57	TYR	CB-CG-CD2	-9.10	115.54	121.00
85	A5	3761	C	P-O3'-C3'	-9.10	108.78	119.70
85	A5	142	G	C1'-O4'-C4'	-9.10	102.62	109.90
85	A5	4238	G	O4'-C1'-C2'	9.10	115.79	107.60
85	A5	4359	U	O4'-C1'-N1	9.10	115.48	108.20
85	A5	125	C	O4'-C1'-N1	9.09	115.47	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1648	C	C3'-C2'-C1'	9.09	108.77	101.50
85	A5	4949	G	O3'-P-O5'	9.09	121.27	104.00
82	CG	180	PRO	CA-N-CD	-9.09	98.78	111.50
36	B2	99	A	O4'-C1'-N9	9.09	115.47	108.20
37	BC	45	G	O4'-C1'-C2'	-9.09	96.71	105.80
85	A5	1089	G	C3'-C2'-C1'	-9.08	94.23	101.50
85	A5	4904	G	O4'-C1'-N9	9.08	115.47	108.20
85	A5	4524	G	P-O3'-C3'	-9.08	108.80	119.70
36	B2	1026	C	C3'-C2'-C1'	9.08	108.76	101.50
36	B2	1133	A	O4'-C1'-N9	9.08	115.46	108.20
85	A5	243	A	N9-C1'-C2'	9.08	125.80	114.00
85	A5	2324	C	O4'-C1'-N1	9.08	115.46	108.20
85	A5	2471	G	C5'-C4'-O4'	-9.08	98.21	109.10
85	A5	1412	G	O4'-C1'-N9	9.08	115.46	108.20
85	A5	1866	U	O4'-C1'-N1	9.07	115.46	108.20
74	CC	307	LYS	O-C-N	-9.07	108.19	122.70
85	A5	2910	G	O4'-C1'-N9	9.07	115.46	108.20
36	B2	447	A	O4'-C1'-C2'	-9.07	96.73	105.80
36	B2	494	C	C3'-C2'-C1'	9.07	108.76	101.50
85	A5	3950	U	O4'-C1'-N1	9.07	115.46	108.20
87	A8	8	U	O4'-C1'-N1	9.07	115.46	108.20
36	B2	1265	A	C3'-C2'-C1'	9.07	108.75	101.50
36	B2	1429	G	O4'-C1'-N9	9.07	115.45	108.20
53	CT	150	LEU	C-N-CA	-9.07	99.03	121.70
81	CE	87	LYS	O-C-N	-9.07	108.19	122.70
85	A5	1693	U	O4'-C1'-N1	9.07	115.45	108.20
85	A5	1755	C	O4'-C1'-C2'	-9.07	96.73	105.80
85	A5	1951	G	O4'-C1'-N9	9.07	115.45	108.20
85	A5	4445	U	O4'-C1'-N1	9.07	115.45	108.20
36	B2	1080	A	O4'-C1'-N9	9.06	115.45	108.20
85	A5	652	G	C3'-C2'-C1'	-9.06	94.25	101.50
85	A5	2494	U	O4'-C1'-N1	9.06	115.45	108.20
85	A5	512	U	O4'-C1'-N1	9.06	115.45	108.20
85	A5	2294	G	C1'-O4'-C4'	-9.06	102.65	109.90
56	CX	155	ILE	CB-CA-C	-9.06	93.49	111.60
85	A5	2547	G	O4'-C1'-C2'	9.06	115.75	107.60
85	A5	3812	C	N1-C1'-C2'	9.06	125.78	114.00
85	A5	4882	U	P-O3'-C3'	9.05	130.57	119.70
36	B2	89	C	O4'-C1'-N1	9.05	115.44	108.20
85	A5	4256	A	C3'-C2'-C1'	-9.05	94.26	101.50
35	Ah	161	PRO	CA-N-CD	-9.05	98.83	111.50
36	B2	1520	G	C1'-O4'-C4'	-9.05	102.66	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2306	G	O4'-C1'-N9	-9.05	100.96	108.20
85	A5	1320	U	O4'-C1'-N1	9.05	115.44	108.20
36	B2	56	G	O4'-C1'-N9	9.05	115.44	108.20
85	A5	1740	C	O4'-C1'-C2'	-9.04	96.75	105.80
85	A5	4410	G	C3'-C2'-C1'	9.05	108.74	101.50
11	AL	17	PHE	CA-C-N	-9.04	97.31	117.20
57	CY	51	LYS	C-N-CA	-9.04	99.09	121.70
85	A5	2513	A	O4'-C1'-N9	-9.04	100.97	108.20
51	CA	52	PRO	CA-N-CD	-9.04	98.84	111.50
85	A5	423	G	O4'-C1'-C2'	9.04	115.73	107.60
85	A5	1213	G	O4'-C1'-C2'	9.04	115.73	107.60
85	A5	1783	C	N1-C1'-C2'	9.04	125.75	114.00
85	A5	2886	U	O4'-C1'-N1	9.04	115.43	108.20
85	A5	1855	G	C1'-O4'-C4'	-9.04	102.67	109.90
37	BC	50	U	O4'-C1'-N1	9.03	115.43	108.20
85	A5	1551	C	N1-C1'-C2'	9.03	125.74	114.00
85	A5	1102	U	C1'-O4'-C4'	9.03	117.13	109.90
85	A5	325	U	O4'-C1'-N1	9.03	115.42	108.20
85	A5	4747	C	O4'-C1'-N1	9.03	115.42	108.20
20	Aa	10	ARG	NH1-CZ-NH2	-9.03	109.47	119.40
85	A5	3687	A	O4'-C1'-N9	9.03	115.42	108.20
85	A5	4075	U	C1'-O4'-C4'	9.03	117.12	109.90
85	A5	2745	A	O4'-C1'-N9	9.03	115.42	108.20
23	AD	5	ILE	C-N-CA	9.02	144.25	121.70
20	Aa	103	PRO	CA-N-CD	-9.02	98.87	111.50
36	B2	663	C	N1-C1'-C2'	9.02	125.72	114.00
63	CB	292	LEU	CA-CB-CG	9.02	136.05	115.30
36	B2	1748	G	P-O5'-C5'	9.02	135.33	120.90
40	CK	88	PRO	CA-N-CD	-9.02	98.88	111.50
49	CQ	2	GLY	N-CA-C	9.02	135.64	113.10
85	A5	1072	C	C3'-C2'-C1'	9.02	108.71	101.50
85	A5	1237	C	N1-C1'-C2'	9.01	125.72	114.00
85	A5	2319	C	C3'-C2'-C1'	9.01	108.71	101.50
85	A5	2669	C	C1'-O4'-C4'	9.01	117.11	109.90
87	A8	37	A	O4'-C1'-N9	9.01	115.41	108.20
85	A5	4054	C	N1-C1'-C2'	9.01	125.72	114.00
85	A5	3961	G	N9-C1'-C2'	9.01	125.71	114.00
68	Cf	4	ARG	C-N-CA	9.01	144.22	121.70
85	A5	4716	C	O4'-C1'-N1	9.01	115.41	108.20
6	AX	62	PRO	CA-N-CD	-9.01	98.89	111.50
39	Cq	69	LEU	O-C-N	-9.01	108.29	122.70
36	B2	454	U	O4'-C1'-N1	9.00	115.40	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	3651	A	C3'-C2'-C1'	9.00	108.70	101.50
85	A5	4748	U	N1-C1'-C2'	-9.00	102.10	112.00
36	B2	424	C	N1-C1'-C2'	9.00	125.70	114.00
36	B2	734	C	O4'-C1'-C2'	-9.00	96.80	105.80
52	CS	175	PHE	CA-C-N	9.00	137.00	117.20
85	A5	280	G	O4'-C1'-N9	9.00	115.40	108.20
85	A5	2086	G	O4'-C1'-N9	9.00	115.40	108.20
85	A5	263	G	O4'-C1'-N9	8.99	115.40	108.20
85	A5	2714	G	O4'-C1'-N9	8.99	115.39	108.20
36	B2	593	C	C3'-C2'-C1'	8.99	108.69	101.50
36	B2	662	G	N9-C1'-C2'	8.99	125.69	114.00
85	A5	1091	C	O4'-C1'-N1	8.99	115.39	108.20
85	A5	1284	G	P-O3'-C3'	8.99	130.48	119.70
85	A5	3604	A	C3'-C2'-C1'	-8.99	94.31	101.50
85	A5	4951	G	N9-C1'-C2'	8.99	125.68	114.00
8	AS	53	THR	O-C-N	-8.98	108.32	122.70
85	A5	3840	U	O4'-C1'-N1	8.98	115.39	108.20
36	B2	571	U	O4'-C1'-N1	8.98	115.39	108.20
85	A5	1362	G	N9-C1'-C2'	8.98	125.67	114.00
85	A5	1467	C	C3'-C2'-C1'	8.98	108.68	101.50
85	A5	1698	C	O4'-C1'-N1	8.98	115.38	108.20
85	A5	1915	C	O4'-C1'-C2'	8.97	115.68	107.60
85	A5	5026	U	O4'-C4'-C3'	-8.97	95.03	104.00
52	CS	20	PRO	C-N-CA	-8.97	99.28	121.70
85	A5	491	G	O4'-C1'-N9	8.97	115.38	108.20
85	A5	2592	U	N1-C1'-C2'	8.97	125.66	114.00
85	A5	2887	U	N1-C1'-C2'	-8.97	102.13	112.00
85	A5	307	A	C3'-C2'-C1'	8.97	108.67	101.50
85	A5	4354	U	O4'-C1'-N1	8.97	115.37	108.20
85	A5	5037	U	O4'-C1'-N1	8.97	115.37	108.20
39	Cq	231	TYR	CB-CG-CD1	8.96	126.38	121.00
87	A8	18	U	O4'-C1'-N1	8.96	115.37	108.20
85	A5	470	A	N9-C1'-C2'	8.96	125.65	114.00
85	A5	4063	U	O4'-C1'-N1	8.96	115.37	108.20
85	A5	1284	G	O4'-C1'-N9	8.96	115.37	108.20
85	A5	2601	A	O4'-C1'-C2'	-8.96	96.84	105.80
85	A5	4898	G	O4'-C1'-N9	8.96	115.37	108.20
36	B2	415	A	N9-C1'-C2'	-8.96	102.15	112.00
85	A5	3619	G	O4'-C1'-N9	8.96	115.36	108.20
85	A5	1993	C	N1-C1'-C2'	8.95	125.64	114.00
85	A5	1992	U	O4'-C1'-N1	8.95	115.36	108.20
85	A5	2736	G	O4'-C1'-C2'	8.95	115.66	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	114	G	O4'-C1'-N9	8.95	115.36	108.20
85	A5	1473	U	N1-C1'-C2'	8.95	125.63	114.00
85	A5	2081	C	O4'-C1'-N1	8.95	115.36	108.20
85	A5	2760	G	C1'-O4'-C4'	8.95	117.06	109.90
3	AU	93	SER	C-N-CD	8.94	147.18	128.40
36	B2	190	G	N9-C1'-C2'	8.94	125.63	114.00
36	B2	699	C	P-O3'-C3'	8.94	130.43	119.70
85	A5	608	C	P-O3'-C3'	8.94	130.43	119.70
85	A5	2593	C	O4'-C1'-N1	8.94	115.35	108.20
21	Ab	12	PRO	CA-N-CD	-8.94	98.98	111.50
36	B2	492	C	O4'-C1'-C2'	-8.94	96.86	105.80
36	B2	1721	U	O4'-C1'-C2'	-8.94	96.86	105.80
20	Aa	97	PRO	N-CA-CB	-8.94	92.58	103.30
85	A5	4678	G	O4'-C1'-N9	8.94	115.35	108.20
37	BC	47	C	C3'-C2'-C1'	8.94	108.65	101.50
85	A5	448	G	P-O3'-C3'	8.94	130.43	119.70
85	A5	3790	U	O4'-C1'-N1	8.94	115.35	108.20
36	B2	24	C	O3'-P-O5'	-8.93	87.03	104.00
36	B2	140	C	O4'-C1'-N1	8.93	115.35	108.20
68	Cf	100	ARG	O-C-N	-8.93	108.41	122.70
36	B2	335	G	N9-C1'-C2'	-8.93	102.18	112.00
85	A5	3642	A	O4'-C1'-N9	8.93	115.34	108.20
86	A7	49	A	O5'-C5'-C4'	8.93	128.66	111.70
74	CC	86	ARG	N-CA-CB	8.93	126.66	110.60
85	A5	5032	C	N1-C1'-C2'	8.93	125.60	114.00
85	A5	1219	G	C1'-O4'-C4'	-8.92	102.76	109.90
85	A5	4606	G	N9-C1'-C2'	8.92	125.60	114.00
36	B2	1188	A	O4'-C1'-C2'	-8.92	96.88	105.80
85	A5	1440	U	O4'-C1'-N1	8.92	115.34	108.20
85	A5	1548	G	O4'-C1'-N9	8.92	115.34	108.20
85	A5	2803	U	O4'-C1'-N1	8.92	115.33	108.20
85	A5	4900	C	C3'-C2'-C1'	8.92	108.64	101.50
1	Az	197	SER	C-N-CA	8.92	141.03	122.30
26	AJ	165	TYR	CB-CA-C	8.92	128.23	110.40
36	B2	152	U	O4'-C1'-N1	8.92	115.33	108.20
36	B2	1473	G	P-O3'-C3'	8.92	130.40	119.70
36	B2	1476	A	C1'-O4'-C4'	8.92	117.03	109.90
36	B2	1409	A	P-O5'-C5'	8.91	135.16	120.90
85	A5	3997	C	P-O3'-C3'	8.91	130.40	119.70
85	A5	4375	C	C3'-C2'-C1'	8.91	108.63	101.50
36	B2	204	G	O4'-C1'-N9	8.91	115.33	108.20
36	B2	619	A	O4'-C1'-N9	8.91	115.33	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	440	U	O4'-C1'-N1	8.91	115.33	108.20
48	CD	269	PRO	CA-N-CD	-8.91	99.03	111.50
36	B2	552	G	P-O5'-C5'	8.90	135.15	120.90
36	B2	215	G	O4'-C1'-N9	8.90	115.32	108.20
36	B2	1276	A	N9-C1'-C2'	-8.90	102.20	112.00
85	A5	1563	A	O4'-C1'-N9	8.90	115.32	108.20
85	A5	5023	C	P-O3'-C3'	8.90	130.38	119.70
51	CA	205	ASN	C-N-CD	-8.90	101.02	120.60
36	B2	951	C	P-O5'-C5'	8.90	135.13	120.90
36	B2	1514	G	O4'-C1'-N9	8.90	115.32	108.20
36	B2	1636	G	O4'-C1'-N9	8.90	115.32	108.20
85	A5	2845	A	N9-C1'-C2'	8.90	125.57	114.00
85	A5	4925	U	C3'-C2'-C1'	8.90	108.62	101.50
36	B2	1781	A	P-O3'-C3'	8.89	130.37	119.70
85	A5	5012	G	O4'-C1'-N9	8.89	115.31	108.20
36	B2	1477	U	P-O5'-C5'	8.89	135.12	120.90
85	A5	3907	G	O4'-C1'-N9	8.89	115.31	108.20
36	B2	1528	G	C3'-C2'-C1'	-8.88	94.39	101.50
85	A5	481	G	C1'-O4'-C4'	-8.89	102.79	109.90
87	A8	65	A	N9-C1'-C2'	8.89	125.55	114.00
85	A5	1501	C	C4'-C3'-O3'	8.88	130.76	113.00
85	A5	2411	C	O4'-C1'-N1	8.88	115.31	108.20
85	A5	4638	U	P-O3'-C3'	8.88	130.36	119.70
85	A5	4757	C	P-O3'-C3'	8.88	130.36	119.70
36	B2	737	G	C1'-O4'-C4'	8.88	117.00	109.90
36	B2	1601	A	P-O3'-C3'	8.88	130.35	119.70
83	Ct	41	PRO	CA-N-CD	-8.88	99.07	111.50
44	CM	90	ARG	N-CA-CB	8.88	126.58	110.60
85	A5	4290	U	O4'-C1'-N1	8.88	115.30	108.20
87	A8	112	G	O4'-C1'-C2'	8.88	115.59	107.60
36	B2	960	U	N1-C1'-C2'	8.88	125.54	114.00
62	Cb	50	ASN	O-C-N	-8.88	108.50	122.70
85	A5	1830	G	C1'-O4'-C4'	-8.87	102.80	109.90
36	B2	1861	G	O4'-C1'-C2'	8.87	115.58	107.60
8	AS	88	LYS	C-N-CA	-8.87	99.53	121.70
36	B2	1218	C	N1-C1'-C2'	8.87	125.53	114.00
85	A5	415	G	O4'-C1'-N9	8.87	115.29	108.20
85	A5	4353	U	O4'-C1'-N1	8.87	115.29	108.20
81	CE	37	PRO	CA-N-CD	-8.87	99.09	111.50
36	B2	1853	C	N1-C1'-C2'	8.86	125.52	114.00
36	B2	621	C	N1-C1'-C2'	8.86	125.51	114.00
36	B2	1440	C	C3'-C2'-C1'	8.86	108.59	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	A7	25	G	N9-C1'-C2'	8.86	125.52	114.00
36	B2	1193	U	O4'-C1'-N1	8.86	115.28	108.20
36	B2	851	C	O3'-P-O5'	-8.85	87.18	104.00
17	AV	67	ASP	CB-CA-C	8.85	128.10	110.40
36	B2	1830	U	C3'-C2'-C1'	8.85	108.58	101.50
36	B2	1776	G	O4'-C1'-N9	8.85	115.28	108.20
47	CI	192	PRO	CA-N-CD	-8.85	99.11	111.50
36	B2	1867	U	C3'-C2'-C1'	-8.85	94.42	101.50
85	A5	2458	C	N1-C1'-C2'	8.85	125.50	114.00
36	B2	25	A	N9-C1'-C2'	-8.85	102.27	112.00
45	Ca	52	TYR	CA-CB-CG	-8.85	96.59	113.40
85	A5	4225	G	O4'-C1'-N9	8.85	115.28	108.20
85	A5	1370	G	O4'-C1'-C2'	-8.85	96.95	105.80
56	CX	155	ILE	CA-CB-CG1	8.84	127.80	111.00
85	A5	1593	A	N9-C1'-C2'	8.84	125.50	114.00
87	A8	65	A	C1'-O4'-C4'	-8.84	102.83	109.90
36	B2	1431	G	O4'-C1'-N9	8.84	115.27	108.20
85	A5	368	C	N1-C1'-C2'	8.84	125.49	114.00
85	A5	4931	G	O4'-C1'-N9	8.84	115.27	108.20
85	A5	2086	G	O4'-C1'-C2'	8.84	115.56	107.60
52	CS	17	LEU	CA-CB-CG	8.84	135.63	115.30
36	B2	1195	A	O4'-C1'-N9	8.84	115.27	108.20
8	AS	94	LYS	CA-C-N	-8.83	97.77	117.20
8	AS	142	ARG	CB-CA-C	-8.83	92.74	110.40
36	B2	553	U	O4'-C1'-C2'	-8.83	96.97	105.80
85	A5	1252	C	O4'-C1'-C2'	-8.83	96.97	105.80
85	A5	4326	G	N9-C1'-C2'	8.83	125.48	114.00
36	B2	1782	G	C3'-C2'-C1'	-8.83	94.44	101.50
81	CE	219	LYS	CD-CE-NZ	8.83	132.00	111.70
85	A5	2327	G	O4'-C1'-N9	8.83	115.26	108.20
85	A5	4884	G	P-O3'-C3'	8.83	130.29	119.70
40	CK	136	ALA	O-C-N	-8.82	108.58	122.70
45	Ca	98	ALA	CB-CA-C	-8.82	96.86	110.10
85	A5	1505	C	C3'-C2'-C1'	8.82	108.56	101.50
85	A5	2318	G	O4'-C1'-N9	8.82	115.26	108.20
36	B2	1163	C	N1-C1'-C2'	8.82	125.47	114.00
85	A5	520	C	O4'-C1'-N1	8.82	115.26	108.20
85	A5	1781	U	O4'-C1'-N1	8.82	115.26	108.20
85	A5	195	C	O4'-C1'-N1	8.82	115.25	108.20
85	A5	1169	G	O4'-C1'-N9	8.82	115.25	108.20
85	A5	1873	A	O4'-C1'-N9	8.82	115.25	108.20
37	BC	61	C	O4'-C1'-N1	8.82	115.25	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	Cq	23	ASP	O-C-N	-8.81	108.60	122.70
85	A5	4870	G	P-O3'-C3'	-8.81	109.12	119.70
85	A5	146	G	C1'-O4'-C4'	-8.81	102.85	109.90
85	A5	1677	U	N1-C1'-C2'	8.81	125.45	114.00
85	A5	2128	G	C1'-O4'-C4'	-8.81	102.86	109.90
36	B2	227	U	N1-C1'-C2'	-8.80	102.32	112.00
85	A5	200	U	C3'-C2'-C1'	8.80	108.54	101.50
85	A5	1851	G	O4'-C1'-N9	8.80	115.24	108.20
86	A7	20	U	O4'-C1'-N1	8.80	115.24	108.20
86	A7	84	U	N1-C1'-C2'	-8.80	102.32	112.00
2	Ag	145	GLU	N-CA-C	-8.80	87.25	111.00
85	A5	79	C	N1-C1'-C2'	8.80	125.44	114.00
85	A5	1265	G	C1'-O4'-C4'	-8.80	102.86	109.90
85	A5	1756	U	P-O3'-C3'	-8.80	109.14	119.70
36	B2	1339	U	O4'-C1'-N1	8.79	115.24	108.20
41	CO	121	PRO	CA-N-CD	-8.80	99.19	111.50
74	CC	261	ASP	O-C-N	-8.79	108.64	122.70
85	A5	1343	A	O4'-C1'-C2'	-8.79	97.01	105.80
85	A5	1631	A	O4'-C1'-N9	8.79	115.23	108.20
85	A5	1636	U	O4'-C1'-N1	8.79	115.23	108.20
85	A5	2006	U	O4'-C1'-N1	8.79	115.23	108.20
85	A5	4096	C	O4'-C1'-N1	8.79	115.23	108.20
85	A5	4112	C	O4'-C1'-N1	8.79	115.23	108.20
36	B2	1392	U	O4'-C1'-N1	8.79	115.23	108.20
85	A5	697	G	N9-C1'-C2'	8.79	125.43	114.00
85	A5	2109	G	C1'-O4'-C4'	-8.79	102.87	109.90
36	B2	161	U	O4'-C1'-C2'	-8.79	97.02	105.80
36	B2	558	G	C3'-C2'-C1'	-8.78	94.47	101.50
36	B2	963	A	O4'-C1'-N9	8.78	115.23	108.20
36	B2	1072	U	C1'-O4'-C4'	8.79	116.93	109.90
36	B2	1681	U	O4'-C1'-N1	8.78	115.23	108.20
85	A5	2682	G	O4'-C1'-N9	8.78	115.23	108.20
85	A5	1756	U	C2'-C3'-O3'	8.78	128.82	109.50
85	A5	1267	C	P-O3'-C3'	8.78	130.24	119.70
85	A5	1998	A	P-O5'-C5'	8.78	134.95	120.90
36	B2	43	U	O4'-C1'-N1	8.78	115.22	108.20
85	A5	1049	C	O4'-C1'-N1	8.78	115.22	108.20
44	CM	80	ALA	CA-C-N	-8.78	97.89	117.20
85	A5	1948	G	C1'-O4'-C4'	-8.78	102.88	109.90
18	AY	52	PRO	CA-N-CD	-8.78	99.22	111.50
52	CS	23	HIS	N-CA-C	-8.77	87.32	111.00
36	B2	1692	U	O4'-C1'-N1	8.77	115.21	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	165	A	O4'-C1'-N9	8.77	115.21	108.20
86	A7	52	C	N1-C1'-C2'	8.77	125.40	114.00
85	A5	2443	G	C1'-O4'-C4'	-8.77	102.89	109.90
85	A5	4275	G	O4'-C1'-N9	8.76	115.21	108.20
36	B2	482	G	O4'-C1'-N9	8.76	115.21	108.20
85	A5	3930	U	O4'-C1'-N1	8.76	115.21	108.20
36	B2	1108	G	P-O3'-C3'	8.76	130.21	119.70
85	A5	1600	A	N9-C1'-C2'	8.76	125.39	114.00
48	CD	260	GLU	N-CA-C	8.75	134.63	111.00
85	A5	2396	A	P-O5'-C5'	8.75	134.91	120.90
36	B2	1226	G	N9-C1'-C2'	8.75	125.38	114.00
63	CB	392	LEU	CB-CG-CD2	-8.75	96.12	111.00
85	A5	4900	C	N1-C1'-C2'	8.75	125.37	114.00
36	B2	465	A	P-O3'-C3'	8.75	130.20	119.70
36	B2	742	U	P-O3'-C3'	8.75	130.20	119.70
85	A5	3707	U	O4'-C1'-N1	8.75	115.20	108.20
85	A5	6	C	C3'-C2'-C1'	8.75	108.50	101.50
85	A5	2340	C	N1-C1'-C2'	8.75	125.37	114.00
85	A5	5038	A	O4'-C1'-N9	8.75	115.20	108.20
85	A5	5066	U	O4'-C1'-N1	8.75	115.20	108.20
82	CG	200	THR	N-CA-CB	8.74	126.92	110.30
59	CZ	7	PRO	CA-N-CD	-8.74	99.26	111.50
85	A5	213	G	O4'-C1'-N9	8.74	115.19	108.20
87	A8	140	C	O4'-C1'-N1	8.74	115.19	108.20
36	B2	108	G	O4'-C1'-N9	8.74	115.19	108.20
36	B2	876	C	O4'-C1'-N1	8.74	115.19	108.20
36	B2	955	A	P-O3'-C3'	8.74	130.19	119.70
85	A5	1071	C	O4'-C1'-C2'	-8.74	97.06	105.80
85	A5	4335	C	C1'-O4'-C4'	-8.74	102.91	109.90
85	A5	4612	C	N1-C1'-C2'	8.74	125.36	114.00
87	A8	21	C	O4'-C1'-C2'	-8.74	97.06	105.80
85	A5	53	C	C1'-O4'-C4'	-8.74	102.91	109.90
83	Cs	41	PRO	CA-N-CD	-8.74	99.27	111.50
36	B2	841	G	C1'-C2'-O2'	-8.73	84.41	110.60
85	A5	2706	G	C1'-O4'-C4'	-8.73	102.92	109.90
86	A7	13	A	C4'-C3'-O3'	8.73	130.46	113.00
56	CX	52	LEU	CA-C-N	8.73	136.40	117.20
85	A5	1297	U	O4'-C1'-C2'	-8.73	97.07	105.80
36	B2	1233	G	C1'-O4'-C4'	-8.73	102.92	109.90
18	AY	86	GLU	CB-CA-C	-8.72	92.95	110.40
85	A5	4498	U	O4'-C1'-N1	8.72	115.18	108.20
28	AC	119	GLY	N-CA-C	8.72	134.90	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	CK	2	PRO	C-N-CD	-8.72	101.41	120.60
36	B2	907	G	N9-C1'-C2'	8.72	125.34	114.00
62	Cb	54	LEU	CB-CG-CD2	8.72	125.82	111.00
36	B2	796	G	P-O3'-C3'	8.72	130.16	119.70
36	B2	933	G	O4'-C1'-N9	8.72	115.17	108.20
36	B2	511	U	O4'-C1'-N1	8.72	115.17	108.20
42	CL	25	TRP	N-CA-CB	8.72	126.29	110.60
85	A5	3586	G	O4'-C1'-N9	8.72	115.17	108.20
85	A5	1516	G	N9-C1'-C2'	8.71	125.33	114.00
85	A5	1972	G	O4'-C1'-N9	8.71	115.17	108.20
36	B2	700	G	O4'-C1'-N9	8.71	115.17	108.20
36	B2	1553	C	P-O3'-C3'	8.71	130.15	119.70
85	A5	2523	G	O4'-C1'-N9	8.71	115.16	108.20
36	B2	308	G	C1'-O4'-C4'	-8.70	102.94	109.90
40	CK	163	PRO	CA-N-CD	-8.71	99.31	111.50
85	A5	1437	C	C1'-O4'-C4'	8.71	116.86	109.90
85	A5	2258	C	C5'-C4'-O4'	8.70	119.55	109.10
85	A5	2432	U	O4'-C1'-N1	8.71	115.16	108.20
36	B2	237	C	C1'-O4'-C4'	8.70	116.86	109.90
85	A5	2110	C	C3'-C2'-C1'	8.70	108.46	101.50
85	A5	4237	C	O4'-C1'-N1	8.70	115.16	108.20
85	A5	724	C	O4'-C1'-N1	8.70	115.16	108.20
86	A7	115	A	C5'-C4'-C3'	-8.70	102.08	116.00
36	B2	679	A	O4'-C1'-N9	8.70	115.16	108.20
36	B2	1236	G	C3'-C2'-C1'	-8.70	94.54	101.50
82	CG	58	PRO	N-CA-CB	-8.70	92.86	103.30
37	BC	7	G	P-O3'-C3'	8.69	130.13	119.70
87	A8	38	U	C3'-C2'-C1'	8.69	108.45	101.50
85	A5	355	A	O4'-C1'-N9	8.69	115.15	108.20
85	A5	972	C	C1'-O4'-C4'	8.69	116.85	109.90
85	A5	4943	A	C3'-C2'-C1'	-8.69	94.55	101.50
3	AU	67	LYS	C-N-CA	-8.69	99.99	121.70
34	AQ	134	GLY	C-N-CD	-8.69	101.49	120.60
85	A5	1989	G	O4'-C1'-N9	8.69	115.15	108.20
36	B2	1505	U	O4'-C1'-N1	8.68	115.15	108.20
64	CF	23	ARG	N-CA-C	8.68	134.45	111.00
85	A5	504	G	C1'-O4'-C4'	-8.68	102.95	109.90
36	B2	1470	C	O4'-C1'-N1	8.68	115.15	108.20
85	A5	3956	G	O4'-C1'-N9	-8.68	101.25	108.20
85	A5	1779	U	P-O3'-C3'	-8.68	109.28	119.70
85	A5	4662	C	O4'-C1'-N1	8.68	115.14	108.20
85	A5	4742	G	O4'-C1'-N9	8.68	115.14	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	Af	122	PRO	CA-N-CD	-8.68	99.35	111.50
47	CI	3	ARG	C-N-CA	-8.68	100.01	121.70
85	A5	2342	G	O4'-C1'-N9	8.68	115.14	108.20
40	CK	104	ILE	CG1-CB-CG2	8.67	130.48	111.40
85	A5	3598	C	N1-C1'-C2'	8.67	125.28	114.00
85	A5	4810	A	P-O3'-C3'	8.67	130.11	119.70
36	B2	1606	G	O4'-C1'-N9	8.67	115.14	108.20
38	Cz	28	PHE	N-CA-CB	8.67	126.21	110.60
85	A5	4300	U	C1'-O4'-C4'	-8.67	102.96	109.90
36	B2	153	G	O4'-C1'-N9	8.67	115.13	108.20
36	B2	574	A	C3'-C2'-C1'	8.67	108.43	101.50
85	A5	1505	C	O4'-C1'-C2'	-8.67	97.13	105.80
36	B2	1432	U	C3'-C2'-C1'	8.66	108.43	101.50
63	CB	297	LYS	O-C-N	-8.66	108.84	122.70
85	A5	49	U	O4'-C1'-N1	8.66	115.13	108.20
85	A5	4280	A	O4'-C1'-N9	8.66	115.13	108.20
53	CT	70	HIS	N-CA-C	-8.66	87.61	111.00
85	A5	1634	A	C3'-C2'-C1'	8.66	108.43	101.50
36	B2	237	C	O4'-C1'-C2'	-8.66	97.14	105.80
63	CB	292	LEU	CB-CA-C	8.66	126.65	110.20
85	A5	1719	A	C4'-C3'-O3'	8.66	130.32	113.00
85	A5	4204	C	O4'-C1'-N1	8.66	115.13	108.20
85	A5	2409	U	P-O3'-C3'	8.66	130.09	119.70
36	B2	1276	A	O4'-C1'-C2'	-8.65	97.15	105.80
36	B2	1711	U	O4'-C1'-N1	8.65	115.12	108.20
85	A5	975	C	C5'-C4'-C3'	8.65	129.85	116.00
85	A5	4131	G	O4'-C1'-N9	8.65	115.12	108.20
85	A5	2496	G	O4'-C1'-N9	8.65	115.12	108.20
85	A5	4576	U	O4'-C1'-N1	8.65	115.12	108.20
87	A8	76	C	O4'-C1'-C2'	-8.65	97.15	105.80
36	B2	1551	U	C1'-O4'-C4'	-8.65	102.98	109.90
85	A5	1161	G	O4'-C1'-N9	8.65	115.12	108.20
85	A5	3821	A	N9-C1'-C2'	-8.65	102.49	112.00
85	A5	4418	G	C1'-O4'-C4'	8.65	116.82	109.90
85	A5	4906	C	C3'-C2'-C1'	8.65	108.42	101.50
36	B2	225	G	C1'-O4'-C4'	-8.64	102.99	109.90
55	CU	59	GLY	O-C-N	8.64	136.53	122.70
85	A5	3791	C	O4'-C1'-C2'	-8.64	97.16	105.80
13	AP	17	TYR	CB-CA-C	8.64	127.68	110.40
81	CE	123	ARG	NE-CZ-NH1	-8.64	115.98	120.30
81	CE	100	LYS	CA-C-N	8.63	136.19	117.20
85	A5	1928	C	C3'-C2'-C1'	8.63	108.41	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1135	C	O4'-C1'-N1	8.63	115.10	108.20
74	CC	262	GLU	N-CA-CB	8.63	126.14	110.60
36	B2	1212	G	N9-C1'-C2'	8.63	125.22	114.00
48	CD	233	PRO	CA-N-CD	-8.62	99.42	111.50
58	CW	73	ARG	N-CA-CB	8.62	126.12	110.60
85	A5	3771	C	N1-C1'-C2'	8.63	125.21	114.00
85	A5	4658	G	O4'-C1'-C2'	8.63	115.36	107.60
36	B2	853	C	O3'-P-O5'	8.62	120.38	104.00
74	CC	54	VAL	C-N-CA	-8.62	100.15	121.70
85	A5	462	G	O4'-C1'-C2'	8.62	115.36	107.60
85	A5	984	C	O4'-C1'-N1	8.62	115.10	108.20
85	A5	4700	A	O4'-C1'-N9	8.62	115.10	108.20
85	A5	406	C	N1-C1'-C2'	8.62	125.21	114.00
85	A5	2380	G	O4'-C1'-C2'	8.62	115.36	107.60
85	A5	4134	C	N1-C1'-C2'	8.62	125.20	114.00
31	AH	111	LYS	N-CA-C	-8.62	87.74	111.00
36	B2	1429	G	N9-C1'-C2'	-8.61	102.52	112.00
36	B2	1581	C	O4'-C1'-C2'	-8.62	97.19	105.80
85	A5	27	C	C3'-C2'-C1'	8.61	108.39	101.50
36	B2	1071	G	O4'-C1'-N9	8.61	115.09	108.20
37	BC	24	U	O4'-C1'-N1	8.61	115.09	108.20
85	A5	1520	C	N1-C1'-C2'	8.61	125.19	114.00
85	A5	1934	A	O4'-C1'-N9	8.61	115.09	108.20
85	A5	4634	U	O4'-C1'-N1	-8.61	101.31	108.20
81	CE	85	LYS	CA-CB-CG	8.61	132.33	113.40
85	A5	920	C	O4'-C1'-N1	8.61	115.08	108.20
85	A5	2270	G	C1'-O4'-C4'	-8.61	103.02	109.90
85	A5	4461	C	C3'-C2'-C1'	8.61	108.38	101.50
36	B2	180	G	C4'-C3'-O3'	8.60	130.21	113.00
36	B2	1203	G	C1'-O4'-C4'	-8.60	103.02	109.90
39	Cq	231	TYR	CB-CG-CD2	-8.60	115.84	121.00
56	CX	155	ILE	N-CA-CB	8.60	130.59	110.80
81	CE	32	LEU	CD1-CG-CD2	-8.60	84.69	110.50
85	A5	100	C	P-O3'-C3'	-8.60	109.38	119.70
85	A5	3684	G	N9-C1'-C2'	8.60	125.18	114.00
85	A5	4308	C	O4'-C1'-C2'	-8.60	97.20	105.80
85	A5	4927	G	P-O3'-C3'	8.60	130.03	119.70
85	A5	145	G	O4'-C1'-N9	8.60	115.08	108.20
36	B2	1651	A	N9-C1'-C2'	-8.60	102.54	112.00
85	A5	706	C	N1-C1'-C2'	8.60	125.18	114.00
81	CE	126	LEU	CB-CG-CD1	8.60	125.61	111.00
85	A5	1285	U	N1-C1'-C2'	8.60	125.17	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1753	G	O3'-P-O5'	8.60	120.33	104.00
85	A5	2734	U	O4'-C1'-N1	8.60	115.08	108.20
87	A8	24	G	O4'-C1'-N9	8.60	115.08	108.20
30	AF	45	TYR	CA-CB-CG	-8.59	97.07	113.40
33	AI	184	ARG	N-CA-CB	8.59	126.07	110.60
36	B2	614	C	C3'-C2'-C1'	8.59	108.38	101.50
85	A5	3972	A	O4'-C1'-N9	8.59	115.08	108.20
42	CL	29	PRO	CA-N-CD	-8.59	99.47	111.50
47	CI	193	ASP	C-N-CA	-8.59	104.26	122.30
61	Ch	76	LYS	N-CA-C	8.59	134.19	111.00
85	A5	3974	G	P-O3'-C3'	8.59	130.01	119.70
85	A5	4449	A	P-O3'-C3'	8.59	130.01	119.70
85	A5	981	C	C1'-O4'-C4'	8.59	116.77	109.90
31	AH	36	LEU	CA-CB-CG	-8.59	95.55	115.30
85	A5	53	C	O4'-C1'-N1	8.59	115.07	108.20
85	A5	1476	C	O4'-C1'-N1	8.59	115.07	108.20
85	A5	3622	C	C3'-C2'-C1'	8.59	108.37	101.50
85	A5	4308	C	C3'-C2'-C1'	8.59	108.37	101.50
85	A5	468	U	P-O3'-C3'	8.58	130.00	119.70
85	A5	2293	U	C1'-O4'-C4'	-8.58	103.03	109.90
1	Az	794	PHE	CB-CA-C	8.58	127.56	110.40
36	B2	839	C	P-O3'-C3'	8.58	130.00	119.70
36	B2	1122	A	O4'-C1'-C2'	-8.58	97.22	105.80
59	CZ	112	ARG	NE-CZ-NH2	-8.58	116.01	120.30
85	A5	756	G	O4'-C1'-N9	8.58	115.06	108.20
85	A5	4152	G	C1'-O4'-C4'	-8.58	103.04	109.90
86	A7	93	G	C1'-O4'-C4'	-8.58	103.04	109.90
85	A5	1641	G	O4'-C1'-C2'	-8.58	97.22	105.80
36	B2	799	U	N1-C1'-C2'	8.57	125.15	114.00
85	A5	1379	C	O4'-C1'-C2'	-8.57	97.22	105.80
85	A5	2585	C	N1-C1'-C2'	-8.57	102.57	112.00
60	Cr	107	ARG	O-C-N	-8.57	108.98	122.70
85	A5	949	G	C1'-O4'-C4'	-8.57	103.04	109.90
36	B2	1007	C	C3'-C2'-C1'	8.57	108.36	101.50
85	A5	4985	U	O4'-C1'-N1	8.57	115.06	108.20
26	AJ	118	GLY	O-C-N	-8.57	108.99	122.70
36	B2	237	C	O4'-C1'-N1	8.57	115.06	108.20
36	B2	1415	C	N1-C1'-C2'	8.57	125.14	114.00
85	A5	4565	C	O5'-C5'-C4'	-8.57	95.42	111.70
46	CN	84	PRO	CA-N-CD	-8.57	99.51	111.50
86	A7	74	A	O4'-C1'-C2'	-8.57	97.23	105.80
81	CE	274	VAL	CB-CA-C	-8.57	95.12	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4182	G	O4'-C1'-N9	8.57	115.05	108.20
85	A5	4202	U	O4'-C1'-N1	8.57	115.05	108.20
36	B2	79	A	C4'-C3'-C2'	-8.56	94.03	102.60
36	B2	852	G	P-O3'-C3'	8.56	129.98	119.70
85	A5	231	U	O4'-C1'-N1	8.56	115.05	108.20
85	A5	441	G	C3'-C2'-C1'	-8.56	94.65	101.50
85	A5	1972	G	C3'-C2'-C1'	-8.56	94.65	101.50
85	A5	5032	C	C1'-O4'-C4'	-8.56	103.05	109.90
39	Cq	263	GLU	O-C-N	-8.56	109.00	122.70
85	A5	2715	G	O4'-C1'-N9	8.56	115.05	108.20
20	Aa	80	HIS	N-CA-CB	-8.56	95.20	110.60
36	B2	58	C	O4'-C1'-N1	8.56	115.05	108.20
85	A5	1251	C	C1'-O4'-C4'	8.55	116.74	109.90
21	Ab	10	PRO	CA-N-CD	-8.55	99.53	111.50
87	A8	36	G	O4'-C1'-N9	8.55	115.04	108.20
36	B2	25	A	O4'-C1'-C2'	-8.55	97.25	105.80
85	A5	680	G	O4'-C1'-N9	8.55	115.04	108.20
85	A5	2251	G	P-O3'-C3'	8.55	129.96	119.70
37	BC	65	C	C3'-C2'-C1'	8.55	108.34	101.50
60	Cr	40	TYR	CB-CG-CD2	8.55	126.13	121.00
47	CI	206	LEU	CA-CB-CG	8.55	134.96	115.30
85	A5	2874	U	C3'-C2'-C1'	8.55	108.34	101.50
85	A5	5026	U	P-O5'-C5'	8.55	134.58	120.90
85	A5	2879	A	O4'-C1'-C2'	-8.55	97.25	105.80
69	Cg	81	SER	C-N-CA	8.55	143.06	121.70
87	A8	130	C	O4'-C1'-N1	8.54	115.03	108.20
85	A5	639	U	P-O3'-C3'	8.54	129.95	119.70
85	A5	1274	A	O4'-C1'-N9	8.54	115.03	108.20
85	A5	1346	C	C3'-C2'-C1'	8.54	108.33	101.50
85	A5	3884	U	O4'-C1'-N1	8.54	115.03	108.20
36	B2	353	C	C5'-C4'-C3'	8.54	129.66	116.00
85	A5	206	U	O4'-C1'-N1	8.54	115.03	108.20
85	A5	4564	A	P-O3'-C3'	8.54	129.95	119.70
85	A5	4950	U	C4'-C3'-O3'	-8.54	91.47	109.40
86	A7	65	G	P-O3'-C3'	-8.54	109.45	119.70
30	AF	130	ARG	NE-CZ-NH1	8.54	124.57	120.30
85	A5	1297	U	C1'-O4'-C4'	8.54	116.73	109.90
36	B2	1209	A	O4'-C1'-N9	8.53	115.03	108.20
74	CC	346	ASN	CB-CA-C	8.53	127.47	110.40
85	A5	1480	C	O4'-C1'-C2'	-8.54	97.27	105.80
85	A5	1974	U	C3'-C2'-C1'	8.53	108.33	101.50
85	A5	4058	U	N1-C1'-C2'	-8.53	102.61	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Cv	18	PRO	CA-N-CD	-8.53	99.55	111.50
85	A5	2395	A	C3'-C2'-C1'	8.53	108.33	101.50
40	CK	111	ASN	CB-CA-C	-8.53	93.34	110.40
36	B2	967	C	O4'-C1'-N1	8.53	115.02	108.20
85	A5	464	G	N9-C1'-C2'	8.53	125.09	114.00
36	B2	1756	C	O4'-C1'-N1	8.53	115.02	108.20
85	A5	327	U	O4'-C1'-N1	8.53	115.02	108.20
85	A5	1906	U	O4'-C1'-N1	8.53	115.02	108.20
36	B2	1733	U	O4'-C1'-N1	8.52	115.02	108.20
85	A5	2619	G	O4'-C1'-N9	8.52	115.02	108.20
85	A5	3867	A	N9-C1'-C2'	8.52	125.08	114.00
85	A5	4135	G	O4'-C1'-N9	8.52	115.02	108.20
74	CC	46	LYS	C-N-CA	-8.52	100.40	121.70
85	A5	2794	C	C3'-C2'-C1'	8.52	108.32	101.50
85	A5	5030	U	O4'-C1'-N1	8.52	115.02	108.20
36	B2	1006	C	N1-C1'-C2'	8.52	125.07	114.00
36	B2	1522	A	O4'-C1'-N9	8.52	115.01	108.20
85	A5	1824	G	P-O5'-C5'	8.52	134.53	120.90
36	B2	828	G	O4'-C1'-N9	8.51	115.01	108.20
85	A5	1266	G	C3'-C2'-C1'	-8.51	94.69	101.50
36	B2	1446	A	P-O3'-C3'	8.51	129.91	119.70
67	Ce	38	PRO	CA-N-CD	-8.51	99.59	111.50
85	A5	2483	G	C3'-C2'-C1'	-8.51	94.69	101.50
36	B2	1586	U	O4'-C1'-N1	8.50	115.00	108.20
67	Ce	21	ILE	CG1-CB-CG2	-8.50	92.69	111.40
85	A5	209	U	O4'-C1'-N1	8.50	115.00	108.20
85	A5	1870	C	C3'-C2'-C1'	8.50	108.30	101.50
60	Cr	37	SER	CA-CB-OG	8.50	134.15	111.20
26	AJ	161	LEU	O-C-N	-8.50	109.10	122.70
85	A5	149	A	O3'-P-O5'	-8.50	87.86	104.00
85	A5	2058	G	N9-C1'-C2'	8.50	125.05	114.00
85	A5	2106	G	C3'-C2'-C1'	-8.50	94.70	101.50
85	A5	2735	G	O4'-C1'-N9	8.50	115.00	108.20
85	A5	4560	C	O3'-P-O5'	-8.50	87.85	104.00
85	A5	4586	G	O4'-C1'-N9	8.50	115.00	108.20
85	A5	3799	A	C1'-O4'-C4'	-8.50	103.10	109.90
36	B2	853	C	P-O3'-C3'	-8.49	109.51	119.70
86	A7	70	G	O4'-C1'-N9	8.49	115.00	108.20
85	A5	1727	U	O4'-C1'-N1	8.49	115.00	108.20
87	A8	9	A	C3'-C2'-C1'	8.49	108.29	101.50
85	A5	1276	C	C1'-O4'-C4'	-8.49	103.11	109.90
36	B2	731	G	O3'-P-O5'	8.49	120.12	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1113	A	O4'-C1'-N9	8.49	114.99	108.20
38	Cz	28	PHE	CB-CG-CD1	8.49	126.74	120.80
48	CD	267	ASN	O-C-N	8.49	136.28	122.70
85	A5	2834	C	O4'-C1'-C2'	-8.49	97.31	105.80
37	BC	28	G	O4'-C1'-N9	8.48	114.99	108.20
36	B2	691	G	O4'-C1'-N9	8.48	114.98	108.20
36	B2	1114	U	O4'-C1'-N1	8.48	114.98	108.20
36	B2	1690	U	O4'-C1'-N1	8.48	114.98	108.20
85	A5	4288	C	C3'-C2'-C1'	8.48	108.28	101.50
85	A5	4767	C	O4'-C1'-N1	8.48	114.98	108.20
1	Az	392	GLY	C-N-CD	-8.48	101.95	120.60
36	B2	1202	U	N1-C1'-C2'	-8.48	102.67	112.00
85	A5	2759	G	C3'-C2'-C1'	8.48	108.28	101.50
36	B2	285	U	C3'-C2'-C1'	8.47	108.28	101.50
85	A5	500	G	O4'-C1'-N9	8.47	114.98	108.20
85	A5	4928	C	C3'-C2'-C1'	8.47	108.28	101.50
36	B2	612	U	O4'-C1'-N1	8.47	114.98	108.20
81	CE	36	LYS	N-CA-CB	-8.47	95.35	110.60
83	Cs	44	PRO	CA-N-CD	-8.47	99.64	111.50
85	A5	2359	U	O4'-C1'-N1	8.47	114.97	108.20
36	B2	1508	A	N9-C1'-C2'	-8.47	102.69	112.00
85	A5	938	C	O4'-C1'-C2'	-8.47	97.33	105.80
85	A5	1651	G	N9-C1'-C2'	8.46	125.00	114.00
85	A5	4060	U	O4'-C1'-C2'	-8.46	97.34	105.80
4	AK	87	PRO	C-N-CA	8.46	142.86	121.70
36	B2	528	A	C1'-O4'-C4'	-8.46	103.13	109.90
47	CI	194	GLY	C-N-CA	-8.46	100.54	121.70
36	B2	1086	G	O3'-P-O5'	-8.46	87.92	104.00
36	B2	1112	U	O4'-C1'-N1	8.46	114.97	108.20
36	B2	1468	C	O4'-C1'-N1	8.46	114.97	108.20
54	CP	143	PRO	CA-N-CD	-8.46	99.66	111.50
85	A5	4166	G	O4'-C1'-N9	8.46	114.97	108.20
85	A5	1524	A	O4'-C1'-C2'	8.46	115.21	107.60
34	AQ	18	THR	CA-CB-OG1	8.46	126.75	109.00
53	CT	26	PRO	CA-N-CD	-8.46	99.66	111.50
85	A5	2893	U	O4'-C1'-N1	8.46	114.97	108.20
85	A5	4371	G	O4'-C1'-N9	8.46	114.97	108.20
86	A7	12	U	C3'-C2'-C1'	8.46	108.27	101.50
87	A8	41	A	O4'-C1'-C2'	-8.45	97.35	105.80
85	A5	150	U	P-O3'-C3'	8.45	129.84	119.70
85	A5	4936	G	C2'-C3'-O3'	8.45	128.09	109.50
36	B2	976	G	P-O5'-C5'	8.45	134.42	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1478	U	O4'-C1'-N1	8.45	114.96	108.20
66	Cd	108	TYR	O-C-N	8.45	136.22	122.70
85	A5	1483	C	C3'-C2'-C1'	8.45	108.26	101.50
85	A5	3888	G	O4'-C1'-N9	8.45	114.96	108.20
85	A5	4779	U	P-O5'-C5'	8.45	134.42	120.90
3	AU	70	CYS	C-N-CA	8.44	140.03	122.30
74	CC	77	PRO	CA-N-CD	-8.45	99.68	111.50
85	A5	276	C	C3'-C2'-C1'	8.44	108.26	101.50
85	A5	689	U	O4'-C1'-N1	8.45	114.96	108.20
36	B2	1329	U	C1'-O4'-C4'	-8.44	103.15	109.90
85	A5	1308	C	O4'-C1'-C2'	-8.44	97.36	105.80
85	A5	3972	A	O3'-P-O5'	-8.44	87.96	104.00
36	B2	1276	A	C3'-C2'-C1'	8.44	108.25	101.50
65	Cc	89	TYR	CA-CB-CG	-8.44	97.37	113.40
24	Ae	21	LYS	CA-C-N	8.44	135.76	117.20
37	BC	14	A	O4'-C1'-N9	8.44	114.95	108.20
85	A5	1577	G	P-O3'-C3'	-8.44	109.58	119.70
85	A5	4921	C	C3'-C2'-C1'	8.44	108.25	101.50
47	CI	4	ARG	CD-NE-CZ	-8.43	111.79	123.60
85	A5	2546	G	O4'-C1'-N9	8.43	114.95	108.20
85	A5	2116	C	C3'-C2'-C1'	8.43	108.24	101.50
85	A5	3970	G	P-O3'-C3'	8.43	129.82	119.70
40	CK	89	PRO	CA-N-CD	-8.43	99.70	111.50
85	A5	2293	U	N1-C1'-C2'	8.43	124.96	114.00
86	A7	76	U	O4'-C1'-N1	8.43	114.94	108.20
85	A5	1359	G	O3'-P-O5'	-8.43	87.99	104.00
8	AS	95	TYR	N-CA-CB	-8.42	95.44	110.60
81	CE	60	SER	N-CA-CB	8.42	123.13	110.50
85	A5	54	G	O4'-C1'-N9	8.42	114.94	108.20
85	A5	311	G	O4'-C1'-N9	8.42	114.94	108.20
85	A5	1281	G	P-O3'-C3'	8.42	129.81	119.70
87	A8	38	U	N1-C1'-C2'	8.42	124.95	114.00
36	B2	452	G	C3'-C2'-C1'	8.42	108.24	101.50
48	CD	260	GLU	N-CA-CB	-8.42	95.44	110.60
85	A5	4524	G	C4'-C3'-O3'	-8.42	91.72	109.40
85	A5	330	G	O4'-C1'-N9	8.42	114.94	108.20
85	A5	2255	C	P-O3'-C3'	8.42	129.80	119.70
85	A5	4584	A	N9-C1'-C2'	8.42	124.95	114.00
58	CW	31	PHE	CA-C-N	-8.42	98.68	117.20
85	A5	943	A	P-O3'-C3'	8.42	129.80	119.70
85	A5	1163	G	C1'-O4'-C4'	-8.42	103.17	109.90
85	A5	1200	G	O4'-C1'-N9	8.42	114.93	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	AP	69	PRO	CA-N-CD	-8.42	99.72	111.50
85	A5	2269	C	C3'-C2'-C1'	8.42	108.23	101.50
85	A5	4402	C	N1-C1'-C2'	8.42	124.94	114.00
31	AH	108	SER	N-CA-CB	8.41	123.12	110.50
81	CE	73	TYR	CA-C-N	-8.41	98.69	117.20
85	A5	1102	U	O4'-C1'-C2'	-8.41	97.39	105.80
85	A5	1949	U	O4'-C1'-N1	8.41	114.93	108.20
23	AD	193	ASP	C-N-CD	8.41	146.06	128.40
36	B2	743	U	O4'-C1'-C2'	-8.41	97.39	105.80
85	A5	315	G	P-O5'-C5'	-8.41	107.44	120.90
85	A5	488	G	P-O3'-C3'	8.41	129.79	119.70
36	B2	131	C	P-O3'-C3'	8.41	129.79	119.70
36	B2	305	U	P-O3'-C3'	-8.41	109.61	119.70
36	B2	1693	G	C1'-O4'-C4'	-8.40	103.18	109.90
85	A5	3254	C	P-O3'-C3'	8.40	129.78	119.70
36	B2	21	U	O4'-C1'-N1	8.40	114.92	108.20
60	Cr	123	PRO	CA-N-CD	-8.40	99.74	111.50
85	A5	2229	C	P-O3'-C3'	8.40	129.78	119.70
85	A5	2645	G	O4'-C1'-N9	8.40	114.92	108.20
85	A5	4128	A	O5'-P-OP1	8.40	120.78	110.70
36	B2	144	U	N1-C1'-C2'	8.40	124.92	114.00
85	A5	1000	A	P-O3'-C3'	8.40	129.78	119.70
36	B2	1326	U	C3'-C2'-C1'	8.40	108.22	101.50
36	B2	1731	A	O4'-C1'-N9	8.40	114.92	108.20
36	B2	1750	C	O4'-C1'-N1	8.40	114.92	108.20
36	B2	1320	G	C3'-C2'-C1'	-8.39	94.78	101.50
36	B2	1462	U	C4'-C3'-O3'	8.39	129.79	113.00
85	A5	445	U	C1'-O4'-C4'	8.39	116.61	109.90
85	A5	1691	G	C3'-C2'-C1'	8.39	108.22	101.50
85	A5	2896	G	O4'-C1'-N9	8.39	114.91	108.20
85	A5	2846	G	O4'-C1'-N9	8.39	114.91	108.20
85	A5	4136	G	O4'-C1'-N9	8.39	114.91	108.20
36	B2	344	U	O4'-C1'-N1	8.39	114.91	108.20
36	B2	1202	U	O4'-C1'-N1	8.39	114.91	108.20
85	A5	2100	A	O5'-P-OP1	8.39	120.77	110.70
27	AE	43	PRO	CA-N-CD	-8.38	99.77	111.50
29	AG	170	ARG	CB-CA-C	-8.38	93.64	110.40
85	A5	754	U	O4'-C1'-C2'	-8.38	97.42	105.80
85	A5	2427	G	C1'-O4'-C4'	-8.38	103.20	109.90
36	B2	701	G	P-O3'-C3'	8.37	129.75	119.70
85	A5	303	C	C3'-C2'-C1'	8.37	108.20	101.50
36	B2	863	U	C1'-O4'-C4'	-8.37	103.21	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1336	C	O4'-C1'-N1	8.37	114.89	108.20
85	A5	2398	U	P-O3'-C3'	8.37	129.74	119.70
36	B2	28	U	O4'-C1'-N1	8.36	114.89	108.20
86	A7	73	U	N1-C1'-C2'	8.36	124.87	114.00
85	A5	298	G	C1'-O4'-C4'	-8.36	103.21	109.90
85	A5	4585	U	O4'-C1'-N1	8.36	114.89	108.20
36	B2	933	G	O4'-C1'-C2'	8.36	115.12	107.60
87	A8	129	C	O4'-C1'-C2'	-8.36	97.44	105.80
36	B2	530	U	P-O3'-C3'	8.36	129.73	119.70
36	B2	1340	U	O4'-C1'-N1	8.36	114.89	108.20
42	CL	163	LYS	C-N-CA	-8.36	100.81	121.70
85	A5	2462	C	C3'-C2'-C1'	8.36	108.19	101.50
19	AZ	104	ARG	NE-CZ-NH1	-8.36	116.12	120.30
26	AJ	180	LYS	C-N-CA	8.36	139.85	122.30
85	A5	1431	C	P-O3'-C3'	8.36	129.73	119.70
85	A5	1543	G	O4'-C1'-N9	8.36	114.89	108.20
36	B2	1141	G	O4'-C1'-N9	8.35	114.88	108.20
85	A5	3590	G	O4'-C1'-N9	8.35	114.88	108.20
85	A5	3711	A	C3'-C2'-C1'	-8.35	94.82	101.50
36	B2	968	U	O4'-C1'-C2'	-8.35	97.45	105.80
85	A5	2005	G	P-O5'-C5'	-8.35	107.54	120.90
36	B2	285	U	O4'-C1'-N1	-8.35	101.52	108.20
44	CM	6	PHE	O-C-N	-8.35	109.35	122.70
85	A5	957	G	O4'-C1'-C2'	8.35	115.11	107.60
86	A7	121	U	O4'-C1'-N1	8.35	114.88	108.20
36	B2	399	C	C3'-C2'-C1'	8.34	108.17	101.50
36	B2	1018	U	N1-C1'-C2'	8.34	124.85	114.00
85	A5	365	U	O4'-C1'-N1	8.34	114.87	108.20
36	B2	376	A	O4'-C1'-N9	8.34	114.87	108.20
85	A5	214	G	O4'-C1'-N9	8.34	114.87	108.20
49	CQ	139	LEU	CA-CB-CG	-8.34	96.12	115.30
85	A5	3830	A	O4'-C1'-N9	8.34	114.87	108.20
81	CE	190	HIS	C-N-CA	8.34	142.55	121.70
85	A5	153	G	O4'-C1'-N9	8.34	114.87	108.20
85	A5	226	G	P-O3'-C3'	8.34	129.70	119.70
85	A5	3863	C	N1-C1'-C2'	8.34	124.84	114.00
86	A7	1	G	O4'-C1'-C2'	-8.34	97.46	105.80
85	A5	3952	A	O4'-C1'-N9	8.34	114.87	108.20
85	A5	4041	C	O4'-C1'-C2'	-8.34	97.46	105.80
85	A5	3646	A	O4'-C1'-N9	8.33	114.87	108.20
87	A8	29	G	O4'-C1'-N9	8.33	114.87	108.20
36	B2	1810	U	O4'-C1'-N1	8.33	114.86	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1438	A	O4'-C1'-C2'	-8.33	97.47	105.80
85	A5	118	C	P-O3'-C3'	8.33	129.69	119.70
85	A5	635	G	O4'-C1'-N9	8.33	114.86	108.20
85	A5	2455	G	N9-C1'-C2'	8.33	124.83	114.00
85	A5	4389	C	O4'-C1'-N1	8.33	114.86	108.20
36	B2	553	U	C4'-C3'-C2'	-8.32	94.28	102.60
85	A5	1622	U	O4'-C1'-N1	8.32	114.86	108.20
85	A5	2704	C	O4'-C1'-N1	8.32	114.86	108.20
85	A5	2775	C	O4'-C1'-C2'	-8.32	97.47	105.80
85	A5	3729	U	O4'-C1'-N1	8.32	114.86	108.20
36	B2	159	A	O4'-C1'-N9	8.32	114.86	108.20
36	B2	970	G	P-O3'-C3'	8.32	129.68	119.70
85	A5	948	C	C1'-O4'-C4'	-8.32	103.25	109.90
85	A5	2272	C	O4'-C1'-N1	8.32	114.86	108.20
85	A5	3597	G	O4'-C1'-N9	8.32	114.86	108.20
85	A5	3727	A	C3'-C2'-C1'	8.32	108.16	101.50
36	B2	323	C	C3'-C2'-C1'	8.32	108.15	101.50
36	B2	737	G	N9-C1'-C2'	-8.32	102.85	112.00
36	B2	1656	G	O4'-C1'-N9	8.32	114.85	108.20
85	A5	3967	G	C3'-C2'-C1'	-8.32	94.85	101.50
85	A5	4061	G	O4'-C1'-N9	8.32	114.85	108.20
40	CK	102	GLY	N-CA-C	8.31	133.88	113.10
36	B2	689	U	P-O3'-C3'	-8.31	109.73	119.70
36	B2	1472	C	C4'-C3'-O3'	8.31	129.62	113.00
85	A5	736	C	N1-C1'-C2'	8.31	124.80	114.00
86	A7	71	G	O4'-C1'-N9	8.31	114.85	108.20
20	Aa	58	VAL	CB-CA-C	-8.31	95.61	111.40
36	B2	554	A	C3'-C2'-C1'	-8.31	94.85	101.50
36	B2	1010	G	C3'-C2'-C1'	-8.31	94.85	101.50
85	A5	1578	U	C5'-C4'-O4'	8.31	119.07	109.10
36	B2	1030	A	O4'-C1'-N9	8.30	114.84	108.20
85	A5	1436	C	N1-C1'-C2'	8.30	124.79	114.00
85	A5	2038	U	O4'-C1'-N1	8.30	114.84	108.20
85	A5	5025	C	P-O3'-C3'	-8.30	109.73	119.70
36	B2	321	C	C3'-C2'-C1'	8.30	108.14	101.50
36	B2	1296	U	O4'-C1'-N1	8.30	114.84	108.20
36	B2	1696	C	N1-C1'-C2'	8.30	124.79	114.00
85	A5	463	A	C1'-O4'-C4'	8.30	116.54	109.90
85	A5	3943	A	O4'-C1'-N9	8.30	114.84	108.20
36	B2	97	U	N1-C1'-C2'	8.30	124.79	114.00
85	A5	2073	C	N1-C1'-C2'	8.30	124.79	114.00
85	A5	2613	C	N1-C1'-C2'	8.30	124.79	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4430	G	C1'-O4'-C4'	-8.30	103.26	109.90
56	CX	73	HIS	N-CA-C	-8.29	88.61	111.00
87	A8	85	U	O4'-C1'-N1	8.29	114.83	108.20
85	A5	3823	G	O4'-C1'-C2'	-8.29	97.51	105.80
36	B2	1660	C	O4'-C1'-N1	8.29	114.83	108.20
74	CC	13	GLU	N-CA-C	8.29	133.39	111.00
85	A5	417	G	O4'-C1'-N9	8.29	114.83	108.20
85	A5	2273	G	C1'-O4'-C4'	-8.29	103.27	109.90
85	A5	2831	G	C3'-C2'-C1'	-8.29	94.87	101.50
86	A7	26	C	C1'-O4'-C4'	-8.29	103.27	109.90
85	A5	77	U	O4'-C1'-N1	8.29	114.83	108.20
85	A5	1376	C	N1-C1'-C2'	8.29	124.78	114.00
36	B2	367	U	O4'-C1'-N1	8.29	114.83	108.20
85	A5	1276	C	N1-C1'-C2'	8.29	124.77	114.00
36	B2	1623	A	C3'-C2'-C1'	-8.29	94.87	101.50
85	A5	266	C	O4'-C1'-N1	8.28	114.83	108.20
85	A5	967	C	C3'-C2'-C1'	8.28	108.13	101.50
36	B2	1531	A	O4'-C1'-N9	8.28	114.83	108.20
85	A5	1376	C	O4'-C1'-N1	8.28	114.83	108.20
81	CE	27	VAL	O-C-N	-8.28	109.45	122.70
85	A5	1313	C	C1'-O4'-C4'	8.28	116.53	109.90
85	A5	1851	G	C1'-O4'-C4'	-8.28	103.28	109.90
36	B2	1230	C	C1'-O4'-C4'	-8.28	103.28	109.90
37	BC	17	G	C5'-C4'-C3'	8.28	129.24	116.00
85	A5	4987	C	O4'-C1'-N1	8.28	114.82	108.20
85	A5	1849	U	O4'-C1'-N1	8.27	114.82	108.20
85	A5	4884	G	C3'-C2'-C1'	8.27	108.12	101.50
85	A5	1755	C	O3'-P-O5'	8.27	119.71	104.00
85	A5	4483	C	O4'-C1'-N1	8.27	114.81	108.20
36	B2	891	G	C1'-O4'-C4'	-8.26	103.29	109.90
36	B2	1048	G	C1'-O4'-C4'	-8.26	103.29	109.90
36	B2	909	G	P-O3'-C3'	-8.26	109.79	119.70
58	CW	71	ARG	CB-CA-C	-8.26	93.88	110.40
85	A5	3692	A	O4'-C1'-C2'	-8.26	97.54	105.80
85	A5	1722	C	P-O3'-C3'	8.26	129.61	119.70
85	A5	2482	C	O4'-C1'-N1	8.26	114.81	108.20
48	CD	259	LYS	O-C-N	-8.26	109.49	122.70
85	A5	1507	C	O4'-C1'-N1	8.26	114.81	108.20
3	AU	57	PRO	CA-N-CD	-8.25	99.94	111.50
8	AS	6	PRO	N-CA-C	8.25	133.56	112.10
16	AA	133	PRO	CA-N-CD	-8.25	99.94	111.50
11	AL	147	LYS	N-CA-C	8.25	133.28	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	CE	127	SER	CA-CB-OG	8.25	133.48	111.20
85	A5	119	G	O4'-C1'-C2'	-8.25	97.55	105.80
36	B2	395	G	C3'-C2'-C1'	-8.25	94.90	101.50
36	B2	1842	C	O4'-C1'-N1	8.25	114.80	108.20
85	A5	965	G	P-O3'-C3'	8.25	129.60	119.70
85	A5	3915	U	O4'-C1'-C2'	-8.25	97.55	105.80
36	B2	1018	U	C1'-O4'-C4'	-8.25	103.30	109.90
36	B2	572	U	O4'-C1'-N1	8.24	114.80	108.20
36	B2	80	G	P-O5'-C5'	8.24	134.09	120.90
85	A5	70	A	N9-C1'-C2'	-8.24	102.93	112.00
85	A5	2827	G	O4'-C1'-N9	8.24	114.80	108.20
85	A5	3944	G	O4'-C1'-N9	8.24	114.80	108.20
85	A5	4994	G	N9-C1'-C2'	8.24	124.72	114.00
36	B2	615	C	N1-C1'-C2'	8.24	124.71	114.00
36	B2	649	U	C1'-O4'-C4'	-8.24	103.31	109.90
37	BC	35	U	O4'-C1'-N1	8.24	114.79	108.20
85	A5	2824	C	C3'-C2'-C1'	8.24	108.09	101.50
85	A5	4624	A	C3'-C2'-C1'	8.24	108.09	101.50
85	A5	1728	U	O4'-C1'-N1	8.24	114.79	108.20
85	A5	1794	A	O4'-C1'-C2'	-8.24	97.56	105.80
36	B2	1237	C	C3'-C2'-C1'	8.24	108.09	101.50
85	A5	1810	G	N9-C1'-C2'	8.24	124.71	114.00
36	B2	522	A	O4'-C1'-N9	8.23	114.79	108.20
85	A5	1100	U	P-O3'-C3'	8.23	129.58	119.70
85	A5	1164	G	O4'-C1'-N9	8.23	114.79	108.20
36	B2	912	C	C3'-C2'-C1'	8.23	108.09	101.50
36	B2	1518	C	O4'-C1'-N1	8.23	114.79	108.20
35	Ah	151	PHE	N-CA-C	8.23	133.22	111.00
36	B2	556	U	N1-C1'-C2'	8.23	124.70	114.00
85	A5	1928	C	O4'-C1'-C2'	-8.23	97.57	105.80
4	AK	55	ARG	NE-CZ-NH2	-8.23	116.19	120.30
25	Af	87	THR	N-CA-C	-8.23	88.79	111.00
74	CC	232	VAL	O-C-N	8.23	135.86	122.70
85	A5	5025	C	C4'-C3'-O3'	8.22	129.45	113.00
51	CA	67	TYR	CB-CA-C	8.22	126.84	110.40
85	A5	4105	A	C4'-C3'-O3'	8.22	129.44	113.00
33	AI	5	ARG	O-C-N	-8.22	109.55	122.70
87	A8	42	G	O4'-C1'-N9	8.22	114.78	108.20
36	B2	156	G	P-O3'-C3'	-8.21	109.84	119.70
60	Cr	90	LEU	C-N-CA	8.21	142.24	121.70
85	A5	1186	U	C1'-O4'-C4'	8.21	116.47	109.90
85	A5	1470	G	C1'-O4'-C4'	-8.22	103.33	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2083	C	O4'-C1'-N1	8.21	114.77	108.20
85	A5	1805	A	N9-C1'-C2'	-8.21	102.97	112.00
85	A5	4988	U	O4'-C1'-N1	8.21	114.77	108.20
36	B2	556	U	O4'-C1'-N1	8.21	114.77	108.20
66	Cd	110	PRO	CA-N-CD	-8.21	100.01	111.50
85	A5	1247	U	O4'-C1'-N1	8.20	114.76	108.20
36	B2	913	A	O4'-C1'-C2'	-8.20	97.60	105.80
36	B2	1155	U	C5'-C4'-O4'	8.20	118.94	109.10
85	A5	654	C	O4'-C1'-C2'	-8.20	97.60	105.80
86	A7	31	G	N9-C1'-C2'	8.20	124.66	114.00
85	A5	1755	C	P-O3'-C3'	8.20	129.54	119.70
17	AV	31	SER	N-CA-CB	-8.20	98.20	110.50
85	A5	370	U	N1-C1'-C2'	8.20	124.66	114.00
85	A5	2349	A	P-O3'-C3'	8.20	129.54	119.70
85	A5	2830	G	O4'-C1'-N9	8.20	114.76	108.20
36	B2	38	A	N9-C1'-C2'	-8.20	102.98	112.00
36	B2	82	G	O4'-C1'-C2'	-8.20	97.60	105.80
85	A5	1853	G	O4'-C1'-C2'	8.20	114.98	107.60
85	A5	1860	U	O4'-C1'-N1	8.20	114.76	108.20
85	A5	2851	G	N9-C1'-C2'	8.20	124.66	114.00
85	A5	2531	C	O4'-C1'-N1	8.19	114.75	108.20
85	A5	3851	U	O4'-C1'-N1	8.19	114.75	108.20
36	B2	1534	C	O4'-C1'-C2'	-8.19	97.61	105.80
85	A5	914	U	O4'-C1'-N1	8.19	114.75	108.20
85	A5	1768	C	C1'-O4'-C4'	8.19	116.45	109.90
85	A5	2814	C	O4'-C1'-C2'	-8.19	97.61	105.80
85	A5	4654	C	O4'-C1'-N1	8.19	114.75	108.20
81	CE	119	GLU	CB-CA-C	8.18	126.77	110.40
85	A5	1960	A	O4'-C1'-N9	8.18	114.75	108.20
85	A5	4382	G	C1'-O4'-C4'	-8.18	103.35	109.90
85	A5	4409	C	C3'-C2'-C1'	8.18	108.05	101.50
86	A7	21	G	O4'-C1'-N9	8.18	114.75	108.20
36	B2	1165	G	N9-C1'-C2'	-8.18	103.00	112.00
81	CE	110	ARG	CB-CG-CD	8.18	132.87	111.60
85	A5	2653	C	C3'-C2'-C1'	8.18	108.04	101.50
36	B2	1309	C	O4'-C1'-C2'	-8.18	97.62	105.80
3	AU	93	SER	CA-C-N	-8.18	94.21	117.10
36	B2	187	G	C1'-O4'-C4'	-8.18	103.36	109.90
46	CN	197	THR	CB-CA-C	-8.18	89.53	111.60
52	CS	175	PHE	CB-CG-CD2	-8.18	115.08	120.80
85	A5	1104	C	N1-C1'-C2'	8.18	124.63	114.00
85	A5	1287	G	P-O5'-C5'	8.18	133.98	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	5022	U	O4'-C1'-N1	8.18	114.74	108.20
86	A7	85	G	C1'-O4'-C4'	-8.18	103.36	109.90
28	AC	108	LYS	O-C-N	-8.17	109.62	122.70
85	A5	703	G	N9-C1'-C2'	-8.17	103.01	112.00
10	AN	7	PRO	CA-N-CD	-8.17	100.06	111.50
36	B2	1212	G	C1'-O4'-C4'	-8.17	103.36	109.90
85	A5	2051	C	O4'-C1'-N1	8.17	114.74	108.20
36	B2	1038	U	O4'-C1'-N1	8.17	114.73	108.20
85	A5	441	G	O4'-C1'-N9	8.17	114.73	108.20
85	A5	1486	C	N1-C1'-C2'	8.17	124.62	114.00
3	AU	103	SER	C-N-CA	-8.17	101.28	121.70
36	B2	36	U	O4'-C1'-N1	8.17	114.73	108.20
85	A5	1683	U	O4'-C1'-N1	8.17	114.73	108.20
36	B2	588	G	O3'-P-O5'	-8.16	88.49	104.00
36	B2	1665	G	O4'-C1'-C2'	8.16	114.95	107.60
36	B2	1757	G	O4'-C1'-N9	8.16	114.73	108.20
81	CE	36	LYS	N-CA-C	-8.16	88.96	111.00
81	CE	115	TYR	CB-CG-CD1	-8.16	116.10	121.00
81	CE	113	PRO	CA-N-CD	-8.16	100.07	111.50
85	A5	463	A	C3'-C2'-C1'	8.16	108.03	101.50
85	A5	2333	G	O4'-C1'-C2'	8.16	114.95	107.60
85	A5	4720	C	C3'-C2'-C1'	8.16	108.03	101.50
85	A5	1240	G	O4'-C1'-C2'	-8.16	97.64	105.80
85	A5	4517	A	C3'-C2'-C1'	8.16	108.03	101.50
85	A5	2566	G	O4'-C1'-N9	8.16	114.73	108.20
36	B2	103	A	C3'-C2'-C1'	-8.16	94.97	101.50
36	B2	1182	A	O4'-C1'-N9	8.16	114.72	108.20
85	A5	2473	A	O3'-P-O5'	8.16	119.50	104.00
85	A5	4318	C	O4'-C1'-C2'	-8.16	97.64	105.80
85	A5	4972	U	O4'-C1'-N1	8.16	114.73	108.20
18	AY	87	PRO	CA-N-CD	-8.15	100.08	111.50
36	B2	300	U	O4'-C1'-N1	8.15	114.72	108.20
36	B2	325	C	P-O3'-C3'	8.15	129.49	119.70
85	A5	759	G	N9-C1'-C2'	-8.15	103.03	112.00
85	A5	2494	U	P-O3'-C3'	8.15	129.48	119.70
85	A5	4348	A	O4'-C1'-N9	8.15	114.72	108.20
86	A7	38	U	O4'-C1'-N1	8.15	114.72	108.20
36	B2	220	U	O4'-C1'-N1	8.15	114.72	108.20
36	B2	386	C	N1-C1'-C2'	8.15	124.60	114.00
49	CQ	2	GLY	CA-C-N	-8.15	99.27	117.20
85	A5	1278	C	C3'-C2'-C1'	8.15	108.02	101.50
85	A5	1426	G	C5'-C4'-O4'	-8.15	99.32	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2587	A	O4'-C1'-N9	8.15	114.72	108.20
36	B2	1720	U	O4'-C1'-C2'	-8.15	97.65	105.80
57	CY	97	VAL	O-C-N	-8.15	109.35	123.20
13	AP	37	TYR	CB-CG-CD1	8.15	125.89	121.00
71	Cj	85	LYS	C-N-CD	-8.15	102.68	120.60
85	A5	36	U	O4'-C1'-N1	8.15	114.72	108.20
85	A5	1193	C	P-O3'-C3'	8.15	129.48	119.70
85	A5	513	U	O4'-C1'-N1	8.14	114.72	108.20
85	A5	2004	U	P-O3'-C3'	-8.14	109.93	119.70
36	B2	1783	C	O4'-C1'-C2'	-8.14	97.66	105.80
85	A5	2018	C	C3'-C2'-C1'	8.14	108.01	101.50
85	A5	2061	U	O4'-C1'-N1	8.14	114.71	108.20
85	A5	4194	U	O4'-C1'-N1	8.14	114.71	108.20
85	A5	214	G	C3'-C2'-C1'	-8.14	94.99	101.50
36	B2	530	U	N1-C1'-C2'	-8.14	103.05	112.00
85	A5	1076	C	N1-C1'-C2'	8.14	124.58	114.00
85	A5	2875	C	C3'-C2'-C1'	8.14	108.01	101.50
85	A5	2924	A	P-O3'-C3'	8.14	129.47	119.70
85	A5	4226	G	O4'-C1'-N9	8.14	114.71	108.20
85	A5	645	G	O4'-C1'-N9	8.13	114.71	108.20
78	Co	34	TYR	CA-C-N	8.13	135.09	117.20
55	CU	59	GLY	CA-C-N	-8.13	99.32	117.20
36	B2	145	G	N9-C1'-C2'	8.12	124.56	114.00
36	B2	1380	C	C3'-C2'-C1'	8.13	108.00	101.50
85	A5	682	G	O4'-C1'-N9	8.13	114.70	108.20
36	B2	640	A	C1'-O4'-C4'	-8.12	103.40	109.90
85	A5	450	G	C1'-O4'-C4'	8.12	116.40	109.90
85	A5	1437	C	O4'-C1'-N1	8.12	114.70	108.20
36	B2	1326	U	C1'-O4'-C4'	-8.12	103.40	109.90
85	A5	312	G	O4'-C1'-N9	8.12	114.70	108.20
85	A5	341	G	O4'-C1'-N9	8.12	114.70	108.20
11	AL	153	LYS	C-N-CA	8.12	142.00	121.70
85	A5	1344	C	O4'-C1'-N1	8.12	114.70	108.20
85	A5	1537	A	C3'-C2'-C1'	8.12	108.00	101.50
85	A5	4097	G	O4'-C1'-N9	8.12	114.69	108.20
36	B2	290	U	O4'-C1'-N1	8.12	114.69	108.20
36	B2	445	A	C1'-O4'-C4'	-8.12	103.41	109.90
74	CC	307	LYS	N-CA-CB	-8.11	95.99	110.60
85	A5	237	G	O4'-C1'-C2'	8.11	114.90	107.60
36	B2	1539	U	O4'-C1'-C2'	-8.11	97.69	105.80
85	A5	2399	G	O4'-C1'-C2'	8.11	114.90	107.60
36	B2	858	A	O4'-C1'-C2'	-8.11	97.69	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	105	A	O4'-C1'-C2'	8.11	114.90	107.60
85	A5	5013	C	C3'-C2'-C1'	8.11	107.98	101.50
36	B2	1311	C	C1'-O4'-C4'	-8.10	103.42	109.90
87	A8	56	G	C1'-O4'-C4'	-8.10	103.42	109.90
36	B2	505	G	O4'-C1'-N9	8.10	114.68	108.20
36	B2	1363	C	C3'-C2'-C1'	8.10	107.98	101.50
66	Cd	13	GLY	N-CA-C	8.10	133.35	113.10
85	A5	214	G	O4'-C1'-C2'	8.10	114.89	107.60
85	A5	3688	U	O4'-C1'-N1	8.10	114.68	108.20
85	A5	4579	U	O4'-C1'-N1	8.10	114.68	108.20
85	A5	4876	U	O4'-C1'-N1	8.10	114.68	108.20
36	B2	629	A	O4'-C1'-C2'	-8.10	97.70	105.80
36	B2	461	U	O4'-C1'-N1	8.10	114.68	108.20
36	B2	1348	G	N9-C1'-C2'	-8.10	103.09	112.00
85	A5	1812	C	N1-C1'-C2'	8.10	124.52	114.00
85	A5	4126	C	O4'-C1'-N1	8.10	114.68	108.20
36	B2	208	G	N9-C1'-C2'	8.09	124.52	114.00
85	A5	2329	U	C1'-O4'-C4'	-8.09	103.43	109.90
85	A5	4442	U	O4'-C1'-N1	8.09	114.67	108.20
85	A5	2387	G	C1'-O4'-C4'	-8.09	103.43	109.90
36	B2	608	C	C3'-C2'-C1'	8.09	107.97	101.50
36	B2	1792	G	C3'-C2'-C1'	-8.09	95.03	101.50
85	A5	1757	U	C5'-C4'-O4'	-8.09	99.40	109.10
81	CE	60	SER	CB-CA-C	-8.09	94.74	110.10
85	A5	3940	U	O4'-C1'-N1	8.09	114.67	108.20
85	A5	361	C	O4'-C1'-C2'	-8.08	97.72	105.80
85	A5	1033	C	P-O3'-C3'	8.08	129.40	119.70
85	A5	1593	A	O4'-C1'-N9	-8.08	101.73	108.20
85	A5	2020	U	C1'-O4'-C4'	8.08	116.37	109.90
85	A5	2726	G	O4'-C1'-N9	8.08	114.67	108.20
85	A5	1823	G	C4'-C3'-O3'	-8.08	92.43	109.40
87	A8	149	G	C3'-C2'-C1'	-8.08	95.03	101.50
59	CZ	35	ASP	N-CA-C	-8.08	89.19	111.00
85	A5	92	C	O4'-C1'-N1	8.08	114.66	108.20
36	B2	748	C	C3'-C2'-C1'	8.08	107.96	101.50
36	B2	1137	U	C2'-C3'-O3'	8.08	127.27	109.50
36	B2	855	G	O4'-C1'-N9	8.07	114.66	108.20
36	B2	1352	G	O4'-C1'-C2'	8.07	114.87	107.60
36	B2	1471	C	N1-C1'-C2'	8.07	124.50	114.00
87	A8	154	G	C3'-C2'-C1'	-8.07	95.04	101.50
85	A5	4191	G	O4'-C1'-N9	8.07	114.66	108.20
85	A5	517	C	O4'-C1'-N1	8.07	114.66	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4236	G	O4'-C1'-C2'	8.07	114.86	107.60
85	A5	4607	A	O4'-C1'-C2'	-8.07	97.73	105.80
85	A5	2824	C	O4'-C1'-C2'	-8.06	97.73	105.80
85	A5	2504	C	C3'-C2'-C1'	8.06	107.95	101.50
85	A5	4697	U	P-O3'-C3'	8.06	129.37	119.70
36	B2	841	G	O4'-C4'-C3'	-8.06	95.94	104.00
85	A5	3892	U	O4'-C1'-N1	8.06	114.65	108.20
36	B2	1655	C	N1-C1'-C2'	8.06	124.47	114.00
36	B2	1856	C	O4'-C1'-N1	8.06	114.65	108.20
85	A5	192	G	O4'-C1'-N9	8.06	114.65	108.20
87	A8	109	C	C4'-C3'-O3'	-8.06	92.48	109.40
36	B2	501	C	P-O3'-C3'	8.05	129.37	119.70
40	CK	24	ALA	CA-C-N	8.05	134.92	117.20
85	A5	38	A	O4'-C1'-N9	8.05	114.64	108.20
37	BC	17	G	O4'-C4'-C3'	8.05	112.54	106.10
3	AU	93	SER	O-C-N	8.05	136.39	121.10
4	AK	84	HIS	CB-CA-C	-8.05	94.30	110.40
36	B2	1665	G	C1'-O4'-C4'	-8.05	103.46	109.90
85	A5	2017	A	O3'-P-O5'	8.05	119.29	104.00
85	A5	2422	C	N1-C1'-C2'	8.05	124.46	114.00
85	A5	1631	A	C1'-O4'-C4'	8.05	116.34	109.90
69	Cg	46	CYS	C-N-CA	-8.04	105.41	122.30
85	A5	2366	A	C3'-C2'-C1'	8.04	107.94	101.50
36	B2	1014	G	C3'-C2'-C1'	-8.04	95.07	101.50
36	B2	1195	A	O4'-C4'-C3'	-8.04	95.96	104.00
85	A5	471	A	C3'-C2'-C1'	8.04	107.93	101.50
57	CY	93	THR	N-CA-CB	-8.04	95.03	110.30
85	A5	2255	C	N1-C1'-C2'	8.04	124.45	114.00
85	A5	4345	C	N1-C1'-C2'	8.04	124.45	114.00
34	AQ	31	LEU	N-CA-C	8.04	132.70	111.00
85	A5	2080	U	O4'-C1'-N1	8.04	114.63	108.20
85	A5	3943	A	C1'-O4'-C4'	8.04	116.33	109.90
36	B2	931	C	C5'-C4'-C3'	-8.04	103.14	116.00
85	A5	2101	C	C3'-C2'-C1'	8.04	107.93	101.50
85	A5	4301	U	O4'-C1'-N1	8.04	114.63	108.20
85	A5	4778	C	P-O3'-C3'	8.03	129.34	119.70
36	B2	343	A	O4'-C1'-N9	8.03	114.62	108.20
85	A5	4335	C	N1-C1'-C2'	8.03	124.44	114.00
36	B2	1099	G	O4'-C1'-N9	8.03	114.62	108.20
85	A5	951	G	N9-C1'-C2'	8.03	124.44	114.00
60	Cr	37	SER	N-CA-C	8.03	132.67	111.00
83	Ct	44	PRO	CA-N-CD	-8.03	100.26	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	CY	5	PRO	CA-N-CD	-8.03	100.27	111.50
85	A5	690	C	C3'-C2'-C1'	8.03	107.92	101.50
85	A5	3726	A	O4'-C1'-N9	8.03	114.62	108.20
36	B2	361	U	O4'-C1'-N1	8.02	114.62	108.20
36	B2	77	A	N9-C1'-C2'	-8.02	103.18	112.00
36	B2	1050	A	O4'-C1'-N9	8.02	114.62	108.20
85	A5	713	C	O4'-C1'-N1	8.02	114.62	108.20
85	A5	4457	U	N1-C1'-C2'	8.02	124.43	114.00
85	A5	5067	U	O4'-C1'-N1	8.02	114.62	108.20
61	Ch	78	TYR	CB-CA-C	8.02	126.43	110.40
85	A5	1374	G	O4'-C1'-N9	8.02	114.61	108.20
85	A5	4372	U	O4'-C1'-N1	8.02	114.61	108.20
85	A5	295	A	P-O5'-C5'	-8.01	108.08	120.90
85	A5	2125	C	O4'-C1'-N1	8.01	114.61	108.20
85	A5	2763	U	C1'-O4'-C4'	-8.01	103.49	109.90
85	A5	1399	G	N9-C1'-C2'	-8.01	103.19	112.00
36	B2	1233	G	O4'-C1'-C2'	8.01	114.81	107.60
85	A5	707	C	O4'-C1'-N1	8.01	114.61	108.20
36	B2	1293	A	N9-C1'-C2'	8.01	124.41	114.00
85	A5	1260	G	O4'-C1'-N9	8.01	114.61	108.20
36	B2	894	G	O4'-C1'-N9	8.00	114.60	108.20
37	BC	11	C	N1-C1'-C2'	8.00	124.40	114.00
85	A5	678	C	N1-C1'-C2'	8.00	124.40	114.00
85	A5	902	C	C3'-C2'-C1'	8.00	107.90	101.50
1	Az	278	THR	CA-C-N	8.00	134.79	117.20
85	A5	1876	U	O4'-C1'-N1	8.00	114.60	108.20
85	A5	4286	C	O4'-C1'-N1	8.00	114.60	108.20
36	B2	1719	A	C1'-O4'-C4'	8.00	116.30	109.90
36	B2	162	C	P-O3'-C3'	7.99	129.29	119.70
36	B2	312	G	O4'-C1'-N9	7.99	114.60	108.20
36	B2	1316	C	N1-C1'-C2'	7.99	124.39	114.00
85	A5	1609	U	O4'-C1'-N1	7.99	114.59	108.20
85	A5	4064	C	C1'-O4'-C4'	-7.99	103.50	109.90
85	A5	1100	U	O4'-C1'-N1	7.99	114.59	108.20
36	B2	580	U	C4'-C3'-O3'	7.99	128.98	113.00
36	B2	1064	C	O4'-C1'-C2'	-7.99	97.81	105.80
36	B2	1637	A	O4'-C1'-N9	7.99	114.59	108.20
85	A5	249	C	O4'-C1'-N1	7.99	114.59	108.20
85	A5	2719	C	O4'-C1'-N1	7.99	114.59	108.20
85	A5	4870	G	N9-C1'-C2'	7.99	124.38	114.00
85	A5	724	C	C1'-O4'-C4'	7.98	116.29	109.90
85	A5	1769	G	C1'-O4'-C4'	-7.98	103.51	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4625	C	P-O3'-C3'	7.98	129.28	119.70
36	B2	530	U	P-O5'-C5'	-7.98	108.13	120.90
75	Cm	127	VAL	CB-CA-C	-7.98	96.23	111.40
85	A5	2536	A	O4'-C1'-N9	7.98	114.59	108.20
36	B2	500	A	P-O3'-C3'	7.98	129.28	119.70
66	Cd	61	ASP	C-N-CA	-7.98	101.75	121.70
85	A5	4626	A	N9-C1'-C2'	7.98	124.37	114.00
63	CB	293	ILE	CA-CB-CG2	7.98	126.86	110.90
85	A5	227	A	O4'-C1'-N9	7.98	114.58	108.20
52	CS	174	THR	CA-C-N	7.97	134.75	117.20
85	A5	4052	C	O4'-C1'-C2'	-7.97	97.83	105.80
85	A5	4462	C	C4'-C3'-O3'	-7.97	92.65	109.40
36	B2	1660	C	P-O3'-C3'	-7.97	110.13	119.70
64	CF	21	LYS	CG-CD-CE	7.97	135.81	111.90
85	A5	2723	U	O4'-C1'-N1	7.97	114.58	108.20
85	A5	4670	C	C3'-C2'-C1'	7.97	107.88	101.50
85	A5	237	G	C3'-C2'-C1'	-7.97	95.12	101.50
85	A5	4885	U	P-O5'-C5'	7.97	133.65	120.90
33	AI	184	ARG	CB-CA-C	-7.97	94.46	110.40
85	A5	692	A	C1'-O4'-C4'	7.97	116.28	109.90
85	A5	2524	U	O4'-C1'-N1	7.97	114.58	108.20
36	B2	1219	C	C3'-C2'-C1'	7.97	107.87	101.50
19	AZ	70	PRO	CA-N-CD	-7.97	100.35	111.50
36	B2	739	C	O4'-C1'-C2'	-7.97	97.83	105.80
36	B2	1714	U	O4'-C1'-N1	7.97	114.57	108.20
85	A5	2054	U	O4'-C1'-C2'	-7.97	97.83	105.80
87	A8	152	U	N1-C1'-C2'	7.97	124.36	114.00
36	B2	535	G	P-O3'-C3'	7.96	129.26	119.70
36	B2	1034	A	O4'-C1'-N9	7.96	114.57	108.20
36	B2	1072	U	O4'-C1'-C2'	-7.96	97.83	105.80
85	A5	2706	G	C3'-C2'-C1'	-7.96	95.13	101.50
85	A5	4530	U	O4'-C1'-N1	7.96	114.57	108.20
85	A5	4932	U	P-O3'-C3'	7.96	129.26	119.70
85	A5	5033	G	N9-C1'-C2'	7.96	124.35	114.00
85	A5	2037	C	O4'-C1'-N1	7.96	114.57	108.20
85	A5	3692	A	C1'-O4'-C4'	7.96	116.27	109.90
85	A5	4507	A	O4'-C1'-N9	7.96	114.57	108.20
36	B2	210	U	O3'-P-O5'	-7.96	88.88	104.00
85	A5	1314	C	O4'-C1'-C2'	-7.96	97.84	105.80
85	A5	2875	C	O4'-C1'-C2'	-7.96	97.84	105.80
85	A5	4113	U	C1'-O4'-C4'	7.96	116.27	109.90
29	AG	131	ARG	C-N-CA	-7.96	101.81	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4107	G	O4'-C1'-N9	7.96	114.57	108.20
36	B2	1658	G	O4'-C1'-C2'	7.95	114.76	107.60
36	B2	1682	C	O4'-C1'-C2'	-7.95	97.85	105.80
85	A5	4305	G	N9-C1'-C2'	7.95	124.34	114.00
36	B2	80	G	O4'-C1'-C2'	-7.95	97.85	105.80
85	A5	3931	C	N1-C1'-C2'	7.95	124.34	114.00
36	B2	41	G	O4'-C1'-N9	-7.95	101.84	108.20
85	A5	339	C	C3'-C2'-C1'	7.95	107.86	101.50
85	A5	1183	C	O4'-C1'-C2'	-7.95	97.85	105.80
85	A5	2879	A	C1'-O4'-C4'	7.95	116.26	109.90
85	A5	3610	A	O4'-C1'-N9	7.95	114.56	108.20
1	Az	267	ASP	CA-C-N	7.95	139.36	117.10
74	CC	104	PRO	CA-N-CD	-7.95	100.37	111.50
85	A5	1653	A	O4'-C1'-N9	7.95	114.56	108.20
36	B2	1792	G	C1'-O4'-C4'	-7.95	103.54	109.90
85	A5	1339	U	N1-C1'-C2'	7.95	124.33	114.00
40	CK	39	PRO	CA-N-CD	-7.95	100.38	111.50
85	A5	152	U	O4'-C1'-N1	7.95	114.56	108.20
85	A5	1883	G	O4'-C1'-N9	7.95	114.56	108.20
85	A5	1167	C	C3'-C2'-C1'	7.94	107.86	101.50
36	B2	439	A	N9-C1'-C2'	-7.94	103.26	112.00
85	A5	496	G	O4'-C1'-N9	7.94	114.55	108.20
85	A5	902	C	O4'-C1'-N1	7.94	114.55	108.20
85	A5	2068	C	O4'-C1'-N1	7.94	114.56	108.20
85	A5	4120	U	C3'-C2'-C1'	7.94	107.85	101.50
87	A8	153	C	C5'-C4'-C3'	7.94	128.71	116.00
85	A5	4594	U	O4'-C1'-N1	7.94	114.55	108.20
85	A5	1389	U	O4'-C1'-N1	7.94	114.55	108.20
1	Az	285	LEU	C-N-CD	-7.94	103.14	120.60
87	A8	11	C	C3'-C2'-C1'	7.94	107.85	101.50
85	A5	976	G	O4'-C4'-C3'	-7.94	96.06	104.00
85	A5	1458	C	O4'-C1'-C2'	-7.94	97.86	105.80
37	BC	17	G	O3'-P-O5'	-7.93	88.92	104.00
85	A5	2250	C	O4'-C1'-C2'	-7.93	97.86	105.80
85	A5	2580	U	N1-C1'-C2'	7.93	124.31	114.00
85	A5	4660	G	C1'-O4'-C4'	-7.93	103.55	109.90
36	B2	1475	G	P-O5'-C5'	7.93	133.59	120.90
85	A5	4693	C	P-O3'-C3'	7.93	129.22	119.70
36	B2	848	U	N1-C1'-C2'	7.93	124.31	114.00
85	A5	2136	G	P-O3'-C3'	7.93	129.22	119.70
36	B2	1121	G	O4'-C1'-N9	7.93	114.54	108.20
85	A5	2794	C	O4'-C1'-C2'	-7.93	97.87	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	3965	A	N9-C1'-C2'	-7.93	103.28	112.00
52	CS	146	HIS	N-CA-CB	7.93	124.87	110.60
85	A5	4884	G	O4'-C1'-N9	7.93	114.54	108.20
36	B2	1489	A	O4'-C1'-N9	7.92	114.54	108.20
85	A5	1652	U	N1-C1'-C2'	7.92	124.30	114.00
85	A5	1988	G	N9-C1'-C2'	7.92	124.30	114.00
85	A5	2339	G	O4'-C1'-N9	7.92	114.54	108.20
85	A5	4596	C	C3'-C2'-C1'	7.92	107.84	101.50
86	A7	99	G	N9-C1'-C2'	7.92	124.30	114.00
85	A5	511	C	O4'-C1'-N1	7.92	114.54	108.20
85	A5	2654	C	C3'-C2'-C1'	7.92	107.84	101.50
85	A5	342	G	C3'-C2'-C1'	-7.92	95.17	101.50
85	A5	2257	C	C5'-C4'-O4'	7.92	118.60	109.10
36	B2	1140	G	O4'-C1'-N9	7.92	114.53	108.20
85	A5	1270	A	P-O5'-C5'	7.92	133.57	120.90
87	A8	7	U	O4'-C1'-N1	7.92	114.53	108.20
36	B2	474	G	N9-C1'-C2'	7.91	124.29	114.00
85	A5	443	G	O4'-C1'-N9	7.91	114.53	108.20
36	B2	660	C	N1-C1'-C2'	7.91	124.29	114.00
85	A5	2063	G	C1'-O4'-C4'	-7.91	103.57	109.90
85	A5	1349	G	C1'-O4'-C4'	-7.91	103.57	109.90
36	B2	199	C	N1-C1'-C2'	7.91	124.28	114.00
81	CE	88	VAL	CA-CB-CG2	-7.91	99.04	110.90
85	A5	1725	U	O4'-C1'-N1	7.91	114.53	108.20
85	A5	3797	C	C3'-C2'-C1'	7.91	107.83	101.50
85	A5	736	C	P-O3'-C3'	7.91	129.19	119.70
61	Ch	37	THR	CA-C-N	-7.90	100.40	116.20
85	A5	1620	U	O4'-C1'-N1	7.90	114.52	108.20
36	B2	445	A	N9-C1'-C2'	7.90	124.27	114.00
36	B2	991	G	O4'-C1'-C2'	7.90	114.71	107.60
85	A5	2822	G	N9-C1'-C2'	-7.90	103.31	112.00
35	Ah	176	GLY	N-CA-C	7.90	132.85	113.10
36	B2	821	G	P-O3'-C3'	7.90	129.18	119.70
85	A5	137	G	N9-C1'-C2'	-7.90	103.31	112.00
85	A5	1655	C	O4'-C1'-N1	7.90	114.52	108.20
86	A7	114	U	O3'-P-O5'	-7.90	88.99	104.00
85	A5	736	C	C3'-C2'-C1'	7.90	107.82	101.50
85	A5	4247	G	O4'-C1'-N9	7.90	114.52	108.20
85	A5	1754	U	C4'-C3'-O3'	-7.89	92.82	109.40
36	B2	1520	G	O3'-P-O5'	7.89	119.00	104.00
85	A5	449	C	O3'-P-O5'	-7.89	89.00	104.00
85	A5	4617	G	O4'-C1'-N9	7.89	114.51	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1746	U	C4'-C3'-O3'	7.89	128.78	113.00
85	A5	2016	C	P-O3'-C3'	7.89	129.17	119.70
85	A5	2471	G	P-O5'-C5'	7.89	133.52	120.90
85	A5	2843	U	O4'-C1'-N1	7.89	114.51	108.20
36	B2	1424	G	O4'-C1'-N9	7.89	114.51	108.20
57	CY	51	LYS	N-CA-C	7.89	132.30	111.00
85	A5	1449	C	O4'-C1'-N1	7.89	114.51	108.20
85	A5	2260	C	O4'-C1'-N1	7.89	114.51	108.20
85	A5	4116	C	O4'-C1'-C2'	-7.89	97.91	105.80
36	B2	1307	U	O4'-C1'-N1	7.89	114.51	108.20
48	CD	170	GLY	C-N-CA	7.89	141.41	121.70
85	A5	1916	G	O4'-C1'-N9	7.89	114.51	108.20
85	A5	4974	C	N1-C1'-C2'	7.89	124.25	114.00
36	B2	117	C	O4'-C1'-N1	7.88	114.51	108.20
87	A8	146	U	O4'-C1'-C2'	-7.88	97.92	105.80
85	A5	374	G	C3'-C2'-C1'	-7.88	95.19	101.50
85	A5	2702	C	O4'-C1'-N1	7.88	114.51	108.20
41	CO	5	GLN	C-N-CA	-7.88	102.00	121.70
19	AZ	104	ARG	N-CA-CB	-7.88	96.42	110.60
36	B2	1620	A	C1'-O4'-C4'	-7.88	103.60	109.90
36	B2	1712	A	O4'-C1'-N9	7.88	114.50	108.20
69	Cg	83	CYS	CA-C-O	-7.88	103.56	120.10
85	A5	2259	G	P-O3'-C3'	7.88	129.15	119.70
85	A5	2763	U	N1-C1'-C2'	7.88	124.24	114.00
85	A5	3589	G	O4'-C1'-N9	7.88	114.50	108.20
85	A5	193	G	O4'-C1'-N9	7.88	114.50	108.20
85	A5	1207	C	O4'-C1'-N1	7.88	114.50	108.20
85	A5	1217	G	N9-C1'-C2'	-7.88	103.34	112.00
85	A5	1234	G	O4'-C1'-N9	7.88	114.50	108.20
36	B2	1115	U	P-O3'-C3'	7.88	129.15	119.70
48	CD	267	ASN	CA-C-N	-7.88	99.88	117.20
85	A5	1599	A	N9-C1'-C2'	7.87	124.24	114.00
85	A5	3812	C	C3'-C2'-C1'	7.87	107.80	101.50
85	A5	5050	C	C1'-O4'-C4'	-7.87	103.60	109.90
85	A5	991	C	O4'-C1'-N1	7.87	114.50	108.20
85	A5	1822	U	O4'-C1'-C2'	7.87	114.68	107.60
36	B2	352	U	C3'-C2'-C1'	7.87	107.80	101.50
36	B2	1097	G	O4'-C1'-N9	7.87	114.49	108.20
60	Cr	66	ARG	CB-CA-C	-7.87	94.66	110.40
85	A5	1418	C	O4'-C1'-N1	7.87	114.50	108.20
36	B2	909	G	C4'-C3'-O3'	7.87	128.73	113.00
61	Ch	77	LYS	O-C-N	7.87	135.29	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	33	G	O4'-C1'-N9	7.87	114.49	108.20
37	BC	6	A	O4'-C1'-N9	7.87	114.49	108.20
74	CC	356	ALA	O-C-N	7.87	135.28	122.70
85	A5	419	A	O4'-C1'-N9	7.87	114.49	108.20
85	A5	4093	G	C3'-C2'-C1'	-7.87	95.21	101.50
85	A5	4298	A	O4'-C1'-C2'	-7.87	97.94	105.80
36	B2	1301	A	C4'-C3'-O3'	7.86	128.73	113.00
68	Cf	6	TRP	CA-C-O	-7.86	103.59	120.10
66	Cd	81	PRO	CA-N-CD	-7.86	100.49	111.50
85	A5	4287	G	O4'-C1'-N9	7.86	114.49	108.20
74	CC	86	ARG	CB-CG-CD	7.86	132.03	111.60
85	A5	1768	C	C3'-C2'-C1'	7.86	107.78	101.50
85	A5	3847	C	O4'-C1'-C2'	-7.86	97.94	105.80
85	A5	4860	G	O4'-C1'-N9	7.86	114.48	108.20
85	A5	1359	G	N9-C1'-C2'	7.85	124.21	114.00
29	AG	161	PRO	CA-N-CD	-7.85	100.51	111.50
36	B2	241	G	O4'-C1'-N9	7.85	114.48	108.20
36	B2	990	A	C3'-C2'-C1'	7.85	107.78	101.50
85	A5	2505	C	P-O3'-C3'	7.85	129.12	119.70
36	B2	164	A	C1'-O4'-C4'	-7.85	103.62	109.90
85	A5	2525	U	O4'-C1'-N1	7.85	114.48	108.20
85	A5	4300	U	O4'-C1'-N1	7.85	114.48	108.20
85	A5	2353	U	O4'-C1'-N1	7.85	114.48	108.20
85	A5	4205	A	O4'-C1'-N9	7.85	114.48	108.20
36	B2	1373	C	C3'-C2'-C1'	7.84	107.78	101.50
41	CO	89	PRO	CA-N-CD	-7.84	100.52	111.50
85	A5	1660	U	O4'-C1'-N1	7.84	114.47	108.20
85	A5	1783	C	C1'-O4'-C4'	-7.84	103.62	109.90
36	B2	378	U	C1'-O4'-C4'	-7.84	103.62	109.90
36	B2	559	G	O4'-C1'-N9	7.84	114.47	108.20
85	A5	2706	G	O4'-C1'-C2'	7.84	114.66	107.60
85	A5	90	G	N9-C1'-C2'	7.84	124.19	114.00
85	A5	3596	A	C3'-C2'-C1'	7.84	107.77	101.50
85	A5	4367	G	C3'-C2'-C1'	7.84	107.77	101.50
81	CE	188	ARG	N-CA-CB	-7.84	96.49	110.60
36	B2	1544	C	C3'-C2'-C1'	7.84	107.77	101.50
85	A5	941	C	O4'-C1'-N1	7.84	114.47	108.20
1	Az	76	SER	O-C-N	7.83	135.24	122.70
36	B2	147	A	C1'-O4'-C4'	7.83	116.17	109.90
36	B2	477	G	O4'-C1'-N9	7.83	114.47	108.20
85	A5	292	G	O4'-C1'-N9	7.83	114.47	108.20
36	B2	1866	A	P-O3'-C3'	7.83	129.10	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1656	U	O4'-C1'-N1	7.83	114.47	108.20
85	A5	2693	G	N9-C1'-C2'	7.83	124.19	114.00
69	Cg	82	MET	CB-CA-C	-7.83	94.74	110.40
85	A5	3965	A	O4'-C1'-N9	-7.83	101.94	108.20
85	A5	4257	A	O4'-C1'-C2'	-7.83	97.97	105.80
4	AK	35	LEU	CA-CB-CG	-7.83	97.29	115.30
31	AH	15	LYS	C-N-CD	-7.83	103.37	120.60
36	B2	876	C	O4'-C1'-C2'	-7.83	97.97	105.80
36	B2	1529	C	N1-C1'-C2'	7.83	124.18	114.00
36	B2	1542	C	C1'-O4'-C4'	-7.83	103.64	109.90
85	A5	640	C	O4'-C1'-N1	7.83	114.46	108.20
85	A5	668	C	N1-C1'-C2'	7.83	124.18	114.00
85	A5	2384	U	O4'-C1'-N1	7.83	114.46	108.20
85	A5	2635	U	O4'-C1'-N1	7.83	114.46	108.20
85	A5	1478	C	C3'-C2'-C1'	7.83	107.76	101.50
85	A5	2253	A	C2'-C3'-O3'	-7.83	92.28	109.50
85	A5	2292	C	C3'-C2'-C1'	7.83	107.76	101.50
81	CE	190	HIS	O-C-N	-7.82	110.18	122.70
85	A5	1196	G	C1'-O4'-C4'	-7.82	103.64	109.90
87	A8	112	G	C1'-O4'-C4'	-7.82	103.64	109.90
36	B2	96	C	N1-C1'-C2'	7.82	124.17	114.00
42	CL	165	LYS	C-N-CA	7.82	141.25	121.70
85	A5	416	U	O3'-P-O5'	7.82	118.86	104.00
85	A5	514	U	P-O3'-C3'	7.82	129.09	119.70
85	A5	1810	G	C1'-O4'-C4'	-7.82	103.64	109.90
85	A5	2668	G	P-O3'-C3'	7.82	129.09	119.70
36	B2	911	C	N1-C1'-C2'	7.82	124.16	114.00
36	B2	921	G	O4'-C1'-N9	7.82	114.45	108.20
85	A5	1722	C	O4'-C1'-C2'	-7.82	97.98	105.80
85	A5	2492	C	O4'-C1'-N1	7.82	114.45	108.20
85	A5	4312	U	O4'-C1'-N1	7.82	114.45	108.20
36	B2	1683	C	N1-C1'-C2'	7.82	124.16	114.00
85	A5	1898	C	O4'-C1'-N1	7.82	114.45	108.20
85	A5	2025	A	O4'-C1'-N9	7.82	114.45	108.20
85	A5	3746	A	O4'-C1'-C2'	-7.82	97.98	105.80
85	A5	4716	C	P-O3'-C3'	7.82	129.08	119.70
81	CE	101	ASN	CB-CA-C	-7.81	94.78	110.40
85	A5	460	C	C3'-C2'-C1'	7.81	107.75	101.50
85	A5	1830	G	O4'-C1'-C2'	7.81	114.63	107.60
85	A5	2032	U	N1-C1'-C2'	7.81	124.16	114.00
85	A5	3799	A	N9-C1'-C2'	7.81	124.16	114.00
56	CX	47	ARG	NE-CZ-NH2	-7.81	116.39	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	502	C	C3'-C2'-C1'	7.81	107.75	101.50
46	CN	146	PRO	CA-N-CD	-7.81	100.57	111.50
85	A5	348	G	O4'-C1'-C2'	-7.81	97.99	105.80
85	A5	2090	U	P-O3'-C3'	7.81	129.07	119.70
85	A5	4109	G	O4'-C1'-N9	7.81	114.45	108.20
36	B2	339	A	C2'-C3'-O3'	7.81	126.68	109.50
85	A5	142	G	N9-C1'-C2'	7.81	124.15	114.00
85	A5	746	A	O4'-C1'-N9	7.81	114.45	108.20
85	A5	1769	G	N9-C1'-C2'	7.81	124.15	114.00
85	A5	2882	A	O4'-C1'-N9	7.81	114.45	108.20
85	A5	1275	G	P-O5'-C5'	7.81	133.39	120.90
85	A5	2592	U	C1'-O4'-C4'	-7.81	103.66	109.90
36	B2	622	C	N1-C1'-C2'	7.80	124.15	114.00
85	A5	1478	C	P-O5'-C5'	7.80	133.38	120.90
85	A5	4411	G	O4'-C1'-C2'	-7.80	98.00	105.80
36	B2	825	A	P-O3'-C3'	-7.80	110.34	119.70
36	B2	326	C	O4'-C1'-C2'	-7.80	98.00	105.80
36	B2	1390	U	O4'-C1'-N1	7.80	114.44	108.20
85	A5	95	G	O4'-C1'-N9	7.80	114.44	108.20
85	A5	514	U	O4'-C1'-N1	7.80	114.44	108.20
85	A5	437	G	O4'-C1'-C2'	7.80	114.62	107.60
85	A5	1577	G	C4'-C3'-O3'	-7.80	93.03	109.40
87	A8	67	U	O4'-C1'-N1	7.80	114.44	108.20
85	A5	2739	C	P-O3'-C3'	-7.79	110.35	119.70
87	A8	92	U	O4'-C1'-N1	7.79	114.44	108.20
37	BC	4	A	C3'-C2'-C1'	7.79	107.73	101.50
54	CP	5	SER	CB-CA-C	-7.79	95.29	110.10
85	A5	2391	G	O4'-C1'-N9	7.79	114.44	108.20
87	A8	88	A	C1'-O4'-C4'	-7.79	103.67	109.90
87	A8	129	C	C3'-C2'-C1'	7.79	107.73	101.50
1	Az	854	PHE	CB-CG-CD2	7.79	126.25	120.80
36	B2	439	A	O4'-C1'-N9	7.79	114.43	108.20
85	A5	2079	G	N9-C1'-C2'	7.79	124.13	114.00
36	B2	964	A	C1'-O4'-C4'	7.79	116.13	109.90
81	CE	38	LYS	CA-C-N	7.79	134.33	117.20
85	A5	1974	U	N1-C1'-C2'	7.79	124.13	114.00
85	A5	4296	U	O4'-C1'-N1	7.79	114.43	108.20
65	Cc	27	TYR	CB-CA-C	-7.79	94.83	110.40
85	A5	4893	A	C3'-C2'-C1'	7.79	107.73	101.50
36	B2	636	C	P-O5'-C5'	7.78	133.35	120.90
85	A5	226	G	C4'-C3'-O3'	-7.78	93.05	109.40
85	A5	2479	G	O4'-C1'-N9	7.78	114.43	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1777	G	C1'-O4'-C4'	-7.78	103.67	109.90
53	CT	144	ASN	N-CA-C	-7.78	89.99	111.00
85	A5	1378	C	P-O3'-C3'	7.78	129.04	119.70
85	A5	1772	C	O4'-C1'-N1	7.78	114.42	108.20
85	A5	2761	U	N1-C1'-C2'	7.78	124.12	114.00
85	A5	4492	U	O4'-C1'-N1	7.78	114.42	108.20
85	A5	284	G	O4'-C1'-N9	7.78	114.42	108.20
85	A5	1824	G	C2'-C3'-O3'	7.78	126.61	109.50
85	A5	1904	G	O4'-C1'-N9	7.78	114.42	108.20
36	B2	1637	A	N9-C1'-C2'	-7.78	103.45	112.00
44	CM	3	PHE	C-N-CA	7.78	141.14	121.70
85	A5	2764	A	C1'-O4'-C4'	7.78	116.12	109.90
6	AX	23	HIS	CA-C-N	7.77	134.30	117.20
52	CS	73	LEU	N-CA-C	-7.77	90.01	111.00
36	B2	908	A	O3'-P-O5'	-7.77	89.23	104.00
37	BC	11	C	C3'-C2'-C1'	7.77	107.72	101.50
87	A8	3	A	P-O3'-C3'	-7.77	110.37	119.70
36	B2	192	C	C4'-C3'-O3'	7.77	128.54	113.00
85	A5	4717	A	O4'-C1'-N9	7.77	114.42	108.20
13	AP	36	LEU	CA-C-N	-7.77	100.11	117.20
36	B2	169	U	P-O3'-C3'	7.77	129.02	119.70
36	B2	305	U	O4'-C1'-N1	7.77	114.42	108.20
58	CW	44	ARG	NE-CZ-NH1	7.77	124.18	120.30
85	A5	1203	G	O4'-C1'-N9	7.77	114.41	108.20
36	B2	3	C	O4'-C1'-C2'	-7.77	98.03	105.80
85	A5	123	C	C3'-C2'-C1'	7.77	107.71	101.50
86	A7	42	A	O4'-C1'-N9	7.77	114.41	108.20
36	B2	1785	C	O4'-C1'-C2'	-7.76	98.04	105.80
85	A5	1437	C	P-O3'-C3'	7.76	129.02	119.70
85	A5	2891	U	O4'-C1'-N1	7.76	114.41	108.20
85	A5	1242	G	O4'-C1'-N9	7.76	114.41	108.20
85	A5	2751	G	O4'-C1'-N9	7.76	114.41	108.20
36	B2	534	G	C4'-C3'-O3'	7.76	128.52	113.00
87	A8	27	U	O4'-C1'-N1	7.76	114.41	108.20
86	A7	24	C	C3'-C2'-C1'	7.76	107.71	101.50
85	A5	125	C	O4'-C1'-C2'	-7.75	98.05	105.80
85	A5	4156	G	C3'-C2'-C1'	-7.75	95.30	101.50
87	A8	152	U	O4'-C1'-N1	7.75	114.40	108.20
36	B2	531	A	O4'-C4'-C3'	-7.75	96.25	104.00
44	CM	42	CYS	CA-CB-SG	-7.75	100.05	114.00
47	CI	205	PRO	CA-C-N	-7.75	100.15	117.20
36	B2	981	A	C3'-C2'-C1'	7.75	107.70	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	490	C	O4'-C1'-N1	7.75	114.40	108.20
85	A5	2262	G	P-O3'-C3'	7.75	129.00	119.70
36	B2	551	U	N1-C1'-C2'	7.75	124.07	114.00
85	A5	971	U	C5'-C4'-C3'	7.75	128.40	116.00
18	AY	51	THR	C-N-CD	-7.75	103.56	120.60
36	B2	352	U	O4'-C1'-C2'	-7.75	98.06	105.80
36	B2	1409	A	C5'-C4'-C3'	7.74	128.39	116.00
85	A5	1680	G	N9-C1'-C2'	7.74	124.06	114.00
85	A5	4141	G	C1'-O4'-C4'	-7.74	103.70	109.90
85	A5	4559	A	C4'-C3'-O3'	-7.74	93.14	109.40
36	B2	1660	C	C5'-C4'-C3'	-7.74	103.61	116.00
39	Cq	24	TYR	N-CA-C	7.74	131.90	111.00
81	CE	92	VAL	O-C-N	7.74	135.09	122.70
85	A5	2075	G	O4'-C1'-N9	7.74	114.39	108.20
33	AI	5	ARG	C-N-CA	7.74	141.04	121.70
36	B2	605	A	O4'-C1'-N9	7.74	114.39	108.20
37	BC	33	C	O4'-C1'-N1	7.74	114.39	108.20
85	A5	4222	G	O4'-C1'-N9	7.74	114.39	108.20
36	B2	604	A	O4'-C1'-C2'	-7.73	98.07	105.80
68	Cf	100	ARG	CD-NE-CZ	-7.73	112.77	123.60
85	A5	4204	C	O4'-C1'-C2'	-7.73	98.07	105.80
87	A8	96	C	P-O5'-C5'	-7.73	108.53	120.90
61	Ch	5	LYS	O-C-N	-7.73	110.34	122.70
74	CC	335	MET	N-CA-CB	7.73	124.51	110.60
85	A5	4314	C	O4'-C1'-N1	7.73	114.38	108.20
85	A5	1401	C	P-O3'-C3'	7.73	128.97	119.70
85	A5	1259	G	C3'-C2'-C1'	-7.72	95.32	101.50
85	A5	2409	U	N1-C1'-C2'	7.72	124.04	114.00
85	A5	4556	U	C3'-C2'-C1'	7.72	107.68	101.50
85	A5	745	G	P-O3'-C3'	7.72	128.97	119.70
85	A5	2082	G	C1'-O4'-C4'	-7.72	103.72	109.90
85	A5	2760	G	O4'-C1'-C2'	-7.72	98.08	105.80
15	AB	37	ALA	C-N-CA	-7.72	102.40	121.70
36	B2	76	U	O4'-C1'-N1	7.72	114.38	108.20
85	A5	1437	C	O4'-C1'-C2'	-7.72	98.08	105.80
85	A5	1646	A	O4'-C1'-N9	7.72	114.38	108.20
85	A5	2301	G	O4'-C1'-C2'	7.72	114.55	107.60
36	B2	1671	G	N9-C1'-C2'	7.72	124.04	114.00
36	B2	1757	G	C1'-O4'-C4'	-7.72	103.72	109.90
85	A5	1186	U	O4'-C1'-C2'	-7.72	98.08	105.80
85	A5	2617	G	O4'-C1'-N9	7.72	114.38	108.20
85	A5	3834	C	N1-C1'-C2'	7.72	124.03	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	82	G	O4'-C1'-N9	7.72	114.37	108.20
36	B2	1503	C	O4'-C1'-N1	7.72	114.37	108.20
85	A5	1478	C	N1-C1'-C2'	7.72	124.03	114.00
85	A5	130	C	C3'-C2'-C1'	7.71	107.67	101.50
86	A7	96	U	O4'-C1'-N1	7.71	114.37	108.20
36	B2	460	A	O4'-C1'-N9	7.71	114.37	108.20
85	A5	2301	G	N9-C1'-C2'	7.71	124.03	114.00
36	B2	40	A	O4'-C1'-N9	7.71	114.37	108.20
36	B2	943	U	O4'-C1'-N1	7.71	114.37	108.20
24	Ae	3	HIS	C-N-CA	7.71	138.49	122.30
86	A7	29	C	O4'-C1'-N1	7.71	114.37	108.20
36	B2	1611	G	O4'-C1'-N9	7.71	114.37	108.20
85	A5	966	A	N9-C1'-C2'	7.71	124.02	114.00
12	AR	89	SER	O-C-N	-7.70	110.37	122.70
36	B2	310	C	O4'-C1'-N1	7.70	114.36	108.20
85	A5	2534	C	O4'-C1'-N1	7.70	114.36	108.20
1	Az	495	ARG	O-C-N	-7.70	110.38	122.70
36	B2	1453	C	N1-C1'-C2'	7.70	124.01	114.00
36	B2	1847	G	N9-C1'-C2'	-7.70	103.53	112.00
48	CD	259	LYS	CA-C-N	-7.70	100.26	117.20
85	A5	368	C	C1'-O4'-C4'	-7.70	103.74	109.90
85	A5	3728	A	N9-C1'-C2'	-7.70	103.53	112.00
75	Cm	106	ARG	N-CA-C	-7.70	90.22	111.00
33	AI	178	ARG	CG-CD-NE	-7.70	95.64	111.80
36	B2	1730	U	O4'-C1'-N1	7.70	114.36	108.20
63	CB	360	LEU	C-N-CA	-7.69	102.47	121.70
85	A5	121	A	N9-C1'-C2'	7.69	124.00	114.00
85	A5	1645	C	C1'-O4'-C4'	-7.69	103.75	109.90
85	A5	1784	U	O4'-C1'-N1	7.69	114.36	108.20
85	A5	4606	G	C1'-O4'-C4'	-7.69	103.75	109.90
28	AC	163	VAL	C-N-CD	-7.69	103.68	120.60
14	AT	42	HIS	CB-CA-C	-7.69	95.02	110.40
85	A5	1942	A	O4'-C1'-N9	7.69	114.35	108.20
85	A5	4447	C	O4'-C1'-N1	7.69	114.35	108.20
36	B2	1701	C	O4'-C1'-C2'	-7.69	98.11	105.80
44	CM	90	ARG	NE-CZ-NH2	-7.69	116.46	120.30
36	B2	225	G	O4'-C1'-C2'	7.68	114.52	107.60
36	B2	655	A	O4'-C1'-N9	7.68	114.35	108.20
56	CX	40	ILE	CG1-CB-CG2	-7.68	94.49	111.40
85	A5	302	C	C3'-C2'-C1'	7.68	107.64	101.50
36	B2	1138	C	O3'-P-O5'	7.68	118.59	104.00
85	A5	1204	C	O4'-C1'-N1	7.68	114.34	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	AJ	166	GLY	C-N-CA	-7.68	106.18	122.30
85	A5	1987	C	N1-C1'-C2'	7.68	123.98	114.00
85	A5	4169	G	N9-C1'-C2'	7.68	123.98	114.00
36	B2	410	G	O4'-C1'-N9	7.67	114.34	108.20
68	Cf	100	ARG	C-N-CA	7.67	140.88	121.70
36	B2	1400	U	O4'-C1'-N1	7.67	114.34	108.20
85	A5	4252	C	O4'-C1'-N1	7.67	114.34	108.20
85	A5	4497	U	O4'-C1'-N1	7.67	114.34	108.20
44	CM	80	ALA	C-N-CA	-7.67	102.53	121.70
85	A5	1686	C	N1-C1'-C2'	7.67	123.97	114.00
85	A5	4712	C	O4'-C1'-C2'	-7.67	98.13	105.80
8	AS	6	PRO	CA-C-N	7.67	134.07	117.20
35	Ah	179	MET	O-C-N	-7.67	110.17	123.20
81	CE	31	ASN	CA-C-N	7.67	134.07	117.20
42	CL	165	LYS	O-C-N	-7.67	110.44	122.70
85	A5	1718	C	P-O3'-C3'	7.67	128.90	119.70
36	B2	1007	C	N1-C1'-C2'	7.66	123.96	114.00
63	CB	15	GLY	O-C-N	-7.66	110.44	122.70
82	CG	183	ILE	O-C-N	-7.66	110.44	122.70
85	A5	4444	C	O4'-C1'-C2'	-7.66	98.14	105.80
36	B2	171	A	N9-C1'-C2'	-7.66	103.58	112.00
85	A5	165	A	C1'-O4'-C4'	-7.66	103.77	109.90
85	A5	733	A	O4'-C1'-C2'	7.66	114.49	107.60
85	A5	1189	G	O4'-C1'-N9	7.66	114.33	108.20
85	A5	2076	G	O4'-C1'-C2'	7.66	114.49	107.60
81	CE	105	ARG	C-N-CA	7.66	140.84	121.70
85	A5	118	C	C4'-C3'-O3'	7.66	128.31	113.00
85	A5	4041	C	O4'-C1'-N1	7.65	114.32	108.20
26	AJ	93	LYS	C-N-CA	7.65	140.83	121.70
87	A8	108	A	C1'-O4'-C4'	7.65	116.02	109.90
50	CR	56	THR	C-N-CA	-7.65	102.58	121.70
85	A5	942	G	O4'-C1'-N9	7.65	114.32	108.20
85	A5	2790	U	C3'-C2'-C1'	7.65	107.62	101.50
11	AL	153	LYS	CA-C-N	7.65	134.03	117.20
85	A5	395	A	C1'-O4'-C4'	-7.65	103.78	109.90
85	A5	2248	C	O4'-C1'-N1	7.65	114.32	108.20
85	A5	2471	G	C4'-C3'-C2'	7.65	110.25	102.60
85	A5	4421	C	C3'-C2'-C1'	7.65	107.62	101.50
27	AE	259	LYS	N-CA-C	7.64	131.64	111.00
85	A5	1637	A	O4'-C1'-N9	7.64	114.31	108.20
35	Ah	169	GLY	C-N-CA	7.64	140.81	121.70
81	CE	88	VAL	CB-CA-C	-7.64	96.88	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4255	A	C1'-O4'-C4'	-7.64	103.79	109.90
85	A5	1222	A	O4'-C1'-C2'	-7.64	98.16	105.80
85	A5	3873	G	C1'-O4'-C4'	-7.64	103.79	109.90
85	A5	2709	C	C3'-C2'-C1'	7.64	107.61	101.50
36	B2	935	G	O4'-C1'-N9	7.64	114.31	108.20
36	B2	1602	U	O3'-P-O5'	-7.64	89.49	104.00
85	A5	4335	C	C3'-C2'-C1'	7.64	107.61	101.50
36	B2	230	A	C1'-O4'-C4'	7.63	116.01	109.90
36	B2	494	C	O4'-C1'-C2'	-7.63	98.17	105.80
36	B2	1777	G	O4'-C1'-C2'	7.63	114.47	107.60
36	B2	1096	G	O4'-C1'-N9	7.63	114.31	108.20
85	A5	1838	A	O4'-C1'-N9	7.63	114.31	108.20
36	B2	2	A	P-O3'-C3'	7.63	128.86	119.70
34	AQ	146	ARG	NE-CZ-NH1	-7.63	116.48	120.30
68	Cf	3	GLY	O-C-N	-7.63	110.50	122.70
85	A5	4446	U	O4'-C1'-N1	7.63	114.30	108.20
85	A5	3881	G	N9-C1'-C2'	-7.63	103.61	112.00
44	CM	19	PRO	CA-N-CD	-7.62	100.83	111.50
85	A5	2113	G	O4'-C1'-N9	7.62	114.30	108.20
81	CE	127	SER	N-CA-CB	-7.62	99.07	110.50
85	A5	1607	C	O4'-C1'-C2'	-7.62	98.18	105.80
85	A5	934	C	C1'-O4'-C4'	7.62	116.00	109.90
2	Ag	274	VAL	C-N-CA	-7.62	102.66	121.70
85	A5	488	G	N9-C1'-C2'	-7.62	103.62	112.00
85	A5	3656	A	P-O3'-C3'	7.62	128.84	119.70
86	A7	93	G	C3'-C2'-C1'	-7.62	95.41	101.50
36	B2	1117	C	C3'-C2'-C1'	-7.62	95.41	101.50
36	B2	1697	A	O4'-C1'-N9	7.62	114.29	108.20
85	A5	1296	G	P-O5'-C5'	7.62	133.09	120.90
85	A5	2046	G	O4'-C1'-N9	7.61	114.29	108.20
85	A5	5064	G	N9-C1'-C2'	7.61	123.90	114.00
36	B2	852	G	C4'-C3'-O3'	-7.61	93.42	109.40
36	B2	788	G	O4'-C1'-N9	7.61	114.29	108.20
36	B2	1865	C	C4'-C3'-O3'	7.61	128.22	113.00
40	CK	30	PRO	CB-CA-C	7.61	131.03	112.00
82	CG	243	GLY	C-N-CA	-7.61	90.04	122.00
85	A5	4652	G	C1'-O4'-C4'	-7.61	103.81	109.90
36	B2	1060	A	N9-C1'-C2'	7.61	123.89	114.00
85	A5	1972	G	P-O5'-C5'	7.61	133.07	120.90
85	A5	2627	C	C4'-C3'-O3'	-7.61	93.42	109.40
29	AG	155	GLN	O-C-N	-7.61	110.53	122.70
85	A5	2351	C	N1-C1'-C2'	7.61	123.89	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1583	A	N9-C1'-C2'	-7.60	103.64	112.00
85	A5	1825	A	C3'-C2'-C1'	7.60	107.58	101.50
36	B2	640	A	N9-C1'-C2'	7.60	123.88	114.00
36	B2	1186	U	O4'-C1'-N1	7.60	114.28	108.20
36	B2	1691	U	O4'-C1'-N1	7.60	114.28	108.20
57	CY	42	TYR	O-C-N	7.60	134.86	122.70
85	A5	219	G	P-O3'-C3'	7.60	128.82	119.70
85	A5	5018	C	C3'-C2'-C1'	7.60	107.58	101.50
87	A8	153	C	C1'-O4'-C4'	-7.60	103.82	109.90
85	A5	1578	U	C5'-C4'-C3'	-7.60	103.85	116.00
85	A5	2116	C	O4'-C1'-C2'	-7.60	98.20	105.80
85	A5	754	U	C1'-O4'-C4'	7.59	115.98	109.90
85	A5	4924	C	O4'-C1'-N1	7.59	114.28	108.20
85	A5	3831	U	O4'-C1'-N1	7.59	114.27	108.20
85	A5	412	G	O4'-C1'-N9	7.59	114.27	108.20
85	A5	449	C	N1-C1'-C2'	7.59	123.87	114.00
87	A8	152	U	C1'-O4'-C4'	-7.59	103.83	109.90
36	B2	536	A	C4'-C3'-O3'	7.59	128.18	113.00
36	B2	699	C	O4'-C1'-C2'	-7.59	98.21	105.80
81	CE	127	SER	CA-C-N	-7.59	100.50	117.20
85	A5	1975	G	O4'-C1'-N9	7.59	114.27	108.20
85	A5	3680	U	N1-C1'-C2'	7.59	123.87	114.00
39	Cq	33	ASP	C-N-CA	7.59	140.67	121.70
36	B2	456	C	C3'-C2'-C1'	7.58	107.57	101.50
49	CQ	184	ARG	NE-CZ-NH2	-7.58	116.51	120.30
37	BC	17	G	C5'-C4'-O4'	7.58	118.20	109.10
85	A5	4057	C	N1-C1'-C2'	7.58	123.86	114.00
85	A5	4376	A	P-O3'-C3'	7.58	128.80	119.70
36	B2	1267	C	N1-C1'-C2'	7.58	123.86	114.00
85	A5	950	G	O4'-C1'-N9	7.58	114.27	108.20
85	A5	2461	G	C3'-C2'-C1'	7.58	107.57	101.50
31	AH	106	ARG	NE-CZ-NH1	-7.58	116.51	120.30
36	B2	1695	A	O4'-C1'-C2'	-7.58	98.22	105.80
85	A5	2076	G	C3'-C2'-C1'	-7.58	95.44	101.50
33	AI	55	TYR	CA-CB-CG	-7.58	99.00	113.40
36	B2	1522	A	C5'-C4'-O4'	7.58	118.19	109.10
85	A5	2060	G	C1'-O4'-C4'	-7.58	103.84	109.90
85	A5	4050	A	O4'-C1'-N9	-7.58	102.14	108.20
85	A5	4672	A	C1'-O4'-C4'	-7.58	103.84	109.90
36	B2	669	A	O4'-C1'-N9	7.57	114.26	108.20
85	A5	1197	C	O4'-C1'-N1	7.57	114.26	108.20
85	A5	2851	G	C1'-O4'-C4'	-7.57	103.84	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	3847	C	O4'-C1'-N1	7.57	114.26	108.20
85	A5	2484	A	O4'-C1'-N9	7.57	114.26	108.20
87	A8	126	C	P-O3'-C3'	7.57	128.79	119.70
81	CE	32	LEU	CA-CB-CG	7.57	132.71	115.30
85	A5	510	U	O4'-C1'-N1	7.57	114.26	108.20
85	A5	4133	C	O4'-C1'-N1	7.57	114.25	108.20
36	B2	869	A	O4'-C1'-N9	7.57	114.25	108.20
85	A5	910	G	C1'-O4'-C4'	-7.57	103.84	109.90
85	A5	4329	G	C1'-O4'-C4'	7.57	115.95	109.90
61	Ch	78	TYR	O-C-N	-7.57	110.60	122.70
85	A5	1171	G	O4'-C1'-N9	7.57	114.25	108.20
36	B2	1274	G	C3'-C2'-C1'	7.56	107.55	101.50
85	A5	947	C	O4'-C1'-N1	7.56	114.25	108.20
47	CI	194	GLY	N-CA-C	7.56	132.00	113.10
36	B2	1047	C	C3'-C2'-C1'	7.56	107.55	101.50
48	CD	57	ASN	CB-CA-C	7.56	125.52	110.40
85	A5	2334	C	O4'-C1'-N1	7.56	114.25	108.20
85	A5	2563	C	C3'-C2'-C1'	7.56	107.55	101.50
85	A5	2632	U	N1-C1'-C2'	7.56	123.83	114.00
52	CS	73	LEU	C-N-CA	7.56	140.59	121.70
85	A5	3680	U	O4'-C1'-N1	7.56	114.25	108.20
85	A5	3782	C	N1-C1'-C2'	7.56	123.82	114.00
87	A8	19	C	P-O3'-C3'	-7.56	110.63	119.70
36	B2	395	G	O4'-C1'-C2'	7.56	114.40	107.60
23	AD	94	ARG	CB-CA-C	-7.55	95.29	110.40
36	B2	1262	C	C1'-O4'-C4'	-7.55	103.86	109.90
82	CG	129	PRO	CA-N-CD	-7.55	100.93	111.50
85	A5	518	G	O4'-C1'-N9	7.55	114.24	108.20
85	A5	4290	U	O4'-C1'-C2'	-7.55	98.25	105.80
36	B2	1273	C	P-O3'-C3'	-7.55	110.64	119.70
36	B2	1596	U	O4'-C1'-N1	7.55	114.24	108.20
85	A5	2683	C	C3'-C2'-C1'	7.55	107.54	101.50
85	A5	91	G	P-O3'-C3'	7.55	128.76	119.70
85	A5	234	G	N9-C1'-C2'	-7.55	103.69	112.00
85	A5	1208	G	O4'-C1'-N9	7.55	114.24	108.20
1	Az	104	ASP	CB-CA-C	7.55	125.50	110.40
40	CK	130	LYS	CA-CB-CG	7.55	130.01	113.40
85	A5	4086	G	O4'-C1'-C2'	-7.55	98.25	105.80
7	AM	10	GLY	N-CA-C	7.55	131.97	113.10
37	BC	7	G	O4'-C1'-C2'	-7.55	98.25	105.80
60	Cr	37	SER	CA-C-N	7.55	133.80	117.20
85	A5	293	G	C2'-C3'-O3'	7.55	126.10	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	Cg	81	SER	O-C-N	-7.54	110.63	122.70
85	A5	921	C	O4'-C1'-N1	7.54	114.23	108.20
85	A5	1280	C	O4'-C1'-C2'	-7.54	98.26	105.80
85	A5	2129	C	O4'-C1'-N1	7.54	114.23	108.20
13	AP	52	LYS	C-N-CA	-7.54	102.85	121.70
85	A5	4493	U	O4'-C1'-C2'	-7.54	98.26	105.80
87	A8	129	C	P-O5'-C5'	7.54	132.96	120.90
36	B2	737	G	O4'-C1'-N9	7.54	114.23	108.20
40	CK	104	ILE	CA-CB-CG2	-7.54	95.82	110.90
85	A5	1578	U	C4'-C3'-O3'	-7.54	93.57	109.40
85	A5	3798	U	O4'-C1'-N1	7.54	114.23	108.20
85	A5	3897	G	O4'-C1'-C2'	7.54	114.38	107.60
36	B2	78	C	N1-C1'-C2'	-7.54	103.71	112.00
85	A5	4980	C	O3'-P-O5'	-7.54	89.68	104.00
30	AF	36	GLN	N-CA-C	-7.54	90.65	111.00
36	B2	795	A	O4'-C1'-N9	7.54	114.23	108.20
36	B2	1605	G	C1'-O4'-C4'	-7.54	103.87	109.90
85	A5	4396	A	O4'-C1'-N9	7.54	114.23	108.20
36	B2	1492	U	O4'-C1'-N1	7.53	114.23	108.20
85	A5	4134	C	C1'-O4'-C4'	-7.53	103.87	109.90
85	A5	4627	U	N1-C1'-C2'	7.53	123.79	114.00
36	B2	649	U	N1-C1'-C2'	7.53	123.79	114.00
81	CE	239	LYS	CA-CB-CG	7.53	129.97	113.40
36	B2	1635	C	O4'-C1'-N1	7.53	114.22	108.20
36	B2	1834	A	O4'-C1'-N9	7.53	114.22	108.20
41	CO	186	GLU	N-CA-CB	7.53	124.15	110.60
85	A5	2597	G	P-O3'-C3'	7.53	128.73	119.70
86	A7	106	G	C1'-O4'-C4'	-7.53	103.88	109.90
36	B2	829	C	O4'-C1'-C2'	-7.53	98.28	105.80
36	B2	1752	C	N1-C1'-C2'	7.53	123.78	114.00
85	A5	992	C	O4'-C1'-N1	7.52	114.22	108.20
85	A5	4384	U	O4'-C1'-N1	7.52	114.22	108.20
85	A5	994	G	O4'-C1'-N9	7.52	114.22	108.20
85	A5	2733	C	N1-C1'-C2'	7.52	123.78	114.00
85	A5	3653	A	O4'-C1'-N9	7.52	114.22	108.20
85	A5	4143	G	O4'-C1'-N9	7.52	114.22	108.20
85	A5	4748	U	O4'-C1'-C2'	-7.52	98.28	105.80
85	A5	513	U	P-O3'-C3'	7.52	128.72	119.70
85	A5	4539	U	C3'-C2'-C1'	7.52	107.52	101.50
87	A8	151	G	O4'-C1'-N9	7.52	114.22	108.20
85	A5	955	G	C4'-C3'-C2'	-7.52	95.08	102.60
85	A5	1371	A	N9-C1'-C2'	-7.52	103.73	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4271	A	C1'-O4'-C4'	-7.52	103.89	109.90
85	A5	4534	G	O4'-C1'-N9	7.52	114.21	108.20
85	A5	4982	A	C1'-O4'-C4'	7.52	115.91	109.90
36	B2	616	A	N9-C1'-C2'	7.52	123.77	114.00
63	CB	297	LYS	CA-C-N	7.52	133.74	117.20
81	CE	113	PRO	C-N-CA	7.51	140.49	121.70
85	A5	328	A	C1'-O4'-C4'	-7.51	103.89	109.90
85	A5	1450	C	O4'-C1'-N1	7.51	114.21	108.20
85	A5	1695	U	O4'-C1'-N1	7.51	114.21	108.20
85	A5	3880	G	C1'-O4'-C4'	-7.51	103.89	109.90
85	A5	4355	G	O4'-C1'-C2'	-7.51	98.29	105.80
87	A8	94	G	O3'-P-O5'	7.51	118.27	104.00
36	B2	35	C	C3'-C2'-C1'	7.51	107.51	101.50
36	B2	1047	C	O4'-C1'-C2'	-7.51	98.29	105.80
85	A5	694	C	P-O5'-C5'	7.51	132.91	120.90
36	B2	1452	A	C3'-C2'-C1'	7.51	107.50	101.50
36	B2	1535	U	O3'-P-O5'	-7.51	89.74	104.00
85	A5	5067	U	C5'-C4'-O4'	-7.50	100.09	109.10
87	A8	57	C	O4'-C1'-N1	7.50	114.20	108.20
36	B2	305	U	P-O5'-C5'	7.50	132.90	120.90
36	B2	799	U	P-O3'-C3'	7.50	128.71	119.70
36	B2	1417	C	C1'-O4'-C4'	7.50	115.90	109.90
36	B2	81	U	N1-C1'-C2'	7.50	123.75	114.00
36	B2	1059	G	P-O3'-C3'	7.50	128.70	119.70
85	A5	434	A	P-O3'-C3'	7.50	128.70	119.70
85	A5	698	G	O4'-C1'-N9	7.50	114.20	108.20
87	A8	153	C	N1-C1'-C2'	7.50	123.75	114.00
36	B2	532	C	O4'-C1'-N1	7.50	114.20	108.20
36	B2	446	G	C3'-C2'-C1'	7.50	107.50	101.50
86	A7	63	C	C3'-C2'-C1'	7.50	107.50	101.50
85	A5	673	C	N1-C1'-C2'	7.50	123.75	114.00
36	B2	1293	A	C3'-C2'-C1'	7.49	107.49	101.50
85	A5	4880	C	P-O3'-C3'	-7.49	110.71	119.70
85	A5	3741	C	O4'-C1'-N1	7.49	114.19	108.20
85	A5	3794	C	O4'-C1'-N1	7.49	114.19	108.20
85	A5	4549	G	O4'-C1'-N9	7.49	114.19	108.20
85	A5	1761	G	O4'-C1'-N9	7.49	114.19	108.20
85	A5	4961	G	O4'-C1'-N9	7.49	114.19	108.20
35	Ah	294	LYS	CA-C-N	7.49	133.68	117.20
74	CC	4	ALA	C-N-CA	-7.49	102.98	121.70
85	A5	1268	G	C4'-C3'-C2'	7.49	110.09	102.60
85	A5	1900	C	C1'-O4'-C4'	-7.49	103.91	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4992	G	N9-C1'-C2'	7.49	123.73	114.00
40	CK	99	LYS	CA-CB-CG	7.49	129.87	113.40
52	CS	174	THR	C-N-CA	7.49	140.42	121.70
85	A5	1278	C	O4'-C1'-C2'	-7.49	98.31	105.80
86	A7	75	G	P-O3'-C3'	7.49	128.69	119.70
85	A5	968	C	O4'-C1'-N1	7.49	114.19	108.20
85	A5	1082	C	O4'-C1'-N1	7.49	114.19	108.20
85	A5	1358	G	O4'-C1'-N9	7.49	114.19	108.20
36	B2	1508	A	C1'-O4'-C4'	7.48	115.89	109.90
85	A5	4719	G	O4'-C1'-N9	7.48	114.19	108.20
85	A5	4761	G	O4'-C1'-N9	7.48	114.19	108.20
81	CE	219	LYS	CA-CB-CG	7.48	129.86	113.40
85	A5	2790	U	N1-C1'-C2'	7.48	123.72	114.00
36	B2	1463	U	P-O5'-C5'	7.48	132.87	120.90
85	A5	472	C	C3'-C2'-C1'	7.48	107.48	101.50
85	A5	2054	U	O4'-C1'-N1	7.48	114.18	108.20
36	B2	1410	C	C3'-C2'-C1'	7.48	107.48	101.50
36	B2	1637	A	C1'-O4'-C4'	7.48	115.88	109.90
39	Cq	80	PRO	C-N-CA	-7.48	103.00	121.70
85	A5	2086	G	C3'-C2'-C1'	-7.48	95.52	101.50
85	A5	4438	U	O4'-C1'-C2'	-7.48	98.32	105.80
39	Cq	33	ASP	CA-C-O	-7.48	104.40	120.10
60	Cr	73	PRO	CA-N-CD	-7.47	101.04	111.50
85	A5	2121	C	P-O3'-C3'	-7.47	110.73	119.70
85	A5	4858	C	P-O3'-C3'	7.47	128.67	119.70
26	AJ	17	ARG	CB-CA-C	-7.47	95.46	110.40
36	B2	1509	U	C4'-C3'-O3'	-7.47	93.71	109.40
57	CY	82	ILE	CA-C-N	-7.47	100.76	117.20
85	A5	940	C	C3'-C2'-C1'	7.47	107.48	101.50
85	A5	1208	G	C1'-O4'-C4'	-7.47	103.92	109.90
36	B2	1725	U	O4'-C1'-N1	7.47	114.18	108.20
85	A5	1419	G	N9-C1'-C2'	7.47	123.71	114.00
36	B2	170	A	O4'-C1'-N9	7.47	114.17	108.20
37	BC	69	G	C1'-O4'-C4'	-7.47	103.92	109.90
85	A5	2550	G	O4'-C1'-C2'	7.47	114.32	107.60
85	A5	4387	C	N1-C1'-C2'	7.47	123.71	114.00
85	A5	2308	A	O4'-C1'-N9	7.46	114.17	108.20
85	A5	4121	G	O4'-C1'-N9	7.46	114.17	108.20
36	B2	841	G	P-O5'-C5'	7.46	132.84	120.90
85	A5	2565	A	C1'-O4'-C4'	7.46	115.87	109.90
40	CK	137	GLN	N-CA-C	7.46	131.14	111.00
81	CE	126	LEU	N-CA-C	-7.46	90.86	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1606	U	O4'-C1'-N1	7.46	114.17	108.20
85	A5	4053	A	N9-C1'-C2'	7.46	123.70	114.00
85	A5	4322	G	O4'-C1'-N9	7.46	114.17	108.20
26	AJ	161	LEU	C-N-CA	-7.46	103.05	121.70
85	A5	2102	G	C5'-C4'-C3'	7.46	127.94	116.00
85	A5	21	G	C1'-O4'-C4'	7.46	115.87	109.90
85	A5	671	G	C3'-C2'-C1'	-7.46	95.53	101.50
85	A5	1788	A	C1'-O4'-C4'	7.46	115.87	109.90
1	Az	123	ASP	CA-C-N	7.46	131.11	116.20
85	A5	1676	C	C3'-C2'-C1'	7.46	107.47	101.50
85	A5	2086	G	C1'-O4'-C4'	-7.46	103.93	109.90
36	B2	638	C	O4'-C1'-N1	7.46	114.16	108.20
36	B2	1032	C	N1-C1'-C2'	7.45	123.69	114.00
58	CW	75	ALA	N-CA-C	7.45	131.12	111.00
85	A5	1919	G	P-O3'-C3'	7.45	128.64	119.70
85	A5	2123	C	C4'-C3'-C2'	-7.45	95.15	102.60
85	A5	4145	C	C3'-C2'-C1'	7.45	107.46	101.50
36	B2	802	A	C1'-O4'-C4'	-7.45	103.94	109.90
85	A5	2394	G	O4'-C1'-C2'	-7.45	98.35	105.80
85	A5	1237	C	P-O5'-C5'	7.45	132.82	120.90
36	B2	34	U	C1'-O4'-C4'	-7.45	103.94	109.90
36	B2	27	A	O4'-C1'-N9	7.45	114.16	108.20
36	B2	989	C	O4'-C1'-C2'	-7.45	98.36	105.80
36	B2	1095	C	N1-C1'-C2'	7.45	123.68	114.00
61	Ch	121	VAL	C-N-CA	7.45	140.31	121.70
36	B2	802	A	O4'-C1'-N9	7.44	114.16	108.20
85	A5	2262	G	O4'-C1'-N9	7.44	114.16	108.20
86	A7	66	G	P-O3'-C3'	7.44	128.63	119.70
31	AH	109	ARG	CA-CB-CG	-7.44	97.03	113.40
36	B2	213	G	N9-C1'-C2'	-7.44	103.81	112.00
36	B2	604	A	C3'-C2'-C1'	7.44	107.45	101.50
36	B2	812	A	O4'-C1'-N9	7.44	114.15	108.20
36	B2	845	G	P-O3'-C3'	-7.44	110.77	119.70
36	B2	906	U	O4'-C1'-N1	7.44	114.15	108.20
36	B2	984	C	N1-C1'-C2'	7.44	123.68	114.00
36	B2	1451	G	C3'-C2'-C1'	7.44	107.45	101.50
36	B2	1782	G	C5'-C4'-C3'	7.44	127.91	116.00
85	A5	2660	A	N9-C1'-C2'	7.44	123.67	114.00
85	A5	2565	A	O4'-C1'-C2'	-7.44	98.36	105.80
85	A5	5001	U	O4'-C1'-N1	7.44	114.15	108.20
42	CL	130	LYS	C-N-CD	-7.44	104.24	120.60
85	A5	1745	G	O4'-C1'-N9	7.44	114.15	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4214	A	O4'-C1'-N9	7.44	114.15	108.20
66	Cd	105	LEU	C-N-CA	-7.44	103.11	121.70
85	A5	297	U	O4'-C1'-N1	7.44	114.15	108.20
85	A5	1073	G	O4'-C1'-N9	7.44	114.15	108.20
36	B2	168	C	C3'-C2'-C1'	7.43	107.45	101.50
81	CE	32	LEU	CB-CA-C	7.43	124.32	110.20
85	A5	4540	C	C3'-C2'-C1'	7.43	107.45	101.50
35	Ah	157	ILE	CA-C-N	-7.43	100.85	117.20
45	Ca	147	VAL	CA-C-N	7.43	133.55	117.20
85	A5	4241	C	N1-C1'-C2'	7.43	123.66	114.00
52	CS	13	VAL	CA-CB-CG2	7.43	122.05	110.90
53	CT	140	PHE	CB-CG-CD2	-7.43	115.60	120.80
36	B2	1408	U	C1'-O4'-C4'	-7.43	103.96	109.90
85	A5	2744	A	O4'-C1'-N9	7.43	114.14	108.20
36	B2	980	A	C1'-O4'-C4'	-7.43	103.96	109.90
85	A5	507	G	O4'-C1'-N9	7.43	114.14	108.20
85	A5	1678	C	O4'-C1'-C2'	-7.43	98.37	105.80
85	A5	4587	G	O4'-C1'-N9	7.43	114.14	108.20
86	A7	102	U	C1'-O4'-C4'	-7.43	103.96	109.90
8	AS	9	PHE	N-CA-C	7.42	131.04	111.00
85	A5	2608	G	O4'-C1'-N9	7.42	114.14	108.20
85	A5	2463	G	C1'-O4'-C4'	-7.42	103.96	109.90
47	CI	210	ARG	CB-CA-C	-7.42	95.56	110.40
85	A5	4463	U	C1'-C2'-O2'	-7.42	88.33	110.60
30	AF	131	ALA	C-N-CA	-7.42	106.72	122.30
85	A5	948	C	N1-C1'-C2'	7.42	123.65	114.00
85	A5	4170	A	O4'-C1'-C2'	-7.42	98.38	105.80
3	AU	104	ILE	N-CA-CB	7.42	127.86	110.80
85	A5	11	G	N9-C1'-C2'	7.42	123.64	114.00
85	A5	1406	G	O4'-C1'-N9	7.42	114.14	108.20
85	A5	1899	G	N9-C1'-C2'	7.42	123.64	114.00
85	A5	1922	G	O4'-C1'-N9	7.42	114.14	108.20
33	AI	133	GLU	O-C-N	-7.42	110.83	122.70
36	B2	557	U	O4'-C1'-C2'	-7.42	98.38	105.80
81	CE	37	PRO	C-N-CA	7.42	140.24	121.70
85	A5	1174	G	C3'-C2'-C1'	-7.42	95.57	101.50
87	A8	69	U	N1-C1'-C2'	7.42	123.64	114.00
25	Af	148	TYR	CA-CB-CG	-7.41	99.31	113.40
36	B2	1072	U	P-O3'-C3'	7.41	128.59	119.70
85	A5	1575	A	N9-C1'-C2'	7.41	123.64	114.00
85	A5	2589	C	C3'-C2'-C1'	7.41	107.43	101.50
85	A5	3623	C	C3'-C2'-C1'	7.41	107.43	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
87	A8	51	U	O4'-C1'-C2'	7.41	114.27	107.60
36	B2	1359	U	C1'-O4'-C4'	7.41	115.83	109.90
43	CV	46	LYS	N-CA-C	7.41	131.01	111.00
36	B2	1669	G	O4'-C1'-N9	7.41	114.13	108.20
36	B2	1672	U	O4'-C1'-N1	7.41	114.13	108.20
85	A5	228	C	N1-C1'-C2'	-7.41	103.85	112.00
85	A5	1557	C	O4'-C1'-N1	7.41	114.13	108.20
85	A5	1943	A	O4'-C1'-N9	7.41	114.13	108.20
85	A5	4213	A	N9-C1'-C2'	7.41	123.63	114.00
36	B2	539	C	O4'-C1'-N1	7.41	114.12	108.20
60	Cr	40	TYR	C-N-CA	7.41	140.22	121.70
62	Cb	65	MET	CG-SD-CE	7.41	112.05	100.20
82	CG	138	ALA	N-CA-C	7.41	130.99	111.00
85	A5	2531	C	C3'-C2'-C1'	7.41	107.42	101.50
36	B2	35	C	O4'-C1'-C2'	-7.40	98.40	105.80
39	Cq	44	ARG	NE-CZ-NH1	7.40	124.00	120.30
85	A5	335	A	C3'-C2'-C1'	7.40	107.42	101.50
85	A5	1455	G	O4'-C1'-C2'	-7.40	98.40	105.80
85	A5	4619	U	N1-C1'-C2'	7.40	123.62	114.00
36	B2	1564	C	N1-C1'-C2'	7.40	123.62	114.00
36	B2	1722	G	P-O5'-C5'	7.40	132.74	120.90
85	A5	4999	G	O4'-C1'-N9	7.40	114.12	108.20
36	B2	798	G	P-O5'-C5'	7.40	132.74	120.90
36	B2	963	A	O4'-C1'-C2'	7.40	114.26	107.60
36	B2	1824	A	P-O3'-C3'	7.40	128.58	119.70
54	CP	109	VAL	N-CA-C	7.40	130.98	111.00
85	A5	485	C	O4'-C1'-C2'	-7.40	98.40	105.80
85	A5	1251	C	O4'-C1'-N1	7.40	114.12	108.20
85	A5	4048	A	C1'-O4'-C4'	7.40	115.82	109.90
36	B2	1131	G	O4'-C1'-N9	7.40	114.12	108.20
38	Cz	210	MET	CA-CB-CG	-7.40	100.72	113.30
87	A8	26	C	N1-C1'-C2'	7.40	123.62	114.00
36	B2	188	C	O4'-C1'-C2'	-7.40	98.40	105.80
86	A7	91	C	N1-C1'-C2'	7.40	123.62	114.00
36	B2	76	U	P-O5'-C5'	7.40	132.73	120.90
6	AX	115	ILE	N-CA-C	-7.39	91.04	111.00
36	B2	221	A	O4'-C1'-N9	7.39	114.11	108.20
36	B2	666	U	O4'-C1'-C2'	-7.39	98.41	105.80
85	A5	621	G	P-O3'-C3'	7.39	128.57	119.70
85	A5	1611	C	O4'-C1'-C2'	-7.39	98.41	105.80
85	A5	4262	C	O4'-C1'-N1	7.39	114.11	108.20
12	AR	1	MET	CB-CA-C	7.39	125.18	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	189	U	O4'-C1'-N1	7.39	114.11	108.20
58	CW	23	ARG	N-CA-C	-7.39	91.05	111.00
85	A5	1550	G	O4'-C1'-N9	7.39	114.11	108.20
85	A5	4315	A	O4'-C1'-C2'	-7.39	98.41	105.80
85	A5	183	C	O4'-C1'-C2'	-7.39	98.41	105.80
85	A5	1343	A	C4'-C3'-C2'	-7.39	95.21	102.60
85	A5	2937	G	C4'-C3'-O3'	7.39	127.77	113.00
85	A5	3745	U	N1-C1'-C2'	7.39	123.60	114.00
85	A5	4201	G	C1'-O4'-C4'	-7.39	103.99	109.90
12	AR	1	MET	O-C-N	7.38	135.75	123.20
36	B2	1779	G	C3'-C2'-C1'	-7.38	95.59	101.50
55	CU	57	GLY	O-C-N	7.38	135.75	123.20
85	A5	696	C	C3'-C2'-C1'	7.38	107.41	101.50
85	A5	4996	C	N1-C1'-C2'	7.38	123.60	114.00
36	B2	1508	A	O4'-C1'-N9	7.38	114.10	108.20
54	CP	5	SER	CA-C-O	-7.38	104.61	120.10
85	A5	1792	U	O4'-C1'-N1	7.38	114.10	108.20
36	B2	1779	G	N9-C1'-C2'	-7.38	103.89	112.00
85	A5	1756	U	C4'-C3'-O3'	-7.38	93.91	109.40
85	A5	2124	G	C5'-C4'-C3'	-7.38	104.20	116.00
36	B2	1851	A	P-O3'-C3'	7.38	128.55	119.70
85	A5	1212	G	O4'-C1'-N9	7.38	114.10	108.20
85	A5	1863	U	O4'-C1'-N1	7.38	114.10	108.20
85	A5	4660	G	N9-C1'-C2'	7.38	123.59	114.00
86	A7	36	C	N1-C1'-C2'	7.38	123.59	114.00
36	B2	544	G	O4'-C1'-N9	7.37	114.10	108.20
85	A5	1647	U	N1-C1'-C2'	7.37	123.59	114.00
85	A5	4306	U	O4'-C1'-N1	7.37	114.10	108.20
85	A5	4934	A	O4'-C1'-C2'	-7.37	98.43	105.80
85	A5	2442	G	O4'-C1'-N9	7.37	114.10	108.20
36	B2	1680	G	O4'-C1'-N9	7.37	114.10	108.20
85	A5	644	G	C3'-C2'-C1'	-7.37	95.60	101.50
85	A5	136	C	O5'-C5'-C4'	7.37	125.70	111.70
85	A5	654	C	C3'-C2'-C1'	7.37	107.39	101.50
85	A5	1374	G	O4'-C1'-C2'	7.37	114.23	107.60
85	A5	2753	G	C3'-C2'-C1'	7.37	107.39	101.50
12	AR	3	ARG	NE-CZ-NH2	7.37	123.98	120.30
36	B2	524	U	O4'-C1'-N1	7.37	114.09	108.20
85	A5	315	G	C5'-C4'-O4'	7.36	117.94	109.10
85	A5	4870	G	C1'-O4'-C4'	-7.36	104.01	109.90
49	CQ	1	MET	CB-CA-C	7.36	125.12	110.40
85	A5	167	C	N1-C1'-C2'	7.36	123.57	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1676	C	P-O3'-C3'	7.36	128.53	119.70
36	B2	14	C	O4'-C1'-N1	7.36	114.09	108.20
36	B2	897	U	O3'-P-O5'	-7.36	90.02	104.00
85	A5	115	C	P-O3'-C3'	7.36	128.53	119.70
26	AJ	144	ILE	CA-CB-CG1	-7.36	97.02	111.00
36	B2	1595	U	N1-C1'-C2'	-7.36	103.91	112.00
85	A5	519	C	O4'-C1'-C2'	-7.36	98.44	105.80
85	A5	1847	C	N1-C1'-C2'	7.36	123.56	114.00
85	A5	2702	C	O4'-C1'-C2'	-7.36	98.44	105.80
36	B2	1241	A	P-O3'-C3'	7.35	128.53	119.70
27	AE	75	LYS	N-CA-C	7.35	130.85	111.00
85	A5	1265	G	C4'-C3'-C2'	-7.35	95.25	102.60
85	A5	3945	A	O4'-C1'-C2'	-7.35	98.45	105.80
87	A8	94	G	N9-C1'-C2'	-7.35	103.91	112.00
36	B2	831	G	C3'-C2'-C1'	-7.35	95.62	101.50
44	CM	46	ARG	N-CA-CB	7.35	123.83	110.60
85	A5	1912	G	N9-C1'-C2'	7.35	123.56	114.00
85	A5	4250	G	O4'-C1'-C2'	-7.35	98.45	105.80
2	Ag	50	THR	C-N-CA	-7.35	103.33	121.70
26	AJ	180	LYS	CB-CA-C	-7.35	95.71	110.40
32	AW	100	GLY	N-CA-C	-7.35	94.73	113.10
36	B2	1414	A	O4'-C1'-N9	7.35	114.08	108.20
85	A5	4102	C	O4'-C1'-N1	7.35	114.08	108.20
60	Cr	40	TYR	N-CA-CB	7.35	123.82	110.60
85	A5	1640	C	N1-C1'-C2'	-7.35	103.92	112.00
74	CC	30	ALA	C-N-CD	-7.34	104.45	120.60
36	B2	233	C	O4'-C1'-N1	7.34	114.07	108.20
36	B2	430	C	O4'-C1'-N1	7.34	114.07	108.20
85	A5	1961	G	N9-C1'-C2'	-7.34	103.93	112.00
85	A5	3625	G	C3'-C2'-C1'	7.34	107.37	101.50
21	Ab	9	HIS	C-N-CD	-7.34	104.46	120.60
36	B2	60	A	O4'-C1'-C2'	7.34	114.20	107.60
82	CG	103	ARG	C-N-CA	7.34	152.82	122.00
85	A5	4884	G	P-O5'-C5'	7.34	132.64	120.90
33	AI	3	ILE	N-CA-C	7.34	130.81	111.00
36	B2	931	C	O4'-C1'-C2'	-7.34	98.46	105.80
36	B2	1437	C	C1'-O4'-C4'	-7.34	104.03	109.90
36	B2	1511	U	C4'-C3'-C2'	-7.34	95.26	102.60
56	CX	57	GLN	C-N-CD	-7.34	104.46	120.60
85	A5	2882	A	O4'-C1'-C2'	-7.33	98.47	105.80
85	A5	2496	G	O4'-C1'-C2'	7.33	114.20	107.60
85	A5	2519	U	O4'-C1'-C2'	-7.33	98.47	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	3628	G	C3'-C2'-C1'	-7.33	95.63	101.50
85	A5	3961	G	O4'-C1'-N9	-7.33	102.33	108.20
36	B2	1190	A	O4'-C1'-C2'	-7.33	98.47	105.80
60	Cr	40	TYR	CB-CG-CD1	-7.33	116.60	121.00
36	B2	1198	G	C3'-C2'-C1'	-7.33	95.64	101.50
86	A7	60	G	O4'-C1'-N9	7.33	114.06	108.20
36	B2	1455	A	O4'-C1'-C2'	-7.33	98.47	105.80
70	Ci	23	LYS	C-N-CD	-7.33	104.48	120.60
85	A5	371	A	O4'-C1'-N9	-7.33	102.34	108.20
85	A5	434	A	O4'-C1'-N9	7.33	114.06	108.20
85	A5	1604	G	C3'-C2'-C1'	-7.33	95.64	101.50
85	A5	4417	C	C3'-C2'-C1'	7.33	107.36	101.50
86	A7	49	A	C5'-C4'-C3'	7.33	127.72	116.00
85	A5	982	U	N1-C1'-C2'	-7.33	103.94	112.00
6	AX	23	HIS	C-N-CA	7.33	140.01	121.70
36	B2	584	A	P-O5'-C5'	7.33	132.62	120.90
40	CK	74	VAL	C-N-CD	-7.33	104.48	120.60
85	A5	3269	G	P-O5'-C5'	7.33	132.62	120.90
85	A5	3759	A	O4'-C1'-N9	7.33	114.06	108.20
36	B2	464	A	O3'-P-O5'	7.32	117.92	104.00
85	A5	1257	A	O4'-C1'-C2'	-7.32	98.48	105.80
85	A5	2836	A	O4'-C1'-N9	7.32	114.06	108.20
85	A5	3777	G	O4'-C1'-C2'	-7.32	98.48	105.80
36	B2	564	A	O4'-C1'-N9	7.32	114.06	108.20
36	B2	1329	U	N1-C1'-C2'	7.32	123.52	114.00
85	A5	727	C	N1-C1'-C2'	-7.32	103.95	112.00
85	A5	2706	G	O4'-C1'-N9	7.32	114.06	108.20
87	A8	20	A	P-O3'-C3'	-7.32	110.91	119.70
85	A5	2348	G	O3'-P-O5'	-7.32	90.09	104.00
85	A5	4991	U	C4'-C3'-C2'	-7.32	95.28	102.60
36	B2	1248	U	O4'-C1'-N1	7.32	114.05	108.20
37	BC	34	A	O4'-C1'-N9	7.32	114.05	108.20
85	A5	4313	A	O4'-C1'-N9	7.32	114.05	108.20
87	A8	41	A	O4'-C1'-N9	7.32	114.05	108.20
23	AD	82	GLY	O-C-N	-7.32	111.00	122.70
85	A5	127	G	O4'-C1'-N9	7.32	114.05	108.20
85	A5	1198	G	O4'-C1'-N9	7.32	114.05	108.20
36	B2	1428	G	N9-C1'-C2'	-7.31	103.95	112.00
36	B2	1208	A	N9-C1'-C2'	-7.31	103.96	112.00
36	B2	1538	C	C4'-C3'-C2'	-7.31	95.29	102.60
85	A5	2015	U	P-O3'-C3'	-7.31	110.92	119.70
74	CC	163	LYS	N-CA-CB	7.31	123.75	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1215	C	C3'-C2'-C1'	7.31	107.35	101.50
85	A5	2685	C	O4'-C1'-C2'	-7.31	98.49	105.80
85	A5	2829	U	N1-C1'-C2'	-7.31	103.96	112.00
42	CL	164	GLU	O-C-N	-7.31	111.01	122.70
36	B2	167	G	N9-C1'-C2'	-7.30	103.96	112.00
36	B2	1241	A	O4'-C1'-C2'	-7.30	98.50	105.80
85	A5	2127	C	C3'-C2'-C1'	7.30	107.34	101.50
38	Cz	208	SER	O-C-N	7.30	134.38	122.70
85	A5	2664	G	C1'-O4'-C4'	-7.30	104.06	109.90
3	AU	93	SER	C-N-CA	-7.30	91.33	122.00
37	BC	40	C	O4'-C1'-N1	7.30	114.04	108.20
85	A5	1364	U	N1-C1'-C2'	-7.30	103.97	112.00
85	A5	1840	G	O4'-C1'-C2'	7.30	114.17	107.60
56	CX	37	LYS	N-CA-C	-7.30	91.29	111.00
85	A5	191	G	O4'-C1'-N9	7.30	114.04	108.20
85	A5	2794	C	C1'-O4'-C4'	7.30	115.74	109.90
37	BC	42	G	O4'-C1'-N9	7.30	114.04	108.20
85	A5	1633	G	O4'-C1'-N9	7.29	114.04	108.20
85	A5	3900	G	O4'-C1'-N9	7.29	114.04	108.20
86	A7	39	C	C4'-C3'-O3'	-7.29	94.08	109.40
37	BC	37	A	C4'-C3'-O3'	7.29	127.59	113.00
85	A5	79	C	O4'-C1'-N1	7.29	114.03	108.20
85	A5	1446	C	O5'-C5'-C4'	7.29	125.56	111.70
85	A5	4143	G	P-O5'-C5'	7.29	132.57	120.90
36	B2	1023	A	C1'-O4'-C4'	7.29	115.73	109.90
36	B2	1653	U	P-O3'-C3'	7.29	128.45	119.70
85	A5	4741	C	O4'-C1'-C2'	-7.29	98.51	105.80
36	B2	342	C	C3'-C2'-C1'	7.29	107.33	101.50
85	A5	716	C	O4'-C1'-N1	7.29	114.03	108.20
85	A5	1802	A	C3'-C2'-C1'	7.29	107.33	101.50
85	A5	2544	G	C1'-O4'-C4'	-7.29	104.07	109.90
36	B2	877	C	O4'-C1'-C2'	-7.29	98.51	105.80
85	A5	2765	A	P-O5'-C5'	7.29	132.56	120.90
85	A5	4221	C	C3'-C2'-C1'	7.29	107.33	101.50
85	A5	4950	U	P-O5'-C5'	7.29	132.56	120.90
85	A5	327	U	C1'-O4'-C4'	7.29	115.73	109.90
36	B2	577	U	O4'-C1'-N1	7.29	114.03	108.20
85	A5	1292	C	C3'-C2'-C1'	7.29	107.33	101.50
85	A5	1598	C	N1-C1'-C2'	7.29	123.47	114.00
85	A5	2550	G	C1'-O4'-C4'	-7.29	104.07	109.90
85	A5	2604	C	O4'-C1'-N1	7.29	114.03	108.20
85	A5	4110	C	C3'-C2'-C1'	7.29	107.33	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	AR	89	SER	C-N-CA	-7.28	103.49	121.70
36	B2	1532	C	C3'-C2'-C1'	7.28	107.33	101.50
63	CB	236	HIS	CB-CA-C	-7.28	95.83	110.40
74	CC	84	THR	C-N-CA	-7.28	103.49	121.70
85	A5	354	U	C3'-C2'-C1'	7.28	107.33	101.50
85	A5	2672	C	P-O5'-C5'	-7.28	109.25	120.90
60	Cr	112	ARG	NH1-CZ-NH2	7.28	127.41	119.40
85	A5	180	C	O4'-C1'-C2'	-7.28	98.52	105.80
36	B2	946	U	O4'-C1'-N1	7.28	114.02	108.20
40	CK	130	LYS	CB-CG-CD	7.28	130.53	111.60
85	A5	3792	G	N9-C1'-C2'	7.28	123.46	114.00
36	B2	228	C	N1-C1'-C2'	7.28	123.46	114.00
36	B2	508	A	O4'-C1'-N9	7.28	114.02	108.20
36	B2	551	U	P-O5'-C5'	7.28	132.54	120.90
36	B2	1694	U	O4'-C1'-N1	7.28	114.02	108.20
85	A5	4484	A	O4'-C1'-N9	7.28	114.02	108.20
36	B2	683	G	O4'-C1'-N9	7.28	114.02	108.20
85	A5	655	C	O4'-C1'-N1	7.28	114.02	108.20
85	A5	4699	U	P-O3'-C3'	7.28	128.43	119.70
85	A5	5011	A	O4'-C1'-N9	7.28	114.02	108.20
86	A7	118	C	O4'-C1'-C2'	-7.28	98.52	105.80
18	AY	64	PHE	C-N-CA	-7.27	107.03	122.30
85	A5	450	G	N9-C1'-C2'	-7.27	104.00	112.00
85	A5	3796	U	N1-C1'-C2'	7.27	123.46	114.00
74	CC	267	TRP	CA-C-N	7.27	133.20	117.20
85	A5	4091	G	O4'-C1'-N9	7.27	114.02	108.20
36	B2	801	U	O4'-C1'-N1	7.27	114.02	108.20
48	CD	260	GLU	CB-CG-CD	7.27	133.83	114.20
85	A5	331	G	C3'-C2'-C1'	-7.27	95.68	101.50
85	A5	4773	C	O4'-C1'-N1	7.27	114.02	108.20
36	B2	857	U	C1'-O4'-C4'	-7.27	104.08	109.90
85	A5	2647	A	C4'-C3'-C2'	-7.27	95.33	102.60
45	Ca	108	TYR	C-N-CA	-7.27	103.53	121.70
58	CW	83	THR	CA-CB-CG2	7.27	122.58	112.40
85	A5	385	A	P-O3'-C3'	7.27	128.42	119.70
85	A5	2870	A	C3'-C2'-C1'	7.27	107.31	101.50
85	A5	4293	U	O4'-C1'-N1	7.27	114.02	108.20
85	A5	4717	A	C1'-O4'-C4'	7.27	115.71	109.90
36	B2	1063	C	C3'-C2'-C1'	7.27	107.31	101.50
85	A5	4665	A	C4'-C3'-O3'	-7.27	94.14	109.40
67	Ce	15	LYS	C-N-CA	-7.26	103.54	121.70
12	AR	1	MET	CA-CB-CG	7.26	125.64	113.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	23	C	N1-C1'-C2'	7.26	123.44	114.00
85	A5	402	A	O4'-C1'-C2'	-7.26	98.54	105.80
85	A5	2489	C	O4'-C1'-N1	7.26	114.01	108.20
36	B2	17	C	O4'-C1'-N1	7.26	114.01	108.20
85	A5	3910	C	O4'-C1'-N1	7.26	114.01	108.20
86	A7	8	G	O4'-C1'-N9	7.26	114.01	108.20
87	A8	34	U	C3'-C2'-C1'	7.26	107.31	101.50
70	Ci	6	PRO	N-CD-CG	-7.25	92.32	103.20
36	B2	555	A	O4'-C1'-C2'	-7.25	98.55	105.80
85	A5	202	C	O4'-C1'-N1	7.25	114.00	108.20
85	A5	4329	G	N9-C1'-C2'	-7.25	104.02	112.00
36	B2	420	G	C1'-O4'-C4'	-7.25	104.10	109.90
36	B2	735	C	O4'-C1'-N1	7.25	114.00	108.20
85	A5	714	G	O4'-C1'-C2'	7.25	114.13	107.60
85	A5	2254	G	O4'-C1'-C2'	7.25	114.13	107.60
85	A5	4280	A	O4'-C1'-C2'	7.25	114.13	107.60
36	B2	1562	C	N1-C1'-C2'	7.25	123.43	114.00
36	B2	1565	C	O4'-C1'-C2'	-7.25	98.55	105.80
85	A5	1271	G	C1'-O4'-C4'	-7.25	104.10	109.90
85	A5	2100	A	N9-C1'-C2'	7.25	123.43	114.00
85	A5	2822	G	O4'-C1'-N9	7.25	114.00	108.20
85	A5	4730	C	O4'-C1'-C2'	-7.25	98.55	105.80
36	B2	618	C	O4'-C1'-N1	7.25	114.00	108.20
36	B2	374	G	O4'-C1'-N9	7.25	114.00	108.20
85	A5	42	A	O3'-P-O5'	-7.25	90.23	104.00
85	A5	2378	G	O4'-C1'-N9	7.25	114.00	108.20
85	A5	2772	C	O4'-C1'-N1	7.25	114.00	108.20
85	A5	3637	U	O4'-C1'-N1	7.25	114.00	108.20
85	A5	4734	A	P-O3'-C3'	7.25	128.39	119.70
36	B2	58	C	N1-C1'-C2'	-7.24	104.03	112.00
25	Af	88	PRO	O-C-N	-7.24	111.11	122.70
36	B2	106	C	O4'-C1'-N1	7.24	113.99	108.20
36	B2	170	A	C5'-C4'-C3'	-7.24	104.41	116.00
85	A5	363	A	P-O3'-C3'	7.24	128.39	119.70
85	A5	2305	U	C1'-O4'-C4'	7.24	115.69	109.90
85	A5	4714	C	C3'-C2'-C1'	7.24	107.29	101.50
87	A8	56	G	O4'-C1'-C2'	7.24	114.12	107.60
36	B2	1064	C	C3'-C2'-C1'	7.24	107.29	101.50
58	CW	31	PHE	C-N-CA	-7.24	103.61	121.70
36	B2	441	C	C1'-O4'-C4'	-7.24	104.11	109.90
85	A5	1298	C	C3'-C2'-C1'	7.24	107.29	101.50
85	A5	1986	U	N1-C1'-C2'	7.24	123.41	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1120	U	N1-C1'-C2'	7.23	123.40	114.00
44	CM	44	GLN	N-CA-CB	-7.23	97.58	110.60
36	B2	747	U	O4'-C1'-C2'	-7.23	98.57	105.80
85	A5	4200	G	O4'-C1'-C2'	7.23	114.11	107.60
10	AN	19	ARG	N-CA-C	-7.23	91.48	111.00
36	B2	1772	C	C3'-C2'-C1'	7.23	107.28	101.50
85	A5	1079	C	P-O3'-C3'	7.23	128.38	119.70
85	A5	1221	G	C1'-O4'-C4'	7.23	115.69	109.90
85	A5	1301	C	C1'-O4'-C4'	7.23	115.69	109.90
85	A5	2427	G	O4'-C1'-N9	-7.23	102.42	108.20
85	A5	1533	A	O4'-C1'-C2'	-7.23	98.57	105.80
85	A5	2779	C	N1-C1'-C2'	7.23	123.40	114.00
85	A5	4269	G	O4'-C1'-N9	7.23	113.98	108.20
87	A8	71	A	O4'-C1'-N9	7.23	113.98	108.20
85	A5	1489	G	O4'-C1'-N9	7.23	113.98	108.20
85	A5	3683	C	O4'-C1'-C2'	-7.23	98.57	105.80
85	A5	4489	G	C3'-C2'-C1'	7.23	107.28	101.50
85	A5	2026	A	O4'-C1'-N9	7.22	113.98	108.20
85	A5	4982	A	C3'-C2'-C1'	7.22	107.28	101.50
4	AK	37	ASP	CB-CG-OD2	7.22	124.80	118.30
26	AJ	35	TYR	CA-C-N	-7.22	101.75	116.20
36	B2	694	G	C3'-C2'-C1'	-7.22	95.72	101.50
36	B2	1456	G	C1'-O4'-C4'	-7.22	104.12	109.90
85	A5	4362	A	O4'-C1'-N9	7.22	113.98	108.20
36	B2	513	G	O4'-C1'-N9	7.22	113.98	108.20
44	CM	4	ARG	N-CA-CB	7.22	123.60	110.60
85	A5	1485	C	N1-C1'-C2'	7.22	123.39	114.00
47	CI	103	LEU	CB-CG-CD2	7.22	123.27	111.00
85	A5	462	G	O4'-C1'-N9	7.22	113.97	108.20
85	A5	4163	U	O4'-C1'-N1	7.22	113.98	108.20
85	A5	4958	C	O4'-C1'-N1	7.22	113.97	108.20
36	B2	1179	G	O4'-C1'-N9	7.22	113.97	108.20
36	B2	1309	C	C3'-C2'-C1'	7.22	107.27	101.50
85	A5	1324	A	P-O3'-C3'	7.21	128.36	119.70
85	A5	4960	G	C1'-O4'-C4'	-7.21	104.13	109.90
86	A7	12	U	C1'-O4'-C4'	7.21	115.67	109.90
86	A7	120	U	O4'-C1'-N1	7.21	113.97	108.20
85	A5	1672	U	O4'-C1'-N1	7.21	113.97	108.20
36	B2	552	G	C3'-C2'-C1'	-7.21	95.73	101.50
85	A5	1181	C	C3'-C2'-C1'	7.21	107.27	101.50
85	A5	2114	G	N9-C1'-C2'	7.21	123.38	114.00
85	A5	1457	G	N9-C1'-C2'	7.21	123.37	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	CW	71	ARG	NE-CZ-NH2	7.21	123.91	120.30
85	A5	2444	U	C3'-C2'-C1'	7.21	107.27	101.50
85	A5	2483	G	C1'-O4'-C4'	-7.21	104.13	109.90
36	B2	319	C	O3'-P-O5'	-7.21	90.31	104.00
60	Cr	39	ARG	NE-CZ-NH2	-7.21	116.70	120.30
85	A5	949	G	O4'-C1'-C2'	7.21	114.08	107.60
85	A5	4586	G	C1'-O4'-C4'	-7.21	104.14	109.90
10	AN	14	SER	CB-CA-C	-7.20	96.41	110.10
20	Aa	97	PRO	CA-CB-CG	7.20	118.49	104.80
53	CT	29	THR	C-N-CA	-7.20	103.69	121.70
85	A5	1806	G	C1'-O4'-C4'	-7.20	104.14	109.90
85	A5	3827	G	O4'-C1'-N9	7.20	113.96	108.20
85	A5	2701	U	O4'-C1'-N1	7.20	113.96	108.20
87	A8	146	U	C3'-C2'-C1'	7.20	107.26	101.50
85	A5	1366	G	O4'-C1'-N9	7.20	113.96	108.20
36	B2	64	A	N9-C1'-C2'	-7.20	104.08	112.00
36	B2	276	G	P-O3'-C3'	7.20	128.34	119.70
85	A5	4624	A	O4'-C1'-C2'	-7.20	98.61	105.80
85	A5	653	U	O4'-C1'-N1	7.19	113.95	108.20
85	A5	1297	U	O4'-C1'-N1	7.19	113.95	108.20
85	A5	4068	U	O4'-C1'-N1	7.19	113.95	108.20
85	A5	5023	C	O4'-C1'-N1	7.19	113.95	108.20
47	CI	206	LEU	N-CA-CB	7.19	124.78	110.40
85	A5	151	G	N9-C1'-C2'	-7.19	104.09	112.00
36	B2	308	G	P-O3'-C3'	7.19	128.33	119.70
36	B2	699	C	C3'-C2'-C1'	7.19	107.25	101.50
36	B2	1858	G	O4'-C1'-N9	7.19	113.95	108.20
85	A5	2043	A	C1'-O4'-C4'	7.19	115.65	109.90
87	A8	41	A	C1'-O4'-C4'	7.19	115.65	109.90
36	B2	244	A	O4'-C1'-C2'	-7.19	98.61	105.80
82	CG	134	PRO	C-N-CA	7.19	139.67	121.70
87	A8	94	G	P-O3'-C3'	7.19	128.33	119.70
36	B2	645	C	C3'-C2'-C1'	7.19	107.25	101.50
85	A5	1574	G	O4'-C1'-N9	7.19	113.95	108.20
31	AH	110	THR	CA-C-N	7.19	133.01	117.20
36	B2	1787	G	O4'-C1'-N9	7.19	113.95	108.20
85	A5	1341	U	O4'-C1'-N1	7.19	113.95	108.20
36	B2	49	C	N1-C1'-C2'	7.18	123.34	114.00
36	B2	1049	A	C4'-C3'-C2'	-7.18	95.42	102.60
36	B2	1305	C	O4'-C1'-N1	7.18	113.95	108.20
85	A5	1216	C	C3'-C2'-C1'	7.18	107.25	101.50
85	A5	1228	U	P-O3'-C3'	7.18	128.32	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2362	U	C1'-O4'-C4'	7.18	115.65	109.90
85	A5	2610	G	O4'-C1'-N9	7.18	113.95	108.20
85	A5	4498	U	N1-C1'-C2'	-7.18	104.10	112.00
2	Ag	275	ILE	N-CA-C	7.18	130.40	111.00
85	A5	971	U	O3'-P-O5'	7.18	117.65	104.00
85	A5	1288	G	O4'-C1'-N9	-7.18	102.45	108.20
85	A5	4318	C	C3'-C2'-C1'	7.18	107.25	101.50
1	Az	269	ALA	C-N-CA	-7.18	103.75	121.70
36	B2	1165	G	O4'-C1'-N9	7.18	113.94	108.20
85	A5	990	C	O4'-C1'-C2'	-7.18	98.62	105.80
36	B2	1023	A	N9-C1'-C2'	-7.18	104.10	112.00
36	B2	1671	G	C1'-O4'-C4'	-7.18	104.16	109.90
85	A5	14	C	O4'-C1'-N1	7.18	113.94	108.20
85	A5	2101	C	P-O5'-C5'	-7.18	109.41	120.90
36	B2	442	C	C3'-C2'-C1'	7.18	107.24	101.50
36	B2	796	G	C3'-C2'-C1'	-7.18	95.76	101.50
36	B2	1188	A	C3'-C2'-C1'	7.18	107.24	101.50
40	CK	28	LEU	CB-CG-CD1	7.18	123.20	111.00
85	A5	469	C	O4'-C1'-N1	7.18	113.94	108.20
85	A5	964	A	O4'-C1'-N9	7.18	113.94	108.20
85	A5	1855	G	O4'-C1'-C2'	7.18	114.06	107.60
85	A5	3609	G	C1'-O4'-C4'	-7.18	104.16	109.90
85	A5	4887	C	N1-C1'-C2'	7.18	123.33	114.00
36	B2	1291	A	P-O3'-C3'	7.17	128.31	119.70
85	A5	667	A	O4'-C1'-N9	7.17	113.94	108.20
85	A5	1311	G	O4'-C1'-N9	7.17	113.94	108.20
85	A5	4895	C	O4'-C1'-C2'	-7.17	98.63	105.80
85	A5	3666	C	C3'-C2'-C1'	7.17	107.24	101.50
36	B2	369	C	N1-C1'-C2'	7.17	123.32	114.00
85	A5	451	C	O4'-C1'-N1	7.17	113.94	108.20
85	A5	2419	C	N1-C1'-C2'	7.17	123.32	114.00
85	A5	2782	U	O4'-C1'-C2'	-7.17	98.63	105.80
85	A5	4696	C	N1-C1'-C2'	7.17	123.32	114.00
85	A5	3891	A	C4'-C3'-O3'	7.17	127.34	113.00
23	AD	52	ALA	C-N-CA	-7.17	103.78	121.70
36	B2	32	U	O4'-C1'-N1	7.17	113.93	108.20
36	B2	1005	G	O4'-C1'-N9	7.17	113.94	108.20
36	B2	1122	A	N9-C1'-C2'	-7.17	104.11	112.00
81	CE	102	GLY	C-N-CA	-7.17	107.25	122.30
85	A5	2687	U	N1-C1'-C2'	7.17	123.32	114.00
12	AR	111	PHE	N-CA-C	7.17	130.35	111.00
36	B2	57	U	C1'-O4'-C4'	7.17	115.63	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2250	C	O4'-C1'-N1	7.17	113.93	108.20
85	A5	1275	G	P-O3'-C3'	7.17	128.30	119.70
85	A5	4628	U	O4'-C1'-N1	7.17	113.93	108.20
85	A5	1517	G	C1'-O4'-C4'	-7.16	104.17	109.90
85	A5	4992	G	O4'-C1'-N9	7.16	113.93	108.20
39	Cq	206	ILE	C-N-CA	-7.16	103.80	121.70
60	Cr	66	ARG	N-CA-C	7.16	130.33	111.00
87	A8	139	G	O4'-C1'-N9	7.16	113.93	108.20
36	B2	286	U	O4'-C1'-C2'	-7.16	98.64	105.80
36	B2	795	A	O4'-C1'-C2'	-7.16	98.64	105.80
36	B2	1673	U	O4'-C1'-N1	7.16	113.92	108.20
61	Ch	40	ALA	N-CA-C	7.16	130.32	111.00
85	A5	1482	G	P-O3'-C3'	7.16	128.29	119.70
85	A5	4566	U	O4'-C1'-N1	7.16	113.92	108.20
85	A5	4611	A	O4'-C1'-N9	7.16	113.92	108.20
36	B2	838	G	O4'-C1'-N9	7.15	113.92	108.20
85	A5	2015	U	N1-C1'-C2'	7.15	123.30	114.00
85	A5	2670	C	C1'-O4'-C4'	-7.15	104.18	109.90
87	A8	57	C	N1-C1'-C2'	7.15	123.30	114.00
85	A5	3749	C	C3'-C2'-C1'	7.15	107.22	101.50
85	A5	4544	A	P-O3'-C3'	-7.15	111.12	119.70
85	A5	3633	C	O4'-C1'-C2'	-7.15	98.65	105.80
35	Ah	142	LEU	CB-CG-CD1	7.15	123.15	111.00
36	B2	230	A	C3'-C2'-C1'	7.15	107.22	101.50
36	B2	378	U	C4'-C3'-C2'	-7.15	95.45	102.60
49	CQ	11	ARG	N-CA-CB	-7.15	97.74	110.60
85	A5	21	G	O4'-C1'-C2'	-7.15	98.65	105.80
85	A5	251	C	C3'-C2'-C1'	7.15	107.22	101.50
85	A5	4088	C	C3'-C2'-C1'	7.15	107.22	101.50
36	B2	1279	C	O4'-C1'-C2'	-7.15	98.65	105.80
36	B2	1677	U	N1-C1'-C2'	-7.15	104.14	112.00
15	AB	147	ASN	C-N-CA	-7.14	103.84	121.70
81	CE	276	ALA	O-C-N	-7.14	111.27	122.70
85	A5	4035	G	O4'-C1'-N9	7.14	113.92	108.20
36	B2	949	G	O4'-C1'-N9	7.14	113.91	108.20
36	B2	1522	A	P-O3'-C3'	-7.14	111.13	119.70
36	B2	1661	A	C1'-O4'-C4'	-7.14	104.19	109.90
85	A5	2471	G	O4'-C1'-N9	7.14	113.91	108.20
36	B2	1001	A	O4'-C1'-C2'	-7.14	98.66	105.80
85	A5	1588	U	O4'-C1'-N1	7.14	113.91	108.20
85	A5	1929	A	O4'-C1'-N9	-7.14	102.49	108.20
85	A5	2781	G	O4'-C1'-N9	7.14	113.91	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2802	C	O4'-C1'-C2'	-7.14	98.66	105.80
57	CY	42	TYR	CA-C-N	-7.14	101.50	117.20
67	Ce	21	ILE	CB-CA-C	-7.14	97.32	111.60
87	A8	90	C	O4'-C1'-C2'	-7.14	98.66	105.80
36	B2	834	C	P-O3'-C3'	7.14	128.26	119.70
85	A5	1493	G	C3'-C2'-C1'	-7.14	95.79	101.50
85	A5	2425	U	C1'-O4'-C4'	7.14	115.61	109.90
85	A5	2748	C	O4'-C1'-N1	7.14	113.91	108.20
85	A5	4039	G	C1'-O4'-C4'	-7.14	104.19	109.90
85	A5	3758	U	O4'-C1'-N1	7.13	113.91	108.20
85	A5	4759	C	O4'-C1'-C2'	-7.13	98.67	105.80
36	B2	162	C	C4'-C3'-O3'	7.13	127.27	113.00
36	B2	744	G	C3'-C2'-C1'	7.13	107.21	101.50
85	A5	3716	C	O4'-C1'-N1	7.13	113.91	108.20
31	AH	191	GLU	O-C-N	-7.13	111.29	122.70
36	B2	1019	C	N1-C1'-C2'	7.13	123.27	114.00
8	AS	93	GLY	CA-C-N	-7.13	101.51	117.20
65	Cc	88	TYR	CB-CG-CD2	-7.13	116.72	121.00
85	A5	199	G	O4'-C1'-N9	-7.13	102.50	108.20
85	A5	3928	A	C3'-C2'-C1'	7.13	107.20	101.50
36	B2	528	A	N9-C1'-C2'	7.13	123.27	114.00
74	CC	323	ARG	C-N-CA	-7.13	103.88	121.70
77	Cp	56	HIS	CB-CA-C	-7.13	96.14	110.40
85	A5	2094	G	P-O3'-C3'	-7.13	111.14	119.70
85	A5	3601	C	O4'-C1'-N1	7.13	113.90	108.20
5	AO	145	GLY	N-CA-C	7.13	130.91	113.10
50	CR	79	GLY	C-N-CA	-7.13	103.88	121.70
85	A5	1099	C	O4'-C1'-N1	7.13	113.90	108.20
87	A8	12	G	N9-C1'-C2'	7.12	123.26	114.00
3	AU	118	ASP	CB-CG-OD1	7.12	124.71	118.30
15	AB	77	ASP	CB-CG-OD1	7.12	124.71	118.30
36	B2	898	U	P-O5'-C5'	7.12	132.30	120.90
36	B2	1668	U	O5'-P-OP2	-7.12	99.29	105.70
85	A5	2025	A	O4'-C1'-C2'	-7.12	98.68	105.80
36	B2	1001	A	C1'-O4'-C4'	7.12	115.60	109.90
36	B2	1463	U	O4'-C1'-N1	7.12	113.90	108.20
38	Cz	26	ARG	C-N-CA	-7.12	103.90	121.70
85	A5	2114	G	O4'-C1'-C2'	7.12	114.01	107.60
13	AP	49	LEU	CA-C-N	7.12	132.86	117.20
36	B2	284	C	C3'-C2'-C1'	7.12	107.20	101.50
36	B2	694	G	C1'-O4'-C4'	-7.12	104.20	109.90
81	CE	58	SER	CA-C-N	7.12	132.87	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1929	A	C1'-O4'-C4'	-7.12	104.20	109.90
36	B2	315	C	O4'-C1'-N1	7.12	113.90	108.20
36	B2	1045	U	O4'-C1'-N1	7.12	113.89	108.20
39	Cq	55	MET	C-N-CA	7.12	137.25	122.30
85	A5	1443	A	C3'-C2'-C1'	7.12	107.19	101.50
85	A5	1825	A	C1'-O4'-C4'	7.12	115.59	109.90
85	A5	2263	A	O4'-C1'-C2'	-7.12	98.68	105.80
85	A5	2427	G	C3'-C2'-C1'	7.12	107.19	101.50
85	A5	2538	U	O4'-C1'-N1	7.12	113.89	108.20
85	A5	4907	G	O4'-C1'-N9	7.12	113.89	108.20
14	AT	82	ARG	NE-CZ-NH2	7.12	123.86	120.30
36	B2	53	C	C3'-C2'-C1'	7.11	107.19	101.50
36	B2	299	A	O4'-C1'-N9	7.11	113.89	108.20
85	A5	2280	G	N9-C1'-C2'	7.11	123.25	114.00
36	B2	288	G	N9-C1'-C2'	-7.11	104.18	112.00
40	CK	114	ARG	CG-CD-NE	7.11	126.73	111.80
69	Cg	46	CYS	CA-C-N	-7.11	101.97	116.20
81	CE	29	LYS	C-N-CA	7.11	137.24	122.30
85	A5	4578	G	O4'-C1'-N9	7.11	113.89	108.20
36	B2	1547	C	C3'-C2'-C1'	7.11	107.19	101.50
69	Cg	82	MET	CA-CB-CG	7.11	125.39	113.30
85	A5	1978	C	O4'-C1'-N1	7.11	113.89	108.20
36	B2	100	U	O4'-C1'-N1	7.11	113.89	108.20
4	AK	35	LEU	N-CA-C	-7.11	91.81	111.00
14	AT	4	VAL	N-CA-CB	-7.11	95.87	111.50
36	B2	1833	C	C3'-C2'-C1'	7.11	107.19	101.50
64	CF	46	ARG	NE-CZ-NH2	7.11	123.85	120.30
85	A5	203	U	N1-C1'-C2'	7.11	123.24	114.00
85	A5	1481	C	N1-C1'-C2'	-7.11	104.18	112.00
85	A5	4178	A	O4'-C1'-N9	7.11	113.89	108.20
86	A7	115	A	C2'-C3'-O3'	7.11	125.13	109.50
53	CT	3	ASN	CB-CA-C	-7.10	96.19	110.40
67	Ce	128	ARG	C-N-CA	-7.10	103.94	121.70
85	A5	1451	G	N9-C1'-C2'	7.10	123.23	114.00
85	A5	2367	A	O4'-C1'-C2'	-7.10	98.70	105.80
36	B2	166	A	O4'-C1'-N9	7.10	113.88	108.20
36	B2	205	G	O4'-C1'-N9	7.10	113.88	108.20
85	A5	975	C	P-O5'-C5'	-7.10	109.54	120.90
36	B2	1639	G	C3'-C2'-C1'	7.10	107.18	101.50
36	B2	1864	U	P-O5'-C5'	7.10	132.26	120.90
36	B2	974	C	N1-C1'-C2'	7.10	123.22	114.00
85	A5	1280	C	C3'-C2'-C1'	7.09	107.18	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	91	A	O4'-C1'-N9	7.09	113.88	108.20
85	A5	1721	G	N9-C1'-C2'	7.09	123.22	114.00
85	A5	1360	G	P-O5'-C5'	7.09	132.25	120.90
85	A5	4176	C	N1-C1'-C2'	7.09	123.22	114.00
85	A5	4707	A	O4'-C1'-N9	7.09	113.87	108.20
36	B2	614	C	N1-C1'-C2'	7.09	123.22	114.00
85	A5	1059	C	C5'-C4'-C3'	-7.09	104.66	116.00
85	A5	2252	G	C4'-C3'-O3'	7.09	127.18	113.00
36	B2	1367	U	O4'-C1'-N1	7.09	113.87	108.20
85	A5	715	G	O4'-C1'-C2'	7.09	113.98	107.60
36	B2	295	C	N1-C1'-C2'	7.08	123.21	114.00
85	A5	3894	A	C3'-C2'-C1'	7.08	107.17	101.50
85	A5	674	G	O4'-C1'-C2'	7.08	113.97	107.60
85	A5	2732	G	C1'-O4'-C4'	-7.08	104.23	109.90
85	A5	4088	C	N1-C1'-C2'	7.08	123.21	114.00
36	B2	1773	C	O4'-C1'-N1	7.08	113.86	108.20
81	CE	118	THR	CA-C-N	7.08	132.78	117.20
85	A5	1439	C	O4'-C1'-C2'	-7.08	98.72	105.80
85	A5	2648	G	P-O5'-C5'	7.08	132.23	120.90
85	A5	3857	G	O4'-C1'-N9	7.08	113.86	108.20
85	A5	980	U	O4'-C1'-C2'	-7.08	98.72	105.80
85	A5	2068	C	P-O5'-C5'	7.08	132.23	120.90
36	B2	283	G	O4'-C1'-C2'	7.08	113.97	107.60
36	B2	352	U	O4'-C1'-N1	7.08	113.86	108.20
36	B2	53	C	C1'-O4'-C4'	7.08	115.56	109.90
85	A5	264	C	C3'-C2'-C1'	7.08	107.16	101.50
85	A5	2749	C	O4'-C1'-C2'	-7.08	98.72	105.80
85	A5	3701	C	O4'-C1'-N1	-7.08	102.54	108.20
86	A7	105	C	N1-C1'-C2'	7.07	123.19	114.00
85	A5	8	U	O4'-C1'-N1	7.07	113.86	108.20
8	AS	142	ARG	N-CA-CB	-7.07	97.87	110.60
36	B2	1507	G	C1'-C2'-O2'	7.07	131.81	110.60
85	A5	943	A	O4'-C1'-N9	7.07	113.86	108.20
85	A5	1463	C	N1-C1'-C2'	7.07	123.19	114.00
85	A5	1667	G	O4'-C1'-C2'	-7.07	98.73	105.80
86	A7	106	G	C3'-C2'-C1'	-7.07	95.84	101.50
37	BC	7	G	O4'-C1'-N9	7.07	113.86	108.20
86	A7	85	G	N9-C1'-C2'	7.07	123.19	114.00
6	AX	22	TRP	C-N-CA	-7.07	104.03	121.70
36	B2	597	G	O4'-C1'-N9	7.07	113.85	108.20
36	B2	47	G	O4'-C1'-N9	7.07	113.85	108.20
36	B2	1761	U	P-O5'-C5'	7.07	132.21	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	CU	57	GLY	CA-C-N	-7.07	102.07	116.20
85	A5	644	G	O4'-C1'-C2'	7.06	113.96	107.60
85	A5	2890	C	O4'-C1'-N1	7.06	113.85	108.20
26	AJ	91	LYS	O-C-N	-7.06	111.41	122.70
36	B2	960	U	C1'-O4'-C4'	-7.06	104.25	109.90
39	Cq	32	ALA	CA-C-N	-7.06	101.67	117.20
85	A5	8	U	N1-C1'-C2'	7.06	123.18	114.00
1	Az	495	ARG	C-N-CA	-7.06	104.06	121.70
36	B2	183	G	C4'-C3'-C2'	-7.06	95.54	102.60
36	B2	1330	G	C1'-O4'-C4'	-7.06	104.25	109.90
36	B2	1377	U	O4'-C1'-N1	7.06	113.85	108.20
85	A5	1719	A	O4'-C1'-N9	7.06	113.85	108.20
44	CM	91	TRP	CB-CG-CD2	-7.06	117.43	126.60
85	A5	1374	G	C1'-O4'-C4'	-7.06	104.25	109.90
85	A5	4633	G	N9-C1'-C2'	-7.06	104.24	112.00
36	B2	288	G	O4'-C1'-N9	7.05	113.84	108.20
36	B2	1292	C	P-O5'-C5'	-7.05	109.61	120.90
36	B2	1743	G	C1'-O4'-C4'	-7.05	104.26	109.90
59	CZ	54	THR	N-CA-C	7.05	130.05	111.00
85	A5	673	C	C1'-O4'-C4'	-7.05	104.26	109.90
31	AH	109	ARG	O-C-N	7.05	133.98	122.70
85	A5	2277	C	O4'-C1'-N1	7.05	113.84	108.20
36	B2	145	G	O4'-C1'-C2'	7.05	113.95	107.60
85	A5	1773	U	O4'-C1'-N1	7.05	113.84	108.20
85	A5	2773	G	C1'-O4'-C4'	-7.05	104.26	109.90
26	AJ	123	ILE	CB-CA-C	7.05	125.70	111.60
81	CE	93	THR	CB-CA-C	-7.05	92.56	111.60
85	A5	3666	C	O4'-C1'-C2'	-7.05	98.75	105.80
85	A5	4376	A	O4'-C1'-N9	7.05	113.84	108.20
86	A7	34	C	C3'-C2'-C1'	7.05	107.14	101.50
85	A5	1240	G	P-O5'-C5'	7.05	132.18	120.90
85	A5	2100	A	C5'-C4'-C3'	7.05	127.28	116.00
36	B2	41	G	C1'-O4'-C4'	-7.05	104.26	109.90
36	B2	607	U	N1-C1'-C2'	7.05	123.16	114.00
36	B2	1666	C	O4'-C1'-N1	7.05	113.84	108.20
36	B2	1698	C	C3'-C2'-C1'	7.05	107.14	101.50
85	A5	1554	A	N9-C1'-C2'	7.05	123.16	114.00
85	A5	2782	U	C1'-O4'-C4'	7.05	115.54	109.90
85	A5	3973	G	C3'-C2'-C1'	7.05	107.14	101.50
85	A5	4580	U	O4'-C1'-N1	7.05	113.84	108.20
85	A5	4060	U	C1'-O4'-C4'	7.04	115.54	109.90
1	Az	113	SER	N-CA-C	-7.04	91.98	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	520	A	C1'-O4'-C4'	-7.04	104.27	109.90
85	A5	1295	C	N1-C1'-C2'	7.04	123.16	114.00
85	A5	2053	C	N1-C1'-C2'	7.04	123.16	114.00
85	A5	3736	A	C5'-C4'-O4'	7.04	117.55	109.10
52	CS	72	PRO	N-CA-C	-7.04	93.79	112.10
70	Ci	78	GLY	C-N-CA	-7.04	104.10	121.70
85	A5	3786	U	N1-C1'-C2'	7.04	123.15	114.00
36	B2	149	A	C3'-C2'-C1'	7.04	107.13	101.50
36	B2	284	C	O4'-C1'-C2'	-7.04	98.76	105.80
85	A5	2321	G	P-O3'-C3'	7.04	128.15	119.70
36	B2	184	G	N9-C1'-C2'	7.04	123.15	114.00
36	B2	903	A	C3'-C2'-C1'	-7.04	95.87	101.50
36	B2	1442	U	O4'-C1'-N1	7.04	113.83	108.20
60	Cr	108	MET	CA-CB-CG	-7.04	101.33	113.30
85	A5	16	G	C4'-C3'-O3'	7.04	127.08	113.00
36	B2	1794	C	O4'-C1'-C2'	-7.04	98.76	105.80
36	B2	1843	G	C1'-O4'-C4'	-7.04	104.27	109.90
37	BC	19	A	O4'-C1'-N9	7.04	113.83	108.20
85	A5	2618	G	C3'-C2'-C1'	-7.04	95.87	101.50
85	A5	4659	G	N9-C1'-C2'	7.04	123.15	114.00
65	Cc	89	TYR	CB-CG-CD1	-7.04	116.78	121.00
85	A5	1565	A	O4'-C1'-N9	7.04	113.83	108.20
85	A5	4964	C	O3'-P-O5'	-7.04	90.63	104.00
86	A7	67	C	N1-C1'-C2'	7.04	123.15	114.00
36	B2	1103	C	O4'-C1'-N1	7.03	113.83	108.20
36	B2	1209	A	N9-C1'-C2'	-7.03	104.26	112.00
36	B2	1642	U	C1'-O4'-C4'	7.03	115.53	109.90
85	A5	3943	A	N9-C1'-C2'	-7.03	104.26	112.00
85	A5	1895	G	O4'-C1'-N9	7.03	113.83	108.20
85	A5	3698	G	N9-C1'-C2'	7.03	123.14	114.00
36	B2	1333	U	N1-C1'-C2'	-7.03	104.27	112.00
85	A5	1556	C	O4'-C1'-C2'	-7.03	98.77	105.80
85	A5	4537	C	N1-C1'-C2'	7.03	123.14	114.00
85	A5	2052	G	C3'-C2'-C1'	7.03	107.12	101.50
85	A5	3603	G	O4'-C1'-N9	7.03	113.82	108.20
85	A5	921	C	O4'-C1'-C2'	-7.03	98.77	105.80
85	A5	665	C	C3'-C2'-C1'	7.03	107.12	101.50
85	A5	1676	C	N1-C1'-C2'	7.02	123.13	114.00
85	A5	2122	G	P-O3'-C3'	7.02	128.13	119.70
82	CG	243	GLY	C-N-CD	-7.02	105.15	120.60
85	A5	4314	C	C3'-C2'-C1'	7.02	107.12	101.50
75	Cm	128	LYS	N-CA-C	-7.02	92.05	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	296	A	C1'-O4'-C4'	7.02	115.52	109.90
1	Az	701	ARG	NE-CZ-NH1	7.02	123.81	120.30
36	B2	910	G	O4'-C1'-N9	7.02	113.81	108.20
48	CD	66	TYR	CB-CG-CD2	-7.02	116.79	121.00
87	A8	150	C	O4'-C1'-N1	7.02	113.81	108.20
85	A5	4352	U	O4'-C1'-N1	7.02	113.81	108.20
18	AY	31	GLY	N-CA-C	7.01	130.64	113.10
36	B2	1429	G	P-O5'-C5'	7.01	132.12	120.90
85	A5	922	C	C5'-C4'-C3'	7.01	127.22	116.00
85	A5	2504	C	P-O5'-C5'	7.01	132.12	120.90
85	A5	3870	C	N1-C1'-C2'	7.01	123.12	114.00
36	B2	1409	A	O4'-C1'-C2'	-7.01	98.79	105.80
85	A5	1083	U	O4'-C1'-N1	7.01	113.81	108.20
85	A5	1436	C	C3'-C2'-C1'	7.01	107.11	101.50
74	CC	322	LEU	CA-C-N	7.01	132.62	117.20
85	A5	1500	A	P-O3'-C3'	7.01	128.11	119.70
85	A5	2882	A	C1'-O4'-C4'	7.01	115.51	109.90
87	A8	93	C	O4'-C1'-N1	7.01	113.81	108.20
4	AK	1	MET	N-CA-C	7.01	129.92	111.00
85	A5	196	C	C3'-C2'-C1'	7.01	107.11	101.50
85	A5	3655	C	C3'-C2'-C1'	7.01	107.11	101.50
86	A7	29	C	C3'-C2'-C1'	7.01	107.11	101.50
86	A7	37	G	C3'-C2'-C1'	7.01	107.11	101.50
12	AR	2	GLY	CA-C-N	7.00	132.61	117.20
36	B2	1653	U	N1-C1'-C2'	-7.00	104.30	112.00
36	B2	1853	C	C1'-O4'-C4'	-7.00	104.30	109.90
85	A5	2425	U	O4'-C1'-N1	7.00	113.80	108.20
85	A5	116	G	O4'-C1'-C2'	-7.00	98.80	105.80
85	A5	1681	G	O4'-C1'-C2'	7.00	113.90	107.60
85	A5	4196	G	O4'-C1'-C2'	-7.00	98.80	105.80
85	A5	4921	C	O4'-C1'-C2'	-7.00	98.80	105.80
36	B2	127	C	P-O3'-C3'	7.00	128.10	119.70
74	CC	296	PRO	CA-N-CD	-7.00	101.70	111.50
85	A5	2382	A	O4'-C1'-N9	7.00	113.80	108.20
8	AS	93	GLY	O-C-N	7.00	133.90	122.70
14	AT	4	VAL	CA-C-N	7.00	132.60	117.20
36	B2	93	U	O4'-C1'-C2'	-7.00	98.80	105.80
70	Ci	78	GLY	CA-C-N	-7.00	101.80	117.20
85	A5	143	C	O4'-C1'-C2'	-7.00	98.80	105.80
85	A5	1503	A	O4'-C1'-N9	7.00	113.80	108.20
85	A5	2109	G	O4'-C1'-C2'	7.00	113.90	107.60
14	AT	82	ARG	NH1-CZ-NH2	-7.00	111.70	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	308	G	O4'-C1'-C2'	7.00	113.90	107.60
85	A5	417	G	P-O5'-C5'	7.00	132.09	120.90
85	A5	1271	G	C3'-C2'-C1'	-7.00	95.90	101.50
85	A5	2531	C	P-O3'-C3'	7.00	128.10	119.70
85	A5	1251	C	O4'-C1'-C2'	-7.00	98.81	105.80
85	A5	4358	U	O4'-C1'-N1	7.00	113.80	108.20
85	A5	3792	G	C1'-O4'-C4'	-6.99	104.31	109.90
36	B2	1583	C	C3'-C2'-C1'	6.99	107.09	101.50
85	A5	1392	A	C3'-C2'-C1'	6.99	107.09	101.50
28	AC	273	LEU	CB-CG-CD2	6.99	122.88	111.00
85	A5	322	C	O4'-C1'-C2'	-6.99	98.81	105.80
85	A5	432	U	O4'-C1'-C2'	6.99	113.89	107.60
85	A5	688	U	C1'-O4'-C4'	-6.99	104.31	109.90
85	A5	3585	G	O4'-C1'-N9	6.99	113.79	108.20
85	A5	2259	G	O4'-C1'-N9	6.99	113.79	108.20
85	A5	4347	G	C1'-O4'-C4'	-6.99	104.31	109.90
85	A5	1152	G	P-O3'-C3'	6.99	128.08	119.70
85	A5	4555	U	O4'-C1'-N1	6.99	113.79	108.20
17	AV	31	SER	CA-C-N	6.98	132.57	117.20
25	Af	148	TYR	N-CA-C	6.98	129.86	111.00
85	A5	2547	G	P-O5'-C5'	6.98	132.07	120.90
85	A5	4613	C	N1-C1'-C2'	6.98	123.08	114.00
36	B2	864	A	O4'-C1'-N9	6.98	113.79	108.20
36	B2	1676	U	P-O3'-C3'	-6.98	111.32	119.70
85	A5	3699	C	C3'-C2'-C1'	6.98	107.09	101.50
86	A7	51	G	P-O3'-C3'	6.98	128.08	119.70
4	AK	55	ARG	CB-CG-CD	6.98	129.75	111.60
36	B2	63	U	O4'-C1'-N1	6.98	113.78	108.20
36	B2	1781	A	C3'-C2'-C1'	6.98	107.08	101.50
85	A5	4171	C	C3'-C2'-C1'	6.98	107.08	101.50
26	AJ	164	PRO	N-CA-CB	-6.98	94.92	102.60
69	Cg	62	LYS	N-CA-CB	6.98	123.16	110.60
85	A5	1401	C	N1-C1'-C2'	-6.98	104.32	112.00
36	B2	1097	G	C5'-C4'-O4'	6.98	117.47	109.10
36	B2	1214	A	O4'-C1'-N9	6.98	113.78	108.20
85	A5	1090	G	O4'-C1'-N9	6.98	113.78	108.20
85	A5	1582	U	O4'-C1'-N1	6.98	113.78	108.20
36	B2	1482	C	O4'-C1'-N1	6.98	113.78	108.20
36	B2	1507	G	C3'-C2'-C1'	-6.98	95.92	101.50
81	CE	36	LYS	C-N-CD	-6.97	105.26	120.60
85	A5	1397	A	N9-C1'-C2'	-6.97	104.33	112.00
85	A5	3761	C	O4'-C1'-N1	6.97	113.78	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BC	46	U	O4'-C1'-N1	6.97	113.78	108.20
36	B2	419	G	O4'-C1'-C2'	-6.97	98.83	105.80
85	A5	512	U	O4'-C1'-C2'	-6.97	98.83	105.80
85	A5	2433	G	O4'-C1'-N9	6.97	113.78	108.20
85	A5	1201	U	C1'-O4'-C4'	-6.97	104.32	109.90
85	A5	1546	C	N1-C1'-C2'	6.97	123.06	114.00
85	A5	1729	A	N9-C1'-C2'	-6.97	104.33	112.00
85	A5	1788	A	N9-C1'-C2'	-6.97	104.33	112.00
85	A5	2247	C	C1'-O4'-C4'	6.97	115.47	109.90
85	A5	4284	C	O4'-C1'-N1	6.97	113.78	108.20
36	B2	1051	G	O4'-C1'-N9	6.97	113.78	108.20
36	B2	1647	A	C3'-C2'-C1'	-6.97	95.92	101.50
85	A5	19	G	O4'-C1'-C2'	6.97	113.87	107.60
85	A5	1651	G	C3'-C2'-C1'	6.97	107.08	101.50
85	A5	2335	C	N1-C1'-C2'	6.97	123.06	114.00
1	Az	54	THR	N-CA-C	6.97	129.81	111.00
48	CD	260	GLU	CB-CA-C	6.97	124.33	110.40
85	A5	1312	A	N9-C1'-C2'	-6.97	104.34	112.00
85	A5	2292	C	O4'-C1'-C2'	-6.97	98.83	105.80
85	A5	4223	C	N1-C1'-C2'	6.97	123.06	114.00
36	B2	183	G	C5'-C4'-C3'	6.96	127.14	116.00
36	B2	1343	U	O4'-C1'-N1	6.96	113.77	108.20
36	B2	1645	C	P-O3'-C3'	6.96	128.06	119.70
85	A5	27	C	O4'-C1'-C2'	-6.96	98.84	105.80
85	A5	265	C	P-O3'-C3'	6.96	128.06	119.70
85	A5	3700	C	C1'-O4'-C4'	-6.96	104.33	109.90
66	Cd	115	LYS	N-CA-C	6.96	129.80	111.00
85	A5	1447	C	C4'-C3'-C2'	-6.96	95.64	102.60
85	A5	2884	G	O4'-C1'-N9	6.96	113.77	108.20
85	A5	2861	C	N1-C1'-C2'	6.96	123.05	114.00
36	B2	1122	A	C1'-O4'-C4'	6.96	115.47	109.90
85	A5	2590	G	P-O3'-C3'	6.96	128.05	119.70
85	A5	3678	G	C3'-C2'-C1'	6.96	107.07	101.50
85	A5	4667	C	N1-C1'-C2'	6.96	123.05	114.00
85	A5	4741	C	C3'-C2'-C1'	6.96	107.07	101.50
85	A5	4922	C	O4'-C1'-N1	6.96	113.77	108.20
85	A5	2050	G	O4'-C1'-N9	6.96	113.76	108.20
1	Az	741	MET	CA-CB-CG	6.96	125.12	113.30
85	A5	201	C	N1-C1'-C2'	6.96	123.04	114.00
85	A5	2593	C	O4'-C1'-C2'	-6.96	98.84	105.80
85	A5	145	G	O4'-C4'-C3'	-6.95	97.05	104.00
85	A5	326	C	N1-C1'-C2'	6.95	123.04	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4305	G	C1'-O4'-C4'	-6.95	104.34	109.90
23	AD	83	SER	N-CA-CB	6.95	120.93	110.50
85	A5	3671	G	N9-C1'-C2'	6.95	123.04	114.00
21	Ab	79	PHE	N-CA-C	6.95	129.76	111.00
85	A5	3905	A	O4'-C1'-N9	6.95	113.76	108.20
85	A5	4418	G	O4'-C1'-C2'	-6.95	98.85	105.80
36	B2	353	C	N1-C1'-C2'	6.95	123.03	114.00
36	B2	733	C	O4'-C1'-C2'	-6.95	98.85	105.80
85	A5	4402	C	O4'-C1'-C2'	-6.95	98.85	105.80
36	B2	1406	G	N9-C1'-C2'	6.95	123.03	114.00
1	Az	801	ARG	N-CA-CB	6.94	123.10	110.60
85	A5	117	C	C2'-C3'-O3'	6.94	124.81	113.70
36	B2	271	C	P-O3'-C3'	6.94	128.03	119.70
36	B2	1789	G	O4'-C1'-C2'	-6.94	98.86	105.80
85	A5	2007	G	C3'-C2'-C1'	-6.94	95.94	101.50
36	B2	517	C	N1-C1'-C2'	6.94	123.02	114.00
85	A5	2255	C	C1'-O4'-C4'	-6.94	104.35	109.90
85	A5	2783	A	O4'-C1'-C2'	-6.94	98.86	105.80
85	A5	3963	A	O4'-C1'-C2'	-6.94	98.86	105.80
36	B2	1315	U	C3'-C2'-C1'	-6.94	95.95	101.50
36	B2	1430	C	O4'-C1'-C2'	-6.94	98.86	105.80
1	Az	121	VAL	C-N-CA	6.94	139.04	121.70
14	AT	82	ARG	NE-CZ-NH1	6.94	123.77	120.30
85	A5	4165	C	C5'-C4'-C3'	6.94	127.10	116.00
85	A5	4395	U	C1'-O4'-C4'	6.94	115.45	109.90
85	A5	1922	G	O5'-C5'-C4'	-6.94	98.52	111.70
4	AK	2	LEU	CA-CB-CG	-6.93	99.35	115.30
36	B2	65	C	C1'-O4'-C4'	6.93	115.45	109.90
85	A5	939	G	C1'-O4'-C4'	-6.93	104.35	109.90
85	A5	4927	G	O4'-C1'-N9	6.93	113.75	108.20
36	B2	985	G	O4'-C1'-N9	6.93	113.75	108.20
85	A5	99	A	P-O3'-C3'	-6.93	111.38	119.70
85	A5	1195	G	C3'-C2'-C1'	-6.93	95.95	101.50
85	A5	1493	G	O4'-C1'-N9	6.93	113.75	108.20
85	A5	2836	A	N9-C1'-C2'	-6.93	104.38	112.00
85	A5	5061	A	O4'-C1'-N9	6.93	113.75	108.20
36	B2	399	C	O4'-C1'-C2'	-6.93	98.87	105.80
36	B2	1132	C	O4'-C1'-N1	6.93	113.74	108.20
85	A5	332	C	N1-C1'-C2'	6.93	123.01	114.00
85	A5	2035	C	C3'-C2'-C1'	6.93	107.04	101.50
85	A5	2054	U	C1'-O4'-C4'	6.93	115.44	109.90
85	A5	2128	G	N9-C1'-C2'	6.93	123.01	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2896	G	C3'-C2'-C1'	-6.93	95.96	101.50
85	A5	3915	U	C3'-C2'-C1'	6.93	107.04	101.50
36	B2	1056	U	P-O3'-C3'	-6.93	111.39	119.70
36	B2	1483	A	N9-C1'-C2'	-6.93	104.38	112.00
36	B2	1589	A	N9-C1'-C2'	-6.93	104.38	112.00
85	A5	1081	C	O4'-C1'-N1	6.93	113.74	108.20
85	A5	2398	U	O4'-C1'-N1	6.93	113.74	108.20
85	A5	4286	C	O4'-C1'-C2'	-6.93	98.87	105.80
85	A5	4898	G	O3'-P-O5'	-6.93	90.84	104.00
36	B2	1220	A	C1'-O4'-C4'	-6.92	104.36	109.90
85	A5	685	C	O4'-C1'-C2'	-6.92	98.88	105.80
85	A5	3877	A	O4'-C1'-N9	6.92	113.74	108.20
85	A5	4178	A	N9-C1'-C2'	-6.92	104.38	112.00
85	A5	4625	C	O4'-C1'-N1	6.92	113.74	108.20
87	A8	153	C	O4'-C1'-C2'	6.92	113.83	107.60
85	A5	2105	A	C4'-C3'-C2'	-6.92	95.68	102.60
36	B2	74	G	P-O3'-C3'	6.92	128.00	119.70
81	CE	81	GLU	C-N-CA	6.92	139.01	121.70
85	A5	1248	C	O4'-C1'-N1	6.92	113.74	108.20
85	A5	2557	G	O4'-C1'-N9	6.92	113.74	108.20
85	A5	3691	G	O4'-C1'-C2'	-6.92	98.88	105.80
85	A5	969	C	O4'-C1'-C2'	-6.92	98.88	105.80
85	A5	1282	G	P-O5'-C5'	6.92	131.97	120.90
85	A5	1719	A	O4'-C4'-C3'	-6.92	97.08	104.00
85	A5	4945	G	N9-C1'-C2'	6.92	123.00	114.00
36	B2	417	C	C3'-C2'-C1'	6.92	107.03	101.50
85	A5	354	U	O4'-C1'-C2'	-6.92	98.88	105.80
85	A5	4420	U	O4'-C1'-N1	6.92	113.73	108.20
85	A5	2399	G	C3'-C2'-C1'	-6.92	95.97	101.50
36	B2	1656	G	C1'-O4'-C4'	-6.91	104.37	109.90
69	Cg	46	CYS	N-CA-CB	-6.91	98.16	110.60
85	A5	1359	G	P-O3'-C3'	6.91	128.00	119.70
85	A5	1854	G	O4'-C1'-C2'	-6.91	98.89	105.80
85	A5	4717	A	N9-C1'-C2'	-6.91	104.39	112.00
85	A5	381	U	N1-C1'-C2'	6.91	122.98	114.00
85	A5	990	C	O4'-C1'-N1	6.91	113.73	108.20
85	A5	3742	G	O4'-C1'-N9	6.91	113.73	108.20
85	A5	1439	C	O4'-C1'-N1	6.91	113.73	108.20
85	A5	3744	G	C1'-O4'-C4'	-6.91	104.37	109.90
87	A8	21	C	C3'-C2'-C1'	6.91	107.03	101.50
85	A5	1567	U	O4'-C1'-N1	6.91	113.72	108.20
36	B2	1501	C	O3'-P-O5'	-6.91	90.88	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1511	U	N1-C1'-C2'	6.91	122.98	114.00
85	A5	2477	A	O4'-C1'-C2'	-6.91	98.89	105.80
85	A5	2795	A	O4'-C1'-C2'	-6.91	98.89	105.80
85	A5	4765	G	O4'-C1'-N9	6.91	113.72	108.20
36	B2	1243	U	O4'-C1'-N1	6.90	113.72	108.20
47	CI	211	VAL	O-C-N	-6.90	111.65	122.70
85	A5	319	A	O4'-C1'-N9	6.90	113.72	108.20
85	A5	4152	G	N9-C1'-C2'	6.90	122.98	114.00
85	A5	264	C	N1-C1'-C2'	6.90	122.97	114.00
85	A5	2718	U	C1'-O4'-C4'	6.90	115.42	109.90
85	A5	2769	U	C1'-O4'-C4'	-6.90	104.38	109.90
85	A5	3605	C	O4'-C1'-N1	6.90	113.72	108.20
39	Cq	32	ALA	O-C-N	6.90	133.74	122.70
47	CI	110	ARG	NE-CZ-NH1	6.90	123.75	120.30
86	A7	24	C	N1-C1'-C2'	6.90	122.97	114.00
12	AR	123	THR	CB-CA-C	-6.90	92.97	111.60
36	B2	384	U	N1-C1'-C2'	6.90	122.97	114.00
36	B2	730	C	P-O3'-C3'	6.90	127.98	119.70
74	CC	266	THR	CA-C-N	6.90	132.37	117.20
85	A5	1541	C	N1-C1'-C2'	6.90	122.97	114.00
85	A5	2539	C	N1-C1'-C2'	6.90	122.97	114.00
85	A5	3949	A	C1'-O4'-C4'	-6.90	104.38	109.90
85	A5	4569	U	O4'-C1'-N1	6.90	113.72	108.20
36	B2	1788	A	O4'-C1'-N9	6.89	113.72	108.20
64	CF	52	GLU	CB-CA-C	6.89	124.19	110.40
85	A5	214	G	C1'-O4'-C4'	-6.89	104.39	109.90
85	A5	3965	A	C3'-C2'-C1'	6.89	107.02	101.50
85	A5	2340	C	C3'-C2'-C1'	6.89	107.01	101.50
85	A5	4623	G	O4'-C1'-C2'	-6.89	98.91	105.80
36	B2	843	C	O4'-C1'-N1	6.89	113.71	108.20
85	A5	2513	A	C3'-C2'-C1'	6.89	107.01	101.50
85	A5	2874	U	N1-C1'-C2'	6.89	122.96	114.00
85	A5	3596	A	P-O3'-C3'	6.89	127.97	119.70
85	A5	3833	C	O4'-C1'-C2'	-6.89	98.91	105.80
86	A7	63	C	C5'-C4'-C3'	6.89	127.02	116.00
79	CJ	12	MET	N-CA-C	-6.89	92.40	111.00
85	A5	4055	U	O4'-C1'-N1	6.89	113.71	108.20
68	Cf	100	ARG	NE-CZ-NH2	-6.89	116.86	120.30
85	A5	1490	G	C3'-C2'-C1'	6.89	107.01	101.50
85	A5	2247	C	O4'-C1'-C2'	-6.89	98.91	105.80
85	A5	2332	A	C3'-C2'-C1'	-6.88	95.99	101.50
36	B2	693	A	O4'-C4'-C3'	-6.88	97.12	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BC	27	U	N1-C1'-C2'	-6.88	104.43	112.00
85	A5	1390	G	O4'-C1'-C2'	6.88	113.79	107.60
85	A5	2257	C	O4'-C1'-C2'	-6.88	98.92	105.80
85	A5	2375	A	O4'-C1'-N9	6.88	113.70	108.20
85	A5	3674	G	N9-C1'-C2'	6.88	122.94	114.00
85	A5	3746	A	C3'-C2'-C1'	6.88	107.01	101.50
85	A5	4729	A	P-O3'-C3'	6.88	127.96	119.70
85	A5	4963	G	N9-C1'-C2'	6.88	122.95	114.00
85	A5	4747	C	C4'-C3'-C2'	-6.88	95.72	102.60
7	AM	13	ASP	CB-CG-OD1	-6.88	112.11	118.30
36	B2	475	C	C3'-C2'-C1'	6.88	107.00	101.50
36	B2	509	G	O4'-C1'-N9	6.88	113.70	108.20
36	B2	1057	C	O4'-C1'-N1	6.88	113.70	108.20
66	Cd	117	LEU	CB-CG-CD1	-6.88	99.31	111.00
85	A5	3856	A	O4'-C1'-N9	6.88	113.70	108.20
36	B2	647	U	O4'-C1'-N1	6.88	113.70	108.20
36	B2	1652	G	O4'-C1'-N9	6.88	113.70	108.20
47	CI	176	PHE	N-CA-CB	-6.88	98.22	110.60
82	CG	35	ARG	CA-C-N	-6.88	97.85	117.10
85	A5	2347	A	O4'-C1'-C2'	-6.88	98.92	105.80
1	Az	427	VAL	CB-CA-C	-6.87	98.34	111.40
36	B2	387	C	N1-C1'-C2'	6.87	122.94	114.00
85	A5	244	G	C3'-C2'-C1'	6.87	107.00	101.50
85	A5	515	C	C3'-C2'-C1'	6.87	107.00	101.50
85	A5	694	C	O4'-C1'-N1	6.87	113.70	108.20
85	A5	2279	A	C3'-C2'-C1'	6.87	107.00	101.50
36	B2	1698	C	P-O3'-C3'	6.87	127.94	119.70
44	CM	70	GLN	CA-C-O	-6.87	105.68	120.10
69	Cg	82	MET	CB-CG-SD	6.87	133.01	112.40
85	A5	1358	G	C1'-O4'-C4'	-6.87	104.41	109.90
85	A5	4042	G	C1'-O4'-C4'	-6.87	104.41	109.90
36	B2	745	C	C3'-C2'-C1'	6.87	106.99	101.50
85	A5	3648	A	O4'-C1'-C2'	-6.87	98.93	105.80
85	A5	4676	G	N9-C1'-C2'	6.87	122.93	114.00
4	AK	2	LEU	N-CA-C	6.87	129.53	111.00
28	AC	257	LYS	N-CA-C	6.87	129.54	111.00
36	B2	325	C	O4'-C1'-C2'	-6.87	98.93	105.80
36	B2	1109	C	C3'-C2'-C1'	-6.87	96.01	101.50
85	A5	150	U	C4'-C3'-O3'	6.87	126.73	113.00
85	A5	1208	G	O4'-C1'-C2'	6.87	113.78	107.60
85	A5	1483	C	O4'-C1'-N1	-6.87	102.71	108.20
85	A5	1559	G	C1'-O4'-C4'	-6.87	104.41	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2491	C	O4'-C1'-N1	6.87	113.69	108.20
87	A8	13	G	N9-C1'-C2'	6.87	122.92	114.00
36	B2	202	G	O4'-C1'-N9	6.86	113.69	108.20
36	B2	1332	A	C3'-C2'-C1'	6.86	106.99	101.50
85	A5	299	C	C1'-O4'-C4'	-6.86	104.41	109.90
85	A5	3703	G	C1'-O4'-C4'	-6.86	104.41	109.90
87	A8	110	U	C4'-C3'-O3'	6.86	126.73	113.00
85	A5	917	A	N9-C1'-C2'	-6.86	104.45	112.00
85	A5	2745	A	N9-C1'-C2'	-6.86	104.45	112.00
85	A5	2902	G	O4'-C1'-C2'	-6.86	98.94	105.80
85	A5	3687	A	N9-C1'-C2'	-6.86	104.45	112.00
60	Cr	67	ARG	CB-CG-CD	6.86	129.44	111.60
85	A5	3655	C	O4'-C1'-C2'	-6.86	98.94	105.80
6	AX	128	VAL	N-CA-C	6.86	129.52	111.00
85	A5	2496	G	C1'-O4'-C4'	-6.86	104.41	109.90
36	B2	375	U	P-O5'-C5'	6.86	131.87	120.90
36	B2	383	G	C3'-C2'-C1'	6.86	106.99	101.50
63	CB	298	LEU	CA-C-O	6.86	134.50	120.10
85	A5	4896	G	P-O5'-C5'	6.86	131.87	120.90
85	A5	2563	C	N1-C1'-C2'	6.85	122.91	114.00
36	B2	773	C	P-O3'-C3'	6.85	127.92	119.70
49	CQ	139	LEU	N-CA-C	6.85	129.50	111.00
85	A5	949	G	O4'-C1'-N9	6.85	113.68	108.20
85	A5	1106	A	C4'-C3'-C2'	-6.85	95.75	102.60
85	A5	1580	C	N1-C1'-C2'	6.85	122.91	114.00
36	B2	287	U	O4'-C1'-N1	-6.85	102.72	108.20
36	B2	1732	G	O4'-C1'-N9	6.85	113.68	108.20
63	CB	112	ASP	N-CA-C	-6.85	92.50	111.00
36	B2	230	A	O4'-C1'-C2'	-6.85	98.95	105.80
61	Ch	121	VAL	CA-C-N	6.85	132.27	117.20
85	A5	1291	G	N9-C1'-C2'	6.85	122.90	114.00
85	A5	1894	C	N1-C1'-C2'	6.85	122.91	114.00
85	A5	18	C	C3'-C2'-C1'	6.85	106.98	101.50
85	A5	207	G	C1'-O4'-C4'	-6.85	104.42	109.90
85	A5	1242	G	P-O5'-C5'	6.85	131.86	120.90
85	A5	1409	C	P-O3'-C3'	6.85	127.92	119.70
85	A5	2493	G	O4'-C1'-N9	6.85	113.68	108.20
85	A5	2740	U	C5'-C4'-O4'	6.85	117.32	109.10
53	CT	75	VAL	CA-C-N	6.84	132.26	117.20
85	A5	497	G	O4'-C1'-N9	6.84	113.68	108.20
85	A5	1692	C	N1-C1'-C2'	6.84	122.90	114.00
85	A5	2634	C	O4'-C1'-N1	6.84	113.67	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
87	A8	90	C	C5'-C4'-C3'	6.84	126.95	116.00
44	CM	51	PRO	CA-N-CD	-6.84	101.92	111.50
85	A5	4259	C	C3'-C2'-C1'	6.84	106.97	101.50
85	A5	4492	U	C1'-O4'-C4'	6.84	115.38	109.90
1	Az	779	THR	C-N-CD	6.84	142.77	128.40
42	CL	130	LYS	CB-CA-C	6.84	124.08	110.40
85	A5	2303	C	O4'-C1'-N1	6.84	113.67	108.20
85	A5	2724	G	P-O3'-C3'	6.84	127.91	119.70
36	B2	379	C	C3'-C2'-C1'	6.84	106.97	101.50
36	B2	459	C	C5'-C4'-O4'	6.84	117.31	109.10
85	A5	28	C	O4'-C1'-N1	6.84	113.67	108.20
85	A5	2333	G	C5'-C4'-O4'	6.84	117.31	109.10
85	A5	2710	C	P-O3'-C3'	6.84	127.91	119.70
38	Cz	209	THR	N-CA-CB	6.84	123.29	110.30
87	A8	106	G	N9-C1'-C2'	6.84	122.89	114.00
36	B2	619	A	N9-C1'-C2'	-6.84	104.48	112.00
37	BC	53	A	C3'-C2'-C1'	6.84	106.97	101.50
33	AI	8	TRP	CG-CD2-CE3	-6.83	127.75	133.90
36	B2	194	C	N1-C1'-C2'	6.83	122.89	114.00
36	B2	1657	G	C1'-O4'-C4'	-6.83	104.43	109.90
42	CL	164	GLU	C-N-CA	-6.83	104.61	121.70
85	A5	2092	G	C4'-C3'-C2'	-6.83	95.77	102.60
85	A5	2110	C	P-O3'-C3'	-6.83	111.50	119.70
85	A5	4346	U	O4'-C1'-N1	6.83	113.67	108.20
81	CE	30	GLY	CA-C-N	6.83	132.23	117.20
85	A5	953	C	O4'-C1'-C2'	-6.83	98.97	105.80
85	A5	4953	G	O4'-C1'-C2'	6.83	113.75	107.60
36	B2	1551	U	C3'-C2'-C1'	-6.83	96.04	101.50
36	B2	1863	A	C1'-O4'-C4'	6.83	115.36	109.90
74	CC	306	ARG	N-CA-CB	6.83	122.89	110.60
12	AR	87	GLU	CB-CA-C	-6.83	96.75	110.40
59	CZ	79	HIS	N-CA-C	6.83	129.43	111.00
85	A5	1285	U	C3'-C2'-C1'	6.83	106.96	101.50
85	A5	2124	G	O4'-C1'-N9	6.83	113.66	108.20
85	A5	4276	G	O4'-C1'-N9	6.83	113.66	108.20
36	B2	581	U	P-O3'-C3'	-6.83	111.51	119.70
36	B2	904	A	C1'-O4'-C4'	-6.83	104.44	109.90
36	B2	1177	U	O4'-C1'-N1	6.83	113.66	108.20
85	A5	141	C	C3'-C2'-C1'	6.83	106.96	101.50
52	CS	152	PHE	CA-C-O	-6.82	105.77	120.10
85	A5	3646	A	C1'-O4'-C4'	6.82	115.36	109.90
36	B2	519	A	O4'-C1'-C2'	-6.82	98.98	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	3747	A	O4'-C1'-C2'	-6.82	98.98	105.80
36	B2	331	C	O4'-C1'-C2'	-6.82	98.98	105.80
36	B2	379	C	P-O3'-C3'	6.82	127.89	119.70
85	A5	1628	C	C1'-O4'-C4'	-6.82	104.44	109.90
63	CB	314	ILE	CB-CA-C	-6.82	97.96	111.60
85	A5	1846	G	N9-C1'-C2'	6.82	122.86	114.00
31	AH	110	THR	CA-CB-CG2	6.82	121.94	112.40
85	A5	184	U	O4'-C1'-N1	6.82	113.66	108.20
85	A5	184	U	C1'-O4'-C4'	6.82	115.35	109.90
85	A5	1688	G	O4'-C1'-C2'	6.82	113.74	107.60
85	A5	2520	C	O4'-C1'-N1	6.82	113.65	108.20
36	B2	15	U	O4'-C1'-N1	6.82	113.65	108.20
36	B2	646	G	O4'-C1'-N9	6.82	113.65	108.20
39	Cq	6	ARG	N-CA-C	6.82	129.40	111.00
85	A5	276	C	C4'-C3'-C2'	6.82	109.42	102.60
85	A5	930	G	C3'-C2'-C1'	-6.82	96.05	101.50
85	A5	413	G	P-O3'-C3'	6.81	127.88	119.70
85	A5	3641	U	C3'-C2'-C1'	6.81	106.95	101.50
85	A5	4598	C	O4'-C1'-C2'	-6.81	98.99	105.80
36	B2	1046	U	O4'-C1'-N1	6.81	113.65	108.20
36	B2	1643	U	C3'-C2'-C1'	6.81	106.95	101.50
85	A5	2248	C	O4'-C1'-C2'	-6.81	98.99	105.80
85	A5	3926	C	N1-C1'-C2'	6.81	122.86	114.00
36	B2	1535	U	C4'-C3'-O3'	6.81	126.62	113.00
85	A5	66	A	C3'-C2'-C1'	6.81	106.95	101.50
1	Az	285	LEU	O-C-N	-6.81	108.16	121.10
20	Aa	58	VAL	CG1-CB-CG2	-6.81	100.01	110.90
36	B2	322	C	C3'-C2'-C1'	6.81	106.95	101.50
36	B2	1516	G	O4'-C1'-N9	6.81	113.65	108.20
36	B2	1638	G	C3'-C2'-C1'	6.81	106.95	101.50
85	A5	1744	U	O4'-C1'-N1	6.81	113.65	108.20
85	A5	4145	C	O4'-C1'-C2'	-6.81	98.99	105.80
36	B2	322	C	P-O3'-C3'	6.81	127.87	119.70
36	B2	849	A	O4'-C1'-N9	6.81	113.65	108.20
85	A5	2335	C	C3'-C2'-C1'	6.81	106.95	101.50
86	A7	41	G	O4'-C1'-C2'	6.81	113.73	107.60
36	B2	1427	C	O4'-C1'-C2'	-6.81	98.99	105.80
87	A8	54	C	N1-C1'-C2'	6.81	122.85	114.00
28	AC	120	GLN	N-CA-C	6.80	129.38	111.00
37	BC	63	U	O4'-C1'-N1	6.80	113.64	108.20
86	A7	4	U	C1'-O4'-C4'	-6.80	104.46	109.90
86	A7	4	U	N1-C1'-C2'	6.80	122.84	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1285	U	C4'-C3'-C2'	-6.80	95.80	102.60
85	A5	1573	G	P-O3'-C3'	6.80	127.86	119.70
85	A5	1690	C	C3'-C2'-C1'	6.80	106.94	101.50
85	A5	2244	C	O4'-C1'-N1	6.80	113.64	108.20
85	A5	3864	C	C3'-C2'-C1'	6.80	106.94	101.50
86	A7	4	U	C5'-C4'-C3'	-6.80	105.12	116.00
30	AF	37	ASP	N-CA-C	6.80	129.35	111.00
85	A5	1491	A	O4'-C1'-N9	6.80	113.64	108.20
85	A5	3816	A	O4'-C1'-N9	6.80	113.64	108.20
36	B2	912	C	O4'-C1'-N1	6.80	113.64	108.20
36	B2	1550	G	P-O3'-C3'	6.80	127.86	119.70
48	CD	268	ARG	N-CA-C	-6.80	92.65	111.00
85	A5	2647	A	O4'-C1'-N9	-6.80	102.76	108.20
85	A5	4493	U	O4'-C1'-N1	6.79	113.64	108.20
36	B2	1744	G	C1'-O4'-C4'	6.79	115.33	109.90
81	CE	188	ARG	CD-NE-CZ	-6.79	114.09	123.60
85	A5	218	A	P-O3'-C3'	6.79	127.85	119.70
85	A5	1048	G	O4'-C1'-N9	6.79	113.64	108.20
36	B2	1608	U	O4'-C1'-N1	6.79	113.63	108.20
50	CR	143	HIS	CE1-NE2-CD2	6.79	123.58	106.60
85	A5	2019	C	O4'-C1'-N1	6.79	113.63	108.20
87	A8	100	U	C1'-O4'-C4'	-6.79	104.47	109.90
85	A5	677	G	P-O3'-C3'	6.79	127.85	119.70
86	A7	68	C	C3'-C2'-C1'	6.79	106.93	101.50
36	B2	246	C	P-O3'-C3'	6.79	127.85	119.70
85	A5	2899	C	C3'-C2'-C1'	6.79	106.93	101.50
85	A5	4935	C	P-O3'-C3'	-6.79	111.55	119.70
24	Ae	48	THR	O-C-N	-6.79	111.84	122.70
63	CB	112	ASP	C-N-CA	-6.79	104.73	121.70
36	B2	740	C	O4'-C1'-N1	6.79	113.63	108.20
60	Cr	106	LEU	CA-C-N	6.78	132.12	117.20
85	A5	501	C	O4'-C1'-C2'	-6.78	99.02	105.80
85	A5	4188	U	O4'-C1'-N1	6.78	113.63	108.20
85	A5	4631	G	O4'-C1'-N9	6.78	113.63	108.20
36	B2	794	A	C3'-C2'-C1'	6.78	106.93	101.50
74	CC	232	VAL	CA-C-N	-6.78	102.28	117.20
85	A5	2667	C	P-O3'-C3'	-6.78	111.56	119.70
2	Ag	159	ASN	C-N-CA	-6.78	104.75	121.70
36	B2	910	G	C1'-O4'-C4'	-6.78	104.48	109.90
85	A5	181	C	P-O3'-C3'	6.78	127.84	119.70
85	A5	2119	C	O4'-C1'-N1	6.78	113.62	108.20
85	A5	4622	A	N9-C1'-C2'	-6.78	104.54	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	A7	87	G	O4'-C1'-N9	6.78	113.62	108.20
56	CX	51	THR	O-C-N	-6.78	111.85	122.70
85	A5	170	C	O4'-C1'-N1	6.78	113.62	108.20
85	A5	912	G	C1'-O4'-C4'	-6.78	104.48	109.90
85	A5	1425	G	O4'-C1'-N9	6.78	113.62	108.20
85	A5	1907	A	O4'-C1'-C2'	6.78	113.70	107.60
85	A5	2313	A	C1'-O4'-C4'	6.78	115.32	109.90
85	A5	5041	G	C3'-C2'-C1'	-6.78	96.08	101.50
3	AU	48	LEU	CA-CB-CG	-6.78	99.71	115.30
36	B2	31	U	C1'-O4'-C4'	6.78	115.32	109.90
36	B2	880	G	C3'-C2'-C1'	-6.78	96.08	101.50
36	B2	1203	G	O4'-C1'-C2'	6.78	113.70	107.60
36	B2	1785	C	P-O3'-C3'	6.78	127.83	119.70
85	A5	4079	C	O4'-C1'-N1	6.78	113.62	108.20
85	A5	965	G	C5'-C4'-O4'	6.78	117.23	109.10
85	A5	1444	G	O4'-C1'-N9	6.78	113.62	108.20
85	A5	2802	C	C3'-C2'-C1'	6.78	106.92	101.50
85	A5	4417	C	N1-C1'-C2'	6.78	122.81	114.00
36	B2	741	C	N1-C1'-C2'	6.77	122.80	114.00
1	Az	825	PHE	N-CA-C	6.77	129.28	111.00
81	CE	219	LYS	CG-CD-CE	6.77	132.21	111.90
85	A5	2571	C	C1'-O4'-C4'	-6.77	104.48	109.90
85	A5	4158	C	N1-C1'-C2'	6.77	122.80	114.00
86	A7	46	C	O4'-C1'-N1	6.77	113.62	108.20
55	CU	76	VAL	N-CA-CB	6.77	126.39	111.50
85	A5	1602	U	O4'-C1'-N1	6.77	113.61	108.20
85	A5	1656	U	C1'-O4'-C4'	-6.77	104.49	109.90
85	A5	2110	C	C5'-C4'-O4'	6.77	117.22	109.10
85	A5	4989	U	O3'-P-O5'	6.77	116.86	104.00
85	A5	4930	C	N1-C1'-C2'	6.76	122.79	114.00
36	B2	854	A	P-O5'-C5'	6.76	131.72	120.90
85	A5	1293	G	C1'-O4'-C4'	-6.76	104.49	109.90
85	A5	2506	G	O4'-C1'-N9	-6.76	102.79	108.20
85	A5	3914	U	O4'-C1'-N1	6.76	113.61	108.20
36	B2	1226	G	C1'-O4'-C4'	-6.76	104.49	109.90
36	B2	1354	G	C2'-C3'-O3'	6.76	124.52	113.70
47	CI	194	GLY	CA-C-N	-6.76	102.33	117.20
85	A5	2826	U	N1-C1'-C2'	6.76	122.79	114.00
15	AB	41	ILE	CG1-CB-CG2	-6.76	96.53	111.40
36	B2	1075	C	C1'-O4'-C4'	-6.76	104.49	109.90
36	B2	1760	G	N9-C1'-C2'	-6.76	104.56	112.00
85	A5	299	C	N1-C1'-C2'	6.76	122.79	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2355	G	O4'-C1'-N9	6.76	113.61	108.20
85	A5	2385	U	O4'-C1'-N1	6.76	113.61	108.20
82	CG	105	GLU	O-C-N	6.76	133.51	122.70
85	A5	4604	G	O4'-C1'-N9	6.75	113.60	108.20
36	B2	982	G	O4'-C1'-N9	6.75	113.60	108.20
85	A5	31	U	O4'-C1'-N1	6.75	113.60	108.20
85	A5	4177	C	O4'-C1'-N1	6.75	113.60	108.20
85	A5	4597	U	O4'-C1'-N1	6.75	113.60	108.20
36	B2	866	U	C3'-C2'-C1'	-6.75	96.10	101.50
36	B2	881	G	C1'-O4'-C4'	-6.75	104.50	109.90
85	A5	236	G	O4'-C1'-N9	6.75	113.60	108.20
87	A8	68	G	C1'-O4'-C4'	-6.75	104.50	109.90
66	Cd	105	LEU	CA-C-N	-6.75	102.35	117.20
74	CC	356	ALA	CA-C-N	-6.75	102.35	117.20
15	AB	133	TYR	N-CA-CB	-6.75	98.45	110.60
36	B2	558	G	C1'-O4'-C4'	-6.75	104.50	109.90
85	A5	1854	G	O4'-C1'-N9	-6.75	102.80	108.20
85	A5	2505	C	C5'-C4'-O4'	6.75	117.20	109.10
85	A5	3606	U	O4'-C1'-N1	6.75	113.60	108.20
85	A5	4175	G	C3'-C2'-C1'	-6.75	96.10	101.50
36	B2	1686	G	O4'-C1'-N9	6.75	113.60	108.20
36	B2	1865	C	C2'-C3'-O3'	-6.75	94.66	109.50
85	A5	1162	G	C1'-O4'-C4'	-6.75	104.50	109.90
85	A5	1401	C	O4'-C1'-C2'	-6.75	99.05	105.80
85	A5	1741	G	O4'-C1'-C2'	6.75	113.67	107.60
85	A5	2802	C	O4'-C1'-N1	6.75	113.60	108.20
85	A5	4641	U	N1-C1'-C2'	-6.75	104.58	112.00
87	A8	132	G	O4'-C1'-N9	6.75	113.60	108.20
41	CO	185	VAL	O-C-N	-6.75	111.91	122.70
85	A5	4320	G	C1'-O4'-C4'	-6.75	104.50	109.90
36	B2	481	C	N1-C1'-C2'	6.74	122.77	114.00
36	B2	1370	A	O4'-C1'-C2'	-6.74	99.06	105.80
85	A5	1614	C	C3'-C2'-C1'	6.74	106.89	101.50
85	A5	4908	G	C1'-O4'-C4'	-6.74	104.51	109.90
36	B2	1578	U	C1'-O4'-C4'	6.74	115.29	109.90
36	B2	1698	C	O4'-C1'-C2'	-6.74	99.06	105.80
85	A5	1378	C	P-O5'-C5'	6.74	131.69	120.90
85	A5	4950	U	O4'-C1'-N1	6.74	113.59	108.20
85	A5	1107	C	O4'-C1'-N1	6.74	113.59	108.20
85	A5	2236	C	C4'-C3'-O3'	-6.74	95.25	109.40
85	A5	4866	C	C1'-O4'-C4'	-6.74	104.51	109.90
17	AV	67	ASP	CB-CG-OD2	6.74	124.37	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1687	C	C3'-C2'-C1'	6.74	106.89	101.50
85	A5	2602	G	O4'-C1'-N9	6.74	113.59	108.20
85	A5	2879	A	C3'-C2'-C1'	6.74	106.89	101.50
85	A5	4370	G	C5'-C4'-O4'	6.74	117.19	109.10
85	A5	4614	G	O4'-C1'-C2'	6.74	113.67	107.60
36	B2	125	C	O3'-P-O5'	6.74	116.80	104.00
85	A5	1859	C	O4'-C1'-N1	6.74	113.59	108.20
85	A5	2669	C	P-O5'-C5'	6.74	131.68	120.90
36	B2	1028	A	C5'-C4'-C3'	-6.74	105.22	116.00
85	A5	1245	C	N1-C1'-C2'	6.74	122.76	114.00
85	A5	4696	C	C3'-C2'-C1'	6.74	106.89	101.50
1	Az	42	LYS	CA-C-N	-6.73	102.39	117.20
37	BC	60	C	C3'-C2'-C1'	6.73	106.89	101.50
1	Az	76	SER	CA-C-N	-6.73	102.39	117.20
36	B2	1422	G	N9-C1'-C2'	-6.73	104.59	112.00
85	A5	448	G	C1'-O4'-C4'	-6.73	104.51	109.90
85	A5	4380	A	C1'-O4'-C4'	6.73	115.29	109.90
85	A5	1865	G	C4'-C3'-C2'	-6.73	95.87	102.60
85	A5	4459	U	C1'-O4'-C4'	-6.73	104.52	109.90
40	CK	26	SER	C-N-CA	6.73	138.52	121.70
85	A5	3618	C	O4'-C1'-N1	6.73	113.58	108.20
29	AG	157	VAL	CA-C-N	-6.73	102.40	117.20
36	B2	1783	C	C3'-C2'-C1'	6.73	106.88	101.50
44	CM	3	PHE	O-C-N	-6.73	111.94	122.70
49	CQ	91	ARG	CB-CA-C	6.73	123.86	110.40
85	A5	647	G	O4'-C1'-C2'	-6.73	99.07	105.80
85	A5	3639	U	O4'-C1'-N1	6.73	113.58	108.20
85	A5	84	A	O4'-C1'-C2'	-6.73	99.07	105.80
85	A5	1105	C	O4'-C1'-N1	6.73	113.58	108.20
85	A5	1274	A	C5'-C4'-C3'	6.72	126.76	116.00
85	A5	1845	U	O4'-C1'-N1	6.72	113.58	108.20
85	A5	4264	G	O4'-C1'-N9	6.72	113.58	108.20
85	A5	4634	U	N1-C1'-C2'	6.72	122.74	114.00
36	B2	1459	G	O4'-C1'-C2'	6.72	113.65	107.60
85	A5	2638	G	C1'-O4'-C4'	6.72	115.28	109.90
36	B2	622	C	C1'-O4'-C4'	-6.72	104.52	109.90
85	A5	69	A	C3'-C2'-C1'	6.72	106.88	101.50
85	A5	2900	U	O4'-C1'-N1	6.72	113.58	108.20
36	B2	560	A	O4'-C1'-N9	6.72	113.58	108.20
74	CC	305	PRO	CB-CA-C	-6.72	95.20	112.00
85	A5	4593	C	N1-C1'-C2'	6.72	122.73	114.00
85	A5	4718	G	C3'-C2'-C1'	6.72	106.88	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	487	G	O4'-C1'-N9	6.72	113.57	108.20
26	AJ	144	ILE	CB-CA-C	6.72	125.03	111.60
85	A5	169	G	O4'-C1'-N9	6.72	113.57	108.20
85	A5	2767	U	C3'-C2'-C1'	-6.71	96.13	101.50
26	AJ	179	LYS	C-N-CA	6.71	138.48	121.70
85	A5	4408	G	O4'-C1'-N9	6.71	113.57	108.20
85	A5	4910	G	C4'-C3'-O3'	-6.71	95.30	109.40
36	B2	308	G	O4'-C1'-C2'	6.71	113.64	107.60
36	B2	993	G	O4'-C1'-N9	6.71	113.57	108.20
85	A5	1478	C	C1'-O4'-C4'	-6.71	104.53	109.90
85	A5	4684	A	O4'-C1'-C2'	-6.71	99.09	105.80
36	B2	1780	G	O3'-P-O5'	6.71	116.75	104.00
36	B2	729	C	O4'-C1'-C2'	-6.71	99.09	105.80
85	A5	1531	U	O4'-C1'-N1	6.71	113.57	108.20
85	A5	1227	C	P-O3'-C3'	6.71	127.75	119.70
36	B2	1092	G	O4'-C1'-N9	6.71	113.56	108.20
68	Cf	100	ARG	N-CA-CB	6.71	122.67	110.60
81	CE	81	GLU	N-CA-C	6.71	129.10	111.00
85	A5	26	C	O4'-C1'-N1	6.71	113.56	108.20
36	B2	550	C	O3'-P-O5'	-6.70	91.27	104.00
36	B2	1524	G	O4'-C1'-N9	6.70	113.56	108.20
36	B2	1784	G	N9-C1'-C2'	6.70	122.71	114.00
85	A5	2594	C	N1-C1'-C2'	6.70	122.71	114.00
85	A5	4501	U	O4'-C1'-N1	6.70	113.56	108.20
36	B2	551	U	O4'-C1'-C2'	6.70	113.63	107.60
36	B2	1459	G	N9-C1'-C2'	6.70	122.71	114.00
59	CZ	102	ARG	NE-CZ-NH2	-6.70	116.95	120.30
81	CE	93	THR	CA-CB-OG1	6.70	123.07	109.00
85	A5	2569	G	C1'-O4'-C4'	-6.70	104.54	109.90
85	A5	2823	G	O4'-C1'-N9	6.70	113.56	108.20
85	A5	686	A	N9-C1'-C2'	-6.70	104.63	112.00
85	A5	3670	C	N1-C1'-C2'	6.70	122.71	114.00
1	Az	197	SER	CA-C-N	-6.70	102.81	116.20
36	B2	924	G	O4'-C1'-N9	6.70	113.56	108.20
82	CG	56	LYS	O-C-N	6.70	133.41	122.70
85	A5	150	U	N1-C1'-C2'	-6.70	104.64	112.00
85	A5	4433	G	O4'-C1'-N9	6.70	113.56	108.20
86	A7	93	G	O4'-C1'-C2'	6.70	113.63	107.60
36	B2	1173	A	O4'-C1'-N9	6.69	113.56	108.20
85	A5	1101	C	C3'-C2'-C1'	6.69	106.86	101.50
15	AB	155	TYR	CB-CA-C	-6.69	97.02	110.40
85	A5	1748	U	N1-C1'-C2'	-6.69	104.64	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2303	C	C5'-C4'-O4'	6.69	117.13	109.10
85	A5	3628	G	O4'-C1'-N9	6.69	113.55	108.20
32	AW	2	VAL	C-N-CA	-6.69	104.97	121.70
40	CK	111	ASN	CA-CB-CG	6.69	128.12	113.40
38	Cz	27	LYS	O-C-N	-6.69	112.00	122.70
85	A5	1303	A	O4'-C1'-N9	6.69	113.55	108.20
1	Az	122	THR	N-CA-CB	-6.68	97.60	110.30
85	A5	2477	A	O4'-C1'-N9	6.68	113.55	108.20
36	B2	31	U	N1-C1'-C2'	-6.68	104.65	112.00
85	A5	3814	U	N1-C1'-C2'	6.68	122.69	114.00
36	B2	1118	C	C1'-O4'-C4'	6.68	115.25	109.90
85	A5	2443	G	O4'-C1'-C2'	6.68	113.61	107.60
85	A5	4211	C	C3'-C2'-C1'	6.68	106.84	101.50
86	A7	75	G	O4'-C1'-N9	6.68	113.55	108.20
16	AA	53	ARG	NE-CZ-NH1	-6.68	116.96	120.30
36	B2	457	C	O4'-C1'-N1	6.68	113.54	108.20
85	A5	336	A	O4'-C1'-N9	6.68	113.54	108.20
85	A5	391	U	N1-C1'-C2'	6.68	122.68	114.00
85	A5	2250	C	C3'-C2'-C1'	6.68	106.84	101.50
85	A5	2647	A	C3'-C2'-C1'	6.68	106.84	101.50
36	B2	1281	G	O4'-C1'-N9	6.68	113.54	108.20
85	A5	1268	G	P-O3'-C3'	6.68	127.71	119.70
85	A5	1586	G	C3'-C2'-C1'	6.68	106.84	101.50
85	A5	2677	G	N9-C1'-C2'	6.68	122.68	114.00
85	A5	4564	A	C3'-C2'-C1'	6.68	106.84	101.50
26	AJ	91	LYS	N-CA-C	-6.67	92.98	111.00
36	B2	1175	G	C1'-O4'-C4'	-6.67	104.56	109.90
85	A5	185	C	C1'-O4'-C4'	6.67	115.24	109.90
85	A5	1070	G	C1'-O4'-C4'	-6.67	104.56	109.90
85	A5	2392	C	C3'-C2'-C1'	6.67	106.84	101.50
86	A7	120	U	P-O3'-C3'	6.67	127.71	119.70
85	A5	2546	G	O3'-P-O5'	6.67	116.68	104.00
85	A5	2814	C	N1-C1'-C2'	6.67	122.67	114.00
85	A5	4767	C	C5'-C4'-C3'	6.67	126.68	116.00
85	A5	4869	U	O4'-C1'-N1	6.67	113.54	108.20
86	A7	73	U	C1'-O4'-C4'	-6.67	104.56	109.90
85	A5	2397	G	C3'-C2'-C1'	-6.67	96.16	101.50
36	B2	442	C	N1-C1'-C2'	6.67	122.67	114.00
2	Ag	142	VAL	O-C-N	6.67	133.37	122.70
36	B2	1538	C	O4'-C1'-C2'	-6.67	99.13	105.80
85	A5	430	G	C3'-C2'-C1'	-6.67	96.17	101.50
85	A5	3954	A	O4'-C1'-C2'	-6.67	99.13	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	3964	U	C1'-O4'-C4'	6.67	115.23	109.90
30	AF	130	ARG	N-CA-C	6.67	129.00	111.00
81	CE	62	MET	CA-CB-CG	6.67	124.63	113.30
85	A5	2458	C	O4'-C1'-C2'	-6.67	99.14	105.80
17	AV	78	ILE	N-CA-CB	-6.66	95.47	110.80
36	B2	314	U	P-O3'-C3'	-6.66	111.70	119.70
36	B2	447	A	C1'-O4'-C4'	6.66	115.23	109.90
36	B2	448	A	C3'-C2'-C1'	-6.66	96.17	101.50
85	A5	4640	C	N1-C1'-C2'	6.66	122.66	114.00
4	AK	89	ILE	CA-CB-CG1	-6.66	98.34	111.00
36	B2	1270	G	N9-C1'-C2'	-6.66	104.67	112.00
85	A5	432	U	C1'-O4'-C4'	-6.66	104.57	109.90
85	A5	3911	C	O4'-C1'-N1	6.66	113.53	108.20
87	A8	17	A	C3'-C2'-C1'	6.66	106.83	101.50
12	AR	121	GLN	C-N-CD	-6.66	105.95	120.60
13	AP	36	LEU	N-CA-C	-6.66	93.02	111.00
28	AC	57	ASP	C-N-CA	-6.66	105.05	121.70
36	B2	857	U	N1-C1'-C2'	6.66	122.66	114.00
85	A5	1363	C	C5'-C4'-O4'	6.66	117.09	109.10
85	A5	2913	C	P-O3'-C3'	6.66	127.69	119.70
85	A5	4137	C	C3'-C2'-C1'	6.66	106.83	101.50
85	A5	5064	G	C1'-O4'-C4'	-6.66	104.57	109.90
85	A5	5065	U	C4'-C3'-C2'	6.66	109.26	102.60
36	B2	827	A	N9-C1'-C2'	6.66	122.66	114.00
36	B2	1644	C	P-O3'-C3'	6.66	127.69	119.70
74	CC	54	VAL	O-C-N	6.66	133.35	122.70
85	A5	4966	A	N9-C1'-C2'	6.66	122.66	114.00
85	A5	430	G	O4'-C1'-C2'	6.66	113.59	107.60
36	B2	522	A	P-O5'-C5'	6.66	131.55	120.90
85	A5	1486	C	C3'-C2'-C1'	6.66	106.83	101.50
85	A5	1919	G	C3'-C2'-C1'	6.66	106.83	101.50
36	B2	1171	G	O4'-C1'-C2'	-6.65	99.15	105.80
36	B2	1258	A	O4'-C1'-N9	6.65	113.52	108.20
68	Cf	65	ASN	N-CA-CB	6.65	122.58	110.60
85	A5	122	U	O4'-C1'-N1	6.65	113.52	108.20
85	A5	2130	G	O4'-C1'-N9	6.65	113.52	108.20
85	A5	3978	C	P-O3'-C3'	6.65	127.68	119.70
85	A5	1212	G	C1'-O4'-C4'	-6.65	104.58	109.90
85	A5	3594	C	C1'-O4'-C4'	-6.65	104.58	109.90
85	A5	4919	G	O4'-C1'-N9	6.65	113.52	108.20
36	B2	1867	U	P-O3'-C3'	6.65	127.68	119.70
68	Cf	59	THR	CA-CB-OG1	6.65	122.97	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1709	C	C4'-C3'-O3'	6.65	126.30	113.00
85	A5	3609	G	O4'-C1'-N9	6.65	113.52	108.20
85	A5	4236	G	C1'-O4'-C4'	-6.65	104.58	109.90
37	BC	54	U	P-O3'-C3'	6.65	127.68	119.70
85	A5	1239	C	O4'-C1'-C2'	-6.65	99.15	105.80
36	B2	591	U	P-O3'-C3'	6.65	127.68	119.70
85	A5	1635	C	O4'-C1'-N1	6.65	113.52	108.20
85	A5	2736	G	C1'-O4'-C4'	-6.65	104.58	109.90
36	B2	328	U	O4'-C1'-N1	6.65	113.52	108.20
36	B2	1255	G	P-O3'-C3'	-6.64	111.73	119.70
36	B2	1678	A	C3'-C2'-C1'	-6.64	96.18	101.50
52	CS	72	PRO	C-N-CA	6.64	138.31	121.70
81	CE	87	LYS	C-N-CA	6.64	138.31	121.70
85	A5	218	A	C3'-C2'-C1'	6.64	106.81	101.50
85	A5	278	G	O4'-C1'-N9	-6.64	102.89	108.20
85	A5	911	U	O4'-C1'-N1	6.64	113.52	108.20
85	A5	2703	G	O4'-C1'-N9	6.64	113.52	108.20
85	A5	5057	C	O4'-C1'-N1	6.64	113.52	108.20
47	CI	4	ARG	N-CA-C	6.64	128.94	111.00
64	CF	183	GLY	N-CA-C	-6.64	96.49	113.10
36	B2	182	C	O4'-C1'-C2'	-6.64	99.16	105.80
74	CC	108	TRP	CA-C-N	6.64	131.81	117.20
85	A5	1285	U	C1'-O4'-C4'	-6.64	104.59	109.90
85	A5	2853	C	N1-C1'-C2'	6.64	122.63	114.00
85	A5	4997	G	C1'-O4'-C4'	-6.64	104.59	109.90
86	A7	61	G	P-O3'-C3'	-6.64	111.73	119.70
8	AS	16	LEU	CB-CG-CD2	-6.64	99.72	111.00
17	AV	78	ILE	C-N-CA	-6.64	105.11	121.70
36	B2	626	G	O4'-C1'-N9	-6.64	102.89	108.20
85	A5	1603	C	O4'-C1'-N1	6.64	113.51	108.20
85	A5	2416	G	C1'-O4'-C4'	6.64	115.21	109.90
64	CF	115	ARG	CB-CA-C	-6.63	97.13	110.40
85	A5	96	U	O4'-C1'-N1	6.63	113.51	108.20
85	A5	187	U	O4'-C1'-N1	6.63	113.51	108.20
85	A5	3921	U	N1-C1'-C2'	6.63	122.62	114.00
85	A5	4528	G	C3'-C2'-C1'	6.63	106.81	101.50
85	A5	4995	U	C3'-C2'-C1'	6.63	106.81	101.50
29	AG	219	GLU	O-C-N	-6.63	112.09	122.70
80	CH	50	LYS	C-N-CA	-6.63	105.12	121.70
80	CH	129	ARG	C-N-CD	-6.63	106.01	120.60
85	A5	4738	C	N1-C1'-C2'	6.63	122.62	114.00
85	A5	1748	U	O4'-C1'-N1	6.63	113.50	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	281	C	O3'-P-O5'	6.63	116.60	104.00
36	B2	1247	C	O4'-C1'-C2'	-6.63	99.17	105.80
85	A5	733	A	C1'-O4'-C4'	-6.63	104.60	109.90
85	A5	4737	G	O4'-C1'-N9	6.63	113.50	108.20
87	A8	77	A	O4'-C1'-C2'	-6.63	99.17	105.80
85	A5	1868	A	N9-C1'-C2'	-6.63	104.71	112.00
85	A5	2315	G	O4'-C1'-N9	6.63	113.50	108.20
36	B2	94	G	C1'-O4'-C4'	-6.62	104.60	109.90
36	B2	1042	A	O4'-C1'-N9	6.62	113.50	108.20
85	A5	73	A	O4'-C1'-N9	6.62	113.50	108.20
85	A5	652	G	C1'-O4'-C4'	-6.62	104.60	109.90
85	A5	4923	C	O4'-C1'-N1	6.62	113.50	108.20
87	A8	23	C	O4'-C1'-C2'	-6.62	99.17	105.80
36	B2	144	U	C1'-O4'-C4'	-6.62	104.60	109.90
42	CL	46	ILE	CA-C-O	-6.62	106.19	120.10
85	A5	2784	C	C1'-O4'-C4'	-6.62	104.60	109.90
36	B2	1284	A	O4'-C1'-C2'	-6.62	99.18	105.80
39	Cq	94	ASP	N-CA-C	6.62	128.88	111.00
36	B2	1526	G	O4'-C1'-N9	6.62	113.50	108.20
85	A5	3667	C	O4'-C1'-N1	6.62	113.50	108.20
36	B2	1494	U	C2'-C3'-O3'	6.62	124.29	113.70
54	CP	93	HIS	CB-CA-C	6.62	123.64	110.40
81	CE	140	LEU	O-C-N	-6.62	112.11	122.70
85	A5	1187	G	O4'-C1'-C2'	-6.62	99.18	105.80
85	A5	2500	U	O4'-C1'-N1	6.62	113.49	108.20
85	A5	2889	G	C1'-O4'-C4'	-6.62	104.61	109.90
36	B2	453	C	C3'-C2'-C1'	6.62	106.79	101.50
52	CS	89	GLY	C-N-CA	-6.62	105.16	121.70
85	A5	1935	C	O4'-C1'-C2'	-6.62	99.19	105.80
85	A5	3967	G	N9-C1'-C2'	6.62	122.60	114.00
87	A8	108	A	O4'-C1'-N9	6.62	113.49	108.20
20	Aa	63	VAL	CB-CA-C	6.61	123.97	111.40
36	B2	62	G	C1'-O4'-C4'	-6.61	104.61	109.90
36	B2	1825	A	C3'-C2'-C1'	-6.61	96.21	101.50
85	A5	310	G	O4'-C1'-N9	6.61	113.49	108.20
85	A5	2536	A	N9-C1'-C2'	-6.61	104.72	112.00
36	B2	70	G	O3'-P-O5'	-6.61	91.44	104.00
64	CF	32	ARG	CB-CA-C	-6.61	97.17	110.40
36	B2	1158	G	N9-C1'-C2'	-6.61	104.73	112.00
36	B2	1288	U	O4'-C1'-N1	6.61	113.49	108.20
85	A5	1930	U	O4'-C1'-C2'	-6.61	99.19	105.80
36	B2	316	G	P-O5'-C5'	6.61	131.47	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1530	U	O4'-C1'-N1	6.61	113.49	108.20
58	CW	71	ARG	N-CA-C	6.61	128.84	111.00
85	A5	133	C	N1-C1'-C2'	6.61	122.59	114.00
85	A5	1544	G	O4'-C1'-N9	6.61	113.49	108.20
36	B2	191	A	O3'-P-O5'	6.61	116.55	104.00
40	CK	3	PRO	N-CA-C	6.61	129.27	112.10
57	CY	43	ASN	N-CA-C	-6.61	93.17	111.00
85	A5	59	A	O4'-C1'-N9	6.61	113.48	108.20
36	B2	563	G	O4'-C1'-C2'	-6.60	99.20	105.80
85	A5	1494	U	P-O3'-C3'	-6.60	111.78	119.70
85	A5	4217	G	N9-C1'-C2'	6.60	122.59	114.00
85	A5	4175	G	C1'-O4'-C4'	-6.60	104.62	109.90
36	B2	632	C	C3'-C2'-C1'	6.60	106.78	101.50
78	Co	3	ASN	CA-C-N	6.60	131.72	117.20
85	A5	111	C	P-O3'-C3'	6.60	127.62	119.70
85	A5	926	G	C5'-C4'-O4'	6.60	117.02	109.10
85	A5	2436	U	O4'-C1'-N1	6.60	113.48	108.20
85	A5	2574	G	O4'-C1'-C2'	-6.60	99.20	105.80
85	A5	4964	C	P-O3'-C3'	6.60	127.62	119.70
85	A5	732	A	P-O5'-C5'	6.60	131.46	120.90
36	B2	1255	G	N9-C1'-C2'	6.60	122.58	114.00
45	Ca	95	THR	O-C-N	-6.60	111.99	123.20
85	A5	1108	C	O4'-C1'-N1	6.60	113.48	108.20
85	A5	4039	G	C3'-C2'-C1'	6.60	106.78	101.50
36	B2	298	G	N9-C1'-C2'	-6.59	104.75	112.00
85	A5	1396	G	O4'-C1'-N9	6.59	113.48	108.20
85	A5	1468	C	C3'-C2'-C1'	6.59	106.78	101.50
85	A5	2896	G	O4'-C1'-C2'	6.59	113.53	107.60
8	AS	87	GLN	CA-C-N	6.59	131.70	117.20
85	A5	1404	G	N9-C1'-C2'	-6.59	104.75	112.00
85	A5	1687	U	O4'-C1'-N1	6.59	113.47	108.20
36	B2	1781	A	P-O5'-C5'	6.59	131.45	120.90
85	A5	929	A	C1'-O4'-C4'	-6.59	104.63	109.90
85	A5	1453	G	O4'-C1'-N9	6.59	113.47	108.20
4	AK	42	ASN	CA-C-N	6.59	131.70	117.20
36	B2	164	A	N9-C1'-C2'	6.59	122.57	114.00
36	B2	283	G	C1'-O4'-C4'	-6.59	104.63	109.90
36	B2	1206	G	C1'-O4'-C4'	-6.59	104.63	109.90
36	B2	1865	C	P-O3'-C3'	-6.59	111.79	119.70
42	CL	166	ALA	N-CA-CB	6.59	119.33	110.10
61	Ch	78	TYR	C-N-CA	6.59	138.18	121.70
85	A5	3964	U	O4'-C1'-N1	6.59	113.47	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	811	A	O4'-C1'-N9	6.59	113.47	108.20
5	AO	43	HIS	N-CA-C	6.59	128.78	111.00
85	A5	2822	G	C1'-O4'-C4'	6.59	115.17	109.90
85	A5	747	A	O4'-C1'-N9	6.58	113.47	108.20
85	A5	1523	A	N9-C1'-C2'	6.58	122.56	114.00
36	B2	667	U	C1'-O4'-C4'	-6.58	104.63	109.90
36	B2	1391	C	O4'-C1'-N1	6.58	113.47	108.20
85	A5	13	U	C1'-O4'-C4'	6.58	115.17	109.90
85	A5	4435	U	O4'-C1'-N1	6.58	113.47	108.20
86	A7	112	U	N1-C1'-C2'	-6.58	104.76	112.00
36	B2	1389	C	P-O5'-C5'	6.58	131.43	120.90
36	B2	1792	G	O4'-C1'-N9	6.58	113.47	108.20
85	A5	2550	G	C3'-C2'-C1'	-6.58	96.23	101.50
85	A5	3645	U	C3'-C2'-C1'	6.58	106.77	101.50
85	A5	4871	C	C2'-C3'-O3'	6.58	124.23	113.70
36	B2	1546	G	O4'-C1'-N9	6.58	113.46	108.20
37	BC	57	A	O4'-C1'-N9	-6.58	102.94	108.20
36	B2	211	G	P-O5'-C5'	6.58	131.43	120.90
85	A5	3650	C	N1-C1'-C2'	6.58	122.55	114.00
17	AV	64	GLU	N-CA-C	6.58	128.76	111.00
36	B2	1837	G	O4'-C1'-N9	6.58	113.46	108.20
36	B2	411	G	O4'-C1'-N9	6.58	113.46	108.20
52	CS	73	LEU	CA-C-N	6.58	131.67	117.20
85	A5	1199	G	O4'-C1'-N9	6.58	113.46	108.20
85	A5	1412	G	N9-C1'-C2'	-6.58	104.77	112.00
85	A5	1723	A	C1'-O4'-C4'	-6.58	104.64	109.90
85	A5	2736	G	C3'-C2'-C1'	-6.58	96.24	101.50
85	A5	4565	C	P-O5'-C5'	6.58	131.42	120.90
85	A5	5056	A	N9-C1'-C2'	6.58	122.55	114.00
1	Az	122	THR	CB-CA-C	6.57	129.35	111.60
36	B2	1661	A	O4'-C1'-N9	6.57	113.46	108.20
85	A5	383	A	C1'-O4'-C4'	-6.57	104.64	109.90
85	A5	474	C	O4'-C1'-N1	6.57	113.46	108.20
85	A5	1799	G	O4'-C1'-N9	6.57	113.46	108.20
2	Ag	160	SER	N-CA-C	6.57	128.74	111.00
36	B2	438	G	N9-C1'-C2'	-6.57	104.77	112.00
36	B2	1352	G	C3'-C2'-C1'	-6.57	96.24	101.50
36	B2	1426	U	O4'-C1'-N1	6.57	113.46	108.20
85	A5	661	C	O4'-C1'-N1	6.57	113.46	108.20
85	A5	2087	C	N1-C1'-C2'	6.57	122.54	114.00
1	Az	745	TYR	CA-CB-CG	-6.57	100.92	113.40
1	Az	801	ARG	NE-CZ-NH2	-6.57	117.02	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	935	A	O4'-C1'-N9	6.57	113.45	108.20
85	A5	4565	C	C3'-C2'-C1'	6.57	106.75	101.50
36	B2	1206	G	O4'-C1'-N9	6.57	113.45	108.20
36	B2	1357	A	O4'-C1'-N9	6.57	113.45	108.20
36	B2	1700	C	O4'-C1'-C2'	-6.57	99.23	105.80
36	B2	1822	A	C4'-C3'-O3'	-6.57	95.61	109.40
85	A5	2503	G	P-O3'-C3'	6.57	127.58	119.70
85	A5	3593	C	C3'-C2'-C1'	6.57	106.75	101.50
85	A5	3624	A	O4'-C1'-N9	6.57	113.45	108.20
85	A5	3814	U	C1'-O4'-C4'	-6.57	104.65	109.90
85	A5	4127	A	O3'-P-O5'	-6.57	91.53	104.00
36	B2	1555	U	O4'-C4'-C3'	-6.56	97.44	104.00
85	A5	503	C	N1-C1'-C2'	6.56	122.53	114.00
85	A5	3974	G	C5'-C4'-C3'	6.56	126.50	116.00
28	AC	232	THR	C-N-CA	6.56	138.11	121.70
85	A5	1328	G	C1'-O4'-C4'	-6.56	104.65	109.90
85	A5	421	C	C3'-C2'-C1'	6.56	106.75	101.50
85	A5	2423	A	O4'-C1'-C2'	-6.56	99.24	105.80
34	AQ	18	THR	N-CA-C	-6.56	93.29	111.00
85	A5	2885	A	O4'-C1'-N9	6.56	113.45	108.20
36	B2	158	A	O4'-C1'-N9	6.56	113.44	108.20
36	B2	1785	C	C1'-O4'-C4'	6.56	115.15	109.90
85	A5	2300	A	P-O3'-C3'	6.56	127.57	119.70
85	A5	2415	U	O3'-P-O5'	6.56	116.46	104.00
87	A8	38	U	C1'-O4'-C4'	6.56	115.15	109.90
36	B2	1289	U	P-O3'-C3'	6.55	127.57	119.70
85	A5	704	C	O4'-C1'-N1	6.55	113.44	108.20
85	A5	2078	C	C3'-C2'-C1'	6.55	106.74	101.50
36	B2	40	A	C1'-O4'-C4'	6.55	115.14	109.90
36	B2	182	C	N1-C1'-C2'	6.55	122.52	114.00
36	B2	621	C	C3'-C2'-C1'	6.55	106.74	101.50
36	B2	961	G	O4'-C1'-N9	6.55	113.44	108.20
36	B2	1465	A	C1'-O4'-C4'	6.55	115.14	109.90
85	A5	2112	G	N9-C1'-C2'	6.55	122.52	114.00
85	A5	2472	A	O4'-C1'-N9	6.55	113.44	108.20
85	A5	4488	A	O4'-C1'-C2'	6.55	113.50	107.60
85	A5	4560	C	C4'-C3'-O3'	-6.55	95.64	109.40
87	A8	118	C	C1'-O4'-C4'	-6.55	104.66	109.90
36	B2	496	C	O4'-C1'-C2'	-6.55	99.25	105.80
36	B2	844	U	P-O3'-C3'	-6.55	111.84	119.70
85	A5	1368	A	C1'-O4'-C4'	-6.55	104.66	109.90
85	A5	2948	C	P-O5'-C5'	6.55	131.38	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	53	C	O4'-C1'-N1	6.55	113.44	108.20
36	B2	987	A	P-O5'-C5'	-6.55	110.42	120.90
85	A5	19	G	C1'-O4'-C4'	-6.55	104.66	109.90
85	A5	243	A	O4'-C1'-C2'	6.55	113.49	107.60
85	A5	1573	G	N9-C1'-C2'	6.55	122.51	114.00
85	A5	2246	C	O4'-C1'-C2'	-6.55	99.25	105.80
36	B2	564	A	P-O3'-C3'	6.54	127.55	119.70
36	B2	1139	C	O4'-C1'-N1	6.54	113.44	108.20
85	A5	1480	C	C3'-C2'-C1'	6.54	106.73	101.50
26	AJ	101	LYS	N-CA-C	6.54	128.66	111.00
85	A5	1661	C	N1-C1'-C2'	6.54	122.50	114.00
85	A5	3752	C	C1'-O4'-C4'	-6.54	104.67	109.90
36	B2	1822	A	O3'-P-O5'	-6.54	91.58	104.00
85	A5	2541	G	O4'-C1'-N9	6.54	113.43	108.20
86	A7	97	G	O4'-C1'-N9	6.54	113.43	108.20
36	B2	750	C	C1'-O4'-C4'	-6.54	104.67	109.90
36	B2	1109	C	O4'-C1'-C2'	6.54	113.48	107.60
36	B2	1351	G	O4'-C1'-N9	6.54	113.43	108.20
60	Cr	36	ASN	N-CA-C	6.54	128.65	111.00
85	A5	1648	C	O4'-C1'-C2'	-6.54	99.26	105.80
85	A5	1933	G	N9-C1'-C2'	6.54	122.50	114.00
85	A5	4859	C	O4'-C1'-N1	6.54	113.43	108.20
33	AI	8	TRP	CB-CG-CD1	6.54	135.50	127.00
81	CE	36	LYS	CB-CA-C	6.54	123.47	110.40
85	A5	4719	G	O4'-C1'-C2'	6.54	113.48	107.60
86	A7	12	U	O4'-C1'-C2'	-6.54	99.26	105.80
36	B2	1796	G	O4'-C1'-N9	6.54	113.43	108.20
85	A5	2090	U	O5'-C5'-C4'	6.54	124.12	111.70
85	A5	4209	G	N9-C1'-C2'	-6.54	104.81	112.00
36	B2	352	U	C5'-C4'-C3'	-6.53	105.55	116.00
36	B2	1086	G	P-O3'-C3'	6.53	127.54	119.70
85	A5	1367	C	P-O3'-C3'	-6.53	111.86	119.70
85	A5	2650	G	C1'-O4'-C4'	-6.53	104.67	109.90
85	A5	4505	C	N1-C1'-C2'	6.53	122.49	114.00
74	CC	267	TRP	N-CA-C	-6.53	93.36	111.00
85	A5	1640	C	O4'-C1'-C2'	-6.53	99.27	105.80
85	A5	4240	G	O4'-C1'-N9	6.53	113.42	108.20
36	B2	1867	U	O4'-C1'-C2'	-6.53	99.27	105.80
85	A5	1645	C	N1-C1'-C2'	6.53	122.49	114.00
85	A5	4977	A	P-O3'-C3'	6.53	127.53	119.70
3	AU	70	CYS	O-C-N	-6.53	112.10	123.20
85	A5	2834	C	O4'-C1'-N1	6.53	113.42	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	5039	U	O4'-C1'-N1	6.53	113.42	108.20
87	A8	35	C	O4'-C1'-N1	6.53	113.42	108.20
36	B2	401	A	O4'-C1'-C2'	-6.52	99.28	105.80
36	B2	548	C	N1-C1'-C2'	6.52	122.48	114.00
36	B2	1661	A	C3'-C2'-C1'	-6.52	96.28	101.50
85	A5	17	A	P-O3'-C3'	6.52	127.53	119.70
85	A5	2253	A	C5'-C4'-O4'	6.52	116.93	109.10
85	A5	4375	C	N1-C1'-C2'	6.52	122.48	114.00
85	A5	4614	G	O4'-C1'-N9	6.52	113.42	108.20
85	A5	4931	G	P-O3'-C3'	6.52	127.53	119.70
85	A5	2354	G	O4'-C1'-N9	6.52	113.42	108.20
36	B2	431	G	O4'-C1'-N9	6.52	113.42	108.20
85	A5	2816	G	N9-C1'-C2'	6.52	122.48	114.00
85	A5	3663	A	P-O5'-C5'	6.52	131.33	120.90
85	A5	4867	G	C1'-O4'-C4'	-6.52	104.68	109.90
85	A5	162	A	O4'-C1'-N9	6.52	113.41	108.20
85	A5	3663	A	C3'-C2'-C1'	6.52	106.71	101.50
1	Az	154	VAL	N-CA-C	-6.52	93.41	111.00
85	A5	4168	G	C1'-O4'-C4'	-6.52	104.69	109.90
36	B2	191	A	O4'-C1'-C2'	-6.51	99.29	105.80
36	B2	214	U	O4'-C1'-N1	6.51	113.41	108.20
36	B2	295	C	O4'-C1'-C2'	-6.51	99.28	105.80
36	B2	695	C	O4'-C1'-C2'	-6.51	99.29	105.80
36	B2	818	A	O4'-C1'-N9	6.51	113.41	108.20
59	CZ	54	THR	CB-CA-C	-6.51	94.02	111.60
85	A5	3851	U	C1'-O4'-C4'	-6.51	104.69	109.90
36	B2	1661	A	N9-C1'-C2'	6.51	122.47	114.00
85	A5	113	A	P-O5'-C5'	-6.51	110.48	120.90
85	A5	1681	G	C3'-C2'-C1'	-6.51	96.29	101.50
87	A8	139	G	C1'-O4'-C4'	-6.51	104.69	109.90
36	B2	1542	C	O5'-C5'-C4'	6.51	124.07	111.70
36	B2	1669	G	O5'-P-OP2	6.51	118.51	110.70
85	A5	2805	C	O4'-C1'-N1	6.51	113.41	108.20
87	A8	19	C	O3'-P-O5'	-6.51	91.63	104.00
52	CS	81	TRP	CA-C-O	-6.51	106.43	120.10
85	A5	2783	A	C3'-C2'-C1'	6.51	106.71	101.50
36	B2	1506	A	P-O3'-C3'	6.51	127.51	119.70
81	CE	59	ARG	CA-C-O	-6.51	106.44	120.10
85	A5	4682	U	O4'-C1'-N1	6.51	113.41	108.20
2	Ag	274	VAL	CA-C-N	6.50	131.51	117.20
4	AK	42	ASN	CA-C-O	-6.50	106.44	120.10
74	CC	34	PRO	CA-C-N	6.50	131.51	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4054	C	O4'-C1'-C2'	-6.50	99.30	105.80
85	A5	4321	U	C3'-C2'-C1'	6.50	106.70	101.50
36	B2	1419	C	C3'-C2'-C1'	6.50	106.70	101.50
85	A5	1474	C	C1'-O4'-C4'	-6.50	104.70	109.90
85	A5	4586	G	C3'-C2'-C1'	-6.50	96.30	101.50
36	B2	732	U	C1'-O4'-C4'	-6.50	104.70	109.90
36	B2	1346	U	O4'-C1'-N1	6.50	113.40	108.20
85	A5	2910	G	N9-C1'-C2'	-6.50	104.85	112.00
6	AX	91	LEU	N-CA-C	-6.50	93.45	111.00
36	B2	560	A	C3'-C2'-C1'	-6.50	96.30	101.50
36	B2	1148	A	O4'-C1'-C2'	6.50	113.45	107.60
37	BC	54	U	O4'-C1'-N1	6.50	113.40	108.20
84	Cu	44	SER	O-C-N	-6.50	112.30	122.70
85	A5	4414	A	O4'-C1'-C2'	-6.50	99.30	105.80
36	B2	966	U	O4'-C1'-N1	6.50	113.40	108.20
36	B2	886	A	C3'-C2'-C1'	6.49	106.69	101.50
67	Ce	108	ARG	CG-CD-NE	-6.49	98.16	111.80
81	CE	116	TYR	N-CA-CB	6.49	122.29	110.60
85	A5	4487	A	C3'-C2'-C1'	6.49	106.69	101.50
36	B2	208	G	O4'-C1'-N9	6.49	113.39	108.20
36	B2	1043	G	C3'-C2'-C1'	6.49	106.69	101.50
60	Cr	37	SER	CA-C-O	-6.49	106.47	120.10
36	B2	587	A	P-O3'-C3'	-6.49	111.91	119.70
85	A5	168	C	O4'-C1'-C2'	-6.49	99.31	105.80
85	A5	4629	U	N1-C1'-C2'	-6.49	104.86	112.00
17	AV	81	LYS	O-C-N	-6.49	112.32	122.70
36	B2	294	U	C3'-C2'-C1'	6.49	106.69	101.50
36	B2	350	C	C3'-C2'-C1'	6.49	106.69	101.50
36	B2	907	G	C1'-O4'-C4'	-6.49	104.71	109.90
36	B2	1210	G	C3'-C2'-C1'	-6.49	96.31	101.50
85	A5	174	C	C3'-C2'-C1'	6.49	106.69	101.50
85	A5	982	U	O4'-C1'-C2'	-6.49	99.31	105.80
36	B2	291	G	N9-C1'-C2'	6.49	122.43	114.00
37	BC	39	C	O4'-C1'-N1	6.49	113.39	108.20
1	Az	269	ALA	CA-C-N	6.49	131.47	117.20
36	B2	551	U	C1'-O4'-C4'	-6.49	104.71	109.90
85	A5	1218	G	O4'-C1'-N9	6.49	113.39	108.20
85	A5	4176	C	C1'-O4'-C4'	-6.49	104.71	109.90
86	A7	47	G	O4'-C1'-N9	6.49	113.39	108.20
36	B2	988	C	C3'-C2'-C1'	6.48	106.69	101.50
85	A5	1912	G	C1'-O4'-C4'	-6.48	104.71	109.90
36	B2	841	G	C2'-C3'-O3'	-6.48	95.24	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1609	C	O4'-C1'-N1	6.48	113.39	108.20
52	CS	72	PRO	O-C-N	-6.48	112.33	122.70
85	A5	444	G	O3'-P-O5'	-6.48	91.68	104.00
85	A5	1264	C	O4'-C1'-N1	6.48	113.39	108.20
85	A5	1960	A	C1'-O4'-C4'	6.48	115.09	109.90
85	A5	4279	A	C3'-C2'-C1'	6.48	106.69	101.50
8	AS	92	ASP	CB-CG-OD2	-6.48	112.47	118.30
36	B2	1373	C	O4'-C1'-C2'	-6.48	99.32	105.80
74	CC	335	MET	C-N-CA	6.48	137.90	121.70
85	A5	245	C	N1-C1'-C2'	-6.48	104.87	112.00
85	A5	951	G	C1'-O4'-C4'	-6.48	104.72	109.90
36	B2	1651	A	C1'-O4'-C4'	6.48	115.08	109.90
85	A5	177	G	O4'-C1'-N9	6.48	113.38	108.20
85	A5	4870	G	OP1-P-O3'	-6.48	90.95	105.20
36	B2	1364	U	P-O3'-C3'	-6.48	111.93	119.70
62	Cb	54	LEU	N-CA-CB	6.48	123.35	110.40
85	A5	1776	A	O4'-C1'-N9	6.48	113.38	108.20
85	A5	5055	G	C1'-O4'-C4'	-6.48	104.72	109.90
28	AC	172	ASN	N-CA-C	6.48	128.48	111.00
35	Ah	179	MET	CA-C-N	6.48	129.15	116.20
38	Cz	210	MET	C-N-CA	-6.48	108.70	122.30
36	B2	951	C	N1-C1'-C2'	6.47	122.42	114.00
36	B2	1206	G	N9-C1'-C2'	6.47	122.42	114.00
82	CG	105	GLU	CA-C-N	-6.47	102.96	117.20
85	A5	356	G	C1'-O4'-C4'	-6.47	104.72	109.90
85	A5	1735	U	O4'-C1'-N1	6.47	113.38	108.20
85	A5	1973	G	O4'-C1'-N9	6.47	113.38	108.20
86	A7	118	C	P-O3'-C3'	6.47	127.47	119.70
87	A8	89	U	P-O3'-C3'	6.47	127.47	119.70
87	A8	154	G	P-O3'-C3'	6.47	127.47	119.70
4	AK	46	MET	N-CA-CB	6.47	122.25	110.60
36	B2	193	C	P-O5'-C5'	6.47	131.25	120.90
40	CK	129	ILE	O-C-N	-6.47	112.34	122.70
85	A5	261	G	O4'-C1'-N9	6.47	113.38	108.20
85	A5	1821	G	C3'-C2'-C1'	-6.47	96.32	101.50
85	A5	2531	C	C1'-O4'-C4'	6.47	115.08	109.90
19	AZ	107	VAL	CA-CB-CG2	6.47	120.60	110.90
37	BC	21	G	C1'-O4'-C4'	-6.47	104.72	109.90
42	CL	165	LYS	CB-CA-C	-6.47	97.46	110.40
85	A5	40	G	N9-C1'-C2'	6.47	122.41	114.00
85	A5	1369	C	C5'-C4'-C3'	6.47	126.35	116.00
85	A5	2866	C	O4'-C1'-N1	6.47	113.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	3784	A	C1'-O4'-C4'	6.47	115.08	109.90
15	AB	77	ASP	N-CA-C	6.47	128.46	111.00
36	B2	544	G	C1'-O4'-C4'	6.47	115.08	109.90
36	B2	695	C	O3'-P-O5'	6.47	116.29	104.00
36	B2	400	C	O4'-C1'-C2'	-6.47	99.33	105.80
36	B2	691	G	C3'-C2'-C1'	-6.47	96.33	101.50
81	CE	87	LYS	CA-C-N	6.47	131.43	117.20
85	A5	430	G	P-O3'-C3'	6.47	127.46	119.70
85	A5	1475	G	O4'-C1'-N9	6.47	113.37	108.20
85	A5	2898	G	C1'-O4'-C4'	-6.47	104.73	109.90
85	A5	4054	C	C3'-C2'-C1'	6.47	106.67	101.50
36	B2	70	G	N9-C1'-C2'	-6.46	104.89	112.00
36	B2	1380	C	N1-C1'-C2'	6.46	122.40	114.00
59	CZ	35	ASP	CA-C-O	-6.46	106.53	120.10
81	CE	97	GLY	N-CA-C	6.46	129.26	113.10
85	A5	2345	G	P-O3'-C3'	6.46	127.46	119.70
85	A5	4160	C	C3'-C2'-C1'	6.46	106.67	101.50
36	B2	1751	C	C1'-O4'-C4'	-6.46	104.73	109.90
85	A5	167	C	C1'-O4'-C4'	-6.46	104.73	109.90
85	A5	631	G	P-O3'-C3'	6.46	127.46	119.70
85	A5	700	G	O4'-C1'-C2'	6.46	113.42	107.60
85	A5	722	G	P-O3'-C3'	-6.46	111.94	119.70
85	A5	3667	C	O4'-C1'-C2'	-6.46	99.34	105.80
36	B2	1075	C	N1-C1'-C2'	6.46	122.40	114.00
36	B2	1343	U	C3'-C2'-C1'	6.46	106.67	101.50
85	A5	1318	C	O4'-C1'-N1	6.46	113.37	108.20
36	B2	841	G	C5'-C4'-O4'	6.46	116.85	109.10
85	A5	1421	G	O4'-C1'-N9	6.46	113.37	108.20
85	A5	11	G	C1'-O4'-C4'	-6.46	104.73	109.90
85	A5	105	A	C1'-O4'-C4'	-6.46	104.73	109.90
85	A5	2258	C	O4'-C1'-C2'	6.46	113.41	107.60
85	A5	2305	U	O4'-C1'-N1	6.46	113.37	108.20
85	A5	4525	C	O4'-C1'-N1	6.46	113.37	108.20
15	AB	233	GLY	CA-C-O	-6.46	108.98	120.60
85	A5	2526	C	C1'-O4'-C4'	6.46	115.06	109.90
27	AE	263	GLY	CA-C-O	-6.46	108.98	120.60
36	B2	533	A	C2'-C3'-O3'	6.46	124.03	113.70
36	B2	963	A	C3'-C2'-C1'	-6.46	96.34	101.50
85	A5	2809	G	C1'-O4'-C4'	-6.46	104.74	109.90
85	A5	4206	C	C1'-O4'-C4'	-6.46	104.74	109.90
85	A5	4462	C	P-O3'-C3'	6.46	127.45	119.70
85	A5	4887	C	C1'-O4'-C4'	-6.46	104.74	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	286	U	P-O3'-C3'	6.45	127.44	119.70
85	A5	379	G	O4'-C1'-N9	6.45	113.36	108.20
85	A5	410	A	N9-C1'-C2'	6.45	122.39	114.00
85	A5	1273	G	P-O3'-C3'	6.45	127.44	119.70
85	A5	4917	C	O4'-C1'-N1	6.45	113.36	108.20
33	AI	207	GLY	CA-C-O	-6.45	108.99	120.60
64	CF	23	ARG	N-CA-CB	-6.45	98.99	110.60
85	A5	74	G	O4'-C1'-N9	6.45	113.36	108.20
85	A5	4897	G	O4'-C1'-N9	6.45	113.36	108.20
74	CC	338	ASN	N-CA-C	-6.45	93.58	111.00
85	A5	318	A	C5'-C4'-O4'	6.45	116.84	109.10
85	A5	1341	U	O4'-C1'-C2'	-6.45	99.35	105.80
85	A5	1914	C	N1-C1'-C2'	6.45	122.39	114.00
85	A5	1995	G	C3'-C2'-C1'	6.45	106.66	101.50
85	A5	2771	G	C4'-C3'-C2'	-6.45	96.15	102.60
85	A5	3863	C	C3'-C2'-C1'	6.45	106.66	101.50
85	A5	3887	C	C1'-O4'-C4'	-6.45	104.74	109.90
85	A5	4169	G	C1'-O4'-C4'	-6.45	104.74	109.90
82	CG	266	GLY	CA-C-O	-6.45	108.99	120.60
19	AZ	115	GLY	CA-C-O	-6.45	109.00	120.60
37	BC	26	C	C3'-C2'-C1'	6.45	106.66	101.50
85	A5	4058	U	C1'-O4'-C4'	6.45	115.06	109.90
36	B2	1162	C	O4'-C1'-N1	6.45	113.36	108.20
36	B2	1381	G	C3'-C2'-C1'	-6.45	96.34	101.50
85	A5	1594	C	C3'-C2'-C1'	6.45	106.66	101.50
85	A5	2463	G	N9-C1'-C2'	6.45	122.38	114.00
85	A5	2476	G	O4'-C1'-N9	6.45	113.36	108.20
85	A5	3710	G	N9-C1'-C2'	6.45	122.38	114.00
85	A5	15	A	C3'-C2'-C1'	-6.44	96.34	101.50
85	A5	464	G	C1'-O4'-C4'	-6.44	104.75	109.90
86	A7	110	G	O4'-C1'-N9	6.44	113.36	108.20
8	AS	49	ASP	O-C-N	-6.44	112.39	122.70
18	AY	128	GLY	CA-C-O	-6.44	109.00	120.60
36	B2	10	G	P-O3'-C3'	-6.44	111.97	119.70
36	B2	79	A	O5'-C5'-C4'	6.44	123.94	111.70
60	Cr	81	THR	C-N-CA	-6.44	105.59	121.70
85	A5	904	C	O4'-C1'-N1	6.44	113.35	108.20
85	A5	2760	G	O3'-P-O5'	6.44	116.24	104.00
85	A5	4545	G	C5'-C4'-O4'	-6.44	101.37	109.10
12	AR	99	ASP	C-N-CD	-6.44	106.43	120.60
85	A5	493	G	C3'-C2'-C1'	-6.44	96.35	101.50
85	A5	697	G	C1'-O4'-C4'	-6.44	104.75	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	A7	82	G	C1'-O4'-C4'	-6.44	104.75	109.90
36	B2	1236	G	P-O3'-C3'	6.44	127.43	119.70
85	A5	1553	A	O4'-C1'-N9	6.44	113.35	108.20
26	AJ	188	GLY	CA-C-O	-6.44	109.01	120.60
36	B2	1365	G	C4'-C3'-O3'	-6.44	95.88	109.40
81	CE	131	LYS	CB-CA-C	6.44	123.28	110.40
85	A5	78	U	N1-C1'-C2'	6.44	122.37	114.00
85	A5	334	A	P-O5'-C5'	6.44	131.20	120.90
85	A5	467	U	O4'-C1'-N1	6.44	113.35	108.20
85	A5	1504	G	C1'-O4'-C4'	-6.44	104.75	109.90
85	A5	3878	C	O4'-C1'-C2'	-6.44	99.36	105.80
85	A5	4235	G	C1'-O4'-C4'	-6.44	104.75	109.90
44	CM	7	VAL	CB-CA-C	6.44	123.63	111.40
85	A5	21	G	O4'-C1'-N9	6.44	113.35	108.20
85	A5	2409	U	O4'-C1'-N1	-6.44	103.05	108.20
36	B2	1471	C	C3'-C2'-C1'	6.43	106.65	101.50
85	A5	220	C	C1'-O4'-C4'	-6.43	104.75	109.90
85	A5	1234	G	C1'-O4'-C4'	-6.43	104.75	109.90
85	A5	1257	A	C3'-C2'-C1'	6.43	106.65	101.50
85	A5	1990	A	O4'-C1'-C2'	-6.43	99.36	105.80
85	A5	2358	G	O4'-C1'-N9	6.43	113.35	108.20
85	A5	4752	U	P-O5'-C5'	6.43	131.19	120.90
85	A5	4952	G	N9-C1'-C2'	6.43	122.37	114.00
36	B2	320	G	C4'-C3'-O3'	6.43	125.87	113.00
85	A5	487	G	C1'-O4'-C4'	-6.43	104.75	109.90
87	A8	124	U	O4'-C1'-C2'	-6.43	99.37	105.80
36	B2	239	C	O4'-C1'-N1	6.43	113.34	108.20
36	B2	1440	C	N1-C1'-C2'	6.43	122.36	114.00
85	A5	480	C	O4'-C1'-N1	6.43	113.34	108.20
85	A5	1419	G	P-O3'-C3'	6.43	127.42	119.70
85	A5	2752	G	P-O5'-C5'	-6.43	110.61	120.90
85	A5	4659	G	C1'-O4'-C4'	-6.43	104.76	109.90
47	CI	205	PRO	O-C-N	-6.43	112.42	122.70
85	A5	231	U	O4'-C1'-C2'	-6.43	99.37	105.80
85	A5	956	A	C3'-C2'-C1'	6.43	106.64	101.50
85	A5	1332	C	O4'-C1'-N1	6.43	113.34	108.20
36	B2	1843	G	O4'-C1'-C2'	6.43	113.38	107.60
37	BC	28	G	C4'-C3'-C2'	-6.43	96.17	102.60
85	A5	1482	G	O4'-C1'-C2'	6.43	113.38	107.60
85	A5	2323	C	C3'-C2'-C1'	6.43	106.64	101.50
85	A5	4343	U	N1-C1'-C2'	6.43	122.35	114.00
85	A5	4545	G	P-O5'-C5'	-6.43	110.62	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1800	A	C3'-C2'-C1'	6.42	106.64	101.50
81	CE	219	LYS	CB-CA-C	-6.42	97.55	110.40
85	A5	2658	G	O4'-C1'-N9	-6.42	103.06	108.20
36	B2	469	A	O4'-C1'-C2'	-6.42	99.38	105.80
36	B2	1500	G	C1'-O4'-C4'	-6.42	104.76	109.90
85	A5	3262	U	P-O3'-C3'	6.42	127.41	119.70
85	A5	5026	U	O3'-P-O5'	-6.42	91.80	104.00
13	AP	18	ARG	NE-CZ-NH1	6.42	123.51	120.30
85	A5	964	A	O4'-C1'-C2'	-6.42	99.38	105.80
85	A5	977	C	C5'-C4'-C3'	-6.42	105.73	116.00
85	A5	1358	G	O3'-P-O5'	6.42	116.20	104.00
85	A5	1811	G	N9-C1'-C2'	-6.42	104.94	112.00
36	B2	503	C	O4'-C1'-C2'	-6.42	99.38	105.80
36	B2	1539	U	C1'-O4'-C4'	6.42	115.03	109.90
85	A5	3654	G	O4'-C1'-N9	6.42	113.33	108.20
85	A5	4955	A	P-O3'-C3'	6.42	127.40	119.70
36	B2	844	U	O4'-C1'-C2'	-6.42	99.38	105.80
36	B2	1490	G	O4'-C1'-N9	6.42	113.33	108.20
36	B2	1707	U	N1-C1'-C2'	6.42	122.34	114.00
74	CC	311	ARG	N-CA-C	6.42	128.32	111.00
81	CE	117	PRO	O-C-N	-6.42	112.43	122.70
85	A5	1451	G	P-O3'-C3'	6.42	127.40	119.70
85	A5	2528	G	C1'-O4'-C4'	-6.42	104.77	109.90
85	A5	4882	U	O4'-C1'-N1	6.42	113.33	108.20
36	B2	82	G	C1'-O4'-C4'	6.41	115.03	109.90
36	B2	155	G	C5'-C4'-C3'	6.41	126.26	116.00
36	B2	208	G	C1'-O4'-C4'	-6.41	104.77	109.90
74	CC	116	ASN	N-CA-C	6.41	128.31	111.00
85	A5	1167	C	O4'-C1'-C2'	-6.41	99.39	105.80
85	A5	1817	U	C4'-C3'-O3'	-6.41	95.93	109.40
85	A5	2101	C	O4'-C1'-C2'	-6.41	99.39	105.80
85	A5	2243	C	O4'-C1'-N1	6.41	113.33	108.20
85	A5	4965	U	C1'-O4'-C4'	6.41	115.03	109.90
85	A5	4454	G	O4'-C1'-N9	6.41	113.33	108.20
60	Cr	39	ARG	NE-CZ-NH1	6.41	123.50	120.30
85	A5	4124	G	N9-C1'-C2'	6.41	122.33	114.00
85	A5	1075	G	C3'-C2'-C1'	-6.41	96.37	101.50
85	A5	1973	G	C3'-C2'-C1'	-6.41	96.37	101.50
85	A5	4199	C	C3'-C2'-C1'	6.41	106.63	101.50
85	A5	4910	G	P-O3'-C3'	-6.41	112.01	119.70
87	A8	79	G	O4'-C1'-N9	6.41	113.33	108.20
36	B2	733	C	C3'-C2'-C1'	6.41	106.63	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	521	C	N1-C1'-C2'	6.41	122.33	114.00
1	Az	278	THR	C-N-CA	6.41	137.71	121.70
2	Ag	284	PRO	N-CA-C	-6.41	95.44	112.10
36	B2	1419	C	O4'-C1'-C2'	-6.41	99.39	105.80
36	B2	1054	G	C1'-O4'-C4'	-6.40	104.78	109.90
85	A5	2551	A	C4'-C3'-C2'	-6.40	96.20	102.60
36	B2	1208	A	O4'-C1'-C2'	-6.40	99.40	105.80
36	B2	1254	C	O4'-C1'-N1	6.40	113.32	108.20
85	A5	1919	G	N9-C1'-C2'	6.40	122.32	114.00
85	A5	3743	G	O4'-C1'-N9	6.40	113.32	108.20
85	A5	4401	G	C1'-O4'-C4'	-6.40	104.78	109.90
85	A5	1906	U	N1-C1'-C2'	6.40	122.32	114.00
36	B2	1155	U	P-O5'-C5'	6.40	131.13	120.90
47	CI	105	CYS	CA-CB-SG	6.40	125.52	114.00
85	A5	422	C	C1'-O4'-C4'	-6.40	104.78	109.90
85	A5	1106	A	P-O3'-C3'	6.40	127.38	119.70
85	A5	1236	C	O4'-C1'-N1	6.40	113.32	108.20
85	A5	1368	A	P-O5'-C5'	6.40	131.13	120.90
85	A5	3919	C	O4'-C1'-N1	6.40	113.32	108.20
85	A5	4668	U	P-O3'-C3'	-6.40	112.03	119.70
33	AI	119	LEU	C-N-CD	-6.39	106.53	120.60
36	B2	1499	U	O4'-C1'-N1	6.39	113.32	108.20
85	A5	1087	A	O4'-C1'-N9	6.39	113.32	108.20
85	A5	1256	G	N9-C1'-C2'	6.39	122.31	114.00
85	A5	4658	G	C3'-C2'-C1'	-6.39	96.39	101.50
36	B2	798	G	C3'-C2'-C1'	6.39	106.61	101.50
85	A5	1547	A	C3'-C2'-C1'	6.39	106.61	101.50
87	A8	58	G	O4'-C1'-N9	6.39	113.31	108.20
39	Cq	45	MET	CA-CB-CG	-6.39	102.44	113.30
70	Ci	1	MET	CA-C-O	-6.39	106.68	120.10
85	A5	2271	C	C3'-C2'-C1'	6.39	106.61	101.50
85	A5	2601	A	C3'-C2'-C1'	6.39	106.61	101.50
85	A5	3721	U	O4'-C1'-N1	6.39	113.31	108.20
85	A5	4996	C	C1'-O4'-C4'	-6.39	104.79	109.90
87	A8	111	U	P-O5'-C5'	-6.39	110.68	120.90
36	B2	649	U	O4'-C1'-N1	6.39	113.31	108.20
36	B2	1409	A	C1'-O4'-C4'	6.39	115.01	109.90
36	B2	1515	G	N9-C1'-C2'	-6.39	104.97	112.00
85	A5	1303	A	P-O5'-C5'	6.39	131.12	120.90
85	A5	4466	C	O4'-C1'-N1	6.39	113.31	108.20
36	B2	734	C	C3'-C2'-C1'	6.39	106.61	101.50
38	Cz	26	ARG	N-CA-CB	-6.39	99.11	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2136	G	O3'-P-O5'	6.39	116.14	104.00
36	B2	1864	U	O4'-C1'-N1	6.38	113.31	108.20
52	CS	151	LYS	N-CA-CB	-6.38	99.11	110.60
85	A5	1684	A	C1'-O4'-C4'	-6.38	104.79	109.90
85	A5	4430	G	O4'-C1'-N9	6.38	113.31	108.20
36	B2	1301	A	P-O3'-C3'	6.38	127.36	119.70
36	B2	1512	C	O4'-C1'-N1	6.38	113.31	108.20
85	A5	1326	A	C1'-O4'-C4'	6.38	115.01	109.90
85	A5	2408	U	N1-C1'-C2'	6.38	122.30	114.00
85	A5	2700	G	O4'-C1'-N9	6.38	113.31	108.20
85	A5	1331	C	O4'-C1'-N1	6.38	113.31	108.20
85	A5	3815	G	C1'-O4'-C4'	-6.38	104.79	109.90
86	A7	56	G	N9-C1'-C2'	6.38	122.30	114.00
20	Aa	96	THR	O-C-N	6.38	133.22	121.10
22	Ac	7	GLN	C-N-CD	-6.38	106.56	120.60
36	B2	8	U	O4'-C1'-N1	6.38	113.30	108.20
48	CD	57	ASN	N-CA-C	-6.38	93.77	111.00
1	Az	404	THR	N-CA-CB	6.38	122.42	110.30
85	A5	2384	U	N1-C1'-C2'	6.38	122.29	114.00
86	A7	73	U	O4'-C1'-N1	6.38	113.30	108.20
44	CM	66	HIS	N-CA-C	6.38	128.21	111.00
85	A5	1386	C	C3'-C2'-C1'	6.38	106.60	101.50
85	A5	2317	C	N1-C1'-C2'	6.38	122.29	114.00
85	A5	2644	G	C1'-O4'-C4'	-6.38	104.80	109.90
85	A5	3604	A	O4'-C1'-C2'	6.38	113.34	107.60
19	AZ	112	ASN	N-CA-CB	-6.37	99.13	110.60
26	AJ	162	ARG	N-CA-C	6.37	128.21	111.00
36	B2	176	U	N1-C1'-C2'	6.37	122.29	114.00
36	B2	1206	G	C3'-C2'-C1'	-6.37	96.40	101.50
36	B2	1518	C	P-O3'-C3'	-6.37	112.05	119.70
36	B2	1615	U	C1'-O4'-C4'	-6.37	104.80	109.90
60	Cr	107	ARG	CA-C-N	6.37	131.22	117.20
85	A5	76	A	O4'-C1'-N9	6.37	113.30	108.20
85	A5	1906	U	C1'-O4'-C4'	-6.37	104.80	109.90
85	A5	2069	A	O4'-C1'-N9	6.37	113.30	108.20
85	A5	4218	U	N1-C1'-C2'	6.37	122.28	114.00
85	A5	4607	A	C1'-O4'-C4'	6.37	115.00	109.90
85	A5	5004	C	P-O3'-C3'	6.37	127.35	119.70
36	B2	1155	U	C3'-C2'-C1'	6.37	106.60	101.50
36	B2	1791	A	O4'-C1'-C2'	-6.37	99.43	105.80
74	CC	88	GLY	N-CA-C	-6.37	97.18	113.10
85	A5	681	G	O4'-C1'-N9	6.37	113.29	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2728	U	O4'-C1'-N1	6.37	113.29	108.20
87	A8	45	C	C1'-O4'-C4'	-6.37	104.81	109.90
36	B2	592	C	N1-C1'-C2'	-6.36	105.00	112.00
85	A5	1541	C	C1'-O4'-C4'	-6.36	104.81	109.90
85	A5	2613	C	C1'-O4'-C4'	-6.36	104.81	109.90
85	A5	2615	C	N1-C1'-C2'	6.36	122.27	114.00
85	A5	2684	C	C3'-C2'-C1'	6.36	106.59	101.50
85	A5	4725	C	O4'-C1'-C2'	-6.36	99.44	105.80
36	B2	810	A	C3'-C2'-C1'	6.36	106.59	101.50
85	A5	725	G	C3'-C2'-C1'	-6.36	96.41	101.50
85	A5	4613	C	C1'-O4'-C4'	-6.36	104.81	109.90
85	A5	4613	C	C3'-C2'-C1'	6.36	106.59	101.50
85	A5	4665	A	O3'-P-O5'	-6.36	91.92	104.00
36	B2	1341	C	O4'-C1'-C2'	-6.36	99.44	105.80
36	B2	1388	A	O4'-C1'-N9	6.36	113.29	108.20
47	CI	201	PRO	CA-N-CD	-6.36	102.60	111.50
85	A5	3883	U	O4'-C1'-N1	6.36	113.29	108.20
36	B2	1288	U	N1-C1'-C2'	6.36	122.26	114.00
85	A5	638	G	C1'-O4'-C4'	-6.36	104.81	109.90
85	A5	910	G	N9-C1'-C2'	6.36	122.26	114.00
85	A5	2761	U	C5'-C4'-O4'	-6.36	101.47	109.10
85	A5	4430	G	C3'-C2'-C1'	-6.36	96.41	101.50
36	B2	62	G	N9-C1'-C2'	6.36	122.26	114.00
36	B2	319	C	P-O3'-C3'	6.36	127.33	119.70
36	B2	382	C	P-O3'-C3'	-6.36	112.07	119.70
85	A5	1097	C	O4'-C1'-N1	6.36	113.28	108.20
27	AE	258	ALA	C-N-CA	-6.35	105.81	121.70
36	B2	578	C	C3'-C2'-C1'	6.35	106.58	101.50
36	B2	1813	A	C1'-O4'-C4'	-6.35	104.82	109.90
85	A5	948	C	C4'-C3'-C2'	-6.35	96.25	102.60
85	A5	3942	A	O4'-C1'-C2'	-6.35	99.45	105.80
85	A5	4256	A	O4'-C1'-C2'	6.35	113.32	107.60
86	A7	83	A	O4'-C1'-N9	6.35	113.28	108.20
36	B2	1545	A	C5'-C4'-O4'	6.35	116.72	109.10
36	B2	150	A	O4'-C1'-C2'	-6.35	99.45	105.80
85	A5	480	C	C5'-C4'-C3'	6.35	126.16	116.00
85	A5	2573	A	P-O5'-C5'	-6.35	110.74	120.90
85	A5	2627	C	O3'-P-O5'	6.35	116.06	104.00
85	A5	4250	G	C3'-C2'-C1'	6.35	106.58	101.50
1	Az	497	MET	C-N-CA	6.35	137.57	121.70
36	B2	9	U	O4'-C1'-N1	6.35	113.28	108.20
36	B2	835	C	P-O3'-C3'	6.35	127.32	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	260	C	O4'-C1'-N1	6.35	113.28	108.20
85	A5	1922	G	O4'-C1'-C2'	6.35	113.31	107.60
85	A5	2021	G	P-O3'-C3'	6.35	127.32	119.70
85	A5	3790	U	C1'-O4'-C4'	6.35	114.98	109.90
85	A5	3893	C	N1-C1'-C2'	6.35	122.25	114.00
85	A5	4164	C	C4'-C3'-C2'	-6.35	96.25	102.60
87	A8	76	C	O4'-C1'-N1	6.35	113.28	108.20
85	A5	2097	U	P-O3'-C3'	6.35	127.31	119.70
36	B2	499	G	C1'-O4'-C4'	-6.34	104.82	109.90
85	A5	471	A	O4'-C1'-N9	-6.34	103.12	108.20
85	A5	2456	G	N9-C1'-C2'	6.34	122.25	114.00
85	A5	4867	G	O4'-C1'-C2'	6.34	113.31	107.60
85	A5	4933	C	O4'-C1'-N1	6.34	113.28	108.20
85	A5	971	U	C1'-O4'-C4'	6.34	114.97	109.90
85	A5	3892	U	O3'-P-O5'	-6.34	91.95	104.00
24	Ae	46	VAL	C-N-CD	-6.34	106.65	120.60
35	Ah	141	PRO	O-C-N	-6.34	112.55	122.70
37	BC	45	G	O4'-C1'-N9	-6.34	103.13	108.20
81	CE	208	ILE	C-N-CD	-6.34	106.65	120.60
85	A5	1330	A	C1'-O4'-C4'	-6.34	104.83	109.90
85	A5	3740	G	O4'-C1'-N9	6.34	113.27	108.20
85	A5	4598	C	N1-C1'-C2'	6.34	122.24	114.00
85	A5	4997	G	C3'-C2'-C1'	-6.34	96.43	101.50
36	B2	1381	G	N9-C1'-C2'	-6.34	105.03	112.00
85	A5	1679	A	O4'-C1'-C2'	-6.34	99.46	105.80
86	A7	9	C	N1-C1'-C2'	6.34	122.24	114.00
36	B2	202	G	P-O3'-C3'	6.34	127.30	119.70
36	B2	532	C	P-O3'-C3'	6.34	127.31	119.70
39	Cq	44	ARG	CD-NE-CZ	6.34	132.47	123.60
87	A8	128	C	P-O5'-C5'	6.34	131.04	120.90
49	CQ	19	LYS	CB-CA-C	-6.33	97.73	110.40
13	AP	68	PRO	C-N-CD	-6.33	106.67	120.60
36	B2	756	C	O4'-C1'-N1	6.33	113.27	108.20
66	Cd	105	LEU	O-C-N	6.33	132.84	122.70
85	A5	1254	A	C1'-O4'-C4'	-6.33	104.83	109.90
85	A5	4251	A	N9-C1'-C2'	6.33	122.23	114.00
36	B2	756	C	C4'-C3'-C2'	-6.33	96.27	102.60
36	B2	1260	A	N9-C1'-C2'	6.33	122.23	114.00
36	B2	1394	G	C1'-O4'-C4'	-6.33	104.83	109.90
36	B2	1670	C	O4'-C1'-N1	6.33	113.27	108.20
60	Cr	56	ASP	CB-CG-OD1	-6.33	112.60	118.30
85	A5	1076	C	C3'-C2'-C1'	6.33	106.56	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1266	G	N9-C1'-C2'	6.33	122.23	114.00
85	A5	2526	C	O4'-C1'-C2'	-6.33	99.47	105.80
85	A5	4746	C	C3'-C2'-C1'	6.33	106.56	101.50
87	A8	85	U	C1'-O4'-C4'	6.33	114.97	109.90
36	B2	74	G	C4'-C3'-C2'	-6.33	96.27	102.60
85	A5	2496	G	C3'-C2'-C1'	-6.33	96.44	101.50
85	A5	2832	A	O4'-C1'-N9	6.33	113.26	108.20
21	Ab	53	VAL	N-CA-C	-6.33	93.91	111.00
36	B2	800	U	C5'-C4'-C3'	-6.33	105.87	116.00
85	A5	2545	U	O4'-C1'-N1	6.33	113.26	108.20
85	A5	4120	U	O4'-C1'-N1	-6.33	103.14	108.20
85	A5	4572	U	N1-C1'-C2'	6.33	122.23	114.00
13	AP	18	ARG	CB-CG-CD	6.33	128.05	111.60
85	A5	923	C	C1'-O4'-C4'	-6.33	104.84	109.90
85	A5	1808	C	C3'-C2'-C1'	6.33	106.56	101.50
36	B2	645	C	O4'-C1'-C2'	-6.33	99.47	105.80
36	B2	891	G	N9-C1'-C2'	6.33	122.22	114.00
36	B2	1019	C	C3'-C2'-C1'	6.33	106.56	101.50
85	A5	98	A	N9-C1'-C2'	-6.33	105.04	112.00
85	A5	2688	G	C1'-O4'-C4'	-6.33	104.84	109.90
36	B2	38	A	C1'-O4'-C4'	6.32	114.96	109.90
36	B2	147	A	O4'-C1'-C2'	-6.32	99.48	105.80
36	B2	1807	C	N1-C1'-C2'	6.32	122.22	114.00
74	CC	35	ASP	N-CA-C	6.32	128.07	111.00
85	A5	1849	U	O4'-C1'-C2'	-6.32	99.48	105.80
85	A5	4267	G	C5'-C4'-O4'	6.32	116.69	109.10
86	A7	5	A	O4'-C1'-N9	6.32	113.26	108.20
74	CC	86	ARG	C-N-CA	-6.32	105.90	121.70
85	A5	492	U	N1-C1'-C2'	6.32	122.22	114.00
85	A5	501	C	P-O5'-C5'	6.32	131.01	120.90
85	A5	1365	C	O4'-C1'-C2'	-6.32	99.48	105.80
85	A5	1926	C	P-O3'-C3'	-6.32	112.11	119.70
85	A5	2371	U	O4'-C1'-N1	6.32	113.26	108.20
85	A5	5036	C	N1-C1'-C2'	6.32	122.22	114.00
36	B2	1211	G	N9-C1'-C2'	6.32	122.22	114.00
70	Ci	1	MET	O-C-N	6.32	132.81	122.70
85	A5	322	C	N1-C1'-C2'	6.32	122.22	114.00
85	A5	2076	G	C1'-O4'-C4'	-6.32	104.84	109.90
85	A5	2316	G	O4'-C1'-C2'	6.32	113.29	107.60
87	A8	118	C	N1-C1'-C2'	6.32	122.22	114.00
15	AB	76	ASN	N-CA-C	6.32	128.06	111.00
63	CB	293	ILE	CB-CA-C	-6.32	98.96	111.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	752	G	O4'-C1'-N9	6.32	113.25	108.20
85	A5	2096	G	C4'-C3'-O3'	-6.32	96.13	109.40
36	B2	434	G	C2'-C3'-O3'	6.32	123.81	113.70
66	Cd	115	LYS	CD-CE-NZ	6.32	126.23	111.70
85	A5	294	G	N9-C1'-C2'	6.32	122.21	114.00
85	A5	1377	G	O4'-C1'-C2'	-6.32	99.48	105.80
85	A5	4991	U	P-O5'-C5'	6.32	131.01	120.90
40	CK	106	PHE	CB-CG-CD2	-6.32	116.38	120.80
85	A5	477	C	O4'-C1'-N1	6.32	113.25	108.20
85	A5	1277	G	O4'-C1'-C2'	-6.32	99.48	105.80
85	A5	5007	A	O4'-C1'-C2'	-6.32	99.48	105.80
53	CT	80	VAL	N-CA-C	6.31	128.04	111.00
85	A5	1897	A	O4'-C1'-C2'	6.31	113.28	107.60
85	A5	4082	G	O4'-C1'-N9	6.31	113.25	108.20
85	A5	4942	C	O4'-C1'-N1	6.31	113.25	108.20
8	AS	92	ASP	N-CA-C	6.31	128.04	111.00
13	AP	37	TYR	CB-CA-C	6.31	123.02	110.40
17	AV	47	ASN	N-CA-C	-6.31	93.97	111.00
36	B2	1093	A	O4'-C1'-N9	6.31	113.25	108.20
48	CD	219	TYR	N-CA-CB	6.31	121.96	110.60
85	A5	255	C	N1-C1'-C2'	6.31	122.20	114.00
85	A5	2626	U	P-O3'-C3'	6.31	127.27	119.70
85	A5	4392	G	O4'-C1'-N9	6.31	113.25	108.20
36	B2	519	A	N9-C1'-C2'	-6.31	105.06	112.00
36	B2	1668	U	C3'-C2'-C1'	-6.31	96.45	101.50
85	A5	4297	G	O4'-C1'-N9	6.31	113.25	108.20
85	A5	4412	C	P-O3'-C3'	-6.31	112.13	119.70
53	CT	79	GLN	CB-CA-C	-6.31	97.79	110.40
59	CZ	102	ARG	N-CA-CB	6.31	121.95	110.60
85	A5	2006	U	N1-C1'-C2'	6.31	122.20	114.00
36	B2	29	G	O4'-C1'-N9	6.30	113.24	108.20
36	B2	191	A	C5'-C4'-C3'	-6.30	105.91	116.00
36	B2	1568	C	C1'-O4'-C4'	-6.30	104.86	109.90
66	Cd	108	TYR	C-N-CA	-6.30	105.94	121.70
20	Aa	85	ARG	NE-CZ-NH2	6.30	123.45	120.30
36	B2	886	A	P-O3'-C3'	6.30	127.26	119.70
36	B2	1126	G	C1'-O4'-C4'	-6.30	104.86	109.90
36	B2	1520	G	O4'-C1'-N9	6.30	113.24	108.20
74	CC	268	ARG	NE-CZ-NH1	6.30	123.45	120.30
85	A5	254	G	C3'-C2'-C1'	-6.30	96.46	101.50
85	A5	1656	U	N1-C1'-C2'	6.30	122.19	114.00
33	AI	55	TYR	CB-CG-CD1	6.30	124.78	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	636	C	O4'-C1'-C2'	-6.30	99.50	105.80
36	B2	1628	C	C1'-O4'-C4'	-6.30	104.86	109.90
40	CK	129	ILE	C-N-CA	6.30	137.45	121.70
85	A5	1843	A	O4'-C1'-N9	6.30	113.24	108.20
36	B2	607	U	P-O3'-C3'	6.30	127.26	119.70
36	B2	1171	G	C3'-C2'-C1'	-6.30	96.46	101.50
85	A5	344	A	O4'-C1'-N9	6.30	113.24	108.20
85	A5	3819	G	O4'-C1'-N9	6.30	113.24	108.20
36	B2	753	C	C5'-C4'-C3'	6.29	126.07	116.00
85	A5	24	G	O4'-C1'-N9	6.29	113.24	108.20
85	A5	4075	U	O4'-C1'-C2'	-6.29	99.50	105.80
85	A5	4343	U	O4'-C1'-N1	6.29	113.23	108.20
86	A7	115	A	P-O3'-C3'	-6.29	112.15	119.70
36	B2	998	A	C1'-O4'-C4'	6.29	114.93	109.90
56	CX	53	ARG	CB-CA-C	-6.29	97.82	110.40
85	A5	100	C	O4'-C1'-N1	6.29	113.23	108.20
85	A5	1967	A	C1'-O4'-C4'	6.29	114.93	109.90
85	A5	3893	C	C3'-C2'-C1'	6.29	106.53	101.50
85	A5	4000	G	P-O3'-C3'	-6.29	112.15	119.70
36	B2	1780	G	N9-C1'-C2'	6.29	122.18	114.00
52	CS	173	ASN	CB-CA-C	-6.29	97.82	110.40
85	A5	639	U	C1'-O4'-C4'	-6.29	104.87	109.90
74	CC	155	GLU	CB-CA-C	-6.29	97.82	110.40
85	A5	4271	A	N9-C1'-C2'	6.29	122.17	114.00
86	A7	18	C	O4'-C1'-N1	6.29	113.23	108.20
87	A8	49	G	C3'-C2'-C1'	6.29	106.53	101.50
36	B2	288	G	P-O5'-C5'	6.29	130.96	120.90
85	A5	1902	G	C1'-O4'-C4'	-6.29	104.87	109.90
85	A5	4708	A	N9-C1'-C2'	6.29	122.17	114.00
36	B2	737	G	O4'-C1'-C2'	-6.29	99.51	105.80
74	CC	60	HIS	N-CA-C	6.29	127.97	111.00
85	A5	375	G	O4'-C1'-N9	6.29	113.23	108.20
85	A5	2905	C	O4'-C1'-C2'	-6.29	99.52	105.80
31	AH	106	ARG	CD-NE-CZ	6.28	132.40	123.60
36	B2	644	G	O4'-C1'-N9	6.28	113.23	108.20
85	A5	4025	C	P-O3'-C3'	6.28	127.24	119.70
85	A5	9	C	C3'-C2'-C1'	6.28	106.53	101.50
85	A5	439	G	O4'-C1'-N9	6.28	113.23	108.20
85	A5	1420	A	C3'-C2'-C1'	6.28	106.53	101.50
85	A5	1908	A	O4'-C1'-C2'	-6.28	99.52	105.80
29	AG	173	ALA	C-N-CD	-6.28	106.78	120.60
36	B2	1592	C	C1'-O4'-C4'	-6.28	104.88	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	942	G	C1'-O4'-C4'	-6.28	104.88	109.90
85	A5	1638	A	C3'-C2'-C1'	6.28	106.53	101.50
85	A5	2852	U	O4'-C1'-N1	6.28	113.22	108.20
85	A5	4230	C	O4'-C1'-N1	6.28	113.22	108.20
85	A5	962	C	O4'-C1'-N1	6.28	113.22	108.20
85	A5	2570	U	O4'-C1'-N1	6.28	113.22	108.20
85	A5	4652	G	C3'-C2'-C1'	-6.28	96.48	101.50
85	A5	3921	U	O4'-C1'-N1	6.28	113.22	108.20
85	A5	4132	C	O4'-C1'-N1	6.28	113.22	108.20
85	A5	4906	C	O4'-C1'-N1	-6.28	103.18	108.20
85	A5	5016	A	O4'-C1'-C2'	6.28	113.25	107.60
36	B2	201	C	O4'-C1'-C2'	-6.28	99.52	105.80
37	BC	32	C	O4'-C1'-N1	6.28	113.22	108.20
48	CD	256	LYS	C-N-CD	6.28	141.58	128.40
85	A5	1593	A	C3'-C2'-C1'	6.27	106.52	101.50
13	AP	18	ARG	N-CA-CB	6.27	121.89	110.60
33	AI	6	ASP	N-CA-CB	-6.27	99.31	110.60
36	B2	1491	G	O4'-C1'-N9	6.27	113.22	108.20
85	A5	2789	A	N9-C1'-C2'	-6.27	105.10	112.00
85	A5	2937	G	O3'-P-O5'	6.27	115.92	104.00
85	A5	2056	G	N9-C1'-C2'	6.27	122.15	114.00
16	AA	186	ARG	C-N-CA	6.27	135.47	122.30
85	A5	1991	A	O4'-C1'-N9	6.27	113.22	108.20
85	A5	4551	U	O4'-C1'-N1	6.27	113.22	108.20
29	AG	128	THR	N-CA-CB	-6.27	98.39	110.30
33	AI	178	ARG	CD-NE-CZ	6.27	132.38	123.60
41	CO	182	GLU	CB-CA-C	-6.27	97.86	110.40
85	A5	2417	A	O4'-C1'-N9	6.27	113.21	108.20
85	A5	4173	G	C3'-C2'-C1'	6.27	106.51	101.50
85	A5	4541	G	N9-C1'-C2'	-6.27	105.11	112.00
85	A5	4139	G	C1'-O4'-C4'	-6.27	104.89	109.90
28	AC	98	LEU	C-N-CA	-6.26	109.14	122.30
85	A5	476	G	C1'-O4'-C4'	-6.26	104.89	109.90
85	A5	1338	G	C1'-O4'-C4'	-6.26	104.89	109.90
85	A5	1600	A	C1'-O4'-C4'	-6.26	104.89	109.90
85	A5	1995	G	O4'-C1'-N9	-6.26	103.19	108.20
85	A5	1280	C	N1-C1'-C2'	6.26	122.14	114.00
85	A5	1438	U	N1-C1'-C2'	6.26	122.14	114.00
85	A5	1901	C	O4'-C1'-N1	6.26	113.21	108.20
30	AF	130	ARG	N-CA-CB	6.26	121.87	110.60
36	B2	109	U	C4'-C3'-O3'	-6.26	96.25	109.40
36	B2	1034	A	C1'-O4'-C4'	6.26	114.91	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
65	Cc	94	LEU	CB-CA-C	-6.26	98.30	110.20
85	A5	1064	G	C1'-O4'-C4'	-6.26	104.89	109.90
36	B2	798	G	N9-C1'-C2'	6.26	122.14	114.00
47	CI	198	LYS	C-N-CA	6.26	137.35	121.70
52	CS	60	GLU	CA-C-N	-6.26	103.43	117.20
85	A5	1361	G	C4'-C3'-C2'	-6.26	96.34	102.60
85	A5	2251	G	C3'-C2'-C1'	6.26	106.51	101.50
85	A5	2410	C	O4'-C1'-C2'	-6.26	99.54	105.80
85	A5	4660	G	O4'-C1'-C2'	6.26	113.23	107.60
36	B2	1080	A	P-O3'-C3'	6.26	127.21	119.70
74	CC	13	GLU	N-CA-CB	-6.26	99.34	110.60
82	CG	106	THR	O-C-N	6.26	132.71	122.70
85	A5	1553	A	C1'-O4'-C4'	6.26	114.91	109.90
85	A5	2437	C	N1-C1'-C2'	6.26	122.13	114.00
36	B2	174	C	O4'-C1'-C2'	-6.25	99.55	105.80
51	CA	212	GLY	C-N-CA	6.25	135.44	122.30
85	A5	3973	G	P-O5'-C5'	6.25	130.91	120.90
36	B2	978	G	O4'-C1'-N9	6.25	113.20	108.20
36	B2	1200	A	O4'-C1'-N9	6.25	113.20	108.20
85	A5	452	A	C3'-C2'-C1'	-6.25	96.50	101.50
85	A5	1365	C	O4'-C1'-N1	6.25	113.20	108.20
85	A5	2077	C	C3'-C2'-C1'	6.25	106.50	101.50
85	A5	4704	C	O4'-C1'-N1	6.25	113.20	108.20
36	B2	1115	U	O4'-C1'-C2'	6.25	113.23	107.60
85	A5	3868	G	O4'-C1'-N9	6.25	113.20	108.20
85	A5	4994	G	O4'-C1'-C2'	6.25	113.23	107.60
36	B2	1734	G	C3'-C2'-C1'	6.25	106.50	101.50
38	Cz	67	VAL	CB-CA-C	-6.25	99.52	111.40
85	A5	958	G	O4'-C1'-C2'	-6.25	99.55	105.80
85	A5	4990	C	P-O5'-C5'	-6.25	110.90	120.90
86	A7	63	C	O4'-C4'-C3'	-6.25	97.75	104.00
2	Ag	47	ARG	N-CA-C	-6.25	94.13	111.00
85	A5	114	G	O4'-C1'-N9	6.25	113.20	108.20
85	A5	4870	G	C5'-C4'-O4'	6.25	116.60	109.10
87	A8	25	G	O4'-C1'-N9	6.25	113.20	108.20
87	A8	150	C	O4'-C1'-C2'	-6.25	99.55	105.80
36	B2	1139	C	P-O5'-C5'	-6.25	110.91	120.90
85	A5	1528	U	O4'-C1'-N1	6.25	113.20	108.20
85	A5	2014	C	C3'-C2'-C1'	6.25	106.50	101.50
86	A7	2	U	N1-C1'-C2'	6.25	122.12	114.00
36	B2	1218	C	C3'-C2'-C1'	6.25	106.50	101.50
85	A5	1309	C	C3'-C2'-C1'	6.25	106.50	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	874	G	O4'-C1'-N9	6.24	113.19	108.20
85	A5	5047	C	O4'-C1'-C2'	-6.24	99.56	105.80
85	A5	918	G	O4'-C1'-N9	6.24	113.19	108.20
85	A5	2408	U	P-O5'-C5'	-6.24	110.91	120.90
85	A5	4950	U	P-O3'-C3'	6.24	127.19	119.70
36	B2	304	C	O3'-P-O5'	6.24	115.85	104.00
36	B2	455	A	C3'-C2'-C1'	6.24	106.49	101.50
36	B2	1855	G	O4'-C1'-C2'	6.24	113.22	107.60
36	B2	1524	G	O4'-C4'-C3'	-6.24	97.76	104.00
85	A5	1734	G	C3'-C2'-C1'	6.24	106.49	101.50
8	AS	6	PRO	CA-C-O	-6.24	105.23	120.20
36	B2	351	G	O4'-C1'-N9	6.24	113.19	108.20
36	B2	1444	U	O4'-C1'-N1	6.23	113.19	108.20
85	A5	959	G	P-O3'-C3'	6.23	127.18	119.70
36	B2	223	C	O4'-C1'-N1	6.23	113.19	108.20
36	B2	466	G	O4'-C1'-C2'	6.23	113.21	107.60
36	B2	1308	U	P-O3'-C3'	6.23	127.18	119.70
85	A5	1272	C	O4'-C1'-C2'	-6.23	99.57	105.80
85	A5	1889	U	O4'-C1'-N1	6.23	113.18	108.20
36	B2	434	G	O3'-P-O5'	-6.23	92.17	104.00
36	B2	1408	U	P-O3'-C3'	6.23	127.17	119.70
36	B2	1429	G	O3'-P-O5'	-6.23	92.17	104.00
36	B2	1484	A	P-O3'-C3'	6.23	127.17	119.70
85	A5	979	C	N1-C1'-C2'	-6.23	105.15	112.00
85	A5	996	G	C1'-O4'-C4'	-6.23	104.92	109.90
85	A5	1868	A	O4'-C1'-C2'	-6.23	99.57	105.80
85	A5	4339	A	C3'-C2'-C1'	6.23	106.48	101.50
85	A5	4531	U	O4'-C1'-N1	6.23	113.18	108.20
7	AM	116	LYS	N-CA-C	6.23	127.81	111.00
36	B2	796	G	C1'-O4'-C4'	-6.23	104.92	109.90
36	B2	1599	U	P-O5'-C5'	6.23	130.86	120.90
85	A5	1760	G	O4'-C1'-C2'	6.23	113.20	107.60
8	AS	82	TRP	CB-CA-C	-6.22	97.95	110.40
36	B2	1519	U	N1-C1'-C2'	-6.22	105.16	112.00
44	CM	91	TRP	CB-CG-CD1	6.22	135.09	127.00
85	A5	72	C	O4'-C1'-C2'	-6.22	99.58	105.80
85	A5	454	U	C3'-C2'-C1'	6.22	106.48	101.50
85	A5	2860	C	C3'-C2'-C1'	6.22	106.48	101.50
85	A5	4561	C	P-O5'-C5'	-6.22	110.94	120.90
87	A8	14	U	N1-C1'-C2'	6.22	122.09	114.00
36	B2	194	C	C3'-C2'-C1'	6.22	106.47	101.50
36	B2	1297	U	C1'-O4'-C4'	6.22	114.88	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1493	C	N1-C1'-C2'	-6.22	105.16	112.00
85	A5	358	C	C3'-C2'-C1'	6.22	106.47	101.50
85	A5	2115	G	O4'-C1'-C2'	-6.22	99.58	105.80
85	A5	2446	C	C3'-C2'-C1'	6.22	106.47	101.50
85	A5	3920	U	O4'-C1'-N1	6.22	113.17	108.20
5	AO	102	GLY	C-N-CA	-6.22	106.16	121.70
85	A5	4085	A	O3'-P-O5'	-6.22	92.19	104.00
5	AO	143	LYS	CB-CA-C	-6.22	97.97	110.40
26	AJ	93	LYS	O-C-N	-6.22	112.75	122.70
36	B2	944	A	C3'-C2'-C1'	6.22	106.47	101.50
36	B2	1790	A	N9-C1'-C2'	6.22	122.08	114.00
85	A5	1533	A	C1'-O4'-C4'	6.22	114.87	109.90
85	A5	1884	C	N1-C1'-C2'	6.22	122.08	114.00
85	A5	2067	C	C3'-C2'-C1'	6.22	106.47	101.50
85	A5	2731	C	O4'-C1'-N1	6.22	113.17	108.20
36	B2	1519	U	O4'-C1'-C2'	-6.21	99.58	105.80
85	A5	4528	G	O4'-C1'-C2'	-6.21	99.58	105.80
85	A5	4867	G	C5'-C4'-O4'	6.21	116.56	109.10
85	A5	5042	A	C3'-C2'-C1'	6.21	106.47	101.50
87	A8	103	A	C3'-C2'-C1'	6.21	106.47	101.50
2	Ag	50	THR	CB-CA-C	6.21	128.37	111.60
63	CB	76	VAL	CB-CA-C	-6.21	99.60	111.40
85	A5	2017	A	C5'-C4'-O4'	6.21	116.55	109.10
85	A5	2106	G	O4'-C4'-C3'	-6.21	97.79	104.00
85	A5	2461	G	C1'-O4'-C4'	-6.21	104.93	109.90
85	A5	2709	C	O4'-C1'-N1	6.21	113.17	108.20
85	A5	4738	C	O4'-C1'-C2'	-6.21	99.59	105.80
86	A7	4	U	C5'-C4'-O4'	6.21	116.55	109.10
85	A5	402	A	C1'-O4'-C4'	6.21	114.87	109.90
1	Az	712	ASP	O-C-N	-6.21	112.77	122.70
85	A5	1311	G	C1'-O4'-C4'	-6.21	104.93	109.90
85	A5	1394	G	O4'-C1'-N9	6.21	113.17	108.20
85	A5	1442	C	O4'-C4'-C3'	-6.21	97.79	104.00
85	A5	2748	C	C1'-O4'-C4'	-6.21	104.93	109.90
85	A5	3611	A	O4'-C1'-N9	6.21	113.17	108.20
36	B2	323	C	O4'-C1'-N1	6.21	113.17	108.20
36	B2	1399	C	O4'-C1'-N1	6.21	113.17	108.20
48	CD	260	GLU	C-N-CA	6.21	137.22	121.70
85	A5	1720	C	O4'-C1'-N1	6.21	113.17	108.20
85	A5	4327	C	N1-C1'-C2'	6.21	122.07	114.00
85	A5	4938	A	O3'-P-O5'	6.21	115.79	104.00
36	B2	552	G	C1'-O4'-C4'	-6.21	104.94	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	559	G	N9-C1'-C2'	6.21	122.07	114.00
36	B2	1218	C	C1'-O4'-C4'	-6.21	104.94	109.90
85	A5	1366	G	C3'-C2'-C1'	-6.21	96.54	101.50
28	AC	273	LEU	CA-CB-CG	6.20	129.57	115.30
85	A5	1721	G	P-O5'-C5'	-6.20	110.97	120.90
85	A5	2621	A	O4'-C1'-C2'	-6.20	99.60	105.80
85	A5	3714	G	C1'-O4'-C4'	-6.20	104.94	109.90
85	A5	4101	C	N1-C1'-C2'	6.20	122.06	114.00
30	AF	41	VAL	N-CA-C	-6.20	94.25	111.00
85	A5	672	C	N1-C1'-C2'	6.20	122.06	114.00
36	B2	119	U	O4'-C1'-N1	6.20	113.16	108.20
67	Ce	17	THR	CA-C-N	6.20	130.84	117.20
85	A5	3670	C	C3'-C2'-C1'	6.20	106.46	101.50
36	B2	907	G	C3'-C2'-C1'	-6.20	96.54	101.50
85	A5	2499	C	C4'-C3'-C2'	-6.20	96.40	102.60
85	A5	4491	G	C1'-O4'-C4'	-6.20	104.94	109.90
85	A5	4647	G	C3'-C2'-C1'	6.20	106.46	101.50
85	A5	747	A	P-O3'-C3'	6.20	127.14	119.70
85	A5	3804	G	C1'-O4'-C4'	-6.20	104.94	109.90
85	A5	1377	G	N9-C1'-C2'	-6.19	105.19	112.00
85	A5	1393	G	O4'-C1'-C2'	-6.19	99.61	105.80
85	A5	2539	C	C1'-O4'-C4'	-6.19	104.94	109.90
36	B2	496	C	O4'-C1'-N1	6.19	113.15	108.20
47	CI	4	ARG	CB-CA-C	-6.19	98.02	110.40
64	CF	220	MET	O-C-N	6.19	132.61	122.70
73	CI	37	TYR	C-N-CA	-6.19	106.22	121.70
81	CE	126	LEU	CA-C-N	6.19	130.82	117.20
85	A5	996	G	O4'-C1'-N9	6.19	113.15	108.20
86	A7	97	G	O4'-C1'-C2'	6.19	113.17	107.60
1	Az	432	PRO	C-N-CA	-6.19	106.23	121.70
26	AJ	145	PRO	N-CA-C	-6.19	96.01	112.10
26	AJ	164	PRO	N-CD-CG	-6.19	93.92	103.20
36	B2	1070	A	N9-C1'-C2'	6.19	122.05	114.00
36	B2	1782	G	O4'-C4'-C3'	-6.19	97.81	104.00
81	CE	80	VAL	N-CA-C	6.19	127.71	111.00
85	A5	2299	G	O3'-P-O5'	6.19	115.76	104.00
85	A5	2620	G	O4'-C1'-C2'	6.19	113.17	107.60
87	A8	134	G	O4'-C1'-N9	6.19	113.15	108.20
36	B2	110	U	P-O3'-C3'	-6.19	112.27	119.70
85	A5	150	U	O5'-C5'-C4'	-6.19	99.94	111.70
85	A5	426	A	O4'-C1'-N9	6.19	113.15	108.20
36	B2	745	C	O4'-C1'-C2'	-6.19	99.61	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	940	C	N1-C1'-C2'	6.19	122.04	114.00
85	A5	2497	C	C3'-C2'-C1'	6.19	106.45	101.50
85	A5	4971	A	O4'-C1'-N9	6.19	113.15	108.20
24	Ae	46	VAL	CB-CA-C	-6.19	99.65	111.40
36	B2	351	G	N9-C1'-C2'	-6.19	105.19	112.00
36	B2	1341	C	C3'-C2'-C1'	6.19	106.45	101.50
36	B2	1728	U	O4'-C1'-N1	6.19	113.15	108.20
85	A5	3824	A	C3'-C2'-C1'	6.19	106.45	101.50
85	A5	4471	U	O4'-C1'-N1	6.19	113.15	108.20
30	AF	46	ALA	C-N-CA	-6.18	106.24	121.70
36	B2	213	G	P-O3'-C3'	-6.18	112.28	119.70
58	CW	71	ARG	C-N-CA	6.18	137.16	121.70
85	A5	499	G	C4'-C3'-C2'	-6.18	96.42	102.60
85	A5	4140	C	O4'-C1'-C2'	-6.18	99.61	105.80
85	A5	4713	G	O4'-C1'-N9	6.18	113.15	108.20
36	B2	977	C	O4'-C1'-N1	6.18	113.15	108.20
40	CK	136	ALA	CA-C-N	6.18	130.80	117.20
64	CF	43	ARG	NE-CZ-NH1	6.18	123.39	120.30
85	A5	3684	G	O4'-C1'-C2'	6.18	113.16	107.60
36	B2	1368	U	O4'-C1'-N1	6.18	113.14	108.20
85	A5	1086	C	N1-C1'-C2'	6.18	122.03	114.00
85	A5	1377	G	P-O3'-C3'	6.18	127.12	119.70
11	AL	152	LYS	CA-C-O	-6.18	107.12	120.10
36	B2	1399	C	C5'-C4'-C3'	-6.18	106.11	116.00
36	B2	1550	G	O4'-C1'-N9	6.18	113.14	108.20
85	A5	453	G	O4'-C1'-N9	6.18	113.14	108.20
85	A5	1290	G	P-O3'-C3'	-6.18	112.28	119.70
85	A5	1601	A	O4'-C1'-C2'	-6.18	99.62	105.80
85	A5	4723	A	C3'-C2'-C1'	6.18	106.44	101.50
28	AC	56	GLU	C-N-CA	-6.18	106.26	121.70
81	CE	115	TYR	CB-CG-CD2	6.18	124.71	121.00
85	A5	4721	G	C1'-O4'-C4'	-6.18	104.96	109.90
1	Az	806	GLY	C-N-CA	-6.17	106.26	121.70
8	AS	10	GLN	C-N-CA	6.17	137.14	121.70
11	AL	102	PHE	N-CA-C	-6.17	94.33	111.00
37	BC	20	A	C1'-O4'-C4'	6.17	114.84	109.90
85	A5	2583	C	O4'-C1'-N1	6.17	113.14	108.20
85	A5	2848	G	O4'-C1'-N9	6.17	113.14	108.20
85	A5	3603	G	O4'-C1'-C2'	6.17	113.16	107.60
86	A7	54	A	C1'-O4'-C4'	-6.17	104.96	109.90
36	B2	1567	G	P-O3'-C3'	-6.17	112.30	119.70
68	Cf	109	ARG	C-N-CA	6.17	137.13	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1685	G	C3'-C2'-C1'	6.17	106.44	101.50
85	A5	1965	G	C2'-C3'-O3'	6.17	123.58	113.70
36	B2	337	C	O4'-C1'-N1	6.17	113.14	108.20
85	A5	754	U	N1-C1'-C2'	-6.17	105.21	112.00
85	A5	4298	A	C3'-C2'-C1'	6.17	106.44	101.50
36	B2	1490	G	C3'-C2'-C1'	-6.17	96.56	101.50
85	A5	1823	G	P-O3'-C3'	-6.17	112.30	119.70
36	B2	1538	C	P-O5'-C5'	-6.17	111.03	120.90
85	A5	2002	A	O4'-C1'-C2'	6.17	113.15	107.60
36	B2	1231	C	C3'-C2'-C1'	6.17	106.43	101.50
70	Ci	3	LEU	CA-CB-CG	-6.17	101.12	115.30
84	Cu	45	GLU	CB-CA-C	6.17	122.73	110.40
85	A5	2533	C	N1-C1'-C2'	6.17	122.02	114.00
36	B2	1304	U	C1'-O4'-C4'	-6.16	104.97	109.90
37	BC	17	G	O4'-C1'-N9	6.16	113.13	108.20
39	Cq	69	LEU	CA-C-N	6.16	130.76	117.20
85	A5	638	G	N9-C1'-C2'	6.16	122.01	114.00
85	A5	381	U	C5'-C4'-O4'	6.16	116.50	109.10
85	A5	681	G	C1'-O4'-C4'	-6.16	104.97	109.90
26	AJ	180	LYS	N-CA-C	6.16	127.64	111.00
28	AC	61	MET	CB-CG-SD	-6.16	93.92	112.40
36	B2	252	U	P-O3'-C3'	6.16	127.09	119.70
85	A5	1295	C	C3'-C2'-C1'	6.16	106.43	101.50
85	A5	1596	U	N1-C1'-C2'	6.16	122.01	114.00
85	A5	2800	G	C1'-O4'-C4'	-6.16	104.97	109.90
85	A5	2850	A	C1'-O4'-C4'	-6.16	104.97	109.90
86	A7	103	A	N9-C1'-C2'	6.16	122.01	114.00
36	B2	4	C	C1'-O4'-C4'	-6.16	104.97	109.90
36	B2	1861	G	C1'-O4'-C4'	-6.16	104.97	109.90
74	CC	117	THR	N-CA-CB	6.16	122.00	110.30
85	A5	1232	G	O4'-C1'-N9	6.16	113.13	108.20
85	A5	1442	C	C5'-C4'-O4'	-6.16	101.71	109.10
85	A5	2901	G	O4'-C1'-N9	6.16	113.13	108.20
85	A5	4053	A	P-O3'-C3'	6.16	127.09	119.70
85	A5	4675	U	C1'-O4'-C4'	-6.16	104.97	109.90
85	A5	4175	G	O4'-C1'-C2'	6.16	113.14	107.60
85	A5	4200	G	C1'-O4'-C4'	-6.16	104.97	109.90
85	A5	3615	G	O4'-C1'-N9	6.16	113.12	108.20
36	B2	829	C	P-O3'-C3'	6.15	127.08	119.70
45	Ca	117	LEU	C-N-CD	-6.15	107.06	120.60
85	A5	1725	U	C5'-C4'-C3'	6.15	125.85	116.00
85	A5	3861	A	C1'-O4'-C4'	6.15	114.82	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1365	G	P-O5'-C5'	6.15	130.75	120.90
36	B2	1659	U	O3'-P-O5'	6.15	115.69	104.00
85	A5	1593	A	C1'-O4'-C4'	-6.15	104.98	109.90
85	A5	2905	C	O4'-C1'-N1	6.15	113.12	108.20
36	B2	1176	G	O4'-C1'-N9	6.15	113.12	108.20
36	B2	1415	C	O4'-C1'-N1	6.15	113.12	108.20
36	B2	1493	C	O4'-C1'-N1	6.15	113.12	108.20
36	B2	1707	U	O4'-C1'-N1	6.15	113.12	108.20
39	Cq	150	GLY	C-N-CA	-6.15	106.32	121.70
53	CT	125	TRP	N-CA-C	6.15	127.61	111.00
85	A5	1198	G	P-O3'-C3'	6.15	127.08	119.70
86	A7	18	C	P-O5'-C5'	-6.15	111.06	120.90
1	Az	153	PRO	O-C-N	6.15	132.54	122.70
36	B2	212	C	P-O5'-C5'	6.15	130.74	120.90
85	A5	460	C	P-O5'-C5'	6.15	130.74	120.90
85	A5	1410	U	N1-C1'-C2'	-6.15	105.24	112.00
85	A5	1535	C	N1-C1'-C2'	6.15	121.99	114.00
86	A7	49	A	P-O5'-C5'	-6.15	111.06	120.90
85	A5	1720	C	O4'-C4'-C3'	-6.15	97.85	104.00
85	A5	4289	U	N1-C1'-C2'	-6.15	105.24	112.00
36	B2	688	U	P-O3'-C3'	6.14	127.07	119.70
36	B2	828	G	C1'-O4'-C4'	-6.14	104.98	109.90
36	B2	841	G	P-O3'-C3'	6.14	127.07	119.70
36	B2	1259	A	C1'-O4'-C4'	-6.14	104.98	109.90
39	Cq	6	ARG	C-N-CA	6.14	137.06	121.70
85	A5	935	A	N9-C1'-C2'	6.14	121.99	114.00
85	A5	4291	G	C1'-O4'-C4'	-6.14	104.98	109.90
1	Az	793	SER	C-N-CA	-6.14	106.34	121.70
36	B2	1223	A	O4'-C1'-C2'	-6.14	99.66	105.80
36	B2	1649	U	P-O3'-C3'	-6.14	112.33	119.70
37	BC	53	A	O4'-C1'-C2'	-6.14	99.66	105.80
74	CC	323	ARG	O-C-N	6.14	132.53	122.70
81	CE	125	LEU	C-N-CA	-6.14	106.35	121.70
85	A5	1519	C	C3'-C2'-C1'	6.14	106.41	101.50
85	A5	2847	G	N9-C1'-C2'	-6.14	105.24	112.00
36	B2	7	G	O4'-C1'-N9	6.14	113.11	108.20
36	B2	353	C	C4'-C3'-C2'	6.14	108.74	102.60
36	B2	1106	C	O4'-C1'-C2'	-6.14	99.66	105.80
36	B2	1191	C	O4'-C1'-N1	6.14	113.11	108.20
85	A5	1051	G	P-O3'-C3'	6.14	127.07	119.70
85	A5	4430	G	O4'-C1'-C2'	6.14	113.13	107.60
85	A5	1073	G	N9-C1'-C2'	-6.14	105.25	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	AP	130	ARG	NE-CZ-NH1	6.14	123.37	120.30
36	B2	1663	A	C3'-C2'-C1'	6.14	106.41	101.50
85	A5	1614	C	N1-C1'-C2'	6.14	121.98	114.00
85	A5	4147	G	O4'-C1'-N9	6.14	113.11	108.20
36	B2	1539	U	C3'-C2'-C1'	6.13	106.41	101.50
81	CE	41	LYS	N-CA-CB	6.13	121.64	110.60
85	A5	3592	G	N9-C1'-C2'	6.13	121.97	114.00
85	A5	3892	U	N1-C1'-C2'	-6.13	105.25	112.00
85	A5	4748	U	C1'-O4'-C4'	6.13	114.81	109.90
36	B2	910	G	O4'-C1'-C2'	6.13	113.12	107.60
85	A5	1785	C	N1-C1'-C2'	6.13	121.97	114.00
85	A5	4674	C	P-O3'-C3'	6.13	127.06	119.70
85	A5	1502	G	P-O3'-C3'	-6.13	112.34	119.70
85	A5	2680	G	O4'-C1'-N9	6.13	113.11	108.20
85	A5	5009	G	O4'-C1'-N9	6.13	113.11	108.20
36	B2	440	G	O4'-C1'-N9	6.13	113.10	108.20
75	Cm	106	ARG	C-N-CA	-6.13	106.37	121.70
85	A5	1363	C	O4'-C1'-C2'	-6.13	99.67	105.80
85	A5	2488	C	C3'-C2'-C1'	6.13	106.40	101.50
85	A5	4047	A	C3'-C2'-C1'	6.13	106.40	101.50
25	Af	134	SER	O-C-N	6.13	132.51	122.70
36	B2	1145	A	O4'-C1'-N9	6.13	113.10	108.20
36	B2	1185	C	N1-C1'-C2'	6.13	121.97	114.00
44	CM	43	THR	O-C-N	-6.13	112.89	122.70
85	A5	1327	C	O4'-C1'-N1	6.13	113.10	108.20
85	A5	2079	G	C1'-O4'-C4'	-6.13	105.00	109.90
85	A5	2266	C	C4'-C3'-O3'	-6.13	96.53	109.40
85	A5	3847	C	C3'-C2'-C1'	6.13	106.40	101.50
36	B2	876	C	C3'-C2'-C1'	6.13	106.40	101.50
36	B2	1752	C	C1'-O4'-C4'	-6.13	105.00	109.90
36	B2	1802	C	O4'-C1'-N1	6.13	113.10	108.20
85	A5	5027	C	O4'-C1'-C2'	6.13	113.11	107.60
19	AZ	104	ARG	CA-C-N	-6.12	103.73	117.20
36	B2	126	G	O3'-P-O5'	6.12	115.64	104.00
85	A5	4937	C	P-O3'-C3'	6.12	127.05	119.70
36	B2	366	U	O4'-C1'-N1	6.12	113.10	108.20
36	B2	1662	U	O4'-C1'-N1	6.12	113.10	108.20
73	C1	37	TYR	N-CA-C	6.12	127.53	111.00
85	A5	3	C	C3'-C2'-C1'	6.12	106.40	101.50
85	A5	1542	U	O4'-C1'-N1	6.12	113.10	108.20
85	A5	2502	G	P-O3'-C3'	6.12	127.05	119.70
36	B2	1548	G	C3'-C2'-C1'	-6.12	96.60	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	293	G	C1'-O4'-C4'	-6.12	105.00	109.90
85	A5	1650	A	C1'-O4'-C4'	-6.12	105.00	109.90
85	A5	2264	C	P-O3'-C3'	6.12	127.05	119.70
85	A5	4051	C	P-O5'-C5'	6.12	130.70	120.90
87	A8	17	A	O4'-C1'-C2'	-6.12	99.68	105.80
36	B2	799	U	C1'-O4'-C4'	-6.12	105.01	109.90
36	B2	1122	A	C4'-C3'-C2'	-6.12	96.48	102.60
36	B2	1466	G	O4'-C1'-N9	6.12	113.09	108.20
85	A5	655	C	C4'-C3'-O3'	-6.12	96.55	109.40
85	A5	2588	C	C1'-O4'-C4'	6.12	114.79	109.90
85	A5	4988	U	N1-C1'-C2'	6.12	121.95	114.00
36	B2	24	C	O4'-C1'-N1	6.12	113.09	108.20
85	A5	3934	G	C3'-C2'-C1'	-6.12	96.61	101.50
56	CX	52	LEU	C-N-CA	6.12	136.99	121.70
81	CE	33	LYS	CA-CB-CG	6.12	126.85	113.40
36	B2	1435	C	C3'-C2'-C1'	6.11	106.39	101.50
81	CE	277	LEU	CA-C-N	6.11	130.65	117.20
85	A5	4524	G	C5'-C4'-C3'	-6.11	106.22	116.00
85	A5	1447	C	O4'-C1'-C2'	-6.11	99.69	105.80
85	A5	2629	C	O4'-C1'-C2'	-6.11	99.69	105.80
85	A5	2704	C	C4'-C3'-C2'	-6.11	96.49	102.60
36	B2	420	G	O4'-C1'-N9	6.11	113.09	108.20
36	B2	1651	A	O4'-C1'-N9	6.11	113.09	108.20
43	CV	75	LYS	N-CA-C	6.11	127.50	111.00
85	A5	2593	C	C3'-C2'-C1'	6.11	106.39	101.50
85	A5	3813	A	O4'-C1'-N9	6.11	113.09	108.20
8	AS	9	PHE	C-N-CA	-6.11	106.43	121.70
36	B2	554	A	C1'-O4'-C4'	-6.11	105.01	109.90
58	CW	22	ALA	C-N-CA	-6.11	106.43	121.70
85	A5	4730	C	C2'-C3'-O3'	6.11	123.47	113.70
85	A5	4928	C	O4'-C1'-C2'	-6.11	99.69	105.80
36	B2	695	C	C5'-C4'-C3'	6.11	125.77	116.00
85	A5	1398	A	C2'-C3'-O3'	6.11	123.47	113.70
85	A5	1537	A	O4'-C1'-C2'	-6.11	99.69	105.80
85	A5	1543	G	N9-C1'-C2'	-6.11	105.28	112.00
85	A5	1934	A	C1'-O4'-C4'	6.11	114.78	109.90
85	A5	4661	G	C3'-C2'-C1'	6.11	106.39	101.50
54	CP	64	ASN	CB-CA-C	-6.10	98.19	110.40
55	CU	60	VAL	CB-CA-C	6.10	122.99	111.40
61	Ch	114	TYR	C-N-CD	6.10	141.22	128.40
82	CG	59	ARG	NE-CZ-NH1	6.10	123.35	120.30
85	A5	307	A	C1'-O4'-C4'	6.10	114.78	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2399	G	C1'-O4'-C4'	-6.10	105.02	109.90
85	A5	4434	C	O4'-C1'-N1	6.10	113.08	108.20
46	CN	198	LEU	CA-CB-CG	-6.10	101.27	115.30
85	A5	1922	G	C1'-O4'-C4'	-6.10	105.02	109.90
85	A5	2336	G	C3'-C2'-C1'	6.10	106.38	101.50
36	B2	1593	C	O4'-C1'-N1	6.10	113.08	108.20
37	BC	11	C	O4'-C1'-C2'	-6.10	99.70	105.80
85	A5	86	U	N1-C1'-C2'	6.10	121.93	114.00
85	A5	1359	G	O4'-C1'-C2'	6.10	113.09	107.60
85	A5	2747	U	C3'-C2'-C1'	6.10	106.38	101.50
85	A5	2749	C	C3'-C2'-C1'	6.10	106.38	101.50
87	A8	114	G	C1'-O4'-C4'	-6.10	105.02	109.90
36	B2	615	C	C1'-O4'-C4'	-6.09	105.02	109.90
36	B2	1242	U	C1'-O4'-C4'	-6.09	105.02	109.90
60	Cr	112	ARG	CA-C-N	-6.09	103.79	117.20
85	A5	966	A	C1'-O4'-C4'	-6.09	105.02	109.90
85	A5	1690	C	N1-C1'-C2'	6.09	121.92	114.00
85	A5	4728	U	N1-C1'-C2'	-6.09	105.30	112.00
85	A5	4939	C	P-O3'-C3'	6.09	127.01	119.70
85	A5	4084	G	N9-C1'-C2'	6.09	121.92	114.00
87	A8	103	A	O4'-C1'-C2'	-6.09	99.71	105.80
36	B2	1490	G	O4'-C1'-C2'	6.09	113.08	107.60
85	A5	524	C	O4'-C1'-N1	6.09	113.07	108.20
85	A5	1753	G	C4'-C3'-O3'	6.09	125.18	113.00
85	A5	2404	A	C3'-C2'-C1'	6.09	106.37	101.50
85	A5	2726	G	C5'-C4'-O4'	6.09	116.41	109.10
85	A5	3858	C	O4'-C1'-N1	6.09	113.07	108.20
23	AD	4	GLN	CA-C-O	6.09	132.89	120.10
69	Cg	49	CYS	N-CA-C	-6.09	94.56	111.00
85	A5	121	A	O4'-C1'-N9	6.09	113.07	108.20
85	A5	4369	A	O4'-C1'-N9	6.09	113.07	108.20
85	A5	4656	A	O4'-C1'-C2'	6.09	113.08	107.60
85	A5	4763	U	C3'-C2'-C1'	6.09	106.37	101.50
85	A5	4729	A	C5'-C4'-C3'	6.09	125.74	116.00
3	AU	117	ALA	O-C-N	6.09	132.44	122.70
36	B2	1526	G	N9-C1'-C2'	-6.09	105.31	112.00
82	CG	106	THR	CA-C-N	6.09	130.59	117.20
85	A5	262	G	C4'-C3'-C2'	-6.09	96.51	102.60
85	A5	271	C	C3'-C2'-C1'	6.09	106.37	101.50
85	A5	455	C	C5'-C4'-C3'	-6.09	106.26	116.00
85	A5	2270	G	O4'-C1'-C2'	6.09	113.08	107.60
85	A5	3775	A	N9-C1'-C2'	-6.09	105.31	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4675	U	N1-C1'-C2'	6.09	121.91	114.00
87	A8	6	C	N1-C1'-C2'	6.09	121.91	114.00
15	AB	151	ARG	C-N-CA	-6.08	106.49	121.70
36	B2	405	G	C1'-O4'-C4'	-6.08	105.03	109.90
37	BC	69	G	N9-C1'-C2'	6.08	121.91	114.00
36	B2	1190	A	C3'-C2'-C1'	6.08	106.37	101.50
40	CK	85	LEU	C-N-CA	6.08	136.91	121.70
74	CC	85	HIS	N-CA-CB	-6.08	99.65	110.60
81	CE	44	CYS	N-CA-C	6.08	127.43	111.00
85	A5	991	C	N1-C1'-C2'	6.08	121.91	114.00
85	A5	4081	G	C5'-C4'-O4'	6.08	116.40	109.10
85	A5	4752	U	P-O3'-C3'	-6.08	112.40	119.70
85	A5	5069	U	N1-C1'-C2'	6.08	121.91	114.00
36	B2	977	C	O4'-C1'-C2'	-6.08	99.72	105.80
85	A5	6	C	N1-C1'-C2'	6.08	121.91	114.00
85	A5	245	C	C3'-C2'-C1'	-6.08	96.63	101.50
85	A5	1313	C	O4'-C1'-N1	-6.08	103.33	108.20
85	A5	1852	U	O4'-C1'-N1	6.08	113.06	108.20
85	A5	4643	G	C1'-O4'-C4'	-6.08	105.03	109.90
81	CE	41	LYS	CA-C-N	6.08	134.12	117.10
85	A5	729	G	O4'-C1'-C2'	-6.08	99.72	105.80
36	B2	1371	U	C3'-C2'-C1'	6.08	106.36	101.50
37	BC	53	A	C1'-O4'-C4'	6.08	114.76	109.90
62	Cb	54	LEU	CB-CG-CD1	6.08	121.33	111.00
85	A5	1628	C	C3'-C2'-C1'	6.08	106.36	101.50
85	A5	3731	C	O4'-C1'-C2'	-6.08	99.72	105.80
85	A5	4776	G	O4'-C1'-N9	6.08	113.06	108.20
4	AK	89	ILE	CA-CB-CG2	6.08	123.05	110.90
36	B2	301	A	O4'-C1'-N9	6.08	113.06	108.20
85	A5	491	G	P-O3'-C3'	6.07	126.99	119.70
85	A5	1368	A	C5'-C4'-C3'	6.07	125.72	116.00
85	A5	1535	C	C1'-O4'-C4'	-6.07	105.04	109.90
85	A5	4438	U	O4'-C1'-N1	6.07	113.06	108.20
36	B2	1040	G	C3'-C2'-C1'	-6.07	96.64	101.50
85	A5	1615	C	N1-C1'-C2'	6.07	121.89	114.00
13	AP	49	LEU	C-N-CA	-6.07	106.52	121.70
36	B2	21	U	O4'-C1'-C2'	-6.07	99.73	105.80
36	B2	420	G	O4'-C1'-C2'	6.07	113.06	107.60
36	B2	964	A	N9-C1'-C2'	-6.07	105.32	112.00
36	B2	1088	U	O4'-C1'-N1	6.07	113.06	108.20
85	A5	1547	A	O4'-C1'-N9	6.07	113.06	108.20
85	A5	1873	A	C5'-C4'-C3'	-6.07	106.29	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2104	G	N9-C1'-C2'	-6.07	105.32	112.00
85	A5	3703	G	N9-C1'-C2'	6.07	121.89	114.00
85	A5	4933	C	P-O3'-C3'	6.07	126.98	119.70
85	A5	4469	U	N1-C1'-C2'	6.07	121.89	114.00
36	B2	1738	C	C3'-C2'-C1'	6.07	106.35	101.50
85	A5	437	G	N9-C1'-C2'	6.07	121.89	114.00
85	A5	660	A	N9-C1'-C2'	-6.07	105.33	112.00
85	A5	1420	A	N9-C1'-C2'	6.07	121.89	114.00
85	A5	1720	C	O5'-C5'-C4'	6.07	123.23	111.70
85	A5	1851	G	C3'-C2'-C1'	-6.07	96.65	101.50
85	A5	4665	A	C5'-C4'-C3'	-6.07	106.29	116.00
85	A5	4960	G	O4'-C1'-N9	6.07	113.05	108.20
47	CI	206	LEU	CA-C-N	6.07	130.55	117.20
64	CF	23	ARG	O-C-N	6.07	132.40	122.70
85	A5	1431	C	O4'-C1'-N1	6.07	113.05	108.20
85	A5	1051	G	N9-C1'-C2'	-6.06	105.33	112.00
85	A5	1278	C	P-O3'-C3'	6.06	126.98	119.70
85	A5	1851	G	O4'-C1'-C2'	6.06	113.06	107.60
18	AY	96	LEU	N-CA-CB	6.06	122.52	110.40
85	A5	74	G	C1'-O4'-C4'	-6.06	105.05	109.90
85	A5	1222	A	C2'-C3'-O3'	6.06	123.40	113.70
85	A5	1774	C	O4'-C1'-N1	6.06	113.05	108.20
85	A5	4322	G	N9-C1'-C2'	-6.06	105.33	112.00
85	A5	5054	C	C1'-O4'-C4'	6.06	114.75	109.90
87	A8	83	C	O4'-C1'-C2'	-6.06	99.74	105.80
36	B2	163	U	O4'-C4'-C3'	-6.06	97.94	104.00
85	A5	4634	U	O4'-C1'-C2'	-6.06	99.74	105.80
4	AK	40	VAL	C-N-CD	-6.06	107.27	120.60
85	A5	1353	G	N9-C1'-C2'	6.06	121.88	114.00
85	A5	4295	U	O4'-C1'-C2'	-6.06	99.74	105.80
85	A5	4510	A	O3'-P-O5'	6.06	115.51	104.00
87	A8	95	A	O3'-P-O5'	6.06	115.51	104.00
2	Ag	15	ASN	C-N-CA	-6.06	109.58	122.30
13	AP	17	TYR	N-CA-CB	6.06	121.50	110.60
36	B2	226	A	O4'-C1'-C2'	-6.06	99.74	105.80
40	CK	106	PHE	CA-CB-CG	6.06	128.44	113.90
85	A5	1267	C	O4'-C1'-C2'	-6.06	99.74	105.80
36	B2	958	G	C3'-C2'-C1'	-6.05	96.66	101.50
36	B2	1122	A	C3'-C2'-C1'	6.05	106.34	101.50
60	Cr	91	SER	CA-CB-OG	6.05	127.55	111.20
85	A5	2788	U	O4'-C1'-C2'	-6.05	99.75	105.80
85	A5	5047	C	N1-C1'-C2'	-6.05	105.34	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	962	A	N9-C1'-C2'	-6.05	105.34	112.00
37	BC	51	G	O4'-C1'-N9	6.05	113.04	108.20
85	A5	1166	G	C5'-C4'-O4'	6.05	116.36	109.10
85	A5	1299	G	O4'-C1'-N9	6.05	113.04	108.20
85	A5	1429	C	C1'-O4'-C4'	6.05	114.74	109.90
85	A5	1868	A	C1'-O4'-C4'	6.05	114.74	109.90
85	A5	4042	G	P-O3'-C3'	6.05	126.96	119.70
86	A7	107	G	C1'-O4'-C4'	-6.05	105.06	109.90
36	B2	974	C	C3'-C2'-C1'	6.05	106.34	101.50
36	B2	1449	G	P-O3'-C3'	6.05	126.96	119.70
39	Cq	81	HIS	CB-CA-C	6.05	122.50	110.40
40	CK	130	LYS	CD-CE-NZ	6.05	125.61	111.70
85	A5	468	U	C1'-O4'-C4'	6.05	114.74	109.90
85	A5	1211	G	N9-C1'-C2'	-6.05	105.35	112.00
85	A5	2309	G	C1'-O4'-C4'	6.05	114.74	109.90
85	A5	2447	U	C1'-O4'-C4'	6.05	114.74	109.90
85	A5	4443	C	C3'-C2'-C1'	6.05	106.34	101.50
36	B2	2	A	O4'-C1'-N9	6.05	113.04	108.20
36	B2	204	G	O4'-C1'-C2'	-6.05	99.75	105.80
40	CK	30	PRO	CA-C-O	-6.05	105.68	120.20
47	CI	100	ASN	C-N-CA	-6.05	106.58	121.70
85	A5	2049	G	O4'-C1'-N9	6.05	113.04	108.20
36	B2	884	C	O4'-C1'-N1	6.05	113.04	108.20
36	B2	1359	U	O4'-C1'-C2'	-6.05	99.75	105.80
74	CC	312	ARG	O-C-N	6.05	132.38	122.70
85	A5	210	C	N1-C1'-C2'	6.05	121.86	114.00
85	A5	302	C	N1-C1'-C2'	6.05	121.86	114.00
85	A5	1408	G	O4'-C1'-N9	6.05	113.04	108.20
85	A5	2812	A	O5'-C5'-C4'	-6.05	100.21	111.70
36	B2	1575	G	C4'-C3'-C2'	-6.04	96.56	102.60
86	A7	113	G	C5'-C4'-O4'	6.04	116.35	109.10
42	CL	49	ARG	O-C-N	-6.04	109.62	121.10
85	A5	4261	C	C3'-C2'-C1'	6.04	106.33	101.50
24	Ae	47	PRO	CA-N-CD	-6.04	103.04	111.50
36	B2	928	G	O4'-C1'-N9	6.04	113.03	108.20
36	B2	1552	G	P-O5'-C5'	6.04	130.57	120.90
36	B2	1563	G	C1'-O4'-C4'	-6.04	105.07	109.90
46	CN	48	ALA	O-C-N	6.04	132.37	122.70
85	A5	1764	G	O4'-C1'-C2'	6.04	113.04	107.60
85	A5	2400	G	N9-C1'-C2'	6.04	121.86	114.00
4	AK	38	LYS	N-CA-C	-6.04	94.70	111.00
11	AL	150	GLY	N-CA-C	-6.04	98.00	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	281	C	O5'-P-OP1	-6.04	100.27	105.70
74	CC	315	LYS	N-CA-C	6.04	127.30	111.00
36	B2	1395	C	O4'-C1'-N1	6.04	113.03	108.20
36	B2	1748	G	O5'-C5'-C4'	6.04	123.17	111.70
85	A5	4216	G	C3'-C2'-C1'	6.04	106.33	101.50
36	B2	383	G	O4'-C1'-N9	6.04	113.03	108.20
36	B2	633	C	N1-C1'-C2'	6.04	121.85	114.00
85	A5	1342	A	C3'-C2'-C1'	6.04	106.33	101.50
85	A5	2805	C	N1-C1'-C2'	6.04	121.85	114.00
85	A5	4485	C	O4'-C1'-N1	6.04	113.03	108.20
86	A7	112	U	C1'-O4'-C4'	6.04	114.73	109.90
85	A5	4206	C	N1-C1'-C2'	6.03	121.84	114.00
87	A8	90	C	C3'-C2'-C1'	6.03	106.33	101.50
85	A5	693	C	C4'-C3'-C2'	-6.03	96.57	102.60
85	A5	944	A	O4'-C1'-C2'	-6.03	99.77	105.80
85	A5	3931	C	C3'-C2'-C1'	6.03	106.33	101.50
28	AC	277	HIS	CB-CA-C	-6.03	98.34	110.40
36	B2	1437	C	N1-C1'-C2'	6.03	121.84	114.00
36	B2	1438	A	C3'-C2'-C1'	6.03	106.32	101.50
60	Cr	103	ARG	C-N-CD	6.03	141.06	128.40
85	A5	902	C	O4'-C1'-C2'	-6.03	99.77	105.80
85	A5	1410	U	O4'-C1'-C2'	-6.03	99.77	105.80
85	A5	2716	C	N1-C1'-C2'	6.03	121.84	114.00
85	A5	3691	G	O4'-C1'-N9	6.03	113.02	108.20
85	A5	4162	C	O4'-C1'-C2'	6.03	113.03	107.60
36	B2	633	C	C3'-C2'-C1'	6.03	106.32	101.50
45	Ca	66	ASN	N-CA-C	-6.03	94.73	111.00
85	A5	4231	C	O4'-C1'-N1	6.03	113.02	108.20
85	A5	4612	C	C3'-C2'-C1'	6.03	106.32	101.50
85	A5	1089	G	P-O3'-C3'	6.03	126.93	119.70
85	A5	1574	G	C1'-O4'-C4'	6.03	114.72	109.90
85	A5	2253	A	O4'-C4'-C3'	-6.03	97.97	104.00
29	AG	173	ALA	O-C-N	-6.02	109.65	121.10
30	AF	135	ARG	CB-CA-C	6.02	122.45	110.40
36	B2	573	U	N1-C1'-C2'	6.02	121.83	114.00
36	B2	594	A	P-O3'-C3'	6.02	126.93	119.70
58	CW	27	LYS	CB-CA-C	-6.02	98.35	110.40
85	A5	1479	G	P-O3'-C3'	6.02	126.93	119.70
22	Ac	6	VAL	N-CA-C	6.02	127.26	111.00
36	B2	990	A	C1'-O4'-C4'	-6.02	105.08	109.90
71	Cj	88	ARG	NE-CZ-NH1	-6.02	117.29	120.30
85	A5	4086	G	O4'-C1'-N9	6.02	113.02	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Az	760	TYR	CB-CG-CD1	-6.02	117.39	121.00
36	B2	1371	U	O4'-C1'-N1	6.02	113.02	108.20
85	A5	1486	C	C1'-O4'-C4'	-6.02	105.08	109.90
85	A5	444	G	C1'-O4'-C4'	-6.02	105.08	109.90
85	A5	730	G	O4'-C1'-N9	6.02	113.02	108.20
85	A5	1459	A	C3'-C2'-C1'	6.02	106.32	101.50
85	A5	1469	C	O4'-C1'-C2'	-6.02	99.78	105.80
85	A5	2685	C	C4'-C3'-C2'	-6.02	96.58	102.60
85	A5	3802	U	N1-C1'-C2'	6.02	121.82	114.00
36	B2	1142	G	C3'-C2'-C1'	-6.02	96.69	101.50
60	Cr	66	ARG	CA-CB-CG	6.02	126.64	113.40
85	A5	993	G	O4'-C1'-N9	6.02	113.01	108.20
85	A5	1640	C	C1'-O4'-C4'	6.02	114.71	109.90
36	B2	857	U	P-O5'-C5'	-6.01	111.28	120.90
81	CE	93	THR	CA-CB-CG2	6.01	120.82	112.40
85	A5	987	C	O4'-C1'-N1	6.01	113.01	108.20
85	A5	1774	C	C4'-C3'-C2'	-6.01	96.58	102.60
85	A5	4676	G	C1'-O4'-C4'	-6.01	105.09	109.90
74	CC	287	THR	O-C-N	-6.01	113.08	122.70
85	A5	380	U	O4'-C1'-N1	6.01	113.01	108.20
36	B2	1540	G	C1'-O4'-C4'	-6.01	105.09	109.90
37	BC	7	G	C1'-O4'-C4'	6.01	114.71	109.90
85	A5	967	C	O4'-C1'-C2'	-6.01	99.79	105.80
85	A5	1632	A	C3'-C2'-C1'	-6.01	96.69	101.50
87	A8	108	A	O4'-C1'-C2'	-6.01	99.79	105.80
36	B2	852	G	O4'-C1'-N9	6.01	113.01	108.20
36	B2	853	C	O4'-C1'-N1	6.01	113.01	108.20
36	B2	1851	A	C1'-O4'-C4'	6.01	114.71	109.90
63	CB	292	LEU	CA-C-N	6.01	130.42	117.20
85	A5	410	A	C1'-O4'-C4'	-6.01	105.09	109.90
85	A5	4522	G	O4'-C1'-N9	6.01	113.01	108.20
36	B2	747	U	O3'-P-O5'	-6.01	92.58	104.00
69	Cg	82	MET	CA-C-O	6.01	132.72	120.10
85	A5	4662	C	C1'-O4'-C4'	-6.01	105.09	109.90
2	Ag	213	ASP	CB-CG-OD2	-6.01	112.89	118.30
81	CE	177	GLY	N-CA-C	-6.01	98.08	113.10
81	CE	234	ASP	CA-C-N	-6.01	103.98	117.20
85	A5	4387	C	O4'-C1'-C2'	-6.01	99.79	105.80
36	B2	1554	C	C2'-C3'-O3'	-6.00	96.29	109.50
52	CS	86	SER	CB-CA-C	6.00	121.51	110.10
85	A5	3797	C	O4'-C1'-C2'	-6.00	99.80	105.80
36	B2	1398	G	P-O3'-C3'	-6.00	112.50	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1404	U	N1-C1'-C2'	6.00	121.80	114.00
85	A5	4445	U	N1-C1'-C2'	6.00	121.81	114.00
85	A5	5012	G	N9-C1'-C2'	-6.00	105.39	112.00
35	Ah	142	LEU	N-CA-CB	6.00	122.40	110.40
36	B2	182	C	C3'-C2'-C1'	6.00	106.30	101.50
36	B2	551	U	P-O3'-C3'	6.00	126.90	119.70
36	B2	1178	U	O4'-C1'-N1	6.00	113.00	108.20
59	CZ	6	LYS	C-N-CD	-6.00	107.40	120.60
85	A5	107	G	C3'-C2'-C1'	-6.00	96.70	101.50
85	A5	432	U	C3'-C2'-C1'	-6.00	96.70	101.50
85	A5	1747	U	O4'-C1'-N1	6.00	113.00	108.20
36	B2	1429	G	OP1-P-O3'	6.00	118.40	105.20
36	B2	1641	A	C3'-C2'-C1'	6.00	106.30	101.50
85	A5	141	C	C4'-C3'-C2'	-6.00	96.60	102.60
85	A5	2882	A	N9-C1'-C2'	-6.00	105.40	112.00
85	A5	4436	U	O4'-C1'-N1	6.00	113.00	108.20
4	AK	90	VAL	N-CA-C	6.00	127.19	111.00
25	Af	88	PRO	N-CA-C	-6.00	96.51	112.10
85	A5	1303	A	C4'-C3'-C2'	-6.00	96.60	102.60
85	A5	2018	C	O5'-C5'-C4'	-6.00	100.31	111.70
85	A5	2285	A	N9-C1'-C2'	-6.00	105.40	112.00
87	A8	97	A	O4'-C1'-N9	6.00	113.00	108.20
36	B2	790	C	O4'-C1'-C2'	-6.00	99.81	105.80
85	A5	2877	G	O4'-C1'-N9	6.00	113.00	108.20
85	A5	4173	G	O4'-C1'-C2'	-6.00	99.81	105.80
36	B2	1552	G	O4'-C1'-C2'	-5.99	99.81	105.80
85	A5	348	G	C5'-C4'-C3'	5.99	125.59	116.00
85	A5	2030	A	P-O3'-C3'	5.99	126.89	119.70
85	A5	4161	G	C5'-C4'-C3'	-5.99	106.41	116.00
85	A5	503	C	O4'-C1'-N1	5.99	112.99	108.20
36	B2	1407	U	O4'-C1'-N1	5.99	112.99	108.20
85	A5	469	C	O3'-P-O5'	5.99	115.38	104.00
85	A5	1872	G	C3'-C2'-C1'	-5.99	96.71	101.50
85	A5	2501	C	O4'-C1'-N1	5.99	112.99	108.20
85	A5	4600	G	O4'-C1'-C2'	-5.99	99.81	105.80
19	AZ	112	ASN	N-CA-C	5.99	127.17	111.00
29	AG	220	ALA	O-C-N	-5.99	113.12	122.70
33	AI	132	GLU	CA-C-N	5.99	130.38	117.20
36	B2	1703	C	O4'-C1'-C2'	-5.99	99.81	105.80
53	CT	145	GLY	N-CA-C	-5.99	98.13	113.10
85	A5	174	C	C1'-O4'-C4'	-5.99	105.11	109.90
85	A5	3723	A	O4'-C1'-N9	5.99	112.99	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	AR	88	VAL	C-N-CA	-5.99	106.73	121.70
85	A5	2492	C	O4'-C1'-C2'	-5.99	99.81	105.80
48	CD	186	GLU	CA-C-N	-5.99	104.03	117.20
78	Co	66	ILE	CG1-CB-CG2	-5.99	98.23	111.40
85	A5	200	U	O4'-C1'-N1	-5.99	103.41	108.20
85	A5	1096	C	C3'-C2'-C1'	5.99	106.29	101.50
36	B2	207	G	O4'-C1'-C2'	-5.98	99.82	105.80
36	B2	1747	C	C5'-C4'-O4'	5.98	116.28	109.10
51	CA	68	ARG	N-CA-CB	5.98	121.37	110.60
13	AP	121	ILE	O-C-N	-5.98	113.13	122.70
36	B2	470	G	O4'-C1'-N9	5.98	112.99	108.20
69	Cg	45	ALA	O-C-N	-5.98	113.13	122.70
85	A5	1432	G	O3'-P-O5'	-5.98	92.63	104.00
85	A5	2107	C	O4'-C1'-N1	5.98	112.99	108.20
85	A5	4641	U	C1'-O4'-C4'	5.98	114.69	109.90
85	A5	4898	G	P-O3'-C3'	5.98	126.88	119.70
36	B2	791	C	O3'-P-O5'	-5.98	92.64	104.00
36	B2	1397	U	C3'-C2'-C1'	5.98	106.28	101.50
45	Ca	95	THR	CA-C-N	5.98	128.16	116.20
85	A5	2110	C	N1-C1'-C2'	5.98	121.77	114.00
85	A5	1282	G	O4'-C1'-N9	5.98	112.98	108.20
85	A5	2691	U	C4'-C3'-O3'	-5.98	96.84	109.40
85	A5	4691	A	C5'-C4'-O4'	5.98	116.28	109.10
18	AY	86	GLU	CA-C-N	5.98	133.84	117.10
30	AF	38	TYR	C-N-CA	-5.98	106.76	121.70
36	B2	1445	U	C4'-C3'-O3'	-5.98	96.85	109.40
81	CE	92	VAL	CA-C-N	-5.98	104.05	117.20
85	A5	484	U	P-O3'-C3'	5.98	126.87	119.70
85	A5	2470	C	O3'-P-O5'	5.98	115.36	104.00
36	B2	631	U	O4'-C1'-N1	5.98	112.98	108.20
36	B2	858	A	C3'-C2'-C1'	5.98	106.28	101.50
36	B2	1091	C	O4'-C1'-C2'	-5.98	99.82	105.80
53	CT	17	ARG	C-N-CD	-5.98	107.45	120.60
85	A5	2590	G	N9-C1'-C2'	5.98	121.77	114.00
36	B2	281	C	O5'-P-OP2	-5.97	100.32	105.70
85	A5	33	A	N9-C1'-C2'	5.97	121.77	114.00
85	A5	1463	C	C3'-C2'-C1'	5.97	106.28	101.50
85	A5	2646	C	O4'-C1'-N1	5.97	112.98	108.20
85	A5	4068	U	C1'-O4'-C4'	-5.97	105.12	109.90
85	A5	4197	G	O4'-C1'-N9	5.97	112.98	108.20
87	A8	121	G	P-O3'-C3'	5.97	126.87	119.70
11	AL	151	THR	C-N-CA	5.97	136.63	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1576	G	C1'-O4'-C4'	-5.97	105.12	109.90
40	CK	28	LEU	N-CA-CB	5.97	122.34	110.40
85	A5	644	G	C1'-O4'-C4'	-5.97	105.12	109.90
85	A5	720	G	N9-C1'-C2'	5.97	121.77	114.00
16	AA	193	HIS	C-N-CD	-5.97	107.46	120.60
85	A5	938	C	C4'-C3'-C2'	-5.97	96.63	102.60
85	A5	4409	C	O4'-C1'-C2'	-5.97	99.83	105.80
1	Az	267	ASP	C-N-CD	5.97	140.94	128.40
36	B2	963	A	P-O5'-C5'	-5.97	111.35	120.90
85	A5	1436	C	C4'-C3'-C2'	-5.97	96.63	102.60
85	A5	1582	U	O4'-C1'-C2'	-5.97	99.83	105.80
85	A5	1777	C	O4'-C1'-N1	5.97	112.97	108.20
86	A7	29	C	O4'-C1'-C2'	-5.97	99.83	105.80
85	A5	2898	G	N9-C1'-C2'	5.97	121.76	114.00
85	A5	4336	A	O3'-P-O5'	-5.97	92.66	104.00
36	B2	193	C	O5'-C5'-C4'	-5.97	100.36	111.70
74	CC	265	GLY	O-C-N	-5.97	113.16	122.70
85	A5	4443	C	O4'-C1'-C2'	-5.97	99.83	105.80
3	AU	68	THR	N-CA-CB	-5.96	98.97	110.30
53	CT	151	LEU	O-C-N	-5.96	113.16	122.70
85	A5	236	G	O4'-C1'-C2'	5.96	112.97	107.60
85	A5	3792	G	O4'-C1'-N9	5.96	112.97	108.20
85	A5	4355	G	C1'-O4'-C4'	5.96	114.67	109.90
3	AU	109	GLY	N-CA-C	-5.96	98.19	113.10
36	B2	568	C	C3'-C2'-C1'	5.96	106.27	101.50
85	A5	1607	C	C3'-C2'-C1'	5.96	106.27	101.50
85	A5	4258	C	N1-C1'-C2'	5.96	121.75	114.00
86	A7	7	G	O4'-C1'-C2'	-5.96	99.84	105.80
36	B2	195	C	O4'-C1'-N1	5.96	112.97	108.20
36	B2	1706	G	O4'-C1'-N9	5.96	112.97	108.20
42	CL	160	VAL	C-N-CA	5.96	136.60	121.70
60	Cr	56	ASP	N-CA-CB	-5.96	99.87	110.60
85	A5	2930	G	O3'-P-O5'	5.96	115.33	104.00
85	A5	4730	C	C4'-C3'-C2'	5.96	108.56	102.60
86	A7	62	U	P-O3'-C3'	-5.96	112.55	119.70
85	A5	4018	G	P-O3'-C3'	5.96	126.85	119.70
87	A8	115	G	O4'-C1'-C2'	5.96	112.96	107.60
36	B2	1118	C	C3'-C2'-C1'	-5.96	96.73	101.50
36	B2	1412	C	C4'-C3'-O3'	5.96	124.92	113.00
36	B2	1445	U	P-O3'-C3'	-5.96	112.55	119.70
85	A5	1438	U	C3'-C2'-C1'	5.96	106.27	101.50
87	A8	45	C	O4'-C1'-N1	5.96	112.97	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
87	A8	68	G	C3'-C2'-C1'	-5.96	96.73	101.50
36	B2	1327	G	C1'-O4'-C4'	-5.96	105.13	109.90
68	Cf	100	ARG	CA-C-N	5.96	130.31	117.20
74	CC	308	LYS	CA-C-O	-5.96	107.59	120.10
85	A5	1305	C	N1-C1'-C2'	5.96	121.74	114.00
85	A5	1330	A	N9-C1'-C2'	5.96	121.74	114.00
36	B2	1352	G	O4'-C1'-N9	5.96	112.96	108.20
53	CT	151	LEU	CA-C-N	5.96	130.30	117.20
56	CX	120	ASP	C-N-CA	-5.96	106.81	121.70
58	CW	73	ARG	CG-CD-NE	-5.96	99.29	111.80
85	A5	338	A	O4'-C1'-N9	5.96	112.96	108.20
18	AY	64	PHE	N-CA-CB	-5.95	99.88	110.60
36	B2	591	U	N1-C1'-C2'	5.95	121.74	114.00
36	B2	848	U	C1'-O4'-C4'	-5.95	105.14	109.90
36	B2	1051	G	C3'-C2'-C1'	-5.95	96.74	101.50
40	CK	85	LEU	CD1-CG-CD2	5.95	128.36	110.50
40	CK	86	LYS	CB-CA-C	-5.95	98.50	110.40
45	Ca	116	LYS	N-CA-C	5.95	127.07	111.00
85	A5	2737	C	O4'-C1'-N1	5.95	112.96	108.20
85	A5	2871	A	O4'-C1'-N9	5.95	112.96	108.20
33	AI	29	LEU	C-N-CA	5.95	134.80	122.30
36	B2	1304	U	O4'-C1'-N1	5.95	112.96	108.20
85	A5	423	G	C3'-C2'-C1'	-5.95	96.74	101.50
85	A5	1411	C	P-O5'-C5'	5.95	130.42	120.90
85	A5	2769	U	O4'-C1'-N1	5.95	112.96	108.20
85	A5	2819	U	C3'-C2'-C1'	5.95	106.26	101.50
87	A8	83	C	P-O3'-C3'	5.95	126.84	119.70
36	B2	974	C	C1'-O4'-C4'	-5.95	105.14	109.90
39	Cq	23	ASP	CA-C-N	5.95	130.29	117.20
47	CI	212	LEU	N-CA-C	5.95	127.07	111.00
85	A5	87	A	O4'-C1'-N9	5.95	112.96	108.20
85	A5	98	A	O4'-C1'-N9	5.95	112.96	108.20
85	A5	2235	C	O3'-P-O5'	5.95	115.31	104.00
4	AK	41	PRO	N-CA-C	-5.95	96.64	112.10
85	A5	135	G	O4'-C1'-N9	-5.95	103.44	108.20
85	A5	4453	C	C1'-O4'-C4'	-5.95	105.14	109.90
86	A7	111	C	O4'-C1'-N1	5.95	112.96	108.20
85	A5	1791	U	C3'-C2'-C1'	5.95	106.26	101.50
85	A5	3681	G	O4'-C1'-C2'	-5.95	99.85	105.80
36	B2	287	U	P-O5'-C5'	5.95	130.41	120.90
85	A5	1556	C	C3'-C2'-C1'	5.95	106.26	101.50
85	A5	3607	U	N1-C1'-C2'	5.95	121.73	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	965	G	P-O5'-C5'	5.94	130.41	120.90
36	B2	64	A	C3'-C2'-C1'	-5.94	96.75	101.50
36	B2	90	G	O4'-C1'-N9	5.94	112.95	108.20
85	A5	2396	A	O5'-C5'-C4'	-5.94	100.41	111.70
85	A5	4905	C	C3'-C2'-C1'	5.94	106.25	101.50
85	A5	4939	C	O4'-C1'-N1	5.94	112.95	108.20
85	A5	2005	G	P-O3'-C3'	-5.94	112.57	119.70
85	A5	4368	G	C1'-O4'-C4'	-5.94	105.15	109.90
87	A8	59	A	C1'-O4'-C4'	-5.94	105.15	109.90
49	CQ	21	GLN	O-C-N	-5.94	113.20	122.70
1	Az	71	LYS	C-N-CA	-5.94	106.86	121.70
36	B2	1540	G	O4'-C1'-N9	5.94	112.95	108.20
22	Ac	5	ARG	N-CA-C	5.93	127.03	111.00
36	B2	1852	C	N1-C1'-C2'	5.93	121.71	114.00
85	A5	257	C	O4'-C1'-N1	5.93	112.95	108.20
85	A5	315	G	N9-C1'-C2'	5.93	121.71	114.00
85	A5	2820	C	C3'-C2'-C1'	5.93	106.25	101.50
36	B2	1758	G	C1'-O4'-C4'	-5.93	105.15	109.90
36	B2	1807	C	C1'-O4'-C4'	-5.93	105.16	109.90
85	A5	203	U	C3'-C2'-C1'	-5.93	96.75	101.50
85	A5	2397	G	P-O5'-C5'	5.93	130.39	120.90
85	A5	2881	A	O4'-C1'-C2'	-5.93	99.87	105.80
85	A5	1985	G	P-O5'-C5'	5.93	130.39	120.90
85	A5	2067	C	N1-C1'-C2'	5.93	121.71	114.00
85	A5	2710	C	O4'-C1'-N1	5.93	112.94	108.20
3	AU	69	PRO	N-CA-C	-5.93	96.69	112.10
36	B2	1203	G	C3'-C2'-C1'	-5.93	96.76	101.50
37	BC	17	G	N9-C1'-C2'	5.93	121.71	114.00
85	A5	144	G	N9-C1'-C2'	-5.93	105.48	112.00
85	A5	178	C	O4'-C1'-N1	5.93	112.94	108.20
85	A5	460	C	O4'-C1'-C2'	-5.93	99.87	105.80
85	A5	512	U	C4'-C3'-C2'	-5.93	96.67	102.60
85	A5	2741	U	C3'-C2'-C1'	5.93	106.24	101.50
85	A5	4645	C	C3'-C2'-C1'	5.93	106.24	101.50
85	A5	4681	A	C3'-C2'-C1'	5.93	106.24	101.50
85	A5	1849	U	C1'-O4'-C4'	5.93	114.64	109.90
36	B2	191	A	O5'-P-OP2	-5.93	100.37	105.70
36	B2	362	C	N1-C1'-C2'	5.93	121.70	114.00
36	B2	1699	A	P-O3'-C3'	-5.93	112.59	119.70
44	CM	70	GLN	CB-CA-C	5.93	122.25	110.40
85	A5	50	C	N1-C1'-C2'	5.93	121.70	114.00
85	A5	1373	A	O4'-C1'-N9	5.93	112.94	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2674	A	P-O3'-C3'	5.93	126.81	119.70
85	A5	2770	C	C1'-O4'-C4'	-5.93	105.16	109.90
36	B2	1026	C	O4'-C1'-C2'	-5.92	99.88	105.80
36	B2	1417	C	OP1-P-OP2	-5.92	110.71	119.60
36	B2	1420	G	N9-C1'-C2'	5.92	121.70	114.00
85	A5	1756	U	O3'-P-O5'	5.92	115.26	104.00
85	A5	1931	C	O4'-C1'-C2'	-5.92	99.88	105.80
85	A5	2462	C	O4'-C1'-C2'	-5.92	99.88	105.80
85	A5	228	C	C3'-C2'-C1'	5.92	106.24	101.50
85	A5	953	C	C3'-C2'-C1'	5.92	106.24	101.50
85	A5	1643	A	C3'-C2'-C1'	5.92	106.24	101.50
85	A5	4975	G	O4'-C1'-N9	5.92	112.94	108.20
17	AV	66	ASP	C-N-CA	-5.92	106.90	121.70
63	CB	150	PHE	N-CA-C	-5.92	95.01	111.00
85	A5	505	G	C4'-C3'-C2'	-5.92	96.68	102.60
85	A5	2836	A	C4'-C3'-C2'	-5.92	96.68	102.60
85	A5	4608	G	N9-C1'-C2'	5.92	121.70	114.00
85	A5	4634	U	C1'-O4'-C4'	-5.92	105.16	109.90
85	A5	4678	G	N9-C1'-C2'	-5.92	105.49	112.00
85	A5	4763	U	O4'-C1'-C2'	-5.92	99.88	105.80
85	A5	4901	G	O4'-C1'-N9	5.92	112.94	108.20
85	A5	115	C	C1'-O4'-C4'	5.92	114.64	109.90
85	A5	1511	U	O4'-C1'-N1	5.92	112.94	108.20
21	Ab	53	VAL	C-N-CA	-5.92	106.90	121.70
36	B2	797	C	P-O5'-C5'	5.92	130.37	120.90
36	B2	1231	C	O4'-C1'-N1	-5.92	103.47	108.20
85	A5	407	A	C3'-C2'-C1'	5.92	106.23	101.50
85	A5	951	G	P-O3'-C3'	5.92	126.80	119.70
85	A5	2380	G	C1'-O4'-C4'	-5.92	105.17	109.90
85	A5	2771	G	C1'-O4'-C4'	-5.92	105.17	109.90
85	A5	4047	A	P-O3'-C3'	5.92	126.80	119.70
85	A5	4270	C	C3'-C2'-C1'	5.92	106.23	101.50
36	B2	77	A	O4'-C1'-N9	5.92	112.93	108.20
60	Cr	103	ARG	N-CA-CB	5.92	121.25	110.60
85	A5	908	G	O4'-C1'-N9	5.92	112.93	108.20
85	A5	2803	U	N1-C1'-C2'	5.92	121.69	114.00
74	CC	267	TRP	CA-C-O	-5.92	107.68	120.10
85	A5	5008	C	N1-C1'-C2'	5.92	121.69	114.00
86	A7	64	G	C4'-C3'-O3'	-5.92	96.98	109.40
37	BC	13	C	O4'-C1'-N1	5.91	112.93	108.20
85	A5	89	C	O4'-C1'-N1	5.91	112.93	108.20
85	A5	4168	G	O4'-C1'-C2'	5.91	112.92	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4526	U	O4'-C1'-N1	5.91	112.93	108.20
85	A5	4936	G	P-O3'-C3'	-5.91	112.60	119.70
36	B2	1114	U	C1'-O4'-C4'	5.91	114.63	109.90
36	B2	1780	G	C3'-C2'-C1'	-5.91	96.77	101.50
38	Cz	208	SER	CA-C-N	-5.91	104.19	117.20
42	CL	56	ARG	NE-CZ-NH2	-5.91	117.34	120.30
42	CL	164	GLU	CA-C-N	5.91	130.21	117.20
85	A5	2290	C	C4'-C3'-C2'	-5.91	96.69	102.60
36	B2	1347	U	O4'-C1'-C2'	-5.91	99.89	105.80
36	B2	1421	A	O4'-C1'-N9	5.91	112.93	108.20
74	CC	191	ALA	C-N-CA	-5.91	109.89	122.30
85	A5	660	A	O4'-C1'-C2'	-5.91	99.89	105.80
36	B2	1435	C	C5'-C4'-C3'	5.91	125.45	116.00
85	A5	1968	G	O4'-C1'-N9	5.91	112.93	108.20
85	A5	131	C	C4'-C3'-C2'	-5.91	96.69	102.60
35	Ah	170	ARG	O-C-N	-5.91	113.16	123.20
81	CE	27	VAL	N-CA-CB	-5.91	98.51	111.50
85	A5	1984	A	N9-C1'-C2'	-5.91	105.50	112.00
85	A5	2544	G	C5'-C4'-C3'	5.91	125.45	116.00
85	A5	1186	U	O4'-C4'-C3'	-5.90	98.10	104.00
86	A7	22	A	C3'-C2'-C1'	5.90	106.22	101.50
36	B2	1069	U	P-O5'-C5'	-5.90	111.46	120.90
36	B2	1785	C	O4'-C1'-N1	5.90	112.92	108.20
60	Cr	56	ASP	CB-CG-OD2	5.90	123.61	118.30
85	A5	27	C	N1-C1'-C2'	5.90	121.67	114.00
85	A5	1283	G	C3'-C2'-C1'	5.90	106.22	101.50
85	A5	1846	G	C1'-O4'-C4'	-5.90	105.18	109.90
85	A5	2317	C	P-O5'-C5'	5.90	130.34	120.90
85	A5	2539	C	O4'-C1'-N1	5.90	112.92	108.20
87	A8	38	U	O4'-C1'-N1	5.90	112.92	108.20
36	B2	1095	C	C1'-O4'-C4'	-5.90	105.18	109.90
85	A5	1077	C	C1'-O4'-C4'	-5.90	105.18	109.90
85	A5	4517	A	O4'-C1'-C2'	-5.90	99.90	105.80
85	A5	1777	C	C1'-O4'-C4'	-5.90	105.18	109.90
31	AH	16	PRO	O-C-N	-5.90	113.26	122.70
85	A5	337	U	O4'-C1'-N1	5.90	112.92	108.20
36	B2	378	U	N1-C1'-C2'	5.90	121.67	114.00
85	A5	1368	A	C4'-C3'-C2'	-5.90	96.70	102.60
85	A5	1547	A	O4'-C1'-C2'	-5.90	99.90	105.80
85	A5	1921	C	O4'-C1'-C2'	-5.90	99.90	105.80
85	A5	2690	C	C3'-C2'-C1'	5.90	106.22	101.50
36	B2	1146	C	C1'-O4'-C4'	-5.89	105.19	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1255	G	C3'-C2'-C1'	-5.89	96.78	101.50
85	A5	183	C	C1'-O4'-C4'	5.89	114.62	109.90
85	A5	2012	A	N9-C1'-C2'	5.89	121.66	114.00
85	A5	4304	A	C3'-C2'-C1'	5.89	106.22	101.50
85	A5	5014	A	N9-C1'-C2'	5.89	121.66	114.00
87	A8	14	U	O4'-C1'-N1	5.89	112.92	108.20
87	A8	99	U	O4'-C1'-N1	5.89	112.92	108.20
36	B2	1432	U	N1-C1'-C2'	5.89	121.66	114.00
85	A5	2003	G	N9-C1'-C2'	5.89	121.66	114.00
2	Ag	12	LYS	C-N-CA	5.89	134.67	122.30
85	A5	145	G	C1'-O4'-C4'	5.89	114.61	109.90
1	Az	196	GLU	N-CA-C	-5.89	95.10	111.00
36	B2	1463	U	P-O3'-C3'	-5.89	112.63	119.70
44	CM	2	VAL	C-N-CA	5.89	136.42	121.70
74	CC	261	ASP	CA-C-N	5.89	130.16	117.20
85	A5	504	G	P-O3'-C3'	5.89	126.77	119.70
85	A5	1657	G	O4'-C1'-C2'	5.89	112.90	107.60
85	A5	1700	G	C4'-C3'-C2'	-5.89	96.71	102.60
85	A5	3598	C	P-O3'-C3'	5.89	126.77	119.70
85	A5	4174	U	C3'-C2'-C1'	-5.89	96.79	101.50
85	A5	1578	U	O5'-C5'-C4'	5.89	122.89	111.70
85	A5	2464	C	O3'-P-O5'	-5.89	92.81	104.00
48	CD	66	TYR	CA-CB-CG	-5.89	102.21	113.40
64	CF	22	ARG	C-N-CA	5.89	136.41	121.70
85	A5	2737	C	P-O3'-C3'	5.89	126.77	119.70
85	A5	4423	U	C1'-O4'-C4'	5.89	114.61	109.90
85	A5	4990	C	C5'-C4'-O4'	5.89	116.16	109.10
36	B2	54	A	N9-C1'-C2'	5.88	121.65	114.00
36	B2	1840	U	O4'-C1'-N1	5.88	112.91	108.20
85	A5	4623	G	C1'-O4'-C4'	5.88	114.61	109.90
36	B2	1683	C	C3'-C2'-C1'	5.88	106.21	101.50
85	A5	1808	C	O4'-C1'-C2'	-5.88	99.92	105.80
36	B2	402	C	O4'-C1'-C2'	-5.88	99.92	105.80
36	B2	1710	C	C3'-C2'-C1'	5.88	106.21	101.50
85	A5	1811	G	C3'-C2'-C1'	-5.88	96.80	101.50
85	A5	1827	C	C4'-C3'-O3'	-5.88	97.05	109.40
85	A5	3977	C	O4'-C1'-N1	5.88	112.91	108.20
85	A5	1245	C	O4'-C1'-N1	5.88	112.90	108.20
85	A5	4190	U	O4'-C1'-N1	5.88	112.90	108.20
85	A5	5015	G	C1'-O4'-C4'	5.88	114.60	109.90
36	B2	662	G	C1'-O4'-C4'	-5.88	105.20	109.90
36	B2	1307	U	N1-C1'-C2'	-5.88	105.53	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	AH	192	PHE	N-CA-C	5.88	126.86	111.00
36	B2	620	G	C1'-O4'-C4'	5.88	114.60	109.90
36	B2	956	G	O4'-C1'-N9	5.88	112.90	108.20
52	CS	152	PHE	CB-CG-CD2	5.88	124.91	120.80
85	A5	2289	C	O4'-C1'-N1	-5.88	103.50	108.20
85	A5	4989	U	O4'-C1'-N1	5.88	112.90	108.20
36	B2	1055	A	C3'-C2'-C1'	5.88	106.20	101.50
85	A5	186	G	C3'-C2'-C1'	5.88	106.20	101.50
85	A5	3268	U	P-O5'-C5'	5.88	130.30	120.90
36	B2	324	C	C3'-C2'-C1'	-5.87	96.80	101.50
36	B2	1745	A	C4'-C3'-C2'	-5.87	96.73	102.60
81	CE	37	PRO	N-CA-CB	5.87	110.35	103.30
85	A5	1931	C	C3'-C2'-C1'	5.87	106.20	101.50
85	A5	2454	U	C3'-C2'-C1'	5.87	106.20	101.50
85	A5	4955	A	O4'-C1'-N9	5.87	112.90	108.20
87	A8	80	A	C1'-O4'-C4'	-5.87	105.20	109.90
20	Aa	96	THR	CA-C-N	-5.87	100.66	117.10
36	B2	377	G	O4'-C1'-N9	5.87	112.90	108.20
36	B2	792	C	N1-C1'-C2'	5.87	121.63	114.00
59	CZ	102	ARG	NE-CZ-NH1	5.87	123.24	120.30
85	A5	2071	A	C3'-C2'-C1'	5.87	106.20	101.50
36	B2	734	C	N1-C1'-C2'	5.87	121.63	114.00
36	B2	1353	A	O3'-P-O5'	-5.87	92.85	104.00
46	CN	79	ALA	CA-C-O	-5.87	107.77	120.10
57	CY	91	ASN	CA-C-N	-5.87	104.46	116.20
85	A5	965	G	C3'-C2'-C1'	5.87	106.20	101.50
85	A5	1361	G	O4'-C1'-C2'	5.87	112.88	107.60
36	B2	918	U	C1'-O4'-C4'	-5.87	105.20	109.90
81	CE	36	LYS	C-N-CA	5.87	146.65	122.00
85	A5	91	G	C3'-C2'-C1'	5.87	106.19	101.50
85	A5	2553	A	N9-C1'-C2'	-5.87	105.54	112.00
85	A5	2568	C	O4'-C1'-N1	5.87	112.89	108.20
85	A5	661	C	O4'-C1'-C2'	-5.87	99.93	105.80
85	A5	1922	G	C3'-C2'-C1'	-5.87	96.81	101.50
34	AQ	17	LYS	O-C-N	-5.87	113.31	122.70
36	B2	730	C	O4'-C1'-N1	5.87	112.89	108.20
85	A5	1880	G	O4'-C1'-C2'	5.87	112.88	107.60
85	A5	1956	A	C1'-O4'-C4'	5.87	114.59	109.90
85	A5	2409	U	O4'-C1'-C2'	-5.87	99.94	105.80
85	A5	461	G	C1'-O4'-C4'	-5.86	105.21	109.90
85	A5	650	C	O4'-C1'-C2'	-5.86	99.94	105.80
85	A5	4705	A	C1'-O4'-C4'	-5.86	105.21	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	695	C	O4'-C1'-N1	5.86	112.89	108.20
85	A5	144	G	C4'-C3'-C2'	-5.86	96.74	102.60
36	B2	115	U	O4'-C1'-N1	5.86	112.89	108.20
36	B2	1278	A	P-O5'-C5'	5.86	130.28	120.90
85	A5	3853	U	O4'-C1'-N1	5.86	112.89	108.20
85	A5	488	G	C3'-C2'-C1'	-5.86	96.81	101.50
36	B2	879	C	O4'-C1'-N1	5.86	112.89	108.20
36	B2	950	C	C3'-C2'-C1'	5.86	106.19	101.50
72	Ck	31	ASN	C-N-CA	-5.86	107.06	121.70
81	CE	96	VAL	C-N-CA	5.86	134.60	122.30
85	A5	1738	A	O4'-C1'-N9	5.86	112.89	108.20
85	A5	2362	U	N1-C1'-C2'	-5.86	105.56	112.00
85	A5	2662	G	C1'-O4'-C4'	-5.86	105.21	109.90
87	A8	152	U	C3'-C2'-C1'	-5.86	96.81	101.50
36	B2	538	U	C3'-C2'-C1'	5.86	106.18	101.50
36	B2	556	U	C5'-C4'-C3'	5.86	125.37	116.00
58	CW	71	ARG	CG-CD-NE	5.86	124.10	111.80
63	CB	356	LYS	CA-CB-CG	-5.86	100.52	113.40
85	A5	67	C	O4'-C1'-C2'	-5.86	99.94	105.80
85	A5	1919	G	C1'-O4'-C4'	-5.86	105.22	109.90
85	A5	2816	G	C1'-O4'-C4'	-5.86	105.22	109.90
85	A5	2865	U	O4'-C1'-N1	5.86	112.89	108.20
85	A5	3608	A	O4'-C1'-N9	5.86	112.88	108.20
1	Az	247	ALA	N-CA-CB	5.85	118.30	110.10
36	B2	1668	U	P-O3'-C3'	5.85	126.72	119.70
36	B2	1806	A	N9-C1'-C2'	5.85	121.61	114.00
37	BC	31	C	C3'-C2'-C1'	5.85	106.18	101.50
85	A5	1329	G	O4'-C1'-N9	5.85	112.88	108.20
85	A5	4904	G	C3'-C2'-C1'	-5.85	96.82	101.50
36	B2	313	A	P-O3'-C3'	5.85	126.72	119.70
36	B2	862	A	C1'-O4'-C4'	-5.85	105.22	109.90
42	CL	52	SER	C-N-CA	5.85	134.59	122.30
85	A5	70	A	C1'-O4'-C4'	5.85	114.58	109.90
85	A5	1252	C	C3'-C2'-C1'	5.85	106.18	101.50
85	A5	2534	C	C1'-O4'-C4'	-5.85	105.22	109.90
36	B2	1489	A	P-O3'-C3'	5.85	126.72	119.70
85	A5	50	C	O4'-C1'-N1	5.85	112.88	108.20
85	A5	287	U	O4'-C1'-N1	5.85	112.88	108.20
85	A5	663	G	C1'-O4'-C4'	-5.85	105.22	109.90
85	A5	1568	C	C3'-C2'-C1'	5.85	106.18	101.50
36	B2	1062	A	C3'-C2'-C1'	5.85	106.18	101.50
36	B2	1501	C	P-O3'-C3'	5.85	126.72	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	929	A	N9-C1'-C2'	5.85	121.60	114.00
85	A5	2374	A	C3'-C2'-C1'	5.85	106.18	101.50
36	B2	694	G	P-O5'-C5'	5.85	130.26	120.90
36	B2	731	G	C5'-C4'-O4'	-5.85	102.08	109.10
36	B2	1349	G	N9-C1'-C2'	5.85	121.60	114.00
85	A5	705	G	O4'-C1'-N9	5.85	112.88	108.20
85	A5	2346	C	P-O3'-C3'	5.85	126.72	119.70
85	A5	3807	A	C1'-O4'-C4'	-5.85	105.22	109.90
52	CS	13	VAL	N-CA-C	-5.85	95.22	111.00
85	A5	1378	C	N1-C1'-C2'	5.85	121.60	114.00
85	A5	1558	A	C3'-C2'-C1'	5.85	106.18	101.50
85	A5	1570	G	O4'-C1'-N9	5.85	112.88	108.20
85	A5	1741	G	C1'-O4'-C4'	-5.85	105.22	109.90
85	A5	3786	U	C3'-C2'-C1'	5.85	106.18	101.50
85	A5	4431	U	O4'-C1'-C2'	-5.85	99.95	105.80
63	CB	77	THR	CA-CB-CG2	-5.84	104.22	112.40
85	A5	246	G	O4'-C1'-N9	5.84	112.88	108.20
85	A5	1571	G	O4'-C1'-N9	5.84	112.88	108.20
85	A5	2253	A	C1'-O4'-C4'	-5.84	105.22	109.90
35	Ah	162	ILE	CA-CB-CG2	5.84	122.58	110.90
36	B2	412	G	C3'-C2'-C1'	5.84	106.17	101.50
86	A7	25	G	P-O3'-C3'	5.84	126.71	119.70
36	B2	1138	C	C4'-C3'-O3'	-5.84	97.14	109.40
36	B2	1152	U	O4'-C1'-N1	5.84	112.87	108.20
85	A5	4342	C	C1'-O4'-C4'	-5.84	105.23	109.90
85	A5	4388	A	O4'-C1'-N9	5.84	112.87	108.20
85	A5	4612	C	C1'-O4'-C4'	-5.84	105.23	109.90
85	A5	4658	G	N9-C1'-C2'	5.84	121.59	114.00
85	A5	4930	C	O4'-C1'-N1	5.84	112.87	108.20
39	Cq	68	HIS	N-CA-CB	5.84	121.11	110.60
51	CA	64	ARG	N-CA-C	-5.84	95.24	111.00
59	CZ	52	LYS	N-CA-C	5.84	126.76	111.00
14	AT	30	VAL	N-CA-C	5.84	126.76	111.00
36	B2	429	C	C3'-C2'-C1'	5.84	106.17	101.50
36	B2	1131	G	C5'-C4'-C3'	-5.84	106.66	116.00
51	CA	67	TYR	CD1-CE1-CZ	5.84	125.05	119.80
66	Cd	116	ASN	N-CA-C	5.84	126.76	111.00
82	CG	105	GLU	N-CA-C	5.84	126.76	111.00
85	A5	4215	C	N1-C1'-C2'	5.84	121.59	114.00
85	A5	4749	C	O4'-C1'-C2'	-5.84	99.96	105.80
36	B2	1610	G	O4'-C1'-N9	5.83	112.87	108.20
56	CX	73	HIS	O-C-N	-5.83	113.36	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1266	C	N1-C1'-C2'	5.83	121.58	114.00
82	CG	33	GLU	N-CA-C	-5.83	95.25	111.00
85	A5	267	G	O4'-C1'-N9	5.83	112.87	108.20
85	A5	1050	C	O4'-C1'-N1	5.83	112.87	108.20
85	A5	2797	C	O4'-C1'-N1	-5.83	103.53	108.20
85	A5	4199	C	O4'-C1'-C2'	-5.83	99.97	105.80
85	A5	4742	G	C3'-C2'-C1'	-5.83	96.83	101.50
85	A5	4991	U	O4'-C1'-N1	5.83	112.86	108.20
36	B2	834	C	C3'-C2'-C1'	-5.83	96.84	101.50
85	A5	2788	U	O4'-C1'-N1	5.83	112.86	108.20
85	A5	4078	C	O4'-C1'-C2'	-5.83	99.97	105.80
87	A8	48	A	O4'-C1'-C2'	-5.83	99.97	105.80
36	B2	1286	G	C4'-C3'-O3'	-5.83	97.16	109.40
36	B2	1737	G	C1'-O4'-C4'	-5.83	105.24	109.90
85	A5	74	G	O4'-C1'-C2'	5.83	112.85	107.60
85	A5	691	C	O4'-C1'-N1	5.83	112.86	108.20
85	A5	4373	G	O4'-C1'-C2'	-5.83	99.97	105.80
85	A5	1675	C	C3'-C2'-C1'	5.83	106.16	101.50
85	A5	3586	G	O4'-C1'-C2'	5.83	112.84	107.60
17	AV	42	VAL	CB-CA-C	-5.83	100.33	111.40
36	B2	734	C	O3'-P-O5'	5.83	115.07	104.00
64	CF	23	ARG	CA-C-O	5.83	132.33	120.10
85	A5	1259	G	O4'-C1'-C2'	5.83	112.84	107.60
85	A5	2254	G	C5'-C4'-C3'	5.83	125.32	116.00
85	A5	3675	G	O4'-C1'-N9	5.83	112.86	108.20
85	A5	3800	A	O3'-P-O5'	5.83	115.07	104.00
85	A5	4236	G	O4'-C1'-N9	5.83	112.86	108.20
85	A5	190	G	C1'-O4'-C4'	-5.82	105.24	109.90
85	A5	1293	G	N9-C1'-C2'	5.82	121.57	114.00
85	A5	1408	G	P-O5'-C5'	5.82	130.22	120.90
85	A5	1810	G	O4'-C1'-C2'	5.82	112.84	107.60
1	Az	432	PRO	O-C-N	-5.82	113.39	122.70
85	A5	1512	G	C1'-O4'-C4'	-5.82	105.24	109.90
85	A5	4349	C	OP1-P-O3'	-5.82	92.39	105.20
85	A5	4892	A	O4'-C1'-C2'	-5.82	99.98	105.80
36	B2	788	G	C1'-O4'-C4'	-5.82	105.25	109.90
36	B2	386	C	C1'-O4'-C4'	-5.82	105.25	109.90
36	B2	1002	U	O4'-C1'-N1	5.82	112.85	108.20
36	B2	1017	U	C1'-O4'-C4'	5.82	114.55	109.90
85	A5	314	G	C4'-C3'-O3'	-5.82	97.18	109.40
85	A5	524	C	O4'-C1'-C2'	-5.82	99.98	105.80
85	A5	2596	G	O4'-C1'-C2'	-5.82	99.98	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	3896	C	O4'-C1'-N1	5.82	112.85	108.20
36	B2	627	U	O4'-C1'-C2'	-5.82	99.98	105.80
36	B2	1370	A	C1'-O4'-C4'	5.82	114.55	109.90
85	A5	726	G	C1'-O4'-C4'	-5.82	105.25	109.90
85	A5	1664	U	N1-C1'-C2'	5.82	121.56	114.00
85	A5	4725	C	O4'-C1'-N1	5.82	112.85	108.20
36	B2	1023	A	O4'-C1'-C2'	-5.81	99.99	105.80
85	A5	973	G	O4'-C1'-N9	5.81	112.85	108.20
36	B2	1234	C	C1'-O4'-C4'	-5.81	105.25	109.90
37	BC	54	U	C5'-C4'-C3'	-5.81	106.70	116.00
49	CQ	41	SER	C-N-CA	-5.81	107.17	121.70
85	A5	1271	G	O4'-C1'-N9	5.81	112.85	108.20
85	A5	4752	U	O4'-C1'-C2'	-5.81	99.99	105.80
85	A5	4925	U	O4'-C1'-C2'	-5.81	99.99	105.80
29	AG	131	ARG	CG-CD-NE	5.81	124.00	111.80
36	B2	668	A	O4'-C1'-N9	5.81	112.85	108.20
36	B2	1796	G	C5'-C4'-O4'	5.81	116.07	109.10
85	A5	1600	A	C3'-C2'-C1'	5.81	106.15	101.50
85	A5	1624	G	N9-C1'-C2'	5.81	121.56	114.00
85	A5	4236	G	C3'-C2'-C1'	-5.81	96.85	101.50
85	A5	4750	G	C4'-C3'-C2'	-5.81	96.79	102.60
36	B2	86	C	O4'-C1'-N1	5.81	112.85	108.20
36	B2	1582	C	N1-C1'-C2'	5.81	121.55	114.00
85	A5	197	A	N9-C1'-C2'	5.81	121.55	114.00
85	A5	1477	C	O4'-C1'-C2'	-5.81	99.99	105.80
85	A5	3943	A	O4'-C1'-C2'	-5.81	99.99	105.80
85	A5	4899	G	N9-C1'-C2'	5.81	121.55	114.00
1	Az	60	ARG	NE-CZ-NH1	-5.81	117.40	120.30
36	B2	1139	C	C4'-C3'-O3'	-5.81	97.20	109.40
36	B2	1552	G	C1'-O4'-C4'	5.81	114.55	109.90
36	B2	55	U	O4'-C1'-N1	5.81	112.84	108.20
36	B2	830	A	O4'-C1'-C2'	5.81	112.83	107.60
36	B2	1626	C	O4'-C1'-N1	5.81	112.84	108.20
47	CI	24	ARG	C-N-CA	5.81	134.49	122.30
67	Ce	1	MET	C-N-CA	5.81	136.22	121.70
85	A5	1272	C	P-O3'-C3'	5.81	126.67	119.70
85	A5	1626	G	O4'-C1'-N9	5.81	112.84	108.20
85	A5	2331	G	O4'-C1'-N9	5.81	112.84	108.20
85	A5	4140	C	P-O3'-C3'	5.81	126.67	119.70
1	Az	685	TRP	CB-CG-CD2	-5.80	119.05	126.60
36	B2	163	U	O4'-C1'-N1	5.80	112.84	108.20
36	B2	554	A	O4'-C1'-C2'	5.80	112.82	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1703	C	C3'-C2'-C1'	5.80	106.14	101.50
85	A5	664	G	C1'-O4'-C4'	-5.80	105.26	109.90
85	A5	1649	U	N1-C1'-C2'	5.80	121.55	114.00
85	A5	1721	G	P-O3'-C3'	5.80	126.67	119.70
85	A5	2278	G	O4'-C1'-N9	5.80	112.84	108.20
85	A5	4452	U	P-O3'-C3'	5.80	126.67	119.70
85	A5	4663	G	P-O3'-C3'	5.80	126.67	119.70
44	CM	46	ARG	CA-CB-CG	5.80	126.17	113.40
36	B2	114	G	C1'-O4'-C4'	5.80	114.54	109.90
85	A5	1065	G	C3'-C2'-C1'	-5.80	96.86	101.50
85	A5	1893	C	N1-C1'-C2'	5.80	121.54	114.00
85	A5	2796	G	O4'-C1'-N9	5.80	112.84	108.20
85	A5	4300	U	O4'-C1'-C2'	5.80	112.82	107.60
60	Cr	43	LEU	CB-CG-CD1	5.80	120.86	111.00
85	A5	1850	A	N9-C1'-C2'	5.80	121.54	114.00
36	B2	1116	C	O4'-C1'-C2'	5.80	112.82	107.60
85	A5	956	A	P-O5'-C5'	5.80	130.18	120.90
85	A5	1967	A	O4'-C1'-C2'	-5.80	100.00	105.80
85	A5	4902	C	C3'-C2'-C1'	5.80	106.14	101.50
36	B2	1418	C	N1-C1'-C2'	5.80	121.53	114.00
85	A5	639	U	O4'-C1'-C2'	-5.80	100.00	105.80
85	A5	755	C	O4'-C1'-C2'	-5.80	100.00	105.80
85	A5	3652	A	C3'-C2'-C1'	5.80	106.14	101.50
85	A5	3859	G	O4'-C1'-N9	5.80	112.84	108.20
74	CC	141	GLY	N-CA-C	-5.79	98.61	113.10
85	A5	356	G	O4'-C1'-C2'	5.79	112.81	107.60
36	B2	189	U	C1'-O4'-C4'	-5.79	105.27	109.90
36	B2	843	C	C3'-C2'-C1'	5.79	106.13	101.50
85	A5	205	C	N1-C1'-C2'	5.79	121.53	114.00
85	A5	685	C	C3'-C2'-C1'	5.79	106.13	101.50
85	A5	985	C	O4'-C1'-N1	5.79	112.83	108.20
85	A5	1182	C	C3'-C2'-C1'	5.79	106.14	101.50
85	A5	1477	C	O4'-C1'-N1	5.79	112.83	108.20
85	A5	1689	G	C1'-O4'-C4'	-5.79	105.27	109.90
85	A5	4159	C	O4'-C1'-N1	5.79	112.83	108.20
85	A5	4662	C	N1-C1'-C2'	5.79	121.53	114.00
30	AF	131	ALA	N-CA-C	5.79	126.64	111.00
36	B2	973	C	C3'-C2'-C1'	5.79	106.13	101.50
39	Cq	94	ASP	C-N-CA	-5.79	107.22	121.70
85	A5	134	G	N9-C1'-C2'	5.79	121.53	114.00
85	A5	251	C	O4'-C1'-C2'	-5.79	100.01	105.80
85	A5	3686	G	O4'-C1'-N9	5.79	112.83	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4404	U	N1-C1'-C2'	-5.79	105.63	112.00
85	A5	498	C	O4'-C1'-C2'	-5.79	100.01	105.80
85	A5	5003	U	N1-C1'-C2'	5.79	121.53	114.00
39	Cq	255	THR	O-C-N	5.79	131.96	122.70
82	CG	245	LYS	CB-CA-C	-5.79	98.83	110.40
85	A5	4184	G	C1'-O4'-C4'	-5.79	105.27	109.90
85	A5	4498	U	C1'-O4'-C4'	5.79	114.53	109.90
85	A5	4895	C	C1'-O4'-C4'	5.79	114.53	109.90
86	A7	29	C	C5'-C4'-C3'	-5.79	106.74	116.00
85	A5	4262	C	C1'-O4'-C4'	-5.79	105.27	109.90
4	AK	41	PRO	CA-N-CD	-5.79	103.40	111.50
36	B2	172	U	O4'-C1'-C2'	-5.79	100.02	105.80
68	Cf	71	TRP	CB-CG-CD2	-5.79	119.08	126.60
85	A5	2085	G	P-O3'-C3'	5.79	126.64	119.70
85	A5	2115	G	O4'-C1'-N9	5.79	112.83	108.20
85	A5	2740	U	N1-C1'-C2'	5.79	121.52	114.00
85	A5	4464	A	N9-C1'-C2'	5.79	121.52	114.00
7	AM	99	ASN	N-CA-C	5.78	126.62	111.00
16	AA	10	MET	N-CA-C	5.78	126.62	111.00
69	Cg	48	VAL	CB-CA-C	-5.78	100.41	111.40
85	A5	1470	G	N9-C1'-C2'	5.78	121.52	114.00
85	A5	2307	A	C3'-C2'-C1'	5.78	106.13	101.50
28	AC	256	TRP	C-N-CA	-5.78	107.25	121.70
36	B2	1464	C	C3'-C2'-C1'	5.78	106.12	101.50
85	A5	1237	C	C1'-O4'-C4'	-5.78	105.27	109.90
85	A5	1517	G	P-O3'-C3'	5.78	126.64	119.70
85	A5	4402	C	C3'-C2'-C1'	5.78	106.12	101.50
85	A5	4894	A	C1'-O4'-C4'	-5.78	105.27	109.90
2	Ag	159	ASN	O-C-N	-5.78	113.45	122.70
36	B2	185	G	P-O3'-C3'	-5.78	112.76	119.70
37	BC	25	G	O4'-C1'-N9	5.78	112.83	108.20
85	A5	154	G	P-O3'-C3'	5.78	126.64	119.70
85	A5	725	G	O4'-C1'-N9	5.78	112.82	108.20
85	A5	2359	U	P-O3'-C3'	5.78	126.64	119.70
85	A5	3928	A	O4'-C1'-C2'	-5.78	100.02	105.80
85	A5	4449	A	C1'-O4'-C4'	5.78	114.52	109.90
36	B2	868	G	O4'-C1'-N9	-5.78	103.58	108.20
36	B2	875	A	O4'-C1'-C2'	-5.78	100.02	105.80
85	A5	131	C	O4'-C1'-N1	5.78	112.82	108.20
85	A5	2753	G	P-O5'-C5'	5.78	130.15	120.90
1	Az	5	THR	C-N-CA	-5.78	107.26	121.70
36	B2	1208	A	C1'-O4'-C4'	5.78	114.52	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	Cg	83	CYS	CA-C-N	5.78	129.91	117.20
47	CI	202	SER	C-N-CA	5.78	136.14	121.70
85	A5	1	C	C3'-C2'-C1'	5.78	106.12	101.50
85	A5	277	G	O4'-C1'-N9	5.78	112.82	108.20
85	A5	509	A	O4'-C1'-N9	5.78	112.82	108.20
85	A5	1467	C	O4'-C1'-N1	5.78	112.82	108.20
85	A5	2859	G	O4'-C1'-N9	5.78	112.82	108.20
85	A5	3916	G	O4'-C1'-N9	5.78	112.82	108.20
36	B2	299	A	N9-C1'-C2'	-5.77	105.65	112.00
36	B2	643	A	O4'-C1'-C2'	-5.77	100.03	105.80
85	A5	2103	G	C3'-C2'-C1'	-5.77	96.88	101.50
85	A5	2272	C	C4'-C3'-C2'	-5.77	96.83	102.60
85	A5	4354	U	C4'-C3'-C2'	5.77	108.37	102.60
85	A5	28	C	C3'-C2'-C1'	5.77	106.12	101.50
85	A5	450	G	O4'-C1'-C2'	-5.77	100.03	105.80
85	A5	2410	C	C3'-C2'-C1'	5.77	106.12	101.50
36	B2	1532	C	N1-C1'-C2'	5.77	121.50	114.00
85	A5	387	G	O4'-C1'-C2'	-5.77	100.03	105.80
85	A5	3886	G	C3'-C2'-C1'	-5.77	96.88	101.50
85	A5	4155	C	N1-C1'-C2'	5.77	121.50	114.00
36	B2	880	G	N9-C1'-C2'	-5.77	105.66	112.00
85	A5	502	C	O4'-C1'-C2'	-5.77	100.03	105.80
85	A5	1360	G	O4'-C4'-C3'	-5.77	98.23	104.00
85	A5	1905	U	C5'-C4'-O4'	5.77	116.02	109.10
85	A5	1921	C	C3'-C2'-C1'	5.77	106.11	101.50
85	A5	1978	C	C1'-O4'-C4'	-5.77	105.29	109.90
85	A5	2789	A	C1'-O4'-C4'	5.77	114.51	109.90
85	A5	5013	C	P-O3'-C3'	-5.77	112.78	119.70
87	A8	6	C	C3'-C2'-C1'	5.77	106.11	101.50
29	AG	155	GLN	C-N-CA	-5.77	107.28	121.70
85	A5	2396	A	N9-C1'-C2'	5.77	121.50	114.00
85	A5	4397	A	O4'-C1'-N9	5.77	112.81	108.20
4	AK	29	MET	C-N-CD	-5.76	107.92	120.60
36	B2	1557	C	C2'-C3'-O3'	5.76	122.92	113.70
68	Cf	54	LYS	CD-CE-NZ	5.76	124.96	111.70
85	A5	4340	U	C3'-C2'-C1'	5.76	106.11	101.50
4	AK	40	VAL	CB-CA-C	-5.76	100.45	111.40
55	CU	48	LYS	O-C-N	-5.76	113.48	122.70
74	CC	221	PHE	CB-CG-CD1	-5.76	116.77	120.80
85	A5	179	G	O4'-C1'-N9	5.76	112.81	108.20
85	A5	2060	G	O4'-C1'-N9	5.76	112.81	108.20
85	A5	4123	C	P-O5'-C5'	-5.76	111.68	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1454	A	O4'-C1'-C2'	-5.76	100.04	105.80
74	CC	45	ARG	NE-CZ-NH2	-5.76	117.42	120.30
85	A5	61	A	O4'-C1'-N9	5.76	112.81	108.20
85	A5	1380	G	O4'-C1'-C2'	5.76	112.78	107.60
85	A5	1959	U	O4'-C1'-N1	5.76	112.81	108.20
85	A5	3924	C	C3'-C2'-C1'	5.76	106.11	101.50
86	A7	91	C	C3'-C2'-C1'	5.76	106.11	101.50
85	A5	2618	G	N9-C1'-C2'	-5.76	105.67	112.00
11	AL	4	ILE	N-CA-C	-5.76	95.45	111.00
85	A5	4418	G	N9-C1'-C2'	-5.76	105.67	112.00
36	B2	209	A	O3'-P-O5'	5.76	114.94	104.00
85	A5	199	G	C1'-O4'-C4'	-5.76	105.30	109.90
85	A5	958	G	C4'-C3'-C2'	-5.76	96.84	102.60
85	A5	1219	G	O4'-C1'-C2'	5.76	112.78	107.60
85	A5	2009	A	P-O5'-C5'	-5.76	111.69	120.90
85	A5	4360	U	O4'-C1'-N1	5.76	112.81	108.20
85	A5	4463	U	N1-C1'-C2'	5.76	121.48	114.00
86	A7	75	G	C3'-C2'-C1'	-5.76	96.89	101.50
31	AH	40	LEU	CA-CB-CG	-5.75	102.06	115.30
36	B2	1000	C	C3'-C2'-C1'	5.75	106.10	101.50
85	A5	4115	G	C1'-O4'-C4'	-5.75	105.30	109.90
36	B2	969	U	P-O3'-C3'	5.75	126.61	119.70
79	CJ	10	ASN	C-N-CD	-5.75	107.94	120.60
85	A5	297	U	O4'-C1'-C2'	-5.75	100.05	105.80
85	A5	386	A	O4'-C1'-N9	5.75	112.80	108.20
85	A5	649	A	O4'-C1'-C2'	-5.75	100.05	105.80
85	A5	1645	C	C3'-C2'-C1'	-5.75	96.90	101.50
85	A5	1696	C	O4'-C1'-N1	5.75	112.80	108.20
85	A5	1946	G	C1'-O4'-C4'	-5.75	105.30	109.90
36	B2	384	U	C1'-O4'-C4'	-5.75	105.30	109.90
36	B2	831	G	O4'-C1'-C2'	5.75	112.78	107.60
36	B2	1537	A	C3'-C2'-C1'	5.75	106.10	101.50
74	CC	115	VAL	O-C-N	-5.75	113.50	122.70
85	A5	24	G	P-O5'-C5'	-5.75	111.70	120.90
85	A5	1258	G	O4'-C1'-N9	5.75	112.80	108.20
37	BC	15	G	O4'-C1'-C2'	-5.75	100.05	105.80
85	A5	2687	U	P-O3'-C3'	5.75	126.60	119.70
85	A5	4310	A	C1'-O4'-C4'	5.75	114.50	109.90
36	B2	888	U	P-O5'-C5'	5.75	130.10	120.90
85	A5	1210	C	C2'-C3'-O3'	5.75	122.90	113.70
85	A5	4966	A	C1'-O4'-C4'	-5.75	105.30	109.90
85	A5	5054	C	O4'-C1'-C2'	-5.75	100.05	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	451	G	P-O5'-C5'	5.75	130.10	120.90
85	A5	39	A	C1'-O4'-C4'	-5.75	105.30	109.90
85	A5	504	G	N9-C1'-C2'	5.75	121.47	114.00
85	A5	2376	A	C3'-C2'-C1'	5.75	106.10	101.50
85	A5	4281	A	N9-C1'-C2'	5.75	121.47	114.00
36	B2	1061	U	O4'-C1'-N1	5.75	112.80	108.20
85	A5	4732	G	P-O3'-C3'	-5.75	112.81	119.70
36	B2	218	U	C1'-O4'-C4'	-5.74	105.30	109.90
36	B2	754	G	N9-C1'-C2'	5.74	121.47	114.00
36	B2	1475	G	O4'-C1'-N9	5.74	112.80	108.20
53	CT	126	VAL	N-CA-C	-5.74	95.49	111.00
85	A5	2507	A	C5'-C4'-C3'	-5.74	106.81	116.00
85	A5	2849	A	O4'-C1'-N9	5.74	112.80	108.20
86	A7	120	U	C1'-O4'-C4'	5.74	114.49	109.90
36	B2	1083	A	C3'-C2'-C1'	5.74	106.09	101.50
36	B2	1313	A	O4'-C1'-C2'	-5.74	100.06	105.80
36	B2	444	G	C3'-C2'-C1'	-5.74	96.91	101.50
85	A5	979	C	C3'-C2'-C1'	5.74	106.09	101.50
85	A5	2111	G	N9-C1'-C2'	-5.74	105.69	112.00
36	B2	286	U	N1-C1'-C2'	5.74	121.46	114.00
36	B2	514	U	N1-C1'-C2'	5.74	121.46	114.00
37	BC	43	A	C1'-O4'-C4'	-5.74	105.31	109.90
64	CF	98	ILE	N-CA-C	5.74	126.49	111.00
85	A5	146	G	O4'-C1'-C2'	5.74	112.77	107.60
85	A5	685	C	P-O5'-C5'	5.74	130.08	120.90
85	A5	1094	G	C3'-C2'-C1'	-5.74	96.91	101.50
85	A5	2034	G	C1'-O4'-C4'	-5.74	105.31	109.90
85	A5	2801	U	C1'-O4'-C4'	5.74	114.49	109.90
86	A7	33	U	N1-C1'-C2'	5.74	121.46	114.00
85	A5	932	A	C1'-O4'-C4'	5.74	114.49	109.90
85	A5	1673	U	C3'-C2'-C1'	5.74	106.09	101.50
85	A5	2125	C	P-O3'-C3'	5.74	126.58	119.70
6	AX	98	ASP	N-CA-C	5.74	126.49	111.00
36	B2	1430	C	C1'-O4'-C4'	5.74	114.49	109.90
52	CS	60	GLU	N-CA-C	5.74	126.48	111.00
85	A5	4942	C	O4'-C1'-C2'	5.74	112.76	107.60
1	Az	3	ASN	N-CA-C	-5.73	95.52	111.00
56	CX	40	ILE	CB-CA-C	-5.73	100.14	111.60
66	Cd	65	ASP	CB-CG-OD2	5.73	123.46	118.30
86	A7	48	G	N9-C1'-C2'	5.73	121.45	114.00
36	B2	171	A	C1'-O4'-C4'	5.73	114.48	109.90
74	CC	249	PHE	O-C-N	5.73	131.87	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1448	G	O4'-C1'-N9	5.73	112.78	108.20
85	A5	1646	A	C3'-C2'-C1'	5.73	106.08	101.50
36	B2	1576	G	N9-C1'-C2'	5.73	121.45	114.00
85	A5	259	C	O4'-C1'-N1	5.73	112.78	108.20
85	A5	973	G	C4'-C3'-C2'	-5.73	96.87	102.60
85	A5	3609	G	O4'-C1'-C2'	5.73	112.76	107.60
36	B2	91	A	C1'-O4'-C4'	5.73	114.48	109.90
36	B2	1024	A	O4'-C1'-N9	5.73	112.78	108.20
74	CC	47	ASN	CB-CA-C	5.73	121.85	110.40
85	A5	1488	G	C5'-C4'-C3'	5.73	125.17	116.00
86	A7	85	G	P-O5'-C5'	-5.73	111.73	120.90
86	A7	109	U	C1'-O4'-C4'	5.73	114.48	109.90
85	A5	2338	C	C3'-C2'-C1'	5.73	106.08	101.50
85	A5	4511	A	P-O3'-C3'	5.73	126.57	119.70
36	B2	966	U	C5'-C4'-O4'	5.72	115.97	109.10
36	B2	1471	C	O4'-C1'-C2'	-5.72	100.08	105.80
85	A5	1508	A	O4'-C1'-N9	5.72	112.78	108.20
85	A5	2783	A	C1'-O4'-C4'	5.72	114.48	109.90
36	B2	1125	C	O4'-C1'-N1	5.72	112.78	108.20
85	A5	1199	G	C5'-C4'-O4'	-5.72	102.23	109.10
85	A5	1539	G	O5'-C5'-C4'	5.72	122.57	111.70
85	A5	4075	U	N1-C1'-C2'	-5.72	105.71	112.00
85	A5	4559	A	OP1-P-O3'	5.72	117.79	105.20
58	CW	1	MET	CA-C-N	-5.72	104.61	117.20
87	A8	68	G	O4'-C1'-C2'	5.72	112.75	107.60
87	A8	129	C	C1'-O4'-C4'	5.72	114.48	109.90
36	B2	613	G	C1'-O4'-C4'	5.72	114.48	109.90
36	B2	1537	A	C5'-C4'-C3'	-5.72	106.85	116.00
85	A5	2771	G	P-O3'-C3'	-5.72	112.84	119.70
85	A5	2819	U	O4'-C1'-C2'	-5.72	100.08	105.80
85	A5	3708	C	C3'-C2'-C1'	5.72	106.08	101.50
86	A7	68	C	N1-C1'-C2'	5.72	121.44	114.00
27	AE	170	THR	C-N-CA	5.72	136.00	121.70
36	B2	471	G	C5'-C4'-O4'	5.72	115.96	109.10
14	AT	51	ASN	C-N-CA	5.72	135.99	121.70
19	AZ	107	VAL	C-N-CA	5.72	135.99	121.70
85	A5	2771	G	O4'-C1'-N9	5.72	112.77	108.20
85	A5	2798	A	O4'-C1'-C2'	-5.72	100.08	105.80
85	A5	3833	C	C3'-C2'-C1'	5.72	106.07	101.50
39	Cq	200	ASN	C-N-CD	-5.71	108.03	120.60
85	A5	1213	G	C1'-O4'-C4'	-5.71	105.33	109.90
85	A5	1802	A	O4'-C1'-C2'	-5.71	100.08	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	3668	C	N1-C1'-C2'	5.71	121.43	114.00
85	A5	3850	C	O4'-C1'-N1	5.71	112.77	108.20
85	A5	4141	G	C5'-C4'-O4'	5.71	115.95	109.10
23	AD	96	LEU	O-C-N	-5.71	113.56	122.70
34	AQ	146	ARG	CA-CB-CG	5.71	125.97	113.40
61	Ch	37	THR	O-C-N	5.71	132.91	123.20
85	A5	1732	C	O4'-C1'-N1	5.71	112.77	108.20
85	A5	2630	U	P-O3'-C3'	5.71	126.55	119.70
85	A5	2712	G	C4'-C3'-C2'	-5.71	96.89	102.60
14	AT	4	VAL	O-C-N	-5.71	113.56	122.70
36	B2	98	C	N1-C1'-C2'	-5.71	105.72	112.00
36	B2	141	A	C2'-C3'-O3'	5.71	122.83	113.70
36	B2	351	G	C4'-C3'-C2'	-5.71	96.89	102.60
36	B2	1638	G	O4'-C1'-N9	-5.71	103.63	108.20
36	B2	635	G	C5'-C4'-C3'	5.71	125.13	116.00
36	B2	1049	A	P-O3'-C3'	5.71	126.55	119.70
42	CL	53	GLY	C-N-CD	-5.71	108.04	120.60
85	A5	5018	C	N1-C1'-C2'	5.71	121.42	114.00
36	B2	791	C	N1-C1'-C2'	5.71	121.42	114.00
85	A5	746	A	N9-C1'-C2'	5.71	121.42	114.00
85	A5	1891	A	N9-C1'-C2'	5.71	121.42	114.00
85	A5	2796	G	C5'-C4'-O4'	5.71	115.95	109.10
85	A5	2798	A	C1'-O4'-C4'	5.71	114.47	109.90
85	A5	3633	C	C3'-C2'-C1'	5.71	106.06	101.50
85	A5	3773	U	C5'-C4'-O4'	5.71	115.95	109.10
36	B2	621	C	C1'-O4'-C4'	-5.71	105.34	109.90
36	B2	1710	C	O4'-C1'-N1	5.71	112.76	108.20
85	A5	1749	A	O4'-C1'-N9	5.71	112.76	108.20
85	A5	4878	C	P-O3'-C3'	-5.71	112.86	119.70
36	B2	824	C	O4'-C1'-N1	5.70	112.76	108.20
85	A5	151	G	C3'-C2'-C1'	-5.70	96.94	101.50
85	A5	1936	C	N1-C1'-C2'	5.70	121.41	114.00
85	A5	2388	A	O4'-C1'-N9	5.70	112.76	108.20
85	A5	2809	G	N9-C1'-C2'	5.70	121.41	114.00
85	A5	3674	G	C1'-O4'-C4'	-5.70	105.34	109.90
85	A5	3855	C	C5'-C4'-O4'	5.70	115.94	109.10
85	A5	4203	A	O4'-C1'-N9	5.70	112.76	108.20
85	A5	4877	G	C1'-O4'-C4'	5.70	114.46	109.90
86	A7	100	A	C3'-C2'-C1'	5.70	106.06	101.50
36	B2	1711	U	N1-C1'-C2'	5.70	121.41	114.00
54	CP	145	HIS	CB-CA-C	-5.70	99.00	110.40
68	Cf	6	TRP	CA-C-N	5.70	129.74	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1674	C	C1'-O4'-C4'	-5.70	105.34	109.90
85	A5	2819	U	O4'-C1'-N1	5.70	112.76	108.20
85	A5	4277	G	C1'-O4'-C4'	-5.70	105.34	109.90
36	B2	607	U	O4'-C1'-N1	5.70	112.76	108.20
36	B2	1156	U	O4'-C1'-N1	5.70	112.76	108.20
38	Cz	111	LEU	CB-CA-C	-5.70	99.37	110.20
85	A5	149	A	N9-C1'-C2'	5.70	121.41	114.00
85	A5	1442	C	C5'-C4'-C3'	5.70	125.12	116.00
24	Ae	26	LYS	N-CA-C	-5.70	95.62	111.00
85	A5	2598	A	C3'-C2'-C1'	5.70	106.06	101.50
85	A5	2854	G	O4'-C1'-N9	5.70	112.76	108.20
87	A8	53	G	O4'-C1'-N9	5.70	112.76	108.20
36	B2	1594	A	C5'-C4'-C3'	5.70	125.11	116.00
53	CT	68	THR	C-N-CA	-5.70	107.46	121.70
85	A5	2017	A	C4'-C3'-O3'	5.70	124.39	113.00
85	A5	2743	A	C3'-C2'-C1'	5.70	106.06	101.50
13	AP	49	LEU	O-C-N	-5.69	113.59	122.70
85	A5	1818	G	N9-C1'-C2'	5.69	121.40	114.00
36	B2	607	U	C3'-C2'-C1'	5.69	106.05	101.50
36	B2	931	C	C5'-C4'-O4'	5.69	115.93	109.10
36	B2	991	G	C3'-C2'-C1'	-5.69	96.95	101.50
85	A5	1800	U	O4'-C1'-N1	5.69	112.75	108.20
85	A5	2572	C	O4'-C1'-C2'	-5.69	100.11	105.80
1	Az	669	VAL	CB-CA-C	5.69	122.21	111.40
36	B2	836	G	C1'-O4'-C4'	5.69	114.45	109.90
85	A5	346	G	C1'-O4'-C4'	-5.69	105.35	109.90
85	A5	2290	C	C3'-C2'-C1'	5.69	106.05	101.50
85	A5	4937	C	C3'-C2'-C1'	-5.69	96.95	101.50
36	B2	193	C	O4'-C1'-N1	5.69	112.75	108.20
36	B2	1172	U	N1-C1'-C2'	-5.69	105.74	112.00
36	B2	1185	C	C3'-C2'-C1'	5.69	106.05	101.50
85	A5	414	C	C3'-C2'-C1'	5.69	106.05	101.50
85	A5	1424	G	O4'-C1'-N9	5.69	112.75	108.20
85	A5	2417	A	P-O3'-C3'	5.69	126.53	119.70
13	AP	130	ARG	NE-CZ-NH2	-5.69	117.46	120.30
31	AH	111	LYS	CA-CB-CG	5.69	125.91	113.40
53	CT	75	VAL	C-N-CA	5.69	135.92	121.70
85	A5	300	A	O4'-C1'-N9	5.69	112.75	108.20
85	A5	4370	G	C3'-C2'-C1'	5.69	106.05	101.50
85	A5	5012	G	P-O3'-C3'	-5.69	112.88	119.70
1	Az	420	LEU	CB-CG-CD2	-5.69	101.33	111.00
36	B2	962	A	O4'-C1'-C2'	-5.69	100.11	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	3815	G	C3'-C2'-C1'	5.69	106.05	101.50
36	B2	767	U	P-O3'-C3'	5.68	126.52	119.70
36	B2	1142	G	N9-C1'-C2'	-5.68	105.75	112.00
37	BC	30	G	O4'-C1'-N9	5.68	112.75	108.20
61	Ch	77	LYS	CA-C-N	-5.68	104.69	117.20
85	A5	981	C	C3'-C2'-C1'	5.68	106.05	101.50
85	A5	1384	C	N1-C1'-C2'	5.68	121.39	114.00
85	A5	1576	G	N9-C1'-C2'	-5.68	105.75	112.00
85	A5	1754	U	O4'-C4'-C3'	-5.68	98.31	104.00
11	AL	151	THR	CB-CA-C	5.68	126.94	111.60
19	AZ	104	ARG	N-CA-C	5.68	126.34	111.00
36	B2	927	C	O4'-C1'-N1	5.68	112.75	108.20
36	B2	1411	G	N9-C1'-C2'	5.68	121.39	114.00
36	B2	1827	U	O4'-C1'-N1	5.68	112.75	108.20
36	B2	1832	A	P-O5'-C5'	5.68	129.99	120.90
85	A5	2029	A	N9-C1'-C2'	5.68	121.39	114.00
85	A5	2264	C	O4'-C1'-N1	5.68	112.75	108.20
85	A5	2762	G	P-O3'-C3'	5.68	126.52	119.70
85	A5	2872	C	C3'-C2'-C1'	5.68	106.05	101.50
85	A5	3596	A	O4'-C1'-C2'	-5.68	100.12	105.80
87	A8	113	C	O4'-C1'-C2'	-5.68	100.12	105.80
85	A5	1066	G	O4'-C1'-N9	5.68	112.75	108.20
85	A5	2727	C	C1'-O4'-C4'	-5.68	105.36	109.90
85	A5	4507	A	N9-C1'-C2'	-5.68	105.75	112.00
87	A8	94	G	O4'-C1'-N9	-5.68	103.66	108.20
66	Cd	112	THR	CB-CA-C	-5.68	96.27	111.60
85	A5	1644	C	N1-C1'-C2'	5.68	121.38	114.00
85	A5	2045	G	O4'-C1'-N9	-5.68	103.66	108.20
85	A5	2091	C	N1-C1'-C2'	-5.68	105.75	112.00
85	A5	2592	U	O4'-C1'-C2'	5.68	112.71	107.60
85	A5	2723	U	C5'-C4'-O4'	5.68	115.92	109.10
85	A5	2825	A	C3'-C2'-C1'	5.68	106.04	101.50
85	A5	3714	G	O4'-C1'-C2'	5.68	112.71	107.60
85	A5	3963	A	C5'-C4'-C3'	-5.68	106.91	116.00
85	A5	4713	G	C1'-O4'-C4'	-5.68	105.36	109.90
1	Az	358	LEU	C-N-CD	-5.68	108.11	120.60
36	B2	396	U	O4'-C1'-N1	5.68	112.74	108.20
36	B2	1082	A	C3'-C2'-C1'	5.68	106.04	101.50
85	A5	1389	U	P-O3'-C3'	5.68	126.51	119.70
85	A5	1639	U	N1-C1'-C2'	5.68	121.38	114.00
85	A5	3748	A	C3'-C2'-C1'	5.68	106.04	101.50
85	A5	178	C	O4'-C1'-C2'	-5.68	100.12	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4360	U	N1-C1'-C2'	5.68	121.38	114.00
36	B2	342	C	O4'-C1'-N1	5.67	112.74	108.20
85	A5	4183	G	O4'-C1'-C2'	5.67	112.71	107.60
85	A5	4230	C	C4'-C3'-C2'	-5.67	96.93	102.60
85	A5	4444	C	N1-C1'-C2'	5.67	121.38	114.00
85	A5	4765	G	C5'-C4'-C3'	-5.67	106.92	116.00
86	A7	32	A	O4'-C1'-N9	5.67	112.74	108.20
85	A5	2101	C	O4'-C1'-N1	-5.67	103.66	108.20
85	A5	2917	G	P-O3'-C3'	5.67	126.51	119.70
85	A5	4154	G	O4'-C1'-C2'	5.67	112.71	107.60
36	B2	1785	C	N1-C1'-C2'	-5.67	105.76	112.00
63	CB	113	GLU	N-CA-CB	5.67	120.81	110.60
64	CF	28	LEU	CA-CB-CG	5.67	128.34	115.30
85	A5	1349	G	O4'-C1'-C2'	5.67	112.70	107.60
85	A5	1788	A	O4'-C1'-N9	5.67	112.74	108.20
85	A5	2400	G	C1'-O4'-C4'	-5.67	105.36	109.90
85	A5	2616	C	N1-C1'-C2'	5.67	121.37	114.00
85	A5	4316	G	C5'-C4'-C3'	-5.67	106.92	116.00
44	CM	65	PRO	CB-CA-C	-5.67	97.82	112.00
85	A5	1172	C	O4'-C1'-N1	5.67	112.74	108.20
85	A5	1383	G	O4'-C1'-N9	5.67	112.74	108.20
85	A5	2802	C	C1'-O4'-C4'	5.67	114.44	109.90
85	A5	4144	C	O4'-C4'-C3'	-5.67	98.33	104.00
87	A8	115	G	N9-C1'-C2'	5.67	121.37	114.00
36	B2	1284	A	C5'-C4'-O4'	5.67	115.90	109.10
85	A5	2811	G	P-O3'-C3'	-5.67	112.90	119.70
36	B2	1787	G	C3'-C2'-C1'	-5.67	96.97	101.50
82	CG	87	LEU	CA-CB-CG	-5.67	102.27	115.30
85	A5	110	C	C1'-O4'-C4'	-5.67	105.37	109.90
85	A5	4562	C	N1-C1'-C2'	5.67	121.37	114.00
4	AK	42	ASN	N-CA-C	-5.67	95.70	111.00
85	A5	2370	A	C2'-C3'-O3'	5.67	122.77	113.70
36	B2	407	G	P-O3'-C3'	5.66	126.50	119.70
36	B2	505	G	P-O3'-C3'	-5.66	112.90	119.70
36	B2	1394	G	C2'-C3'-O3'	5.66	122.76	113.70
42	CL	13	HIS	CA-CB-CG	5.66	123.23	113.60
85	A5	142	G	O4'-C1'-C2'	5.66	112.70	107.60
85	A5	176	G	C1'-O4'-C4'	-5.66	105.37	109.90
85	A5	304	C	C3'-C2'-C1'	5.66	106.03	101.50
85	A5	1719	A	C4-N9-C1'	5.66	136.49	126.30
85	A5	2780	C	N1-C1'-C2'	5.66	121.36	114.00
36	B2	1322	G	O4'-C1'-N9	5.66	112.73	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	CG	241	VAL	N-CA-C	5.66	126.29	111.00
85	A5	1708	G	P-O3'-C3'	5.66	126.50	119.70
85	A5	1772	C	C4'-C3'-C2'	-5.66	96.94	102.60
1	Az	112	SER	CA-C-N	-5.66	104.75	117.20
36	B2	228	C	C2'-C3'-O3'	5.66	122.76	113.70
36	B2	579	C	O4'-C1'-C2'	-5.66	100.14	105.80
36	B2	1275	G	C5'-C4'-C3'	5.66	125.06	116.00
85	A5	343	C	O4'-C1'-N1	5.66	112.73	108.20
85	A5	1459	A	O4'-C1'-C2'	-5.66	100.14	105.80
85	A5	4357	G	O4'-C1'-N9	5.66	112.73	108.20
36	B2	103	A	O4'-C1'-C2'	5.66	112.69	107.60
36	B2	821	G	C2'-C3'-O3'	5.66	122.75	113.70
59	CZ	37	PRO	N-CA-CB	5.66	110.09	103.30
85	A5	1886	G	O4'-C1'-N9	5.66	112.73	108.20
85	A5	1913	C	C3'-C2'-C1'	5.66	106.03	101.50
85	A5	2722	G	C1'-O4'-C4'	-5.66	105.37	109.90
87	A8	135	C	N1-C1'-C2'	5.66	121.36	114.00
1	Az	56	PHE	N-CA-CB	5.66	120.78	110.60
36	B2	1613	G	C3'-C2'-C1'	-5.66	96.97	101.50
85	A5	1390	G	C1'-O4'-C4'	-5.66	105.37	109.90
36	B2	283	G	N9-C1'-C2'	5.66	121.35	114.00
36	B2	526	A	C3'-C2'-C1'	-5.66	96.98	101.50
36	B2	745	C	C5'-C4'-C3'	5.66	125.05	116.00
36	B2	1523	C	P-O5'-C5'	-5.66	111.85	120.90
36	B2	1651	A	O4'-C1'-C2'	-5.66	100.14	105.80
85	A5	93	G	P-O5'-C5'	-5.66	111.85	120.90
85	A5	1363	C	P-O5'-C5'	5.66	129.95	120.90
85	A5	4408	G	C1'-O4'-C4'	-5.66	105.38	109.90
85	A5	4639	G	C1'-O4'-C4'	-5.66	105.38	109.90
81	CE	38	LYS	O-C-N	-5.65	113.65	122.70
1	Az	533	MET	CB-CA-C	-5.65	99.09	110.40
36	B2	341	C	P-O3'-C3'	-5.65	112.92	119.70
36	B2	899	U	O4'-C1'-N1	5.65	112.72	108.20
85	A5	278	G	C3'-C2'-C1'	5.65	106.02	101.50
85	A5	1183	C	C3'-C2'-C1'	5.65	106.02	101.50
85	A5	4090	G	O4'-C1'-N9	5.65	112.72	108.20
85	A5	4547	C	O3'-P-O5'	-5.65	93.26	104.00
87	A8	94	G	C4'-C3'-C2'	-5.65	96.95	102.60
36	B2	227	U	P-O5'-C5'	5.65	129.94	120.90
36	B2	754	G	O4'-C1'-C2'	5.65	112.69	107.60
36	B2	1498	A	O4'-C1'-C2'	5.65	112.69	107.60
36	B2	1547	C	N1-C1'-C2'	5.65	121.35	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1368	A	O4'-C4'-C3'	-5.65	98.35	104.00
85	A5	5021	C	P-O5'-C5'	5.65	129.94	120.90
36	B2	79	A	O3'-P-O5'	-5.65	93.27	104.00
85	A5	3640	U	C3'-C2'-C1'	5.65	106.02	101.50
85	A5	3915	U	O4'-C1'-N1	5.65	112.72	108.20
36	B2	3	C	C1'-O4'-C4'	5.65	114.42	109.90
36	B2	216	C	C3'-C2'-C1'	5.65	106.02	101.50
36	B2	1520	G	C5'-C4'-C3'	5.65	125.03	116.00
36	B2	1644	C	C3'-C2'-C1'	5.65	106.02	101.50
70	Ci	6	PRO	CB-CA-C	-5.65	97.88	112.00
85	A5	389	A	C3'-C2'-C1'	5.65	106.02	101.50
85	A5	1169	G	O4'-C4'-C3'	-5.65	98.35	104.00
85	A5	2751	G	C1'-O4'-C4'	-5.65	105.38	109.90
85	A5	4438	U	C4'-C3'-C2'	-5.65	96.95	102.60
36	B2	1223	A	C3'-C2'-C1'	5.65	106.02	101.50
36	B2	1394	G	N9-C1'-C2'	5.65	121.34	114.00
85	A5	1361	G	C3'-C2'-C1'	-5.65	96.98	101.50
36	B2	899	U	O4'-C1'-C2'	-5.64	100.16	105.80
36	B2	1751	C	N1-C1'-C2'	5.64	121.34	114.00
38	Cz	99	LEU	C-N-CA	-5.64	107.59	121.70
38	Cz	99	LEU	O-C-N	-5.64	113.67	122.70
85	A5	203	U	O4'-C1'-N1	5.64	112.72	108.20
85	A5	289	C	N1-C1'-C2'	5.64	121.34	114.00
85	A5	4741	C	P-O3'-C3'	-5.64	112.93	119.70
86	A7	84	U	O4'-C1'-C2'	-5.64	100.16	105.80
87	A8	148	A	O4'-C1'-C2'	-5.64	100.16	105.80
11	AL	98	LYS	N-CA-C	-5.64	95.77	111.00
36	B2	176	U	O4'-C1'-N1	5.64	112.71	108.20
82	CG	35	ARG	CB-CA-C	-5.64	99.12	110.40
85	A5	136	C	O4'-C1'-C2'	-5.64	100.16	105.80
85	A5	1805	A	C5'-C4'-O4'	-5.64	102.33	109.10
85	A5	1921	C	C1'-O4'-C4'	-5.64	105.39	109.90
85	A5	2626	U	O3'-P-O5'	-5.64	93.28	104.00
85	A5	4589	A	O4'-C1'-C2'	-5.64	100.16	105.80
36	B2	93	U	N1-C1'-C2'	-5.64	105.80	112.00
36	B2	1365	G	P-O3'-C3'	-5.64	112.93	119.70
85	A5	1073	G	C3'-C2'-C1'	-5.64	96.99	101.50
85	A5	2831	G	C1'-O4'-C4'	-5.64	105.39	109.90
85	A5	3773	U	P-O3'-C3'	-5.64	112.93	119.70
85	A5	4145	C	P-O5'-C5'	5.64	129.93	120.90
36	B2	1104	G	O4'-C1'-N9	5.64	112.71	108.20
36	B2	1825	A	C2'-C3'-O3'	5.64	122.72	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	CL	3	PRO	O-C-N	5.64	131.72	122.70
85	A5	1806	G	O4'-C1'-N9	5.64	112.71	108.20
85	A5	2740	U	P-O3'-C3'	-5.64	112.93	119.70
85	A5	4292	A	C3'-C2'-C1'	-5.64	96.99	101.50
87	A8	67	U	O4'-C1'-C2'	-5.64	100.16	105.80
36	B2	1475	G	C4'-C3'-C2'	-5.64	96.96	102.60
85	A5	643	C	O4'-C1'-C2'	-5.64	100.16	105.80
36	B2	1317	C	O4'-C1'-N1	5.64	112.71	108.20
85	A5	4200	G	C3'-C2'-C1'	-5.64	96.99	101.50
36	B2	655	A	C5'-C4'-O4'	5.63	115.86	109.10
36	B2	784	G	O3'-P-O5'	-5.63	93.29	104.00
81	CE	132	PRO	CA-N-CD	-5.63	103.61	111.50
85	A5	438	G	O4'-C1'-N9	5.63	112.71	108.20
85	A5	658	C	O4'-C1'-N1	5.63	112.71	108.20
85	A5	1415	G	N9-C1'-C2'	-5.63	105.80	112.00
85	A5	523	C	O4'-C1'-N1	5.63	112.71	108.20
85	A5	1637	A	P-O3'-C3'	5.63	126.46	119.70
85	A5	4183	G	O4'-C1'-N9	5.63	112.71	108.20
36	B2	1450	G	C3'-C2'-C1'	-5.63	97.00	101.50
37	BC	74	C	O4'-C1'-C2'	-5.63	100.17	105.80
85	A5	973	G	O4'-C4'-C3'	-5.63	98.37	104.00
85	A5	4321	U	C1'-O4'-C4'	-5.63	105.39	109.90
1	Az	478	PHE	CB-CA-C	5.63	121.66	110.40
74	CC	92	PHE	C-N-CA	-5.63	110.48	122.30
8	AS	53	THR	CA-C-N	5.63	129.58	117.20
38	Cz	209	THR	N-CA-C	-5.63	95.80	111.00
49	CQ	91	ARG	N-CA-CB	-5.63	100.47	110.60
85	A5	1674	C	O4'-C1'-N1	5.63	112.70	108.20
85	A5	4392	G	P-O3'-C3'	5.63	126.45	119.70
86	A7	89	G	C1'-O4'-C4'	-5.63	105.40	109.90
31	AH	105	THR	CB-CA-C	5.63	126.79	111.60
36	B2	1677	U	C1'-O4'-C4'	5.63	114.40	109.90
36	B2	1865	C	O4'-C1'-N1	5.63	112.70	108.20
38	Cz	83	PRO	C-N-CA	5.63	135.76	121.70
77	Cp	91	ASP	CB-CG-OD2	5.63	123.36	118.30
81	CE	70	LYS	CB-CG-CD	5.63	126.23	111.60
85	A5	48	G	C1'-O4'-C4'	-5.63	105.40	109.90
85	A5	364	G	C1'-O4'-C4'	-5.63	105.40	109.90
85	A5	516	C	C4'-C3'-C2'	-5.63	96.97	102.60
85	A5	4127	A	C4'-C3'-O3'	5.63	124.25	113.00
85	A5	4698	C	C3'-C2'-C1'	5.63	106.00	101.50
85	A5	4965	U	C5'-C4'-O4'	5.63	115.85	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	459	C	C1'-O4'-C4'	-5.62	105.40	109.90
85	A5	1436	C	O4'-C1'-C2'	-5.62	100.17	105.80
85	A5	1770	A	O4'-C1'-N9	5.62	112.70	108.20
85	A5	2283	G	O4'-C1'-N9	5.62	112.70	108.20
85	A5	2581	A	C1'-O4'-C4'	5.62	114.40	109.90
85	A5	2652	G	C1'-O4'-C4'	-5.62	105.40	109.90
85	A5	3968	U	O3'-P-O5'	5.62	114.69	104.00
3	AU	108	PRO	CA-N-CD	-5.62	103.63	111.50
36	B2	116	U	O4'-C1'-N1	5.62	112.70	108.20
36	B2	1224	G	N9-C1'-C2'	5.62	121.31	114.00
85	A5	226	G	C2'-C3'-O3'	5.62	122.70	113.70
85	A5	4753	U	C4'-C3'-O3'	5.62	124.25	113.00
25	Af	125	GLU	CB-CA-C	5.62	121.64	110.40
36	B2	244	A	O4'-C1'-N9	5.62	112.70	108.20
85	A5	4502	C	O4'-C1'-C2'	-5.62	100.18	105.80
17	AV	30	ALA	O-C-N	-5.62	113.71	122.70
36	B2	466	G	C3'-C2'-C1'	-5.62	97.01	101.50
36	B2	860	G	N9-C1'-C2'	5.62	121.31	114.00
46	CN	198	LEU	CB-CG-CD1	5.62	120.55	111.00
85	A5	4614	G	C3'-C2'-C1'	-5.62	97.00	101.50
36	B2	549	C	O4'-C1'-N1	5.62	112.69	108.20
85	A5	4450	U	O4'-C1'-N1	5.62	112.69	108.20
36	B2	1710	C	O4'-C1'-C2'	-5.62	100.18	105.80
85	A5	2774	C	C3'-C2'-C1'	5.62	105.99	101.50
33	AI	55	TYR	CB-CG-CD2	-5.61	117.63	121.00
36	B2	1384	C	O4'-C1'-N1	5.61	112.69	108.20
36	B2	1759	G	C3'-C2'-C1'	-5.61	97.01	101.50
37	BC	70	C	O4'-C1'-N1	5.61	112.69	108.20
62	Cb	53	GLY	O-C-N	-5.61	113.72	122.70
85	A5	917	A	O4'-C1'-N9	5.61	112.69	108.20
85	A5	1302	U	C2'-C3'-O3'	5.61	122.68	113.70
85	A5	2577	C	N1-C1'-C2'	5.61	121.30	114.00
85	A5	2761	U	O4'-C1'-N1	-5.61	103.71	108.20
85	A5	3626	G	C4'-C3'-C2'	-5.61	96.99	102.60
85	A5	3968	U	C2'-C3'-O3'	5.61	122.68	113.70
85	A5	1193	C	O4'-C1'-N1	5.61	112.69	108.20
36	B2	151	C	C3'-C2'-C1'	5.61	105.99	101.50
85	A5	3594	C	P-O3'-C3'	5.61	126.43	119.70
85	A5	3656	A	O4'-C1'-C2'	-5.61	100.19	105.80
36	B2	808	A	N9-C1'-C2'	5.61	121.29	114.00
36	B2	1452	A	O4'-C1'-C2'	-5.61	100.19	105.80
85	A5	4189	U	O4'-C1'-C2'	-5.61	100.19	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	Cb	26	SER	N-CA-C	5.61	126.14	111.00
81	CE	41	LYS	CB-CA-C	5.61	121.62	110.40
85	A5	279	A	C3'-C2'-C1'	5.61	105.99	101.50
85	A5	2757	A	O4'-C1'-C2'	-5.61	100.19	105.80
85	A5	4039	G	C5'-C4'-O4'	5.61	115.83	109.10
85	A5	4546	A	N9-C1'-C2'	5.61	121.29	114.00
36	B2	518	G	O4'-C1'-N9	5.61	112.68	108.20
39	Cq	91	THR	O-C-N	-5.61	113.73	122.70
68	Cf	58	VAL	N-CA-CB	5.61	123.83	111.50
85	A5	1109	C	C3'-C2'-C1'	5.61	105.98	101.50
85	A5	1382	G	N9-C1'-C2'	5.61	121.29	114.00
85	A5	1855	G	N9-C1'-C2'	5.61	121.29	114.00
85	A5	2022	C	C3'-C2'-C1'	5.61	105.98	101.50
85	A5	2519	U	C1'-O4'-C4'	5.61	114.39	109.90
85	A5	4509	U	C3'-C2'-C1'	5.61	105.98	101.50
85	A5	4607	A	O4'-C1'-N9	5.61	112.69	108.20
85	A5	1069	G	C1'-O4'-C4'	-5.60	105.42	109.90
85	A5	4331	G	N9-C1'-C2'	-5.60	105.83	112.00
6	AX	37	LYS	N-CA-C	5.60	126.13	111.00
27	AE	151	ASP	CB-CA-C	5.60	121.61	110.40
82	CG	207	VAL	C-N-CA	-5.60	107.69	121.70
85	A5	34	A	C3'-C2'-C1'	5.60	105.98	101.50
85	A5	4909	A	O4'-C1'-C2'	-5.60	100.20	105.80
86	A7	117	G	C5'-C4'-O4'	5.60	115.82	109.10
85	A5	5	A	C3'-C2'-C1'	5.60	105.98	101.50
85	A5	928	C	C3'-C2'-C1'	5.60	105.98	101.50
36	B2	301	A	O4'-C1'-C2'	-5.60	100.20	105.80
38	Cz	210	MET	CB-CG-SD	-5.60	95.60	112.40
85	A5	983	C	C3'-C2'-C1'	5.60	105.98	101.50
85	A5	3892	U	P-O5'-C5'	-5.60	111.94	120.90
85	A5	4263	C	O4'-C1'-N1	5.60	112.68	108.20
36	B2	677	G	C1'-O4'-C4'	-5.60	105.42	109.90
36	B2	1126	G	O4'-C1'-N9	5.60	112.68	108.20
36	B2	1127	C	O4'-C1'-N1	5.60	112.68	108.20
39	Cq	234	VAL	CB-CA-C	5.60	122.03	111.40
74	CC	308	LYS	N-CA-CB	5.60	120.68	110.60
85	A5	704	C	O4'-C1'-C2'	-5.60	100.20	105.80
85	A5	1411	C	C3'-C2'-C1'	5.60	105.98	101.50
36	B2	1745	A	C3'-C2'-C1'	-5.60	97.02	101.50
42	CL	161	TYR	CA-CB-CG	5.60	124.03	113.40
85	A5	236	G	C1'-O4'-C4'	-5.60	105.42	109.90
85	A5	2034	G	N9-C1'-C2'	5.60	121.28	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4632	U	O4'-C1'-N1	5.60	112.68	108.20
63	CB	236	HIS	N-CA-C	-5.59	95.89	111.00
85	A5	1064	G	O4'-C1'-N9	5.59	112.67	108.20
85	A5	2528	G	O4'-C1'-N9	5.59	112.67	108.20
85	A5	4265	U	C5'-C4'-O4'	5.59	115.81	109.10
85	A5	4943	A	O4'-C1'-N9	5.59	112.68	108.20
85	A5	643	C	C3'-C2'-C1'	5.59	105.97	101.50
36	B2	191	A	C5'-C4'-O4'	5.59	115.81	109.10
36	B2	559	G	C3'-C2'-C1'	-5.59	97.03	101.50
81	CE	70	LYS	CA-C-O	5.59	131.84	120.10
85	A5	3754	G	N9-C1'-C2'	-5.59	105.85	112.00
85	A5	4092	G	C1'-O4'-C4'	-5.59	105.43	109.90
85	A5	5044	A	P-O3'-C3'	-5.59	112.99	119.70
36	B2	746	C	C4'-C3'-C2'	-5.59	97.01	102.60
36	B2	1039	C	O4'-C1'-N1	5.59	112.67	108.20
36	B2	1623	A	N9-C1'-C2'	-5.59	105.85	112.00
85	A5	1068	G	C3'-C2'-C1'	-5.59	97.03	101.50
30	AF	47	LYS	CD-CE-NZ	-5.59	98.85	111.70
81	CE	27	VAL	C-N-CA	5.59	135.67	121.70
85	A5	64	A	O4'-C1'-N9	5.59	112.67	108.20
85	A5	88	A	O4'-C1'-N9	5.59	112.67	108.20
85	A5	2093	A	N9-C1'-C2'	5.59	121.26	114.00
85	A5	4110	C	C1'-O4'-C4'	-5.59	105.43	109.90
3	AU	70	CYS	CA-C-N	5.59	127.37	116.20
6	AX	58	GLU	N-CA-C	5.59	126.08	111.00
13	AP	53	GLN	CB-CA-C	5.59	121.57	110.40
36	B2	1505	U	O4'-C1'-C2'	-5.59	100.21	105.80
85	A5	1808	C	O4'-C1'-N1	5.59	112.67	108.20
85	A5	4486	C	N1-C1'-C2'	5.59	121.26	114.00
36	B2	1417	C	C5'-C4'-C3'	5.58	124.94	116.00
85	A5	2305	U	C3'-C2'-C1'	5.58	105.97	101.50
85	A5	4123	C	C2'-C3'-O3'	5.58	122.64	113.70
14	AT	45	LEU	O-C-N	-5.58	113.77	122.70
36	B2	1347	U	O4'-C1'-N1	5.58	112.67	108.20
36	B2	1848	U	O4'-C1'-N1	5.58	112.67	108.20
38	Cz	25	ARG	C-N-CA	-5.58	107.74	121.70
85	A5	1375	C	N1-C1'-C2'	5.58	121.26	114.00
85	A5	1513	U	C3'-C2'-C1'	-5.58	97.03	101.50
85	A5	2878	G	C3'-C2'-C1'	5.58	105.97	101.50
87	A8	137	A	O4'-C1'-N9	5.58	112.67	108.20
36	B2	738	C	C3'-C2'-C1'	5.58	105.97	101.50
36	B2	1017	U	O4'-C1'-C2'	-5.58	100.22	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1780	G	O4'-C1'-N9	5.58	112.67	108.20
85	A5	248	C	O4'-C1'-N1	5.58	112.67	108.20
85	A5	633	G	P-O3'-C3'	5.58	126.40	119.70
85	A5	3942	A	N9-C1'-C2'	-5.58	105.86	112.00
85	A5	3971	G	P-O3'-C3'	-5.58	113.00	119.70
85	A5	4050	A	O4'-C1'-C2'	-5.58	100.22	105.80
85	A5	1985	G	C3'-C2'-C1'	5.58	105.96	101.50
2	Ag	143	GLN	N-CA-C	-5.58	95.94	111.00
13	AP	36	LEU	C-N-CA	5.58	135.65	121.70
36	B2	450	C	O4'-C1'-N1	5.58	112.66	108.20
36	B2	1250	A	C1'-O4'-C4'	5.58	114.36	109.90
58	CW	71	ARG	CA-C-O	-5.58	108.39	120.10
85	A5	1378	C	C4'-C3'-C2'	-5.58	97.02	102.60
85	A5	1997	U	N1-C1'-C2'	5.58	121.25	114.00
85	A5	2102	G	C5'-C4'-O4'	-5.58	102.41	109.10
85	A5	2365	C	C3'-C2'-C1'	5.58	105.96	101.50
85	A5	4159	C	P-O3'-C3'	5.58	126.39	119.70
85	A5	4579	U	N1-C1'-C2'	5.58	121.25	114.00
3	AU	68	THR	CB-CA-C	5.58	126.66	111.60
85	A5	403	G	C5'-C4'-O4'	5.58	115.79	109.10
85	A5	2256	C	P-O5'-C5'	5.58	129.82	120.90
85	A5	2698	G	N9-C1'-C2'	-5.58	105.86	112.00
85	A5	4652	G	O4'-C1'-C2'	5.58	112.62	107.60
2	Ag	294	ASP	N-CA-CB	-5.58	100.57	110.60
37	BC	4	A	O4'-C1'-C2'	-5.58	100.22	105.80
45	Ca	95	THR	C-N-CA	-5.58	110.59	122.30
54	CP	6	LEU	N-CA-CB	5.58	121.55	110.40
56	CX	65	ALA	C-N-CD	-5.58	108.34	120.60
68	Cf	23	GLU	O-C-N	5.58	131.62	122.70
20	Aa	70	LYS	CD-CE-NZ	5.57	124.52	111.70
36	B2	1048	G	P-O5'-C5'	5.57	129.82	120.90
53	CT	23	GLY	C-N-CA	-5.57	107.77	121.70
85	A5	4573	G	C1'-O4'-C4'	-5.57	105.44	109.90
85	A5	4654	C	N1-C1'-C2'	5.57	121.25	114.00
8	AS	10	GLN	N-CA-C	5.57	126.04	111.00
36	B2	40	A	N9-C1'-C2'	-5.57	105.87	112.00
36	B2	58	C	C1'-O4'-C4'	5.57	114.36	109.90
85	A5	4456	C	O4'-C1'-C2'	-5.57	100.23	105.80
22	Ac	60	GLU	N-CA-C	-5.57	95.96	111.00
35	Ah	162	ILE	C-N-CA	5.57	135.62	121.70
36	B2	125	C	C4'-C3'-O3'	5.57	124.14	113.00
36	B2	1436	C	O4'-C1'-C2'	-5.57	100.23	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BC	41	A	O4'-C1'-N9	5.57	112.66	108.20
85	A5	1810	G	O4'-C1'-N9	5.57	112.66	108.20
85	A5	2395	A	O4'-C1'-N9	-5.57	103.74	108.20
87	A8	81	C	O4'-C1'-C2'	5.57	112.61	107.60
35	Ah	160	ARG	C-N-CD	5.57	140.09	128.40
36	B2	1287	A	N9-C1'-C2'	-5.57	105.88	112.00
36	B2	1411	G	C3'-C2'-C1'	-5.57	97.05	101.50
82	CG	58	PRO	CB-CA-C	-5.57	98.08	112.00
85	A5	4406	U	C5'-C4'-O4'	5.57	115.78	109.10
85	A5	371	A	C5'-C4'-C3'	-5.57	107.09	116.00
36	B2	388	U	O4'-C1'-N1	5.56	112.65	108.20
36	B2	823	U	O4'-C1'-C2'	5.56	112.61	107.60
36	B2	1263	U	C3'-C2'-C1'	5.56	105.95	101.50
52	CS	139	ARG	C-N-CD	-5.56	108.36	120.60
85	A5	103	G	O4'-C1'-N9	5.56	112.65	108.20
85	A5	3955	G	C1'-O4'-C4'	5.56	114.35	109.90
36	B2	148	U	O4'-C1'-N1	5.56	112.65	108.20
36	B2	350	C	C1'-O4'-C4'	5.56	114.35	109.90
36	B2	360	A	O4'-C1'-N9	5.56	112.65	108.20
36	B2	414	A	O4'-C1'-C2'	-5.56	100.24	105.80
36	B2	793	G	C4'-C3'-C2'	-5.56	97.04	102.60
36	B2	953	C	P-O3'-C3'	-5.56	113.03	119.70
36	B2	1441	U	O4'-C1'-C2'	-5.56	100.24	105.80
36	B2	1566	G	N9-C1'-C2'	-5.56	105.88	112.00
85	A5	407	A	P-O5'-C5'	5.56	129.80	120.90
85	A5	1944	A	O4'-C1'-N9	5.56	112.65	108.20
85	A5	3623	C	O4'-C1'-C2'	-5.56	100.24	105.80
85	A5	4372	U	O4'-C4'-C3'	-5.56	98.44	104.00
85	A5	4462	C	O3'-P-O5'	-5.56	93.43	104.00
36	B2	685	A	O4'-C1'-N9	5.56	112.65	108.20
36	B2	1630	A	O4'-C1'-N9	5.56	112.65	108.20
85	A5	2097	U	C1'-O4'-C4'	5.56	114.35	109.90
85	A5	3832	U	C4'-C3'-C2'	-5.56	97.04	102.60
47	CI	4	ARG	N-CA-CB	-5.56	100.59	110.60
85	A5	459	C	N1-C1'-C2'	5.56	121.23	114.00
85	A5	2892	C	O4'-C1'-N1	5.56	112.65	108.20
85	A5	4246	G	O4'-C1'-N9	5.56	112.65	108.20
85	A5	4890	G	P-O3'-C3'	-5.56	113.03	119.70
85	A5	4890	G	O4'-C4'-C3'	-5.56	98.44	104.00
23	AD	142	LEU	CB-CG-CD1	5.56	120.45	111.00
36	B2	38	A	C5'-C4'-C3'	-5.56	107.11	116.00
36	B2	1041	G	C3'-C2'-C1'	-5.56	97.05	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1170	A	C3'-C2'-C1'	-5.56	97.05	101.50
85	A5	693	C	N1-C1'-C2'	5.56	121.22	114.00
85	A5	2762	G	O4'-C1'-N9	5.56	112.65	108.20
85	A5	4689	U	N1-C1'-C2'	-5.56	105.89	112.00
50	CR	143	HIS	CB-CG-ND1	-5.56	109.31	123.20
85	A5	1871	A	N9-C1'-C2'	-5.56	105.89	112.00
36	B2	78	C	O4'-C1'-N1	5.55	112.64	108.20
36	B2	86	C	C3'-C2'-C1'	5.55	105.94	101.50
85	A5	28	C	O4'-C1'-C2'	-5.55	100.25	105.80
85	A5	4422	A	O4'-C1'-C2'	-5.55	100.25	105.80
36	B2	1607	A	O4'-C1'-C2'	5.55	112.60	107.60
36	B2	1752	C	C5'-C4'-O4'	5.55	115.76	109.10
85	A5	306	A	P-O3'-C3'	5.55	126.36	119.70
85	A5	1472	C	O4'-C1'-C2'	-5.55	100.25	105.80
85	A5	4046	A	C3'-C2'-C1'	5.55	105.94	101.50
85	A5	671	G	C1'-O4'-C4'	-5.55	105.46	109.90
85	A5	1353	G	C1'-O4'-C4'	-5.55	105.46	109.90
85	A5	2256	C	C3'-C2'-C1'	-5.55	97.06	101.50
85	A5	2621	A	C3'-C2'-C1'	5.55	105.94	101.50
85	A5	4594	U	N1-C1'-C2'	5.55	121.22	114.00
36	B2	143	U	C1'-O4'-C4'	-5.55	105.46	109.90
85	A5	1407	C	C4'-C3'-C2'	-5.55	97.05	102.60
85	A5	4228	G	P-O3'-C3'	5.55	126.36	119.70
33	AI	5	ARG	CA-C-N	5.55	129.41	117.20
36	B2	596	U	O4'-C1'-N1	5.55	112.64	108.20
36	B2	624	C	C5'-C4'-C3'	-5.55	107.12	116.00
78	Co	3	ASN	C-N-CA	5.55	135.57	121.70
85	A5	321	U	C3'-C2'-C1'	5.55	105.94	101.50
85	A5	995	C	O4'-C1'-C2'	-5.55	100.25	105.80
85	A5	1290	G	O4'-C1'-C2'	5.55	112.59	107.60
85	A5	1961	G	O4'-C1'-C2'	-5.55	100.25	105.80
85	A5	3731	C	O4'-C4'-C3'	-5.55	98.45	104.00
36	B2	291	G	C1'-O4'-C4'	-5.55	105.46	109.90
85	A5	1726	U	O4'-C1'-N1	5.55	112.64	108.20
85	A5	1832	C	O4'-C1'-C2'	-5.55	100.25	105.80
85	A5	2725	A	O4'-C1'-C2'	-5.55	100.25	105.80
86	A7	118	C	C3'-C2'-C1'	5.55	105.94	101.50
16	AA	159	ILE	CA-CB-CG1	-5.54	100.47	111.00
34	AQ	145	TYR	C-N-CA	5.54	135.56	121.70
36	B2	139	C	C1'-O4'-C4'	5.54	114.33	109.90
36	B2	1022	U	C1'-O4'-C4'	-5.54	105.47	109.90
36	B2	1443	C	O4'-C1'-N1	5.54	112.64	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1592	C	N1-C1'-C2'	5.54	121.21	114.00
85	A5	161	G	C4'-C3'-C2'	-5.54	97.06	102.60
85	A5	282	C	O4'-C1'-N1	5.54	112.63	108.20
85	A5	1688	G	C1'-O4'-C4'	-5.54	105.47	109.90
85	A5	2001	G	O4'-C1'-N9	5.54	112.64	108.20
85	A5	2661	U	C3'-C2'-C1'	5.54	105.94	101.50
85	A5	3739	C	O4'-C1'-C2'	-5.54	100.26	105.80
85	A5	4249	G	O4'-C1'-N9	5.54	112.64	108.20
87	A8	131	G	N9-C1'-C2'	-5.54	105.90	112.00
36	B2	57	U	C3'-C2'-C1'	5.54	105.93	101.50
36	B2	447	A	O4'-C1'-N9	5.54	112.63	108.20
36	B2	901	G	O4'-C1'-N9	5.54	112.63	108.20
36	B2	1244	U	P-O3'-C3'	5.54	126.35	119.70
36	B2	1505	U	C1'-O4'-C4'	5.54	114.33	109.90
81	CE	103	GLY	O-C-N	-5.54	113.83	122.70
85	A5	932	A	N9-C1'-C2'	-5.54	105.90	112.00
85	A5	1174	G	N9-C1'-C2'	-5.54	105.90	112.00
85	A5	1515	A	C3'-C2'-C1'	5.54	105.93	101.50
85	A5	4080	C	C3'-C2'-C1'	5.54	105.93	101.50
17	AV	77	GLY	N-CA-C	-5.54	99.25	113.10
36	B2	1613	G	O4'-C1'-N9	5.54	112.63	108.20
36	B2	1713	C	N1-C1'-C2'	5.54	121.20	114.00
85	A5	181	C	C1'-O4'-C4'	-5.54	105.47	109.90
36	B2	356	C	O4'-C1'-C2'	5.54	112.58	107.60
36	B2	1202	U	C3'-C2'-C1'	5.54	105.93	101.50
81	CE	33	LYS	CB-CA-C	-5.54	99.32	110.40
85	A5	381	U	O4'-C1'-N1	5.54	112.63	108.20
85	A5	1606	U	O4'-C1'-C2'	-5.54	100.26	105.80
85	A5	1919	G	C5'-C4'-O4'	5.54	115.75	109.10
85	A5	3882	C	N1-C1'-C2'	5.54	121.20	114.00
85	A5	3976	C	P-O3'-C3'	-5.54	113.05	119.70
42	CL	158	ARG	N-CA-C	-5.54	96.05	111.00
85	A5	1657	G	C1'-O4'-C4'	-5.54	105.47	109.90
85	A5	2757	A	C3'-C2'-C1'	5.54	105.93	101.50
85	A5	4072	C	C5'-C4'-C3'	5.54	124.86	116.00
36	B2	101	U	O4'-C1'-N1	5.54	112.63	108.20
36	B2	410	G	N9-C1'-C2'	-5.54	105.91	112.00
36	B2	998	A	O4'-C1'-C2'	-5.54	100.26	105.80
36	B2	1643	U	O4'-C1'-N1	5.54	112.63	108.20
49	CQ	22	ASP	CB-CG-OD1	5.54	123.28	118.30
58	CW	76	VAL	CB-CA-C	-5.54	100.88	111.40
85	A5	258	G	O4'-C1'-N9	5.54	112.63	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1083	U	P-O5'-C5'	5.54	129.76	120.90
85	A5	3660	C	C3'-C2'-C1'	5.54	105.93	101.50
85	A5	3944	G	P-O3'-C3'	-5.54	113.06	119.70
85	A5	4752	U	C1'-O4'-C4'	5.54	114.33	109.90
86	A7	42	A	O4'-C1'-C2'	-5.54	100.26	105.80
86	A7	113	G	O4'-C1'-C2'	5.54	112.58	107.60
33	AI	105	ASP	CB-CA-C	5.53	121.47	110.40
36	B2	809	A	P-O3'-C3'	5.53	126.34	119.70
36	B2	1067	C	C1'-O4'-C4'	-5.53	105.47	109.90
36	B2	1777	G	P-O3'-C3'	-5.53	113.06	119.70
85	A5	753	C	O4'-C1'-N1	5.53	112.63	108.20
85	A5	1301	C	O4'-C1'-N1	5.53	112.63	108.20
85	A5	2481	G	C1'-O4'-C4'	-5.53	105.47	109.90
85	A5	2790	U	O4'-C1'-N1	5.53	112.63	108.20
85	A5	4656	A	C1'-O4'-C4'	-5.53	105.47	109.90
36	B2	1860	A	P-O3'-C3'	-5.53	113.06	119.70
37	BC	57	A	O4'-C1'-C2'	-5.53	100.27	105.80
85	A5	660	A	C1'-O4'-C4'	5.53	114.33	109.90
36	B2	408	A	O4'-C1'-C2'	-5.53	100.27	105.80
36	B2	479	C	C3'-C2'-C1'	5.53	105.92	101.50
36	B2	1278	A	O4'-C1'-N9	5.53	112.62	108.20
36	B2	1415	C	O4'-C1'-C2'	-5.53	100.27	105.80
36	B2	1666	C	C3'-C2'-C1'	5.53	105.92	101.50
85	A5	2352	U	O4'-C1'-N1	5.53	112.62	108.20
1	Az	52	GLY	C-N-CA	5.53	135.52	121.70
85	A5	1215	C	C4'-C3'-C2'	-5.53	97.07	102.60
85	A5	4193	C	O4'-C1'-N1	5.53	112.62	108.20
36	B2	88	G	O4'-C1'-N9	5.53	112.62	108.20
36	B2	1147	C	O4'-C1'-N1	5.53	112.62	108.20
85	A5	1331	C	C4'-C3'-C2'	-5.53	97.07	102.60
34	AQ	6	PRO	CB-CA-C	-5.53	98.19	112.00
48	CD	58	ARG	C-N-CA	5.53	135.52	121.70
85	A5	2113	G	C1'-O4'-C4'	5.53	114.32	109.90
85	A5	4491	G	O4'-C1'-C2'	5.53	112.57	107.60
36	B2	1164	G	N9-C1'-C2'	5.52	121.18	114.00
85	A5	1443	A	C1'-O4'-C4'	-5.52	105.48	109.90
25	Af	148	TYR	C-N-CA	5.52	135.50	121.70
36	B2	650	A	O4'-C1'-C2'	-5.52	100.28	105.80
36	B2	692	G	C1'-O4'-C4'	-5.52	105.48	109.90
37	BC	17	G	O4'-C1'-C2'	5.52	112.57	107.60
85	A5	107	G	C1'-O4'-C4'	-5.52	105.48	109.90
85	A5	948	C	P-O5'-C5'	5.52	129.74	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	915	G	O4'-C1'-C2'	5.52	112.57	107.60
85	A5	393	U	C1'-O4'-C4'	5.52	114.32	109.90
85	A5	4119	C	C3'-C2'-C1'	-5.52	97.08	101.50
85	A5	276	C	O4'-C1'-C2'	-5.52	100.28	105.80
85	A5	470	A	C1'-O4'-C4'	-5.52	105.48	109.90
85	A5	1151	C	P-O3'-C3'	-5.52	113.08	119.70
85	A5	1747	U	O4'-C1'-C2'	-5.52	100.28	105.80
85	A5	4947	U	C4'-C3'-O3'	5.52	124.04	113.00
1	Az	855	LEU	C-N-CA	5.52	135.49	121.70
85	A5	1176	C	O4'-C1'-N1	5.52	112.61	108.20
85	A5	1520	C	C1'-O4'-C4'	-5.52	105.49	109.90
85	A5	4283	G	N9-C1'-C2'	5.52	121.17	114.00
85	A5	4337	C	P-O3'-C3'	-5.52	113.08	119.70
36	B2	1062	A	O4'-C1'-N9	5.52	112.61	108.20
87	A8	125	C	O4'-C1'-C2'	-5.52	100.28	105.80
66	Cd	108	TYR	CA-C-N	-5.51	105.07	117.20
74	CC	323	ARG	CB-CG-CD	5.51	125.94	111.60
85	A5	700	G	C3'-C2'-C1'	-5.51	97.09	101.50
85	A5	2333	G	C3'-C2'-C1'	-5.51	97.09	101.50
36	B2	1823	A	C5'-C4'-O4'	-5.51	102.48	109.10
85	A5	185	C	C3'-C2'-C1'	5.51	105.91	101.50
85	A5	255	C	C1'-O4'-C4'	-5.51	105.49	109.90
36	B2	1413	G	P-O3'-C3'	-5.51	113.09	119.70
85	A5	686	A	C1'-O4'-C4'	5.51	114.31	109.90
85	A5	690	C	C1'-O4'-C4'	5.51	114.31	109.90
85	A5	693	C	O4'-C1'-N1	5.51	112.61	108.20
85	A5	4961	G	P-O5'-C5'	5.51	129.72	120.90
87	A8	76	C	C1'-O4'-C4'	5.51	114.31	109.90
36	B2	49	C	C1'-O4'-C4'	-5.51	105.49	109.90
36	B2	689	U	O3'-P-O5'	-5.51	93.53	104.00
36	B2	1331	C	C1'-O4'-C4'	-5.51	105.49	109.90
36	B2	1801	A	O4'-C1'-N9	5.51	112.61	108.20
58	CW	73	ARG	NE-CZ-NH1	-5.51	117.55	120.30
63	CB	4	ARG	NE-CZ-NH2	-5.51	117.55	120.30
85	A5	235	A	O4'-C1'-C2'	-5.51	100.29	105.80
85	A5	3775	A	C3'-C2'-C1'	-5.51	97.09	101.50
85	A5	4067	U	O4'-C1'-C2'	-5.51	100.29	105.80
85	A5	4114	C	C1'-O4'-C4'	-5.51	105.49	109.90
85	A5	4741	C	O4'-C1'-N1	5.51	112.61	108.20
1	Az	267	ASP	CA-C-O	-5.51	108.53	120.10
81	CE	110	ARG	N-CA-CB	-5.51	100.69	110.60
85	A5	83	C	C3'-C2'-C1'	5.51	105.91	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	135	G	O4'-C1'-C2'	-5.51	100.29	105.80
31	AH	16	PRO	CA-N-CD	-5.51	103.79	111.50
36	B2	513	G	C1'-O4'-C4'	-5.51	105.49	109.90
74	CC	335	MET	CA-CB-CG	5.51	122.66	113.30
85	A5	486	C	C2'-C3'-O3'	5.51	122.51	113.70
85	A5	988	C	O4'-C1'-C2'	-5.51	100.29	105.80
85	A5	1183	C	O4'-C1'-N1	5.51	112.61	108.20
85	A5	1359	G	OP1-P-OP2	-5.51	111.34	119.60
85	A5	1719	A	C8-N9-C1'	-5.51	117.79	127.70
85	A5	2874	U	O4'-C1'-N1	-5.51	103.79	108.20
87	A8	145	C	N1-C1'-C2'	5.51	121.16	114.00
85	A5	952	G	N9-C1'-C2'	5.50	121.16	114.00
85	A5	1835	G	C1'-O4'-C4'	5.50	114.30	109.90
86	A7	111	C	C3'-C2'-C1'	5.50	105.90	101.50
36	B2	183	G	C3'-C2'-C1'	5.50	105.90	101.50
36	B2	287	U	C3'-C2'-C1'	5.50	105.90	101.50
36	B2	686	U	P-O3'-C3'	-5.50	113.09	119.70
36	B2	1562	C	C3'-C2'-C1'	5.50	105.90	101.50
85	A5	1441	C	C4'-C3'-C2'	-5.50	97.10	102.60
85	A5	2797	C	N1-C1'-C2'	5.50	121.15	114.00
85	A5	4874	A	C3'-C2'-C1'	-5.50	97.10	101.50
17	AV	67	ASP	N-CA-CB	-5.50	100.70	110.60
42	CL	56	ARG	N-CA-C	-5.50	96.14	111.00
52	CS	152	PHE	CB-CG-CD1	-5.50	116.95	120.80
69	Cg	49	CYS	CA-CB-SG	5.50	123.90	114.00
85	A5	1785	C	C1'-O4'-C4'	-5.50	105.50	109.90
36	B2	1275	G	O4'-C1'-N9	5.50	112.60	108.20
85	A5	676	C	C4'-C3'-C2'	-5.50	97.10	102.60
85	A5	939	G	N9-C1'-C2'	5.50	121.15	114.00
85	A5	976	G	P-O3'-C3'	-5.50	113.10	119.70
85	A5	1356	U	N1-C1'-C2'	5.50	121.15	114.00
36	B2	80	G	O4'-C1'-N9	5.50	112.60	108.20
36	B2	228	C	C1'-O4'-C4'	-5.50	105.50	109.90
36	B2	629	A	C1'-O4'-C4'	5.50	114.30	109.90
36	B2	750	C	N1-C1'-C2'	5.50	121.15	114.00
36	B2	886	A	O3'-P-O5'	5.50	114.45	104.00
85	A5	1225	U	P-O3'-C3'	5.50	126.30	119.70
85	A5	4684	A	C1'-O4'-C4'	5.50	114.30	109.90
36	B2	1533	A	O4'-C1'-N9	5.50	112.60	108.20
36	B2	1592	C	C3'-C2'-C1'	5.50	105.90	101.50
36	B2	1672	U	C1'-O4'-C4'	-5.50	105.50	109.90
81	CE	188	ARG	CG-CD-NE	-5.50	100.26	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1496	G	C3'-C2'-C1'	5.50	105.90	101.50
85	A5	3820	G	N9-C1'-C2'	-5.50	105.95	112.00
8	AS	89	ASP	CB-CA-C	-5.50	99.41	110.40
23	AD	3	VAL	C-N-CA	5.50	135.44	121.70
36	B2	101	U	O4'-C1'-C2'	-5.50	100.31	105.80
40	CK	85	LEU	N-CA-CB	5.50	121.39	110.40
52	CS	81	TRP	CB-CA-C	5.50	121.39	110.40
85	A5	3764	U	O4'-C1'-N1	5.50	112.60	108.20
36	B2	232	A	O4'-C1'-N9	5.49	112.59	108.20
36	B2	878	G	C1'-O4'-C4'	-5.49	105.50	109.90
37	BC	21	G	O4'-C1'-C2'	5.49	112.54	107.60
85	A5	2474	G	P-O5'-C5'	5.49	129.69	120.90
85	A5	2407	G	O4'-C1'-C2'	5.49	112.54	107.60
85	A5	3609	G	C3'-C2'-C1'	-5.49	97.11	101.50
36	B2	1483	A	C4'-C3'-C2'	-5.49	97.11	102.60
40	CK	114	ARG	NH1-CZ-NH2	-5.49	113.36	119.40
85	A5	668	C	C1'-O4'-C4'	-5.49	105.51	109.90
85	A5	2670	C	C2'-C3'-O3'	5.49	122.48	113.70
85	A5	2713	C	O4'-C1'-N1	5.49	112.59	108.20
85	A5	5051	C	O4'-C1'-N1	5.49	112.59	108.20
1	Az	73	THR	N-CA-C	5.49	125.82	111.00
85	A5	943	A	C1'-O4'-C4'	5.49	114.29	109.90
85	A5	1413	C	C3'-C2'-C1'	5.49	105.89	101.50
85	A5	2447	U	O4'-C1'-C2'	-5.49	100.31	105.80
85	A5	4669	A	P-O3'-C3'	-5.49	113.11	119.70
36	B2	238	C	O4'-C1'-C2'	-5.49	100.31	105.80
36	B2	1600	G	P-O3'-C3'	-5.49	113.11	119.70
85	A5	4398	C	P-O3'-C3'	5.49	126.28	119.70
87	A8	50	C	O4'-C1'-N1	5.49	112.59	108.20
36	B2	570	C	N1-C1'-C2'	5.49	121.13	114.00
36	B2	1283	C	C1'-O4'-C4'	-5.49	105.51	109.90
36	B2	1509	U	O3'-P-O5'	-5.49	93.58	104.00
49	CQ	3	VAL	N-CA-C	-5.49	96.19	111.00
85	A5	256	G	C3'-C2'-C1'	5.49	105.89	101.50
85	A5	1876	U	N1-C1'-C2'	-5.48	105.97	112.00
85	A5	2722	G	O4'-C1'-N9	5.48	112.59	108.20
36	B2	526	A	C5'-C4'-C3'	5.48	124.77	116.00
46	CN	201	HIS	O-C-N	-5.48	113.93	122.70
85	A5	166	C	P-O3'-C3'	-5.48	113.12	119.70
85	A5	639	U	O4'-C1'-N1	5.48	112.59	108.20
85	A5	2754	G	O4'-C1'-N9	5.48	112.59	108.20
85	A5	4320	G	O4'-C1'-C2'	5.48	112.53	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	Cf	4	ARG	CG-CD-NE	-5.48	100.29	111.80
85	A5	2097	U	N1-C1'-C2'	5.48	121.13	114.00
85	A5	3766	A	N9-C1'-C2'	-5.48	105.97	112.00
85	A5	4365	C	O4'-C1'-C2'	-5.48	100.32	105.80
85	A5	4870	G	O4'-C4'-C3'	-5.48	98.52	104.00
86	A7	37	G	O4'-C1'-C2'	-5.48	100.32	105.80
36	B2	1843	G	P-O3'-C3'	-5.48	113.12	119.70
85	A5	1639	U	C3'-C2'-C1'	5.48	105.88	101.50
85	A5	4246	G	O4'-C1'-C2'	-5.48	100.32	105.80
87	A8	157	U	C1'-O4'-C4'	5.48	114.28	109.90
36	B2	1415	C	C3'-C2'-C1'	5.48	105.88	101.50
37	BC	57	A	P-O3'-C3'	5.48	126.27	119.70
85	A5	33	A	C1'-O4'-C4'	-5.48	105.52	109.90
85	A5	59	A	N9-C1'-C2'	-5.48	105.97	112.00
85	A5	1314	C	C4'-C3'-C2'	-5.48	97.12	102.60
85	A5	2365	C	O4'-C1'-C2'	-5.48	100.32	105.80
74	CC	262	GLU	CA-C-O	-5.48	108.60	120.10
85	A5	3945	A	N9-C1'-C2'	-5.48	105.98	112.00
85	A5	4432	C	C3'-C2'-C1'	5.48	105.88	101.50
85	A5	154	G	O4'-C1'-N9	5.47	112.58	108.20
85	A5	683	C	P-O5'-C5'	5.47	129.66	120.90
85	A5	1616	U	O4'-C1'-C2'	-5.47	100.33	105.80
85	A5	2328	G	O4'-C1'-N9	5.47	112.58	108.20
85	A5	2627	C	P-O3'-C3'	-5.47	113.13	119.70
85	A5	3743	G	C3'-C2'-C1'	-5.47	97.12	101.50
85	A5	4205	A	P-O3'-C3'	-5.47	113.13	119.70
85	A5	4879	C	O3'-P-O5'	-5.47	93.60	104.00
85	A5	4952	G	O4'-C1'-N9	5.47	112.58	108.20
36	B2	1721	U	O3'-P-O5'	5.47	114.40	104.00
67	Ce	17	THR	O-C-N	-5.47	113.95	122.70
85	A5	655	C	C2'-C3'-O3'	5.47	122.46	113.70
85	A5	1920	C	N1-C1'-C2'	5.47	121.11	114.00
85	A5	1411	C	N1-C1'-C2'	5.47	121.11	114.00
5	AO	103	ASN	N-CA-CB	5.47	120.45	110.60
85	A5	663	G	O4'-C1'-C2'	5.47	112.52	107.60
85	A5	1660	U	P-O3'-C3'	-5.47	113.14	119.70
85	A5	1988	G	C1'-O4'-C4'	-5.47	105.52	109.90
85	A5	3944	G	C4'-C3'-C2'	-5.47	97.13	102.60
36	B2	1057	C	P-O3'-C3'	-5.47	113.14	119.70
36	B2	1169	G	C1'-O4'-C4'	-5.47	105.53	109.90
36	B2	1629	C	O4'-C4'-C3'	-5.47	98.53	104.00
85	A5	1956	A	O4'-C1'-C2'	-5.47	100.33	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
87	A8	11	C	O4'-C1'-C2'	-5.47	100.33	105.80
36	B2	826	A	P-O3'-C3'	-5.47	113.14	119.70
36	B2	923	G	O4'-C1'-N9	5.47	112.57	108.20
36	B2	1644	C	C1'-O4'-C4'	-5.47	105.53	109.90
42	CL	134	PRO	C-N-CA	-5.47	108.04	121.70
85	A5	89	C	C3'-C2'-C1'	5.47	105.87	101.50
85	A5	910	G	O4'-C1'-N9	5.47	112.57	108.20
85	A5	1698	C	C3'-C2'-C1'	5.47	105.87	101.50
85	A5	1847	C	C1'-O4'-C4'	-5.47	105.53	109.90
86	A7	78	C	C3'-C2'-C1'	5.47	105.87	101.50
36	B2	324	C	O4'-C1'-C2'	5.46	112.52	107.60
36	B2	1360	U	O4'-C1'-N1	5.46	112.57	108.20
36	B2	1441	U	C1'-O4'-C4'	5.46	114.27	109.90
53	CT	13	TYR	CA-CB-CG	-5.46	103.02	113.40
36	B2	333	G	C1'-O4'-C4'	-5.46	105.53	109.90
85	A5	2275	G	O4'-C1'-N9	5.46	112.57	108.20
85	A5	4178	A	C1'-O4'-C4'	5.46	114.27	109.90
85	A5	4964	C	C5'-C4'-O4'	5.46	115.66	109.10
36	B2	532	C	C4'-C3'-C2'	-5.46	97.14	102.60
36	B2	1148	A	C3'-C2'-C1'	-5.46	97.13	101.50
36	B2	1411	G	O4'-C1'-C2'	5.46	112.52	107.60
40	CK	28	LEU	N-CA-C	-5.46	96.25	111.00
85	A5	75	G	O4'-C1'-C2'	-5.46	100.34	105.80
85	A5	214	G	C5'-C4'-O4'	5.46	115.66	109.10
85	A5	427	A	O4'-C1'-C2'	-5.46	100.34	105.80
85	A5	1076	C	C1'-O4'-C4'	-5.46	105.53	109.90
85	A5	4491	G	N9-C1'-C2'	5.46	121.10	114.00
23	AD	167	TYR	CA-CB-CG	-5.46	103.03	113.40
36	B2	616	A	C1'-O4'-C4'	-5.46	105.53	109.90
36	B2	1428	G	C3'-C2'-C1'	-5.46	97.13	101.50
85	A5	689	U	C5'-C4'-C3'	5.46	124.73	116.00
85	A5	693	C	O3'-P-O5'	5.46	114.37	104.00
85	A5	728	U	C5'-C4'-C3'	-5.46	107.27	116.00
85	A5	2503	G	C5'-C4'-O4'	5.46	115.65	109.10
85	A5	4997	G	O4'-C1'-N9	5.46	112.57	108.20
36	B2	666	U	C3'-C2'-C1'	5.46	105.87	101.50
39	Cq	255	THR	CA-C-O	-5.46	108.64	120.10
85	A5	303	C	O4'-C1'-C2'	-5.46	100.34	105.80
85	A5	974	C	C1'-O4'-C4'	5.46	114.27	109.90
85	A5	1437	C	P-O5'-C5'	-5.46	112.17	120.90
85	A5	4535	A	O4'-C1'-N9	5.46	112.56	108.20
36	B2	550	C	C3'-C2'-C1'	5.46	105.86	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1231	C	C1'-O4'-C4'	-5.46	105.54	109.90
36	B2	229	A	O4'-C1'-N9	5.45	112.56	108.20
36	B2	386	C	P-O5'-C5'	-5.45	112.17	120.90
36	B2	570	C	C5'-C4'-O4'	5.45	115.64	109.10
36	B2	822	U	O4'-C1'-N1	5.45	112.56	108.20
42	CL	49	ARG	CA-C-N	5.45	132.37	117.10
81	CE	118	THR	N-CA-CB	5.45	120.66	110.30
85	A5	215	C	O4'-C1'-N1	5.45	112.56	108.20
85	A5	1326	A	O4'-C1'-C2'	-5.45	100.35	105.80
85	A5	1401	C	C4'-C3'-C2'	-5.45	97.15	102.60
85	A5	2345	G	O3'-P-O5'	-5.45	93.64	104.00
85	A5	2407	G	N9-C1'-C2'	5.45	121.09	114.00
85	A5	2498	C	O4'-C1'-N1	5.45	112.56	108.20
85	A5	4145	C	C4'-C3'-C2'	-5.45	97.15	102.60
85	A5	4391	G	O4'-C1'-N9	5.45	112.56	108.20
85	A5	4690	G	N9-C1'-C2'	-5.45	106.00	112.00
85	A5	4955	A	C1'-O4'-C4'	5.45	114.26	109.90
48	CD	217	ASP	O-C-N	5.45	131.42	122.70
85	A5	113	A	C1'-O4'-C4'	-5.45	105.54	109.90
85	A5	1437	C	C3'-C2'-C1'	5.45	105.86	101.50
85	A5	3804	G	O4'-C1'-C2'	5.45	112.51	107.60
36	B2	339	A	P-O3'-C3'	-5.45	113.16	119.70
36	B2	1134	G	O4'-C1'-N9	5.45	112.56	108.20
36	B2	1561	A	O4'-C1'-C2'	-5.45	100.35	105.80
36	B2	1820	G	O4'-C1'-N9	5.45	112.56	108.20
39	Cq	69	LEU	C-N-CA	5.45	135.32	121.70
85	A5	469	C	N1-C1'-C2'	5.45	121.08	114.00
85	A5	1191	C	O4'-C1'-N1	5.45	112.56	108.20
85	A5	2459	G	P-O3'-C3'	5.45	126.24	119.70
85	A5	3921	U	C1'-O4'-C4'	-5.45	105.54	109.90
17	AV	82	ASN	CB-CA-C	-5.45	99.50	110.40
36	B2	1386	A	O4'-C1'-C2'	-5.45	100.35	105.80
85	A5	1709	C	P-O3'-C3'	5.45	126.24	119.70
85	A5	2336	G	C1'-O4'-C4'	-5.45	105.54	109.90
85	A5	2889	G	O4'-C1'-N9	5.45	112.56	108.20
36	B2	13	C	O4'-C1'-N1	5.45	112.56	108.20
36	B2	998	A	N9-C1'-C2'	-5.45	106.01	112.00
36	B2	1046	U	O4'-C1'-C2'	-5.45	100.35	105.80
68	Cf	59	THR	CA-CB-CG2	5.45	120.03	112.40
36	B2	874	G	P-O3'-C3'	5.45	126.23	119.70
36	B2	1110	G	O4'-C1'-C2'	-5.45	100.36	105.80
85	A5	696	C	O4'-C1'-C2'	-5.45	100.35	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4117	U	C1'-O4'-C4'	5.45	114.26	109.90
85	A5	4132	C	C5'-C4'-O4'	5.45	115.64	109.10
85	A5	4362	A	N9-C1'-C2'	-5.45	106.01	112.00
85	A5	4711	C	C3'-C2'-C1'	5.45	105.86	101.50
85	A5	4490	C	C3'-C2'-C1'	5.44	105.86	101.50
87	A8	64	U	O4'-C1'-N1	5.44	112.55	108.20
28	AC	231	ALA	O-C-N	-5.44	114.00	122.70
36	B2	233	C	O4'-C1'-C2'	-5.44	100.36	105.80
36	B2	317	C	C3'-C2'-C1'	5.44	105.85	101.50
85	A5	688	U	P-O5'-C5'	5.44	129.60	120.90
85	A5	1283	G	N9-C1'-C2'	5.44	121.07	114.00
85	A5	1442	C	O3'-P-O5'	5.44	114.34	104.00
85	A5	1639	U	C1'-O4'-C4'	-5.44	105.55	109.90
85	A5	1910	G	N9-C1'-C2'	5.44	121.07	114.00
85	A5	2294	G	O4'-C1'-N9	5.44	112.55	108.20
85	A5	4345	C	C1'-O4'-C4'	-5.44	105.55	109.90
86	A7	3	C	O4'-C1'-N1	5.44	112.55	108.20
46	CN	80	THR	CA-CB-CG2	-5.44	104.79	112.40
56	CX	40	ILE	N-CA-CB	5.44	123.31	110.80
85	A5	928	C	O4'-C1'-N1	5.44	112.55	108.20
85	A5	2750	G	C1'-O4'-C4'	-5.44	105.55	109.90
36	B2	1133	A	O5'-C5'-C4'	-5.44	101.37	111.70
36	B2	1427	C	O4'-C1'-N1	5.44	112.55	108.20
36	B2	1696	C	C3'-C2'-C1'	5.44	105.85	101.50
48	CD	124	GLU	N-CA-C	5.44	125.68	111.00
85	A5	940	C	O4'-C1'-C2'	-5.44	100.36	105.80
85	A5	1720	C	C5'-C4'-O4'	5.44	115.62	109.10
85	A5	1958	A	C4'-C3'-C2'	-5.44	97.16	102.60
85	A5	1967	A	C3'-C2'-C1'	5.44	105.85	101.50
85	A5	2091	C	C4'-C3'-C2'	-5.44	97.16	102.60
85	A5	2720	C	O4'-C1'-N1	5.44	112.55	108.20
85	A5	2773	G	O4'-C1'-N9	5.44	112.55	108.20
34	AQ	18	THR	C-N-CA	5.44	135.29	121.70
44	CM	65	PRO	N-CA-C	5.44	126.23	112.10
85	A5	4407	G	C1'-O4'-C4'	-5.44	105.55	109.90
12	AR	89	SER	CA-C-O	-5.43	108.69	120.10
68	Cf	33	VAL	N-CA-C	-5.43	96.33	111.00
85	A5	649	A	C4'-C3'-C2'	-5.43	97.17	102.60
85	A5	3651	A	O4'-C1'-C2'	-5.43	100.36	105.80
85	A5	4892	A	C3'-C2'-C1'	5.43	105.85	101.50
36	B2	102	A	C1'-O4'-C4'	-5.43	105.55	109.90
85	A5	39	A	N9-C1'-C2'	5.43	121.06	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1633	G	C1'-O4'-C4'	5.43	114.25	109.90
85	A5	2897	G	O4'-C1'-N9	5.43	112.55	108.20
66	Cd	111	VAL	CB-CA-C	-5.43	101.08	111.40
85	A5	2038	U	C5'-C4'-O4'	5.43	115.62	109.10
36	B2	968	U	O4'-C1'-N1	5.43	112.54	108.20
36	B2	1123	C	O4'-C1'-N1	5.43	112.54	108.20
36	B2	1854	U	N1-C1'-C2'	-5.43	106.03	112.00
37	BC	7	G	C3'-C2'-C1'	5.43	105.84	101.50
85	A5	288	G	N9-C1'-C2'	5.43	121.06	114.00
85	A5	519	C	C1'-O4'-C4'	5.43	114.24	109.90
85	A5	1759	G	C3'-C2'-C1'	5.43	105.84	101.50
85	A5	1856	C	C3'-C2'-C1'	5.43	105.84	101.50
85	A5	2760	G	N9-C1'-C2'	-5.43	106.03	112.00
36	B2	146	G	O4'-C1'-C2'	-5.43	100.37	105.80
36	B2	794	A	O4'-C1'-C2'	-5.43	100.37	105.80
44	CM	41	PRO	C-N-CA	-5.43	108.13	121.70
85	A5	4657	U	O4'-C1'-N1	5.43	112.54	108.20
13	AP	71	GLU	CA-C-N	-5.43	105.26	117.20
36	B2	67	C	N1-C1'-C2'	-5.43	106.03	112.00
36	B2	1388	A	P-O3'-C3'	-5.43	113.19	119.70
58	CW	82	ILE	CB-CA-C	5.43	122.45	111.60
81	CE	105	ARG	N-CA-C	5.43	125.65	111.00
85	A5	347	A	C5'-C4'-C3'	-5.43	107.32	116.00
85	A5	1761	G	C5'-C4'-O4'	5.43	115.61	109.10
85	A5	3782	C	C3'-C2'-C1'	5.43	105.84	101.50
59	CZ	54	THR	CA-C-N	-5.42	105.27	117.20
72	Ck	64	LEU	C-N-CA	5.42	135.26	121.70
85	A5	118	C	O4'-C4'-C3'	5.42	110.44	106.10
85	A5	725	G	C1'-O4'-C4'	-5.42	105.56	109.90
85	A5	1524	A	C3'-C2'-C1'	-5.42	97.16	101.50
85	A5	2087	C	C1'-O4'-C4'	-5.42	105.56	109.90
54	CP	5	SER	CA-C-N	5.42	129.13	117.20
85	A5	683	C	C3'-C2'-C1'	5.42	105.84	101.50
86	A7	86	G	C1'-O4'-C4'	-5.42	105.56	109.90
36	B2	749	U	O4'-C1'-C2'	-5.42	100.38	105.80
36	B2	1543	U	O4'-C1'-N1	5.42	112.54	108.20
48	CD	11	ALA	C-N-CA	-5.42	108.14	121.70
85	A5	448	G	C3'-C2'-C1'	5.42	105.84	101.50
85	A5	1617	G	O4'-C1'-N9	5.42	112.54	108.20
86	A7	6	C	O4'-C1'-N1	5.42	112.54	108.20
85	A5	4482	U	O4'-C1'-N1	5.42	112.54	108.20
36	B2	221	A	C3'-C2'-C1'	-5.42	97.17	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	519	A	C1'-O4'-C4'	5.42	114.23	109.90
36	B2	1074	C	O4'-C1'-N1	5.42	112.53	108.20
36	B2	1374	C	O4'-C1'-N1	5.42	112.53	108.20
58	CW	3	VAL	N-CA-C	-5.42	96.37	111.00
81	CE	62	MET	N-CA-CB	5.42	120.35	110.60
85	A5	721	G	O4'-C1'-N9	5.42	112.53	108.20
85	A5	1090	G	C1'-O4'-C4'	-5.42	105.56	109.90
85	A5	2573	A	C5'-C4'-C3'	5.42	124.67	116.00
85	A5	4945	G	O4'-C4'-C3'	-5.42	98.58	104.00
15	AB	63	LYS	N-CA-C	5.42	125.63	111.00
85	A5	86	U	O4'-C1'-N1	5.42	112.53	108.20
85	A5	1844	G	C3'-C2'-C1'	-5.42	97.17	101.50
85	A5	2503	G	O4'-C1'-N9	5.42	112.53	108.20
85	A5	4513	A	N9-C1'-C2'	-5.42	106.04	112.00
85	A5	4558	U	C3'-C2'-C1'	5.42	105.83	101.50
3	AU	118	ASP	N-CA-C	-5.42	96.38	111.00
42	CL	132	SER	N-CA-C	5.42	125.62	111.00
85	A5	699	C	C3'-C2'-C1'	5.42	105.83	101.50
85	A5	1369	C	C3'-C2'-C1'	5.42	105.83	101.50
85	A5	4573	G	N9-C1'-C2'	5.42	121.04	114.00
36	B2	365	C	C3'-C2'-C1'	5.41	105.83	101.50
36	B2	472	C	C3'-C2'-C1'	5.41	105.83	101.50
36	B2	1378	A	O4'-C1'-C2'	-5.41	100.39	105.80
85	A5	1613	A	O4'-C1'-C2'	-5.41	100.39	105.80
85	A5	3942	A	C1'-O4'-C4'	5.41	114.23	109.90
85	A5	4098	A	O4'-C1'-C2'	-5.41	100.39	105.80
85	A5	4977	A	C4'-C3'-C2'	-5.41	97.19	102.60
85	A5	1206	C	C3'-C2'-C1'	5.41	105.83	101.50
85	A5	2414	G	C3'-C2'-C1'	-5.41	97.17	101.50
36	B2	238	C	N1-C1'-C2'	5.41	121.03	114.00
36	B2	863	U	O4'-C1'-C2'	5.41	112.47	107.60
36	B2	1697	A	N9-C1'-C2'	-5.41	106.05	112.00
85	A5	317	A	O4'-C1'-C2'	-5.41	100.39	105.80
85	A5	1587	G	O4'-C1'-C2'	-5.41	100.39	105.80
85	A5	1789	C	C3'-C2'-C1'	5.41	105.83	101.50
87	A8	146	U	C4'-C3'-C2'	-5.41	97.19	102.60
36	B2	401	A	C3'-C2'-C1'	5.41	105.83	101.50
36	B2	856	C	C1'-O4'-C4'	-5.41	105.57	109.90
36	B2	893	U	C1'-O4'-C4'	5.41	114.23	109.90
36	B2	1829	G	O4'-C1'-C2'	-5.41	100.39	105.80
40	CK	44	ASP	CB-CG-OD2	-5.41	113.43	118.30
85	A5	1202	C	O4'-C1'-N1	5.41	112.53	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4169	G	C3'-C2'-C1'	5.41	105.83	101.50
85	A5	4943	A	C5'-C4'-C3'	-5.41	107.35	116.00
86	A7	112	U	O4'-C1'-C2'	-5.41	100.39	105.80
36	B2	15	U	O4'-C1'-C2'	-5.41	100.39	105.80
36	B2	1007	C	O4'-C1'-C2'	-5.41	100.39	105.80
85	A5	1534	A	O4'-C1'-C2'	-5.41	100.39	105.80
85	A5	2469	C	P-O3'-C3'	5.41	126.19	119.70
36	B2	546	G	O4'-C1'-C2'	-5.41	100.39	105.80
47	CI	104	SER	N-CA-C	5.41	125.60	111.00
85	A5	907	C	C3'-C2'-C1'	5.41	105.82	101.50
85	A5	1529	G	C1'-O4'-C4'	-5.41	105.58	109.90
86	A7	98	G	P-O5'-C5'	-5.41	112.25	120.90
36	B2	1031	A	C5'-C4'-O4'	5.40	115.58	109.10
74	CC	338	ASN	C-N-CA	5.40	135.21	121.70
85	A5	4566	U	C3'-C2'-C1'	5.40	105.82	101.50
36	B2	1852	C	O4'-C1'-N1	5.40	112.52	108.20
85	A5	2902	G	N9-C1'-C2'	5.40	121.02	114.00
5	AO	129	ILE	CG1-CB-CG2	5.40	123.28	111.40
26	AJ	100	LEU	N-CA-C	5.40	125.58	111.00
36	B2	472	C	N1-C1'-C2'	5.40	121.02	114.00
37	BC	70	C	C3'-C2'-C1'	5.40	105.82	101.50
36	B2	499	G	P-O5'-C5'	-5.40	112.26	120.90
85	A5	1970	A	O4'-C1'-N9	5.40	112.52	108.20
85	A5	4341	C	C3'-C2'-C1'	5.40	105.82	101.50
36	B2	71	G	C4'-C3'-O3'	5.40	123.80	113.00
61	Ch	40	ALA	C-N-CA	-5.40	108.21	121.70
81	CE	57	TYR	CA-CB-CG	5.40	123.66	113.40
85	A5	315	G	O4'-C4'-C3'	5.40	110.42	106.10
85	A5	1440	U	P-O5'-C5'	-5.40	112.26	120.90
17	AV	31	SER	O-C-N	-5.40	114.07	122.70
85	A5	954	C	N1-C1'-C2'	5.40	121.02	114.00
85	A5	1487	G	O4'-C1'-N9	5.40	112.52	108.20
85	A5	3735	G	O4'-C1'-N9	5.40	112.52	108.20
85	A5	5050	C	C3'-C2'-C1'	5.40	105.82	101.50
36	B2	670	A	C1'-O4'-C4'	5.39	114.22	109.90
36	B2	1212	G	O4'-C1'-N9	5.39	112.52	108.20
81	CE	61	ALA	N-CA-CB	5.39	117.65	110.10
85	A5	735	G	C3'-C2'-C1'	5.39	105.81	101.50
85	A5	2517	A	C3'-C2'-C1'	5.39	105.81	101.50
85	A5	2736	G	O4'-C1'-N9	5.39	112.52	108.20
85	A5	2804	C	O4'-C1'-C2'	-5.39	100.41	105.80
30	AF	21	GLY	N-CA-C	-5.39	99.62	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	406	U	N1-C1'-C2'	5.39	121.01	114.00
36	B2	1374	C	N1-C1'-C2'	5.39	121.01	114.00
60	Cr	31	ASN	N-CA-C	-5.39	96.44	111.00
85	A5	988	C	O4'-C1'-N1	5.39	112.52	108.20
85	A5	1293	G	C3'-C2'-C1'	-5.39	97.19	101.50
85	A5	2074	C	C3'-C2'-C1'	5.39	105.81	101.50
85	A5	4041	C	O4'-C4'-C3'	-5.39	98.61	104.00
85	A5	4505	C	C3'-C2'-C1'	5.39	105.81	101.50
85	A5	4539	U	O4'-C1'-C2'	-5.39	100.41	105.80
85	A5	4600	G	P-O3'-C3'	5.39	126.17	119.70
86	A7	31	G	C1'-O4'-C4'	-5.39	105.59	109.90
36	B2	437	G	N9-C1'-C2'	5.39	121.01	114.00
65	Cc	88	TYR	CA-CB-CG	-5.39	103.16	113.40
85	A5	1332	C	C3'-C2'-C1'	5.39	105.81	101.50
85	A5	4226	G	C1'-O4'-C4'	-5.39	105.59	109.90
86	A7	97	G	C1'-O4'-C4'	-5.39	105.59	109.90
2	Ag	14	HIS	C-N-CA	-5.39	108.23	121.70
36	B2	453	C	N1-C1'-C2'	5.39	121.01	114.00
85	A5	183	C	O3'-P-O5'	5.39	114.24	104.00
85	A5	1300	G	C1'-O4'-C4'	-5.39	105.59	109.90
85	A5	2727	C	N1-C1'-C2'	5.39	121.01	114.00
85	A5	3709	U	P-O5'-C5'	5.39	129.52	120.90
85	A5	4040	C	C3'-C2'-C1'	5.39	105.81	101.50
85	A5	4218	U	C1'-O4'-C4'	-5.39	105.59	109.90
85	A5	4303	C	O4'-C1'-C2'	5.39	112.45	107.60
36	B2	1131	G	O4'-C1'-C2'	-5.39	100.41	105.80
49	CQ	19	LYS	CB-CG-CD	-5.39	97.60	111.60
65	Cc	91	VAL	N-CA-C	-5.39	96.46	111.00
85	A5	695	G	N9-C1'-C2'	5.39	121.00	114.00
85	A5	1088	C	O4'-C1'-N1	5.39	112.51	108.20
86	A7	121	U	O4'-C1'-C2'	-5.39	100.41	105.80
87	A8	126	C	O4'-C1'-N1	5.39	112.51	108.20
1	Az	760	TYR	CB-CA-C	-5.38	99.63	110.40
36	B2	76	U	N1-C1'-C2'	5.38	121.00	114.00
74	CC	273	LEU	CB-CG-CD1	-5.38	101.84	111.00
85	A5	2606	G	O4'-C1'-N9	5.38	112.51	108.20
85	A5	4691	A	C3'-C2'-C1'	5.38	105.81	101.50
28	AC	256	TRP	O-C-N	-5.38	114.09	122.70
85	A5	421	C	N1-C1'-C2'	5.38	121.00	114.00
74	CC	335	MET	O-C-N	5.38	131.31	122.70
85	A5	505	G	N9-C1'-C2'	-5.38	106.08	112.00
85	A5	663	G	P-O3'-C3'	5.38	126.16	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	978	G	C4'-C3'-C2'	-5.38	97.22	102.60
85	A5	1950	U	O4'-C1'-N1	5.38	112.50	108.20
85	A5	4085	A	P-O5'-C5'	5.38	129.51	120.90
85	A5	4657	U	P-O3'-C3'	5.38	126.16	119.70
36	B2	472	C	P-O3'-C3'	5.38	126.16	119.70
28	AC	259	THR	N-CA-C	5.38	125.52	111.00
36	B2	295	C	C3'-C2'-C1'	5.38	105.80	101.50
36	B2	899	U	P-O5'-C5'	5.38	129.51	120.90
36	B2	1114	U	O4'-C1'-C2'	-5.38	100.42	105.80
36	B2	1838	U	O4'-C1'-N1	5.38	112.50	108.20
53	CT	133	ALA	C-N-CD	-5.38	108.77	120.60
85	A5	716	C	C3'-C2'-C1'	5.38	105.80	101.50
85	A5	981	C	O4'-C1'-N1	5.38	112.50	108.20
85	A5	2281	U	N1-C1'-C2'	5.38	120.99	114.00
85	A5	2444	U	N1-C1'-C2'	5.38	120.99	114.00
85	A5	3816	A	C1'-O4'-C4'	-5.38	105.60	109.90
85	A5	4068	U	N1-C1'-C2'	5.38	120.99	114.00
85	A5	4382	G	O4'-C1'-C2'	5.38	112.44	107.60
85	A5	92	C	C5'-C4'-O4'	-5.38	102.65	109.10
85	A5	384	A	N9-C1'-C2'	5.38	120.99	114.00
85	A5	720	G	P-O3'-C3'	5.38	126.15	119.70
85	A5	1671	U	C5'-C4'-O4'	5.38	115.55	109.10
85	A5	2737	C	N1-C1'-C2'	5.38	120.99	114.00
85	A5	2747	U	O4'-C1'-N1	5.38	112.50	108.20
87	A8	142	U	N1-C1'-C2'	-5.38	106.09	112.00
36	B2	189	U	P-O3'-C3'	-5.38	113.25	119.70
36	B2	1744	G	O4'-C1'-N9	5.38	112.50	108.20
85	A5	231	U	P-O3'-C3'	5.37	126.15	119.70
85	A5	1075	G	P-O3'-C3'	5.37	126.15	119.70
85	A5	1455	G	N9-C1'-C2'	5.37	120.99	114.00
85	A5	3774	A	N9-C1'-C2'	5.37	120.99	114.00
85	A5	4340	U	O4'-C1'-C2'	-5.37	100.43	105.80
85	A5	4506	C	C3'-C2'-C1'	5.37	105.80	101.50
18	AY	62	THR	C-N-CA	-5.37	108.27	121.70
36	B2	398	A	C1'-O4'-C4'	5.37	114.20	109.90
37	BC	74	C	C1'-O4'-C4'	5.37	114.20	109.90
85	A5	154	G	C5'-C4'-O4'	5.37	115.55	109.10
85	A5	1366	G	C5'-C4'-C3'	5.37	124.59	116.00
85	A5	2610	G	C5'-C4'-O4'	5.37	115.55	109.10
85	A5	2849	A	C1'-O4'-C4'	5.37	114.20	109.90
85	A5	3897	G	O4'-C1'-N9	5.37	112.50	108.20
85	A5	4293	U	C3'-C2'-C1'	5.37	105.80	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4573	G	O4'-C1'-N9	5.37	112.50	108.20
85	A5	5021	C	O4'-C1'-C2'	-5.37	100.43	105.80
36	B2	1348	G	P-O3'-C3'	5.37	126.14	119.70
85	A5	1213	G	O4'-C1'-N9	5.37	112.50	108.20
85	A5	1736	A	O4'-C1'-N9	5.37	112.50	108.20
24	Ae	21	LYS	C-N-CA	5.37	135.12	121.70
36	B2	1490	G	C1'-O4'-C4'	-5.37	105.61	109.90
85	A5	453	G	P-O5'-C5'	-5.37	112.31	120.90
85	A5	1788	A	O4'-C1'-C2'	-5.37	100.43	105.80
36	B2	238	C	O4'-C1'-N1	5.37	112.49	108.20
36	B2	1141	G	O4'-C1'-C2'	5.37	112.43	107.60
70	Ci	7	MET	C-N-CA	-5.37	108.28	121.70
85	A5	9	C	O4'-C1'-C2'	-5.37	100.43	105.80
85	A5	1498	G	O4'-C1'-N9	5.37	112.49	108.20
85	A5	2729	C	C3'-C2'-C1'	5.37	105.79	101.50
86	A7	110	G	C3'-C2'-C1'	5.37	105.79	101.50
4	AK	43	LEU	CB-CG-CD1	5.37	120.12	111.00
85	A5	2297	G	O4'-C1'-N9	5.37	112.49	108.20
85	A5	2322	G	O4'-C1'-N9	5.37	112.49	108.20
85	A5	4517	A	O4'-C1'-N9	-5.37	103.91	108.20
85	A5	4750	G	C1'-O4'-C4'	-5.37	105.61	109.90
26	AJ	35	TYR	C-N-CA	5.36	133.56	122.30
36	B2	1540	G	P-O5'-C5'	-5.36	112.32	120.90
37	BC	9	G	O4'-C1'-C2'	-5.36	100.44	105.80
37	BC	26	C	O4'-C1'-N1	5.36	112.49	108.20
44	CM	33	GLN	CB-CA-C	5.36	121.13	110.40
85	A5	1187	G	C3'-C2'-C1'	5.36	105.79	101.50
85	A5	1629	G	N9-C1'-C2'	5.36	120.97	114.00
85	A5	2002	A	C1'-O4'-C4'	-5.36	105.61	109.90
85	A5	2254	G	C1'-O4'-C4'	-5.36	105.61	109.90
85	A5	2694	G	O4'-C1'-N9	5.36	112.49	108.20
68	Cf	42	TYR	CA-CB-CG	-5.36	103.21	113.40
85	A5	197	A	C1'-O4'-C4'	-5.36	105.61	109.90
85	A5	1800	U	N1-C1'-C2'	5.36	120.97	114.00
36	B2	526	A	O4'-C1'-N9	5.36	112.49	108.20
36	B2	824	C	N1-C1'-C2'	5.36	120.97	114.00
36	B2	1304	U	N1-C1'-C2'	5.36	120.97	114.00
50	CR	79	GLY	O-C-N	-5.36	114.12	122.70
81	CE	31	ASN	N-CA-CB	5.36	120.25	110.60
85	A5	687	U	C3'-C2'-C1'	-5.36	97.21	101.50
85	A5	1771	U	O4'-C1'-C2'	-5.36	100.44	105.80
85	A5	1814	C	O4'-C1'-C2'	-5.36	100.44	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2330	G	O4'-C1'-C2'	-5.36	100.44	105.80
85	A5	3873	G	N9-C1'-C2'	5.36	120.97	114.00
85	A5	4128	A	N9-C1'-C2'	-5.36	106.11	112.00
85	A5	4171	C	C1'-O4'-C4'	-5.36	105.61	109.90
85	A5	4702	G	N9-C1'-C2'	-5.36	106.10	112.00
55	CU	76	VAL	CB-CA-C	5.36	121.58	111.40
85	A5	427	A	C3'-C2'-C1'	5.36	105.79	101.50
85	A5	1286	C	P-O3'-C3'	-5.36	113.27	119.70
87	A8	43	A	O4'-C1'-N9	5.36	112.49	108.20
36	B2	1260	A	O4'-C1'-N9	5.36	112.49	108.20
37	BC	58	A	O4'-C1'-N9	5.36	112.49	108.20
85	A5	1109	C	C1'-O4'-C4'	-5.36	105.61	109.90
85	A5	1266	G	C2'-C3'-O3'	5.36	122.27	113.70
85	A5	1920	C	O4'-C1'-N1	5.36	112.49	108.20
85	A5	4447	C	C3'-C2'-C1'	5.36	105.79	101.50
85	A5	5055	G	C3'-C2'-C1'	-5.36	97.21	101.50
85	A5	5062	G	P-O5'-C5'	-5.36	112.33	120.90
87	A8	5	U	O4'-C1'-N1	5.36	112.49	108.20
87	A8	143	G	O4'-C1'-N9	5.36	112.48	108.20
81	CE	126	LEU	CA-C-O	-5.36	108.86	120.10
85	A5	919	C	O4'-C1'-C2'	-5.36	100.44	105.80
85	A5	4160	C	O4'-C1'-N1	5.36	112.48	108.20
85	A5	4717	A	C5'-C4'-O4'	-5.36	102.67	109.10
85	A5	4888	U	O4'-C1'-C2'	-5.36	100.44	105.80
85	A5	170	C	C5'-C4'-O4'	5.35	115.53	109.10
85	A5	324	A	P-O3'-C3'	5.35	126.12	119.70
85	A5	2820	C	N1-C1'-C2'	5.35	120.96	114.00
85	A5	4167	G	O4'-C1'-N9	5.35	112.48	108.20
33	AI	132	GLU	CA-C-O	-5.35	108.86	120.10
36	B2	380	G	C1'-O4'-C4'	5.35	114.18	109.90
36	B2	469	A	O4'-C1'-N9	5.35	112.48	108.20
36	B2	560	A	O5'-C5'-C4'	5.35	121.87	111.70
36	B2	1190	A	O4'-C1'-N9	5.35	112.48	108.20
52	CS	81	TRP	CA-C-N	5.35	128.97	117.20
85	A5	307	A	P-O5'-C5'	-5.35	112.34	120.90
85	A5	345	C	C3'-C2'-C1'	5.35	105.78	101.50
85	A5	2127	C	O4'-C1'-C2'	-5.35	100.45	105.80
85	A5	4642	U	C3'-C2'-C1'	5.35	105.78	101.50
28	AC	248	TYR	CA-CB-CG	-5.35	103.23	113.40
40	CK	114	ARG	NE-CZ-NH2	-5.35	117.62	120.30
59	CZ	54	THR	N-CA-CB	-5.35	100.13	110.30
36	B2	103	A	P-O3'-C3'	5.35	126.12	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	933	G	C3'-C2'-C1'	-5.35	97.22	101.50
36	B2	1195	A	N9-C1'-C2'	-5.35	106.11	112.00
68	Cf	6	TRP	N-CA-C	5.35	125.44	111.00
68	Cf	6	TRP	CD1-CG-CD2	-5.35	102.02	106.30
85	A5	371	A	C3'-C2'-C1'	5.35	105.78	101.50
85	A5	1347	G	C5'-C4'-O4'	5.35	115.52	109.10
85	A5	4622	A	C1'-O4'-C4'	5.35	114.18	109.90
36	B2	1693	G	O4'-C1'-C2'	5.35	112.41	107.60
37	BC	33	C	O4'-C1'-C2'	-5.35	100.45	105.80
47	CI	100	ASN	O-C-N	-5.35	114.14	122.70
85	A5	237	G	C1'-O4'-C4'	-5.35	105.62	109.90
85	A5	696	C	C5'-C4'-O4'	5.35	115.52	109.10
85	A5	2007	G	P-O3'-C3'	5.35	126.12	119.70
85	A5	2275	G	C1'-O4'-C4'	-5.35	105.62	109.90
85	A5	4540	C	O4'-C1'-C2'	-5.35	100.45	105.80
87	A8	76	C	C4'-C3'-C2'	-5.35	97.25	102.60
36	B2	285	U	P-O5'-C5'	-5.35	112.35	120.90
48	CD	186	GLU	C-N-CA	5.35	135.06	121.70
85	A5	4306	U	C1'-O4'-C4'	5.35	114.18	109.90
85	A5	4653	C	O4'-C1'-N1	5.35	112.48	108.20
22	Ac	54	ASP	CB-CG-OD2	5.34	123.11	118.30
74	CC	262	GLU	CA-C-N	5.34	128.96	117.20
85	A5	205	C	O4'-C1'-N1	5.34	112.48	108.20
85	A5	684	G	C3'-C2'-C1'	5.34	105.78	101.50
85	A5	1402	C	N1-C1'-C2'	5.34	120.95	114.00
85	A5	2492	C	P-O5'-C5'	-5.34	112.35	120.90
85	A5	2741	U	O4'-C1'-C2'	-5.34	100.45	105.80
85	A5	2892	C	N1-C1'-C2'	5.34	120.95	114.00
85	A5	4748	U	C4'-C3'-C2'	-5.34	97.26	102.60
85	A5	4750	G	C5'-C4'-O4'	5.34	115.51	109.10
86	A7	119	U	C3'-C2'-C1'	5.34	105.77	101.50
16	AA	53	ARG	CD-NE-CZ	-5.34	116.12	123.60
29	AG	170	ARG	CA-C-N	-5.34	105.45	117.20
36	B2	546	G	O4'-C1'-N9	5.34	112.47	108.20
36	B2	695	C	C1'-O4'-C4'	5.34	114.17	109.90
36	B2	1205	C	O4'-C1'-N1	5.34	112.47	108.20
37	BC	36	A	C3'-C2'-C1'	5.34	105.77	101.50
85	A5	23	C	O4'-C1'-N1	5.34	112.47	108.20
85	A5	370	U	C1'-O4'-C4'	-5.34	105.63	109.90
85	A5	4144	C	O4'-C1'-C2'	-5.34	100.46	105.80
86	A7	15	C	N1-C1'-C2'	5.34	120.94	114.00
10	AN	6	ALA	C-N-CD	5.34	139.61	128.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	380	G	O4'-C1'-N9	5.34	112.47	108.20
36	B2	652	U	C1'-O4'-C4'	5.34	114.17	109.90
36	B2	1154	U	C4'-C3'-C2'	-5.34	97.26	102.60
36	B2	1345	G	O4'-C1'-C2'	-5.34	100.46	105.80
82	CG	103	ARG	CA-C-N	5.34	132.05	117.10
85	A5	1262	G	O4'-C1'-N9	5.34	112.47	108.20
85	A5	3587	C	O4'-C1'-N1	5.34	112.47	108.20
85	A5	4133	C	P-O3'-C3'	-5.34	113.29	119.70
47	CI	210	ARG	N-CA-CB	5.34	120.21	110.60
69	Cg	13	TYR	CA-CB-CG	-5.34	103.26	113.40
85	A5	2267	U	O4'-C1'-C2'	5.34	112.40	107.60
30	AF	46	ALA	O-C-N	-5.34	114.16	122.70
39	Cq	133	GLU	O-C-N	-5.34	114.16	122.70
50	CR	42	ARG	NE-CZ-NH1	-5.34	117.63	120.30
60	Cr	28	GLU	C-N-CD	-5.34	108.86	120.60
60	Cr	77	TYR	CA-CB-CG	5.34	123.54	113.40
82	CG	100	HIS	N-CA-CB	5.34	120.21	110.60
85	A5	686	A	C4'-C3'-C2'	-5.34	97.26	102.60
85	A5	1459	A	P-O5'-C5'	-5.34	112.36	120.90
85	A5	2249	C	N1-C1'-C2'	5.34	120.94	114.00
85	A5	2441	C	O4'-C1'-N1	5.34	112.47	108.20
85	A5	4500	U	C1'-O4'-C4'	5.34	114.17	109.90
85	A5	4733	C	P-O3'-C3'	5.34	126.10	119.70
85	A5	4871	C	O4'-C4'-C3'	-5.34	98.66	104.00
85	A5	1282	G	O5'-C5'-C4'	5.33	121.84	111.70
85	A5	1802	A	P-O3'-C3'	5.33	126.10	119.70
85	A5	3894	A	O4'-C1'-C2'	-5.33	100.47	105.80
85	A5	4880	C	O3'-P-O5'	-5.33	93.86	104.00
36	B2	471	G	N9-C1'-C2'	-5.33	106.13	112.00
36	B2	623	G	O4'-C1'-N9	5.33	112.47	108.20
36	B2	731	G	N9-C1'-C2'	5.33	120.94	114.00
36	B2	790	C	C3'-C2'-C1'	5.33	105.77	101.50
36	B2	964	A	O4'-C1'-C2'	-5.33	100.47	105.80
49	CQ	2	GLY	C-N-CA	5.33	135.03	121.70
82	CG	261	LEU	C-N-CA	-5.33	108.37	121.70
85	A5	276	C	P-O3'-C3'	5.33	126.10	119.70
85	A5	276	C	C1'-O4'-C4'	5.33	114.17	109.90
85	A5	1080	C	C1'-O4'-C4'	-5.33	105.63	109.90
85	A5	2036	C	O4'-C1'-N1	5.33	112.47	108.20
85	A5	4655	A	C1'-O4'-C4'	5.33	114.17	109.90
87	A8	41	A	N9-C1'-C2'	-5.33	106.13	112.00
85	A5	1430	C	O4'-C1'-N1	5.33	112.47	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1466	G	O4'-C1'-N9	5.33	112.47	108.20
85	A5	1544	G	N9-C1'-C2'	-5.33	106.14	112.00
85	A5	3699	C	N1-C1'-C2'	5.33	120.93	114.00
85	A5	3895	G	O4'-C1'-N9	5.33	112.47	108.20
68	Cf	57	THR	C-N-CA	5.33	135.03	121.70
85	A5	1938	C	C3'-C2'-C1'	5.33	105.76	101.50
85	A5	3664	G	O4'-C1'-N9	5.33	112.46	108.20
36	B2	426	A	C3'-C2'-C1'	5.33	105.76	101.50
36	B2	1237	C	C4'-C3'-C2'	-5.33	97.27	102.60
70	Ci	4	ARG	CA-CB-CG	5.33	125.12	113.40
85	A5	1363	C	O4'-C1'-N1	-5.33	103.94	108.20
85	A5	2118	G	N9-C1'-C2'	-5.33	106.14	112.00
85	A5	2303	C	O4'-C1'-C2'	-5.33	100.47	105.80
85	A5	3843	C	P-O3'-C3'	-5.33	113.31	119.70
85	A5	3968	U	C1'-O4'-C4'	5.33	114.16	109.90
85	A5	4449	A	C3'-C2'-C1'	5.33	105.76	101.50
36	B2	692	G	O4'-C1'-C2'	5.33	112.39	107.60
85	A5	3893	C	O4'-C1'-C2'	-5.33	100.47	105.80
36	B2	66	G	O4'-C1'-C2'	5.33	112.39	107.60
36	B2	1168	G	O4'-C1'-N9	5.33	112.46	108.20
36	B2	1459	G	C3'-C2'-C1'	-5.33	97.24	101.50
74	CC	13	GLU	C-N-CA	5.33	135.01	121.70
81	CE	58	SER	C-N-CA	5.33	135.01	121.70
85	A5	1218	G	C5'-C4'-C3'	5.33	124.52	116.00
85	A5	2018	C	O4'-C1'-C2'	-5.33	100.47	105.80
36	B2	406	U	O4'-C1'-N1	5.32	112.46	108.20
36	B2	552	G	O4'-C1'-C2'	5.32	112.39	107.60
63	CB	55	HIS	N-CA-CB	5.32	120.18	110.60
85	A5	1568	C	O4'-C1'-C2'	-5.32	100.48	105.80
87	A8	110	U	O3'-P-O5'	-5.32	93.89	104.00
31	AH	16	PRO	C-N-CA	5.32	135.00	121.70
36	B2	561	A	C2'-C3'-O3'	5.32	122.21	113.70
85	A5	329	A	N9-C1'-C2'	5.32	120.92	114.00
85	A5	4336	A	C4'-C3'-O3'	5.32	123.64	113.00
85	A5	5000	G	O4'-C1'-N9	5.32	112.46	108.20
36	B2	65	C	O4'-C1'-C2'	-5.32	100.48	105.80
36	B2	512	A	O4'-C1'-N9	5.32	112.46	108.20
36	B2	872	A	O4'-C1'-C2'	5.32	112.39	107.60
36	B2	1495	G	O4'-C1'-N9	5.32	112.46	108.20
60	Cr	105	ASP	N-CA-C	5.32	125.37	111.00
85	A5	937	U	N1-C1'-C2'	5.32	120.92	114.00
85	A5	1101	C	O4'-C1'-C2'	-5.32	100.48	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2252	G	C2'-C3'-O3'	-5.32	97.79	109.50
36	B2	94	G	N9-C1'-C2'	5.32	120.92	114.00
36	B2	385	G	O4'-C1'-N9	5.32	112.45	108.20
85	A5	2698	G	P-O3'-C3'	-5.32	113.32	119.70
85	A5	3886	G	O4'-C1'-C2'	5.32	112.39	107.60
85	A5	4983	C	N1-C1'-C2'	5.32	120.91	114.00
36	B2	839	C	O3'-P-O5'	-5.32	93.90	104.00
36	B2	1608	U	N1-C1'-C2'	5.32	120.91	114.00
60	Cr	1	MET	CG-SD-CE	-5.32	91.69	100.20
85	A5	248	C	C3'-C2'-C1'	5.32	105.75	101.50
85	A5	388	A	O4'-C1'-C2'	-5.32	100.48	105.80
85	A5	1297	U	C3'-C2'-C1'	5.32	105.75	101.50
85	A5	4232	U	C3'-C2'-C1'	5.32	105.75	101.50
85	A5	4369	A	C1'-O4'-C4'	5.32	114.16	109.90
36	B2	142	C	O4'-C1'-C2'	5.32	112.38	107.60
36	B2	1238	U	C3'-C2'-C1'	-5.32	97.25	101.50
85	A5	239	C	C1'-O4'-C4'	-5.32	105.65	109.90
85	A5	1993	C	C1'-O4'-C4'	-5.32	105.65	109.90
85	A5	2544	G	O4'-C4'-C3'	-5.32	98.69	104.00
85	A5	2562	G	N9-C1'-C2'	-5.32	106.15	112.00
85	A5	2731	C	C3'-C2'-C1'	5.32	105.75	101.50
85	A5	3631	U	O4'-C1'-C2'	-5.32	100.48	105.80
87	A8	34	U	N1-C1'-C2'	5.32	120.91	114.00
36	B2	910	G	O5'-P-OP1	-5.31	100.92	105.70
85	A5	1509	C	C1'-O4'-C4'	-5.31	105.65	109.90
87	A8	64	U	O4'-C1'-C2'	-5.31	100.49	105.80
36	B2	799	U	C4'-C3'-C2'	-5.31	97.29	102.60
36	B2	1305	C	N1-C1'-C2'	5.31	120.91	114.00
36	B2	1462	U	O4'-C1'-N1	5.31	112.45	108.20
60	Cr	36	ASN	CB-CA-C	-5.31	99.78	110.40
85	A5	1650	A	N9-C1'-C2'	5.31	120.91	114.00
85	A5	1927	U	P-O3'-C3'	-5.31	113.33	119.70
85	A5	2032	U	O4'-C1'-N1	5.31	112.45	108.20
85	A5	3699	C	C1'-O4'-C4'	-5.31	105.65	109.90
85	A5	3909	C	C3'-C2'-C1'	5.31	105.75	101.50
85	A5	4412	C	C4'-C3'-O3'	-5.31	98.25	109.40
85	A5	5034	A	C4'-C3'-C2'	-5.31	97.29	102.60
87	A8	113	C	O4'-C1'-N1	5.31	112.45	108.20
17	AV	24	ILE	CB-CA-C	-5.31	100.98	111.60
36	B2	922	A	N9-C1'-C2'	-5.31	106.16	112.00
36	B2	1225	U	O4'-C1'-N1	5.31	112.45	108.20
81	CE	34	ALA	N-CA-CB	5.31	117.53	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	524	C	C3'-C2'-C1'	5.31	105.75	101.50
85	A5	1507	C	C5'-C4'-C3'	5.31	124.50	116.00
85	A5	2034	G	C5'-C4'-C3'	-5.31	107.50	116.00
85	A5	3700	C	O4'-C1'-N1	5.31	112.45	108.20
27	AE	170	THR	O-C-N	5.31	131.19	122.70
36	B2	323	C	C2'-C3'-O3'	5.31	122.20	113.70
85	A5	439	G	C5'-C4'-C3'	5.31	124.50	116.00
85	A5	2638	G	O3'-P-O5'	-5.31	93.91	104.00
86	A7	66	G	N9-C1'-C2'	-5.31	106.16	112.00
36	B2	69	C	O4'-C1'-N1	5.31	112.45	108.20
36	B2	936	G	O4'-C1'-N9	5.31	112.45	108.20
36	B2	1857	G	O4'-C1'-C2'	5.31	112.38	107.60
47	CI	193	ASP	O-C-N	-5.31	114.18	123.20
85	A5	165	A	O4'-C1'-C2'	5.31	112.38	107.60
85	A5	411	G	O4'-C1'-C2'	-5.31	100.49	105.80
85	A5	2298	U	O4'-C1'-N1	5.31	112.45	108.20
85	A5	3913	G	C3'-C2'-C1'	5.31	105.75	101.50
85	A5	4328	G	C1'-O4'-C4'	5.31	114.15	109.90
85	A5	4580	U	P-O3'-C3'	-5.31	113.33	119.70
36	B2	1028	A	C4'-C3'-O3'	-5.31	98.26	109.40
36	B2	1640	A	C3'-C2'-C1'	5.31	105.75	101.50
85	A5	4733	C	O3'-P-O5'	5.31	114.08	104.00
36	B2	109	U	C2'-C3'-O3'	5.30	122.19	113.70
36	B2	988	C	O4'-C1'-N1	-5.30	103.96	108.20
36	B2	1722	G	C5'-C4'-C3'	-5.30	107.51	116.00
37	BC	17	G	C2'-C3'-O3'	-5.30	97.83	109.50
81	CE	36	LYS	O-C-N	5.30	131.18	121.10
85	A5	2073	C	C1'-O4'-C4'	-5.30	105.66	109.90
85	A5	2709	C	O4'-C1'-C2'	-5.30	100.50	105.80
85	A5	4521	U	N1-C1'-C2'	5.30	120.89	114.00
36	B2	1829	G	C5'-C4'-O4'	5.30	115.46	109.10
85	A5	2306	G	C5'-C4'-O4'	5.30	115.46	109.10
85	A5	4593	C	C1'-O4'-C4'	-5.30	105.66	109.90
85	A5	5014	A	C5'-C4'-O4'	5.30	115.46	109.10
1	Az	55	ARG	C-N-CA	5.30	134.95	121.70
18	AY	53	ASP	CB-CG-OD2	5.30	123.07	118.30
36	B2	574	A	N9-C1'-C2'	5.30	120.89	114.00
36	B2	1162	C	O4'-C1'-C2'	-5.30	100.50	105.80
36	B2	1259	A	C5'-C4'-O4'	5.30	115.46	109.10
61	Ch	122	LYS	N-CA-CB	5.30	120.14	110.60
70	Ci	103	LYS	CA-C-O	-5.30	108.97	120.10
85	A5	3799	A	P-O3'-C3'	-5.30	113.34	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	5016	A	C3'-C2'-C1'	-5.30	97.26	101.50
7	AM	132	LYS	CA-C-O	-5.30	108.97	120.10
22	Ac	68	LEU	CA-C-O	-5.30	108.97	120.10
44	CM	139	SER	CA-C-O	-5.30	108.97	120.10
85	A5	2392	C	N1-C1'-C2'	5.30	120.89	114.00
85	A5	2873	U	O4'-C1'-N1	5.30	112.44	108.20
36	B2	665	G	N9-C1'-C2'	5.30	120.89	114.00
85	A5	1599	A	C1'-O4'-C4'	-5.30	105.66	109.90
85	A5	1805	A	C3'-C2'-C1'	-5.30	97.26	101.50
16	AA	209	GLU	CA-C-O	-5.30	108.98	120.10
36	B2	1585	U	O4'-C1'-N1	5.30	112.44	108.20
69	Cg	115	LYS	CA-C-O	-5.30	108.98	120.10
85	A5	2691	U	O3'-P-O5'	5.30	114.06	104.00
85	A5	4080	C	O4'-C1'-C2'	-5.30	100.50	105.80
85	A5	5050	C	N1-C1'-C2'	5.30	120.89	114.00
24	Ae	59	SER	CA-C-O	-5.29	108.98	120.10
32	AW	130	PHE	CA-C-O	-5.29	108.98	120.10
36	B2	449	A	O4'-C1'-N9	5.29	112.44	108.20
36	B2	741	C	P-O3'-C3'	5.29	126.05	119.70
36	B2	1022	U	P-O3'-C3'	5.29	126.05	119.70
36	B2	1361	G	C3'-C2'-C1'	5.29	105.73	101.50
48	CD	297	SER	CA-C-O	-5.29	108.98	120.10
49	CQ	188	ASN	CA-C-O	-5.29	108.98	120.10
68	Cf	19	ARG	NE-CZ-NH2	-5.29	117.65	120.30
83	Cs	63	VAL	CA-C-O	-5.29	108.98	120.10
85	A5	469	C	C1'-O4'-C4'	-5.29	105.67	109.90
85	A5	708	G	O3'-P-O5'	-5.29	93.94	104.00
85	A5	2683	C	O4'-C1'-C2'	-5.29	100.51	105.80
23	AD	193	ASP	C-N-CA	-5.29	99.78	122.00
29	AG	237	LEU	CA-C-O	-5.29	108.99	120.10
31	AH	194	LEU	CA-C-O	-5.29	108.99	120.10
36	B2	658	U	O4'-C1'-N1	5.29	112.43	108.20
52	CS	4	SER	N-CA-C	5.29	125.29	111.00
60	Cr	137	SER	CA-C-O	-5.29	108.99	120.10
72	Ck	70	LYS	CA-C-O	-5.29	108.99	120.10
80	CH	191	ASP	CA-C-O	-5.29	108.99	120.10
85	A5	1250	C	C3'-C2'-C1'	5.29	105.73	101.50
85	A5	1438	U	C5'-C4'-O4'	-5.29	102.75	109.10
85	A5	1729	A	C4'-C3'-C2'	-5.29	97.31	102.60
85	A5	2305	U	O4'-C1'-C2'	-5.29	100.51	105.80
85	A5	2470	C	O4'-C1'-N1	5.29	112.43	108.20
85	A5	4285	U	O4'-C1'-N1	5.29	112.43	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4445	U	C1'-O4'-C4'	-5.29	105.67	109.90
48	CD	220	LYS	CB-CA-C	-5.29	99.82	110.40
59	CZ	136	PHE	CA-C-O	-5.29	108.99	120.10
62	Cb	79	LYS	CA-C-O	-5.29	108.99	120.10
66	Cd	124	GLU	CA-C-O	-5.29	108.99	120.10
85	A5	183	C	C5'-C4'-C3'	5.29	124.46	116.00
85	A5	702	U	P-O5'-C5'	5.29	129.36	120.90
85	A5	1086	C	C3'-C2'-C1'	5.29	105.73	101.50
85	A5	4290	U	N1-C1'-C2'	-5.29	106.18	112.00
11	AL	158	PHE	CA-C-O	-5.29	109.00	120.10
28	AC	278	THR	CA-C-O	-5.29	108.99	120.10
36	B2	1134	G	C5'-C4'-O4'	5.29	115.45	109.10
36	B2	1708	C	C3'-C2'-C1'	5.29	105.73	101.50
38	Cz	217	TYR	CA-C-O	-5.29	109.00	120.10
57	CY	134	LYS	CA-C-O	-5.29	109.00	120.10
75	Cm	128	LYS	CA-C-O	-5.29	109.00	120.10
85	A5	2713	C	P-O5'-C5'	5.29	129.36	120.90
85	A5	3802	U	O4'-C1'-C2'	5.29	112.36	107.60
10	AN	151	ALA	CA-C-O	-5.29	109.00	120.10
33	AI	191	GLU	CB-CA-C	-5.29	99.83	110.40
36	B2	790	C	N1-C1'-C2'	5.29	120.87	114.00
67	Ce	133	GLU	CA-C-O	-5.29	109.00	120.10
85	A5	334	A	N9-C1'-C2'	5.29	120.87	114.00
85	A5	1265	G	P-O5'-C5'	-5.29	112.44	120.90
85	A5	1771	U	N1-C1'-C2'	-5.29	106.18	112.00
1	Az	807	GLN	CA-C-N	-5.29	105.57	117.20
2	Ag	314	ILE	CA-C-O	-5.29	109.00	120.10
23	AD	227	LYS	CA-C-O	-5.29	109.00	120.10
36	B2	733	C	C4'-C3'-C2'	-5.29	97.31	102.60
36	B2	750	C	C4'-C3'-C2'	-5.29	97.31	102.60
36	B2	854	A	P-O3'-C3'	5.29	126.04	119.70
36	B2	1344	A	P-O3'-C3'	5.29	126.04	119.70
36	B2	1457	U	P-O3'-C3'	-5.29	113.36	119.70
39	Cq	284	ALA	CA-C-O	-5.29	109.00	120.10
41	CO	203	VAL	CA-C-O	-5.29	109.00	120.10
54	CP	153	LYS	CA-C-O	-5.29	109.00	120.10
55	CU	126	ASP	CA-C-O	-5.29	109.00	120.10
71	Cj	91	VAL	CA-C-O	-5.29	109.00	120.10
73	Cl	36	ARG	NE-CZ-NH1	5.29	122.94	120.30
76	Cn	25	LYS	CA-C-O	-5.29	109.00	120.10
77	Cp	92	GLN	CA-C-O	-5.29	109.00	120.10
85	A5	119	G	C1'-O4'-C4'	5.29	114.13	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	213	G	C3'-C2'-C1'	-5.29	97.27	101.50
85	A5	2486	G	N9-C1'-C2'	5.29	120.87	114.00
85	A5	3781	C	O4'-C1'-C2'	-5.29	100.52	105.80
85	A5	4452	U	C5'-C4'-C3'	-5.29	107.54	116.00
67	Ce	7	LEU	CA-C-N	5.28	128.82	117.20
74	CC	371	VAL	CA-C-O	-5.28	109.00	120.10
83	Ct	63	VAL	CA-C-O	-5.28	109.00	120.10
84	Cv	56	ALA	CA-C-O	-5.28	109.00	120.10
85	A5	1089	G	O4'-C1'-C2'	5.28	112.36	107.60
85	A5	2490	U	C5'-C4'-C3'	-5.28	107.55	116.00
85	A5	2543	A	P-O3'-C3'	5.28	126.04	119.70
85	A5	4760	G	O4'-C1'-N9	5.28	112.43	108.20
85	A5	4929	C	C1'-O4'-C4'	-5.28	105.67	109.90
86	A7	34	C	P-O3'-C3'	5.28	126.04	119.70
23	AD	93	THR	C-N-CA	5.28	134.91	121.70
30	AF	204	ARG	CA-C-O	-5.28	109.01	120.10
56	CX	37	LYS	C-N-CA	5.28	134.91	121.70
64	CF	248	ASN	CA-C-O	-5.28	109.01	120.10
81	CE	56	ARG	O-C-N	-5.28	114.25	122.70
84	Cu	56	ALA	CA-C-O	-5.28	109.01	120.10
85	A5	2644	G	O4'-C1'-N9	5.28	112.42	108.20
85	A5	4485	C	C5'-C4'-O4'	5.28	115.44	109.10
9	Ad	56	ASP	CA-C-O	-5.28	109.01	120.10
35	Ah	303	LYS	CA-C-O	-5.28	109.01	120.10
36	B2	1098	C	O4'-C1'-N1	5.28	112.42	108.20
47	CI	199	TYR	C-N-CA	5.28	134.90	121.70
56	CX	156	ILE	CA-C-O	-5.28	109.01	120.10
63	CB	398	ALA	CA-C-O	-5.28	109.01	120.10
85	A5	118	C	N1-C1'-C2'	5.28	120.86	114.00
85	A5	405	U	N1-C1'-C2'	-5.28	106.19	112.00
85	A5	720	G	C1'-O4'-C4'	-5.28	105.67	109.90
85	A5	1630	A	C3'-C2'-C1'	5.28	105.72	101.50
85	A5	5059	C	O4'-C4'-C3'	-5.28	98.72	104.00
14	AT	144	LYS	CA-C-O	-5.28	109.01	120.10
16	AA	130	ASP	CB-CG-OD2	5.28	123.05	118.30
47	CI	214	SER	CA-C-O	-5.28	109.02	120.10
55	CU	98	ASP	CB-CG-OD2	5.28	123.05	118.30
85	A5	284	G	O4'-C1'-C2'	5.28	112.35	107.60
85	A5	1979	A	O4'-C1'-C2'	-5.28	100.52	105.80
85	A5	4771	C	C3'-C2'-C1'	5.28	105.72	101.50
6	AX	142	ARG	CA-C-O	-5.28	109.02	120.10
25	Af	152	LYS	CA-C-O	-5.28	109.02	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	Ah	188	ARG	CA-C-O	-5.28	109.02	120.10
50	CR	189	SER	CA-C-O	-5.28	109.02	120.10
52	CS	162	GLN	N-CA-C	-5.28	96.75	111.00
85	A5	1468	C	O4'-C1'-N1	5.28	112.42	108.20
85	A5	1519	C	N1-C1'-C2'	5.28	120.86	114.00
85	A5	1628	C	N1-C1'-C2'	5.28	120.86	114.00
85	A5	2284	G	O4'-C1'-N9	5.28	112.42	108.20
85	A5	3850	C	O4'-C1'-C2'	-5.28	100.52	105.80
87	A8	36	G	P-O5'-C5'	5.28	129.34	120.90
87	A8	114	G	O4'-C1'-C2'	5.28	112.35	107.60
1	Az	409	ARG	CB-CA-C	5.28	120.95	110.40
36	B2	550	C	O4'-C1'-C2'	-5.28	100.52	105.80
36	B2	1423	C	O4'-C1'-N1	5.28	112.42	108.20
37	BC	15	G	O4'-C1'-N9	5.28	112.42	108.20
42	CL	211	LYS	CA-C-O	-5.28	109.02	120.10
51	CA	256	GLU	CA-C-O	-5.28	109.02	120.10
56	CX	101	ASP	CB-CG-OD2	5.28	123.05	118.30
58	CW	124	LYS	CA-C-O	-5.28	109.02	120.10
85	A5	290	U	O3'-P-O5'	-5.28	93.98	104.00
85	A5	2621	A	C5'-C4'-O4'	5.28	115.43	109.10
85	A5	3899	G	C3'-C2'-C1'	5.28	105.72	101.50
21	Ab	84	HIS	CA-C-O	-5.27	109.03	120.10
36	B2	526	A	C1'-O4'-C4'	-5.27	105.68	109.90
36	B2	540	U	N1-C1'-C2'	-5.27	106.20	112.00
60	Cr	91	SER	C-N-CA	-5.27	108.52	121.70
81	CE	288	PHE	CA-C-O	-5.27	109.03	120.10
85	A5	1331	C	C1'-O4'-C4'	-5.27	105.68	109.90
33	AI	133	GLU	CA-C-N	5.27	128.80	117.20
36	B2	1322	G	C1'-O4'-C4'	5.27	114.12	109.90
81	CE	38	LYS	CB-CA-C	-5.27	99.86	110.40
85	A5	1508	A	C1'-O4'-C4'	-5.27	105.68	109.90
85	A5	1948	G	O4'-C1'-C2'	5.27	112.34	107.60
85	A5	2495	U	O4'-C1'-C2'	-5.27	100.53	105.80
85	A5	4337	C	P-O5'-C5'	5.27	129.34	120.90
85	A5	4494	G	O4'-C1'-N9	5.27	112.42	108.20
1	Az	826	ASP	N-CA-C	-5.27	96.77	111.00
36	B2	22	A	C1'-O4'-C4'	5.27	114.12	109.90
36	B2	1825	A	C5'-C4'-O4'	5.27	115.43	109.10
85	A5	666	G	C2'-C3'-O3'	5.27	122.13	113.70
36	B2	1213	C	N1-C1'-C2'	5.27	120.85	114.00
36	B2	1221	G	C3'-C2'-C1'	-5.27	97.28	101.50
36	B2	1826	G	O4'-C1'-N9	5.27	112.42	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Co	106	PHE	CA-C-O	-5.27	109.04	120.10
85	A5	4	G	O4'-C1'-N9	5.27	112.42	108.20
85	A5	2125	C	C5'-C4'-C3'	5.27	124.43	116.00
85	A5	2761	U	C5'-C4'-C3'	5.27	124.43	116.00
85	A5	2866	C	C1'-O4'-C4'	-5.27	105.69	109.90
4	AK	98	ARG	CA-C-O	-5.27	109.04	120.10
27	AE	258	ALA	O-C-N	-5.27	114.27	122.70
30	AF	43	GLU	N-CA-C	-5.27	96.78	111.00
36	B2	210	U	N1-C1'-C2'	5.27	120.85	114.00
36	B2	1233	G	O4'-C1'-N9	5.27	112.41	108.20
36	B2	1284	A	N9-C1'-C2'	5.27	120.85	114.00
36	B2	1640	A	N9-C1'-C2'	-5.27	106.21	112.00
37	BC	4	A	N9-C1'-C2'	-5.27	106.20	112.00
85	A5	522	C	O4'-C1'-N1	5.27	112.41	108.20
85	A5	1534	A	C1'-O4'-C4'	-5.27	105.69	109.90
85	A5	4517	A	P-O3'-C3'	5.27	126.02	119.70
85	A5	4554	G	O4'-C1'-N9	5.27	112.41	108.20
85	A5	4706	G	C3'-C2'-C1'	5.27	105.71	101.50
36	B2	333	G	O4'-C1'-N9	5.27	112.41	108.20
87	A8	42	G	C4'-C3'-C2'	-5.27	97.33	102.60
36	B2	77	A	C5'-C4'-C3'	5.26	124.42	116.00
36	B2	139	C	C3'-C2'-C1'	5.26	105.71	101.50
36	B2	1302	G	C2'-C3'-O3'	-5.26	97.92	109.50
36	B2	1312	G	C3'-C2'-C1'	5.26	105.71	101.50
36	B2	1612	G	C3'-C2'-C1'	-5.26	97.29	101.50
36	B2	1623	A	C1'-O4'-C4'	5.26	114.11	109.90
85	A5	1947	U	O4'-C1'-C2'	-5.26	100.54	105.80
85	A5	2434	G	C1'-O4'-C4'	-5.26	105.69	109.90
85	A5	2718	U	C3'-C2'-C1'	5.26	105.71	101.50
85	A5	3906	A	P-O3'-C3'	5.26	126.02	119.70
85	A5	4594	U	C1'-O4'-C4'	-5.26	105.69	109.90
53	CT	18	PRO	N-CA-C	5.26	125.78	112.10
85	A5	913	U	O4'-C1'-N1	5.26	112.41	108.20
85	A5	3878	C	O4'-C1'-N1	-5.26	103.99	108.20
85	A5	4238	G	C4'-C3'-C2'	-5.26	97.34	102.60
12	AR	94	GLU	N-CA-C	-5.26	96.79	111.00
15	AB	60	ASP	CB-CG-OD2	5.26	123.03	118.30
15	AB	196	ASP	CB-CG-OD2	5.26	123.03	118.30
36	B2	33	G	C5'-C4'-O4'	5.26	115.41	109.10
36	B2	564	A	N9-C1'-C2'	-5.26	106.21	112.00
85	A5	1920	C	O5'-C5'-C4'	5.26	121.69	111.70
85	A5	2066	C	O4'-C1'-N1	5.26	112.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2615	C	C3'-C2'-C1'	5.26	105.71	101.50
85	A5	2856	C	O4'-C1'-N1	5.26	112.41	108.20
85	A5	3620	G	O4'-C1'-N9	5.26	112.41	108.20
85	A5	3974	G	O3'-P-O5'	5.26	114.00	104.00
85	A5	4557	U	O4'-C1'-N1	5.26	112.41	108.20
85	A5	4676	G	O4'-C1'-N9	-5.26	103.99	108.20
85	A5	4991	U	C5'-C4'-C3'	5.26	124.42	116.00
1	Az	542	GLY	N-CA-C	-5.26	99.95	113.10
21	Ab	52	THR	O-C-N	5.26	131.12	122.70
36	B2	306	C	O4'-C1'-N1	5.26	112.41	108.20
36	B2	1276	A	C1'-O4'-C4'	5.26	114.11	109.90
36	B2	1562	C	P-O3'-C3'	5.26	126.01	119.70
46	CN	46	ASP	CB-CG-OD2	5.26	123.03	118.30
85	A5	1720	C	P-O3'-C3'	5.26	126.01	119.70
85	A5	1830	G	C3'-C2'-C1'	-5.26	97.29	101.50
85	A5	1839	U	O4'-C1'-N1	5.26	112.41	108.20
85	A5	1867	A	N9-C1'-C2'	5.26	120.84	114.00
85	A5	3933	G	C1'-O4'-C4'	-5.26	105.69	109.90
15	AB	104	ASP	CB-CG-OD2	5.26	123.03	118.30
36	B2	1327	G	N9-C1'-C2'	5.26	120.84	114.00
37	BC	62	A	N9-C1'-C2'	-5.26	106.22	112.00
42	CL	46	ILE	CA-CB-CG2	-5.26	100.38	110.90
85	A5	744	G	C1'-O4'-C4'	-5.26	105.69	109.90
85	A5	3269	G	O5'-C5'-C4'	-5.26	101.71	111.70
85	A5	5021	C	O4'-C1'-N1	5.26	112.41	108.20
8	AS	110	ASP	CB-CG-OD2	5.26	123.03	118.30
21	Ab	34	ASP	CB-CG-OD2	5.26	123.03	118.30
40	CK	44	ASP	CB-CG-OD1	5.26	123.03	118.30
47	CI	83	ASP	CB-CG-OD2	5.26	123.03	118.30
60	Cr	105	ASP	CB-CG-OD1	-5.26	113.57	118.30
85	A5	186	G	O4'-C1'-C2'	-5.26	100.54	105.80
85	A5	2596	G	C4'-C3'-C2'	-5.26	97.34	102.60
85	A5	3627	G	O4'-C1'-N9	5.26	112.40	108.20
85	A5	4446	U	N1-C1'-C2'	5.26	120.83	114.00
85	A5	1835	G	P-O5'-C5'	-5.25	112.49	120.90
85	A5	2360	A	C5'-C4'-O4'	5.25	115.41	109.10
36	B2	125	C	C5'-C4'-O4'	-5.25	102.80	109.10
36	B2	752	G	O4'-C4'-C3'	-5.25	98.75	104.00
85	A5	495	C	P-O3'-C3'	-5.25	113.40	119.70
85	A5	1221	G	N9-C1'-C2'	-5.25	106.22	112.00
85	A5	3824	A	O4'-C1'-C2'	-5.25	100.55	105.80
36	B2	1335	G	N9-C1'-C2'	5.25	120.83	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1427	C	C3'-C2'-C1'	5.25	105.70	101.50
85	A5	4193	C	N1-C1'-C2'	5.25	120.83	114.00
85	A5	4696	C	C1'-O4'-C4'	-5.25	105.70	109.90
36	B2	315	C	P-O5'-C5'	-5.25	112.50	120.90
37	BC	65	C	N1-C1'-C2'	5.25	120.82	114.00
85	A5	243	A	C1'-O4'-C4'	-5.25	105.70	109.90
85	A5	417	G	O5'-C5'-C4'	-5.25	101.72	111.70
85	A5	4473	A	O4'-C1'-N9	5.25	112.40	108.20
36	B2	787	G	O3'-P-O5'	5.25	113.97	104.00
44	CM	108	ASP	CB-CG-OD2	5.25	123.02	118.30
61	Ch	84	ARG	C-N-CD	-5.25	109.05	120.60
85	A5	136	C	P-O5'-C5'	5.25	129.30	120.90
85	A5	737	C	C1'-O4'-C4'	-5.25	105.70	109.90
85	A5	4044	U	C5'-C4'-O4'	5.25	115.40	109.10
85	A5	4130	C	P-O5'-C5'	-5.25	112.50	120.90
85	A5	4296	U	P-O5'-C5'	5.25	129.30	120.90
1	Az	102	LEU	N-CA-C	-5.25	96.83	111.00
26	AJ	26	ASP	CB-CG-OD2	5.25	123.02	118.30
36	B2	120	U	C3'-C2'-C1'	5.25	105.70	101.50
36	B2	1563	G	O4'-C1'-C2'	5.25	112.32	107.60
58	CW	72	THR	N-CA-C	5.25	125.16	111.00
85	A5	366	A	O4'-C1'-C2'	-5.25	100.55	105.80
85	A5	1044	G	P-O5'-C5'	-5.25	112.51	120.90
85	A5	2363	A	O4'-C1'-N9	5.25	112.40	108.20
85	A5	4445	U	C3'-C2'-C1'	-5.25	97.30	101.50
10	AN	108	ASP	CB-CG-OD2	5.25	123.02	118.30
27	AE	88	ASP	CB-CG-OD2	5.25	123.02	118.30
36	B2	691	G	C5'-C4'-O4'	5.25	115.39	109.10
48	CD	268	ARG	CA-CB-CG	-5.25	101.86	113.40
85	A5	1550	G	C5'-C4'-O4'	5.25	115.39	109.10
85	A5	2464	C	P-O3'-C3'	5.25	125.99	119.70
6	AX	114	ASP	CB-CG-OD2	5.24	123.02	118.30
8	AS	81	ASP	CB-CG-OD2	5.24	123.02	118.30
36	B2	915	G	C3'-C2'-C1'	-5.24	97.30	101.50
47	CI	198	LYS	CA-C-N	-5.24	105.66	117.20
85	A5	1976	G	O4'-C1'-N9	5.24	112.39	108.20
85	A5	2833	A	O4'-C1'-N9	5.24	112.39	108.20
85	A5	4154	G	C1'-O4'-C4'	-5.24	105.70	109.90
85	A5	4285	U	P-O3'-C3'	5.24	125.99	119.70
85	A5	4924	C	C1'-O4'-C4'	-5.24	105.71	109.90
85	A5	4993	G	C3'-C2'-C1'	-5.24	97.31	101.50
1	Az	123	ASP	C-N-CA	5.24	133.31	122.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	AE	21	ASP	CB-CG-OD2	5.24	123.02	118.30
36	B2	84	A	C5'-C4'-O4'	5.24	115.39	109.10
36	B2	1656	G	C3'-C2'-C1'	-5.24	97.31	101.50
85	A5	340	C	C3'-C2'-C1'	5.24	105.69	101.50
85	A5	2296	G	O4'-C1'-N9	5.24	112.39	108.20
85	A5	4126	C	O4'-C1'-C2'	-5.24	100.56	105.80
27	AE	163	ASP	CB-CG-OD2	5.24	123.02	118.30
36	B2	139	C	O4'-C1'-N1	5.24	112.39	108.20
36	B2	905	C	O4'-C1'-N1	5.24	112.39	108.20
36	B2	910	G	C3'-C2'-C1'	-5.24	97.31	101.50
36	B2	920	A	P-O3'-C3'	5.24	125.99	119.70
43	CV	30	ASP	CB-CG-OD2	5.24	123.02	118.30
60	Cr	108	MET	CB-CG-SD	5.24	128.12	112.40
74	CC	154	VAL	O-C-N	-5.24	114.31	122.70
85	A5	635	G	C3'-C2'-C1'	-5.24	97.31	101.50
85	A5	1298	C	O4'-C1'-N1	5.24	112.39	108.20
85	A5	5070	C	C3'-C2'-C1'	5.24	105.69	101.50
87	A8	54	C	P-O3'-C3'	5.24	125.99	119.70
87	A8	156	U	N1-C1'-C2'	5.24	120.81	114.00
36	B2	1082	A	O4'-C1'-C2'	-5.24	100.56	105.80
36	B2	1634	A	O4'-C1'-N9	5.24	112.39	108.20
85	A5	369	G	C4'-C3'-C2'	-5.24	97.36	102.60
85	A5	1739	G	C1'-O4'-C4'	-5.24	105.71	109.90
85	A5	4767	C	P-O3'-C3'	5.24	125.99	119.70
85	A5	4888	U	C1'-O4'-C4'	5.24	114.09	109.90
86	A7	1	G	P-O3'-C3'	-5.24	113.42	119.70
13	AP	82	ASP	CB-CG-OD2	5.24	123.01	118.30
36	B2	342	C	O4'-C1'-C2'	-5.24	100.56	105.80
36	B2	609	U	O4'-C1'-C2'	-5.24	100.56	105.80
42	CL	136	LYS	C-N-CA	-5.24	111.30	122.30
48	CD	59	ASP	CB-CG-OD2	5.24	123.01	118.30
85	A5	2634	C	C3'-C2'-C1'	5.24	105.69	101.50
85	A5	2738	C	O4'-C1'-N1	5.24	112.39	108.20
85	A5	4211	C	N1-C1'-C2'	5.24	120.81	114.00
85	A5	4387	C	O4'-C1'-N1	5.24	112.39	108.20
85	A5	5002	U	C5'-C4'-C3'	-5.24	107.62	116.00
26	AJ	137	VAL	C-N-CA	5.24	134.79	121.70
29	AG	39	ASP	CB-CG-OD2	5.24	123.01	118.30
31	AH	118	ARG	CB-CA-C	-5.24	99.93	110.40
36	B2	356	C	C3'-C2'-C1'	-5.24	97.31	101.50
36	B2	975	G	O4'-C4'-C3'	-5.24	98.77	104.00
36	B2	1025	U	C1'-O4'-C4'	5.24	114.09	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1789	C	N1-C1'-C2'	5.24	120.81	114.00
85	A5	2035	C	N1-C1'-C2'	5.24	120.81	114.00
85	A5	2504	C	O4'-C1'-N1	5.24	112.39	108.20
15	AB	32	ASP	CB-CG-OD2	5.23	123.01	118.30
36	B2	204	G	C1'-O4'-C4'	5.23	114.09	109.90
36	B2	1352	G	N9-C1'-C2'	5.23	120.80	114.00
36	B2	1544	C	O4'-C1'-C2'	-5.23	100.57	105.80
48	CD	184	ASP	CB-CG-OD2	5.23	123.01	118.30
65	Cc	27	TYR	CB-CG-CD2	-5.23	117.86	121.00
85	A5	2055	G	C1'-O4'-C4'	5.23	114.09	109.90
85	A5	4729	A	C3'-C2'-C1'	5.23	105.69	101.50
85	A5	4746	C	O4'-C1'-N1	5.23	112.39	108.20
15	AB	90	ASP	CB-CG-OD2	5.23	123.01	118.30
26	AJ	152	ASP	CB-CG-OD2	5.23	123.01	118.30
29	AG	103	ASP	CB-CG-OD2	5.23	123.01	118.30
36	B2	1567	G	O4'-C4'-C3'	-5.23	98.77	104.00
79	CJ	171	ASP	CB-CG-OD2	5.23	123.01	118.30
85	A5	1588	U	C3'-C2'-C1'	5.23	105.69	101.50
85	A5	3771	C	C5'-C4'-O4'	5.23	115.38	109.10
10	AN	32	ASP	CB-CG-OD2	5.23	123.01	118.30
10	AN	87	ASP	CB-CG-OD2	5.23	123.01	118.30
15	AB	108	ASP	CB-CG-OD2	5.23	123.01	118.30
16	AA	14	ASP	CB-CG-OD2	5.23	123.01	118.30
36	B2	84	A	P-O5'-C5'	-5.23	112.53	120.90
51	CA	33	ASP	CB-CG-OD2	5.23	123.01	118.30
78	Co	42	ASP	CB-CG-OD2	5.23	123.01	118.30
85	A5	2128	G	P-O5'-C5'	5.23	129.27	120.90
87	A8	6	C	O4'-C1'-C2'	-5.23	100.57	105.80
16	AA	53	ARG	N-CA-CB	-5.23	101.19	110.60
47	CI	183	ASP	CB-CG-OD2	5.23	123.01	118.30
85	A5	1336	G	P-O3'-C3'	5.23	125.97	119.70
85	A5	3597	G	C3'-C2'-C1'	-5.23	97.32	101.50
35	Ah	291	ASP	CB-CG-OD2	5.23	123.00	118.30
36	B2	1041	G	N9-C1'-C2'	5.23	120.80	114.00
36	B2	1052	A	C3'-C2'-C1'	5.23	105.68	101.50
38	Cz	26	ARG	CG-CD-NE	5.23	122.78	111.80
39	Cq	72	ASN	C-N-CD	-5.23	109.10	120.60
41	CO	113	ASP	CB-CG-OD2	5.23	123.00	118.30
44	CM	29	ASP	CB-CG-OD2	5.23	123.00	118.30
85	A5	252	C	O4'-C1'-N1	5.23	112.38	108.20
85	A5	364	G	C5'-C4'-C3'	-5.23	107.64	116.00
85	A5	1324	A	C1'-O4'-C4'	5.23	114.08	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	1445	U	C4'-C3'-C2'	-5.23	97.37	102.60
85	A5	2544	G	C3'-C2'-C1'	-5.23	97.32	101.50
85	A5	2648	G	O5'-C5'-C4'	5.23	121.63	111.70
85	A5	4881	U	O4'-C1'-N1	5.23	112.38	108.20
87	A8	22	U	O4'-C1'-N1	5.23	112.38	108.20
36	B2	280	G	OP1-P-O3'	5.23	116.70	105.20
36	B2	388	U	N1-C1'-C2'	5.23	120.79	114.00
47	CI	193	ASP	CB-CG-OD2	5.23	123.00	118.30
56	CX	92	ASP	CB-CG-OD2	5.23	123.00	118.30
68	Cf	80	ASN	N-CA-CB	-5.23	101.19	110.60
79	CJ	120	ASP	CB-CG-OD2	5.23	123.00	118.30
85	A5	220	C	C5'-C4'-C3'	-5.23	107.64	116.00
85	A5	3692	A	N9-C1'-C2'	-5.23	106.25	112.00
18	AY	80	ASP	CB-CG-OD2	5.22	123.00	118.30
44	CM	81	ASP	CB-CG-OD2	5.22	123.00	118.30
85	A5	223	G	C5'-C4'-O4'	5.22	115.37	109.10
85	A5	707	C	C1'-O4'-C4'	-5.22	105.72	109.90
85	A5	1290	G	O4'-C1'-N9	5.22	112.38	108.20
85	A5	2471	G	P-O3'-C3'	5.22	125.97	119.70
85	A5	3607	U	C1'-O4'-C4'	-5.22	105.72	109.90
85	A5	4270	C	O4'-C1'-N1	5.22	112.38	108.20
85	A5	4918	C	O4'-C1'-N1	5.22	112.38	108.20
36	B2	178	C	N1-C1'-C2'	5.22	120.79	114.00
55	CU	120	ASP	CB-CG-OD2	5.22	123.00	118.30
85	A5	1163	G	N9-C1'-C2'	5.22	120.79	114.00
85	A5	2622	G	O4'-C1'-C2'	-5.22	100.58	105.80
85	A5	3803	A	N9-C1'-C2'	-5.22	106.25	112.00
5	AO	39	ASP	CB-CG-OD2	5.22	123.00	118.30
39	Cq	271	ASP	CB-CG-OD2	5.22	123.00	118.30
85	A5	2303	C	C5'-C4'-C3'	-5.22	107.65	116.00
84	Cv	22	ASP	CB-CG-OD2	5.22	123.00	118.30
85	A5	1665	C	C1'-O4'-C4'	-5.22	105.72	109.90
85	A5	2898	G	C3'-C2'-C1'	-5.22	97.33	101.50
85	A5	3909	C	P-O3'-C3'	5.22	125.96	119.70
85	A5	4365	C	N1-C1'-C2'	5.22	120.79	114.00
6	AX	19	ASP	CB-CG-OD2	5.22	123.00	118.30
31	AH	56	GLY	N-CA-C	5.22	126.15	113.10
36	B2	22	A	O4'-C1'-C2'	-5.22	100.58	105.80
36	B2	1742	C	N1-C1'-C2'	5.22	120.78	114.00
37	BC	54	U	O4'-C1'-C2'	-5.22	100.58	105.80
85	A5	2047	A	C5'-C4'-O4'	5.22	115.36	109.10
85	A5	2543	A	O4'-C1'-N9	5.22	112.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4729	A	N9-C1'-C2'	5.22	120.78	114.00
87	A8	95	A	C4'-C3'-O3'	-5.22	98.44	109.40
1	Az	47	ALA	O-C-N	5.22	131.05	122.70
5	AO	80	ASP	CB-CG-OD2	5.22	123.00	118.30
26	AJ	124	HIS	N-CA-C	-5.22	96.91	111.00
36	B2	746	C	O4'-C1'-N1	5.22	112.37	108.20
36	B2	1700	C	O4'-C1'-N1	5.22	112.37	108.20
85	A5	704	C	C5'-C4'-C3'	-5.22	107.65	116.00
11	AL	24	LEU	C-N-CA	5.21	134.74	121.70
17	AV	28	ASP	CB-CG-OD2	5.21	122.99	118.30
19	AZ	52	LYS	N-CA-C	-5.21	96.92	111.00
26	AJ	95	ASP	CB-CG-OD2	5.21	122.99	118.30
41	CO	10	ASP	CB-CG-OD2	5.21	122.99	118.30
49	CQ	140	SER	N-CA-C	-5.21	96.92	111.00
82	CG	228	ASP	CB-CG-OD2	5.21	122.99	118.30
84	Cv	53	ASP	CB-CG-OD2	5.21	122.99	118.30
85	A5	305	A	O4'-C1'-C2'	-5.21	100.58	105.80
85	A5	1856	C	O4'-C1'-C2'	-5.21	100.59	105.80
85	A5	2895	A	C5'-C4'-O4'	5.21	115.36	109.10
86	A7	80	U	N1-C1'-C2'	5.21	120.78	114.00
36	B2	109	U	P-O3'-C3'	-5.21	113.44	119.70
51	CA	65	ASP	CB-CG-OD2	5.21	122.99	118.30
55	CU	24	ASP	CB-CG-OD2	5.21	122.99	118.30
74	CC	265	GLY	C-N-CA	-5.21	108.67	121.70
85	A5	1229	C	P-O3'-C3'	5.21	125.96	119.70
85	A5	4343	U	C5'-C4'-C3'	-5.21	107.66	116.00
10	AN	110	ASP	CB-CG-OD2	5.21	122.99	118.30
27	AE	158	ASP	CB-CG-OD2	5.21	122.99	118.30
36	B2	787	G	O4'-C1'-C2'	-5.21	100.59	105.80
36	B2	1023	A	O4'-C1'-N9	5.21	112.37	108.20
36	B2	1486	A	O5'-C5'-C4'	-5.21	101.80	111.70
36	B2	1565	C	O4'-C1'-N1	5.21	112.37	108.20
40	CK	45	ASP	CB-CG-OD2	5.21	122.99	118.30
40	CK	52	ASP	CB-CG-OD2	5.21	122.99	118.30
46	CN	17	ASP	CB-CG-OD2	5.21	122.99	118.30
48	CD	116	ASP	CB-CG-OD2	5.21	122.99	118.30
56	CX	148	ASP	CB-CG-OD2	5.21	122.99	118.30
84	Cv	36	ASP	CB-CG-OD2	5.21	122.99	118.30
85	A5	2351	C	C1'-O4'-C4'	-5.21	105.73	109.90
85	A5	3870	C	C1'-O4'-C4'	-5.21	105.73	109.90
85	A5	4379	A	P-O3'-C3'	5.21	125.95	119.70
85	A5	4651	A	C4'-C3'-C2'	-5.21	97.39	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4886	C	N1-C1'-C2'	5.21	120.77	114.00
85	A5	4903	G	O4'-C1'-N9	5.21	112.37	108.20
85	A5	5038	A	N9-C1'-C2'	-5.21	106.27	112.00
27	AE	253	ASP	CB-CG-OD2	5.21	122.99	118.30
36	B2	165	G	N9-C1'-C2'	-5.21	106.27	112.00
85	A5	1940	G	P-O3'-C3'	-5.21	113.45	119.70
36	B2	620	G	O4'-C1'-C2'	-5.21	100.59	105.80
36	B2	1330	G	O4'-C1'-C2'	5.21	112.29	107.60
36	B2	1332	A	C4'-C3'-C2'	-5.21	97.39	102.60
39	Cq	205	ASP	CB-CG-OD2	5.21	122.99	118.30
49	CQ	88	ASP	CB-CG-OD2	5.21	122.99	118.30
67	Ce	2	ALA	C-N-CA	-5.21	108.68	121.70
84	Cv	28	ASP	CB-CG-OD2	5.21	122.99	118.30
85	A5	1396	G	N9-C1'-C2'	5.21	120.77	114.00
85	A5	2332	A	P-O3'-C3'	5.21	125.95	119.70
85	A5	3788	C	C3'-C2'-C1'	5.21	105.67	101.50
85	A5	4443	C	C5'-C4'-O4'	5.21	115.35	109.10
5	AO	67	ASP	CB-CG-OD2	5.21	122.99	118.30
19	AZ	51	ASP	CB-CG-OD2	5.21	122.99	118.30
36	B2	78	C	C1'-O4'-C4'	-5.21	105.73	109.90
36	B2	1864	U	C5'-C4'-O4'	5.21	115.35	109.10
45	Ca	102	ASP	CB-CG-OD2	5.21	122.99	118.30
48	CD	72	ASP	CB-CG-OD2	5.21	122.98	118.30
84	Cu	28	ASP	CB-CG-OD2	5.21	122.98	118.30
84	Cu	53	ASP	CB-CG-OD2	5.21	122.99	118.30
84	Cv	35	ASP	CB-CG-OD2	5.21	122.99	118.30
85	A5	317	A	C3'-C2'-C1'	5.21	105.67	101.50
85	A5	1998	A	O4'-C4'-C3'	-5.21	98.79	104.00
25	Af	137	ASP	CB-CG-OD2	5.21	122.98	118.30
36	B2	469	A	C1'-O4'-C4'	5.21	114.06	109.90
36	B2	1266	C	C1'-O4'-C4'	-5.21	105.74	109.90
48	CD	217	ASP	CB-CG-OD2	5.21	122.98	118.30
58	CW	73	ARG	CA-C-N	-5.21	105.75	117.20
81	CE	31	ASN	CB-CA-C	5.21	120.81	110.40
85	A5	2005	G	O3'-P-O5'	-5.21	94.11	104.00
85	A5	4354	U	O4'-C1'-C2'	5.21	112.28	107.60
36	B2	1141	G	P-O5'-C5'	5.20	129.23	120.90
36	B2	1306	U	O4'-C1'-N1	5.20	112.36	108.20
36	B2	1759	G	C1'-O4'-C4'	-5.20	105.74	109.90
36	B2	1868	U	O4'-C1'-N1	5.20	112.36	108.20
40	CK	107	ASP	CB-CG-OD2	5.20	122.98	118.30
48	CD	29	ASP	CB-CG-OD2	5.20	122.98	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	CX	60	TYR	N-CA-C	-5.20	96.95	111.00
74	CC	307	LYS	N-CA-C	5.20	125.05	111.00
80	CH	17	ASP	CB-CG-OD2	5.20	122.98	118.30
80	CH	171	ASP	CB-CG-OD2	5.20	122.98	118.30
81	CE	117	PRO	C-N-CA	-5.20	108.69	121.70
85	A5	1078	A	O4'-C1'-C2'	-5.20	100.60	105.80
85	A5	1583	A	O4'-C1'-N9	5.20	112.36	108.20
85	A5	3653	A	C1'-O4'-C4'	5.20	114.06	109.90
86	A7	48	G	O3'-P-O5'	-5.20	94.11	104.00
87	A8	55	U	C3'-C2'-C1'	-5.20	97.34	101.50
12	AR	101	ASP	CB-CG-OD2	5.20	122.98	118.30
36	B2	1312	G	N9-C1'-C2'	5.20	120.76	114.00
56	CX	60	TYR	C-N-CD	-5.20	109.16	120.60
58	CW	82	ILE	N-CA-CB	-5.20	98.84	110.80
58	CW	89	ASP	CB-CG-OD2	5.20	122.98	118.30
85	A5	223	G	O4'-C1'-N9	5.20	112.36	108.20
3	AU	38	ASP	CB-CG-OD2	5.20	122.98	118.30
34	AQ	67	ASP	CB-CG-OD2	5.20	122.98	118.30
36	B2	190	G	O5'-C5'-C4'	5.20	121.58	111.70
85	A5	168	C	O4'-C1'-N1	5.20	112.36	108.20
85	A5	1237	C	C5'-C4'-C3'	5.20	124.32	116.00
85	A5	1410	U	C2'-C3'-O3'	5.20	122.02	113.70
85	A5	1878	G	N9-C1'-C2'	5.20	120.76	114.00
85	A5	1898	C	C1'-O4'-C4'	5.20	114.06	109.90
85	A5	4210	U	C3'-C2'-C1'	5.20	105.66	101.50
87	A8	74	U	P-O3'-C3'	-5.20	113.46	119.70
13	AP	21	ASP	CB-CG-OD2	5.20	122.98	118.30
13	AP	27	ASP	CB-CG-OD2	5.20	122.98	118.30
22	Ac	36	ASP	CB-CG-OD2	5.20	122.98	118.30
36	B2	1401	A	N9-C1'-C2'	-5.20	106.28	112.00
36	B2	1839	U	C5'-C4'-O4'	5.20	115.34	109.10
39	Cq	157	ASP	CB-CG-OD2	5.20	122.98	118.30
39	Cq	194	ASP	CB-CG-OD2	5.20	122.98	118.30
85	A5	380	U	O4'-C1'-C2'	-5.20	100.60	105.80
85	A5	1370	G	C5'-C4'-O4'	5.20	115.34	109.10
85	A5	4440	G	O4'-C1'-N9	5.20	112.36	108.20
85	A5	4572	U	C1'-O4'-C4'	-5.20	105.74	109.90
82	CG	41	ILE	N-CA-C	5.20	125.03	111.00
82	CG	260	GLU	O-C-N	-5.20	114.39	122.70
85	A5	390	C	C1'-O4'-C4'	-5.20	105.74	109.90
85	A5	1939	A	C1'-O4'-C4'	5.20	114.06	109.90
85	A5	1987	C	O4'-C1'-C2'	-5.20	100.60	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2662	G	O4'-C1'-C2'	5.20	112.28	107.60
85	A5	2699	C	O4'-C1'-N1	5.20	112.36	108.20
16	AA	53	ARG	CB-CG-CD	-5.20	98.09	111.60
32	AW	54	ASP	CB-CG-OD2	5.20	122.98	118.30
36	B2	1271	C	N1-C1'-C2'	5.20	120.75	114.00
47	CI	168	SER	C-N-CA	-5.20	108.71	121.70
49	CQ	124	ASP	CB-CG-OD2	5.20	122.98	118.30
85	A5	1210	C	C3'-C2'-C1'	5.20	105.66	101.50
87	A8	92	U	N1-C1'-C2'	5.20	120.75	114.00
36	B2	544	G	O4'-C1'-C2'	-5.19	100.61	105.80
36	B2	1165	G	C5'-C4'-O4'	5.19	115.33	109.10
64	CF	224	THR	CA-CB-CG2	-5.19	105.13	112.40
83	Ct	18	ASP	CB-CG-OD2	5.19	122.97	118.30
85	A5	510	U	C3'-C2'-C1'	5.19	105.66	101.50
85	A5	4946	U	C5'-C4'-C3'	-5.19	107.69	116.00
5	AO	46	ASP	CB-CG-OD2	5.19	122.97	118.30
17	AV	4	ASP	CB-CG-OD2	5.19	122.97	118.30
20	Aa	52	ASP	CB-CG-OD2	5.19	122.97	118.30
26	AJ	158	ASP	CB-CG-OD2	5.19	122.97	118.30
36	B2	899	U	C3'-C2'-C1'	5.19	105.66	101.50
36	B2	1494	U	C3'-C2'-C1'	-5.19	97.35	101.50
39	Cq	45	MET	CB-CA-C	5.19	120.78	110.40
40	CK	154	ASP	CB-CG-OD2	5.19	122.97	118.30
47	CI	207	ASP	CB-CG-OD2	5.19	122.97	118.30
48	CD	215	ASP	CB-CG-OD2	5.19	122.97	118.30
83	Cs	26	ASP	CB-CG-OD2	5.19	122.97	118.30
85	A5	1775	A	N9-C1'-C2'	5.19	120.75	114.00
1	Az	448	GLN	CB-CA-C	-5.19	100.02	110.40
8	AS	62	ASP	CB-CG-OD2	5.19	122.97	118.30
36	B2	392	A	C5'-C4'-O4'	5.19	115.33	109.10
48	CD	234	ASP	CB-CG-OD2	5.19	122.97	118.30
75	Cm	92	ASP	CB-CG-OD2	5.19	122.97	118.30
83	Cs	19	ASP	CB-CG-OD2	5.19	122.97	118.30
84	Cu	37	ASP	CB-CG-OD2	5.19	122.97	118.30
85	A5	189	G	O4'-C1'-N9	5.19	112.35	108.20
85	A5	2887	U	C1'-O4'-C4'	5.19	114.05	109.90
85	A5	2930	G	C4'-C3'-O3'	5.19	123.38	113.00
85	A5	4074	C	O4'-C1'-N1	5.19	112.35	108.20
86	A7	17	C	O4'-C1'-N1	5.19	112.35	108.20
29	AG	57	ASP	CB-CG-OD2	5.19	122.97	118.30
36	B2	32	U	C5'-C4'-O4'	5.19	115.33	109.10
39	Cq	165	ASP	CB-CG-OD2	5.19	122.97	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	CK	150	ASP	CB-CG-OD2	5.19	122.97	118.30
42	CL	99	ASP	CB-CG-OD2	5.19	122.97	118.30
85	A5	964	A	C1'-O4'-C4'	5.19	114.05	109.90
5	AO	131	ASP	CB-CG-OD2	5.19	122.97	118.30
8	AS	104	ASP	CB-CG-OD2	5.19	122.97	118.30
9	Ad	49	ASP	CB-CG-OD2	5.19	122.97	118.30
18	AY	3	ASP	CB-CG-OD2	5.19	122.97	118.30
36	B2	327	G	C5'-C4'-O4'	5.19	115.32	109.10
36	B2	1412	C	O5'-P-OP1	5.19	116.92	110.70
36	B2	1573	G	C4'-C3'-C2'	-5.19	97.41	102.60
48	CD	57	ASN	CA-C-N	-5.19	105.79	117.20
48	CD	168	ASP	CB-CG-OD2	5.19	122.97	118.30
48	CD	278	ASP	CB-CG-OD2	5.19	122.97	118.30
51	CA	51	ASP	CB-CG-OD2	5.19	122.97	118.30
85	A5	1469	C	C3'-C2'-C1'	5.19	105.65	101.50
85	A5	4363	A	O4'-C1'-C2'	-5.19	100.61	105.80
85	A5	4565	C	O4'-C4'-C3'	-5.19	98.81	104.00
48	CD	206	ASP	CB-CG-OD2	5.19	122.97	118.30
85	A5	1977	C	O4'-C1'-N1	5.19	112.35	108.20
86	A7	101	A	O4'-C1'-C2'	5.19	112.27	107.60
10	AN	83	ASP	CB-CG-OD2	5.18	122.97	118.30
12	AR	110	ASP	CB-CG-OD2	5.18	122.97	118.30
16	AA	126	ASP	CB-CG-OD2	5.18	122.97	118.30
17	AV	66	ASP	CB-CG-OD2	5.18	122.97	118.30
35	Ah	183	ASP	CB-CG-OD2	5.18	122.97	118.30
36	B2	1420	G	O4'-C1'-C2'	5.18	112.27	107.60
36	B2	1650	A	O4'-C1'-C2'	-5.18	100.62	105.80
49	CQ	89	ASP	CB-CG-OD2	5.18	122.97	118.30
78	Co	96	ASP	CB-CG-OD2	5.18	122.97	118.30
85	A5	486	C	C1'-O4'-C4'	-5.18	105.75	109.90
85	A5	1421	G	N9-C1'-C2'	-5.18	106.30	112.00
85	A5	1740	C	C1'-O4'-C4'	5.18	114.05	109.90
85	A5	4356	G	O4'-C1'-N9	5.18	112.35	108.20
85	A5	4447	C	O4'-C1'-C2'	-5.18	100.62	105.80
27	AE	73	ASP	CB-CG-OD2	5.18	122.96	118.30
36	B2	733	C	O4'-C1'-N1	5.18	112.35	108.20
36	B2	1549	U	N1-C1'-C2'	5.18	120.74	114.00
43	CV	127	ASP	CB-CG-OD2	5.18	122.96	118.30
80	CH	58	ASP	CB-CG-OD2	5.18	122.96	118.30
85	A5	2567	G	O4'-C1'-N9	5.18	112.34	108.20
86	A7	93	G	C5'-C4'-O4'	5.18	115.32	109.10
26	AJ	104	ASP	CB-CG-OD2	5.18	122.96	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	25	A	O4'-C1'-N9	5.18	112.34	108.20
10	AN	133	ARG	NE-CZ-NH1	5.18	122.89	120.30
61	Ch	5	LYS	CA-C-N	5.18	128.59	117.20
62	Cb	44	ARG	NE-CZ-NH2	-5.18	117.71	120.30
81	CE	39	LYS	C-N-CA	5.18	133.18	122.30
85	A5	334	A	O4'-C1'-N9	5.18	112.34	108.20
85	A5	2930	G	P-O3'-C3'	-5.18	113.48	119.70
85	A5	5006	U	O4'-C1'-N1	5.18	112.34	108.20
43	CV	59	ASP	CB-CG-OD2	5.18	122.96	118.30
60	Cr	77	TYR	CB-CG-CD2	5.18	124.11	121.00
84	Cu	22	ASP	CB-CG-OD2	5.18	122.96	118.30
85	A5	2119	C	P-O5'-C5'	5.18	129.18	120.90
85	A5	4232	U	O4'-C1'-N1	5.18	112.34	108.20
10	AN	31	ASP	CB-CG-OD2	5.18	122.96	118.30
25	Af	124	ASP	CB-CG-OD2	5.18	122.96	118.30
29	AG	151	ASP	CB-CG-OD2	5.18	122.96	118.30
32	AW	80	ASP	CB-CG-OD2	5.18	122.96	118.30
36	B2	1094	C	N1-C1'-C2'	5.18	120.73	114.00
36	B2	1284	A	C5'-C4'-C3'	-5.18	107.72	116.00
48	CD	147	ASP	CB-CG-OD2	5.18	122.96	118.30
55	CU	76	VAL	C-N-CD	-5.18	109.21	120.60
80	CH	142	ASP	CB-CG-OD2	5.18	122.96	118.30
85	A5	1771	U	C1'-O4'-C4'	5.18	114.04	109.90
85	A5	2077	C	O4'-C1'-C2'	-5.18	100.62	105.80
85	A5	3788	C	O4'-C1'-N1	5.18	112.34	108.20
21	Ab	3	LEU	CB-CG-CD2	5.17	119.80	111.00
35	Ah	300	ASP	CB-CG-OD2	5.17	122.96	118.30
36	B2	1431	G	N9-C1'-C2'	5.17	120.73	114.00
49	CQ	9	LYS	N-CA-C	5.17	124.97	111.00
74	CC	155	GLU	CA-CB-CG	5.17	124.78	113.40
79	CJ	114	ASP	CB-CG-OD2	5.17	122.96	118.30
81	CE	35	LYS	C-N-CA	5.17	134.64	121.70
85	A5	4976	U	O4'-C1'-N1	5.17	112.34	108.20
85	A5	5016	A	P-O3'-C3'	5.17	125.91	119.70
3	AU	90	ASP	CB-CG-OD2	5.17	122.96	118.30
11	AL	18	GLN	C-N-CA	-5.17	108.77	121.70
32	AW	9	ASP	CB-CG-OD2	5.17	122.96	118.30
36	B2	1688	C	C5'-C4'-O4'	5.17	115.31	109.10
51	CA	176	ASP	CB-CG-OD2	5.17	122.96	118.30
79	CJ	101	ASP	CB-CG-OD2	5.17	122.96	118.30
85	A5	969	C	C1'-O4'-C4'	5.17	114.04	109.90
85	A5	3666	C	C1'-O4'-C4'	5.17	114.04	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	927	C	C3'-C2'-C1'	5.17	105.64	101.50
79	CJ	143	ASP	CB-CG-OD2	5.17	122.95	118.30
84	Cu	36	ASP	CB-CG-OD2	5.17	122.95	118.30
85	A5	2523	G	O4'-C1'-C2'	5.17	112.25	107.60
85	A5	2579	G	N9-C1'-C2'	-5.17	106.31	112.00
40	CK	144	ASP	CB-CG-OD2	5.17	122.95	118.30
48	CD	128	ASP	CB-CG-OD2	5.17	122.95	118.30
85	A5	377	A	C4'-C3'-O3'	5.17	123.34	113.00
85	A5	3821	A	C1'-O4'-C4'	5.17	114.04	109.90
1	Az	794	PHE	N-CA-C	-5.17	97.04	111.00
36	B2	13	C	C3'-C2'-C1'	5.17	105.63	101.50
36	B2	1082	A	C1'-O4'-C4'	5.17	114.04	109.90
36	B2	1747	C	C5'-C4'-C3'	5.17	124.27	116.00
45	Ca	76	ASP	CB-CG-OD2	5.17	122.95	118.30
46	CN	136	ASP	CB-CG-OD2	5.17	122.95	118.30
47	CI	55	ASP	CB-CG-OD2	5.17	122.95	118.30
53	CT	103	ASP	CB-CG-OD2	5.17	122.95	118.30
53	CT	127	GLN	CB-CA-C	-5.17	100.06	110.40
60	Cr	104	PRO	CA-C-N	-5.17	105.83	117.20
61	Ch	22	ASP	CB-CG-OD2	5.17	122.95	118.30
85	A5	1667	G	C3'-C2'-C1'	5.17	105.63	101.50
85	A5	2085	G	C3'-C2'-C1'	-5.17	97.36	101.50
85	A5	2098	G	O4'-C1'-N9	5.17	112.33	108.20
85	A5	2735	G	P-O5'-C5'	-5.17	112.63	120.90
85	A5	4089	G	C1'-O4'-C4'	-5.17	105.77	109.90
1	Az	196	GLU	N-CA-CB	5.17	119.90	110.60
13	AP	37	TYR	CA-CB-CG	5.17	123.22	113.40
26	AJ	89	GLU	N-CA-CB	-5.17	101.30	110.60
36	B2	74	G	C1'-O4'-C4'	-5.17	105.77	109.90
36	B2	78	C	O4'-C1'-C2'	-5.17	100.63	105.80
36	B2	754	G	C1'-O4'-C4'	-5.17	105.77	109.90
36	B2	1287	A	O4'-C1'-N9	5.17	112.33	108.20
36	B2	1404	U	C3'-C2'-C1'	5.17	105.63	101.50
37	BC	9	G	O4'-C1'-N9	5.17	112.33	108.20
47	CI	28	ASP	CB-CG-OD2	5.17	122.95	118.30
67	Ce	26	ASP	CB-CG-OD2	5.17	122.95	118.30
80	CH	191	ASP	CB-CG-OD2	5.17	122.95	118.30
85	A5	4305	G	C3'-C2'-C1'	5.17	105.63	101.50
85	A5	4414	A	N9-C1'-C2'	-5.17	106.32	112.00
27	AE	59	ASP	CB-CG-OD2	5.17	122.95	118.30
36	B2	560	A	C1'-O4'-C4'	-5.17	105.77	109.90
71	Cj	87	LYS	N-CA-C	-5.17	97.06	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	CJ	129	ASP	CB-CG-OD2	5.17	122.95	118.30
85	A5	194	C	C1'-O4'-C4'	-5.17	105.77	109.90
85	A5	269	G	P-O5'-C5'	5.17	129.16	120.90
85	A5	5014	A	C3'-C2'-C1'	5.17	105.63	101.50
3	AU	27	ARG	O-C-N	-5.16	114.44	122.70
16	AA	151	ASP	CB-CG-OD2	5.16	122.95	118.30
32	AW	85	ASP	CB-CG-OD2	5.16	122.95	118.30
36	B2	1477	U	O4'-C1'-N1	5.16	112.33	108.20
39	Cq	23	ASP	CB-CG-OD2	5.16	122.95	118.30
83	Cs	18	ASP	CB-CG-OD2	5.16	122.95	118.30
85	A5	2694	G	C3'-C2'-C1'	-5.16	97.37	101.50
85	A5	4665	A	P-O3'-C3'	-5.16	113.50	119.70
36	B2	1560	U	C4'-C3'-C2'	-5.16	97.44	102.60
37	BC	19	A	N9-C1'-C2'	-5.16	106.32	112.00
36	B2	107	A	C1'-O4'-C4'	5.16	114.03	109.90
36	B2	468	A	P-O5'-C5'	-5.16	112.64	120.90
36	B2	648	A	C1'-O4'-C4'	-5.16	105.77	109.90
36	B2	1010	G	N9-C1'-C2'	-5.16	106.32	112.00
85	A5	423	G	O4'-C1'-N9	5.16	112.33	108.20
86	A7	91	C	O4'-C1'-N1	5.16	112.33	108.20
15	AB	155	TYR	CB-CG-CD1	-5.16	117.91	121.00
27	AE	104	ASP	CB-CG-OD2	5.16	122.94	118.30
36	B2	1700	C	N1-C1'-C2'	-5.16	106.33	112.00
57	CY	112	ASP	CB-CG-OD2	5.16	122.94	118.30
74	CC	35	ASP	C-N-CA	5.16	134.60	121.70
82	CG	127	ASP	CB-CG-OD2	5.16	122.94	118.30
85	A5	121	A	P-O3'-C3'	5.16	125.89	119.70
85	A5	133	C	O4'-C1'-N1	5.16	112.33	108.20
85	A5	692	A	C3'-C2'-C1'	5.16	105.63	101.50
85	A5	1798	G	C1'-O4'-C4'	-5.16	105.77	109.90
85	A5	1822	U	C3'-C2'-C1'	-5.16	97.37	101.50
85	A5	2498	C	N1-C1'-C2'	5.16	120.71	114.00
85	A5	3591	C	O4'-C1'-C2'	-5.16	100.64	105.80
87	A8	117	C	C1'-O4'-C4'	-5.16	105.77	109.90
6	AX	88	ASP	CB-CG-OD2	5.16	122.94	118.30
36	B2	73	C	P-O3'-C3'	-5.16	113.51	119.70
83	Ct	19	ASP	CB-CG-OD2	5.16	122.94	118.30
85	A5	1258	G	O4'-C1'-C2'	-5.16	100.64	105.80
85	A5	2089	G	O4'-C4'-C3'	-5.16	98.84	104.00
1	Az	272	LYS	C-N-CA	5.16	134.59	121.70
2	Ag	12	LYS	CB-CA-C	-5.16	100.09	110.40
6	AX	139	GLU	CB-CA-C	5.16	120.71	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	AP	71	GLU	C-N-CA	5.16	134.59	121.70
36	B2	465	A	O3'-P-O5'	-5.16	94.20	104.00
36	B2	631	U	N1-C1'-C2'	5.16	120.70	114.00
56	CX	131	ASP	CB-CG-OD2	5.16	122.94	118.30
66	Cd	64	ILE	C-N-CA	-5.16	108.81	121.70
85	A5	19	G	N9-C1'-C2'	5.16	120.70	114.00
85	A5	1190	C	O4'-C1'-N1	5.16	112.33	108.20
85	A5	1474	C	N1-C1'-C2'	5.16	120.70	114.00
85	A5	1634	A	O4'-C1'-C2'	-5.16	100.64	105.80
85	A5	3586	G	C3'-C2'-C1'	-5.16	97.38	101.50
85	A5	363	A	C3'-C2'-C1'	-5.15	97.38	101.50
85	A5	440	U	P-O3'-C3'	5.15	125.89	119.70
85	A5	4161	G	C1'-O4'-C4'	5.15	114.02	109.90
85	A5	4226	G	O4'-C1'-C2'	5.15	112.24	107.60
4	AK	43	LEU	N-CA-C	-5.15	97.09	111.00
8	AS	16	LEU	CA-C-N	-5.15	105.87	117.20
32	AW	55	ASP	CB-CG-OD2	5.15	122.94	118.30
36	B2	1161	U	N1-C1'-C2'	-5.15	106.33	112.00
74	CC	217	ILE	CB-CA-C	5.15	121.90	111.60
83	Ct	26	ASP	CB-CG-OD2	5.15	122.94	118.30
85	A5	719	C	P-O3'-C3'	5.15	125.88	119.70
85	A5	1340	C	N1-C1'-C2'	5.15	120.70	114.00
85	A5	1824	G	O5'-C5'-C4'	-5.15	101.91	111.70
85	A5	2394	G	O4'-C1'-N9	5.15	112.32	108.20
85	A5	3959	U	C1'-O4'-C4'	5.15	114.02	109.90
36	B2	71	G	C2'-C3'-O3'	-5.15	98.17	109.50
36	B2	662	G	C3'-C2'-C1'	5.15	105.62	101.50
85	A5	1369	C	O4'-C4'-C3'	-5.15	98.85	104.00
85	A5	1885	G	O4'-C1'-N9	5.15	112.32	108.20
85	A5	2084	C	O4'-C1'-C2'	-5.15	100.65	105.80
85	A5	2100	A	O3'-P-O5'	-5.15	94.22	104.00
85	A5	3673	C	N1-C1'-C2'	5.15	120.69	114.00
85	A5	3947	A	O4'-C1'-N9	5.15	112.32	108.20
47	CI	44	ASP	CB-CG-OD2	5.15	122.93	118.30
85	A5	2280	G	O4'-C1'-N9	5.15	112.32	108.20
19	AZ	56	ASP	CB-CG-OD2	5.15	122.93	118.30
39	Cq	22	ASP	CB-CG-OD2	5.15	122.93	118.30
51	CA	122	ASP	CB-CG-OD2	5.15	122.93	118.30
59	CZ	92	ASP	CB-CG-OD2	5.15	122.93	118.30
85	A5	82	U	C5'-C4'-O4'	5.15	115.28	109.10
85	A5	1652	U	O4'-C1'-N1	5.15	112.32	108.20
85	A5	4311	A	C3'-C2'-C1'	5.15	105.62	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4958	C	O4'-C1'-C2'	-5.15	100.65	105.80
13	AP	51	ARG	N-CA-C	5.15	124.89	111.00
36	B2	670	A	P-O3'-C3'	5.15	125.88	119.70
85	A5	1913	C	O4'-C1'-C2'	-5.15	100.65	105.80
85	A5	3279	A	O3'-P-O5'	5.15	113.78	104.00
85	A5	3963	A	C3'-C2'-C1'	5.15	105.62	101.50
85	A5	4067	U	C4'-C3'-C2'	-5.15	97.45	102.60
1	Az	239	LYS	CD-CE-NZ	-5.14	99.87	111.70
36	B2	8	U	O4'-C1'-C2'	-5.14	100.66	105.80
40	CK	44	ASP	CA-C-O	-5.14	109.30	120.10
40	CK	153	ASP	CB-CG-OD2	5.14	122.93	118.30
59	CZ	128	LYS	N-CA-C	5.14	124.89	111.00
84	Cv	37	ASP	CB-CG-OD2	5.14	122.93	118.30
85	A5	1945	G	O4'-C1'-C2'	5.14	112.23	107.60
85	A5	2621	A	O4'-C1'-N9	-5.14	104.08	108.20
85	A5	2782	U	O4'-C1'-N1	5.14	112.31	108.20
85	A5	4091	G	C1'-O4'-C4'	-5.14	105.78	109.90
85	A5	4092	G	N9-C1'-C2'	5.14	120.69	114.00
85	A5	4754	G	O3'-P-O5'	-5.14	94.22	104.00
27	AE	93	ASP	CB-CG-OD2	5.14	122.93	118.30
36	B2	634	A	C3'-C2'-C1'	5.14	105.61	101.50
36	B2	1040	G	O4'-C1'-C2'	5.14	112.23	107.60
37	BC	48	G	P-O5'-C5'	5.14	129.13	120.90
37	BC	55	C	C3'-C2'-C1'	5.14	105.61	101.50
42	CL	129	ARG	N-CA-C	5.14	124.88	111.00
60	Cr	36	ASN	N-CA-CB	-5.14	101.34	110.60
60	Cr	40	TYR	CA-CB-CG	5.14	123.17	113.40
81	CE	132	PRO	N-CD-CG	5.14	110.91	103.20
84	Cu	35	ASP	CB-CG-OD2	5.14	122.93	118.30
85	A5	485	C	C1'-O4'-C4'	-5.14	105.79	109.90
85	A5	1211	G	O4'-C4'-C3'	-5.14	98.86	104.00
85	A5	1696	C	O4'-C1'-C2'	-5.14	100.66	105.80
85	A5	1996	C	C3'-C2'-C1'	5.14	105.61	101.50
85	A5	3628	G	O4'-C4'-C3'	-5.14	98.86	104.00
85	A5	4303	C	N1-C1'-C2'	5.14	120.69	114.00
52	CS	151	LYS	N-CA-C	-5.14	97.12	111.00
80	CH	11	ASP	CB-CG-OD2	5.14	122.93	118.30
85	A5	1365	C	O4'-C4'-C3'	-5.14	98.86	104.00
85	A5	2007	G	C1'-C2'-O2'	5.14	126.02	110.60
85	A5	3927	U	C1'-O4'-C4'	5.14	114.01	109.90
6	AX	138	LYS	O-C-N	-5.14	114.48	122.70
13	AP	23	ASP	CB-CG-OD2	5.14	122.93	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AQ	110	ASP	CB-CG-OD2	5.14	122.93	118.30
36	B2	1223	A	C1'-O4'-C4'	5.14	114.01	109.90
44	CM	106	ASP	CB-CG-OD2	5.14	122.92	118.30
74	CC	22	VAL	CA-C-N	-5.14	105.89	117.20
85	A5	117	C	P-O3'-C3'	5.14	125.87	119.70
85	A5	208	A	P-O3'-C3'	-5.14	113.53	119.70
85	A5	486	C	N1-C1'-C2'	5.14	120.68	114.00
85	A5	970	G	P-O3'-C3'	5.14	125.87	119.70
85	A5	1439	C	C3'-C2'-C1'	5.14	105.61	101.50
85	A5	2003	G	C3'-C2'-C1'	5.14	105.61	101.50
85	A5	2710	C	O4'-C1'-C2'	-5.14	100.66	105.80
6	AX	126	ALA	N-CA-C	-5.14	97.13	111.00
53	CT	18	PRO	CA-C-N	-5.14	105.90	117.20
85	A5	2470	C	P-O3'-C3'	5.14	125.87	119.70
85	A5	4090	G	P-O5'-C5'	-5.14	112.68	120.90
85	A5	4867	G	C3'-C2'-C1'	-5.14	97.39	101.50
85	A5	4893	A	N9-C1'-C2'	5.14	120.68	114.00
3	AU	78	ASP	CB-CG-OD2	5.14	122.92	118.30
36	B2	690	G	O4'-C1'-N9	5.14	112.31	108.20
36	B2	744	G	O3'-P-O5'	-5.14	94.24	104.00
36	B2	757	C	C3'-C2'-C1'	5.14	105.61	101.50
36	B2	786	G	O4'-C1'-N9	5.14	112.31	108.20
36	B2	1747	C	C4'-C3'-O3'	-5.14	98.61	109.40
36	B2	1813	A	O4'-C1'-N9	5.14	112.31	108.20
39	Cq	100	ASP	CB-CG-OD2	5.14	122.92	118.30
57	CY	86	GLN	N-CA-C	5.14	124.87	111.00
81	CE	243	THR	CA-C-N	5.14	128.50	117.20
85	A5	2570	U	C4'-C3'-C2'	-5.14	97.46	102.60
85	A5	3700	C	N1-C1'-C2'	5.14	120.68	114.00
85	A5	4410	G	O4'-C1'-C2'	-5.14	100.66	105.80
85	A5	5007	A	C3'-C2'-C1'	5.14	105.61	101.50
15	AB	191	ASP	CB-CG-OD2	5.13	122.92	118.30
19	AZ	50	PHE	CB-CA-C	-5.13	100.13	110.40
27	AE	164	LEU	C-N-CA	-5.13	108.86	121.70
32	AW	2	VAL	O-C-N	-5.13	114.48	122.70
49	CQ	144	LYS	N-CA-C	-5.13	97.14	111.00
69	Cg	82	MET	C-N-CA	5.13	134.54	121.70
74	CC	107	THR	C-N-CA	-5.13	108.86	121.70
85	A5	1601	A	C1'-O4'-C4'	5.13	114.01	109.90
85	A5	4094	G	C5'-C4'-O4'	5.13	115.26	109.10
85	A5	4361	U	O4'-C1'-N1	5.13	112.31	108.20
26	AJ	85	GLY	CA-C-N	-5.13	105.91	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	AJ	91	LYS	CA-C-N	5.13	128.49	117.20
27	AE	143	ASP	CB-CG-OD2	5.13	122.92	118.30
85	A5	1822	U	C1'-O4'-C4'	-5.13	105.79	109.90
53	CT	69	GLN	O-C-N	-5.13	114.49	122.70
85	A5	63	G	C1'-O4'-C4'	-5.13	105.80	109.90
85	A5	1305	C	C1'-O4'-C4'	-5.13	105.80	109.90
85	A5	1346	C	O4'-C1'-C2'	-5.13	100.67	105.80
85	A5	2722	G	O4'-C1'-C2'	5.13	112.22	107.60
85	A5	4614	G	C1'-O4'-C4'	-5.13	105.80	109.90
35	Ah	186	ASP	CB-CG-OD2	5.13	122.92	118.30
36	B2	421	G	O4'-C1'-C2'	5.13	112.22	107.60
36	B2	992	A	C1'-O4'-C4'	-5.13	105.80	109.90
36	B2	1650	A	P-O5'-C5'	-5.13	112.69	120.90
85	A5	48	G	C3'-C2'-C1'	5.13	105.60	101.50
85	A5	406	C	O4'-C1'-N1	5.13	112.30	108.20
85	A5	1460	C	C3'-C2'-C1'	5.13	105.60	101.50
36	B2	892	U	O4'-C1'-N1	5.13	112.30	108.20
36	B2	1546	G	C3'-C2'-C1'	-5.13	97.40	101.50
36	B2	1650	A	C1'-O4'-C4'	5.13	114.00	109.90
85	A5	126	C	N1-C1'-C2'	5.13	120.67	114.00
85	A5	4512	U	N1-C1'-C2'	5.13	120.67	114.00
85	A5	4524	G	O3'-P-O5'	-5.13	94.26	104.00
85	A5	4742	G	O4'-C1'-C2'	5.13	112.22	107.60
36	B2	1505	U	C3'-C2'-C1'	5.13	105.60	101.50
74	CC	12	SER	C-N-CA	5.13	134.51	121.70
82	CG	56	LYS	CA-C-N	-5.13	105.92	117.20
85	A5	334	A	C5'-C4'-O4'	5.13	115.25	109.10
85	A5	1201	U	O4'-C1'-N1	5.13	112.30	108.20
85	A5	2125	C	C5'-C4'-O4'	5.13	115.25	109.10
85	A5	2628	U	C4'-C3'-O3'	5.13	123.25	113.00
85	A5	4963	G	C1'-O4'-C4'	-5.13	105.80	109.90
6	AX	115	ILE	C-N-CD	-5.12	109.32	120.60
22	Ac	37	ASP	CB-CG-OD2	5.12	122.91	118.30
36	B2	212	C	C3'-C2'-C1'	5.12	105.60	101.50
36	B2	526	A	O4'-C1'-C2'	5.12	112.21	107.60
36	B2	1518	C	O4'-C4'-C3'	-5.12	98.88	104.00
66	Cd	12	LYS	C-N-CA	5.12	133.06	122.30
2	Ag	213	ASP	CB-CG-OD1	5.12	122.91	118.30
36	B2	59	U	C1'-O4'-C4'	5.12	114.00	109.90
36	B2	328	U	C5'-C4'-C3'	5.12	124.20	116.00
44	CM	66	HIS	N-CA-CB	5.12	119.82	110.60
57	CY	10	ASP	CB-CG-OD2	5.12	122.91	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	CE	128	HIS	CA-CB-CG	5.12	122.31	113.60
85	A5	1355	G	C3'-C2'-C1'	-5.12	97.40	101.50
85	A5	1489	G	C5'-C4'-C3'	5.12	124.20	116.00
85	A5	1923	A	C4'-C3'-C2'	-5.12	97.48	102.60
85	A5	3638	G	N9-C1'-C2'	5.12	120.66	114.00
85	A5	4983	C	O4'-C1'-N1	5.12	112.30	108.20
36	B2	884	C	C3'-C2'-C1'	5.12	105.60	101.50
36	B2	1043	G	O4'-C1'-N9	5.12	112.30	108.20
59	CZ	35	ASP	O-C-N	5.12	130.89	122.70
85	A5	988	C	C3'-C2'-C1'	5.12	105.60	101.50
85	A5	1285	U	P-O5'-C5'	5.12	129.10	120.90
85	A5	1636	U	N1-C1'-C2'	5.12	120.66	114.00
85	A5	3678	G	O4'-C1'-C2'	-5.12	100.68	105.80
36	B2	1324	G	C3'-C2'-C1'	5.12	105.60	101.50
85	A5	385	A	C3'-C2'-C1'	-5.12	97.41	101.50
85	A5	951	G	P-O5'-C5'	5.12	129.09	120.90
85	A5	2050	G	C1'-O4'-C4'	-5.12	105.81	109.90
85	A5	4927	G	C4-N9-C1'	5.12	133.16	126.50
28	AC	54	LYS	CD-CE-NZ	5.12	123.47	111.70
36	B2	513	G	O4'-C1'-C2'	5.12	112.21	107.60
42	CL	49	ARG	N-CA-CB	-5.12	101.39	110.60
85	A5	1092	G	N9-C1'-C2'	-5.12	106.37	112.00
85	A5	2419	C	C1'-O4'-C4'	-5.12	105.81	109.90
19	AZ	104	ARG	CB-CA-C	-5.12	100.17	110.40
36	B2	754	G	O4'-C1'-N9	5.12	112.29	108.20
36	B2	1379	A	C5'-C4'-C3'	-5.12	107.81	116.00
36	B2	1794	C	C3'-C2'-C1'	5.12	105.59	101.50
46	CN	80	THR	CB-CA-C	5.12	125.41	111.60
85	A5	4561	C	C5'-C4'-O4'	5.12	115.24	109.10
85	A5	4791	C	P-O3'-C3'	-5.12	113.56	119.70
36	B2	1139	C	C2-N1-C1'	5.11	124.42	118.80
60	Cr	67	ARG	CA-CB-CG	5.11	124.65	113.40
81	CE	242	ILE	O-C-N	-5.11	114.52	122.70
85	A5	185	C	C5'-C4'-O4'	5.11	115.24	109.10
85	A5	649	A	O4'-C1'-N9	5.11	112.29	108.20
85	A5	1222	A	C1'-O4'-C4'	5.11	113.99	109.90
85	A5	2698	G	O4'-C1'-N9	5.11	112.29	108.20
85	A5	3670	C	C1'-O4'-C4'	-5.11	105.81	109.90
85	A5	4955	A	O4'-C1'-C2'	-5.11	100.69	105.80
86	A7	79	U	C1'-O4'-C4'	5.11	113.99	109.90
36	B2	1487	A	C4'-C3'-O3'	-5.11	98.66	109.40
85	A5	2363	A	P-O3'-C3'	5.11	125.83	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4948	C	P-O5'-C5'	5.11	129.08	120.90
36	B2	687	C	O4'-C1'-C2'	5.11	112.20	107.60
36	B2	1453	C	C3'-C2'-C1'	-5.11	97.41	101.50
37	BC	19	A	C1'-O4'-C4'	5.11	113.99	109.90
66	Cd	110	PRO	O-C-N	5.11	130.88	122.70
85	A5	298	G	O4'-C1'-C2'	5.11	112.20	107.60
85	A5	1945	G	O4'-C1'-N9	5.11	112.29	108.20
85	A5	3763	A	O4'-C1'-N9	5.11	112.29	108.20
85	A5	4136	G	C4'-C3'-C2'	-5.11	97.49	102.60
1	Az	539	GLU	O-C-N	-5.11	114.53	122.70
36	B2	1250	A	O4'-C1'-C2'	-5.11	100.69	105.80
36	B2	1339	U	C5'-C4'-O4'	5.11	115.23	109.10
85	A5	1311	G	C5'-C4'-C3'	-5.11	107.83	116.00
85	A5	2256	C	O4'-C4'-C3'	-5.11	98.89	104.00
85	A5	2427	G	C5'-C4'-O4'	5.11	115.23	109.10
85	A5	2588	C	C3'-C2'-C1'	5.11	105.59	101.50
85	A5	3955	G	O4'-C1'-N9	5.11	112.29	108.20
85	A5	4518	A	O4'-C1'-C2'	-5.11	100.69	105.80
85	A5	4587	G	P-O5'-C5'	-5.11	112.73	120.90
87	A8	132	G	C3'-C2'-C1'	-5.11	97.41	101.50
36	B2	490	C	O4'-C1'-C2'	-5.11	100.69	105.80
85	A5	4058	U	O4'-C4'-C3'	-5.11	98.89	104.00
16	AA	205	ARG	NE-CZ-NH1	5.11	122.85	120.30
36	B2	72	C	P-O5'-C5'	5.11	129.07	120.90
36	B2	803	C	C3'-C2'-C1'	5.11	105.58	101.50
36	B2	998	A	C3'-C2'-C1'	5.11	105.58	101.50
85	A5	236	G	N9-C1'-C2'	5.11	120.64	114.00
85	A5	309	C	C1'-O4'-C4'	5.11	113.98	109.90
85	A5	2411	C	P-O3'-C3'	-5.11	113.57	119.70
85	A5	4037	C	C3'-C2'-C1'	5.11	105.58	101.50
85	A5	4088	C	P-O5'-C5'	-5.11	112.73	120.90
86	A7	2	U	O4'-C1'-N1	5.11	112.28	108.20
36	B2	1719	A	C3'-C2'-C1'	5.10	105.58	101.50
85	A5	438	G	C4'-C3'-C2'	-5.10	97.50	102.60
29	AG	180	VAL	N-CA-CB	-5.10	100.28	111.50
36	B2	591	U	O4'-C1'-C2'	5.10	112.19	107.60
36	B2	757	C	O4'-C4'-C3'	-5.10	98.90	104.00
36	B2	1110	G	C1'-O4'-C4'	5.10	113.98	109.90
85	A5	361	C	C3'-C2'-C1'	5.10	105.58	101.50
85	A5	2461	G	N9-C1'-C2'	5.10	120.63	114.00
85	A5	3716	C	C3'-C2'-C1'	5.10	105.58	101.50
85	A5	4197	G	P-O3'-C3'	5.10	125.82	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4423	U	N1-C1'-C2'	-5.10	106.39	112.00
85	A5	4939	C	C4'-C3'-O3'	-5.10	98.69	109.40
36	B2	1580	A	O4'-C1'-N9	5.10	112.28	108.20
85	A5	192	G	C1'-O4'-C4'	-5.10	105.82	109.90
85	A5	2818	C	O4'-C1'-C2'	-5.10	100.70	105.80
85	A5	3683	C	O4'-C1'-N1	-5.10	104.12	108.20
36	B2	1271	C	O4'-C1'-C2'	-5.10	100.70	105.80
51	CA	67	TYR	CD1-CG-CD2	-5.10	112.29	117.90
85	A5	3692	A	O4'-C1'-N9	5.10	112.28	108.20
85	A5	4871	C	C1'-O4'-C4'	5.10	113.98	109.90
86	A7	47	G	C1'-O4'-C4'	-5.10	105.82	109.90
36	B2	234	C	O4'-C1'-N1	5.10	112.28	108.20
36	B2	1616	U	C3'-C2'-C1'	5.10	105.58	101.50
64	CF	21	LYS	C-N-CA	5.10	134.44	121.70
85	A5	18	C	P-O3'-C3'	5.10	125.82	119.70
85	A5	452	A	C5'-C4'-O4'	5.10	115.22	109.10
85	A5	1076	C	C5'-C4'-O4'	5.10	115.22	109.10
85	A5	1078	A	C1'-O4'-C4'	5.10	113.98	109.90
85	A5	2081	C	C1'-O4'-C4'	-5.10	105.82	109.90
85	A5	2327	G	C1'-O4'-C4'	-5.10	105.82	109.90
85	A5	2643	G	C3'-C2'-C1'	-5.10	97.42	101.50
36	B2	655	A	C3'-C2'-C1'	5.10	105.58	101.50
61	Ch	5	LYS	C-N-CA	5.10	134.44	121.70
64	CF	223	LYS	C-N-CA	-5.10	108.96	121.70
36	B2	1279	C	C3'-C2'-C1'	5.09	105.58	101.50
36	B2	1342	U	C3'-C2'-C1'	5.09	105.58	101.50
85	A5	2383	C	O4'-C1'-C2'	-5.09	100.70	105.80
85	A5	4637	G	O4'-C1'-N9	5.09	112.28	108.20
85	A5	4962	C	P-O5'-C5'	5.09	129.05	120.90
36	B2	1607	A	C1'-O4'-C4'	-5.09	105.83	109.90
85	A5	2751	G	C4'-C3'-C2'	-5.09	97.51	102.60
1	Az	433	ASN	CB-CA-C	5.09	120.58	110.40
36	B2	1302	G	C5'-C4'-O4'	5.09	115.21	109.10
36	B2	1482	C	C3'-C2'-C1'	5.09	105.57	101.50
66	Cd	18	ASN	O-C-N	5.09	130.85	122.70
85	A5	1574	G	O4'-C1'-C2'	-5.09	100.71	105.80
85	A5	1888	A	N9-C1'-C2'	5.09	120.62	114.00
85	A5	2222	C	P-O3'-C3'	5.09	125.81	119.70
85	A5	2556	G	C4'-C3'-C2'	-5.09	97.51	102.60
85	A5	2759	G	O4'-C1'-N9	-5.09	104.13	108.20
85	A5	2822	G	C5'-C4'-C3'	5.09	124.14	116.00
85	A5	4200	G	O4'-C4'-C3'	-5.09	98.91	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4645	C	O4'-C1'-C2'	-5.09	100.71	105.80
36	B2	15	U	C1'-O4'-C4'	5.09	113.97	109.90
36	B2	559	G	O4'-C4'-C3'	-5.09	98.91	104.00
36	B2	748	C	P-O3'-C3'	5.09	125.81	119.70
36	B2	937	C	O4'-C1'-N1	5.09	112.27	108.20
36	B2	1614	A	O4'-C1'-N9	5.09	112.27	108.20
36	B2	1752	C	P-O3'-C3'	-5.09	113.59	119.70
58	CW	23	ARG	NE-CZ-NH1	5.09	122.84	120.30
85	A5	1892	A	C3'-C2'-C1'	-5.09	97.43	101.50
85	A5	2242	C	C5'-C4'-C3'	5.09	124.14	116.00
85	A5	2631	U	N1-C1'-C2'	5.09	120.62	114.00
55	CU	58	GLY	CA-C-O	5.09	129.76	120.60
27	AE	237	SER	N-CA-CB	-5.09	102.87	110.50
36	B2	836	G	N9-C1'-C2'	-5.09	106.41	112.00
36	B2	1025	U	N1-C1'-C2'	-5.09	106.41	112.00
36	B2	1680	G	C3'-C2'-C1'	5.09	105.57	101.50
85	A5	209	U	O4'-C1'-C2'	-5.09	100.71	105.80
85	A5	1668	A	O4'-C1'-N9	-5.09	104.13	108.20
85	A5	1908	A	C3'-C2'-C1'	5.09	105.57	101.50
85	A5	4759	C	P-O5'-C5'	-5.09	112.76	120.90
86	A7	13	A	N9-C1'-C2'	-5.09	106.40	112.00
87	A8	146	U	O4'-C1'-N1	5.09	112.27	108.20
85	A5	1105	C	O4'-C1'-C2'	-5.08	100.72	105.80
85	A5	1390	G	C3'-C2'-C1'	-5.08	97.43	101.50
85	A5	2112	G	C5'-C4'-O4'	5.08	115.20	109.10
85	A5	2883	G	O4'-C1'-N9	5.08	112.27	108.20
85	A5	4059	C	O4'-C1'-N1	5.08	112.27	108.20
25	Af	134	SER	CA-C-N	-5.08	106.02	117.20
74	CC	221	PHE	N-CA-CB	5.08	119.75	110.60
85	A5	743	G	O4'-C1'-N9	5.08	112.27	108.20
85	A5	2680	G	C1'-O4'-C4'	-5.08	105.83	109.90
85	A5	4338	G	C1'-O4'-C4'	5.08	113.97	109.90
85	A5	4899	G	C2'-C3'-O3'	5.08	121.83	113.70
86	A7	35	U	O4'-C1'-N1	5.08	112.27	108.20
12	AR	25	GLY	O-C-N	5.08	130.83	122.70
36	B2	1242	U	O4'-C1'-N1	-5.08	104.13	108.20
56	CX	154	GLY	C-N-CA	5.08	134.41	121.70
72	Ck	61	PRO	C-N-CD	-5.08	109.42	120.60
85	A5	470	A	C3'-C2'-C1'	5.08	105.57	101.50
85	A5	1268	G	C2'-C3'-O3'	5.08	121.83	113.70
85	A5	1902	G	O4'-C1'-N9	-5.08	104.14	108.20
85	A5	2280	G	C1'-O4'-C4'	-5.08	105.83	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2698	G	O4'-C1'-C2'	-5.08	100.72	105.80
85	A5	4348	A	C1'-O4'-C4'	5.08	113.97	109.90
85	A5	4904	G	C1'-O4'-C4'	-5.08	105.83	109.90
16	AA	193	HIS	N-CA-C	5.08	124.72	111.00
36	B2	136	C	C5'-C4'-C3'	5.08	124.13	116.00
40	CK	91	ASP	N-CA-C	5.08	124.72	111.00
85	A5	1385	G	O4'-C1'-N9	5.08	112.26	108.20
85	A5	4266	G	C3'-C2'-C1'	5.08	105.56	101.50
36	B2	125	C	P-O3'-C3'	5.08	125.79	119.70
36	B2	420	G	P-O3'-C3'	-5.08	113.61	119.70
36	B2	606	G	P-O3'-C3'	5.08	125.79	119.70
36	B2	1512	C	O4'-C1'-C2'	-5.08	100.72	105.80
40	CK	27	ALA	N-CA-C	5.08	124.71	111.00
40	CK	44	ASP	CA-CB-CG	5.08	124.57	113.40
66	Cd	65	ASP	CA-C-N	-5.08	106.03	117.20
85	A5	110	C	C4'-C3'-C2'	-5.08	97.52	102.60
85	A5	2329	U	O4'-C1'-N1	5.08	112.26	108.20
85	A5	2798	A	N9-C1'-C2'	-5.08	106.41	112.00
85	A5	3937	C	C5'-C4'-O4'	5.08	115.19	109.10
85	A5	4315	A	O4'-C1'-N9	5.08	112.26	108.20
85	A5	4941	G	N9-C1'-C2'	-5.08	106.41	112.00
36	B2	1477	U	C1'-O4'-C4'	-5.08	105.84	109.90
85	A5	1279	A	O4'-C1'-N9	5.08	112.26	108.20
85	A5	1484	G	O4'-C1'-N9	5.08	112.26	108.20
3	AU	48	LEU	CB-CG-CD2	-5.08	102.37	111.00
36	B2	22	A	O4'-C1'-N9	5.08	112.26	108.20
39	Cq	68	HIS	C-N-CA	5.08	134.39	121.70
46	CN	198	LEU	CB-CA-C	5.08	119.84	110.20
58	CW	75	ALA	C-N-CA	5.08	134.39	121.70
85	A5	184	U	O4'-C1'-C2'	-5.08	100.72	105.80
85	A5	1243	C	C4'-C3'-C2'	5.08	107.67	102.60
85	A5	1621	A	OP1-P-OP2	-5.08	111.99	119.60
85	A5	4669	A	C5'-C4'-C3'	-5.08	107.88	116.00
36	B2	875	A	C3'-C2'-C1'	5.07	105.56	101.50
85	A5	2788	U	P-O3'-C3'	5.07	125.79	119.70
85	A5	4347	G	C5'-C4'-O4'	5.07	115.19	109.10
85	A5	4775	C	O4'-C1'-N1	5.07	112.26	108.20
36	B2	313	A	O3'-P-O5'	5.07	113.64	104.00
36	B2	875	A	O4'-C1'-N9	5.07	112.26	108.20
36	B2	1371	U	O4'-C1'-C2'	-5.07	100.73	105.80
67	Ce	14	LYS	O-C-N	5.07	130.81	122.70
85	A5	408	A	C5'-C4'-O4'	5.07	115.19	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	479	G	C4'-C3'-C2'	-5.07	97.53	102.60
85	A5	1267	C	P-O5'-C5'	5.07	129.01	120.90
85	A5	2500	U	C1'-O4'-C4'	-5.07	105.84	109.90
85	A5	2804	C	N1-C1'-C2'	5.07	120.59	114.00
85	A5	4962	C	O4'-C1'-C2'	-5.07	100.73	105.80
36	B2	1782	G	O5'-C5'-C4'	5.07	121.33	111.70
85	A5	4453	C	C3'-C2'-C1'	5.07	105.56	101.50
36	B2	1332	A	N9-C1'-C2'	-5.07	106.42	112.00
36	B2	1716	C	N1-C1'-C2'	5.07	120.59	114.00
60	Cr	94	ARG	NE-CZ-NH2	-5.07	117.77	120.30
85	A5	2756	G	C5'-C4'-O4'	5.07	115.18	109.10
27	AE	129	ILE	CA-C-N	-5.07	106.05	117.20
36	B2	317	C	O4'-C1'-C2'	-5.07	100.73	105.80
36	B2	729	C	C1'-O4'-C4'	5.07	113.95	109.90
36	B2	1365	G	O4'-C1'-N9	5.07	112.25	108.20
36	B2	1465	A	C3'-C2'-C1'	5.07	105.55	101.50
36	B2	1615	U	N1-C1'-C2'	5.07	120.59	114.00
43	CV	101	ASN	N-CA-CB	-5.07	101.48	110.60
74	CC	314	LEU	CB-CG-CD1	5.07	119.61	111.00
85	A5	511	C	N1-C1'-C2'	5.07	120.59	114.00
85	A5	652	G	O4'-C1'-C2'	5.07	112.16	107.60
85	A5	2127	C	C4'-C3'-C2'	-5.07	97.53	102.60
85	A5	2507	A	P-O3'-C3'	5.07	125.78	119.70
85	A5	2660	A	C1'-O4'-C4'	-5.07	105.85	109.90
85	A5	4116	C	C3'-C2'-C1'	5.07	105.56	101.50
85	A5	4883	C	O4'-C1'-N1	5.07	112.25	108.20
36	B2	1274	G	N9-C1'-C2'	5.07	120.58	114.00
36	B2	1668	U	C4'-C3'-C2'	-5.07	97.53	102.60
66	Cd	18	ASN	CA-C-N	-5.07	106.06	117.20
85	A5	462	G	C1'-O4'-C4'	-5.07	105.85	109.90
85	A5	2131	C	C1'-O4'-C4'	-5.07	105.85	109.90
85	A5	4059	C	P-O5'-C5'	5.07	129.00	120.90
85	A5	4136	G	C1'-O4'-C4'	-5.07	105.85	109.90
85	A5	4663	G	C5'-C4'-O4'	5.07	115.18	109.10
85	A5	4931	G	C4'-C3'-C2'	-5.07	97.53	102.60
85	A5	2289	C	O4'-C1'-C2'	-5.06	100.74	105.80
36	B2	281	C	P-O5'-C5'	-5.06	112.80	120.90
36	B2	900	C	P-O5'-C5'	5.06	129.00	120.90
36	B2	1151	G	O4'-C1'-N9	5.06	112.25	108.20
85	A5	49	U	C1'-O4'-C4'	5.06	113.95	109.90
85	A5	2728	U	N1-C1'-C2'	5.06	120.58	114.00
85	A5	3750	G	C3'-C2'-C1'	-5.06	97.45	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	4069	U	C5'-C4'-C3'	5.06	124.10	116.00
85	A5	4258	C	O4'-C1'-N1	5.06	112.25	108.20
85	A5	1733	G	C1'-O4'-C4'	5.06	113.95	109.90
85	A5	4077	A	O4'-C1'-C2'	-5.06	100.74	105.80
31	AH	191	GLU	C-N-CA	-5.06	109.05	121.70
36	B2	549	C	C3'-C2'-C1'	5.06	105.55	101.50
36	B2	639	C	O4'-C1'-N1	5.06	112.25	108.20
49	CQ	152	PHE	N-CA-C	5.06	124.66	111.00
33	AI	8	TRP	CE3-CZ3-CH2	5.06	126.76	121.20
45	Ca	109	TYR	CA-CB-CG	-5.06	103.79	113.40
85	A5	113	A	C5'-C4'-O4'	5.06	115.17	109.10
85	A5	436	C	O4'-C1'-N1	5.06	112.25	108.20
85	A5	1363	C	N1-C1'-C2'	5.06	120.58	114.00
85	A5	1467	C	O4'-C1'-C2'	-5.06	100.74	105.80
2	Ag	143	GLN	CB-CA-C	-5.06	100.29	110.40
36	B2	318	A	O4'-C1'-N9	5.06	112.25	108.20
36	B2	530	U	C4'-C3'-C2'	-5.06	97.54	102.60
85	A5	1465	G	O4'-C1'-N9	5.06	112.25	108.20
85	A5	2292	C	O4'-C1'-N1	5.06	112.24	108.20
13	AP	28	MET	CA-C-N	-5.05	106.08	117.20
36	B2	1389	C	O4'-C1'-N1	5.05	112.24	108.20
36	B2	1639	G	O4'-C1'-C2'	-5.05	100.75	105.80
50	CR	57	VAL	CG1-CB-CG2	-5.05	102.81	110.90
74	CC	305	PRO	CA-C-N	5.05	128.32	117.20
85	A5	939	G	P-O3'-C3'	5.05	125.77	119.70
85	A5	3743	G	C1'-O4'-C4'	-5.05	105.86	109.90
85	A5	3880	G	P-O3'-C3'	5.05	125.77	119.70
87	A8	28	C	C3'-C2'-C1'	5.05	105.54	101.50
52	CS	3	ALA	C-N-CA	5.05	134.33	121.70
85	A5	1362	G	C1'-O4'-C4'	-5.05	105.86	109.90
86	A7	39	C	C2'-C3'-O3'	5.05	121.78	113.70
15	AB	152	LYS	CB-CA-C	5.05	120.50	110.40
36	B2	1350	U	O4'-C1'-C2'	-5.05	100.75	105.80
36	B2	1474	A	O3'-P-O5'	5.05	113.60	104.00
37	BC	29	G	O4'-C1'-N9	5.05	112.24	108.20
85	A5	229	G	C3'-C2'-C1'	5.05	105.54	101.50
85	A5	678	C	O4'-C1'-C2'	-5.05	100.75	105.80
85	A5	2027	U	C5'-C4'-O4'	5.05	115.16	109.10
85	A5	2780	C	O4'-C1'-N1	5.05	112.24	108.20
23	AD	52	ALA	O-C-N	-5.05	114.62	122.70
53	CT	3	ASN	CA-CB-CG	5.05	124.51	113.40
85	A5	104	G	O4'-C1'-N9	5.05	112.24	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	451	C	C3'-C2'-C1'	5.05	105.54	101.50
85	A5	705	G	P-O5'-C5'	5.05	128.98	120.90
85	A5	4041	C	C5'-C4'-O4'	5.05	115.16	109.10
85	A5	4284	C	C3'-C2'-C1'	5.05	105.54	101.50
85	A5	4970	C	N1-C1'-C2'	5.05	120.57	114.00
87	A8	2	G	O4'-C1'-N9	5.05	112.24	108.20
36	B2	959	G	C3'-C2'-C1'	5.05	105.54	101.50
36	B2	1663	A	O4'-C1'-C2'	-5.05	100.75	105.80
53	CT	136	ARG	N-CA-C	-5.05	97.37	111.00
85	A5	1866	U	C3'-C2'-C1'	-5.05	97.46	101.50
85	A5	3892	U	C5'-C4'-O4'	5.05	115.16	109.10
85	A5	4229	U	C3'-C2'-C1'	-5.05	97.46	101.50
85	A5	4725	C	C3'-C2'-C1'	5.05	105.54	101.50
85	A5	4863	G	N9-C1'-C2'	-5.05	106.45	112.00
24	Ae	44	ASN	N-CA-C	5.05	124.62	111.00
36	B2	1383	A	O4'-C1'-N9	5.05	112.24	108.20
47	CI	199	TYR	N-CA-C	-5.05	97.38	111.00
85	A5	726	G	N9-C1'-C2'	5.05	120.56	114.00
85	A5	751	G	P-O3'-C3'	5.05	125.76	119.70
85	A5	1526	G	P-O3'-C3'	-5.05	113.64	119.70
85	A5	2875	C	O4'-C1'-N1	5.05	112.24	108.20
85	A5	3786	U	C1'-O4'-C4'	-5.05	105.86	109.90
85	A5	3839	G	O4'-C1'-N9	5.05	112.24	108.20
2	Ag	203	ASP	CB-CG-OD1	5.04	122.84	118.30
36	B2	1556	A	C5'-C4'-C3'	-5.04	107.93	116.00
81	CE	78	SER	C-N-CA	5.04	134.31	121.70
36	B2	1055	A	C1'-O4'-C4'	5.04	113.94	109.90
36	B2	1497	G	C3'-C2'-C1'	5.04	105.53	101.50
36	B2	1790	A	C1'-O4'-C4'	-5.04	105.86	109.90
37	BC	56	G	O4'-C1'-N9	5.04	112.23	108.20
85	A5	360	A	O4'-C1'-N9	5.04	112.23	108.20
85	A5	1382	G	O4'-C1'-N9	-5.04	104.17	108.20
85	A5	1754	U	P-O3'-C3'	5.04	125.75	119.70
85	A5	2046	G	P-O5'-C5'	-5.04	112.83	120.90
85	A5	2639	U	P-O3'-C3'	5.04	125.75	119.70
85	A5	2663	G	P-O3'-C3'	5.04	125.75	119.70
85	A5	4113	U	O4'-C1'-C2'	-5.04	100.76	105.80
85	A5	4170	A	C3'-C2'-C1'	5.04	105.53	101.50
85	A5	4771	C	O4'-C4'-C3'	-5.04	98.96	104.00
87	A8	51	U	N1-C1'-C2'	5.04	120.56	114.00
36	B2	1584	G	C3'-C2'-C1'	5.04	105.53	101.50
52	CS	19	THR	N-CA-C	5.04	124.61	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	Cr	38	PHE	N-CA-CB	5.04	119.67	110.60
47	CI	2	GLY	N-CA-C	5.04	125.70	113.10
85	A5	2688	G	P-O3'-C3'	-5.04	113.65	119.70
85	A5	3967	G	O4'-C1'-C2'	5.04	112.14	107.60
1	Az	242	GLY	C-N-CA	5.04	134.30	121.70
25	Af	106	TYR	N-CA-C	-5.04	97.40	111.00
36	B2	21	U	C3'-C2'-C1'	5.04	105.53	101.50
36	B2	1137	U	O4'-C1'-N1	5.04	112.23	108.20
36	B2	1279	C	C1'-O4'-C4'	5.04	113.93	109.90
53	CT	18	PRO	CA-C-O	5.04	132.29	120.20
85	A5	1394	G	O4'-C1'-C2'	-5.04	100.76	105.80
85	A5	2361	G	P-O3'-C3'	5.04	125.75	119.70
85	A5	4371	G	P-O3'-C3'	-5.04	113.65	119.70
85	A5	4584	A	C1'-O4'-C4'	-5.04	105.87	109.90
36	B2	1661	A	O4'-C1'-C2'	5.04	112.13	107.60
37	BC	3	C	O4'-C1'-N1	5.04	112.23	108.20
44	CM	1	MET	CB-CG-SD	5.04	127.51	112.40
36	B2	386	C	C5'-C4'-C3'	-5.04	107.94	116.00
36	B2	1040	G	C1'-O4'-C4'	-5.04	105.87	109.90
85	A5	12	A	C4'-C3'-C2'	5.04	107.64	102.60
85	A5	273	U	C3'-C2'-C1'	5.04	105.53	101.50
85	A5	2605	G	O4'-C1'-N9	5.04	112.23	108.20
21	Ab	26	GLN	CB-CA-C	-5.03	100.33	110.40
26	AJ	188	GLY	N-CA-C	5.03	125.68	113.10
36	B2	429	C	N1-C1'-C2'	5.03	120.54	114.00
36	B2	1276	A	P-O3'-C3'	5.03	125.74	119.70
36	B2	1390	U	N1-C1'-C2'	5.03	120.54	114.00
81	CE	81	GLU	CA-C-N	-5.03	106.13	117.20
85	A5	2104	G	O4'-C1'-N9	5.03	112.23	108.20
85	A5	4395	U	O4'-C4'-C3'	-5.03	98.97	104.00
85	A5	4417	C	O4'-C1'-C2'	-5.03	100.77	105.80
85	A5	4428	A	C3'-C2'-C1'	5.03	105.53	101.50
36	B2	843	C	C5'-C4'-O4'	5.03	115.14	109.10
36	B2	1417	C	O4'-C4'-C3'	-5.03	98.97	104.00
85	A5	4195	G	O4'-C1'-N9	5.03	112.22	108.20
85	A5	4338	G	P-O5'-C5'	-5.03	112.85	120.90
9	Ad	6	LEU	N-CA-C	-5.03	97.42	111.00
18	AY	29	HIS	C-N-CD	-5.03	109.53	120.60
36	B2	180	G	O3'-P-O5'	5.03	113.56	104.00
47	CI	105	CYS	N-CA-C	-5.03	97.42	111.00
85	A5	1297	U	P-O3'-C3'	5.03	125.74	119.70
85	A5	4738	C	C3'-C2'-C1'	5.03	105.53	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	A7	59	G	O4'-C1'-N9	5.03	112.22	108.20
87	A8	97	A	P-O5'-C5'	-5.03	112.85	120.90
60	Cr	1	MET	C-N-CA	5.03	134.27	121.70
81	CE	185	PRO	C-N-CA	-5.03	109.13	121.70
85	A5	518	G	O4'-C1'-C2'	5.03	112.13	107.60
85	A5	938	C	C5'-C4'-O4'	5.03	115.14	109.10
85	A5	3954	A	C1'-O4'-C4'	5.03	113.92	109.90
85	A5	4831	G	P-O3'-C3'	5.03	125.73	119.70
36	B2	124	U	O3'-P-O5'	-5.03	94.45	104.00
36	B2	1252	C	P-O3'-C3'	-5.03	113.67	119.70
36	B2	1279	C	O4'-C1'-N1	5.03	112.22	108.20
85	A5	2575	U	C3'-C2'-C1'	-5.03	97.48	101.50
87	A8	36	G	C3'-C2'-C1'	-5.03	97.48	101.50
87	A8	154	G	O4'-C1'-C2'	5.03	112.12	107.60
36	B2	618	C	C1'-O4'-C4'	5.03	113.92	109.90
36	B2	1027	A	O3'-P-O5'	5.03	113.55	104.00
36	B2	1682	C	O4'-C1'-N1	5.03	112.22	108.20
36	B2	1819	A	N9-C1'-C2'	5.03	120.53	114.00
62	Cb	35	VAL	O-C-N	-5.03	114.66	122.70
85	A5	4196	G	O4'-C1'-N9	-5.03	104.18	108.20
34	AQ	31	LEU	C-N-CA	5.02	134.26	121.70
36	B2	687	C	P-O3'-C3'	5.02	125.73	119.70
36	B2	1005	G	O4'-C1'-C2'	5.02	112.12	107.60
85	A5	735	G	O4'-C1'-C2'	-5.02	100.78	105.80
85	A5	1382	G	C3'-C2'-C1'	5.02	105.52	101.50
85	A5	2670	C	C4'-C3'-C2'	-5.02	97.58	102.60
35	Ah	179	MET	CA-CB-CG	-5.02	104.76	113.30
36	B2	798	G	O4'-C1'-N9	-5.02	104.18	108.20
81	CE	69	TYR	C-N-CA	5.02	134.26	121.70
85	A5	1804	A	C3'-C2'-C1'	5.02	105.52	101.50
3	AU	103	SER	O-C-N	-5.02	114.67	122.70
85	A5	337	U	O4'-C1'-C2'	-5.02	100.78	105.80
85	A5	1769	G	O4'-C1'-N9	-5.02	104.18	108.20
85	A5	3669	G	O4'-C1'-N9	5.02	112.22	108.20
18	AY	34	THR	N-CA-C	5.02	124.55	111.00
36	B2	21	U	C1'-O4'-C4'	5.02	113.92	109.90
36	B2	1239	U	O3'-P-O5'	5.02	113.54	104.00
53	CT	51	GLY	N-CA-C	-5.02	100.55	113.10
85	A5	1514	U	O4'-C1'-N1	5.02	112.22	108.20
85	A5	1698	C	O4'-C1'-C2'	-5.02	100.78	105.80
85	A5	2091	C	P-O3'-C3'	5.02	125.72	119.70
85	A5	2318	G	N9-C1'-C2'	-5.02	106.48	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2826	U	C4'-C3'-C2'	-5.02	97.58	102.60
10	AN	82	PRO	CA-C-N	-5.02	106.16	117.20
15	AB	38	MET	CB-CA-C	5.02	120.44	110.40
25	Af	86	THR	N-CA-C	-5.02	97.45	111.00
36	B2	219	U	C3'-C2'-C1'	5.02	105.51	101.50
49	CQ	9	LYS	O-C-N	5.02	130.73	122.70
85	A5	2114	G	C3'-C2'-C1'	-5.02	97.49	101.50
85	A5	4660	G	P-O3'-C3'	5.02	125.72	119.70
85	A5	4684	A	C3'-C2'-C1'	5.02	105.51	101.50
36	B2	1013	U	O4'-C1'-N1	5.02	112.21	108.20
85	A5	1996	C	O4'-C1'-C2'	-5.02	100.78	105.80
85	A5	2553	A	O4'-C4'-C3'	-5.02	98.98	104.00
36	B2	587	A	O4'-C1'-N9	5.01	112.21	108.20
60	Cr	82	ILE	N-CA-C	5.01	124.54	111.00
63	CB	149	ASP	C-N-CA	-5.01	109.16	121.70
64	CF	220	MET	CA-C-N	-5.01	106.17	117.20
85	A5	147	A	C1'-O4'-C4'	5.01	113.91	109.90
85	A5	641	G	C3'-C2'-C1'	-5.01	97.49	101.50
85	A5	1048	G	C1'-O4'-C4'	-5.01	105.89	109.90
85	A5	1866	U	C1'-O4'-C4'	-5.01	105.89	109.90
25	Af	148	TYR	CB-CG-CD1	-5.01	117.99	121.00
59	CZ	99	ASP	CA-CB-CG	5.01	124.43	113.40
36	B2	386	C	O4'-C1'-N1	5.01	112.21	108.20
36	B2	1250	A	N9-C1'-C2'	-5.01	106.49	112.00
36	B2	1310	U	O4'-C1'-N1	5.01	112.21	108.20
85	A5	1072	C	P-O3'-C3'	5.01	125.71	119.70
85	A5	1566	C	C3'-C2'-C1'	5.01	105.51	101.50
85	A5	2699	C	P-O3'-C3'	5.01	125.71	119.70
85	A5	4872	G	P-O5'-C5'	-5.01	112.88	120.90
36	B2	85	A	P-O3'-C3'	5.01	125.71	119.70
36	B2	1446	A	C4'-C3'-O3'	5.01	123.02	113.00
36	B2	1619	A	P-O3'-C3'	5.01	125.71	119.70
39	Cq	37	SER	CB-CA-C	5.01	119.62	110.10
63	CB	296	GLY	N-CA-C	-5.01	100.58	113.10
85	A5	714	G	C1'-O4'-C4'	-5.01	105.89	109.90
85	A5	1338	G	C3'-C2'-C1'	-5.01	97.49	101.50
85	A5	2559	G	C3'-C2'-C1'	-5.01	97.49	101.50
85	A5	3619	G	P-O3'-C3'	5.01	125.71	119.70
85	A5	4544	A	C4'-C3'-O3'	5.01	123.02	113.00
36	B2	301	A	N9-C1'-C2'	-5.01	106.49	112.00
36	B2	351	G	O4'-C4'-C3'	-5.01	98.99	104.00
36	B2	496	C	C3'-C2'-C1'	5.01	105.51	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	Cg	83	CYS	CB-CA-C	5.01	120.42	110.40
82	CG	74	LEU	CA-CB-CG	-5.01	103.78	115.30
85	A5	477	C	N1-C1'-C2'	-5.01	106.49	112.00
85	A5	1286	C	N1-C1'-C2'	-5.01	106.49	112.00
85	A5	2041	A	C1'-O4'-C4'	5.01	113.91	109.90
85	A5	2330	G	C1'-O4'-C4'	5.01	113.91	109.90
36	B2	244	A	C1'-O4'-C4'	5.01	113.91	109.90
37	BC	27	U	C1'-O4'-C4'	5.01	113.91	109.90
85	A5	207	G	O4'-C1'-C2'	5.01	112.11	107.60
85	A5	1298	C	N1-C1'-C2'	5.01	120.51	114.00
85	A5	1644	C	O4'-C1'-N1	5.01	112.20	108.20
85	A5	2765	A	O5'-C5'-C4'	5.01	121.21	111.70
85	A5	4623	G	O4'-C1'-N9	5.01	112.20	108.20
36	B2	575	A	C1'-O4'-C4'	-5.00	105.90	109.90
36	B2	1578	U	C5'-C4'-O4'	5.00	115.11	109.10
64	CF	21	LYS	CB-CG-CD	5.00	124.61	111.60
85	A5	1830	G	O4'-C1'-N9	5.00	112.20	108.20
85	A5	4719	G	N9-C1'-C2'	5.00	120.51	114.00
85	A5	4838	U	P-O5'-C5'	-5.00	112.89	120.90
36	B2	71	G	N9-C1'-C2'	-5.00	106.50	112.00
36	B2	79	A	C1'-O4'-C4'	5.00	113.90	109.90
36	B2	1338	G	C4'-C3'-C2'	-5.00	97.60	102.60
49	CQ	11	ARG	CA-C-O	5.00	130.61	120.10
52	CS	88	SER	CB-CA-C	-5.00	100.59	110.10
78	Co	73	VAL	CB-CA-C	-5.00	101.89	111.40
85	A5	268	G	C3'-C2'-C1'	-5.00	97.50	101.50
85	A5	1547	A	C1'-O4'-C4'	5.00	113.90	109.90
85	A5	1812	C	C1'-O4'-C4'	-5.00	105.90	109.90
85	A5	1847	C	C3'-C2'-C1'	5.00	105.50	101.50
85	A5	2105	A	O3'-P-O5'	5.00	113.51	104.00
85	A5	2855	G	C3'-C2'-C1'	5.00	105.50	101.50
85	A5	4870	G	C4'-C3'-C2'	5.00	107.60	102.60
85	A5	4934	A	C3'-C2'-C1'	5.00	105.50	101.50
85	A5	4981	G	C5'-C4'-O4'	-5.00	103.09	109.10
85	A5	5033	G	C1'-O4'-C4'	-5.00	105.90	109.90
4	AK	55	ARG	CD-NE-CZ	5.00	130.60	123.60
36	B2	596	U	P-O3'-C3'	5.00	125.70	119.70
36	B2	834	C	O4'-C1'-N1	5.00	112.20	108.20
36	B2	1430	C	P-O5'-C5'	-5.00	112.90	120.90
36	B2	1755	C	C3'-C2'-C1'	5.00	105.50	101.50
85	A5	189	G	C1'-O4'-C4'	-5.00	105.90	109.90
85	A5	1437	C	C5'-C4'-C3'	5.00	124.00	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A5	2619	G	C5'-C4'-O4'	5.00	115.10	109.10
85	A5	3964	U	C5'-C4'-O4'	5.00	115.10	109.10

All (42) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	Az	73	THR	CA
1	Az	854	PHE	CA
8	AS	92	ASP	CA
12	AR	3	ARG	CA
14	AT	93	SER	CA
18	AY	86	GLU	CA
26	AJ	138	ARG	CA
27	AE	171	ASP	CA
28	AC	172	ASN	CA
36	B2	554	A	C1'
36	B2	798	G	C4'
36	B2	839	C	C1'
36	B2	1155	U	C1'
36	B2	1418	C	C1'
36	B2	1507	G	C1'
37	BC	17	G	C4'
38	Cz	28	PHE	CA
38	Cz	210	MET	CA
40	CK	99	LYS	CA
45	Ca	120	GLN	CA
46	CN	79	ALA	CA
48	CD	285	ALA	CA
58	CW	73	ARG	CA
58	CW	83	THR	CA
59	CZ	79	HIS	CA
61	Ch	78	TYR	CA
64	CF	98	ILE	CA
67	Ce	16	ARG	CA
81	CE	31	ASN	CA
81	CE	42	PRO	CA
81	CE	118	THR	CA
81	CE	119	GLU	CA
81	CE	127	SER	CA
82	CG	200	THR	CA
84	Cu	45	GLU	CA
85	A5	1072	C	C1'

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Mol	Chain	Res	Type	Atom
85	A5	2097	U	C1'
85	A5	2112	G	C1'
85	A5	2126	G	C1'
85	A5	2258	C	C1'
85	A5	4626	A	C1'
85	A5	4942	C	C1'

All (587) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
16	AA	146	ALA	Mainchain
16	AA	185	MET	Mainchain
16	AA	192	GLU	Mainchain,Peptide
16	AA	199	PRO	Mainchain
16	AA	206	ASP	Mainchain,Peptide
16	AA	23	THR	Mainchain
16	AA	4	ALA	Peptide
16	AA	63	ARG	Sidechain
16	AA	97	THR	Mainchain
15	AB	146	ARG	Peptide
15	AB	56	LYS	Mainchain
15	AB	75	GLN	Peptide
15	AB	76	ASN	Peptide
28	AC	112	VAL	Mainchain,Peptide
28	AC	172	ASN	Peptide
28	AC	175	GLY	Mainchain
28	AC	256	TRP	Mainchain
28	AC	53	GLY	Mainchain
28	AC	58	LYS	Mainchain
23	AD	144	GLY	Peptide
23	AD	190	LEU	Mainchain
23	AD	3	VAL	Mainchain,Peptide
23	AD	96	LEU	Mainchain
27	AE	1	MET	Peptide
27	AE	129	ILE	Peptide
30	AF	43	GLU	Peptide
30	AF	44	LYS	Peptide
30	AF	79	HIS	Peptide
29	AG	155	GLN	Mainchain
31	AH	105	THR	Peptide
31	AH	108	SER	Peptide
31	AH	109	ARG	Sidechain

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Mol	Chain	Res	Type	Group
31	AH	113	LYS	Mainchain
31	AH	118	ARG	Sidechain
31	AH	16	PRO	Peptide
31	AH	17	ASP	Peptide
31	AH	190	PRO	Peptide
31	AH	193	GLN	Peptide
31	AH	53	VAL	Peptide
33	AI	123	ARG	Mainchain
33	AI	129	LEU	Mainchain
33	AI	131	PRO	Mainchain
33	AI	155	ASN	Peptide
33	AI	190	LEU	Mainchain
33	AI	2	GLY	Mainchain
33	AI	3	ILE	Peptide
33	AI	55	TYR	Sidechain
26	AJ	146	SER	Mainchain
26	AJ	16	PRO	Peptide
26	AJ	161	LEU	Mainchain,Peptide
26	AJ	162	ARG	Peptide
26	AJ	164	PRO	Mainchain
26	AJ	165	TYR	Peptide
26	AJ	85	GLY	Mainchain
26	AJ	90	GLY	Peptide
26	AJ	91	LYS	Mainchain
26	AJ	92	MET	Peptide
4	AK	29	MET	Peptide
4	AK	30	PRO	Peptide
4	AK	37	ASP	Peptide
4	AK	43	LEU	Peptide
4	AK	55	ARG	Sidechain
4	AK	70	TYR	Sidechain
4	AK	86	PRO	Peptide
4	AK	89	ILE	Mainchain
4	AK	90	VAL	Mainchain
4	AK	92	ALA	Peptide
4	AK	97	SER	Peptide
11	AL	147	LYS	Peptide
11	AL	149	ALA	Mainchain
11	AL	152	LYS	Mainchain
11	AL	18	GLN	Peptide
11	AL	26	GLY	Peptide
11	AL	27	GLU	Peptide

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Mol	Chain	Res	Type	Group
11	AL	97	ARG	Peptide
7	AM	98	GLY	Peptide
10	AN	13	GLN	Peptide
10	AN	14	SER	Peptide
10	AN	18	TYR	Peptide
10	AN	82	PRO	Peptide
5	AO	138	ASP	Peptide
13	AP	17	TYR	Sidechain,Peptide
13	AP	18	ARG	Sidechain
13	AP	27	ASP	Peptide
13	AP	36	LEU	Peptide
13	AP	37	TYR	Peptide
13	AP	38	SER	Peptide
13	AP	48	GLY	Mainchain,Peptide
13	AP	50	ARG	Peptide
34	AQ	146	ARG	Sidechain
34	AQ	31	LEU	Peptide
34	AQ	43	GLU	Peptide
34	AQ	47	LEU	Peptide
12	AR	1	MET	Mainchain
12	AR	122	PRO	Peptide
12	AR	88	VAL	Mainchain,Peptide
12	AR	89	SER	Peptide
8	AS	10	GLN	Peptide
8	AS	141	ARG	Mainchain
8	AS	15	VAL	Peptide
8	AS	40	TYR	Sidechain,Mainchain
8	AS	8	LYS	Peptide
8	AS	87	GLN	Mainchain
8	AS	9	PHE	Peptide
8	AS	93	GLY	Peptide
8	AS	94	LYS	Peptide
14	AT	142	ASN	Mainchain,Peptide
14	AT	4	VAL	Mainchain,Peptide
14	AT	42	HIS	Sidechain
14	AT	82	ARG	Sidechain
3	AU	104	ILE	Mainchain
3	AU	105	SER	Mainchain
3	AU	108	PRO	Peptide
3	AU	46	LYS	Peptide
3	AU	50	VAL	Peptide
3	AU	68	THR	Peptide

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Mol	Chain	Res	Type	Group
3	AU	70	CYS	Mainchain
3	AU	93	SER	Mainchain
17	AV	25	GLY	Peptide
17	AV	30	ALA	Mainchain
17	AV	31	SER	Peptide
17	AV	48	GLY	Mainchain,Peptide
17	AV	49	GLN	Peptide
17	AV	61	ARG	Sidechain
17	AV	63	GLY	Mainchain
17	AV	81	LYS	Mainchain,Peptide
17	AV	9	VAL	Peptide
32	AW	2	VAL	Mainchain
32	AW	84	LYS	Peptide
6	AX	1	MET	Peptide
6	AX	127	ASN	Peptide
6	AX	23	HIS	Mainchain
6	AX	42	GLY	Peptide
18	AY	103	SER	Peptide
18	AY	32	LYS	Peptide
18	AY	33	ALA	Peptide
18	AY	34	THR	Peptide
18	AY	85	ASN	Peptide
18	AY	86	GLU	Mainchain
19	AZ	101	SER	Mainchain
19	AZ	104	ARG	Sidechain,Mainchain
19	AZ	41	ARG	Peptide
19	AZ	93	SER	Peptide
19	AZ	95	GLY	Peptide
20	Aa	105	GLY	Peptide
20	Aa	96	THR	Mainchain,Peptide
21	Ab	2	PRO	Mainchain
21	Ab	36	LYS	Peptide
21	Ab	37	CYS	Mainchain
24	Ae	19	VAL	Mainchain
24	Ae	20	ALA	Mainchain,Peptide
24	Ae	22	GLN	Mainchain
24	Ae	23	GLU	Peptide
25	Af	102	VAL	Peptide
25	Af	105	TYR	Peptide
25	Af	135	HIS	Mainchain
25	Af	148	TYR	Peptide
25	Af	84	SER	Peptide

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Mol	Chain	Res	Type	Group
25	Af	90	LYS	Peptide
2	Ag	12	LYS	Peptide
2	Ag	142	VAL	Mainchain
2	Ag	148	SER	Mainchain
2	Ag	158	PRO	Peptide
2	Ag	159	ASN	Mainchain,Peptide
2	Ag	160	SER	Peptide
2	Ag	192	THR	Peptide
2	Ag	273	GLU	Peptide
2	Ag	283	PRO	Peptide
2	Ag	47	ARG	Peptide
2	Ag	59	LEU	Mainchain
2	Ag	60	ARG	Peptide
35	Ah	143	GLU	Mainchain
35	Ah	161	PRO	Mainchain,Peptide
35	Ah	169	GLY	Mainchain
1	Az	102	LEU	Mainchain
1	Az	108	HIS	Peptide
1	Az	111	PHE	Sidechain
1	Az	112	SER	Mainchain,Peptide
1	Az	121	VAL	Mainchain
1	Az	123	ASP	Mainchain
1	Az	193	GLY	Mainchain
1	Az	196	GLU	Peptide
1	Az	197	SER	Peptide
1	Az	199	PRO	Peptide
1	Az	242	GLY	Mainchain,Peptide
1	Az	245	GLY	Peptide
1	Az	246	PRO	Peptide
1	Az	247	ALA	Peptide
1	Az	266	PHE	Mainchain,Peptide
1	Az	269	ALA	Mainchain
1	Az	272	LYS	Peptide
1	Az	325	SER	Peptide
1	Az	4	PHE	Peptide
1	Az	403	PRO	Peptide
1	Az	406	ASP	Peptide
1	Az	408	GLY	Peptide
1	Az	42	LYS	Mainchain
1	Az	495	ARG	Mainchain,Peptide
1	Az	540	GLU	Peptide
1	Az	55	ARG	Peptide

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Mol	Chain	Res	Type	Group
1	Az	573	SER	Peptide
1	Az	574	ASP	Peptide
1	Az	667	LYS	Peptide
1	Az	669	VAL	Peptide
1	Az	702	PHE	Sidechain
1	Az	775	GLN	Peptide
1	Az	807	GLN	Peptide
1	Az	827	ASN	Peptide
1	Az	847	GLY	Peptide
1	Az	854	PHE	Sidechain,Mainchain
51	CA	67	TYR	Sidechain
63	CB	110	ILE	Mainchain
63	CB	111	SER	Peptide
63	CB	113	GLU	Peptide
63	CB	15	GLY	Mainchain
63	CB	16	PHE	Mainchain
63	CB	248	LEU	Mainchain,Peptide
63	CB	255	GLY	Mainchain
63	CB	291	TYR	Peptide
63	CB	292	LEU	Peptide
63	CB	293	ILE	Mainchain
63	CB	298	LEU	Mainchain
63	CB	355	THR	Mainchain
63	CB	392	LEU	Peptide
63	CB	40	PRO	Peptide
63	CB	7	SER	Mainchain
63	CB	76	VAL	Mainchain
63	CB	77	THR	Peptide
74	CC	108	TRP	Mainchain,Peptide
74	CC	12	SER	Mainchain,Peptide
74	CC	150	LEU	Mainchain,Peptide
74	CC	188	ARG	Sidechain
74	CC	221	PHE	Sidechain
74	CC	262	GLU	Mainchain
74	CC	267	TRP	Mainchain
74	CC	274	LYS	Peptide
74	CC	305	PRO	Mainchain
74	CC	306	ARG	Mainchain,Peptide
74	CC	307	LYS	Mainchain
74	CC	308	LYS	Mainchain
74	CC	310	HIS	Peptide
74	CC	313	VAL	Peptide

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Mol	Chain	Res	Type	Group
74	CC	314	LEU	Peptide
74	CC	320	LYS	Peptide
74	CC	321	ASN	Peptide
74	CC	323	ARG	Sidechain
74	CC	337	ARG	Sidechain
74	CC	346	ASN	Mainchain
74	CC	54	VAL	Mainchain,Peptide
74	CC	84	THR	Mainchain
74	CC	85	HIS	Peptide
74	CC	88	GLY	Peptide
48	CD	170	GLY	Mainchain
48	CD	218	ALA	Peptide
48	CD	222	GLN	Peptide
48	CD	252	VAL	Peptide
48	CD	254	GLU	Peptide
48	CD	256	LYS	Peptide
48	CD	259	LYS	Mainchain,Peptide
48	CD	261	VAL	Peptide
48	CD	262	LYS	Peptide
48	CD	269	PRO	Peptide
48	CD	284	LYS	Peptide
48	CD	33	ARG	Sidechain
48	CD	57	ASN	Peptide
48	CD	66	TYR	Peptide
81	CE	105	ARG	Peptide
81	CE	114	ARG	Sidechain,Peptide
81	CE	115	TYR	Peptide
81	CE	117	PRO	Mainchain
81	CE	118	THR	Mainchain
81	CE	125	LEU	Peptide
81	CE	126	LEU	Mainchain,Peptide
81	CE	127	SER	Peptide
81	CE	128	HIS	Peptide
81	CE	129	GLY	Peptide
81	CE	131	LYS	Peptide
81	CE	132	PRO	Peptide
81	CE	134	SER	Mainchain
81	CE	140	LEU	Mainchain
81	CE	188	ARG	Sidechain
81	CE	223	ARG	Peptide
81	CE	224	LYS	Peptide
81	CE	225	PRO	Peptide

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Mol	Chain	Res	Type	Group
81	CE	229	GLU	Peptide
81	CE	27	VAL	Peptide
81	CE	30	GLY	Mainchain
81	CE	31	ASN	Peptide
81	CE	32	LEU	Mainchain
81	CE	36	LYS	Mainchain
81	CE	38	LYS	Peptide
81	CE	41	LYS	Peptide
81	CE	42	PRO	Peptide
81	CE	57	TYR	Sidechain
81	CE	59	ARG	Sidechain
81	CE	78	SER	Peptide
81	CE	80	VAL	Peptide
81	CE	84	LYS	Mainchain,Peptide
81	CE	93	THR	Mainchain
64	CF	20	LYS	Peptide
64	CF	22	ARG	Mainchain
64	CF	23	ARG	Mainchain
64	CF	46	ARG	Sidechain
82	CG	105	GLU	Peptide
82	CG	106	THR	Mainchain
82	CG	162	ASP	Peptide
82	CG	183	ILE	Mainchain,Peptide
82	CG	32	PHE	Mainchain
82	CG	33	GLU	Peptide
82	CG	56	LYS	Peptide
82	CG	79	ALA	Peptide
82	CG	86	ALA	Peptide
80	CH	106	GLN	Peptide
80	CH	107	GLU	Peptide
80	CH	110	SER	Peptide
80	CH	189	GLN	Peptide
80	CH	190	ALA	Peptide
80	CH	21	LYS	Peptide
80	CH	40	HIS	Mainchain
80	CH	49	GLY	Mainchain
47	CI	104	SER	Mainchain
47	CI	107	GLY	Peptide
47	CI	108	ALA	Peptide
47	CI	198	LYS	Mainchain,Peptide
47	CI	199	TYR	Peptide
47	CI	203	HIS	Mainchain

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Mol	Chain	Res	Type	Group
47	CI	206	LEU	Peptide
47	CI	211	VAL	Mainchain
47	CI	24	ARG	Peptide
47	CI	3	ARG	Peptide
47	CI	4	ARG	Sidechain
47	CI	5	PRO	Peptide
40	CK	10	ILE	Peptide
40	CK	114	ARG	Mainchain
40	CK	130	LYS	Mainchain
40	CK	27	ALA	Peptide
40	CK	4	LYS	Peptide
40	CK	44	ASP	Mainchain
40	CK	86	LYS	Peptide
40	CK	98	ILE	Peptide
42	CL	11	LYS	Peptide
42	CL	128	PRO	Mainchain,Peptide
42	CL	13	HIS	Peptide
42	CL	132	SER	Peptide
42	CL	155	MET	Mainchain
42	CL	161	TYR	Sidechain,Mainchain
42	CL	163	LYS	Mainchain
42	CL	164	GLU	Peptide
42	CL	166	ALA	Mainchain,Peptide
42	CL	4	SER	Mainchain
42	CL	45	ARG	Mainchain
42	CL	47	ALA	Peptide
42	CL	51	ALA	Peptide
42	CL	56	ARG	Sidechain
42	CL	87	HIS	Peptide
42	CL	9	VAL	Peptide
44	CM	2	VAL	Mainchain,Peptide
44	CM	3	PHE	Peptide
44	CM	6	PHE	Mainchain
44	CM	67	SER	Peptide
44	CM	68	ALA	Peptide
44	CM	72	TYR	Sidechain
44	CM	81	ASP	Peptide
46	CN	48	ALA	Peptide
46	CN	77	LYS	Mainchain
46	CN	79	ALA	Mainchain
41	CO	110	PRO	Peptide
41	CO	63	ASN	Peptide

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Mol	Chain	Res	Type	Group
54	CP	108	ASP	Mainchain
54	CP	63	TYR	Peptide
49	CQ	1	MET	Peptide
49	CQ	11	ARG	Mainchain,Peptide
49	CQ	12	LYS	Mainchain
49	CQ	156	PRO	Peptide
49	CQ	2	GLY	Peptide
49	CQ	38	ARG	Mainchain
49	CQ	39	THR	Peptide
49	CQ	40	ASN	Mainchain
49	CQ	6	ARG	Peptide
50	CR	143	HIS	Sidechain
50	CR	42	ARG	Mainchain
52	CS	151	LYS	Peptide
52	CS	152	PHE	Mainchain
52	CS	171	ARG	Peptide
52	CS	173	ASN	Mainchain
52	CS	18	PRO	Mainchain,Peptide
52	CS	35	PRO	Mainchain
52	CS	75	VAL	Peptide
52	CS	81	TRP	Mainchain
52	CS	87	ARG	Peptide
52	CS	88	SER	Peptide
52	CS	89	GLY	Peptide
53	CT	123	GLY	Mainchain
53	CT	130	ARG	Mainchain
53	CT	137	GLU	Peptide
53	CT	138	ALA	Peptide
53	CT	140	PHE	Sidechain
53	CT	141	VAL	Mainchain
53	CT	144	ASN	Peptide
53	CT	151	LEU	Peptide
53	CT	18	PRO	Peptide
53	CT	24	VAL	Peptide
53	CT	75	VAL	Mainchain
53	CT	81	LYS	Peptide
53	CT	92	ARG	Peptide
55	CU	57	GLY	Peptide
55	CU	58	GLY	Peptide
55	CU	60	VAL	Mainchain
55	CU	76	VAL	Peptide
43	CV	44	GLY	Peptide

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Mol	Chain	Res	Type	Group
43	CV	46	LYS	Peptide
58	CW	1	MET	Mainchain
58	CW	16	GLY	Mainchain
58	CW	22	ALA	Mainchain
58	CW	23	ARG	Peptide
58	CW	24	THR	Peptide
58	CW	25	ASP	Peptide
58	CW	32	LEU	Mainchain
58	CW	70	LYS	Peptide
58	CW	72	THR	Peptide
58	CW	73	ARG	Sidechain
58	CW	97	LYS	Peptide
56	CX	117	TYR	Mainchain
56	CX	37	LYS	Peptide
56	CX	38	LYS	Peptide
56	CX	53	ARG	Sidechain
56	CX	57	GLN	Peptide
57	CY	42	TYR	Mainchain
57	CY	62	TYR	Mainchain
57	CY	66	GLN	Peptide
57	CY	82	ILE	Mainchain
57	CY	84	ARG	Peptide
57	CY	97	VAL	Mainchain
59	CZ	101	PHE	Sidechain
59	CZ	34	SER	Peptide
59	CZ	35	ASP	Peptide
59	CZ	55	ALA	Peptide
59	CZ	57	MET	Peptide
45	Ca	105	ARG	Sidechain
45	Ca	114	LYS	Mainchain
45	Ca	115	GLY	Peptide
45	Ca	118	PRO	Peptide
45	Ca	3	SER	Mainchain,Peptide
45	Ca	51	GLY	Mainchain
45	Ca	89	ASN	Peptide
45	Ca	97	ALA	Peptide
62	Cb	19	ASN	Peptide
62	Cb	20	GLY	Peptide
62	Cb	26	SER	Peptide
65	Cc	108	MET	Mainchain,Peptide
65	Cc	92	CYS	Peptide
66	Cd	105	LEU	Mainchain

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Mol	Chain	Res	Type	Group
66	Cd	112	THR	Peptide
66	Cd	114	PHE	Mainchain,Peptide
66	Cd	12	LYS	Peptide
66	Cd	14	ARG	Sidechain
66	Cd	18	ASN	Peptide
66	Cd	19	GLU	Peptide
66	Cd	58	GLY	Mainchain,Peptide
67	Ce	1	MET	Peptide
67	Ce	11	LYS	Peptide
67	Ce	130	ARG	Peptide
67	Ce	16	ARG	Peptide
67	Ce	95	TYR	Sidechain
68	Cf	100	ARG	Sidechain,Mainchain
68	Cf	3	GLY	Peptide
68	Cf	30	ILE	Peptide
68	Cf	33	VAL	Peptide
68	Cf	34	TYR	Peptide
68	Cf	5	LEU	Peptide
68	Cf	52	LYS	Mainchain,Peptide
68	Cf	53	ALA	Peptide
68	Cf	55	ASN	Peptide
68	Cf	56	ASN	Peptide
68	Cf	57	THR	Peptide
68	Cf	6	TRP	Peptide
69	Cg	41	ALA	Mainchain
69	Cg	44	SER	Peptide
69	Cg	45	ALA	Peptide
69	Cg	77	ALA	Peptide
61	Ch	118	LYS	Mainchain
61	Ch	119	TYR	Peptide
61	Ch	121	VAL	Mainchain
61	Ch	36	VAL	Mainchain
61	Ch	38	GLY	Peptide
61	Ch	40	ALA	Peptide
61	Ch	75	GLY	Peptide
61	Ch	78	TYR	Mainchain
70	Ci	11	LEU	Peptide
70	Ci	32	ARG	Sidechain
70	Ci	4	ARG	Peptide
70	Ci	5	TYR	Peptide
70	Ci	6	PRO	Peptide
70	Ci	63	VAL	Mainchain

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Mol	Chain	Res	Type	Group
71	Cj	86	PRO	Peptide
72	Ck	30	ASP	Mainchain
72	Ck	62	PRO	Peptide
75	Cm	104	HIS	Mainchain
75	Cm	105	PRO	Mainchain,Peptide
75	Cm	106	ARG	Peptide
78	Co	3	ASN	Mainchain
78	Co	34	TYR	Mainchain
78	Co	72	CYS	Peptide
78	Co	76	ASN	Peptide
77	Cp	91	ASP	Peptide
39	Cq	110	ALA	Peptide
39	Cq	133	GLU	Mainchain
39	Cq	142	GLY	Peptide
39	Cq	148	SER	Peptide
39	Cq	155	LEU	Peptide
39	Cq	205	ASP	Peptide
39	Cq	206	ILE	Peptide
39	Cq	263	GLU	Mainchain
39	Cq	32	ALA	Mainchain
39	Cq	33	ASP	Mainchain
39	Cq	44	ARG	Sidechain
39	Cq	57	LYS	Mainchain
39	Cq	6	ARG	Peptide
39	Cq	91	THR	Mainchain
60	Cr	112	ARG	Sidechain
60	Cr	136	SER	Mainchain
60	Cr	36	ASN	Mainchain
60	Cr	40	TYR	Sidechain
60	Cr	43	LEU	Peptide
60	Cr	56	ASP	Peptide
60	Cr	60	VAL	Peptide
60	Cr	66	ARG	Sidechain,Peptide
60	Cr	72	LYS	Peptide
60	Cr	80	THR	Mainchain
60	Cr	81	THR	Mainchain,Peptide
60	Cr	82	ILE	Peptide
38	Cz	209	THR	Mainchain
38	Cz	27	LYS	Mainchain
38	Cz	28	PHE	Sidechain,Mainchain
38	Cz	98	LYS	Peptide
38	Cz	99	LEU	Mainchain

## 5.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	Az	6673	0	6743	0	0
2	Ag	2436	0	2388	0	0
3	AU	822	0	886	216	0
4	AK	827	0	853	360	0
5	AO	1016	0	1039	296	0
6	AX	1106	0	1177	308	0
7	AM	960	0	988	264	0
8	AS	1139	0	1188	469	0
9	Ad	445	0	441	0	0
10	AN	1208	0	1294	265	0
11	AL	1296	0	1370	408	0
12	AR	1019	0	1070	375	0
13	AP	1062	0	1121	528	0
14	AT	1101	0	1135	398	0
15	AB	1747	0	1823	520	0
16	AA	1642	0	1644	649	0
17	AV	625	0	625	273	0
18	AY	1023	0	1088	512	0
19	AZ	598	0	652	212	0
20	Aa	847	0	899	0	0
21	Ab	659	0	680	0	0
22	Ac	506	0	536	0	0
23	AD	1765	0	1857	609	0
24	Ae	468	0	514	0	0
25	Af	581	0	598	0	0
26	AJ	1498	0	1599	546	0
27	AE	2084	0	2189	545	0
28	AC	1751	0	1831	594	0
29	AG	1923	0	2085	579	0
30	AF	1509	0	1560	476	0
31	AH	1530	0	1624	492	0
32	AW	1034	0	1079	275	0
33	AI	1686	0	1772	464	0
34	AQ	1124	0	1193	490	0
35	Ah	566	0	554	0	0
36	B2	38377	0	19188	780	0
37	BC	1604	0	816	7	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
38	Cz	1741	0	1853	0	0
39	Cq	2138	0	2191	0	0
40	CK	1238	0	1295	650	0
41	CO	1655	0	1795	546	0
42	CL	1701	0	1815	428	0
43	CV	989	0	1045	180	0
44	CM	1139	0	1209	431	0
45	Ca	1162	0	1210	0	0
46	CN	1701	0	1747	506	0
47	CI	1711	0	1746	471	0
48	CD	2353	0	2370	610	0
49	CQ	1521	0	1639	577	0
50	CR	1580	0	1746	396	0
51	CA	1957	0	2051	464	0
52	CS	1453	0	1485	648	0
53	CT	1298	0	1363	412	0
54	CP	1233	0	1260	304	0
55	CU	921	0	926	262	0
56	CX	994	0	1078	310	0
57	CY	1107	0	1193	349	0
58	CW	1015	0	1074	372	0
59	CZ	1107	0	1182	345	0
60	Cr	1104	0	1183	0	0
61	Ch	1023	0	1159	0	0
62	Cb	635	0	683	0	0
63	CB	3202	0	3335	1006	0
64	CF	1910	0	2046	322	0
65	Cc	776	0	812	0	0
66	Cd	931	0	979	0	0
67	Ce	1096	0	1188	0	0
68	Cf	876	0	910	0	0
69	Cg	906	0	999	0	0
70	Ci	840	0	925	0	0
71	Cj	733	0	773	0	0
72	Ck	569	0	637	0	0
73	Cl	444	0	483	0	0
74	CC	2925	0	3093	1079	0
75	Cm	429	0	469	0	0
76	Cn	240	0	289	0	0
77	Cp	703	0	755	0	0
78	Co	863	0	930	0	0
79	CJ	1349	0	1382	350	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
80	CH	1526	0	1603	415	0
81	CE	2113	0	2315	865	0
82	CG	1973	0	2123	864	0
83	Cs	426	0	436	0	0
83	Ct	426	0	436	0	0
84	Cu	419	0	433	0	0
84	Cv	419	0	433	0	0
85	A5	84946	0	41833	835	0
86	A7	2578	0	1306	55	0
87	A8	3334	0	1693	52	0
All	All	237685	0	177013	23825	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 82.

All (23825) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:CG:136:LEU:HD21	82:CG:204:PHE:CZ	1.19	1.70
48:CD:223:PHE:CD1	48:CD:226:TYR:CE2	1.77	1.70
40:CK:123:ARG:CD	40:CK:129:ILE:HD11	1.23	1.69
63:CB:40:PRO:HB2	63:CB:42:HIS:CD2	1.23	1.68
13:AP:53:GLN:HG2	13:AP:80:LEU:CD1	1.24	1.68
53:CT:12:ARG:HG2	53:CT:13:TYR:CE2	1.25	1.66
52:CS:16:CYS:SG	52:CS:54:MET:HE2	1.26	1.66
31:AH:83:LEU:HD13	31:AH:92:VAL:CG2	1.25	1.66
28:AC:65:LYS:HD2	28:AC:266:TYR:CE1	1.20	1.66
48:CD:20:PHE:HD2	48:CD:30:TYR:CE2	1.09	1.65
23:AD:132:LYS:CB	23:AD:191:PRO:HG3	1.24	1.65
14:AT:77:LYS:HG3	14:AT:92:PHE:CE2	1.13	1.64
28:AC:108:LYS:HD2	28:AC:233:LEU:CD2	1.27	1.64
59:CZ:73:LYS:HG2	59:CZ:75:TYR:CZ	1.15	1.64
29:AG:41:LEU:CD2	29:AG:45:TRP:CZ3	1.80	1.64
8:AS:120:HIS:CE1	13:AP:123:TYR:CE2	1.85	1.64
49:CQ:154:LYS:CE	49:CQ:163:THR:HG21	1.25	1.64
34:AQ:42:ILE:HD13	34:AQ:51:LEU:CD2	1.16	1.63
13:AP:41:GLN:CG	13:AP:84:ILE:HG21	1.19	1.63
55:CU:21:PHE:CE1	55:CU:80:LYS:HE2	1.31	1.63
80:CH:109:GLY:CA	80:CH:128:MET:HB2	1.18	1.62
57:CY:55:VAL:CG1	57:CY:104:VAL:HG11	1.15	1.62
30:AF:25:THR:HG21	30:AF:42:LYS:CG	1.22	1.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AY:55:ILE:HG12	18:AY:75:ILE:CG1	1.22	1.61
40:CK:61:LYS:HE3	40:CK:72:GLU:CB	1.18	1.61
34:AQ:135:PRO:HD3	34:AQ:141:TYR:CE1	1.16	1.61
54:CP:95:LEU:HD12	54:CP:148:MET:SD	1.32	1.61
59:CZ:46:ILE:HD11	59:CZ:49:TYR:CE1	1.08	1.61
74:CC:144:ILE:HG23	74:CC:147:VAL:CG2	1.20	1.61
16:AA:21:ALA:CB	16:AA:173:LEU:CD1	1.77	1.61
44:CM:77:TRP:CA	44:CM:82:ILE:HD11	1.23	1.61
41:CO:16:LEU:HD23	41:CO:41:ILE:CD1	1.13	1.61
4:AK:14:LEU:HD22	4:AK:35:LEU:CD2	1.22	1.60
3:AU:40:ILE:CD1	3:AU:53:PRO:HG3	1.20	1.60
82:CG:83:PHE:CE1	82:CG:159:HIS:HA	1.29	1.60
63:CB:40:PRO:CB	63:CB:42:HIS:HD2	1.10	1.60
80:CH:105:ILE:CG2	80:CH:112:VAL:HA	1.14	1.60
29:AG:131:ARG:CD	29:AG:131:ARG:CG	1.79	1.60
13:AP:41:GLN:CG	13:AP:84:ILE:CG2	1.79	1.60
8:AS:42:HIS:CD2	14:AT:45:LEU:HD11	1.21	1.60
44:CM:77:TRP:CD1	44:CM:82:ILE:HG13	1.31	1.60
58:CW:87:LEU:HD23	58:CW:90:ILE:CD1	1.22	1.60
33:AI:141:ARG:CB	33:AI:144:LYS:HB2	1.24	1.60
40:CK:61:LYS:CE	40:CK:72:GLU:HB3	1.29	1.60
80:CH:111:LEU:HD21	80:CH:127:ARG:CD	1.25	1.59
12:AR:85:VAL:CG2	16:AA:201:LEU:HB2	1.21	1.59
28:AC:108:LYS:CD	28:AC:233:LEU:CD2	1.78	1.59
4:AK:16:PHE:CE2	4:AK:79:LEU:HB2	1.24	1.59
81:CE:106:VAL:CG2	81:CE:107:VAL:HA	1.20	1.59
41:CO:108:ILE:HG21	41:CO:160:ARG:CZ	1.28	1.59
74:CC:5:ARG:HG2	74:CC:24:LEU:CG	1.24	1.59
16:AA:30:LEU:HD13	16:AA:38:ILE:CD1	1.32	1.59
6:AX:27:TYR:CE1	6:AX:31:HIS:NE2	1.70	1.59
49:CQ:34:PHE:CD2	74:CC:293:LEU:HD22	1.30	1.59
17:AV:11:LEU:CD1	17:AV:12:TYR:HD2	1.12	1.59
18:AY:78:SER:HB3	18:AY:81:TYR:CD2	1.32	1.58
40:CK:117:ARG:HG2	40:CK:133:LEU:CD1	1.27	1.58
41:CO:54:TYR:CE2	41:CO:145:VAL:HG11	1.32	1.58
28:AC:70:VAL:HG13	28:AC:97:PHE:CE2	1.35	1.58
82:CG:77:PRO:HA	82:CG:237:TRP:CE3	1.33	1.58
40:CK:22:VAL:CG2	40:CK:48:LYS:HB2	1.17	1.58
16:AA:58:LEU:CD2	16:AA:178:LEU:HD23	1.28	1.58
13:AP:41:GLN:HG2	13:AP:84:ILE:CG1	1.29	1.58
26:AJ:17:ARG:HG2	26:AJ:18:ARG:CD	1.33	1.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AK:27:VAL:CG1	4:AK:43:LEU:HD22	1.29	1.57
40:CK:97:ASN:HA	40:CK:98:ILE:CG1	1.15	1.57
28:AC:108:LYS:CD	28:AC:233:LEU:HD21	1.12	1.57
3:AU:61:LEU:CD2	23:AD:34:TYR:CZ	26.29	1.57
8:AS:34:LYS:CB	8:AS:103:LEU:HD21	1.17	1.57
40:CK:117:ARG:CG	40:CK:133:LEU:HD11	1.17	1.57
15:AB:66:VAL:CG2	15:AB:87:ILE:HG22	1.23	1.57
12:AR:123:THR:CG2	16:AA:44:ASP:HA	1.14	1.57
40:CK:97:ASN:CA	40:CK:98:ILE:HG13	1.29	1.57
57:CY:110:LYS:CB	57:CY:115:ARG:HH12	1.00	1.57
63:CB:47:LEU:HD23	63:CB:166:THR:CG2	1.25	1.57
56:CX:119:ILE:HD11	56:CX:140:LEU:CD2	1.31	1.57
74:CC:91:ALA:HB1	74:CC:92:PHE:CE2	1.34	1.57
27:AE:129:ILE:HG12	27:AE:139:LEU:CD2	1.25	1.56
13:AP:33:LEU:CD2	13:AP:87:PRO:HD3	1.20	1.56
57:CY:55:VAL:CG1	57:CY:104:VAL:CG1	1.78	1.56
29:AG:41:LEU:HD22	29:AG:45:TRP:CZ3	1.34	1.56
8:AS:54:LYS:N	8:AS:54:LYS:CA	1.67	1.56
74:CC:233:SER:CA	74:CC:263:LEU:HD11	1.34	1.56
80:CH:111:LEU:CD2	80:CH:127:ARG:HD2	1.16	1.56
74:CC:133:LEU:HD23	74:CC:136:LEU:CD1	1.15	1.56
31:AH:146:VAL:HG21	32:AW:50:PHE:CZ	1.37	1.56
64:CF:51:TYR:CZ	81:CE:58:SER:HB2	1.09	1.56
34:AQ:9:SER:CB	34:AQ:26:LYS:HG3	1.34	1.56
80:CH:109:GLY:CA	80:CH:128:MET:CB	1.78	1.56
55:CU:21:PHE:CZ	55:CU:80:LYS:HE2	1.38	1.56
27:AE:129:ILE:CG1	27:AE:139:LEU:CD2	1.80	1.56
31:AH:40:LEU:CD2	31:AH:43:LEU:HD12	1.15	1.56
85:A5:1242:G:C2'	85:A5:1242:G:C1'	1.77	1.56
17:AV:17:CYS:SG	17:AV:56:CYS:HB3	1.44	1.56
29:AG:41:LEU:HD22	29:AG:45:TRP:CE3	1.37	1.55
81:CE:212:LEU:CD1	81:CE:216:TYR:HB2	1.15	1.55
13:AP:4:VAL:CA	13:AP:10:ARG:HD3	1.18	1.55
8:AS:39:ARG:CZ	14:AT:38:LYS:CE	1.83	1.55
82:CG:159:HIS:CE1	82:CG:185:LYS:HA	1.38	1.55
82:CG:191:GLY:HA2	82:CG:199:CYS:SG	1.45	1.55
47:CI:206:LEU:CB	47:CI:206:LEU:CA	1.78	1.55
44:CM:60:PHE:CZ	44:CM:85:LYS:HG3	1.39	1.55
23:AD:158:ILE:CD1	23:AD:189:MET:CE	1.81	1.55
51:CA:32:VAL:CG2	51:CA:163:ARG:HH12	1.05	1.55
40:CK:94:LYS:CB	40:CK:96:LYS:HD2	1.28	1.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:CO:12:ARG:CD	41:CO:37:ARG:NH1	1.68	1.55
16:AA:21:ALA:HB2	16:AA:173:LEU:CD1	1.34	1.55
54:CP:6:LEU:HD23	54:CP:116:HIS:CD2	1.35	1.55
40:CK:10:ILE:CG2	40:CK:66:ASN:CA	1.84	1.54
59:CZ:73:LYS:HG2	59:CZ:75:TYR:CE1	1.37	1.54
28:AC:65:LYS:HD2	28:AC:266:TYR:CD1	1.43	1.54
64:CF:51:TYR:CE1	81:CE:58:SER:HB2	1.40	1.54
27:AE:70:ILE:HG12	27:AE:92:ILE:CD1	1.13	1.54
31:AH:144:ILE:HB	32:AW:52:ILE:CG2	1.38	1.54
34:AQ:93:VAL:CG1	34:AQ:105:LYS:HE2	1.10	1.54
8:AS:34:LYS:HB3	8:AS:103:LEU:CD2	1.07	1.54
59:CZ:57:MET:CE	59:CZ:61:LYS:HB2	1.31	1.54
18:AY:55:ILE:CG1	18:AY:75:ILE:HG12	1.36	1.54
28:AC:65:LYS:CD	28:AC:266:TYR:CE1	1.90	1.54
26:AJ:72:PHE:CD2	27:AE:248:ILE:CD1	1.90	1.54
26:AJ:72:PHE:CD2	27:AE:248:ILE:HD12	1.02	1.54
33:AI:25:ARG:HD2	33:AI:27:TYR:CE2	1.42	1.54
41:CO:9:LEU:CD2	52:CS:167:PHE:CD1	1.90	1.54
80:CH:93:ARG:CD	80:CH:143:GLU:HG2	1.36	1.54
54:CP:6:LEU:CD2	54:CP:116:HIS:NE2	1.70	1.54
56:CX:81:LEU:HD21	56:CX:99:ILE:CD1	1.36	1.54
85:A5:1240:G:C2'	85:A5:1240:G:C1'	1.75	1.53
11:AL:19:ASN:HD21	33:AI:69:SER:CB	1.17	1.53
30:AF:14:THR:HG21	34:AQ:56:LEU:CG	1.32	1.53
81:CE:106:VAL:HG23	81:CE:107:VAL:CA	1.36	1.53
64:CF:23:ARG:CA	64:CF:23:ARG:C	1.77	1.53
53:CT:40:VAL:HG11	53:CT:96:ILE:CG2	1.07	1.53
57:CY:42:TYR:CD1	57:CY:119:LEU:HD21	1.41	1.53
15:AB:71:LEU:HD13	15:AB:84:PHE:CE2	1.40	1.53
18:AY:18:LEU:CB	18:AY:20:ARG:HH11	1.22	1.53
51:CA:158:ILE:CG2	51:CA:162:ASN:ND2	1.69	1.53
13:AP:4:VAL:HA	13:AP:10:ARG:CD	1.07	1.53
18:AY:29:HIS:CE1	18:AY:68:LYS:N	1.74	1.53
48:CD:261:VAL:CG1	48:CD:262:LYS:HA	1.37	1.53
74:CC:133:LEU:CD2	74:CC:136:LEU:CD1	1.83	1.53
41:CO:7:LEU:HD13	52:CS:167:PHE:CE2	1.41	1.53
5:AO:88:LEU:CD1	15:AB:25:PHE:CE2	1.92	1.52
74:CC:147:VAL:CG1	74:CC:152:LEU:HD22	1.34	1.52
48:CD:223:PHE:HD1	48:CD:226:TYR:CE2	0.87	1.52
3:AU:61:LEU:HD22	23:AD:34:TYR:CE2	26.59	1.52
18:AY:78:SER:CB	18:AY:81:TYR:HD2	1.15	1.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AZ:99:LEU:HD13	19:AZ:102:LYS:CE	1.35	1.52
79:CJ:128:LEU:HD11	79:CJ:130:PHE:CE2	1.38	1.52
26:AJ:72:PHE:CG	27:AE:248:ILE:CD1	1.89	1.52
74:CC:5:ARG:CG	74:CC:24:LEU:HG	1.07	1.52
59:CZ:46:ILE:CD1	59:CZ:49:TYR:CE1	1.89	1.52
13:AP:33:LEU:CD2	13:AP:87:PRO:CD	1.82	1.52
63:CB:219:VAL:CG1	63:CB:345:LEU:HD21	1.35	1.52
23:AD:197:LYS:HB2	23:AD:198:ILE:CG1	1.35	1.52
44:CM:60:PHE:CE2	44:CM:85:LYS:CB	1.88	1.52
41:CO:9:LEU:HD21	52:CS:167:PHE:CD1	1.01	1.52
3:AU:61:LEU:HD22	23:AD:34:TYR:CZ	26.23	1.52
46:CN:46:ASP:CB	46:CN:50:ARG:HH12	1.22	1.52
33:AI:142:SER:CB	33:AI:143:LYS:HB2	1.34	1.52
30:AF:14:THR:CG2	34:AQ:56:LEU:HD22	1.07	1.52
47:CI:106:ALA:CA	47:CI:108:ALA:HB2	1.38	1.52
52:CS:82:LEU:HD11	52:CS:124:ILE:CG2	1.38	1.52
34:AQ:9:SER:HB3	34:AQ:26:LYS:CG	1.35	1.51
48:CD:261:VAL:HB	48:CD:262:LYS:CB	1.39	1.51
81:CE:85:LYS:C	81:CE:85:LYS:CA	1.75	1.51
81:CE:74:SER:CA	81:CE:74:SER:CB	1.85	1.51
16:AA:30:LEU:CD1	16:AA:38:ILE:HD11	1.06	1.51
11:AL:80:MET:HE3	11:AL:120:VAL:C	1.14	1.51
17:AV:78:ILE:CA	17:AV:78:ILE:C	1.76	1.51
4:AK:66:HIS:CE1	23:AD:76:ARG:NE	1.76	1.51
8:AS:54:LYS:CA	8:AS:54:LYS:C	1.75	1.51
27:AE:99:PHE:CE1	27:AE:113:ARG:HG3	1.45	1.51
30:AF:14:THR:HG21	34:AQ:56:LEU:CD2	1.05	1.51
28:AC:70:VAL:CG1	28:AC:97:PHE:CE2	1.93	1.51
12:AR:1:MET:CB	12:AR:1:MET:CA	1.87	1.50
51:CA:143:THR:HA	51:CA:144:LYS:CG	1.37	1.50
63:CB:108:GLU:CG	63:CB:137:TRP:CD1	1.84	1.50
47:CI:185:VAL:CG2	47:CI:190:LEU:CD1	1.85	1.50
8:AS:8:LYS:HB2	8:AS:9:PHE:CD1	1.46	1.50
12:AR:99:ASP:CA	12:AR:119:VAL:HG11	1.40	1.50
41:CO:65:ASN:CG	41:CO:68:ARG:HD2	1.29	1.50
55:CU:48:LYS:CG	55:CU:52:LYS:HA	1.36	1.50
49:CQ:6:ARG:CD	49:CQ:6:ARG:NE	1.75	1.50
79:CJ:48:PRO:HB3	79:CJ:72:CYS:SG	1.52	1.50
57:CY:55:VAL:HG13	57:CY:104:VAL:CG1	1.36	1.50
17:AV:11:LEU:CD1	17:AV:12:TYR:CD2	1.94	1.50
81:CE:56:ARG:HD2	81:CE:65:ARG:NH1	1.18	1.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AO:19:PRO:CG	5:AO:27:VAL:CG2	1.86	1.50
11:AL:149:ALA:CB	11:AL:156:GLN:CG	1.90	1.50
74:CC:7:LEU:H	74:CC:24:LEU:CD2	1.20	1.49
48:CD:20:PHE:CD2	48:CD:30:TYR:CE2	1.98	1.49
41:CO:16:LEU:CD2	41:CO:41:ILE:HD13	1.42	1.49
80:CH:45:LEU:CD2	80:CH:57:VAL:HG12	1.41	1.49
41:CO:108:ILE:CG2	41:CO:160:ARG:CZ	1.88	1.49
63:CB:87:VAL:HG23	63:CB:163:ILE:CG2	1.40	1.49
40:CK:10:ILE:CG1	40:CK:67:ARG:H	1.18	1.49
46:CN:56:LYS:CE	46:CN:59:TYR:HE2	1.26	1.49
32:AW:14:ILE:CD1	32:AW:72:CYS:SG	2.01	1.49
42:CL:127:PHE:CZ	42:CL:144:LEU:HB2	1.47	1.49
12:AR:105:MET:CG	16:AA:48:ILE:HG21	1.37	1.49
29:AG:121:ILE:HG23	29:AG:122:PRO:CD	1.38	1.49
11:AL:22:ARG:NH1	33:AI:157:LYS:CB	1.71	1.49
8:AS:42:HIS:CD2	14:AT:45:LEU:CD1	1.92	1.49
57:CY:34:LEU:HD11	57:CY:38:LEU:CB	1.42	1.49
4:AK:3:MET:CE	4:AK:8:ARG:NH2	1.74	1.48
5:AO:19:PRO:HG3	5:AO:27:VAL:CG2	1.39	1.48
42:CL:167:ARG:NH2	42:CL:170:THR:HG21	1.18	1.48
57:CY:117:LYS:HE2	57:CY:121:ARG:NH2	1.23	1.48
19:AZ:99:LEU:CD1	19:AZ:102:LYS:HE2	1.44	1.48
82:CG:39:PHE:CZ	82:CG:47:PRO:HD3	1.45	1.48
63:CB:140:GLU:CD	63:CB:144:LYS:HD2	1.31	1.48
4:AK:27:VAL:HG13	4:AK:43:LEU:CD2	1.02	1.48
48:CD:47:PRO:CB	48:CD:66:TYR:CE1	1.97	1.48
53:CT:7:LYS:HE3	53:CT:54:HIS:CD2	1.45	1.48
74:CC:22:VAL:CG2	74:CC:258:ARG:NE	1.77	1.48
58:CW:71:ARG:CG	58:CW:71:ARG:CB	1.87	1.48
8:AS:58:GLU:C	8:AS:59:LEU:HD13	1.35	1.48
29:AG:184:VAL:HG12	29:AG:188:LYS:CE	1.38	1.48
13:AP:49:LEU:CD1	13:AP:51:ARG:HE	1.25	1.48
48:CD:57:ASN:CA	48:CD:58:ARG:HD3	1.38	1.48
82:CG:75:LYS:NZ	82:CG:240:ASN:HD22	1.09	1.48
46:CN:96:ARG:HH12	46:CN:104:GLU:CD	1.11	1.48
54:CP:24:VAL:CG1	54:CP:90:PHE:CE2	1.94	1.48
49:CQ:6:ARG:NE	49:CQ:6:ARG:CZ	1.72	1.48
82:CG:136:LEU:HD21	82:CG:204:PHE:CE1	1.47	1.47
28:AC:70:VAL:HG13	28:AC:97:PHE:CZ	1.49	1.47
13:AP:79:HIS:CE1	13:AP:102:PHE:HZ	1.31	1.47
8:AS:39:ARG:NE	14:AT:38:LYS:HE3	1.27	1.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CS:23:HIS:CA	52:CS:24:THR:HB	1.18	1.47
8:AS:39:ARG:NH2	14:AT:38:LYS:CE	1.76	1.47
81:CE:212:LEU:HD11	81:CE:216:TYR:CG	1.46	1.47
54:CP:131:ARG:CD	54:CP:137:ASN:ND2	1.72	1.47
30:AF:103:LEU:CD2	30:AF:178:ILE:HD13	1.38	1.47
64:CF:51:TYR:CZ	81:CE:58:SER:CB	1.97	1.47
34:AQ:135:PRO:CD	34:AQ:141:TYR:HE1	1.20	1.47
46:CN:172:ARG:HH21	46:CN:174:LEU:CD1	1.26	1.47
30:AF:42:LYS:HB2	30:AF:45:TYR:N	1.21	1.47
12:AR:99:ASP:CA	12:AR:119:VAL:CG1	1.92	1.47
74:CC:142:HIS:CE1	74:CC:249:PHE:H	1.32	1.46
48:CD:146:LEU:CD1	48:CD:163:LEU:HD22	1.44	1.46
40:CK:102:GLY:HA2	40:CK:139:VAL:C	1.33	1.46
12:AR:123:THR:HG22	16:AA:44:ASP:CA	1.44	1.46
81:CE:212:LEU:HD11	81:CE:216:TYR:CB	1.45	1.46
41:CO:108:ILE:HG21	41:CO:160:ARG:NE	1.17	1.46
29:AG:76:LEU:CD2	29:AG:92:ARG:HG2	1.44	1.46
52:CS:82:LEU:CD1	52:CS:124:ILE:HG23	1.41	1.46
29:AG:157:VAL:CG1	29:AG:159:ARG:H	1.28	1.46
8:AS:120:HIS:HE1	13:AP:123:TYR:CE2	1.24	1.46
41:CO:9:LEU:HD21	52:CS:167:PHE:CE1	1.49	1.46
74:CC:5:ARG:CG	74:CC:24:LEU:CG	1.81	1.46
40:CK:160:VAL:O	40:CK:163:PRO:CD	1.64	1.46
58:CW:87:LEU:HA	58:CW:90:ILE:CD1	1.45	1.46
30:AF:25:THR:CG2	30:AF:42:LYS:HG3	1.46	1.46
82:CG:77:PRO:HA	82:CG:237:TRP:CZ3	1.50	1.46
82:CG:103:ARG:C	82:CG:104:PRO:N	1.67	1.46
42:CL:55:ILE:HD11	42:CL:120:TYR:CD1	1.47	1.46
12:AR:1:MET:N	12:AR:1:MET:CA	1.78	1.46
48:CD:47:PRO:HB3	48:CD:66:TYR:CE1	1.49	1.46
82:CG:95:LEU:CD2	82:CG:218:LEU:HD22	1.46	1.46
27:AE:159:THR:HG23	27:AE:227:VAL:CG2	1.43	1.45
30:AF:63:LYS:HD3	30:AF:71:ARG:CZ	1.42	1.45
33:AI:161:LEU:HD11	33:AI:199:LEU:CD1	1.43	1.45
14:AT:23:LYS:HD3	14:AT:54:TYR:CD2	1.47	1.45
40:CK:2:PRO:C	40:CK:2:PRO:CA	1.82	1.45
26:AJ:79:ARG:NH1	26:AJ:83:ARG:NH1	1.62	1.45
28:AC:170:TRP:CH2	32:AW:97:ARG:NH1	1.73	1.45
40:CK:2:PRO:CD	40:CK:2:PRO:N	1.78	1.45
63:CB:297:LYS:C	63:CB:298:LEU:N	1.69	1.45
81:CE:148:THR:O	81:CE:163:VAL:CG1	1.63	1.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:CG:95:LEU:HD23	82:CG:218:LEU:CD2	1.41	1.45
40:CK:10:ILE:CG2	40:CK:66:ASN:HA	1.38	1.45
11:AL:149:ALA:HB1	11:AL:156:GLN:CB	1.46	1.45
41:CO:16:LEU:HD12	41:CO:43:ILE:CG1	1.45	1.45
12:AR:20:TYR:CE1	12:AR:38:ILE:HG21	1.52	1.45
49:CQ:110:ARG:HE	49:CQ:120:ILE:CD1	1.27	1.45
31:AH:146:VAL:HG21	32:AW:50:PHE:CE1	1.50	1.45
81:CE:280:GLY:O	81:CE:282:TYR:CE2	1.70	1.45
44:CM:127:VAL:HG13	44:CM:128:LYS:C	5.81	1.45
81:CE:36:LYS:C	81:CE:36:LYS:CA	1.85	1.45
53:CT:125:TRP:CD1	53:CT:126:VAL:HG23	1.52	1.45
26:AJ:134:HIS:ND1	26:AJ:163:SER:HB2	1.30	1.45
26:AJ:72:PHE:CD1	27:AE:248:ILE:HG13	1.48	1.44
80:CH:109:GLY:HA3	80:CH:128:MET:CB	1.40	1.44
13:AP:44:ARG:HE	13:AP:84:ILE:CD1	1.28	1.44
8:AS:46:ARG:NH2	14:AT:50:GLU:HB3	1.16	1.44
26:AJ:89:GLU:HA	26:AJ:92:MET:CG	1.45	1.44
44:CM:77:TRP:HA	44:CM:82:ILE:CD1	1.45	1.44
52:CS:90:THR:HG21	53:CT:156:TYR:CD1	1.50	1.44
56:CX:81:LEU:HD21	56:CX:99:ILE:CG1	1.43	1.44
31:AH:122:LEU:HD13	31:AH:123:THR:N	1.21	1.44
26:AJ:170:PRO:HG2	26:AJ:175:ARG:CG	1.46	1.44
63:CB:395:ASP:HA	63:CB:396:ARG:CB	1.41	1.44
79:CJ:90:ARG:NH2	79:CJ:108:GLY:H	1.12	1.44
15:AB:113:MET:HE3	15:AB:211:PHE:CE2	1.50	1.44
29:AG:16:ILE:HD13	29:AG:45:TRP:CZ2	1.51	1.44
26:AJ:110:LEU:CD1	26:AJ:130:ILE:CD1	1.96	1.44
5:AO:19:PRO:CG	5:AO:27:VAL:HG21	0.97	1.44
18:AY:118:ARG:NH2	29:AG:85:ARG:HD2	1.25	1.44
82:CG:96:LEU:HD11	82:CG:189:ARG:NH2	1.33	1.44
15:AB:137:LEU:CD2	15:AB:215:VAL:HG13	1.45	1.44
28:AC:65:LYS:CD	28:AC:266:TYR:HE1	1.20	1.44
4:AK:11:ILE:CG2	4:AK:49:MET:CE	1.95	1.44
46:CN:116:LEU:HD22	46:CN:135:ILE:CD1	1.47	1.44
46:CN:72:LYS:HE3	46:CN:90:ASN:ND2	1.33	1.44
48:CD:146:LEU:HD11	48:CD:163:LEU:CD2	1.44	1.44
81:CE:37:PRO:CA	81:CE:37:PRO:N	1.68	1.44
54:CP:24:VAL:HG11	54:CP:90:PHE:CD2	1.48	1.44
16:AA:58:LEU:CD2	16:AA:178:LEU:CD2	1.95	1.43
30:AF:167:LYS:HD3	30:AF:171:GLU:CG	1.47	1.43
41:CO:108:ILE:CG2	41:CO:160:ARG:NE	1.77	1.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:180:PHE:CB	46:CN:184:ILE:HD12	1.48	1.43
34:AQ:8:GLN:CG	34:AQ:99:TYR:CE1	2.01	1.43
44:CM:33:GLN:OE1	80:CH:61:TRP:CE2	1.68	1.43
12:AR:99:ASP:C	12:AR:119:VAL:HG11	1.08	1.43
74:CC:310:HIS:CB	74:CC:311:ARG:CD	1.96	1.43
34:AQ:93:VAL:CG1	34:AQ:105:LYS:CE	1.94	1.43
79:CJ:128:LEU:CD1	79:CJ:130:PHE:CE2	1.98	1.43
81:CE:111:LYS:C	81:CE:113:PRO:HD3	1.32	1.43
16:AA:177:MET:HE1	16:AA:180:ARG:NH2	1.33	1.43
58:CW:106:GLU:CG	58:CW:110:ARG:HH12	1.29	1.43
18:AY:102:THR:HG21	18:AY:107:ARG:NE	1.16	1.43
18:AY:18:LEU:CD1	18:AY:20:ARG:HH12	1.32	1.43
74:CC:148:PRO:HG2	74:CC:152:LEU:CD1	1.49	1.43
80:CH:7:ASN:CB	80:CH:58:ASP:OD1	1.66	1.43
27:AE:208:VAL:HB	27:AE:225:ILE:CD1	1.46	1.43
63:CB:114:CYS:SG	63:CB:180:LEU:HD21	1.54	1.43
48:CD:104:LEU:HD23	48:CD:247:ILE:CG2	1.48	1.43
81:CE:212:LEU:HD11	81:CE:216:TYR:CD2	1.50	1.43
29:AG:176:ILE:CB	29:AG:179:LEU:HD23	1.48	1.42
63:CB:312:LYS:CG	63:CB:313:SER:H	1.26	1.42
33:AI:142:SER:HB3	33:AI:143:LYS:CB	1.44	1.42
11:AL:80:MET:CE	11:AL:120:VAL:O	1.65	1.42
34:AQ:135:PRO:CD	34:AQ:141:TYR:CE1	1.92	1.42
12:AR:20:TYR:OH	12:AR:38:ILE:CG2	1.67	1.42
74:CC:173:LYS:CA	74:CC:173:LYS:HE3	1.38	1.42
46:CN:11:TRP:CD2	46:CN:44:ARG:NH2	1.86	1.42
26:AJ:118:GLY:C	26:AJ:119:LEU:N	1.73	1.42
40:CK:102:GLY:N	40:CK:139:VAL:HG13	1.12	1.42
56:CX:87:MET:HA	56:CX:90:ILE:CD1	1.48	1.42
29:AG:11:GLY:HA3	58:CW:80:ARG:NH2	1.10	1.42
63:CB:298:LEU:CA	63:CB:298:LEU:C	1.85	1.42
81:CE:212:LEU:CD1	81:CE:216:TYR:CB	1.94	1.42
64:CF:30:ILE:HG21	64:CF:34:ARG:NH2	1.22	1.42
46:CN:115:VAL:HA	46:CN:134:LEU:CD2	1.45	1.42
49:CQ:154:LYS:HE3	49:CQ:163:THR:CG2	1.45	1.42
53:CT:7:LYS:CE	53:CT:54:HIS:CD2	2.01	1.42
58:CW:106:GLU:CG	58:CW:110:ARG:NH1	1.77	1.42
57:CY:42:TYR:CD1	57:CY:119:LEU:CD2	2.02	1.42
15:AB:113:MET:CE	15:AB:211:PHE:CE2	2.03	1.42
26:AJ:89:GLU:HA	26:AJ:92:MET:CB	1.48	1.42
13:AP:41:GLN:CD	13:AP:84:ILE:HG21	1.38	1.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:14:LYS:HD2	74:CC:15:GLY:N	1.23	1.42
81:CE:106:VAL:CB	81:CE:107:VAL:HA	1.43	1.42
27:AE:153:LEU:HD13	27:AE:172:PHE:CZ	1.52	1.42
26:AJ:90:GLY:O	26:AJ:96:TYR:CD2	1.73	1.42
5:AO:88:LEU:HD11	15:AB:25:PHE:CE2	1.52	1.42
74:CC:147:VAL:CG1	74:CC:148:PRO:HD2	1.47	1.42
82:CG:159:HIS:CE1	82:CG:185:LYS:CA	2.00	1.42
40:CK:10:ILE:HG13	40:CK:67:ARG:N	1.30	1.42
26:AJ:110:LEU:HD13	26:AJ:130:ILE:CD1	1.48	1.41
56:CX:119:ILE:CD1	56:CX:140:LEU:HD22	1.47	1.41
63:CB:142:GLY:CA	63:CB:147:GLU:OE1	1.67	1.41
81:CE:224:LYS:CB	81:CE:226:ARG:HH12	1.29	1.41
54:CP:59:PRO:CG	54:CP:76:TRP:HD1	1.32	1.41
52:CS:72:PRO:O	52:CS:100:LEU:CD1	1.68	1.41
17:AV:31:SER:CA	17:AV:31:SER:C	1.85	1.41
63:CB:52:GLY:N	63:CB:78:ILE:HD11	1.09	1.41
41:CO:16:LEU:HD12	41:CO:43:ILE:CD1	1.50	1.41
52:CS:83:ARG:HG3	52:CS:92:ASN:ND2	1.35	1.41
4:AK:2:LEU:HD13	4:AK:3:MET:N	1.32	1.41
8:AS:120:HIS:NE2	8:AS:124:ARG:NE	1.62	1.41
48:CD:152:ARG:HG3	79:CJ:145:LYS:NZ	1.25	1.41
82:CG:159:HIS:ND1	82:CG:185:LYS:HA	1.31	1.41
80:CH:86:LEU:CD2	80:CH:189:GLN:HB2	1.46	1.41
46:CN:58:GLY:HA2	46:CN:139:HIS:CD2	1.55	1.41
26:AJ:72:PHE:CE2	27:AE:248:ILE:HD12	1.55	1.41
8:AS:39:ARG:HH21	14:AT:38:LYS:NZ	1.16	1.41
46:CN:178:HIS:HA	46:CN:181:HIS:NE2	1.13	1.41
29:AG:129:VAL:HB	58:CW:80:ARG:NH1	1.29	1.41
11:AL:149:ALA:HB2	11:AL:156:GLN:NE2	1.17	1.41
57:CY:110:LYS:C	57:CY:115:ARG:HH11	1.17	1.41
27:AE:151:ASP:HB3	29:AG:212:LEU:CD2	1.50	1.41
11:AL:149:ALA:HB2	11:AL:156:GLN:CD	1.37	1.41
56:CX:89:LYS:NZ	56:CX:97:VAL:HG22	1.34	1.41
57:CY:11:ARG:HH12	74:CC:200:ARG:NH1	0.93	1.41
12:AR:38:ILE:C	23:AD:211:VAL:HG23	1.38	1.40
82:CG:136:LEU:CD2	82:CG:204:PHE:CE1	2.02	1.40
54:CP:24:VAL:HG11	54:CP:90:PHE:CE2	1.53	1.40
57:CY:110:LYS:HB3	57:CY:115:ARG:NH1	1.09	1.40
85:A5:2097:U:O4'	85:A5:2097:U:C1'	1.65	1.40
29:AG:157:VAL:HG11	29:AG:159:ARG:CG	1.51	1.40
8:AS:42:HIS:NE2	14:AT:45:LEU:CD2	1.84	1.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:CG:191:GLY:CA	82:CG:199:CYS:SG	2.09	1.40
13:AP:41:GLN:CG	13:AP:84:ILE:HG12	1.46	1.40
6:AX:14:ARG:CA	11:AL:99:TYR:OH	1.69	1.40
82:CG:77:PRO:CA	82:CG:237:TRP:CZ3	2.00	1.40
47:CI:185:VAL:CG2	47:CI:190:LEU:HD12	0.93	1.40
41:CO:119:VAL:CG1	41:CO:124:LEU:HD11	1.49	1.40
12:AR:85:VAL:CG2	16:AA:201:LEU:CB	1.96	1.40
41:CO:81:TRP:CZ3	41:CO:85:ARG:NE	1.84	1.40
49:CQ:110:ARG:NE	49:CQ:120:ILE:CD1	1.79	1.40
49:CQ:99:LYS:NZ	49:CQ:119:LYS:HD3	1.24	1.40
52:CS:16:CYS:SG	52:CS:54:MET:CE	2.10	1.40
48:CD:44:TYR:CE1	53:CT:34:TYR:O	1.75	1.40
16:AA:176:TRP:CZ3	16:AA:177:MET:SD	2.13	1.40
27:AE:208:VAL:CB	27:AE:225:ILE:CD1	1.99	1.40
30:AF:91:ARG:NH1	30:AF:94:LYS:CB	1.85	1.40
12:AR:44:LYS:CE	12:AR:47:ARG:HH22	1.34	1.40
3:AU:40:ILE:HD11	3:AU:53:PRO:CG	1.47	1.40
16:AA:58:LEU:HD21	16:AA:178:LEU:CD2	1.47	1.40
28:AC:116:THR:CG2	28:AC:118:ALA:O	1.69	1.40
12:AR:20:TYR:CZ	12:AR:38:ILE:CG2	2.03	1.40
82:CG:143:VAL:HA	82:CG:146:LEU:CD2	1.50	1.40
40:CK:94:LYS:HD3	40:CK:96:LYS:CE	1.51	1.40
40:CK:56:LEU:CD1	40:CK:91:ASP:OD2	1.66	1.40
42:CL:55:ILE:HD11	42:CL:120:TYR:CE1	1.52	1.40
40:CK:102:GLY:CA	40:CK:139:VAL:C	1.90	1.40
58:CW:79:GLN:OE1	58:CW:94:ARG:CZ	1.66	1.39
82:CG:46:GLN:NE2	82:CG:47:PRO:HD2	1.28	1.39
54:CP:26:PHE:HA	54:CP:144:CYS:SG	1.63	1.39
41:CO:131:PRO:HG2	52:CS:156:HIS:NE2	1.10	1.39
74:CC:313:VAL:CA	74:CC:314:LEU:HD23	1.52	1.39
82:CG:35:ARG:C	82:CG:36:PRO:N	1.75	1.39
26:AJ:177:ASN:O	26:AJ:180:LYS:CG	1.69	1.39
41:CO:128:ARG:NE	52:CS:161:ARG:HH21	1.17	1.39
27:AE:98:ASN:ND2	27:AE:119:ALA:HB2	1.27	1.39
81:CE:121:VAL:HG22	81:CE:122:PRO:CD	1.51	1.39
46:CN:58:GLY:CA	46:CN:139:HIS:CD2	2.04	1.39
8:AS:39:ARG:CZ	14:AT:38:LYS:HE3	0.92	1.39
63:CB:108:GLU:HG3	63:CB:137:TRP:CD1	0.88	1.39
80:CH:49:GLY:HA2	80:CH:50:LYS:NZ	1.30	1.39
43:CV:82:ILE:CG2	43:CV:121:VAL:HG13	1.49	1.39
58:CW:87:LEU:CD2	58:CW:90:ILE:HD12	1.52	1.39

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CK:22:VAL:CG2	40:CK:48:LYS:CB	1.95	1.39
42:CL:9:VAL:C	42:CL:10:LEU:HD22	1.40	1.39
85:A5:1641:G:O4'	85:A5:1641:G:C1'	1.63	1.39
74:CC:148:PRO:CG	74:CC:152:LEU:HD11	1.50	1.39
80:CH:110:SER:HB3	80:CH:128:MET:CG	1.52	1.39
41:CO:131:PRO:CG	52:CS:156:HIS:NE2	1.83	1.39
57:CY:91:ASN:O	57:CY:93:THR:CG2	1.68	1.39
30:AF:45:TYR:O	30:AF:47:LYS:CD	1.71	1.38
8:AS:138:THR:CA	8:AS:141:ARG:NH2	1.86	1.38
48:CD:129:GLU:CD	48:CD:177:THR:HG22	1.43	1.38
30:AF:103:LEU:HD23	30:AF:178:ILE:CD1	1.49	1.38
74:CC:144:ILE:CG2	74:CC:147:VAL:CG2	1.99	1.38
42:CL:64:VAL:HA	42:CL:67:HIS:CD2	1.56	1.38
47:CI:30:LYS:CA	47:CI:30:LYS:HE3	1.49	1.38
46:CN:99:GLN:HG3	46:CN:130:PHE:CZ	1.58	1.38
12:AR:122:PRO:CA	12:AR:123:THR:HG23	1.51	1.38
74:CC:313:VAL:C	74:CC:314:LEU:HD23	1.38	1.38
82:CG:75:LYS:HZ3	82:CG:240:ASN:ND2	1.17	1.38
49:CQ:154:LYS:CB	49:CQ:155:ALA:HB3	1.53	1.38
26:AJ:37:LEU:CD1	26:AJ:42:GLU:HB3	1.51	1.38
12:AR:17:ILE:CG2	12:AR:69:ILE:HD11	1.54	1.38
49:CQ:99:LYS:NZ	49:CQ:119:LYS:CD	1.84	1.38
13:AP:79:HIS:HE1	13:AP:102:PHE:CZ	1.40	1.38
41:CO:190:ASP:CB	41:CO:193:THR:HB	1.53	1.38
13:AP:33:LEU:HD22	13:AP:87:PRO:CD	1.41	1.38
8:AS:14:ARG:NH1	8:AS:17:ASN:HA	1.38	1.38
30:AF:45:TYR:O	30:AF:47:LYS:CE	1.71	1.38
29:AG:14:LYS:NZ	29:AG:123:GLY:HA3	1.36	1.38
58:CW:20:ARG:HH11	58:CW:28:VAL:CG1	1.37	1.38
58:CW:86:SER:O	58:CW:90:ILE:HG13	1.23	1.38
16:AA:97:THR:CG2	16:AA:98:PRO:HD2	1.52	1.37
41:CO:118:MET:CE	52:CS:168:THR:O	1.71	1.37
23:AD:132:LYS:HB2	23:AD:191:PRO:CG	1.53	1.37
26:AJ:48:PHE:CE1	26:AJ:52:LYS:HE3	1.57	1.37
82:CG:39:PHE:CZ	82:CG:47:PRO:CD	2.07	1.37
16:AA:57:LYS:CE	17:AV:70:LEU:HD11	1.55	1.37
4:AK:60:GLU:CD	4:AK:67:PHE:HD1	1.26	1.37
46:CN:58:GLY:HA2	46:CN:139:HIS:NE2	1.39	1.37
18:AY:36:PRO:HG2	18:AY:39:GLU:CG	1.51	1.37
79:CJ:90:ARG:NH1	79:CJ:107:PHE:CB	1.87	1.37
46:CN:172:ARG:NH2	46:CN:174:LEU:HD11	1.38	1.37

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:CO:190:ASP:HB2	41:CO:193:THR:N	1.40	1.37
58:CW:12:LYS:O	58:CW:32:LEU:HD21	1.20	1.37
23:AD:195:THR:C	23:AD:197:LYS:HA	1.41	1.37
13:AP:41:GLN:HG2	13:AP:84:ILE:CB	1.54	1.37
3:AU:50:VAL:HG22	3:AU:51:LYS:C	1.43	1.37
19:AZ:112:ASN:O	19:AZ:113:THR:HG23	1.23	1.37
79:CJ:22:LEU:HD21	79:CJ:130:PHE:CE1	1.59	1.37
40:CK:10:ILE:CB	40:CK:67:ARG:H	1.38	1.37
44:CM:60:PHE:HE2	44:CM:85:LYS:CB	1.20	1.37
59:CZ:73:LYS:CG	59:CZ:75:TYR:CE1	2.04	1.37
29:AG:32:MET:SD	29:AG:100:CYS:HB3	1.63	1.37
12:AR:5:ARG:HB2	12:AR:10:LYS:NZ	1.39	1.37
14:AT:77:LYS:CG	14:AT:92:PHE:CE2	2.07	1.37
82:CG:121:LYS:CG	82:CG:126:GLY:O	1.70	1.37
55:CU:21:PHE:CE1	55:CU:80:LYS:HG3	1.59	1.37
63:CB:108:GLU:HG3	63:CB:137:TRP:CG	1.57	1.37
31:AH:143:ARG:CD	32:AW:53:ILE:HG12	1.53	1.37
40:CK:61:LYS:CE	40:CK:72:GLU:CB	1.89	1.37
13:AP:44:ARG:NE	13:AP:84:ILE:HD12	1.34	1.36
81:CE:286:LEU:CB	81:CE:287:VAL:HA	1.37	1.36
57:CY:22:PRO:CD	57:CY:25:ILE:HD12	1.54	1.36
15:AB:66:VAL:HG22	15:AB:87:ILE:CG2	1.55	1.36
51:CA:32:VAL:HG22	51:CA:163:ARG:CZ	1.52	1.36
74:CC:76:ILE:CG2	74:CC:77:PRO:CD	2.01	1.36
40:CK:123:ARG:HD2	40:CK:129:ILE:CD1	0.89	1.36
52:CS:23:HIS:HA	52:CS:24:THR:CB	1.19	1.36
55:CU:60:VAL:CA	55:CU:75:GLU:HG2	1.55	1.36
27:AE:129:ILE:CG1	27:AE:139:LEU:HD22	1.45	1.36
30:AF:25:THR:CG2	30:AF:42:LYS:HD2	1.55	1.36
31:AH:31:GLU:OE2	31:AH:41:ARG:CD	1.71	1.36
31:AH:83:LEU:CD1	31:AH:92:VAL:HG21	1.52	1.36
63:CB:92:TYR:CD2	63:CB:99:LEU:CD1	2.06	1.36
74:CC:22:VAL:CG2	74:CC:258:ARG:CZ	2.01	1.36
64:CF:200:ARG:HH11	64:CF:203:GLU:CD	1.24	1.36
82:CG:39:PHE:HZ	82:CG:47:PRO:CD	1.36	1.36
53:CT:40:VAL:CG1	53:CT:96:ILE:HG23	1.55	1.36
46:CN:56:LYS:CE	46:CN:59:TYR:CE2	2.08	1.36
29:AG:25:ARG:HG2	29:AG:28:TYR:CD2	1.59	1.36
16:AA:57:LYS:NZ	17:AV:70:LEU:HD11	1.34	1.36
82:CG:217:LYS:CA	82:CG:217:LYS:HE2	1.48	1.36
15:AB:113:MET:CE	15:AB:211:PHE:HE2	1.35	1.36

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AK:2:LEU:CD1	4:AK:3:MET:H	1.37	1.36
44:CM:127:VAL:CG1	44:CM:128:LYS:O	6.09	1.36
26:AJ:72:PHE:CZ	27:AE:248:ILE:HB	1.59	1.36
18:AY:20:ARG:HG3	18:AY:74:MET:CE	1.53	1.36
80:CH:18:ILE:HD11	80:CH:55:LEU:CD1	1.54	1.36
44:CM:107:PHE:CE1	81:CE:270:TYR:CG	2.13	1.36
26:AJ:72:PHE:CG	27:AE:248:ILE:HD12	1.49	1.36
29:AG:10:THR:O	58:CW:80:ARG:CZ	1.74	1.36
11:AL:22:ARG:CD	33:AI:155:ASN:O	1.71	1.36
11:AL:19:ASN:ND2	33:AI:69:SER:HB2	1.32	1.36
18:AY:29:HIS:CE1	18:AY:67:GLY:C	1.99	1.36
54:CP:41:ILE:HD12	54:CP:112:LEU:CB	1.53	1.36
28:AC:157:LEU:HA	28:AC:160:LEU:CD2	1.56	1.35
48:CD:27:LYS:HE2	79:CJ:147:ARG:NE	1.35	1.35
58:CW:88:ALA:HA	58:CW:91:MET:SD	1.66	1.35
15:AB:113:MET:HE3	15:AB:211:PHE:CZ	1.60	1.35
6:AX:105:PHE:CE2	6:AX:119:ARG:HA	1.60	1.35
53:CT:40:VAL:CG1	53:CT:96:ILE:CG2	2.03	1.35
23:AD:59:LEU:HD12	23:AD:60:GLY:N	1.36	1.35
27:AE:128:LYS:HD3	27:AE:130:PHE:CE1	1.60	1.35
30:AF:59:LYS:CD	30:AF:62:ARG:HH21	1.37	1.35
81:CE:45:SER:HB3	81:CE:49:VAL:CG1	1.54	1.35
41:CO:16:LEU:CD2	41:CO:41:ILE:CD1	1.96	1.35
26:AJ:90:GLY:O	26:AJ:96:TYR:CE2	1.78	1.35
8:AS:42:HIS:CE1	14:AT:45:LEU:HD21	1.62	1.35
74:CC:5:ARG:HG3	74:CC:24:LEU:CD1	1.55	1.35
82:CG:208:ASN:ND2	82:CG:210:GLU:HG3	1.37	1.35
40:CK:10:ILE:CG2	40:CK:66:ASN:N	1.90	1.35
42:CL:19:GLN:CB	42:CL:20:ARG:HH11	1.38	1.35
41:CO:185:VAL:N	44:CM:126:GLU:OE1	1.57	1.35
52:CS:159:LEU:HD23	52:CS:160:ARG:N	1.40	1.35
12:AR:99:ASP:HA	12:AR:119:VAL:CG1	1.53	1.35
41:CO:202:LEU:C	41:CO:203:VAL:N	1.80	1.35
23:AD:112:GLY:C	23:AD:113:LEU:HD12	1.47	1.34
4:AK:16:PHE:CE2	4:AK:79:LEU:CB	2.07	1.34
12:AR:21:TYR:CB	12:AR:71:ILE:HD13	1.53	1.34
18:AY:18:LEU:HD13	18:AY:20:ARG:NH1	1.41	1.34
51:CA:209:HIS:HE1	51:CA:211:PHE:CG	1.44	1.34
79:CJ:90:ARG:NH2	79:CJ:108:GLY:N	1.72	1.34
42:CL:26:PHE:O	42:CL:29:PRO:HD3	1.17	1.34
29:AG:32:MET:CE	29:AG:100:CYS:HA	1.56	1.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:115:VAL:O	46:CN:159:ARG:NH2	1.58	1.34
46:CN:46:ASP:HB3	46:CN:50:ARG:NH1	1.42	1.34
29:AG:130:PRO:HA	58:CW:81:ALA:CB	1.54	1.34
26:AJ:39:ASN:ND2	26:AJ:42:GLU:OE2	1.57	1.34
18:AY:29:HIS:HE1	18:AY:68:LYS:N	1.04	1.34
74:CC:288:ASP:OD2	74:CC:291:ARG:CB	1.75	1.34
13:AP:49:LEU:HD12	13:AP:51:ARG:NE	1.40	1.34
32:AW:14:ILE:HD11	32:AW:72:CYS:SG	1.64	1.34
82:CG:75:LYS:NZ	82:CG:240:ASN:ND2	1.68	1.34
27:AE:19:MET:CE	36:B2:846:G:H2'	1.57	1.34
30:AF:63:LYS:HD3	30:AF:71:ARG:NH2	1.39	1.34
44:CM:60:PHE:CE2	44:CM:85:LYS:HB2	1.55	1.34
11:AL:71:ARG:CD	11:AL:73:LEU:HD21	1.57	1.34
34:AQ:34:VAL:HG23	34:AQ:39:LEU:CD2	1.56	1.34
14:AT:77:LYS:HB2	14:AT:94:ARG:CD	1.57	1.34
18:AY:18:LEU:CD1	18:AY:20:ARG:NH1	1.90	1.34
82:CG:75:LYS:HD3	82:CG:240:ASN:CB	1.58	1.34
43:CV:89:ARG:HG3	43:CV:95:PHE:CE2	1.61	1.34
85:A5:5015:G:O4'	85:A5:5015:G:C1'	1.63	1.34
12:AR:99:ASP:C	12:AR:119:VAL:CG1	1.94	1.34
8:AS:42:HIS:CG	14:AT:45:LEU:HD11	1.62	1.34
41:CO:16:LEU:HD21	41:CO:138:LEU:CD2	1.55	1.34
56:CX:38:LYS:HE3	56:CX:39:LYS:O	1.22	1.34
82:CG:217:LYS:CE	82:CG:217:LYS:HA	1.45	1.34
44:CM:35:ARG:NH2	52:CS:108:GLN:HE21	1.25	1.34
53:CT:150:LEU:C	53:CT:151:LEU:N	1.78	1.34
11:AL:147:LYS:CD	11:AL:148:ALA:HA	1.55	1.34
8:AS:108:ARG:NH2	79:CJ:119:TYR:CE2	1.95	1.34
18:AY:78:SER:CB	18:AY:81:TYR:CD2	1.98	1.34
81:CE:121:VAL:CG2	81:CE:122:PRO:HD2	1.58	1.34
54:CP:41:ILE:CD1	54:CP:112:LEU:HB3	1.57	1.34
57:CY:49:ILE:CD1	57:CY:101:PRO:HB3	1.57	1.34
29:AG:157:VAL:HG13	29:AG:159:ARG:N	1.39	1.33
7:AM:13:ASP:HB2	7:AM:16:THR:CB	1.57	1.33
42:CL:50:PRO:N	42:CL:51:ALA:HB2	1.41	1.33
23:AD:158:ILE:CD1	23:AD:189:MET:HE1	1.47	1.33
4:AK:21:MET:CE	4:AK:49:MET:SD	2.17	1.33
4:AK:83:LEU:HB3	4:AK:85:LEU:CD2	1.56	1.33
3:AU:62:ARG:NH1	3:AU:64:THR:HG21	1.42	1.33
47:CI:30:LYS:HA	47:CI:30:LYS:CE	1.38	1.33
30:AF:91:ARG:HH11	30:AF:94:LYS:CB	1.41	1.33

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:80:MET:CE	11:AL:120:VAL:C	1.93	1.33
12:AR:20:TYR:CZ	12:AR:38:ILE:HG21	1.63	1.33
40:CK:125:LEU:CD1	40:CK:163:PRO:HA	1.58	1.33
85:A5:2120:G:C1'	85:A5:2120:G:O4'	1.64	1.33
7:AM:28:HIS:CD2	7:AM:115:GLY:HA3	1.62	1.33
63:CB:219:VAL:HG13	63:CB:345:LEU:CD2	1.57	1.33
74:CC:147:VAL:HA	74:CC:175:LYS:CG	1.56	1.33
59:CZ:11:VAL:CG1	59:CZ:80:LEU:HB3	1.57	1.33
33:AI:141:ARG:CG	33:AI:144:LYS:HB2	1.57	1.33
36:B2:988:C:O4'	36:B2:988:C:C1'	1.63	1.33
49:CQ:99:LYS:HZ1	49:CQ:119:LYS:CD	1.34	1.33
16:AA:76:VAL:HG21	16:AA:90:PHE:CD2	1.60	1.33
23:AD:157:MET:CE	23:AD:187:LYS:HD3	1.59	1.33
23:AD:5:ILE:C	23:AD:6:SER:N	1.82	1.33
47:CI:205:PRO:C	47:CI:206:LEU:N	1.82	1.33
47:CI:86:HIS:HD2	47:CI:139:ARG:NH1	1.21	1.33
40:CK:102:GLY:CA	40:CK:139:VAL:O	1.77	1.33
40:CK:160:VAL:HA	40:CK:163:PRO:CG	1.58	1.33
49:CQ:154:LYS:HE2	49:CQ:155:ALA:C	1.48	1.33
50:CR:162:ARG:O	50:CR:166:THR:HG23	1.23	1.33
31:AH:6:ALA:CA	31:AH:10:LYS:HD3	1.58	1.33
26:AJ:61:LEU:HD22	26:AJ:98:LEU:CD1	1.56	1.33
79:CJ:48:PRO:CB	79:CJ:72:CYS:SG	2.13	1.33
40:CK:123:ARG:CD	40:CK:129:ILE:CD1	1.83	1.33
41:CO:16:LEU:CD1	41:CO:43:ILE:HD11	1.56	1.33
27:AE:49:ARG:C	27:AE:49:ARG:HD3	1.41	1.33
74:CC:22:VAL:HG21	74:CC:258:ARG:NE	1.38	1.33
74:CC:76:ILE:CG2	74:CC:77:PRO:HD2	1.54	1.33
42:CL:50:PRO:CD	42:CL:51:ALA:HB2	1.57	1.33
74:CC:213:GLU:CA	74:CC:214:ASP:HB3	1.55	1.33
81:CE:45:SER:CB	81:CE:49:VAL:CG1	2.05	1.33
82:CG:243:GLY:C	82:CG:244:PRO:N	1.80	1.33
40:CK:14:TYR:CD2	40:CK:63:THR:OG1	1.82	1.33
23:AD:197:LYS:HB3	23:AD:198:ILE:CG2	1.57	1.32
27:AE:153:LEU:CD1	27:AE:172:PHE:CZ	2.11	1.32
30:AF:59:LYS:HD2	30:AF:62:ARG:NH2	1.03	1.32
74:CC:173:LYS:HA	74:CC:173:LYS:CE	1.47	1.32
81:CE:45:SER:HB3	81:CE:49:VAL:CB	1.56	1.32
49:CQ:154:LYS:NZ	49:CQ:156:PRO:HD3	1.41	1.32
16:AA:176:TRP:HZ3	16:AA:177:MET:SD	1.46	1.32
29:AG:63:MET:CE	29:AG:106:LEU:HD11	1.56	1.32

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:CG:143:VAL:O	82:CG:146:LEU:CD1	1.75	1.32
80:CH:105:ILE:HG22	80:CH:111:LEU:O	1.17	1.32
44:CM:25:VAL:HG13	44:CM:39:ASP:C	1.47	1.32
16:AA:21:ALA:CB	16:AA:173:LEU:HD12	1.42	1.32
15:AB:205:TYR:CD2	15:AB:206:PRO:HD2	1.62	1.32
29:AG:184:VAL:CG1	29:AG:188:LYS:HE2	1.59	1.32
26:AJ:39:ASN:CG	26:AJ:42:GLU:OE2	1.67	1.32
41:CO:131:PRO:HG2	52:CS:156:HIS:CE1	1.62	1.32
54:CP:59:PRO:HG2	54:CP:76:TRP:CD1	1.64	1.32
59:CZ:3:LYS:O	59:CZ:6:LYS:CE	1.77	1.32
59:CZ:73:LYS:CG	59:CZ:75:TYR:CZ	2.11	1.32
80:CH:113:GLU:OE2	80:CH:123:ILE:CD1	1.77	1.32
58:CW:20:ARG:NH1	58:CW:28:VAL:HG11	1.01	1.32
57:CY:117:LYS:CE	57:CY:121:ARG:NH2	1.89	1.32
7:AM:13:ASP:O	7:AM:16:THR:CG2	1.72	1.32
82:CG:183:ILE:HG23	82:CG:184:ILE:CA	1.59	1.32
4:AK:83:LEU:CD1	4:AK:85:LEU:HD21	1.60	1.32
12:AR:85:VAL:HG23	16:AA:201:LEU:CD1	1.58	1.32
82:CG:121:LYS:HD2	82:CG:122:ALA:N	1.42	1.32
50:CR:32:ILE:HD12	50:CR:44:LEU:CD1	1.59	1.32
52:CS:161:ARG:O	52:CS:163:HIS:N	1.62	1.32
12:AR:105:MET:CG	16:AA:48:ILE:CG2	2.04	1.32
17:AV:11:LEU:HD11	17:AV:12:TYR:CD2	1.58	1.32
18:AY:44:LEU:HD11	18:AY:48:TYR:CE2	1.63	1.32
54:CP:95:LEU:CD1	54:CP:148:MET:SD	2.17	1.32
12:AR:21:TYR:HB2	12:AR:71:ILE:CD1	1.59	1.32
74:CC:233:SER:HA	74:CC:263:LEU:CD1	1.57	1.32
82:CG:159:HIS:HE1	82:CG:186:GLY:N	1.26	1.32
40:CK:31:LYS:O	40:CK:34:PRO:CD	1.76	1.32
13:AP:9:LYS:O	13:AP:10:ARG:HG3	1.19	1.32
14:AT:77:LYS:HG3	14:AT:92:PHE:CZ	1.63	1.32
63:CB:391:PRO:C	63:CB:392:LEU:HD22	1.50	1.32
40:CK:107:ASP:OD1	40:CK:143:VAL:HG13	1.27	1.32
53:CT:136:ARG:NH2	64:CF:86:GLU:OE2	1.62	1.32
29:AG:151:ASP:OD1	58:CW:105:ARG:CZ	1.64	1.32
74:CC:341:LEU:HD11	81:CE:52:ARG:NH2	1.02	1.31
49:CQ:22:ASP:OD1	74:CC:33:ARG:NE	1.59	1.31
34:AQ:93:VAL:HG11	34:AQ:105:LYS:CE	1.51	1.31
74:CC:133:LEU:CD2	74:CC:136:LEU:HD12	1.44	1.31
29:AG:1:MET:CE	29:AG:106:LEU:O	1.77	1.31
40:CK:2:PRO:HA	40:CK:2:PRO:C	1.43	1.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:180:PHE:HB2	46:CN:184:ILE:CD1	1.61	1.31
16:AA:76:VAL:HG13	16:AA:175:TRP:CH2	1.65	1.31
29:AG:32:MET:SD	29:AG:100:CYS:CB	2.17	1.31
33:AI:136:ILE:CG2	33:AI:139:LYS:HE3	1.60	1.31
8:AS:46:ARG:HG2	14:AT:50:GLU:OE2	1.19	1.31
46:CN:197:THR:C	46:CN:198:LEU:HD23	1.45	1.31
27:AE:159:THR:CG2	27:AE:227:VAL:HG23	1.58	1.31
4:AK:60:GLU:OE1	4:AK:67:PHE:CD1	1.84	1.31
13:AP:4:VAL:N	13:AP:10:ARG:HG2	1.40	1.31
82:CG:160:ASP:OD1	82:CG:187:LYS:CB	1.79	1.31
47:CI:214:SER:OXT	48:CD:291:GLN:NE2	1.60	1.31
3:AU:113:GLU:OE2	23:AD:7:LYS:NZ	1.60	1.31
17:AV:24:ILE:HD13	17:AV:25:GLY:N	1.45	1.31
41:CO:122:ALA:CB	52:CS:161:ARG:HB2	1.60	1.31
59:CZ:42:LEU:CD2	59:CZ:96:VAL:CG1	2.07	1.31
28:AC:94:ILE:HD13	28:AC:162:ILE:CD1	1.59	1.31
41:CO:183:LYS:O	41:CO:187:LYS:N	1.64	1.31
17:AV:80:SER:C	17:AV:81:LYS:HE3	1.51	1.31
6:AX:114:ASP:O	6:AX:116:PRO:HD3	1.16	1.31
51:CA:242:ARG:NH1	51:CA:247:ARG:HH21	1.27	1.31
48:CD:273:LEU:HD13	48:CD:277:LYS:CE	1.58	1.31
79:CJ:22:LEU:HD21	79:CJ:130:PHE:CZ	1.65	1.31
14:AT:23:LYS:HD3	14:AT:54:TYR:CG	1.65	1.30
48:CD:137:GLY:O	48:CD:138:GLN:HG2	1.13	1.30
54:CP:131:ARG:HD2	54:CP:137:ASN:ND2	0.98	1.30
52:CS:90:THR:CG2	53:CT:156:TYR:CD1	2.13	1.30
55:CU:63:ILE:CD1	55:CU:72:VAL:HG22	1.60	1.30
58:CW:86:SER:OG	58:CW:89:ASP:HB2	1.17	1.30
27:AE:70:ILE:CG1	27:AE:92:ILE:CD1	2.08	1.30
11:AL:19:ASN:ND2	33:AI:69:SER:CB	1.83	1.30
80:CH:109:GLY:C	80:CH:128:MET:HB2	1.49	1.30
42:CL:26:PHE:O	42:CL:29:PRO:CD	1.77	1.30
42:CL:50:PRO:CA	42:CL:51:ALA:HB2	1.61	1.30
29:AG:176:ILE:HG21	29:AG:179:LEU:CD2	1.60	1.30
63:CB:140:GLU:HG2	63:CB:144:LYS:NZ	1.45	1.30
48:CD:47:PRO:HB2	48:CD:66:TYR:CD1	1.63	1.30
82:CG:136:LEU:CD2	82:CG:204:PHE:CZ	2.12	1.30
59:CZ:46:ILE:HD11	59:CZ:49:TYR:CZ	1.65	1.30
8:AS:120:HIS:NE2	8:AS:124:ARG:CZ	1.92	1.30
51:CA:250:LYS:HA	51:CA:251:THR:O	1.28	1.30
46:CN:120:TRP:CD1	46:CN:128:LYS:NZ	1.99	1.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:87:ILE:HD13	15:AB:101:HIS:CD2	1.66	1.30
26:AJ:15:THR:HG22	26:AJ:44:TRP:CE3	1.65	1.30
34:AQ:38:PRO:HG2	34:AQ:41:MET:SD	1.69	1.30
81:CE:46:ARG:CZ	81:CE:47:ASN:H	1.41	1.30
41:CO:188:LYS:HE2	41:CO:188:LYS:CA	1.54	1.30
4:AK:30:PRO:O	4:AK:31:LYS:HG3	1.14	1.30
46:CN:180:PHE:O	46:CN:184:ILE:HB	1.25	1.30
85:A5:975:C:O4'	85:A5:975:C:C1'	1.69	1.30
14:AT:11:GLN:NE2	14:AT:62:ARG:CZ	1.92	1.30
81:CE:56:ARG:HB3	81:CE:65:ARG:NH1	1.42	1.30
40:CK:102:GLY:H	40:CK:139:VAL:CG1	1.45	1.30
34:AQ:42:ILE:CD1	34:AQ:51:LEU:HD21	1.58	1.30
6:AX:142:ARG:HH11	6:AX:142:ARG:CB	1.44	1.30
36:B2:182:C:O4'	36:B2:182:C:C1'	1.66	1.30
81:CE:108:LYS:CE	81:CE:108:LYS:HA	1.50	1.30
82:CG:159:HIS:HE1	82:CG:185:LYS:C	1.32	1.30
18:AY:99:LYS:N	18:AY:99:LYS:HE3	1.45	1.30
51:CA:144:LYS:O	51:CA:145:LYS:HG3	1.19	1.30
48:CD:164:LYS:HE3	48:CD:168:ASP:OD2	1.24	1.30
13:AP:53:GLN:CG	13:AP:80:LEU:CD1	2.08	1.29
12:AR:15:VAL:CG1	23:AD:210:ILE:CD1	2.09	1.29
74:CC:54:VAL:CG1	74:CC:55:SER:H	1.31	1.29
59:CZ:5:MET:N	59:CZ:6:LYS:HD3	1.40	1.29
74:CC:124:ILE:HG12	74:CC:237:ILE:CG1	1.58	1.29
74:CC:124:ILE:CG1	74:CC:237:ILE:HG13	1.61	1.29
74:CC:341:LEU:CD1	81:CE:52:ARG:NH2	1.96	1.29
46:CN:21:PHE:CE2	82:CG:80:ILE:CD1	2.14	1.29
42:CL:50:PRO:HB2	42:CL:51:ALA:CA	1.56	1.29
10:AN:38:TYR:HE2	10:AN:74:ILE:CG2	1.43	1.29
6:AX:29:LYS:HD2	6:AX:34:THR:OG1	1.31	1.29
80:CH:105:ILE:CG2	80:CH:112:VAL:CA	2.07	1.29
85:A5:1928:C:O4'	85:A5:1928:C:C1'	1.64	1.29
31:AH:122:LEU:CD1	31:AH:123:THR:N	1.94	1.29
47:CI:10:ARG:NH2	47:CI:56:GLU:OE1	1.63	1.29
40:CK:10:ILE:HG13	40:CK:67:ARG:CA	1.60	1.29
42:CL:125:ILE:HG22	42:CL:127:PHE:CE1	1.66	1.29
57:CY:11:ARG:NH1	74:CC:200:ARG:NH1	1.79	1.29
59:CZ:3:LYS:O	59:CZ:6:LYS:HE3	1.22	1.29
28:AC:117:ARG:HB2	28:AC:117:ARG:NH2	1.48	1.29
29:AG:176:ILE:CG2	29:AG:179:LEU:CD2	2.10	1.29
18:AY:99:LYS:HE3	18:AY:99:LYS:CA	1.47	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CA:209:HIS:CE1	51:CA:211:PHE:CG	2.20	1.29
74:CC:348:LYS:C	74:CC:349:LEU:CA	1.99	1.29
81:CE:45:SER:OG	81:CE:49:VAL:HG11	1.14	1.29
81:CE:83:LYS:NZ	81:CE:86:GLU:C	1.85	1.29
79:CJ:90:ARG:NH1	79:CJ:107:PHE:HB2	0.97	1.29
28:AC:84:PHE:HZ	28:AC:262:THR:OG1	1.03	1.29
33:AI:25:ARG:CD	33:AI:27:TYR:HE2	1.43	1.29
26:AJ:15:THR:HG22	26:AJ:44:TRP:CZ3	1.66	1.29
18:AY:18:LEU:CB	18:AY:20:ARG:NH1	1.94	1.29
63:CB:61:ASP:OD1	63:CB:361:GLU:HG3	1.14	1.29
49:CQ:110:ARG:NH1	74:CC:281:MET:SD	2.04	1.29
82:CG:75:LYS:CD	82:CG:240:ASN:CB	2.08	1.29
41:CO:131:PRO:O	41:CO:132:THR:HG23	1.19	1.29
50:CR:32:ILE:CD1	50:CR:44:LEU:HD13	1.61	1.29
56:CX:52:LEU:HD11	56:CX:54:LEU:N	1.41	1.29
57:CY:82:ILE:HG22	57:CY:83:GLU:O	1.25	1.29
85:A5:2488:C:C1'	85:A5:2488:C:O4'	1.63	1.29
31:AH:40:LEU:CD2	31:AH:43:LEU:CD1	2.09	1.29
4:AK:43:LEU:O	4:AK:45:VAL:N	1.65	1.29
74:CC:63:SER:OG	74:CC:80:ARG:HD2	1.30	1.29
16:AA:30:LEU:CD1	16:AA:38:ILE:CD1	1.96	1.29
23:AD:197:LYS:CB	23:AD:198:ILE:HG23	1.63	1.29
12:AR:105:MET:HG2	16:AA:48:ILE:CG2	1.58	1.29
81:CE:138:ARG:NH2	81:CE:169:ALA:O	1.66	1.29
47:CI:175:LYS:HB2	47:CI:176:PHE:CE1	1.65	1.29
49:CQ:151:HIS:ND1	49:CQ:164:LYS:O	1.64	1.29
42:CL:19:GLN:CB	42:CL:20:ARG:NH1	1.95	1.29
40:CK:2:PRO:CB	40:CK:2:PRO:CA	2.10	1.29
54:CP:27:LYS:HG2	54:CP:63:TYR:CG	1.68	1.29
23:AD:123:LEU:HD21	23:AD:154:ASP:CB	1.63	1.28
12:AR:91:LEU:CD1	12:AR:92:ASP:HA	1.63	1.28
36:B2:127:C:C4	36:B2:180:G:O2'	1.85	1.28
63:CB:112:ASP:O	63:CB:114:CYS:N	1.63	1.28
48:CD:246:ALA:HA	48:CD:249:GLU:OE2	1.30	1.28
82:CG:77:PRO:CG	82:CG:237:TRP:HZ3	1.46	1.28
41:CO:188:LYS:HA	41:CO:188:LYS:CE	1.43	1.28
41:CO:190:ASP:HB3	41:CO:193:THR:CB	1.62	1.28
49:CQ:72:LEU:O	49:CQ:75:ARG:HG2	1.24	1.28
23:AD:35:SER:CA	23:AD:99:ILE:HD11	1.63	1.28
30:AF:122:ARG:O	30:AF:141:VAL:HG13	1.26	1.28
63:CB:297:LYS:O	63:CB:300:LYS:NZ	1.64	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CK:94:LYS:HB3	40:CK:96:LYS:CD	1.63	1.28
42:CL:8:MET:O	42:CL:10:LEU:CD2	1.80	1.28
40:CK:94:LYS:CB	40:CK:96:LYS:CD	2.11	1.28
23:AD:105:LEU:CD2	23:AD:184:ILE:HD12	1.63	1.28
74:CC:14:LYS:O	74:CC:16:GLU:HG2	1.30	1.28
74:CC:310:HIS:CB	74:CC:311:ARG:HD3	1.57	1.28
40:CK:160:VAL:CA	40:CK:163:PRO:CG	2.11	1.28
41:CO:190:ASP:OD1	41:CO:194:GLU:N	1.64	1.28
49:CQ:154:LYS:HE2	49:CQ:156:PRO:N	1.47	1.28
53:CT:143:THR:O	53:CT:146:LYS:C	1.71	1.28
55:CU:60:VAL:HA	55:CU:75:GLU:CG	1.61	1.28
59:CZ:73:LYS:CE	59:CZ:75:TYR:CE1	2.15	1.28
85:A5:2601:A:C1'	85:A5:2601:A:O4'	1.64	1.28
28:AC:227:ARG:HH11	28:AC:228:GLY:CA	1.45	1.28
23:AD:218:LEU:CG	23:AD:220:THR:CG2	2.11	1.28
48:CD:41:LYS:HE3	53:CT:93:ILE:CD1	1.64	1.28
64:CF:51:TYR:CE1	81:CE:58:SER:CB	2.11	1.28
82:CG:160:ASP:OD1	82:CG:187:LYS:HB3	1.19	1.28
40:CK:56:LEU:HB3	40:CK:91:ASP:OD1	1.30	1.28
40:CK:94:LYS:HG2	40:CK:96:LYS:CG	1.62	1.28
52:CS:164:LYS:HE3	52:CS:165:PRO:CD	1.60	1.28
48:CD:42:ASN:OD1	53:CT:67:VAL:CG1	1.81	1.28
16:AA:177:MET:CE	16:AA:180:ARG:NH2	1.95	1.28
3:AU:62:ARG:NH1	3:AU:64:THR:CG2	1.95	1.28
48:CD:246:ALA:O	48:CD:249:GLU:HG2	1.29	1.28
55:CU:59:GLY:O	55:CU:61:VAL:CG2	1.78	1.28
85:A5:1931:C:C1'	85:A5:1931:C:O4'	1.64	1.28
85:A5:2035:C:C1'	85:A5:2035:C:O4'	1.63	1.28
8:AS:8:LYS:HD3	8:AS:9:PHE:CE1	1.69	1.28
74:CC:213:GLU:N	74:CC:214:ASP:HB3	1.46	1.28
82:CG:28:VAL:HA	82:CG:31:LEU:CD2	1.63	1.28
42:CL:148:THR:O	42:CL:149:GLN:HG2	1.31	1.28
46:CN:56:LYS:HE3	46:CN:59:TYR:CE2	1.65	1.28
85:A5:923:C:O4'	85:A5:923:C:C1'	1.64	1.28
28:AC:116:THR:HG22	28:AC:119:GLY:O	1.13	1.28
6:AX:10:ALA:HB2	11:AL:101:ARG:O	1.29	1.28
82:CG:139:GLY:HA2	85:A5:149:A:O2'	1.33	1.28
31:AH:6:ALA:HA	31:AH:10:LYS:CD	1.62	1.28
40:CK:78:SER:HB3	40:CK:117:ARG:NH1	1.49	1.28
85:A5:4612:C:C1'	85:A5:4612:C:O4'	1.64	1.28
26:AJ:17:ARG:CG	26:AJ:18:ARG:HD3	1.64	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:147:LYS:CG	11:AL:148:ALA:HA	1.61	1.28
14:AT:31:PRO:O	14:AT:33:TRP:N	1.63	1.28
6:AX:51:VAL:HG13	6:AX:70:VAL:CG1	1.60	1.28
82:CG:159:HIS:CE1	82:CG:186:GLY:N	2.00	1.28
40:CK:123:ARG:HH11	40:CK:129:ILE:CD1	1.47	1.28
58:CW:79:GLN:OE1	58:CW:94:ARG:NH1	1.62	1.28
26:AJ:134:HIS:ND1	26:AJ:163:SER:CB	1.96	1.27
48:CD:51:MET:CE	48:CD:173:ILE:CD1	2.11	1.27
82:CG:159:HIS:CE1	82:CG:185:LYS:C	2.06	1.27
63:CB:61:ASP:OD1	63:CB:361:GLU:CG	1.80	1.27
74:CC:124:ILE:CG1	74:CC:237:ILE:CD1	2.12	1.27
74:CC:144:ILE:HD11	74:CC:249:PHE:CG	1.69	1.27
53:CT:68:THR:OG1	53:CT:71:ALA:CB	1.80	1.27
28:AC:125:LYS:HE2	28:AC:127:PHE:CZ	1.66	1.27
11:AL:80:MET:HE3	11:AL:121:GLN:N	1.46	1.27
74:CC:124:ILE:HG13	74:CC:237:ILE:CD1	1.64	1.27
79:CJ:20:LEU:HD13	79:CJ:83:LEU:CD2	1.65	1.27
13:AP:62:LYS:O	13:AP:65:LYS:HG2	1.21	1.27
19:AZ:99:LEU:HD23	19:AZ:109:TYR:CE1	1.68	1.27
51:CA:32:VAL:HG22	51:CA:163:ARG:NH1	0.95	1.27
48:CD:44:TYR:HE1	53:CT:34:TYR:O	1.05	1.27
64:CF:23:ARG:CA	64:CF:24:ASN:N	1.96	1.27
23:AD:97:CYS:O	23:AD:99:ILE:N	1.67	1.27
8:AS:61:GLU:O	8:AS:64:VAL:HG22	1.33	1.27
47:CI:185:VAL:HG22	47:CI:190:LEU:CD1	1.53	1.27
41:CO:128:ARG:HE	52:CS:161:ARG:NH2	1.31	1.27
28:AC:169:TYR:OH	28:AC:176:LYS:CA	1.81	1.27
31:AH:40:LEU:HD21	31:AH:43:LEU:CD1	1.64	1.27
63:CB:114:CYS:SG	63:CB:180:LEU:CD2	2.21	1.27
48:CD:47:PRO:CB	48:CD:66:TYR:HE1	1.32	1.27
40:CK:142:ASN:CB	40:CK:147:HIS:O	1.81	1.27
40:CK:8:ASN:O	40:CK:9:GLU:HG2	1.22	1.27
54:CP:29:THR:HA	54:CP:32:THR:CG2	1.61	1.27
16:AA:154:LEU:HD12	17:AV:63:GLY:C	1.54	1.27
12:AR:99:ASP:O	12:AR:119:VAL:HG11	1.30	1.27
17:AV:55:ILE:HD11	17:AV:68:SER:OG	1.27	1.27
18:AY:102:THR:CG2	18:AY:107:ARG:HE	1.46	1.27
51:CA:118:GLU:CG	51:CA:125:LYS:HZ2	1.45	1.27
48:CD:262:LYS:HD3	48:CD:266:TRP:NE1	1.47	1.27
81:CE:286:LEU:HB2	81:CE:287:VAL:CA	1.64	1.27
64:CF:200:ARG:NH1	64:CF:203:GLU:CD	1.86	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AS:132:ARG:HB2	8:AS:134:GLN:OE1	1.18	1.27
59:CZ:76:ASN:ND2	59:CZ:78:ASN:HB2	1.45	1.27
30:AF:63:LYS:CD	30:AF:71:ARG:NH1	1.98	1.27
51:CA:117:GLU:HB3	51:CA:122:ASP:OD1	1.14	1.27
85:A5:3749:C:O4'	85:A5:3749:C:C1'	1.64	1.27
26:AJ:28:GLU:OE1	26:AJ:40:LYS:HD2	1.33	1.27
12:AR:44:LYS:HG3	12:AR:47:ARG:CZ	1.63	1.27
74:CC:147:VAL:CG1	74:CC:152:LEU:CD2	2.10	1.27
79:CJ:163:MET:CE	79:CJ:174:ILE:CD1	2.13	1.27
11:AL:147:LYS:HG3	11:AL:148:ALA:CA	1.65	1.26
8:AS:42:HIS:CD2	14:AT:45:LEU:HD21	1.68	1.26
44:CM:33:GLN:OE1	80:CH:61:TRP:CD2	1.87	1.26
40:CK:94:LYS:CG	40:CK:96:LYS:HD2	1.64	1.26
16:AA:176:TRP:CZ2	16:AA:195:TRP:HE3	1.06	1.26
15:AB:137:LEU:HD21	15:AB:215:VAL:CG1	1.65	1.26
11:AL:22:ARG:CD	33:AI:157:LYS:HB2	1.64	1.26
12:AR:44:LYS:HE3	12:AR:47:ARG:NH2	1.48	1.26
18:AY:34:THR:O	18:AY:35:VAL:HG22	1.09	1.26
79:CJ:175:LEU:CB	79:CJ:176:PRO:HD2	1.59	1.26
50:CR:32:ILE:CD1	50:CR:44:LEU:CD1	2.13	1.26
30:AF:14:THR:CG2	34:AQ:56:LEU:HB3	1.64	1.26
5:AO:52:THR:O	5:AO:53:ILE:HG23	1.28	1.26
8:AS:11:HIS:HD2	8:AS:23:ARG:NH2	1.31	1.26
51:CA:242:ARG:HH22	51:CA:247:ARG:NH2	1.33	1.26
48:CD:57:ASN:HA	48:CD:58:ARG:CD	1.64	1.26
40:CK:79:ALA:O	40:CK:83:LYS:HG3	1.17	1.26
12:AR:15:VAL:CG1	23:AD:210:ILE:HD12	1.62	1.26
63:CB:173:LEU:CD1	63:CB:342:LYS:HE2	1.63	1.26
81:CE:108:LYS:CA	81:CE:108:LYS:HE3	1.64	1.26
54:CP:101:ASN:O	54:CP:105:LYS:HD3	1.28	1.26
85:A5:2427:G:O4'	85:A5:2427:G:C1'	1.66	1.26
33:AI:37:LYS:O	33:AI:59:ARG:HA	1.27	1.26
26:AJ:72:PHE:CD1	27:AE:248:ILE:CG1	2.16	1.26
63:CB:52:GLY:O	63:CB:78:ILE:CG1	1.83	1.26
40:CK:107:ASP:OD1	40:CK:143:VAL:CG1	1.81	1.26
44:CM:60:PHE:CZ	44:CM:85:LYS:CG	2.16	1.26
33:AI:161:LEU:CD1	33:AI:199:LEU:CD1	2.12	1.26
13:AP:126:VAL:CG1	13:AP:127:LYS:H	1.47	1.26
74:CC:22:VAL:HG23	74:CC:258:ARG:CZ	1.63	1.26
41:CO:177:LEU:CD2	44:CM:130:LEU:HD21	1.64	1.26
27:AE:38:LEU:HD12	27:AE:38:LEU:C	1.56	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AF:14:THR:OG1	34:AQ:56:LEU:CB	1.83	1.26
28:AC:256:TRP:HB3	32:AW:68:ARG:NH1	1.47	1.26
63:CB:52:GLY:H	63:CB:78:ILE:CD1	1.46	1.26
46:CN:64:ILE:CD1	46:CN:102:ALA:HA	1.64	1.26
52:CS:2:LYS:HZ2	52:CS:43:ARG:CG	1.49	1.26
48:CD:44:TYR:OH	53:CT:67:VAL:HG21	1.34	1.26
29:AG:176:ILE:CG2	29:AG:179:LEU:HD23	1.65	1.26
26:AJ:17:ARG:CG	26:AJ:18:ARG:HG2	1.66	1.26
4:AK:27:VAL:CG1	4:AK:43:LEU:CD2	1.94	1.26
40:CK:49:ALA:HA	40:CK:52:ASP:OD2	1.28	1.26
52:CS:159:LEU:HD23	52:CS:159:LEU:C	1.54	1.26
55:CU:21:PHE:CZ	55:CU:80:LYS:CE	2.18	1.26
57:CY:52:ASP:OD1	57:CY:69:LYS:HD3	1.30	1.26
85:A5:1832:C:C1'	85:A5:1832:C:O4'	1.64	1.26
30:AF:42:LYS:CB	30:AF:45:TYR:H	1.48	1.26
13:AP:79:HIS:CE1	13:AP:102:PHE:CZ	2.17	1.26
34:AQ:25:CYS:SG	34:AQ:91:ALA:HB1	1.74	1.26
34:AQ:38:PRO:HD2	34:AQ:41:MET:SD	1.76	1.26
63:CB:355:THR:C	63:CB:356:LYS:HE2	1.53	1.26
40:CK:2:PRO:CB	40:CK:2:PRO:N	1.97	1.26
85:A5:2101:C:C1'	85:A5:2101:C:O4'	1.63	1.26
23:AD:2:ALA:HB3	23:AD:3:VAL:CA	1.65	1.26
34:AQ:38:PRO:CG	34:AQ:41:MET:SD	2.23	1.26
85:A5:3706:C:C1'	85:A5:3706:C:O4'	1.63	1.25
10:AN:19:ARG:HB3	31:AH:138:GLU:OE2	1.29	1.25
46:CN:178:HIS:CA	46:CN:181:HIS:NE2	1.99	1.25
50:CR:10:LEU:HB3	50:CR:41:ILE:CD1	1.66	1.25
55:CU:40:GLU:OE2	55:CU:70:ILE:HG12	1.35	1.25
58:CW:23:ARG:NH1	58:CW:29:PHE:HE2	1.32	1.25
40:CK:22:VAL:HG21	40:CK:48:LYS:CB	1.59	1.25
34:AQ:34:VAL:CG2	34:AQ:39:LEU:HD23	1.65	1.25
8:AS:42:HIS:NE2	14:AT:45:LEU:HD21	0.94	1.25
59:CZ:42:LEU:CD2	59:CZ:96:VAL:HG12	1.65	1.25
16:AA:145:ILE:CD1	16:AA:159:ILE:HG21	1.64	1.25
63:CB:80:GLU:OE1	63:CB:171:LEU:HD13	1.21	1.25
63:CB:92:TYR:CG	63:CB:99:LEU:HD11	1.72	1.25
74:CC:310:HIS:HB2	74:CC:311:ARG:CD	1.61	1.25
79:CJ:128:LEU:CD1	79:CJ:130:PHE:CD2	2.18	1.25
52:CS:170:LYS:O	52:CS:172:PRO:HA	1.31	1.25
4:AK:21:MET:HE3	4:AK:49:MET:SD	1.76	1.25
11:AL:71:ARG:HD3	11:AL:73:LEU:CD2	1.65	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AQ:109:LYS:HG3	34:AQ:113:ILE:CD1	1.66	1.25
51:CA:209:HIS:CE1	51:CA:211:PHE:CD2	2.23	1.25
48:CD:210:TYR:CZ	48:CD:214:GLU:OE1	1.90	1.25
82:CG:21:LYS:O	82:CG:24:ALA:HB3	1.25	1.25
40:CK:123:ARG:HB2	40:CK:128:THR:OG1	1.28	1.25
40:CK:160:VAL:C	40:CK:163:PRO:CD	2.01	1.25
47:CI:205:PRO:O	47:CI:207:ASP:N	1.68	1.25
79:CJ:115:LEU:HD12	79:CJ:115:LEU:O	1.36	1.25
28:AC:166:ARG:NH1	28:AC:255:LEU:HD11	1.50	1.25
79:CJ:163:MET:HE3	79:CJ:174:ILE:CG1	1.65	1.25
42:CL:167:ARG:NH2	42:CL:170:THR:CG2	1.98	1.25
52:CS:2:LYS:NZ	52:CS:43:ARG:CG	1.99	1.25
53:CT:12:ARG:CG	53:CT:13:TYR:CE2	2.17	1.25
8:AS:117:ILE:O	8:AS:118:ARG:HG2	1.12	1.25
82:CG:175:ARG:NH1	82:CG:176:LYS:HA	1.48	1.25
29:AG:11:GLY:CA	58:CW:80:ARG:HH22	1.47	1.25
57:CY:89:LYS:HD3	57:CY:90:ALA:N	1.48	1.25
30:AF:25:THR:CG2	30:AF:42:LYS:CD	2.12	1.25
31:AH:83:LEU:CD1	31:AH:92:VAL:CG2	2.06	1.25
18:AY:10:ARG:NE	18:AY:24:VAL:HG11	1.50	1.25
63:CB:87:VAL:CG2	63:CB:163:ILE:HG23	1.67	1.25
79:CJ:90:ARG:NH2	79:CJ:108:GLY:O	1.68	1.25
40:CK:10:ILE:HG21	40:CK:66:ASN:N	1.49	1.25
28:AC:259:THR:HG23	28:AC:261:PHE:N	1.51	1.25
27:AE:208:VAL:CG2	27:AE:225:ILE:HD12	1.66	1.25
13:AP:10:ARG:HH21	13:AP:11:THR:CB	1.50	1.25
48:CD:152:ARG:CG	79:CJ:145:LYS:NZ	1.98	1.25
40:CK:92:ARG:HA	40:CK:95:GLN:OE1	1.37	1.25
30:AF:14:THR:CG2	34:AQ:56:LEU:CD2	1.76	1.25
74:CC:63:SER:OG	74:CC:80:ARG:CD	1.85	1.25
33:AI:116:HIS:O	33:AI:152:ARG:NH1	1.67	1.24
8:AS:138:THR:HA	8:AS:141:ARG:NH2	0.92	1.24
82:CG:243:GLY:O	82:CG:247:VAL:HG23	1.31	1.24
49:CQ:61:LEU:CD1	49:CQ:82:VAL:HG22	1.66	1.24
59:CZ:11:VAL:HG11	59:CZ:80:LEU:CB	1.67	1.24
74:CC:348:LYS:CA	74:CC:349:LEU:N	1.98	1.24
47:CI:76:MET:CE	47:CI:148:VAL:HA	1.66	1.24
74:CC:85:HIS:CA	74:CC:87:SER:H	1.47	1.24
52:CS:161:ARG:C	52:CS:163:HIS:H	1.19	1.24
55:CU:80:LYS:CG	55:CU:110:TYR:OH	1.84	1.24
85:A5:4906:C:O4'	85:A5:4906:C:C1'	1.64	1.24

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AA:143:PRO:HB3	17:AV:34:MET:SD	1.76	1.24
29:AG:1:MET:HE2	29:AG:106:LEU:O	1.25	1.24
29:AG:25:ARG:HG2	29:AG:28:TYR:CE2	1.71	1.24
31:AH:53:VAL:CG2	31:AH:57:ARG:O	1.86	1.24
34:AQ:92:LEU:CD1	34:AQ:96:TYR:HE2	1.50	1.24
32:AW:14:ILE:HD12	32:AW:72:CYS:SG	1.67	1.24
82:CG:77:PRO:CA	82:CG:237:TRP:CE3	2.13	1.24
3:AU:59:LYS:HB2	3:AU:84:ILE:CG2	1.67	1.24
18:AY:22:GLN:HB3	18:AY:74:MET:SD	1.78	1.24
53:CT:150:LEU:HD23	53:CT:150:LEU:C	1.56	1.24
4:AK:83:LEU:CB	4:AK:85:LEU:CD2	2.15	1.24
6:AX:2:GLY:O	6:AX:3:LYS:HG3	1.23	1.24
48:CD:271:MET:CE	48:CD:275:GLN:HB3	1.66	1.24
82:CG:32:PHE:O	82:CG:33:GLU:HG2	1.33	1.24
47:CI:106:ALA:HB3	47:CI:108:ALA:CB	1.66	1.24
40:CK:61:LYS:HE3	40:CK:72:GLU:CA	1.67	1.24
57:CY:84:ARG:O	57:CY:86:GLN:NE2	1.70	1.24
85:A5:2395:A:O4'	85:A5:2395:A:C1'	1.63	1.24
81:CE:56:ARG:CD	81:CE:65:ARG:NH1	1.99	1.24
57:CY:34:LEU:HD11	57:CY:38:LEU:CD1	1.67	1.24
57:CY:34:LEU:HD21	57:CY:38:LEU:C	1.55	1.24
15:AB:105:LEU:HD12	15:AB:110:MET:CE	1.66	1.24
13:AP:49:LEU:O	13:AP:51:ARG:HA	1.31	1.24
18:AY:55:ILE:HG12	18:AY:75:ILE:CD1	1.66	1.24
47:CI:106:ALA:N	47:CI:108:ALA:HB2	1.50	1.24
59:CZ:10:VAL:O	59:CZ:83:THR:HG23	1.12	1.24
63:CB:165:HIS:CB	63:CB:180:LEU:HD12	1.68	1.24
58:CW:86:SER:O	58:CW:90:ILE:CG1	1.85	1.24
58:CW:87:LEU:CD2	58:CW:90:ILE:CD1	2.10	1.24
86:A7:37:G:O4'	86:A7:37:G:C1'	1.63	1.24
23:AD:201:LYS:O	23:AD:203:PRO:HD2	1.08	1.24
34:AQ:57:LEU:HD11	34:AQ:115:TYR:CZ	1.71	1.24
17:AV:1:MET:CE	17:AV:10:ASP:HB2	1.68	1.24
82:CG:211:ASP:OD1	82:CG:214:ALA:HB3	1.31	1.24
40:CK:38:SER:CB	40:CK:39:PRO:HD3	1.66	1.24
40:CK:10:ILE:CB	40:CK:66:ASN:HA	1.68	1.24
44:CM:77:TRP:CD1	44:CM:82:ILE:CG1	2.18	1.24
46:CN:77:LYS:HD2	46:CN:77:LYS:O	1.38	1.24
49:CQ:103:LEU:CD2	49:CQ:123:PHE:CE2	2.21	1.24
33:AI:144:LYS:O	33:AI:145:ILE:HG12	1.30	1.23
4:AK:71:LEU:CD2	4:AK:76:ILE:HD13	1.67	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AR:5:ARG:O	12:AR:10:LYS:HE2	1.27	1.23
8:AS:42:HIS:CD2	14:AT:45:LEU:CG	2.19	1.23
63:CB:142:GLY:HA3	63:CB:147:GLU:CD	1.57	1.23
81:CE:106:VAL:HG23	81:CE:107:VAL:CB	1.68	1.23
40:CK:94:LYS:CG	40:CK:96:LYS:CD	2.15	1.23
52:CS:75:VAL:HG13	52:CS:76:LYS:N	1.42	1.23
53:CT:143:THR:O	53:CT:146:LYS:CA	1.86	1.23
23:AD:218:LEU:CG	23:AD:220:THR:HG23	1.69	1.23
30:AF:59:LYS:CD	30:AF:62:ARG:NH2	1.98	1.23
30:AF:91:ARG:NH1	30:AF:94:LYS:HB2	1.46	1.23
18:AY:18:LEU:HB3	18:AY:20:ARG:NH1	1.51	1.23
50:CR:31:GLU:OE2	55:CU:125:GLU:HB3	1.36	1.23
16:AA:176:TRP:CZ2	16:AA:195:TRP:CE3	1.94	1.23
4:AK:83:LEU:CB	4:AK:85:LEU:HD21	1.66	1.23
13:AP:128:HIS:CE1	36:B2:1521:C:H1'	1.72	1.23
44:CM:41:PRO:HG2	44:CM:73:VAL:CG2	1.66	1.23
55:CU:39:PHE:CE2	55:CU:70:ILE:HD12	1.73	1.23
57:CY:34:LEU:CD1	57:CY:38:LEU:CB	2.15	1.23
33:AI:141:ARG:CD	33:AI:144:LYS:HB3	1.67	1.23
63:CB:54:THR:O	63:CB:76:VAL:HG23	1.09	1.23
59:CZ:26:VAL:HA	59:CZ:89:ILE:CD1	1.67	1.23
33:AI:141:ARG:CD	33:AI:144:LYS:CB	2.15	1.23
26:AJ:89:GLU:C	26:AJ:92:MET:HB2	1.57	1.23
63:CB:264:PHE:HD2	63:CB:265:SER:N	1.37	1.23
81:CE:83:LYS:HB2	81:CE:84:LYS:C	1.58	1.23
81:CE:83:LYS:HZ3	81:CE:86:GLU:C	1.38	1.23
59:CZ:73:LYS:HE2	59:CZ:75:TYR:CE1	1.72	1.23
28:AC:94:ILE:CD1	28:AC:162:ILE:HD12	1.66	1.23
10:AN:46:THR:OG1	10:AN:49:GLN:CG	1.86	1.23
63:CB:356:LYS:HE2	63:CB:356:LYS:CA	1.64	1.23
64:CF:30:ILE:CG2	64:CF:34:ARG:NE	2.02	1.23
79:CJ:175:LEU:HB3	79:CJ:176:PRO:CD	1.66	1.23
40:CK:9:GLU:CG	40:CK:10:ILE:H	1.26	1.23
42:CL:191:LEU:CD2	42:CL:194:ILE:HD12	1.67	1.23
27:AE:62:LYS:CD	27:AE:80:ILE:HD11	1.68	1.23
26:AJ:88:ASP:C	26:AJ:92:MET:HG3	1.58	1.23
34:AQ:42:ILE:CD1	34:AQ:51:LEU:CD2	2.10	1.23
6:AX:11:ARG:HB2	11:AL:103:GLU:OE1	1.07	1.23
4:AK:71:LEU:CD2	4:AK:76:ILE:CD1	2.17	1.23
16:AA:154:LEU:HD12	17:AV:63:GLY:O	1.09	1.23
36:B2:399:C:O4'	36:B2:399:C:C1'	1.64	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CA:120:PRO:CD	51:CA:162:ASN:OD1	1.87	1.23
48:CD:273:LEU:CD1	48:CD:277:LYS:HE3	1.69	1.23
48:CD:22:ARG:HG2	48:CD:28:THR:OG1	1.34	1.23
58:CW:20:ARG:NH1	58:CW:28:VAL:CG1	1.95	1.23
32:AW:18:GLU:OE2	32:AW:67:GLY:HA2	1.37	1.23
19:AZ:48:VAL:O	19:AZ:83:LEU:HD11	1.36	1.23
36:B2:1283:C:C1'	36:B2:1283:C:O4'	1.64	1.23
74:CC:124:ILE:CG1	74:CC:237:ILE:CG1	2.15	1.23
74:CC:63:SER:CB	74:CC:80:ARG:HH11	1.52	1.23
82:CG:163:PRO:HG2	82:CG:166:LEU:CD1	1.67	1.23
44:CM:32:ASP:HA	52:CS:145:PHE:CZ	1.73	1.23
23:AD:46:THR:OG1	23:AD:79:PHE:CZ	1.82	1.23
23:AD:47:GLU:CG	23:AD:85:GLU:OE2	1.85	1.23
82:CG:162:ASP:CB	82:CG:163:PRO:HD3	1.55	1.23
80:CH:89:ARG:HH21	80:CH:91:LYS:CE	1.50	1.23
40:CK:102:GLY:HA2	40:CK:139:VAL:CA	1.69	1.23
44:CM:107:PHE:HE1	81:CE:270:TYR:CB	1.50	1.23
44:CM:41:PRO:CG	44:CM:73:VAL:HG21	1.69	1.23
28:AC:153:GLY:O	28:AC:156:ILE:HG22	1.32	1.22
29:AG:63:MET:CE	29:AG:106:LEU:CD1	2.17	1.22
31:AH:122:LEU:HD13	31:AH:122:LEU:C	1.57	1.22
7:AM:98:GLY:O	7:AM:100:PRO:HD3	1.36	1.22
40:CK:125:LEU:HD13	40:CK:163:PRO:CA	1.68	1.22
40:CK:48:LYS:O	40:CK:52:ASP:OD1	1.53	1.22
41:CO:122:ALA:HB2	52:CS:161:ARG:CB	1.69	1.22
29:AG:11:GLY:CA	58:CW:80:ARG:NH2	2.02	1.22
4:AK:65:ARG:NH1	4:AK:65:ARG:HB3	1.51	1.22
11:AL:156:GLN:OE1	11:AL:158:PHE:CE2	1.92	1.22
8:AS:46:ARG:CZ	14:AT:50:GLU:HB3	1.66	1.22
63:CB:47:LEU:HD11	63:CB:344:VAL:CG1	1.69	1.22
40:CK:102:GLY:HA2	40:CK:139:VAL:CG1	1.67	1.22
44:CM:47:ARG:NH2	44:CM:68:ALA:HB3	1.54	1.22
44:CM:77:TRP:CG	44:CM:82:ILE:HG13	1.73	1.22
52:CS:164:LYS:CE	52:CS:165:PRO:HD3	1.69	1.22
10:AN:53:ILE:CD1	15:AB:52:THR:HG21	83.28	1.22
40:CK:14:TYR:CE2	40:CK:63:THR:OG1	1.90	1.22
15:AB:57:ILE:CD1	15:AB:60:ASP:OD1	1.88	1.22
11:AL:12:LYS:NZ	33:AI:194:GLU:HG2	1.53	1.22
13:AP:46:ASN:O	13:AP:49:LEU:HB2	1.11	1.22
18:AY:120:THR:HB	18:AY:122:LYS:CE	1.67	1.22
81:CE:285:LYS:O	81:CE:287:VAL:CG1	1.87	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CI:206:LEU:CB	47:CI:206:LEU:C	2.07	1.22
54:CP:4:TYR:HH	54:CP:17:SER:C	1.43	1.22
48:CD:42:ASN:OD1	53:CT:67:VAL:HG12	1.11	1.22
56:CX:81:LEU:CD2	56:CX:99:ILE:CD1	2.14	1.22
85:A5:4696:C:C1'	85:A5:4696:C:O4'	1.64	1.22
27:AE:62:LYS:HD3	27:AE:80:ILE:CD1	1.67	1.22
63:CB:115:LYS:O	63:CB:115:LYS:HE2	1.37	1.22
48:CD:79:TYR:CB	48:CD:81:HIS:CE1	2.21	1.22
81:CE:46:ARG:NE	81:CE:47:ASN:H	1.35	1.22
80:CH:109:GLY:O	80:CH:128:MET:O	1.55	1.22
43:CV:110:GLY:HA3	43:CV:129:TRP:CZ3	1.74	1.22
58:CW:87:LEU:O	58:CW:90:ILE:HB	1.32	1.22
59:CZ:92:ASP:CA	59:CZ:117:LYS:HZ3	1.51	1.22
11:AL:118:ARG:HD2	11:AL:118:ARG:O	1.38	1.22
34:AQ:34:VAL:CG2	34:AQ:39:LEU:CD2	2.15	1.22
18:AY:54:VAL:HG11	18:AY:76:TYR:O	1.35	1.22
81:CE:47:ASN:HB3	81:CE:48:PRO:CD	1.66	1.22
50:CR:128:LYS:NZ	85:A5:2668:G:OP1	1.70	1.22
28:AC:57:ASP:O	28:AC:58:LYS:HD2	1.34	1.22
27:AE:159:THR:CG2	27:AE:227:VAL:CG2	2.16	1.22
14:AT:77:LYS:CG	14:AT:92:PHE:HE2	1.47	1.22
51:CA:250:LYS:HA	51:CA:251:THR:C	1.44	1.22
79:CJ:169:LYS:O	79:CJ:171:ASP:N	1.72	1.22
44:CM:12:VAL:HG22	44:CM:58:THR:OG1	1.10	1.22
46:CN:46:ASP:CB	46:CN:50:ARG:NH1	1.97	1.22
16:AA:11:LYS:CG	16:AA:13:GLU:HG2	1.70	1.22
63:CB:140:GLU:CG	63:CB:144:LYS:HZ2	1.52	1.22
44:CM:12:VAL:CG1	44:CM:60:PHE:O	1.88	1.22
57:CY:49:ILE:HD12	57:CY:101:PRO:CB	1.70	1.22
23:AD:35:SER:HA	23:AD:99:ILE:CD1	1.69	1.22
30:AF:76:MET:CE	30:AF:169:ILE:HG21	1.68	1.22
11:AL:22:ARG:CZ	33:AI:157:LYS:HB3	1.68	1.22
40:CK:102:GLY:CA	40:CK:139:VAL:CG1	2.18	1.22
85:A5:736:C:O4'	85:A5:736:C:C1'	1.67	1.21
27:AE:47:PHE:CE2	27:AE:52:LEU:HD11	1.74	1.21
30:AF:18:LYS:NZ	30:AF:46:ALA:O	1.74	1.21
30:AF:91:ARG:HA	30:AF:91:ARG:NE	1.42	1.21
26:AJ:61:LEU:CD2	26:AJ:98:LEU:HD11	1.68	1.21
34:AQ:8:GLN:HG2	34:AQ:99:TYR:CD1	1.73	1.21
18:AY:19:GLN:HG2	18:AY:81:TYR:CD1	1.75	1.21
63:CB:52:GLY:O	63:CB:78:ILE:HG12	1.37	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CJ:163:MET:HE3	79:CJ:174:ILE:CD1	1.66	1.21
52:CS:134:ALA:O	52:CS:136:LYS:HE3	1.37	1.21
53:CT:135:PRO:O	53:CT:136:ARG:HG3	1.06	1.21
28:AC:210:PRO:HB3	28:AC:236:PHE:CZ	1.73	1.21
63:CB:356:LYS:N	63:CB:356:LYS:HE2	1.54	1.21
64:CF:51:TYR:CE2	81:CE:58:SER:HB2	1.74	1.21
82:CG:28:VAL:CA	82:CG:31:LEU:CD2	2.17	1.21
40:CK:10:ILE:CG1	40:CK:67:ARG:N	1.92	1.21
26:AJ:89:GLU:CA	26:AJ:92:MET:SD	2.28	1.21
4:AK:40:VAL:HG22	4:AK:41:PRO:CD	1.69	1.21
7:AM:78:LYS:O	7:AM:79:VAL:HG23	1.06	1.21
34:AQ:50:LYS:NZ	34:AQ:85:ARG:NH2	1.88	1.21
48:CD:271:MET:CE	48:CD:275:GLN:CB	2.18	1.21
64:CF:51:TYR:CE2	81:CE:58:SER:O	1.92	1.21
34:AQ:93:VAL:HG13	34:AQ:105:LYS:CD	1.69	1.21
8:AS:8:LYS:CB	8:AS:9:PHE:HD1	1.53	1.21
56:CX:89:LYS:NZ	56:CX:137:TYR:HD1	1.36	1.21
30:AF:36:GLN:HG3	30:AF:37:ASP:OD1	1.36	1.21
74:CC:348:LYS:O	74:CC:349:LEU:N	1.72	1.21
80:CH:45:LEU:CD2	80:CH:57:VAL:CG1	2.18	1.21
49:CQ:151:HIS:CE1	49:CQ:164:LYS:HB3	1.75	1.21
52:CS:19:THR:CB	52:CS:20:PRO:HD2	1.47	1.21
57:CY:49:ILE:CD1	57:CY:101:PRO:CB	2.17	1.21
27:AE:212:ASP:OD1	27:AE:216:ASN:HB2	1.41	1.21
4:AK:16:PHE:CD2	4:AK:79:LEU:CB	2.23	1.21
5:AO:95:ILE:CD1	5:AO:116:LEU:HD21	1.67	1.21
82:CG:77:PRO:CB	82:CG:237:TRP:CZ3	2.22	1.21
47:CI:86:HIS:CD2	47:CI:139:ARG:NH1	2.09	1.21
57:CY:11:ARG:NH1	74:CC:200:ARG:HH11	1.36	1.21
4:AK:14:LEU:CD2	4:AK:35:LEU:CD2	2.18	1.21
7:AM:13:ASP:CB	7:AM:16:THR:HB	1.62	1.21
32:AW:11:LEU:O	32:AW:14:ILE:HG12	1.38	1.21
31:AH:146:VAL:CG2	32:AW:50:PHE:CE1	2.22	1.21
54:CP:6:LEU:CD2	54:CP:116:HIS:CD2	2.17	1.21
15:AB:113:MET:CE	15:AB:209:ASP:OD1	1.86	1.21
23:AD:158:ILE:HD11	23:AD:189:MET:CE	1.54	1.21
26:AJ:92:MET:O	26:AJ:93:LYS:HE3	1.40	1.21
6:AX:60:LYS:HG3	6:AX:116:PRO:CG	1.68	1.21
18:AY:22:GLN:CB	18:AY:74:MET:SD	2.29	1.21
64:CF:30:ILE:HG21	64:CF:34:ARG:CZ	1.69	1.21
46:CN:72:LYS:CE	46:CN:90:ASN:HD22	1.52	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CU:21:PHE:CE1	55:CU:80:LYS:CE	2.22	1.21
26:AJ:15:THR:CG2	26:AJ:44:TRP:CZ3	2.23	1.21
5:AO:88:LEU:HD13	15:AB:25:PHE:CE2	1.62	1.21
12:AR:85:VAL:HG21	16:AA:201:LEU:CB	1.64	1.21
49:CQ:151:HIS:ND1	49:CQ:164:LYS:HB3	1.56	1.21
29:AG:129:VAL:O	58:CW:80:ARG:NE	1.70	1.21
31:AH:93:VAL:CG2	31:AH:94:PHE:H	1.43	1.21
12:AR:85:VAL:CG1	16:AA:198:MET:HB2	1.69	1.21
82:CG:184:ILE:HG23	82:CG:185:LYS:N	1.47	1.21
79:CJ:95:ARG:NH1	79:CJ:97:ASN:OD1	1.73	1.21
18:AY:118:ARG:NH2	29:AG:85:ARG:CD	2.03	1.20
33:AI:141:ARG:CB	33:AI:144:LYS:CB	2.17	1.20
51:CA:77:ILE:CD1	51:CA:128:ARG:NH2	2.04	1.20
47:CI:193:ASP:OD2	47:CI:198:LYS:CG	1.88	1.20
42:CL:19:GLN:HB3	42:CL:20:ARG:NH1	1.52	1.20
44:CM:120:ASN:O	44:CM:123:ILE:HG22	1.41	1.20
52:CS:74:ARG:O	52:CS:76:LYS:CG	1.87	1.20
56:CX:89:LYS:NZ	56:CX:97:VAL:CG2	2.03	1.20
57:CY:53:ASP:OD1	57:CY:110:LYS:N	1.73	1.20
28:AC:227:ARG:HD2	28:AC:228:GLY:N	1.55	1.20
23:AD:218:LEU:CD1	23:AD:220:THR:HG21	1.71	1.20
47:CI:80:CYS:SG	47:CI:147:HIS:CG	2.34	1.20
40:CK:142:ASN:HB2	40:CK:147:HIS:O	1.04	1.20
29:AG:180:VAL:O	29:AG:181:THR:HG22	1.41	1.20
36:B2:1597:C:H4'	36:B2:1603:G:O6	1.41	1.20
63:CB:92:TYR:CD2	63:CB:99:LEU:HD11	1.72	1.20
41:CO:192:TYR:CD2	44:CM:122:ILE:HD13	1.75	1.20
11:AL:149:ALA:CB	11:AL:156:GLN:HG2	1.55	1.20
12:AR:105:MET:O	12:AR:109:LEU:HG	1.40	1.20
12:AR:88:VAL:CG2	16:AA:198:MET:HB3	1.70	1.20
50:CR:123:LEU:HD11	50:CR:138:LEU:CD2	1.71	1.20
56:CX:52:LEU:CD1	56:CX:54:LEU:N	2.04	1.20
85:A5:2670:C:O4'	85:A5:2670:C:C1'	1.64	1.20
27:AE:126:VAL:HG13	27:AE:158:ASP:O	1.35	1.20
33:AI:136:ILE:HG23	33:AI:139:LYS:CE	1.70	1.20
12:AR:38:ILE:O	23:AD:211:VAL:HG23	1.37	1.20
74:CC:7:LEU:N	74:CC:24:LEU:CD2	2.03	1.20
74:CC:261:ASP:O	74:CC:264:TYR:O	1.60	1.20
40:CK:63:THR:HA	40:CK:71:ILE:O	1.35	1.20
57:CY:34:LEU:CG	57:CY:38:LEU:HB2	1.71	1.20
28:AC:227:ARG:NH1	28:AC:228:GLY:HA2	1.54	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:218:LEU:HG	23:AD:220:THR:CG2	1.69	1.20
27:AE:21:ASP:OD2	27:AE:24:THR:CG2	1.90	1.20
11:AL:22:ARG:HD2	33:AI:155:ASN:O	1.30	1.20
11:AL:17:PHE:CZ	11:AL:18:GLN:O	1.94	1.20
74:CC:91:ALA:HB1	74:CC:92:PHE:CD2	1.74	1.20
82:CG:151:LYS:O	82:CG:205:THR:HG22	1.04	1.20
46:CN:136:ASP:HB2	46:CN:139:HIS:CD2	1.77	1.20
41:CO:118:MET:HE3	52:CS:168:THR:C	1.62	1.20
54:CP:16:LYS:CG	54:CP:149:ILE:HG12	1.69	1.20
53:CT:134:PRO:HB2	53:CT:135:PRO:CD	1.65	1.20
18:AY:114:MET:HA	18:AY:124:ASN:ND2	1.54	1.20
74:CC:318:PRO:HB2	74:CC:325:MET:SD	1.82	1.20
40:CK:94:LYS:HG2	40:CK:96:LYS:CB	1.70	1.20
46:CN:96:ARG:NH1	46:CN:104:GLU:CD	1.92	1.20
49:CQ:61:LEU:HD21	49:CQ:140:SER:C	1.61	1.20
28:AC:210:PRO:CB	28:AC:236:PHE:HZ	1.54	1.20
30:AF:14:THR:OG1	34:AQ:56:LEU:HB2	1.35	1.20
11:AL:149:ALA:CB	11:AL:156:GLN:HE21	1.55	1.20
6:AX:126:ALA:CB	6:AX:128:VAL:HB	1.71	1.20
63:CB:297:LYS:HD2	63:CB:300:LYS:NZ	1.55	1.20
74:CC:147:VAL:HG11	74:CC:152:LEU:CD2	1.70	1.20
48:CD:262:LYS:CD	48:CD:266:TRP:HE1	1.54	1.20
57:CY:50:ARG:HD3	57:CY:51:LYS:N	1.55	1.20
59:CZ:57:MET:CE	59:CZ:61:LYS:CB	2.19	1.20
11:AL:149:ALA:CB	11:AL:156:GLN:NE2	2.05	1.20
13:AP:41:GLN:HE21	13:AP:84:ILE:CB	1.54	1.20
63:CB:40:PRO:CB	63:CB:42:HIS:CD2	1.95	1.20
81:CE:202:ASP:O	81:CE:260:LYS:HD3	1.37	1.20
80:CH:110:SER:HB3	80:CH:128:MET:CB	1.70	1.20
79:CJ:22:LEU:HD22	79:CJ:130:PHE:CE2	1.77	1.20
46:CN:7:ILE:CB	46:CN:46:ASP:OD2	1.87	1.20
41:CO:119:VAL:O	52:CS:167:PHE:HA	1.39	1.20
16:AA:118:GLU:CB	28:AC:65:LYS:HZ1	1.53	1.20
30:AF:28:VAL:HG13	30:AF:110:GLN:CD	1.60	1.20
4:AK:60:GLU:CD	4:AK:67:PHE:CD1	2.14	1.20
5:AO:61:LYS:O	5:AO:62:VAL:HG23	1.41	1.20
74:CC:63:SER:HB2	74:CC:80:ARG:NH1	1.55	1.20
46:CN:99:GLN:HG3	46:CN:130:PHE:CE1	1.76	1.20
23:AD:55:THR:O	23:AD:58:VAL:HG22	1.41	1.19
7:AM:85:LEU:HA	7:AM:88:TRP:CE3	1.77	1.19
5:AO:56:VAL:CG1	5:AO:81:VAL:CG2	2.18	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:CF:162:ILE:HG21	64:CF:177:ARG:HH22	1.06	1.19
49:CQ:154:LYS:HB2	49:CQ:155:ALA:C	1.61	1.19
58:CW:86:SER:OG	58:CW:89:ASP:CB	1.89	1.19
33:AI:161:LEU:CD1	33:AI:199:LEU:HD11	1.67	1.19
12:AR:44:LYS:CE	12:AR:47:ARG:NH2	1.98	1.19
23:AD:178:ARG:NH1	36:B2:628:A:C2	2.11	1.19
63:CB:47:LEU:CD2	63:CB:166:THR:CG2	2.20	1.19
63:CB:355:THR:C	63:CB:356:LYS:CE	2.09	1.19
81:CE:47:ASN:ND2	81:CE:48:PRO:HD3	1.55	1.19
41:CO:65:ASN:ND2	41:CO:68:ARG:HD2	1.55	1.19
56:CX:119:ILE:HD12	56:CX:120:ASP:N	1.57	1.19
31:AH:65:PRO:HD2	31:AH:68:GLN:OE1	1.41	1.19
33:AI:136:ILE:O	33:AI:139:LYS:HG3	1.04	1.19
10:AN:46:THR:OG1	10:AN:49:GLN:HG2	1.35	1.19
13:AP:126:VAL:HG12	13:AP:127:LYS:N	1.34	1.19
34:AQ:50:LYS:HZ1	34:AQ:85:ARG:NH2	1.41	1.19
6:AX:27:TYR:CZ	6:AX:31:HIS:NE2	2.09	1.19
51:CA:118:GLU:OE1	51:CA:119:LYS:HE3	1.05	1.19
63:CB:140:GLU:OE1	63:CB:144:LYS:HD2	1.07	1.19
63:CB:223:THR:CG2	63:CB:275:HIS:H	1.55	1.19
64:CF:60:GLU:O	64:CF:64:MET:HG3	1.37	1.19
80:CH:110:SER:OG	80:CH:128:MET:N	1.73	1.19
47:CI:104:SER:CA	47:CI:112:GLN:HG3	1.72	1.19
40:CK:160:VAL:O	40:CK:163:PRO:HD2	1.15	1.19
52:CS:173:ASN:HD22	52:CS:174:THR:N	1.38	1.19
16:AA:13:GLU:O	16:AA:17:LYS:HE3	1.41	1.19
31:AH:83:LEU:CD2	31:AH:92:VAL:HG11	1.71	1.19
74:CC:146:GLU:O	74:CC:175:LYS:CG	1.88	1.19
81:CE:83:LYS:CD	81:CE:86:GLU:H	1.56	1.19
40:CK:78:SER:CB	40:CK:117:ARG:HH11	1.55	1.19
42:CL:155:MET:SD	42:CL:155:MET:N	2.16	1.19
52:CS:30:MET:HE3	52:CS:47:PHE:HB3	1.23	1.19
29:AG:32:MET:SD	29:AG:100:CYS:CA	2.31	1.19
10:AN:62:GLN:HB2	10:AN:65:PHE:CD2	1.78	1.19
34:AQ:85:ARG:HH12	34:AQ:117:ARG:CG	1.52	1.19
8:AS:124:ARG:NH1	13:AP:123:TYR:OH	1.75	1.19
44:CM:51:PRO:HD2	44:CM:54:CYS:SG	1.82	1.19
46:CN:116:LEU:CD2	46:CN:135:ILE:HD11	1.71	1.19
46:CN:11:TRP:CE2	46:CN:44:ARG:NH2	2.10	1.19
54:CP:60:PHE:CE2	54:CP:82:ARG:HB2	1.77	1.19
53:CT:7:LYS:O	53:CT:7:LYS:HD3	1.37	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AA:118:GLU:HB3	28:AC:65:LYS:NZ	1.58	1.19
31:AH:85:LYS:HD2	31:AH:85:LYS:C	1.62	1.19
26:AJ:134:HIS:CE1	26:AJ:163:SER:HB2	1.77	1.19
34:AQ:92:LEU:CD1	34:AQ:96:TYR:CE2	2.25	1.19
63:CB:290:GLY:O	63:CB:299:ILE:HG12	1.40	1.19
82:CG:183:ILE:CG2	82:CG:184:ILE:CA	2.20	1.19
40:CK:62:LEU:O	40:CK:62:LEU:HD12	1.40	1.19
40:CK:94:LYS:HD3	40:CK:96:LYS:HE3	1.23	1.19
42:CL:140:SER:O	42:CL:146:LEU:HD12	1.41	1.19
43:CV:82:ILE:HG23	43:CV:121:VAL:CG1	1.71	1.19
16:AA:104:THR:O	16:AA:107:THR:HG23	1.38	1.19
26:AJ:17:ARG:CB	26:AJ:18:ARG:HG2	1.70	1.19
82:CG:27:VAL:O	82:CG:31:LEU:CD2	1.89	1.19
42:CL:126:LEU:H	42:CL:138:ASP:CG	1.45	1.19
3:AU:50:VAL:O	3:AU:51:LYS:HD2	1.39	1.19
18:AY:12:PHE:CZ	18:AY:21:LYS:HB3	1.76	1.19
79:CJ:90:ARG:HH22	79:CJ:108:GLY:N	1.28	1.19
16:AA:125:THR:O	16:AA:147:LEU:HB3	1.41	1.19
11:AL:22:ARG:NH1	33:AI:157:LYS:HB3	0.87	1.19
26:AJ:17:ARG:HG2	26:AJ:18:ARG:CG	1.73	1.19
19:AZ:99:LEU:CD2	19:AZ:109:TYR:CE1	2.26	1.19
63:CB:140:GLU:CG	63:CB:144:LYS:NZ	2.03	1.19
63:CB:395:ASP:HA	63:CB:396:ARG:HB2	1.23	1.19
40:CK:102:GLY:N	40:CK:139:VAL:CG1	1.99	1.19
57:CY:61:HIS:CE1	57:CY:62:TYR:CE2	2.30	1.19
16:AA:154:LEU:CD1	17:AV:63:GLY:O	1.91	1.19
16:AA:21:ALA:CB	16:AA:173:LEU:HD11	1.49	1.19
5:AO:61:LYS:HE3	5:AO:80:ASP:OD2	1.03	1.19
34:AQ:9:SER:CB	34:AQ:26:LYS:HE3	1.72	1.19
54:CP:59:PRO:CG	54:CP:76:TRP:CD1	2.22	1.19
10:AN:80:LEU:O	10:AN:82:PRO:HD3	1.43	1.18
13:AP:46:ASN:O	13:AP:49:LEU:CB	1.91	1.18
17:AV:11:LEU:HD12	17:AV:12:TYR:CD2	1.65	1.18
18:AY:63:HIS:CG	18:AY:64:PHE:CE1	2.31	1.18
48:CD:261:VAL:CB	48:CD:262:LYS:HB2	1.73	1.18
64:CF:30:ILE:CG2	64:CF:34:ARG:CZ	2.20	1.18
40:CK:10:ILE:HG22	40:CK:65:GLN:C	1.62	1.18
46:CN:43:THR:HG23	46:CN:131:GLU:OE2	1.39	1.18
49:CQ:110:ARG:CZ	49:CQ:120:ILE:HD12	1.72	1.18
49:CQ:34:PHE:CD2	74:CC:293:LEU:CD2	2.26	1.18
16:AA:133:PRO:HD2	16:AA:134:LEU:H	1.02	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:20:LYS:O	15:AB:21:VAL:HG12	1.44	1.18
30:AF:44:LYS:HB3	30:AF:45:TYR:CE1	1.76	1.18
10:AN:131:THR:O	11:AL:153:LYS:HG3	1.40	1.18
74:CC:158:VAL:HA	74:CC:161:TYR:CE2	1.78	1.18
82:CG:184:ILE:CG2	82:CG:185:LYS:H	1.55	1.18
23:AD:177:LEU:CD2	23:AD:182:LEU:HD23	1.72	1.18
30:AF:63:LYS:CD	30:AF:71:ARG:CZ	2.19	1.18
29:AG:212:LEU:O	29:AG:216:ARG:HG2	1.42	1.18
13:AP:10:ARG:HH21	13:AP:11:THR:HB	1.05	1.18
14:AT:23:LYS:CD	14:AT:54:TYR:CD2	2.26	1.18
14:AT:40:ALA:HB3	14:AT:43:LYS:CG	1.73	1.18
18:AY:32:LYS:CG	18:AY:33:ALA:H	1.55	1.18
63:CB:140:GLU:OE1	63:CB:144:LYS:CD	1.92	1.18
48:CD:268:ARG:CG	48:CD:268:ARG:HH11	1.56	1.18
40:CK:22:VAL:HG22	40:CK:48:LYS:CB	1.70	1.18
12:AR:1:MET:C	12:AR:1:MET:N	1.95	1.18
18:AY:7:ILE:HD12	18:AY:43:LYS:HG2	1.19	1.18
74:CC:313:VAL:HA	74:CC:314:LEU:CD2	1.72	1.18
48:CD:261:VAL:HB	48:CD:262:LYS:CA	1.70	1.18
82:CG:191:GLY:N	82:CG:199:CYS:SG	2.12	1.18
80:CH:105:ILE:HG21	80:CH:112:VAL:CA	1.65	1.18
79:CJ:22:LEU:CD2	79:CJ:130:PHE:CZ	2.25	1.18
41:CO:127:VAL:O	52:CS:158:VAL:HG21	1.38	1.18
57:CY:50:ARG:HD2	57:CY:115:ARG:NH2	1.56	1.18
15:AB:52:THR:HG21	82:CG:264:LYS:HZ3	1.07	1.18
28:AC:116:THR:HG21	28:AC:118:ALA:O	1.43	1.18
23:AD:47:GLU:HG2	23:AD:85:GLU:OE2	1.40	1.18
26:AJ:70:ARG:HH21	26:AJ:94:LEU:HD21	1.02	1.18
63:CB:18:PRO:O	63:CB:20:LYS:N	1.77	1.18
63:CB:52:GLY:N	63:CB:78:ILE:CD1	2.04	1.18
44:CM:25:VAL:HG13	44:CM:39:ASP:O	1.44	1.18
52:CS:170:LYS:C	52:CS:172:PRO:HA	1.62	1.18
55:CU:48:LYS:HA	55:CU:52:LYS:O	1.44	1.18
59:CZ:95:VAL:HG22	59:CZ:113:GLU:OE1	1.41	1.18
15:AB:71:LEU:CD1	15:AB:84:PHE:HE2	1.55	1.18
31:AH:85:LYS:HD2	31:AH:85:LYS:O	1.43	1.18
4:AK:3:MET:HE1	4:AK:8:ARG:CZ	1.73	1.18
11:AL:147:LYS:HD2	11:AL:148:ALA:CA	1.71	1.18
58:CW:27:LYS:HG3	58:CW:28:VAL:N	1.43	1.18
58:CW:87:LEU:O	58:CW:90:ILE:CB	1.90	1.18
59:CZ:73:LYS:CE	59:CZ:75:TYR:HE1	1.51	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AK:3:MET:HE3	4:AK:8:ARG:NH2	1.37	1.18
34:AQ:47:LEU:HD22	34:AQ:81:ILE:CD1	1.73	1.18
19:AZ:99:LEU:CD2	19:AZ:102:LYS:HD3	1.72	1.18
63:CB:297:LYS:O	63:CB:300:LYS:CE	1.90	1.18
58:CW:106:GLU:HG3	58:CW:110:ARG:NH1	0.87	1.18
28:AC:171:GLY:C	28:AC:172:ASN:HD22	1.45	1.18
34:AQ:47:LEU:CD2	34:AQ:81:ILE:HD12	1.72	1.18
8:AS:94:LYS:HD3	8:AS:96:SER:OG	1.39	1.18
82:CG:143:VAL:O	82:CG:146:LEU:CG	1.92	1.18
41:CO:131:PRO:CG	52:CS:156:HIS:CE1	2.21	1.18
28:AC:94:ILE:CD1	28:AC:162:ILE:CD1	2.19	1.18
10:AN:99:ARG:NH2	10:AN:115:LEU:HD21	1.56	1.18
3:AU:40:ILE:CD1	3:AU:53:PRO:CG	2.13	1.18
81:CE:224:LYS:CB	81:CE:226:ARG:NH1	2.04	1.18
40:CK:9:GLU:HG3	40:CK:10:ILE:N	1.34	1.18
40:CK:94:LYS:HD3	40:CK:96:LYS:HE2	1.24	1.18
46:CN:44:ARG:HD2	46:CN:119:TYR:CE1	1.77	1.18
54:CP:2:VAL:HG12	54:CP:3:ARG:N	1.55	1.18
55:CU:39:PHE:CE2	55:CU:70:ILE:CD1	2.25	1.18
57:CY:39:ARG:O	57:CY:43:ASN:HA	1.41	1.18
12:AR:20:TYR:OH	12:AR:38:ILE:HG22	1.20	1.18
63:CB:54:THR:O	63:CB:76:VAL:CG2	1.92	1.18
48:CD:142:PHE:HB3	48:CD:171:LEU:CD2	1.73	1.18
81:CE:106:VAL:CG2	81:CE:107:VAL:CA	2.04	1.18
80:CH:45:LEU:HD23	80:CH:57:VAL:CG1	1.73	1.18
58:CW:88:ALA:CA	58:CW:91:MET:SD	2.30	1.18
28:AC:69:LEU:CD1	28:AC:273:LEU:HD11	1.69	1.17
31:AH:163:GLN:OE1	31:AH:189:PHE:CE2	1.97	1.17
13:AP:52:LYS:O	13:AP:52:LYS:HD3	1.44	1.17
63:CB:165:HIS:CB	63:CB:180:LEU:CD1	2.22	1.17
63:CB:21:ARG:HG3	63:CB:274:TYR:CD2	1.79	1.17
52:CS:30:MET:CE	52:CS:47:PHE:CB	2.22	1.17
43:CV:25:VAL:HG12	43:CV:38:TYR:HD1	1.03	1.17
16:AA:30:LEU:HD21	16:AA:35:GLU:CG	1.73	1.17
28:AC:275:LYS:HG3	28:AC:276:THR:H	1.08	1.17
30:AF:14:THR:CG2	34:AQ:56:LEU:CB	2.21	1.17
7:AM:78:LYS:O	7:AM:79:VAL:CG2	1.91	1.17
3:AU:109:GLY:O	3:AU:110:VAL:HG23	1.45	1.17
42:CL:125:ILE:HA	42:CL:138:ASP:OD2	1.42	1.17
28:AC:173:LYS:O	28:AC:173:LYS:HE2	1.42	1.17
13:AP:84:ILE:O	13:AP:86:LEU:CD2	1.92	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AY:120:THR:CB	18:AY:122:LYS:HE2	1.73	1.17
82:CG:83:PHE:CE1	82:CG:159:HIS:CA	2.26	1.17
79:CJ:26:VAL:CG1	79:CJ:33:LEU:HD23	1.74	1.17
50:CR:123:LEU:O	50:CR:127:VAL:HG23	1.44	1.17
50:CR:123:LEU:CD1	50:CR:138:LEU:HD21	1.72	1.17
50:CR:4:LEU:HD11	50:CR:33:ALA:CB	1.74	1.17
55:CU:115:PHE:O	55:CU:116:GLN:HG3	1.42	1.17
59:CZ:7:PRO:HD2	59:CZ:8:GLY:H	1.10	1.17
4:AK:66:HIS:CE1	23:AD:76:ARG:CD	2.27	1.17
29:AG:27:PHE:CE2	29:AG:41:LEU:HD12	1.79	1.17
7:AM:93:LYS:O	7:AM:94:ILE:HG22	1.42	1.17
13:AP:41:GLN:NE2	13:AP:84:ILE:HB	1.56	1.17
34:AQ:47:LEU:CD2	34:AQ:81:ILE:CD1	2.22	1.17
51:CA:245:ARG:HD3	51:CA:245:ARG:O	1.42	1.17
30:AF:42:LYS:O	30:AF:44:LYS:N	1.77	1.17
26:AJ:143:ASN:O	26:AJ:145:PRO:HD3	1.41	1.17
34:AQ:42:ILE:HG21	34:AQ:51:LEU:CD2	1.75	1.17
51:CA:158:ILE:HG22	51:CA:162:ASN:ND2	1.40	1.17
41:CO:55:LEU:HD23	41:CO:58:LEU:HD12	1.23	1.17
52:CS:164:LYS:HE3	52:CS:165:PRO:HD3	1.20	1.17
59:CZ:46:ILE:HD13	59:CZ:49:TYR:CD1	1.79	1.17
59:CZ:92:ASP:HA	59:CZ:117:LYS:NZ	1.58	1.17
26:AJ:110:LEU:CD1	26:AJ:130:ILE:CG1	2.22	1.17
63:CB:128:LYS:O	63:CB:131:THR:HG23	1.44	1.17
63:CB:392:LEU:HD22	63:CB:392:LEU:N	1.44	1.17
74:CC:91:ALA:O	74:CC:93:GLY:N	1.77	1.17
19:AZ:44:LEU:HD13	19:AZ:44:LEU:C	1.64	1.17
51:CA:209:HIS:HE1	51:CA:211:PHE:CD2	1.56	1.17
51:CA:219:ILE:HG22	51:CA:220:GLY:H	1.02	1.17
81:CE:208:ILE:H	81:CE:209:PRO:HD2	1.02	1.17
42:CL:50:PRO:CG	42:CL:51:ALA:HB2	1.74	1.17
44:CM:12:VAL:HG13	44:CM:60:PHE:O	1.00	1.17
29:AG:145:PHE:HB3	29:AG:147:LEU:CD1	1.73	1.17
26:AJ:10:ARG:NH1	26:AJ:10:ARG:HB3	1.58	1.17
34:AQ:58:LEU:CD2	34:AQ:111:ILE:CD1	2.22	1.17
41:CO:64:THR:CG2	63:CB:261:ARG:HD3	1.73	1.17
16:AA:5:LEU:HD13	16:AA:6:ASP:N	1.59	1.17
17:AV:11:LEU:HD11	17:AV:12:TYR:CE2	1.80	1.17
57:CY:66:GLN:NE2	57:CY:66:GLN:HA	1.48	1.17
31:AH:31:GLU:OE2	31:AH:41:ARG:HD2	1.01	1.17
4:AK:18:GLU:O	4:AK:92:ALA:CB	1.92	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AS:8:LYS:O	19:AZ:49:LEU:CD2	1.92	1.17
51:CA:77:ILE:HD11	51:CA:128:ARG:NH2	1.58	1.17
63:CB:150:PHE:HB3	63:CB:194:LEU:CD2	1.75	1.17
63:CB:285:TYR:CE1	63:CB:363:ILE:CD1	2.28	1.17
63:CB:312:LYS:HG2	63:CB:313:SER:N	1.15	1.17
41:CO:54:TYR:CE2	41:CO:145:VAL:CG1	2.26	1.17
23:AD:56:GLN:O	23:AD:59:LEU:HG	1.41	1.16
30:AF:201:LYS:CE	30:AF:204:ARG:HH21	1.58	1.16
13:AP:41:GLN:HE22	13:AP:45:LEU:CG	1.56	1.16
14:AT:84:ARG:HB2	14:AT:84:ARG:NH2	1.59	1.16
74:CC:253:THR:O	74:CC:256:ALA:HB3	1.42	1.16
40:CK:8:ASN:O	40:CK:9:GLU:CG	1.91	1.16
44:CM:68:ALA:HB1	44:CM:69:HIS:O	1.00	1.16
57:CY:110:LYS:C	57:CY:115:ARG:NH1	1.96	1.16
85:A5:1363:C:O4'	85:A5:1363:C:C1'	1.67	1.16
28:AC:166:ARG:HH12	28:AC:255:LEU:CD1	1.56	1.16
4:AK:16:PHE:CD2	4:AK:79:LEU:HB2	1.80	1.16
74:CC:76:ILE:HG23	74:CC:77:PRO:CD	1.68	1.16
81:CE:222:LEU:HD23	81:CE:222:LEU:O	1.40	1.16
40:CK:102:GLY:HA3	40:CK:139:VAL:O	1.37	1.16
44:CM:25:VAL:CG1	44:CM:38:VAL:HG12	1.74	1.16
54:CP:41:ILE:HG12	54:CP:150:LEU:HD22	1.27	1.16
15:AB:26:SER:O	15:AB:27:LYS:HG3	1.44	1.16
28:AC:169:TYR:OH	28:AC:176:LYS:HA	1.01	1.16
16:AA:120:ARG:HD2	28:AC:266:TYR:HE2	1.03	1.16
63:CB:150:PHE:O	63:CB:152:SER:N	1.78	1.16
63:CB:165:HIS:HB3	63:CB:180:LEU:CD1	1.75	1.16
74:CC:7:LEU:N	74:CC:24:LEU:HD21	1.59	1.16
81:CE:46:ARG:CZ	81:CE:47:ASN:N	2.04	1.16
40:CK:160:VAL:CA	40:CK:163:PRO:HG2	1.70	1.16
44:CM:68:ALA:CB	44:CM:69:HIS:O	1.93	1.16
28:AC:97:PHE:O	28:AC:98:LEU:HD12	1.43	1.16
6:AX:51:VAL:HG13	6:AX:70:VAL:HG11	1.23	1.16
18:AY:20:ARG:CG	18:AY:74:MET:CE	2.23	1.16
18:AY:84:LYS:O	18:AY:84:LYS:HD2	1.43	1.16
82:CG:234:ARG:HG2	82:CG:234:ARG:HH21	1.04	1.16
80:CH:47:LEU:CD1	80:CH:55:LEU:HD21	1.73	1.16
52:CS:154:LEU:HD13	52:CS:157:ARG:HH11	1.04	1.16
53:CT:24:VAL:CG1	53:CT:25:VAL:H	1.41	1.16
53:CT:30:TYR:OH	53:CT:94:GLU:HG3	1.41	1.16
55:CU:60:VAL:CA	55:CU:75:GLU:CG	2.20	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:53:VAL:HG22	31:AH:57:ARG:O	0.99	1.16
26:AJ:110:LEU:CD1	26:AJ:130:ILE:HG12	1.74	1.16
5:AO:105:THR:O	5:AO:106:LYS:HG2	1.45	1.16
29:AG:195:LYS:HE2	36:B2:125:C:O2'	1.43	1.16
34:AQ:128:GLU:CB	36:B2:1649:U:OP1	1.93	1.16
82:CG:124:GLY:O	82:CG:125:LYS:HB2	1.36	1.16
41:CO:168:TYR:CE2	41:CO:172:LYS:NZ	2.12	1.16
59:CZ:46:ILE:CD1	59:CZ:49:TYR:CD1	2.27	1.16
23:AD:158:ILE:HD13	23:AD:189:MET:CE	1.73	1.16
31:AH:10:LYS:HE3	31:AH:17:ASP:H	1.00	1.16
26:AJ:72:PHE:CE1	27:AE:248:ILE:HB	1.80	1.16
34:AQ:38:PRO:CD	34:AQ:41:MET:SD	2.32	1.16
34:AQ:50:LYS:NZ	34:AQ:117:ARG:HD2	1.60	1.16
74:CC:147:VAL:HG22	74:CC:175:LYS:CB	1.73	1.16
42:CL:8:MET:O	42:CL:10:LEU:HD21	0.99	1.16
57:CY:83:GLU:OE2	57:CY:83:GLU:HA	1.41	1.16
26:AJ:138:ARG:NH1	26:AJ:156:HIS:CE1	2.13	1.16
40:CK:113:ALA:O	40:CK:116:MET:HG2	1.43	1.16
46:CN:180:PHE:O	46:CN:183:THR:O	1.64	1.16
49:CQ:61:LEU:HD12	49:CQ:82:VAL:CG2	1.76	1.16
28:AC:210:PRO:CG	28:AC:236:PHE:HZ	1.57	1.16
29:AG:157:VAL:HG11	29:AG:159:ARG:HG2	1.16	1.16
51:CA:62:VAL:HG22	51:CA:73:THR:HG22	1.28	1.16
63:CB:80:GLU:OE1	63:CB:171:LEU:CD1	1.93	1.16
82:CG:104:PRO:C	82:CG:105:GLU:HG3	1.62	1.16
44:CM:32:ASP:HB2	44:CM:35:ARG:CD	1.76	1.16
50:CR:76:MET:HA	50:CR:76:MET:CE	1.74	1.16
52:CS:154:LEU:CD1	52:CS:157:ARG:HH11	1.59	1.16
52:CS:16:CYS:HA	52:CS:59:GLY:HA3	1.16	1.16
43:CV:9:SER:OG	43:CV:128:LEU:CD1	1.92	1.16
15:AB:57:ILE:HD13	15:AB:60:ASP:CG	1.64	1.16
51:CA:118:GLU:OE1	51:CA:119:LYS:CE	1.94	1.16
56:CX:81:LEU:HD21	56:CX:99:ILE:HD11	1.17	1.16
15:AB:66:VAL:CG2	15:AB:87:ILE:CG2	2.16	1.16
33:AI:153:LYS:O	33:AI:154:LYS:HB3	1.40	1.16
18:AY:102:THR:CG2	18:AY:107:ARG:NE	2.04	1.16
16:AA:103:PHE:CE2	16:AA:136:GLU:OE1	1.99	1.15
28:AC:69:LEU:HD11	28:AC:273:LEU:HD11	1.19	1.15
27:AE:152:PRO:HD2	29:AG:212:LEU:HD21	1.22	1.15
31:AH:40:LEU:HD23	31:AH:43:LEU:HD12	1.17	1.15
14:AT:46:ALA:HB1	14:AT:47:PRO:CD	1.76	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AT:77:LYS:CB	14:AT:94:ARG:HD3	1.75	1.15
18:AY:63:HIS:CG	18:AY:64:PHE:HE1	1.62	1.15
36:B2:1237:C:C1'	36:B2:1237:C:O4'	1.63	1.15
82:CG:74:LEU:N	82:CG:74:LEU:HD12	1.49	1.15
79:CJ:163:MET:CE	79:CJ:174:ILE:HD13	1.73	1.15
44:CM:32:ASP:HB2	44:CM:35:ARG:HD2	1.16	1.15
50:CR:99:MET:CE	50:CR:127:VAL:HG12	1.76	1.15
57:CY:66:GLN:HE21	57:CY:66:GLN:CA	1.56	1.15
59:CZ:32:GLY:O	59:CZ:33:THR:HG23	1.44	1.15
23:AD:21:LEU:CD1	23:AD:48:ILE:HD12	1.74	1.15
26:AJ:48:PHE:CE1	26:AJ:52:LYS:CE	2.29	1.15
4:AK:60:GLU:OE1	4:AK:67:PHE:CE1	1.99	1.15
7:AM:94:ILE:HG23	7:AM:95:ASP:N	1.45	1.15
74:CC:76:ILE:HG22	74:CC:77:PRO:CD	1.67	1.15
48:CD:41:LYS:HE3	53:CT:93:ILE:HD13	1.16	1.15
80:CH:34:LEU:CD2	80:CH:150:ASP:OD1	1.94	1.15
46:CN:119:TYR:OH	46:CN:131:GLU:OE1	1.65	1.15
41:CO:65:ASN:HB3	41:CO:68:ARG:CD	1.76	1.15
55:CU:48:LYS:HE2	55:CU:52:LYS:HG3	1.26	1.15
29:AG:151:ASP:OD1	58:CW:105:ARG:NH1	1.79	1.15
16:AA:103:PHE:CZ	16:AA:136:GLU:OE1	2.00	1.15
11:AL:149:ALA:HB2	11:AL:156:GLN:CG	1.60	1.15
10:AN:87:ASP:OD2	10:AN:129:TYR:OH	1.64	1.15
13:AP:127:LYS:HB2	13:AP:127:LYS:HZ2	1.01	1.15
8:AS:47:LYS:NZ	8:AS:78:LYS:HB2	1.59	1.15
63:CB:21:ARG:HG3	63:CB:274:TYR:HD2	1.03	1.15
40:CK:31:LYS:O	40:CK:34:PRO:HD3	1.34	1.15
44:CM:25:VAL:CG1	44:CM:38:VAL:CG1	2.25	1.15
44:CM:60:PHE:CE2	44:CM:85:LYS:CG	2.29	1.15
41:CO:7:LEU:CD1	52:CS:167:PHE:HE2	1.59	1.15
57:CY:34:LEU:HD11	57:CY:38:LEU:CG	1.76	1.15
26:AJ:61:LEU:HD13	26:AJ:94:LEU:CD1	1.77	1.15
5:AO:19:PRO:HG2	5:AO:27:VAL:CG2	1.62	1.15
12:AR:5:ARG:CB	12:AR:10:LYS:HZ3	1.58	1.15
8:AS:8:LYS:CD	8:AS:9:PHE:HE1	1.60	1.15
82:CG:143:VAL:O	82:CG:146:LEU:HG	1.47	1.15
47:CI:174:THR:HB	47:CI:176:PHE:HD2	0.99	1.15
15:AB:52:THR:CG2	82:CG:264:LYS:NZ	2.08	1.15
33:AI:136:ILE:O	33:AI:139:LYS:CG	1.92	1.15
12:AR:15:VAL:HG11	23:AD:210:ILE:CD1	1.72	1.15
8:AS:47:LYS:HE3	8:AS:77:TYR:O	0.99	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CA:94:ALA:HB3	51:CA:102:LEU:HD21	1.19	1.15
81:CE:223:ARG:H	81:CE:223:ARG:CD	1.52	1.15
82:CG:150:LYS:HB2	82:CG:177:MET:CE	1.77	1.15
50:CR:134:ASN:O	50:CR:137:ILE:HG22	1.45	1.15
52:CS:83:ARG:CG	52:CS:92:ASN:ND2	2.08	1.15
31:AH:143:ARG:HD3	32:AW:53:ILE:CG1	1.74	1.15
33:AI:116:HIS:O	33:AI:152:ARG:CZ	1.93	1.15
33:AI:141:ARG:HB2	33:AI:144:LYS:CB	1.75	1.15
12:AR:17:ILE:HG21	12:AR:69:ILE:CD1	1.74	1.15
31:AH:144:ILE:CB	32:AW:52:ILE:CG2	2.22	1.15
11:AL:10:TYR:CD2	11:AL:12:LYS:NZ	2.14	1.15
8:AS:120:HIS:HE1	13:AP:123:TYR:CD2	1.65	1.15
18:AY:92:ALA:N	18:AY:97:TYR:HB3	1.59	1.15
74:CC:219:LYS:NZ	74:CC:222:ARG:HH12	1.42	1.15
48:CD:210:TYR:CE1	48:CD:214:GLU:OE1	1.98	1.15
81:CE:228:GLN:O	81:CE:230:GLY:N	1.79	1.15
82:CG:208:ASN:ND2	82:CG:210:GLU:CG	2.10	1.15
47:CI:9:TYR:CE1	47:CI:97:ILE:HG23	1.80	1.15
40:CK:94:LYS:HG2	40:CK:96:LYS:CD	1.74	1.15
49:CQ:154:LYS:HB2	49:CQ:155:ALA:CA	1.72	1.15
50:CR:133:LYS:CD	50:CR:137:ILE:HB	1.77	1.15
52:CS:72:PRO:O	52:CS:100:LEU:HD11	0.98	1.15
53:CT:30:TYR:OH	53:CT:94:GLU:CG	1.94	1.15
12:AR:1:MET:CB	12:AR:1:MET:HA	1.68	1.15
8:AS:39:ARG:NH2	14:AT:38:LYS:NZ	1.80	1.15
19:AZ:48:VAL:CG2	19:AZ:80:ARG:HD3	1.77	1.15
74:CC:296:PRO:HD2	74:CC:297:GLU:OE1	1.45	1.15
82:CG:183:ILE:CG2	82:CG:184:ILE:HA	1.77	1.15
82:CG:39:PHE:CE2	82:CG:47:PRO:HG3	1.81	1.15
41:CO:203:VAL:O	44:CM:100:ARG:HG2	1.43	1.15
46:CN:4:TYR:CD1	46:CN:46:ASP:OD1	1.99	1.15
52:CS:16:CYS:CA	52:CS:59:GLY:HA3	1.77	1.15
56:CX:117:TYR:O	56:CX:119:ILE:HG22	1.45	1.15
56:CX:81:LEU:CD2	56:CX:99:ILE:HG13	1.75	1.15
26:AJ:89:GLU:CA	26:AJ:92:MET:HB2	1.77	1.15
13:AP:53:GLN:NE2	13:AP:80:LEU:HD13	1.61	1.15
8:AS:138:THR:HA	8:AS:141:ARG:CZ	1.75	1.15
47:CI:71:CYS:SG	47:CI:158:LYS:HE3	1.86	1.15
47:CI:5:PRO:O	47:CI:7:ARG:N	1.80	1.15
42:CL:58:ILE:CD1	42:CL:157:VAL:HG12	1.77	1.15
30:AF:47:LYS:HG3	34:AQ:117:ARG:HH22	1.12	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AK:62:PHE:HD1	4:AK:67:PHE:CZ	1.65	1.15
6:AX:10:ALA:CB	11:AL:101:ARG:O	1.92	1.15
30:AF:14:THR:HG22	34:AQ:56:LEU:HD22	1.15	1.15
34:AQ:85:ARG:NH1	34:AQ:117:ARG:HG2	1.62	1.15
8:AS:138:THR:CA	8:AS:141:ARG:HH21	1.53	1.15
3:AU:109:GLY:O	3:AU:110:VAL:CG2	1.95	1.15
18:AY:36:PRO:CG	18:AY:39:GLU:CD	2.14	1.15
63:CB:57:VAL:HG12	63:CB:366:LYS:HE2	1.17	1.15
80:CH:56:ARG:HG2	80:CH:56:ARG:HH11	4.50	1.15
44:CM:104:MET:CE	44:CM:112:VAL:HG21	1.77	1.15
46:CN:56:LYS:HE2	46:CN:59:TYR:CE2	1.77	1.15
28:AC:227:ARG:C	28:AC:227:ARG:HD2	1.66	1.14
27:AE:98:ASN:ND2	27:AE:119:ALA:CB	2.10	1.14
4:AK:23:ALA:O	4:AK:66:HIS:O	1.64	1.14
11:AL:118:ARG:HD2	11:AL:118:ARG:C	1.57	1.14
17:AV:29:HIS:ND1	28:AC:85:SER:O	1.78	1.14
6:AX:99:GLU:O	6:AX:100:VAL:HG13	1.45	1.14
19:AZ:85:ARG:NH1	19:AZ:85:ARG:HB3	1.60	1.14
40:CK:39:PRO:O	40:CK:40:LYS:HG3	1.46	1.14
40:CK:56:LEU:HD12	40:CK:91:ASP:OD2	0.99	1.14
42:CL:191:LEU:CD2	42:CL:194:ILE:CD1	2.25	1.14
41:CO:187:LYS:HA	41:CO:187:LYS:HE3	1.18	1.14
53:CT:24:VAL:HG12	53:CT:25:VAL:N	1.56	1.14
55:CU:37:ALA:HA	55:CU:65:ARG:NH1	1.60	1.14
58:CW:23:ARG:HH11	58:CW:23:ARG:HB2	0.98	1.14
23:AD:126:ILE:HD11	23:AD:134:CYS:SG	1.86	1.14
29:AG:16:ILE:CD1	29:AG:45:TRP:HZ2	1.59	1.14
18:AY:118:ARG:CZ	29:AG:85:ARG:CD	2.25	1.14
29:AG:98:ARG:HD3	29:AG:99:GLY:N	1.61	1.14
4:AK:30:PRO:O	4:AK:31:LYS:CG	1.94	1.14
3:AU:40:ILE:HD13	3:AU:53:PRO:HG3	1.27	1.14
6:AX:71:ARG:HG2	6:AX:82:THR:HG22	1.29	1.14
51:CA:77:ILE:HD11	51:CA:128:ARG:CZ	1.76	1.14
74:CC:219:LYS:HZ2	74:CC:222:ARG:NH1	1.43	1.14
74:CC:292:ILE:O	74:CC:298:ILE:HD12	1.46	1.14
82:CG:75:LYS:HD2	82:CG:240:ASN:HB3	1.22	1.14
42:CL:50:PRO:CB	42:CL:51:ALA:HB2	1.75	1.14
53:CT:79:GLN:O	53:CT:79:GLN:HG3	1.48	1.14
57:CY:34:LEU:CD2	57:CY:38:LEU:C	2.15	1.14
4:AK:66:HIS:CE1	23:AD:76:ARG:CZ	2.30	1.14
41:CO:16:LEU:CD1	41:CO:43:ILE:CD1	2.20	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:CY:110:LYS:CB	57:CY:115:ARG:NH1	1.78	1.14
33:AI:141:ARG:HD2	33:AI:144:LYS:HB3	1.19	1.14
4:AK:62:PHE:CD1	4:AK:67:PHE:CE2	2.36	1.14
11:AL:12:LYS:HZ1	33:AI:194:GLU:CG	1.60	1.14
34:AQ:57:LEU:HD11	34:AQ:115:TYR:CE2	1.83	1.14
12:AR:122:PRO:HB3	12:AR:123:THR:CG2	1.75	1.14
16:AA:5:LEU:HB3	17:AV:41:LYS:HE2	1.19	1.14
74:CC:122:TYR:CD1	74:CC:280:PRO:CG	2.30	1.14
48:CD:163:LEU:HD11	48:CD:173:ILE:CG2	1.77	1.14
48:CD:163:LEU:HD11	48:CD:173:ILE:HG21	1.30	1.14
48:CD:252:VAL:O	48:CD:253:TYR:O	1.63	1.14
80:CH:106:GLN:HG2	80:CH:107:GLU:HA	1.28	1.14
54:CP:48:LEU:HD13	54:CP:91:LEU:CD1	1.76	1.14
16:AA:57:LYS:NZ	17:AV:70:LEU:CD1	2.11	1.14
15:AB:113:MET:HE2	15:AB:209:ASP:CG	1.67	1.14
15:AB:137:LEU:HD22	15:AB:215:VAL:CG2	1.77	1.14
28:AC:259:THR:HG22	28:AC:261:PHE:CD2	1.80	1.14
28:AC:275:LYS:HD2	28:AC:276:THR:HG22	1.18	1.14
23:AD:218:LEU:CB	23:AD:220:THR:CG2	2.26	1.14
26:AJ:125:HIS:CD2	26:AJ:129:LEU:HD11	1.80	1.14
26:AJ:177:ASN:O	26:AJ:180:LYS:HG2	1.22	1.14
10:AN:125:LEU:HD13	10:AN:129:TYR:CE2	1.82	1.14
74:CC:218:ILE:HG12	74:CC:229:LEU:CD1	1.78	1.14
48:CD:129:GLU:HG2	48:CD:177:THR:HG21	1.29	1.14
81:CE:286:LEU:HB3	81:CE:287:VAL:HA	1.25	1.14
80:CH:34:LEU:HD22	80:CH:150:ASP:OD1	1.47	1.14
29:AG:181:THR:OG1	29:AG:182:PRO:HD2	1.47	1.14
16:AA:57:LYS:HZ1	17:AV:70:LEU:CD1	1.60	1.14
82:CG:160:ASP:OD1	82:CG:187:LYS:CG	1.95	1.14
80:CH:110:SER:CB	80:CH:128:MET:HG2	1.76	1.14
40:CK:10:ILE:HG21	40:CK:66:ASN:CA	1.57	1.14
50:CR:31:GLU:OE2	55:CU:125:GLU:CB	1.94	1.14
53:CT:33:ILE:HD13	53:CT:33:ILE:H	1.02	1.14
58:CW:33:ASN:O	58:CW:37:GLU:HG2	1.46	1.14
59:CZ:5:MET:CA	59:CZ:6:LYS:HD3	1.78	1.14
85:A5:1276:C:C1'	85:A5:1276:C:O4'	1.66	1.14
63:CB:223:THR:HG22	63:CB:275:HIS:N	1.61	1.14
54:CP:107:LEU:HD23	54:CP:107:LEU:N	1.53	1.14
52:CS:98:ARG:HD2	52:CS:145:PHE:CB	1.77	1.14
34:AQ:109:LYS:CG	34:AQ:113:ILE:HD12	1.76	1.14
8:AS:39:ARG:NH2	14:AT:38:LYS:HZ2	1.38	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CD:163:LEU:CD1	48:CD:173:ILE:HG21	1.78	1.14
81:CE:286:LEU:CB	81:CE:287:VAL:CA	2.22	1.14
80:CH:19:THR:OG1	80:CH:26:ILE:HD11	1.45	1.14
80:CH:47:LEU:CD1	80:CH:55:LEU:CD2	2.24	1.14
40:CK:94:LYS:HA	40:CK:95:GLN:C	1.68	1.14
46:CN:21:PHE:CE2	82:CG:80:ILE:HD13	1.78	1.14
41:CO:36:VAL:HG13	41:CO:107:GLY:O	1.42	1.14
12:AR:88:VAL:HG21	16:AA:198:MET:HB3	1.27	1.14
12:AR:15:VAL:HG12	23:AD:210:ILE:CD1	1.75	1.14
5:AO:99:ALA:H	5:AO:133:THR:CG2	1.60	1.14
6:AX:60:LYS:HG3	6:AX:116:PRO:HG2	1.26	1.14
80:CH:47:LEU:HD13	80:CH:55:LEU:CD2	1.77	1.14
16:AA:21:ALA:HB3	16:AA:173:LEU:HD12	1.20	1.14
27:AE:70:ILE:HG12	27:AE:92:ILE:HD12	1.24	1.14
4:AK:5:LYS:O	4:AK:5:LYS:HG3	1.44	1.14
12:AR:19:LYS:CD	23:AD:212:GLU:CG	2.25	1.14
18:AY:7:ILE:HD12	18:AY:43:LYS:CG	1.76	1.14
19:AZ:48:VAL:HG22	19:AZ:80:ARG:HD3	1.27	1.14
80:CH:19:THR:OG1	80:CH:26:ILE:CG1	1.96	1.14
40:CK:124:GLU:HB2	40:CK:128:THR:HG23	1.30	1.14
42:CL:26:PHE:O	42:CL:29:PRO:CG	1.96	1.14
41:CO:190:ASP:CB	41:CO:193:THR:CB	2.22	1.14
41:CO:65:ASN:HB3	41:CO:68:ARG:HD3	1.25	1.14
23:AD:132:LYS:CA	23:AD:191:PRO:CG	2.25	1.13
23:AD:132:LYS:H	23:AD:191:PRO:HD3	1.07	1.13
27:AE:208:VAL:HG21	27:AE:225:ILE:HD12	1.24	1.13
27:AE:208:VAL:CB	27:AE:225:ILE:HD11	1.68	1.13
30:AF:47:LYS:HG3	34:AQ:117:ARG:NH2	1.63	1.13
26:AJ:48:PHE:CZ	26:AJ:52:LYS:NZ	2.16	1.13
10:AN:28:LEU:O	10:AN:29:THR:HG23	1.45	1.13
18:AY:54:VAL:CG1	18:AY:76:TYR:O	1.95	1.13
18:AY:92:ALA:HA	18:AY:97:TYR:O	1.45	1.13
81:CE:224:LYS:CA	81:CE:226:ARG:NH1	2.11	1.13
53:CT:11:THR:HB	53:CT:15:PHE:CD2	1.83	1.13
30:AF:78:MET:O	30:AF:79:HIS:HB2	1.44	1.13
33:AI:25:ARG:CD	33:AI:27:TYR:CE2	2.23	1.13
28:AC:182:CYS:SG	32:AW:95:PRO:HB3	1.88	1.13
18:AY:20:ARG:HD2	18:AY:74:MET:HE2	1.17	1.13
63:CB:395:ASP:HA	63:CB:396:ARG:HB3	1.15	1.13
74:CC:146:GLU:O	74:CC:146:GLU:HG2	1.48	1.13
74:CC:288:ASP:OD2	74:CC:291:ARG:HB2	1.35	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:CF:95:ILE:HD12	64:CF:96:ARG:HG2	1.19	1.13
82:CG:241:VAL:O	82:CG:242:LEU:HB2	1.41	1.13
4:AK:14:LEU:HD22	4:AK:35:LEU:HD21	1.17	1.13
12:AR:123:THR:CG2	16:AA:44:ASP:CA	2.08	1.13
14:AT:31:PRO:HB3	14:AT:33:TRP:CZ2	1.83	1.13
17:AV:17:CYS:HG	17:AV:56:CYS:CB	1.61	1.13
6:AX:126:ALA:HB3	6:AX:128:VAL:HB	1.15	1.13
19:AZ:62:VAL:HG13	19:AZ:68:ILE:CD1	1.78	1.13
19:AZ:99:LEU:HD22	19:AZ:102:LYS:HD3	1.19	1.13
48:CD:104:LEU:HD23	48:CD:247:ILE:HG23	1.23	1.13
15:AB:137:LEU:CD2	15:AB:215:VAL:CG1	2.20	1.13
11:AL:76:VAL:HG12	11:AL:125:ILE:CD1	1.78	1.13
8:AS:47:LYS:CE	8:AS:77:TYR:O	1.95	1.13
63:CB:150:PHE:CB	63:CB:194:LEU:HD21	1.77	1.13
80:CH:93:ARG:NE	80:CH:143:GLU:HG2	1.63	1.13
40:CK:131:GLU:HG2	40:CK:155:ILE:HD11	1.22	1.13
40:CK:131:GLU:O	40:CK:135:THR:HG23	1.45	1.13
40:CK:62:LEU:CD1	40:CK:73:VAL:HB	1.79	1.13
41:CO:10:ASP:HB2	41:CO:117:ARG:HG3	1.28	1.13
41:CO:131:PRO:O	41:CO:132:THR:CG2	1.95	1.13
41:CO:65:ASN:CB	41:CO:68:ARG:HD2	1.78	1.13
50:CR:99:MET:SD	50:CR:127:VAL:HG12	1.89	1.13
52:CS:141:ALA:HB2	80:CH:1:MET:SD	1.89	1.13
43:CV:9:SER:OG	43:CV:128:LEU:HG	1.48	1.13
34:AQ:128:GLU:HB2	36:B2:1649:U:OP1	0.96	1.13
12:AR:17:ILE:CG2	12:AR:69:ILE:CD1	2.25	1.13
12:AR:22:THR:HG22	12:AR:73:LEU:HD11	1.29	1.13
51:CA:143:THR:CA	51:CA:144:LYS:HG2	1.76	1.13
63:CB:189:THR:CG2	63:CB:192:GLU:OE1	1.96	1.13
74:CC:14:LYS:O	74:CC:16:GLU:CG	1.96	1.13
74:CC:233:SER:C	74:CC:263:LEU:HD11	1.68	1.13
81:CE:283:PRO:HA	81:CE:286:LEU:HD13	1.17	1.13
80:CH:89:ARG:O	80:CH:93:ARG:HG2	10.37	1.13
49:CQ:103:LEU:CG	49:CQ:123:PHE:HE2	1.61	1.13
4:AK:11:ILE:HG21	4:AK:49:MET:HE2	1.20	1.13
43:CV:93:GLY:HA3	63:CB:73:VAL:HG21	1.14	1.13
40:CK:125:LEU:CD1	40:CK:163:PRO:CA	2.24	1.13
46:CN:145:ASN:OD1	46:CN:146:PRO:HD2	1.49	1.13
46:CN:68:ARG:HD2	46:CN:125:SER:O	1.46	1.13
56:CX:81:LEU:CD2	56:CX:99:ILE:HD11	1.75	1.13
23:AD:226:GLN:HA	23:AD:226:GLN:NE2	1.59	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:83:LEU:CD1	31:AH:92:VAL:CB	2.27	1.13
8:AS:139:THR:O	8:AS:141:ARG:CG	1.95	1.13
17:AV:55:ILE:HD13	17:AV:65:SER:HA	1.25	1.13
32:AW:93:LEU:HD21	32:AW:128:PHE:CD2	1.83	1.13
51:CA:116:LEU:HD11	51:CA:126:LEU:HD12	1.16	1.13
63:CB:87:VAL:CG2	63:CB:163:ILE:CG2	2.26	1.13
63:CB:78:ILE:O	63:CB:78:ILE:HD12	1.49	1.13
74:CC:91:ALA:CB	74:CC:92:PHE:CE2	2.30	1.13
48:CD:47:PRO:HB2	48:CD:66:TYR:CE1	1.70	1.13
82:CG:32:PHE:O	82:CG:33:GLU:CG	1.97	1.13
54:CP:4:TYR:OH	54:CP:17:SER:C	1.84	1.13
28:AC:102:LEU:HD21	28:AC:130:ILE:HG23	1.16	1.13
23:AD:197:LYS:H	23:AD:198:ILE:C	1.52	1.13
30:AF:93:VAL:O	30:AF:97:PHE:CD1	2.01	1.13
29:AG:32:MET:CE	29:AG:100:CYS:CA	2.27	1.13
3:AU:36:CYS:SG	3:AU:53:PRO:HB3	1.88	1.13
51:CA:118:GLU:HG2	51:CA:125:LYS:NZ	1.62	1.13
81:CE:47:ASN:CG	81:CE:48:PRO:HD3	1.66	1.13
82:CG:159:HIS:ND1	82:CG:185:LYS:CA	2.07	1.13
44:CM:63:LYS:HE2	44:CM:64:PHE:CA	1.76	1.13
46:CN:116:LEU:HD11	46:CN:151:ILE:HD11	1.20	1.13
27:AE:208:VAL:HG11	27:AE:225:ILE:HD13	1.27	1.13
26:AJ:170:PRO:CG	26:AJ:175:ARG:CG	2.26	1.13
26:AJ:37:LEU:HD11	26:AJ:42:GLU:CB	1.77	1.13
32:AW:36:ARG:HD3	32:AW:110:ILE:HD12	1.28	1.13
63:CB:142:GLY:HA3	63:CB:147:GLU:OE1	1.33	1.13
74:CC:273:LEU:O	74:CC:273:LEU:HD12	1.47	1.13
74:CC:85:HIS:N	74:CC:87:SER:OG	1.79	1.13
48:CD:104:LEU:HD21	48:CD:247:ILE:HG12	1.19	1.13
82:CG:167:VAL:HG13	82:CG:170:LEU:HD12	1.14	1.13
80:CH:49:GLY:CA	80:CH:50:LYS:NZ	2.12	1.13
80:CH:89:ARG:HH21	80:CH:91:LYS:HE2	1.11	1.13
46:CN:116:LEU:CD1	46:CN:151:ILE:CD1	2.27	1.13
49:CQ:103:LEU:CD2	49:CQ:123:PHE:HE2	1.58	1.13
52:CS:111:ARG:HG2	52:CS:111:ARG:HH21	1.05	1.13
5:AO:88:LEU:HD13	15:AB:25:PHE:CZ	1.82	1.12
30:AF:49:LEU:HD12	30:AF:50:PRO:HD2	1.29	1.12
29:AG:142:ARG:HD3	29:AG:147:LEU:HB2	1.15	1.12
26:AJ:91:LYS:HA	26:AJ:96:TYR:CB	1.77	1.12
13:AP:44:ARG:NH2	13:AP:84:ILE:H	1.45	1.12
34:AQ:8:GLN:HG3	34:AQ:99:TYR:HE1	0.98	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AS:39:ARG:NH2	14:AT:38:LYS:HE3	1.43	1.12
74:CC:14:LYS:C	74:CC:14:LYS:HD2	1.46	1.12
74:CC:158:VAL:HA	74:CC:161:TYR:CD2	1.84	1.12
74:CC:218:ILE:CG1	74:CC:229:LEU:HD12	1.78	1.12
74:CC:310:HIS:HB3	74:CC:311:ARG:CD	1.66	1.12
64:CF:188:GLU:OE1	74:CC:329:ASN:ND2	1.81	1.12
80:CH:7:ASN:HB2	80:CH:58:ASP:OD1	1.30	1.12
40:CK:10:ILE:CG2	40:CK:65:GLN:C	2.16	1.12
40:CK:123:ARG:HD3	40:CK:129:ILE:HD11	1.31	1.12
42:CL:136:LYS:H	42:CL:137:GLY:HA2	0.98	1.12
59:CZ:26:VAL:HA	59:CZ:89:ILE:HD12	1.29	1.12
16:AA:32:PHE:CE1	16:AA:33:GLN:HG2	1.83	1.12
23:AD:166:TYR:CD1	23:AD:200:PRO:HB2	1.84	1.12
30:AF:63:LYS:HD2	30:AF:71:ARG:NH1	1.59	1.12
26:AJ:169:ARG:HB3	26:AJ:170:PRO:CD	1.77	1.12
7:AM:94:ILE:CG2	7:AM:95:ASP:H	1.56	1.12
18:AY:93:ARG:HH11	18:AY:93:ARG:HG2	1.02	1.12
27:AE:19:MET:HE2	36:B2:846:G:H2'	1.29	1.12
51:CA:242:ARG:NH2	51:CA:247:ARG:NH2	1.97	1.12
81:CE:120:ASP:O	81:CE:121:VAL:HB	1.46	1.12
81:CE:148:THR:C	81:CE:163:VAL:HG12	1.69	1.12
82:CG:117:ARG:HG3	82:CG:130:THR:HG23	1.23	1.12
58:CW:34:ALA:HA	58:CW:37:GLU:CG	1.79	1.12
56:CX:119:ILE:CD1	56:CX:140:LEU:CD2	2.15	1.12
57:CY:34:LEU:CD1	57:CY:38:LEU:HB2	1.77	1.12
5:AO:95:ILE:HD13	5:AO:116:LEU:HD21	1.18	1.12
51:CA:24:LYS:N	51:CA:24:LYS:HE3	1.61	1.12
63:CB:115:LYS:HD3	63:CB:129:ALA:HB3	1.26	1.12
40:CK:2:PRO:CD	40:CK:2:PRO:CA	2.26	1.12
49:CQ:27:LEU:CD2	74:CC:289:LEU:HD11	1.76	1.12
53:CT:146:LYS:HB3	53:CT:146:LYS:NZ	1.44	1.12
58:CW:34:ALA:HA	58:CW:37:GLU:HG3	1.27	1.12
56:CX:87:MET:CA	56:CX:90:ILE:HD12	1.79	1.12
57:CY:30:MET:HG3	57:CY:101:PRO:HG3	1.29	1.12
17:AV:23:ILE:CD1	28:AC:249:SER:HA	1.78	1.12
23:AD:197:LYS:HB2	23:AD:198:ILE:HG12	1.30	1.12
27:AE:149:TYR:CD2	29:AG:205:GLU:HB3	1.83	1.12
10:AN:22:VAL:HB	10:AN:23:PRO:HA	1.20	1.12
34:AQ:58:LEU:HD23	34:AQ:111:ILE:HD13	1.25	1.12
34:AQ:85:ARG:HD3	34:AQ:119:LEU:HD23	1.24	1.12
74:CC:142:HIS:CE1	74:CC:249:PHE:N	2.17	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:111:LYS:C	81:CE:113:PRO:CD	2.16	1.12
42:CL:50:PRO:O	42:CL:151:THR:OG1	1.66	1.12
53:CT:125:TRP:CD1	53:CT:126:VAL:CG2	2.30	1.12
55:CU:80:LYS:HG2	55:CU:110:TYR:OH	1.47	1.12
3:AU:61:LEU:CD2	23:AD:34:TYR:OH	24.94	1.12
5:AO:88:LEU:HD22	15:AB:25:PHE:CD2	1.83	1.12
13:AP:33:LEU:HD22	13:AP:87:PRO:CG	1.78	1.12
34:AQ:57:LEU:CD1	34:AQ:115:TYR:CE2	2.31	1.12
14:AT:18:LEU:HD13	14:AT:134:ILE:HD13	1.23	1.12
18:AY:32:LYS:HG3	18:AY:33:ALA:H	1.11	1.12
63:CB:325:GLU:O	63:CB:326:VAL:HG12	1.49	1.12
74:CC:22:VAL:CG2	74:CC:258:ARG:NH2	2.12	1.12
48:CD:184:ASP:CG	48:CD:186:GLU:O	1.88	1.12
80:CH:18:ILE:CD1	80:CH:55:LEU:HD12	1.80	1.12
57:CY:89:LYS:HB3	57:CY:93:THR:OG1	1.48	1.12
15:AB:57:ILE:HD13	15:AB:60:ASP:OD1	0.96	1.12
23:AD:195:THR:HA	23:AD:197:LYS:O	1.49	1.12
12:AR:19:LYS:CD	23:AD:212:GLU:HG2	1.80	1.12
27:AE:152:PRO:HD3	29:AG:212:LEU:HD23	1.30	1.12
27:AE:152:PRO:CD	29:AG:212:LEU:CD2	2.28	1.12
6:AX:105:PHE:HE2	6:AX:119:ARG:CA	1.60	1.12
48:CD:51:MET:HE3	48:CD:173:ILE:CD1	1.72	1.12
80:CH:171:ASP:OD1	80:CH:173:ARG:HD3	1.49	1.12
46:CN:115:VAL:CA	46:CN:134:LEU:CD2	2.26	1.12
46:CN:99:GLN:CG	46:CN:130:PHE:CE1	2.32	1.12
56:CX:56:ARG:C	56:CX:57:GLN:HG2	1.46	1.12
28:AC:157:LEU:HA	28:AC:160:LEU:HD21	1.27	1.12
23:AD:197:LYS:HB2	23:AD:198:ILE:HG13	1.15	1.12
30:AF:39:ILE:HG23	30:AF:68:ILE:HG21	1.20	1.12
11:AL:113:LEU:HD11	11:AL:120:VAL:HG21	1.25	1.12
18:AY:34:THR:HG22	18:AY:35:VAL:N	1.61	1.12
80:CH:93:ARG:CD	80:CH:143:GLU:CG	2.28	1.12
58:CW:87:LEU:CA	58:CW:90:ILE:HD12	1.77	1.12
27:AE:100:ARG:HD3	27:AE:102:ILE:CD1	1.78	1.12
29:AG:14:LYS:NZ	29:AG:123:GLY:CA	2.11	1.12
5:AO:136:PRO:O	5:AO:138:ASP:N	1.81	1.12
12:AR:100:PRO:HG2	12:AR:119:VAL:HG22	1.29	1.12
12:AR:20:TYR:CZ	12:AR:38:ILE:CB	2.32	1.12
8:AS:46:ARG:NH2	14:AT:50:GLU:CB	2.12	1.12
51:CA:104:VAL:HG13	51:CA:107:MET:CE	1.79	1.12
63:CB:47:LEU:CD2	63:CB:166:THR:HG23	1.79	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CD:199:ILE:HG22	48:CD:200:MET:HE2	1.29	1.12
47:CI:106:ALA:HB3	47:CI:108:ALA:HB1	1.15	1.12
42:CL:191:LEU:HD23	42:CL:194:ILE:CD1	1.79	1.12
44:CM:63:LYS:HE2	44:CM:64:PHE:N	1.65	1.12
55:CU:91:LEU:HD22	55:CU:96:LEU:HB2	1.26	1.12
5:AO:130:GLU:OE1	15:AB:83:LYS:NZ	1.82	1.12
26:AJ:72:PHE:CE1	27:AE:248:ILE:CB	2.33	1.12
3:AU:67:LYS:HG2	3:AU:78:ASP:OD2	1.44	1.12
81:CE:181:LEU:HD21	81:CE:268:GLN:CG	1.80	1.12
81:CE:75:ALA:CB	81:CE:76:ALA:HB3	1.80	1.12
52:CS:83:ARG:HD2	53:CT:156:TYR:H	1.15	1.12
11:AL:149:ALA:CB	11:AL:156:GLN:CB	2.17	1.12
11:AL:22:ARG:HD3	33:AI:157:LYS:CB	1.78	1.12
63:CB:154:LYS:O	63:CB:154:LYS:HD2	1.48	1.12
80:CH:94:SER:OG	80:CH:142:ASP:HB3	1.48	1.12
79:CJ:22:LEU:CD2	79:CJ:130:PHE:CE2	2.32	1.12
42:CL:19:GLN:HB3	42:CL:20:ARG:HH11	1.01	1.12
23:AD:195:THR:O	23:AD:197:LYS:HG2	1.48	1.11
30:AF:176:GLU:OE1	30:AF:187:SER:OG	1.63	1.11
12:AR:17:ILE:HG22	12:AR:69:ILE:HD11	1.14	1.11
63:CB:165:HIS:HB2	63:CB:180:LEU:HD12	1.21	1.11
74:CC:147:VAL:HA	74:CC:175:LYS:HG2	1.15	1.11
80:CH:34:LEU:CD1	80:CH:150:ASP:OD1	1.98	1.11
79:CJ:128:LEU:CD1	79:CJ:130:PHE:HE2	1.42	1.11
79:CJ:48:PRO:CA	79:CJ:72:CYS:SG	2.38	1.11
50:CR:31:GLU:OE2	55:CU:125:GLU:N	1.83	1.11
58:CW:63:GLN:HG2	58:CW:64:SER:H	1.06	1.11
30:AF:41:VAL:HG22	30:AF:42:LYS:CD	1.80	1.11
30:AF:41:VAL:HG22	30:AF:42:LYS:N	1.53	1.11
18:AY:10:ARG:HG2	18:AY:24:VAL:HB	1.31	1.11
74:CC:314:LEU:HD23	74:CC:314:LEU:N	1.62	1.11
74:CC:318:PRO:O	74:CC:320:LYS:N	1.81	1.11
81:CE:46:ARG:NE	81:CE:47:ASN:N	1.98	1.11
79:CJ:26:VAL:HB	79:CJ:33:LEU:CD2	1.80	1.11
41:CO:16:LEU:CD1	41:CO:43:ILE:CG1	2.27	1.11
41:CO:9:LEU:CD2	52:CS:167:PHE:HD1	1.43	1.11
13:AP:41:GLN:CB	13:AP:84:ILE:HG12	1.80	1.11
17:AV:17:CYS:SG	17:AV:56:CYS:CB	2.38	1.11
16:AA:5:LEU:CB	17:AV:41:LYS:HE2	1.79	1.11
31:AH:144:ILE:CD1	32:AW:52:ILE:HG21	1.79	1.11
48:CD:142:PHE:CB	48:CD:171:LEU:HD22	1.81	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:CG:75:LYS:CD	82:CG:240:ASN:HB2	1.73	1.11
82:CG:255:LYS:HE2	82:CG:259:LYS:CE	1.80	1.11
80:CH:109:GLY:HA2	80:CH:128:MET:HB2	1.16	1.11
12:AR:85:VAL:HG22	16:AA:201:LEU:HB2	1.20	1.11
16:AA:45:GLY:O	16:AA:46:ILE:HG12	1.49	1.11
16:AA:120:ARG:HD2	28:AC:266:TYR:CE2	1.85	1.11
23:AD:214:LYS:HG3	23:AD:215:ASP:OD2	1.48	1.11
26:AJ:170:PRO:CG	26:AJ:175:ARG:HG3	1.80	1.11
8:AS:123:LEU:HD12	13:AP:121:ILE:CG2	1.80	1.11
63:CB:142:GLY:HA2	63:CB:147:GLU:H	1.02	1.11
74:CC:311:ARG:HB3	74:CC:311:ARG:HH11	1.04	1.11
81:CE:181:LEU:CD1	81:CE:268:GLN:HG3	1.80	1.11
41:CO:88:LEU:HD12	41:CO:99:LEU:CD2	1.80	1.11
15:AB:105:LEU:HD11	15:AB:213:ARG:HB2	1.17	1.11
30:AF:167:LYS:HD3	30:AF:171:GLU:HG3	1.29	1.11
31:AH:8:ILE:CG2	31:AH:9:VAL:HG22	1.79	1.11
13:AP:107:ILE:HA	13:AP:111:MET:CE	1.80	1.11
63:CB:153:MET:HE3	63:CB:160:ILE:HD11	1.25	1.11
74:CC:313:VAL:HG13	74:CC:314:LEU:N	1.61	1.11
40:CK:114:ARG:HD3	40:CK:130:LYS:HA	1.26	1.11
41:CO:191:LYS:O	41:CO:194:GLU:HG3	1.51	1.11
56:CX:52:LEU:CD1	56:CX:54:LEU:H	1.63	1.11
59:CZ:57:MET:HE2	59:CZ:61:LYS:CB	1.78	1.11
28:AC:169:TYR:OH	28:AC:177:PRO:HD3	1.50	1.11
4:AK:14:LEU:CD2	4:AK:35:LEU:HD22	1.80	1.11
34:AQ:19:ALA:HB2	34:AQ:74:GLY:O	1.50	1.11
3:AU:59:LYS:HB2	3:AU:84:ILE:HG22	1.21	1.11
63:CB:153:MET:CE	63:CB:160:ILE:HG12	1.80	1.11
49:CQ:110:ARG:NH1	74:CC:281:MET:CE	2.12	1.11
81:CE:145:THR:HG21	81:CE:200:LYS:CG	1.80	1.11
49:CQ:154:LYS:HB3	49:CQ:155:ALA:HB3	1.18	1.11
52:CS:15:ARG:NH2	52:CS:24:THR:OG1	1.84	1.11
56:CX:40:ILE:HG12	56:CX:41:ARG:N	1.48	1.11
15:AB:135:LEU:HD21	15:AB:217:MET:SD	1.91	1.11
23:AD:218:LEU:HD12	23:AD:220:THR:HG21	1.19	1.11
23:AD:47:GLU:HG2	23:AD:85:GLU:CD	1.71	1.11
30:AF:42:LYS:O	30:AF:44:LYS:CA	1.98	1.11
8:AS:42:HIS:CD2	14:AT:45:LEU:CD2	2.25	1.11
48:CD:104:LEU:HD23	48:CD:247:ILE:HG21	1.23	1.11
80:CH:93:ARG:NE	80:CH:143:GLU:CG	2.14	1.11
79:CJ:26:VAL:HG11	79:CJ:33:LEU:HD23	1.16	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AC:99:GLY:HA2	28:AC:102:LEU:HB3	1.30	1.11
33:AI:114:GLU:OE1	33:AI:133:GLU:HG3	1.50	1.11
10:AN:38:TYR:CD1	10:AN:78:LYS:HD2	1.86	1.11
5:AO:20:GLN:HG2	5:AO:21:VAL:N	1.61	1.11
13:AP:53:GLN:HG2	13:AP:80:LEU:HD13	1.23	1.11
12:AR:1:MET:CB	12:AR:2:GLY:N	2.13	1.11
19:AZ:69:THR:HB	19:AZ:70:PRO:HD3	1.24	1.11
63:CB:140:GLU:CD	63:CB:144:LYS:CD	2.19	1.11
74:CC:288:ASP:OD2	74:CC:291:ARG:HB3	1.49	1.11
74:CC:309:ILE:HG23	74:CC:310:HIS:N	1.58	1.11
81:CE:144:ILE:HD11	81:CE:196:ALA:HB2	1.24	1.11
64:CF:29:LYS:HG3	64:CF:30:ILE:HD12	1.29	1.11
40:CK:123:ARG:HD2	40:CK:129:ILE:CG1	1.80	1.11
41:CO:177:LEU:HD22	44:CM:130:LEU:CG	1.80	1.11
52:CS:74:ARG:HB3	52:CS:76:LYS:HZ2	1.00	1.11
55:CU:59:GLY:O	55:CU:61:VAL:HG22	0.96	1.11
59:CZ:73:LYS:HG2	59:CZ:75:TYR:CE2	1.84	1.11
27:AE:89:VAL:O	27:AE:99:PHE:O	1.68	1.11
30:AF:25:THR:HG22	30:AF:42:LYS:CD	1.78	1.11
30:AF:42:LYS:HD3	30:AF:42:LYS:N	1.39	1.11
13:AP:49:LEU:CD1	13:AP:51:ARG:NE	2.02	1.11
63:CB:115:LYS:HD3	63:CB:129:ALA:CB	1.81	1.11
15:AB:52:THR:CB	82:CG:264:LYS:NZ	2.14	1.11
40:CK:152:ILE:O	40:CK:155:ILE:HG13	1.47	1.11
42:CL:55:ILE:CD1	42:CL:120:TYR:CD1	2.32	1.11
52:CS:98:ARG:NH1	52:CS:145:PHE:HB3	1.65	1.11
23:AD:158:ILE:CD1	23:AD:189:MET:HE2	1.70	1.11
23:AD:213:PRO:O	23:AD:214:LYS:HB3	1.50	1.11
13:AP:49:LEU:HA	13:AP:51:ARG:HG3	1.29	1.11
6:AX:60:LYS:HE2	6:AX:116:PRO:HG3	1.29	1.11
6:AX:128:VAL:HG13	6:AX:128:VAL:O	1.51	1.11
48:CD:64:ILE:CD1	48:CD:105:LEU:HD11	1.80	1.11
42:CL:127:PHE:CZ	42:CL:144:LEU:CB	2.33	1.11
43:CV:99:GLU:OE1	58:CW:23:ARG:HG3	1.50	1.11
16:AA:118:GLU:CB	28:AC:65:LYS:NZ	2.11	1.10
30:AF:42:LYS:C	30:AF:44:LYS:H	1.32	1.10
29:AG:210:ALA:O	29:AG:213:LEU:HG	1.51	1.10
29:AG:41:LEU:HD21	29:AG:45:TRP:CZ3	1.61	1.10
6:AX:10:ALA:HB2	11:AL:101:ARG:C	1.70	1.10
63:CB:235:TRP:O	63:CB:236:HIS:HB2	1.37	1.10
74:CC:91:ALA:C	74:CC:92:PHE:HD2	1.55	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:CG:183:ILE:HG22	82:CG:184:ILE:HA	1.31	1.10
47:CI:101:LYS:O	47:CI:103:LEU:CD2	1.99	1.10
47:CI:99:ILE:HD12	47:CI:123:GLN:NE2	1.65	1.10
40:CK:102:GLY:C	40:CK:139:VAL:O	1.88	1.10
42:CL:50:PRO:CG	42:CL:51:ALA:CB	2.29	1.10
44:CM:104:MET:HE2	44:CM:112:VAL:HG21	1.13	1.10
41:CO:64:THR:HG21	63:CB:261:ARG:CD	1.80	1.10
29:AG:129:VAL:CB	58:CW:80:ARG:NH1	2.12	1.10
16:AA:34:MET:HE3	16:AA:37:TYR:HD2	1.12	1.10
16:AA:58:LEU:HD23	16:AA:178:LEU:CD2	1.74	1.10
27:AE:47:PHE:CZ	27:AE:52:LEU:HD11	1.86	1.10
30:AF:20:PHE:O	30:AF:22:LYS:N	1.83	1.10
31:AH:12:ASN:ND2	31:AH:46:THR:OG1	1.81	1.10
31:AH:145:ARG:HD2	32:AW:51:GLU:HG2	1.30	1.10
33:AI:114:GLU:OE1	33:AI:133:GLU:CG	1.99	1.10
34:AQ:85:ARG:NH2	34:AQ:117:ARG:HG2	1.63	1.10
49:CQ:132:LYS:HE3	74:CC:301:ALA:HB1	1.32	1.10
48:CD:64:ILE:HD12	48:CD:105:LEU:HD11	1.11	1.10
44:CM:24:LEU:HD11	44:CM:86:TRP:CD1	1.84	1.10
41:CO:127:VAL:HG13	52:CS:158:VAL:HG23	1.18	1.10
49:CQ:6:ARG:HH22	64:CF:113:ARG:HA	1.12	1.10
53:CT:18:PRO:O	53:CT:21:LYS:HB2	1.50	1.10
12:AR:85:VAL:CG2	16:AA:201:LEU:HD13	1.80	1.10
31:AH:8:ILE:HG23	31:AH:9:VAL:CG2	1.80	1.10
34:AQ:54:PRO:HG3	34:AQ:88:ILE:CD1	1.82	1.10
12:AR:105:MET:HG3	16:AA:48:ILE:CG2	1.76	1.10
31:AH:146:VAL:CG2	32:AW:50:PHE:CZ	2.32	1.10
18:AY:7:ILE:CD1	18:AY:43:LYS:CG	2.30	1.10
19:AZ:70:PRO:HD2	19:AZ:71:ALA:H	1.13	1.10
48:CD:104:LEU:HD21	48:CD:247:ILE:CG1	1.80	1.10
80:CH:158:ALA:O	80:CH:161:ILE:HG22	1.50	1.10
42:CL:31:ARG:NH1	42:CL:34:ARG:CB	2.14	1.10
44:CM:25:VAL:HG11	44:CM:38:VAL:CG1	1.78	1.10
50:CR:71:ARG:HB3	50:CR:71:ARG:HH11	1.02	1.10
56:CX:123:LYS:HZ3	56:CX:139:ARG:HB2	1.02	1.10
57:CY:34:LEU:HD11	57:CY:38:LEU:HB3	1.33	1.10
59:CZ:29:ILE:HD13	59:CZ:40:HIS:NE2	1.66	1.10
64:CF:41:MET:CE	85:A5:2121:C:H5'	1.80	1.10
28:AC:75:ILE:O	28:AC:97:PHE:CE1	2.03	1.10
12:AR:91:LEU:N	12:AR:91:LEU:HD12	1.66	1.10
18:AY:62:THR:HG22	18:AY:69:THR:CG2	1.80	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AY:63:HIS:HB3	18:AY:64:PHE:CD1	1.86	1.10
48:CD:197:LYS:HD2	48:CD:202:GLN:HG2	1.12	1.10
46:CN:28:TRP:CZ3	82:CG:67:ARG:NE	2.20	1.10
47:CI:185:VAL:HG23	47:CI:190:LEU:HD12	1.10	1.10
79:CJ:103:GLY:HA3	79:CJ:157:ILE:HG22	1.23	1.10
40:CK:102:GLY:O	40:CK:139:VAL:O	1.67	1.10
40:CK:97:ASN:OD1	40:CK:98:ILE:HD11	1.51	1.10
52:CS:34:ALA:HB1	52:CS:39:VAL:CG2	1.80	1.10
48:CD:42:ASN:ND2	53:CT:67:VAL:O	1.84	1.10
23:AD:212:GLU:HB2	23:AD:213:PRO:HD2	1.28	1.10
27:AE:129:ILE:HG12	27:AE:139:LEU:HD21	1.20	1.10
26:AJ:178:ALA:O	26:AJ:182:GLN:HG3	1.52	1.10
4:AK:40:VAL:HG22	4:AK:41:PRO:N	1.59	1.10
11:AL:147:LYS:HD2	11:AL:148:ALA:HA	1.12	1.10
8:AS:123:LEU:HD12	13:AP:121:ILE:HG21	1.11	1.10
63:CB:108:GLU:HG3	63:CB:137:TRP:NE1	1.65	1.10
82:CG:75:LYS:CD	82:CG:240:ASN:HB3	1.76	1.10
79:CJ:95:ARG:H	79:CJ:98:ASN:ND2	1.48	1.10
40:CK:160:VAL:C	40:CK:163:PRO:CG	2.19	1.10
41:CO:65:ASN:CB	41:CO:68:ARG:CD	2.30	1.10
49:CQ:83:VAL:HA	49:CQ:123:PHE:HZ	1.16	1.10
55:CU:84:LYS:HE2	55:CU:102:VAL:HB	1.32	1.10
59:CZ:95:VAL:CG2	59:CZ:113:GLU:OE1	1.98	1.10
16:AA:106:GLY:O	16:AA:113:GLN:OE1	1.67	1.10
28:AC:70:VAL:CG2	28:AC:97:PHE:HE2	1.63	1.10
18:AY:120:THR:HB	18:AY:122:LYS:HE2	1.21	1.10
19:AZ:99:LEU:CD1	19:AZ:102:LYS:CE	2.14	1.10
48:CD:271:MET:HE1	48:CD:275:GLN:HB3	1.24	1.10
81:CE:45:SER:HB3	81:CE:49:VAL:HB	1.12	1.10
82:CG:113:ARG:C	82:CG:113:ARG:HD2	1.69	1.10
82:CG:28:VAL:HA	82:CG:31:LEU:HD23	1.30	1.10
40:CK:10:ILE:HG22	40:CK:65:GLN:O	1.51	1.10
49:CQ:66:MET:SD	49:CQ:100:VAL:HG21	1.91	1.10
16:AA:97:THR:HG22	16:AA:98:PRO:HD2	1.31	1.10
15:AB:36:PRO:CB	15:AB:231:LEU:HD21	1.82	1.10
30:AF:116:ILE:N	30:AF:116:ILE:HD13	1.64	1.10
31:AH:36:LEU:HD12	31:AH:36:LEU:O	1.51	1.10
11:AL:40:ILE:HD11	11:AL:68:ILE:HB	1.30	1.10
10:AN:28:LEU:O	10:AN:29:THR:CG2	1.99	1.10
3:AU:103:SER:O	3:AU:106:ILE:CG2	1.99	1.10
51:CA:143:THR:CA	51:CA:144:LYS:CG	2.30	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:195:ASP:HA	63:CB:198:ARG:HD3	1.20	1.10
63:CB:356:LYS:CE	63:CB:356:LYS:HA	1.69	1.10
48:CD:146:LEU:CD2	48:CD:163:LEU:HD13	1.81	1.10
81:CE:47:ASN:HB3	81:CE:48:PRO:HD2	1.31	1.10
81:CE:98:GLY:HA2	81:CE:99:ASP:CG	1.70	1.10
46:CN:64:ILE:HD11	46:CN:102:ALA:HA	1.14	1.10
50:CR:44:LEU:O	50:CR:47:ASP:OD1	1.68	1.10
15:AB:160:GLN:NE2	15:AB:205:TYR:CD1	2.18	1.10
26:AJ:119:LEU:N	26:AJ:119:LEU:HD23	1.63	1.10
11:AL:157:LYS:C	11:AL:158:PHE:CD2	2.25	1.10
48:CD:104:LEU:CD2	48:CD:247:ILE:CG2	2.30	1.10
81:CE:218:LYS:HB2	81:CE:220:LYS:HE3	1.34	1.10
82:CG:151:LYS:O	82:CG:205:THR:CG2	2.00	1.10
44:CM:127:VAL:HG13	44:CM:128:LYS:O	6.31	1.10
54:CP:10:ASN:ND2	54:CP:12:THR:OG1	1.85	1.10
54:CP:27:LYS:HE2	54:CP:63:TYR:HD1	1.10	1.10
16:AA:205:ARG:CG	16:AA:206:ASP:H	1.65	1.10
16:AA:30:LEU:CD2	16:AA:35:GLU:HG3	1.79	1.10
30:AF:36:GLN:HG3	30:AF:37:ASP:CG	1.70	1.10
29:AG:195:LYS:HD3	36:B2:126:G:H5'	1.32	1.10
4:AK:71:LEU:HD23	4:AK:76:ILE:CD1	1.81	1.10
34:AQ:44:PRO:HG2	34:AQ:81:ILE:HD11	1.28	1.10
14:AT:143:LYS:HD2	14:AT:144:LYS:N	1.65	1.10
18:AY:34:THR:O	18:AY:35:VAL:CG2	1.97	1.10
51:CA:66:PRO:HB2	51:CA:67:TYR:CD2	1.87	1.10
74:CC:29:LYS:N	74:CC:29:LYS:HD2	1.66	1.10
48:CD:270:LYS:O	48:CD:271:MET:HG2	1.51	1.10
81:CE:47:ASN:CB	81:CE:48:PRO:CD	2.30	1.10
80:CH:113:GLU:OE2	80:CH:123:ILE:HD11	0.94	1.10
47:CI:106:ALA:CA	47:CI:108:ALA:CB	2.30	1.10
42:CL:136:LYS:N	42:CL:137:GLY:HA2	1.53	1.10
41:CO:27:VAL:HG12	41:CO:98:ALA:HB1	1.20	1.10
50:CR:11:ALA:HB1	50:CR:50:ILE:CD1	1.82	1.10
50:CR:68:LEU:HD12	50:CR:69:ALA:N	1.65	1.10
52:CS:34:ALA:HB1	52:CS:39:VAL:HG23	1.10	1.10
53:CT:134:PRO:CB	53:CT:135:PRO:CD	2.27	1.10
26:AJ:179:LYS:HG2	26:AJ:182:GLN:OE1	1.50	1.10
26:AJ:89:GLU:CA	26:AJ:92:MET:CG	2.29	1.10
8:AS:58:GLU:O	8:AS:59:LEU:HD22	1.50	1.10
32:AW:11:LEU:O	32:AW:14:ILE:CG1	1.99	1.10
6:AX:52:LEU:HD21	6:AX:71:ARG:HB3	1.26	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CD:261:VAL:CG1	48:CD:262:LYS:CA	2.29	1.10
42:CL:20:ARG:N	42:CL:20:ARG:HD2	1.59	1.10
57:CY:126:ARG:HH22	57:CY:130:LYS:HD3	1.06	1.10
57:CY:34:LEU:CD1	57:CY:38:LEU:CD1	2.28	1.10
16:AA:97:THR:HG23	16:AA:98:PRO:HD2	1.21	1.09
15:AB:137:LEU:HB2	15:AB:172:MET:HE1	1.34	1.09
7:AM:12:MET:HG3	7:AM:16:THR:HG23	1.10	1.09
5:AO:23:GLU:O	5:AO:23:GLU:HG2	1.52	1.09
34:AQ:105:LYS:HD2	34:AQ:105:LYS:O	1.50	1.09
18:AY:20:ARG:CG	18:AY:74:MET:HE3	1.81	1.09
48:CD:51:MET:HE3	48:CD:173:ILE:HD13	1.21	1.09
48:CD:261:VAL:CB	48:CD:262:LYS:CA	2.29	1.09
47:CI:16:PRO:HG3	47:CI:128:ARG:HH11	1.02	1.09
42:CL:50:PRO:CB	42:CL:51:ALA:CA	2.28	1.09
46:CN:58:GLY:HA3	46:CN:139:HIS:CD2	1.77	1.09
50:CR:11:ALA:CB	50:CR:50:ILE:HD11	1.82	1.09
50:CR:31:GLU:OE2	55:CU:125:GLU:CA	2.00	1.09
27:AE:23:LEU:O	27:AE:24:THR:HG23	1.52	1.09
29:AG:213:LEU:O	29:AG:217:MET:HG2	1.50	1.09
26:AJ:115:PHE:HD1	26:AJ:122:SER:N	1.48	1.09
34:AQ:8:GLN:CB	34:AQ:99:TYR:CE1	2.35	1.09
12:AR:100:PRO:HB2	12:AR:119:VAL:HG21	1.24	1.09
12:AR:122:PRO:CA	12:AR:123:THR:CG2	2.30	1.09
8:AS:139:THR:O	8:AS:141:ARG:HG3	1.46	1.09
48:CD:246:ALA:O	48:CD:249:GLU:CG	1.99	1.09
81:CE:46:ARG:HE	81:CE:46:ARG:HA	1.07	1.09
56:CX:43:SER:H	82:CG:51:LEU:HD11	1.05	1.09
46:CN:21:PHE:HE2	82:CG:80:ILE:CD1	1.55	1.09
42:CL:27:ASN:C	42:CL:29:PRO:HD3	1.72	1.09
49:CQ:110:ARG:NH2	49:CQ:120:ILE:HD12	1.66	1.09
5:AO:88:LEU:CD2	15:AB:25:PHE:CD2	2.34	1.09
29:AG:63:MET:HE1	29:AG:106:LEU:HD11	1.12	1.09
26:AJ:114:VAL:HG12	26:AJ:120:ALA:HB2	1.23	1.09
11:AL:94:HIS:HB2	11:AL:105:ARG:HD2	1.33	1.09
7:AM:116:LYS:O	7:AM:117:GLU:HB2	1.43	1.09
13:AP:83:MET:HE3	13:AP:116:LEU:HD11	1.28	1.09
34:AQ:85:ARG:HD3	34:AQ:119:LEU:CD2	1.81	1.09
51:CA:253:GLN:HG3	51:CA:255:LYS:HD2	1.15	1.09
63:CB:41:VAL:CA	63:CB:187:GLY:HA3	1.82	1.09
74:CC:272:SER:O	74:CC:273:LEU:HB2	1.51	1.09
47:CI:174:THR:HB	47:CI:176:PHE:CD2	1.85	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CJ:163:MET:HE3	79:CJ:174:ILE:HG12	1.20	1.09
44:CM:107:PHE:CE1	81:CE:270:TYR:CD1	2.40	1.09
41:CO:128:ARG:NE	52:CS:161:ARG:NH2	1.92	1.09
59:CZ:57:MET:HE2	59:CZ:61:LYS:HB2	1.24	1.09
15:AB:71:LEU:CD1	15:AB:84:PHE:CE2	2.32	1.09
23:AD:27:ARG:CB	23:AD:27:ARG:HH11	4.03	1.09
30:AF:201:LYS:HE3	30:AF:204:ARG:HH21	1.16	1.09
12:AR:122:PRO:CB	12:AR:123:THR:CG2	2.29	1.09
3:AU:50:VAL:HG13	3:AU:51:LYS:H	0.98	1.09
18:AY:61:ARG:CG	18:AY:61:ARG:HH21	1.66	1.09
63:CB:173:LEU:HD12	63:CB:342:LYS:HE2	1.13	1.09
48:CD:117:LYS:O	48:CD:120:GLU:OE2	1.70	1.09
48:CD:129:GLU:HG2	48:CD:177:THR:CG2	1.82	1.09
81:CE:150:LEU:HB3	81:CE:194:VAL:HG11	1.12	1.09
82:CG:42:GLY:C	82:CG:43:GLN:HG2	1.62	1.09
47:CI:16:PRO:HG3	47:CI:128:ARG:NH1	1.68	1.09
79:CJ:134:LEU:O	79:CJ:157:ILE:HD12	1.49	1.09
40:CK:94:LYS:CD	40:CK:96:LYS:CE	2.28	1.09
46:CN:8:GLN:HE21	46:CN:50:ARG:NH2	1.50	1.09
53:CT:127:GLN:HE21	53:CT:127:GLN:C	1.56	1.09
53:CT:33:ILE:HD13	53:CT:33:ILE:N	1.61	1.09
29:AG:50:VAL:HG11	29:AG:111:LEU:HD13	1.19	1.09
26:AJ:169:ARG:HB3	26:AJ:170:PRO:HD2	1.16	1.09
11:AL:4:ILE:N	11:AL:4:ILE:HD12	1.60	1.09
7:AM:91:LEU:HD22	7:AM:104:VAL:HG13	1.33	1.09
13:AP:108:LYS:O	13:AP:111:MET:HG3	1.51	1.09
51:CA:5:ILE:CD1	51:CA:210:PRO:HD3	1.82	1.09
51:CA:248:GLY:O	51:CA:250:LYS:N	1.86	1.09
63:CB:395:ASP:CA	63:CB:396:ARG:CB	2.30	1.09
63:CB:40:PRO:C	63:CB:41:VAL:HG22	1.69	1.09
74:CC:13:GLU:H	74:CC:13:GLU:CD	1.44	1.09
48:CD:104:LEU:CD2	48:CD:247:ILE:HG23	1.82	1.09
81:CE:224:LYS:HB3	81:CE:226:ARG:HH12	1.17	1.09
64:CF:197:VAL:HG12	64:CF:198:GLY:H	1.09	1.09
82:CG:150:LYS:CB	82:CG:177:MET:HE2	1.81	1.09
82:CG:183:ILE:CG2	82:CG:184:ILE:N	2.07	1.09
15:AB:52:THR:HB	82:CG:264:LYS:NZ	1.64	1.09
40:CK:10:ILE:HG22	40:CK:66:ASN:CA	1.63	1.09
42:CL:50:PRO:CB	42:CL:51:ALA:CB	2.30	1.09
29:AG:129:VAL:O	58:CW:80:ARG:CZ	1.99	1.09
23:AD:132:LYS:CA	23:AD:191:PRO:HG3	1.80	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AE:49:ARG:O	27:AE:49:ARG:HD3	1.52	1.09
29:AG:176:ILE:CB	29:AG:179:LEU:CD2	2.30	1.09
4:AK:40:VAL:CG2	4:AK:41:PRO:CD	2.30	1.09
13:AP:10:ARG:NH2	13:AP:11:THR:HB	1.66	1.09
13:AP:41:GLN:NE2	13:AP:45:LEU:HG	1.65	1.09
34:AQ:92:LEU:HD11	34:AQ:96:TYR:CE2	1.85	1.09
18:AY:92:ALA:HA	18:AY:97:TYR:C	1.71	1.09
63:CB:397:ILE:HG22	63:CB:398:ALA:N	1.65	1.09
74:CC:7:LEU:HG	74:CC:8:ILE:H	1.06	1.09
81:CE:149:ILE:HD11	81:CE:161:ARG:HB3	1.35	1.09
81:CE:242:ILE:CD1	81:CE:246:ARG:HH11	1.63	1.09
82:CG:77:PRO:HG3	82:CG:237:TRP:HZ3	1.15	1.09
80:CH:34:LEU:HD13	80:CH:150:ASP:OD1	1.52	1.09
42:CL:148:THR:CB	42:CL:150:LEU:HD21	1.81	1.09
42:CL:50:PRO:CD	42:CL:51:ALA:CB	2.29	1.09
46:CN:72:LYS:CE	46:CN:90:ASN:ND2	2.08	1.09
49:CQ:85:THR:HG22	49:CQ:104:ARG:HB2	1.24	1.09
49:CQ:154:LYS:CD	49:CQ:163:THR:HG21	1.81	1.09
52:CS:75:VAL:O	52:CS:76:LYS:HE2	1.49	1.09
59:CZ:87:VAL:HG22	59:CZ:127:ASN:CG	1.72	1.09
16:AA:176:TRP:CE3	16:AA:177:MET:SD	2.46	1.09
16:AA:186:ARG:HG2	16:AA:186:ARG:HH11	1.01	1.09
5:AO:22:ALA:O	5:AO:24:GLY:N	1.86	1.09
17:AV:11:LEU:HD12	17:AV:12:TYR:HD2	0.93	1.09
81:CE:242:ILE:HG12	81:CE:246:ARG:HD3	1.32	1.09
80:CH:105:ILE:HG23	80:CH:112:VAL:HA	1.14	1.09
47:CI:103:LEU:CD2	47:CI:103:LEU:H	1.49	1.09
46:CN:44:ARG:CD	46:CN:119:TYR:CE1	2.35	1.09
41:CO:16:LEU:HD23	41:CO:41:ILE:HD11	1.11	1.09
50:CR:4:LEU:CD1	50:CR:33:ALA:HA	1.81	1.09
50:CR:17:CYS:SG	50:CR:52:ARG:NH2	2.26	1.09
16:AA:185:MET:CE	17:AV:39:VAL:HG12	1.82	1.09
23:AD:70:THR:HG22	23:AD:86:LEU:HD13	1.31	1.09
29:AG:76:LEU:HD21	29:AG:92:ARG:HG2	1.32	1.09
31:AH:144:ILE:HD12	32:AW:52:ILE:CG2	1.82	1.09
33:AI:140:LYS:CG	33:AI:141:ARG:H	1.64	1.09
26:AJ:110:LEU:HD12	26:AJ:130:ILE:CD1	1.74	1.09
10:AN:38:TYR:CE2	10:AN:74:ILE:CG2	2.34	1.09
13:AP:126:VAL:CG1	13:AP:127:LYS:N	2.06	1.09
34:AQ:85:ARG:CZ	34:AQ:117:ARG:HG2	1.82	1.09
34:AQ:30:GLY:O	34:AQ:31:LEU:HD12	1.52	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AF:14:THR:CG2	34:AQ:56:LEU:CG	2.10	1.09
56:CX:41:ARG:NH1	82:CG:55:VAL:HG11	1.67	1.09
40:CK:94:LYS:HB3	40:CK:96:LYS:CE	1.83	1.09
23:AD:157:MET:CE	23:AD:187:LYS:CD	2.31	1.09
23:AD:2:ALA:HB3	23:AD:3:VAL:HA	1.09	1.09
4:AK:71:LEU:HD21	4:AK:76:ILE:HD13	1.19	1.09
13:AP:49:LEU:O	13:AP:51:ARG:CA	1.99	1.09
13:AP:44:ARG:HH21	13:AP:84:ILE:HB	1.10	1.09
34:AQ:93:VAL:HG13	34:AQ:105:LYS:CE	1.70	1.09
17:AV:81:LYS:N	17:AV:81:LYS:HE3	1.68	1.09
48:CD:20:PHE:CD2	48:CD:30:TYR:CZ	2.41	1.09
81:CE:239:LYS:HD2	85:A5:4939:C:C5	1.88	1.09
40:CK:95:GLN:O	40:CK:96:LYS:HD3	1.49	1.09
53:CT:4:THR:HG22	53:CT:9:ARG:HD2	1.32	1.09
28:AC:117:ARG:HG3	28:AC:118:ALA:H	1.13	1.09
23:AD:197:LYS:CB	23:AD:198:ILE:CG1	2.30	1.09
31:AH:93:VAL:HG23	31:AH:94:PHE:H	1.10	1.09
4:AK:11:ILE:HG21	4:AK:49:MET:CE	1.71	1.09
11:AL:151:THR:O	11:AL:153:LYS:HD3	1.53	1.09
12:AR:105:MET:O	12:AR:109:LEU:CG	2.00	1.09
8:AS:6:PRO:HA	19:AZ:50:PHE:HB2	1.11	1.09
19:AZ:103:HIS:CD2	19:AZ:105:ALA:HB3	1.86	1.09
63:CB:47:LEU:HD23	63:CB:166:THR:HG21	1.31	1.09
74:CC:133:LEU:CD2	74:CC:136:LEU:HD11	1.79	1.09
46:CN:38:ARG:HG2	46:CN:62:TYR:CE2	1.88	1.09
49:CQ:103:LEU:HD23	49:CQ:123:PHE:CE2	1.85	1.09
52:CS:111:ARG:CG	52:CS:111:ARG:HH21	1.65	1.09
52:CS:7:LEU:HD22	52:CS:7:LEU:N	1.60	1.09
58:CW:57:ARG:HH22	58:CW:66:GLU:CD	1.57	1.09
56:CX:56:ARG:O	56:CX:57:GLN:HG2	1.52	1.09
23:AD:176:LEU:H	23:AD:176:LEU:HD12	1.13	1.08
27:AE:208:VAL:CG2	27:AE:225:ILE:CD1	2.28	1.08
30:AF:41:VAL:CG2	30:AF:42:LYS:H	1.62	1.08
26:AJ:100:LEU:CD1	26:AJ:104:ASP:OD2	2.01	1.08
11:AL:12:LYS:NZ	33:AI:194:GLU:CG	2.13	1.08
13:AP:11:THR:O	13:AP:12:PHE:HB2	1.47	1.08
34:AQ:9:SER:CB	34:AQ:26:LYS:CG	2.08	1.08
74:CC:124:ILE:CG1	74:CC:237:ILE:HD11	1.75	1.08
81:CE:106:VAL:HB	81:CE:108:LYS:N	1.66	1.08
81:CE:215:ALA:HA	81:CE:218:LYS:HE2	1.16	1.08
81:CE:224:LYS:CG	81:CE:226:ARG:HH12	1.64	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:CG:113:ARG:CG	82:CG:113:ARG:HH21	1.65	1.08
82:CG:83:PHE:HZ	82:CG:158:ALA:O	1.34	1.08
79:CJ:20:LEU:HD13	79:CJ:132:VAL:CG2	1.83	1.08
46:CN:58:GLY:CA	46:CN:139:HIS:NE2	2.10	1.08
49:CQ:19:LYS:O	49:CQ:20:SER:HB2	1.50	1.08
52:CS:74:ARG:O	52:CS:76:LYS:HG3	0.91	1.08
28:AC:275:LYS:CG	28:AC:276:THR:H	1.56	1.08
3:AU:61:LEU:HD23	23:AD:34:TYR:OH	25.71	1.08
27:AE:92:ILE:HB	27:AE:97:GLU:OE1	1.52	1.08
29:AG:16:ILE:CD1	29:AG:45:TRP:CZ2	2.33	1.08
12:AR:84:TYR:O	16:AA:201:LEU:HD12	1.52	1.08
18:AY:122:LYS:HD3	18:AY:123:ALA:H	1.05	1.08
63:CB:36:ASP:OD1	63:CB:37:PRO:HD2	4.49	1.08
74:CC:122:TYR:HD1	74:CC:280:PRO:HG3	1.15	1.08
81:CE:83:LYS:HB2	81:CE:84:LYS:CA	1.82	1.08
40:CK:131:GLU:HG2	40:CK:155:ILE:CD1	1.83	1.08
41:CO:108:ILE:HG22	41:CO:160:ARG:CZ	1.80	1.08
55:CU:48:LYS:HG2	55:CU:52:LYS:HA	1.19	1.08
16:AA:154:LEU:HD13	16:AA:154:LEU:O	1.54	1.08
23:AD:2:ALA:CB	23:AD:3:VAL:CA	2.29	1.08
27:AE:100:ARG:HD3	27:AE:102:ILE:HD11	1.20	1.08
26:AJ:127:ARG:CG	26:AJ:127:ARG:HH11	1.66	1.08
26:AJ:89:GLU:HA	26:AJ:92:MET:HB2	1.21	1.08
8:AS:46:ARG:CZ	14:AT:50:GLU:CB	2.30	1.08
37:BC:17:G:O2'	37:BC:56:G:N2	1.86	1.08
63:CB:189:THR:HG23	63:CB:192:GLU:HB2	1.10	1.08
74:CC:146:GLU:O	74:CC:175:LYS:HG3	0.93	1.08
48:CD:137:GLY:O	48:CD:138:GLN:CG	2.01	1.08
81:CE:68:MET:HA	81:CE:71:ARG:HD2	1.32	1.08
82:CG:121:LYS:HG2	82:CG:126:GLY:C	1.71	1.08
80:CH:41:ILE:O	80:CH:42:ASN:CB	1.97	1.08
49:CQ:154:LYS:CB	49:CQ:155:ALA:CB	2.30	1.08
16:AA:34:MET:HE3	16:AA:37:TYR:CD2	1.88	1.08
26:AJ:17:ARG:O	26:AJ:17:ARG:HG3	1.41	1.08
11:AL:12:LYS:HZ3	33:AI:194:GLU:CD	1.57	1.08
5:AO:99:ALA:N	5:AO:133:THR:HG22	1.68	1.08
14:AT:30:VAL:O	14:AT:30:VAL:HG23	1.53	1.08
14:AT:40:ALA:CB	14:AT:43:LYS:HG2	1.84	1.08
81:CE:242:ILE:HG12	81:CE:246:ARG:CD	1.81	1.08
82:CG:143:VAL:CA	82:CG:146:LEU:HD21	1.84	1.08
80:CH:19:THR:OG1	80:CH:26:ILE:CD1	2.00	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:CH:89:ARG:HD3	80:CH:91:LYS:HE3	1.34	1.08
47:CI:106:ALA:CB	47:CI:108:ALA:CB	2.29	1.08
79:CJ:90:ARG:HH21	79:CJ:108:GLY:C	1.55	1.08
44:CM:6:PHE:O	44:CM:11:ARG:NE	1.85	1.08
52:CS:7:LEU:HD21	52:CS:107:THR:OG1	1.53	1.08
55:CU:21:PHE:HE1	55:CU:80:LYS:CG	1.65	1.08
58:CW:57:ARG:NH2	58:CW:66:GLU:OE2	1.85	1.08
56:CX:57:GLN:N	56:CX:58:PRO:HD2	1.47	1.08
27:AE:99:PHE:CE1	27:AE:113:ARG:CG	2.35	1.08
31:AH:83:LEU:HD11	31:AH:92:VAL:HB	1.16	1.08
33:AI:139:LYS:HB3	33:AI:145:ILE:CD1	1.82	1.08
26:AJ:61:LEU:CD2	26:AJ:98:LEU:CD1	2.27	1.08
30:AF:14:THR:CB	34:AQ:56:LEU:HD13	1.82	1.08
8:AS:137:LYS:HG2	8:AS:138:THR:HG23	1.34	1.08
51:CA:158:ILE:HG21	51:CA:162:ASN:ND2	1.67	1.08
63:CB:51:ALA:HB3	63:CB:78:ILE:CD1	1.83	1.08
74:CC:219:LYS:HZ2	74:CC:222:ARG:CZ	1.64	1.08
74:CC:168:VAL:HG22	74:CC:224:ILE:CD1	1.83	1.08
74:CC:5:ARG:CB	74:CC:24:LEU:HG	1.81	1.08
81:CE:75:ALA:HA	81:CE:76:ALA:HB2	1.28	1.08
64:CF:200:ARG:NH1	64:CF:203:GLU:OE2	1.86	1.08
46:CN:28:TRP:HZ3	82:CG:67:ARG:CD	1.65	1.08
46:CN:80:THR:O	46:CN:82:GLY:N	1.87	1.08
49:CQ:103:LEU:HD23	49:CQ:123:PHE:CD2	1.88	1.08
15:AB:209:ASP:OD1	15:AB:211:PHE:HZ	1.37	1.08
33:AI:154:LYS:HG3	33:AI:155:ASN:H	1.15	1.08
11:AL:8:ARG:HH11	33:AI:85:ALA:HB1	1.11	1.08
5:AO:61:LYS:CE	5:AO:80:ASP:OD2	2.00	1.08
6:AX:67:ARG:O	6:AX:68:LYS:HG3	1.51	1.08
74:CC:213:GLU:HA	74:CC:214:ASP:HB3	1.35	1.08
81:CE:56:ARG:CB	81:CE:65:ARG:NH1	2.17	1.08
64:CF:161:LYS:HG3	64:CF:209:TRP:HZ3	1.18	1.08
82:CG:87:LEU:HD23	82:CG:184:ILE:HG13	1.26	1.08
79:CJ:20:LEU:HD13	79:CJ:132:VAL:HG22	1.34	1.08
46:CN:29:GLN:HA	82:CG:67:ARG:HH21	1.13	1.08
49:CQ:187:LYS:NZ	49:CQ:188:ASN:HD22	1.51	1.08
56:CX:89:LYS:NZ	56:CX:137:TYR:CD1	2.21	1.08
57:CY:34:LEU:HD21	57:CY:38:LEU:CB	1.82	1.08
15:AB:63:LYS:O	15:AB:88:THR:O	1.71	1.08
30:AF:59:LYS:HD3	30:AF:62:ARG:HD3	1.36	1.08
29:AG:67:VAL:HG23	29:AG:68:LEU:O	1.54	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AI:141:ARG:O	33:AI:143:LYS:HE2	1.50	1.08
4:AK:16:PHE:CD2	4:AK:79:LEU:HB3	1.88	1.08
4:AK:16:PHE:HE2	4:AK:79:LEU:CB	1.52	1.08
47:CI:101:LYS:NZ	47:CI:101:LYS:HB2	1.64	1.08
47:CI:28:ASP:HB3	47:CI:32:ARG:NH2	1.67	1.08
46:CN:68:ARG:HB3	46:CN:126:THR:O	1.53	1.08
46:CN:7:ILE:HB	46:CN:46:ASP:OD2	0.92	1.08
41:CO:27:VAL:CG1	41:CO:98:ALA:HB1	1.82	1.08
29:AG:129:VAL:CB	58:CW:80:ARG:HH11	1.67	1.08
15:AB:137:LEU:CD2	15:AB:215:VAL:HG22	1.83	1.08
23:AD:157:MET:HE1	23:AD:187:LYS:HD3	1.10	1.08
23:AD:218:LEU:HB2	23:AD:220:THR:CG2	1.82	1.08
30:AF:185:SER:HA	30:AF:190:ILE:HG21	1.11	1.08
30:AF:45:TYR:O	30:AF:47:LYS:HD3	1.44	1.08
11:AL:149:ALA:HB3	11:AL:156:GLN:HG2	1.34	1.08
7:AM:124:ILE:HA	7:AM:127:TYR:CD2	1.88	1.08
34:AQ:74:GLY:O	34:AQ:80:GLN:NE2	1.87	1.08
12:AR:122:PRO:CB	12:AR:123:THR:HG23	1.83	1.08
19:AZ:62:VAL:HG13	19:AZ:68:ILE:HD13	1.16	1.08
63:CB:87:VAL:HG23	63:CB:163:ILE:HG23	1.18	1.08
74:CC:315:LYS:HG2	74:CC:316:LYS:H	1.08	1.08
48:CD:51:MET:CE	48:CD:173:ILE:HD11	1.81	1.08
48:CD:268:ARG:HG3	48:CD:268:ARG:NH1	1.44	1.08
82:CG:152:ALA:HA	82:CG:205:THR:HG23	1.34	1.08
79:CJ:26:VAL:CB	79:CJ:33:LEU:CD2	2.30	1.08
49:CQ:16:LYS:H	49:CQ:16:LYS:HD2	1.17	1.08
58:CW:23:ARG:NH1	58:CW:29:PHE:CE2	2.11	1.08
23:AD:47:GLU:HG2	23:AD:85:GLU:CG	1.82	1.08
30:AF:167:LYS:HD3	30:AF:171:GLU:CB	1.83	1.08
12:AR:84:TYR:O	16:AA:201:LEU:CD1	2.00	1.08
63:CB:153:MET:HE3	63:CB:160:ILE:CD1	1.83	1.08
74:CC:46:LYS:HB3	74:CC:49:ARG:HH11	1.09	1.08
81:CE:212:LEU:CD1	81:CE:216:TYR:CD2	2.32	1.08
82:CG:143:VAL:HA	82:CG:146:LEU:HD21	1.08	1.08
42:CL:126:LEU:HD22	42:CL:136:LYS:O	1.53	1.08
42:CL:61:CYS:CB	42:CL:66:TYR:HB3	1.83	1.08
23:AD:123:LEU:HD21	23:AD:154:ASP:HB3	1.29	1.08
23:AD:201:LYS:HE2	23:AD:201:LYS:HA	1.35	1.08
27:AE:38:LEU:HD12	27:AE:38:LEU:O	1.53	1.08
31:AH:9:VAL:HG12	31:AH:44:ASN:OD1	1.53	1.08
26:AJ:17:ARG:CG	26:AJ:18:ARG:CG	2.30	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:149:ALA:CB	11:AL:156:GLN:HB3	1.79	1.08
5:AO:133:THR:O	15:AB:107:ARG:NH2	1.86	1.08
5:AO:88:LEU:CD1	15:AB:25:PHE:CZ	2.36	1.08
34:AQ:109:LYS:HG3	34:AQ:113:ILE:HD12	1.23	1.08
14:AT:84:ARG:HH21	14:AT:84:ARG:CG	1.67	1.08
74:CC:230:LEU:CD1	74:CC:239:LYS:HD2	1.83	1.08
74:CC:76:ILE:HG23	74:CC:77:PRO:HD3	1.09	1.08
48:CD:48:LYS:HE3	48:CD:145:TYR:CE2	1.89	1.08
64:CF:152:GLU:OE1	74:CC:319:LEU:HD11	1.51	1.08
82:CG:162:ASP:HB2	82:CG:163:PRO:HD3	1.12	1.08
40:CK:131:GLU:CG	40:CK:155:ILE:CD1	2.32	1.08
50:CR:99:MET:HE1	50:CR:128:LYS:N	1.68	1.08
50:CR:24:LEU:HD11	50:CR:32:ILE:HG21	1.08	1.08
58:CW:87:LEU:O	58:CW:90:ILE:N	1.85	1.08
23:AD:112:GLY:N	23:AD:113:LEU:HD12	1.69	1.07
23:AD:132:LYS:N	23:AD:191:PRO:HD3	1.69	1.07
30:AF:41:VAL:HG22	30:AF:42:LYS:HD3	1.25	1.07
26:AJ:130:ILE:HG12	26:AJ:135:ILE:HD13	1.36	1.07
10:AN:132:LYS:HA	10:AN:132:LYS:CE	1.69	1.07
13:AP:62:LYS:O	13:AP:65:LYS:CG	2.01	1.07
30:AF:14:THR:CB	34:AQ:56:LEU:HB3	1.84	1.07
6:AX:52:LEU:HD12	6:AX:53:GLU:N	1.68	1.07
74:CC:147:VAL:CG2	74:CC:175:LYS:HB3	1.82	1.07
49:CQ:110:ARG:HE	49:CQ:120:ILE:HD11	0.92	1.07
52:CS:19:THR:CB	52:CS:20:PRO:CD	2.29	1.07
58:CW:80:ARG:HG3	58:CW:80:ARG:HH21	1.03	1.07
58:CW:87:LEU:HA	58:CW:90:ILE:CG1	1.84	1.07
56:CX:117:TYR:CB	56:CX:119:ILE:CG2	2.31	1.07
57:CY:110:LYS:O	57:CY:115:ARG:NH1	1.87	1.07
23:AD:27:ARG:HB2	23:AD:27:ARG:HH11	4.44	1.07
33:AI:141:ARG:HB2	33:AI:144:LYS:HB2	1.09	1.07
11:AL:146:THR:O	11:AL:147:LYS:HB3	1.28	1.07
8:AS:124:ARG:HD3	8:AS:130:ARG:O	1.51	1.07
14:AT:75:MET:HE3	14:AT:79:TYR:CE2	1.87	1.07
19:AZ:48:VAL:HG22	19:AZ:80:ARG:CD	1.82	1.07
51:CA:209:HIS:HE2	51:CA:235:VAL:HG11	1.18	1.07
51:CA:253:GLN:HB3	51:CA:254:GLU:HA	1.33	1.07
74:CC:296:PRO:CD	74:CC:297:GLU:OE1	2.01	1.07
64:CF:30:ILE:CG2	64:CF:34:ARG:NH2	2.16	1.07
47:CI:104:SER:HA	47:CI:112:GLN:HG3	1.19	1.07
53:CT:36:LYS:HD3	53:CT:37:GLY:N	1.69	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:CX:123:LYS:NZ	56:CX:139:ARG:HB2	1.69	1.07
15:AB:31:TYR:CD1	15:AB:94:LYS:HA	1.89	1.07
27:AE:159:THR:HG23	27:AE:227:VAL:HG22	1.30	1.07
11:AL:147:LYS:C	11:AL:147:LYS:HD3	1.73	1.07
5:AO:35:ALA:CB	5:AO:112:ALA:HB2	1.84	1.07
8:AS:94:LYS:HB3	8:AS:95:TYR:O	1.54	1.07
3:AU:64:THR:HG22	3:AU:79:ARG:HG2	1.09	1.07
18:AY:61:ARG:HH21	18:AY:61:ARG:HG3	0.91	1.07
81:CE:149:ILE:HA	81:CE:163:VAL:CG1	1.84	1.07
81:CE:149:ILE:HA	81:CE:163:VAL:HG13	1.14	1.07
82:CG:104:PRO:O	82:CG:105:GLU:HG3	1.53	1.07
40:CK:10:ILE:CB	40:CK:67:ARG:N	2.11	1.07
41:CO:192:TYR:HB3	44:CM:122:ILE:HD13	1.30	1.07
58:CW:23:ARG:NH1	58:CW:23:ARG:HB2	1.67	1.07
57:CY:22:PRO:HD2	57:CY:25:ILE:HD12	1.35	1.07
4:AK:34:GLU:O	4:AK:35:LEU:HB2	1.31	1.07
12:AR:20:TYR:CZ	12:AR:38:ILE:HB	1.88	1.07
14:AT:111:LYS:HB3	14:AT:126:GLN:NE2	1.68	1.07
6:AX:142:ARG:HH11	6:AX:142:ARG:CG	1.65	1.07
18:AY:13:MET:CE	18:AY:14:THR:O	2.02	1.07
63:CB:92:TYR:CD2	63:CB:99:LEU:HD13	1.87	1.07
74:CC:7:LEU:H	74:CC:24:LEU:HD21	0.91	1.07
74:CC:63:SER:HB2	74:CC:80:ARG:HH11	0.96	1.07
81:CE:83:LYS:CB	81:CE:84:LYS:C	2.22	1.07
64:CF:95:ILE:CD1	64:CF:96:ARG:HG2	1.84	1.07
79:CJ:18:ARG:NH2	79:CJ:139:PHE:CE1	2.23	1.07
40:CK:131:GLU:HG2	40:CK:152:ILE:HG23	1.37	1.07
44:CM:60:PHE:CE2	44:CM:85:LYS:HB3	1.79	1.07
54:CP:2:VAL:CG1	54:CP:3:ARG:H	1.58	1.07
52:CS:164:LYS:CE	52:CS:165:PRO:CD	2.30	1.07
56:CX:41:ARG:HH11	82:CG:55:VAL:HG11	1.09	1.07
56:CX:81:LEU:CG	56:CX:99:ILE:HG13	1.84	1.07
30:AF:14:THR:HG23	34:AQ:56:LEU:HB3	1.28	1.07
29:AG:76:LEU:HD22	29:AG:92:ARG:CG	1.83	1.07
31:AH:191:GLU:O	31:AH:192:PHE:CG	2.08	1.07
33:AI:154:LYS:CA	33:AI:154:LYS:HE2	1.66	1.07
26:AJ:138:ARG:HH11	26:AJ:156:HIS:CG	1.71	1.07
10:AN:12:SER:O	10:AN:13:GLN:CG	2.02	1.07
13:AP:53:GLN:CG	13:AP:80:LEU:HD13	1.74	1.07
12:AR:100:PRO:HA	12:AR:103:LYS:HB2	1.13	1.07
12:AR:19:LYS:HD3	23:AD:212:GLU:HG2	1.30	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AS:58:GLU:C	8:AS:59:LEU:CD1	2.22	1.07
17:AV:81:LYS:HZ2	17:AV:81:LYS:HB2	0.97	1.07
6:AX:142:ARG:HH11	6:AX:142:ARG:HB2	1.19	1.07
48:CD:261:VAL:HG12	48:CD:262:LYS:CA	1.83	1.07
82:CG:190:LEU:C	82:CG:199:CYS:SG	2.32	1.07
41:CO:127:VAL:CG1	52:CS:158:VAL:HG23	1.83	1.07
49:CQ:150:ARG:HB3	49:CQ:164:LYS:HB2	1.37	1.07
43:CV:41:SER:O	43:CV:61:VAL:HG13	1.52	1.07
30:AF:46:ALA:O	30:AF:47:LYS:HD2	1.54	1.07
29:AG:121:ILE:CG2	29:AG:122:PRO:CD	2.33	1.07
11:AL:8:ARG:HH11	33:AI:85:ALA:CB	1.66	1.07
5:AO:35:ALA:HB2	5:AO:112:ALA:HB2	1.33	1.07
18:AY:63:HIS:HB3	18:AY:64:PHE:CE1	1.88	1.07
43:CV:93:GLY:CA	63:CB:73:VAL:HG21	1.82	1.07
80:CH:47:LEU:HD12	80:CH:55:LEU:HD23	1.36	1.07
58:CW:57:ARG:HH11	58:CW:57:ARG:HG2	1.17	1.07
58:CW:76:VAL:HG12	58:CW:77:LYS:N	1.61	1.07
28:AC:169:TYR:CE1	28:AC:177:PRO:HG3	1.89	1.07
28:AC:108:LYS:CE	28:AC:233:LEU:HD21	1.84	1.07
28:AC:66:LEU:HD13	28:AC:93:ILE:HD13	1.30	1.07
30:AF:25:THR:HG21	30:AF:42:LYS:CD	1.78	1.07
4:AK:83:LEU:HB3	4:AK:85:LEU:HD23	1.20	1.07
11:AL:4:ILE:CD1	11:AL:4:ILE:H	1.68	1.07
6:AX:14:ARG:HA	11:AL:99:TYR:CZ	1.89	1.07
5:AO:56:VAL:HG12	5:AO:81:VAL:HG22	1.31	1.07
8:AS:14:ARG:HH12	8:AS:17:ASN:CA	1.68	1.07
6:AX:14:ARG:HA	11:AL:99:TYR:OH	0.90	1.07
81:CE:285:LYS:O	81:CE:287:VAL:HG12	0.91	1.07
82:CG:77:PRO:CG	82:CG:237:TRP:CZ3	2.38	1.07
80:CH:20:LEU:HD22	80:CH:45:LEU:HD13	1.35	1.07
40:CK:56:LEU:CG	40:CK:91:ASP:OD2	2.02	1.07
58:CW:27:LYS:CG	58:CW:28:VAL:N	2.15	1.07
16:AA:66:VAL:HG22	16:AA:186:ARG:HD3	1.14	1.07
27:AE:129:ILE:HG13	27:AE:139:LEU:CD2	1.70	1.07
29:AG:63:MET:HE1	29:AG:106:LEU:CD1	1.80	1.07
31:AH:23:ILE:HD13	31:AH:27:LEU:HD23	1.34	1.07
6:AX:11:ARG:CB	11:AL:103:GLU:OE1	2.03	1.07
32:AW:104:LEU:CD1	32:AW:106:THR:HG23	1.83	1.07
6:AX:2:GLY:O	6:AX:3:LYS:CG	2.01	1.07
19:AZ:103:HIS:CD2	19:AZ:105:ALA:H	1.72	1.07
74:CC:148:PRO:HG3	74:CC:152:LEU:HD11	1.36	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:349:LEU:CD1	74:CC:353:LYS:HE2	1.85	1.07
41:CO:195:VAL:HG21	44:CM:118:MET:HG2	1.36	1.07
54:CP:125:MET:HB2	54:CP:141:SER:OG	1.53	1.07
43:CV:9:SER:OG	43:CV:128:LEU:CG	2.01	1.07
59:CZ:78:ASN:O	59:CZ:79:HIS:CB	1.96	1.07
28:AC:66:LEU:HD22	28:AC:66:LEU:O	1.54	1.07
11:AL:19:ASN:HD21	33:AI:69:SER:HB3	1.11	1.07
34:AQ:30:GLY:HA2	34:AQ:66:VAL:O	1.54	1.07
12:AR:20:TYR:OH	12:AR:38:ILE:CB	2.02	1.07
63:CB:189:THR:HG21	63:CB:192:GLU:OE1	1.49	1.07
74:CC:28:PHE:CE1	74:CC:132:ALA:N	2.22	1.07
74:CC:296:PRO:HD2	74:CC:297:GLU:H	0.96	1.07
40:CK:123:ARG:HD2	40:CK:129:ILE:HD12	1.08	1.07
49:CQ:178:ARG:HD3	49:CQ:185:GLY:HA3	1.33	1.07
49:CQ:25:LEU:CD1	49:CQ:28:LEU:HD21	1.83	1.07
53:CT:135:PRO:O	53:CT:136:ARG:CG	2.02	1.07
53:CT:9:ARG:O	53:CT:55:LYS:NZ	1.87	1.07
81:CE:154:THR:HG23	85:A5:4942:C:OP1	1.55	1.07
27:AE:129:ILE:CG1	27:AE:139:LEU:HD23	1.73	1.07
11:AL:95:TYR:HA	11:AL:102:PHE:HB3	1.15	1.07
12:AR:122:PRO:HA	12:AR:123:THR:HG23	1.13	1.07
8:AS:11:HIS:CD2	8:AS:23:ARG:NH2	2.23	1.07
14:AT:31:PRO:CB	14:AT:33:TRP:CE2	2.36	1.07
18:AY:19:GLN:OE1	18:AY:85:ASN:ND2	1.88	1.07
48:CD:41:LYS:HG2	53:CT:93:ILE:HD11	1.37	1.07
81:CE:56:ARG:HD2	81:CE:65:ARG:CZ	1.84	1.07
82:CG:113:ARG:HD2	82:CG:113:ARG:O	1.52	1.07
82:CG:160:ASP:OD1	82:CG:187:LYS:CD	2.03	1.07
44:CM:12:VAL:CG2	44:CM:58:THR:OG1	2.03	1.07
46:CN:115:VAL:CG2	46:CN:134:LEU:HD21	1.85	1.07
55:CU:84:LYS:CE	55:CU:102:VAL:HB	1.83	1.07
16:AA:145:ILE:HA	16:AA:159:ILE:CG2	1.84	1.06
5:AO:48:SER:N	15:AB:67:PHE:CE1	2.22	1.06
29:AG:50:VAL:CG1	29:AG:111:LEU:HD22	1.84	1.06
12:AR:85:VAL:HG22	16:AA:201:LEU:CB	1.73	1.06
32:AW:26:LEU:HD12	32:AW:26:LEU:O	1.53	1.06
51:CA:94:ALA:HB3	51:CA:102:LEU:CD2	1.83	1.06
51:CA:118:GLU:HG2	51:CA:125:LYS:HZ2	0.99	1.06
48:CD:146:LEU:HD21	48:CD:163:LEU:HD13	1.09	1.06
81:CE:138:ARG:NH2	81:CE:169:ALA:C	2.06	1.06
82:CG:241:VAL:O	82:CG:242:LEU:CB	1.92	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:CG:39:PHE:CZ	82:CG:47:PRO:CG	2.37	1.06
80:CH:93:ARG:HD2	80:CH:143:GLU:CG	1.84	1.06
40:CK:160:VAL:C	40:CK:163:PRO:HD3	1.73	1.06
54:CP:26:PHE:CA	54:CP:144:CYS:SG	2.42	1.06
52:CS:18:PRO:O	52:CS:19:THR:HG22	1.54	1.06
55:CU:48:LYS:CG	55:CU:52:LYS:CA	2.33	1.06
58:CW:33:ASN:O	58:CW:37:GLU:CG	2.01	1.06
10:AN:53:ILE:CD1	15:AB:52:THR:CG2	83.58	1.06
26:AJ:72:PHE:CG	27:AE:248:ILE:HD11	1.79	1.06
29:AG:142:ARG:HD3	29:AG:147:LEU:CB	1.84	1.06
31:AH:191:GLU:O	31:AH:192:PHE:CD1	2.09	1.06
26:AJ:134:HIS:O	26:AJ:135:ILE:HG23	1.54	1.06
26:AJ:170:PRO:HA	26:AJ:174:LYS:NZ	1.70	1.06
26:AJ:89:GLU:O	26:AJ:92:MET:HB2	1.51	1.06
10:AN:28:LEU:HD11	10:AN:58:HIS:NE2	1.69	1.06
34:AQ:114:GLN:HG3	34:AQ:115:TYR:H	1.20	1.06
34:AQ:8:GLN:HG2	34:AQ:99:TYR:CE1	1.84	1.06
74:CC:124:ILE:HD11	74:CC:237:ILE:HD12	1.30	1.06
74:CC:84:THR:O	74:CC:85:HIS:HB3	1.29	1.06
80:CH:41:ILE:HG23	80:CH:42:ASN:H	1.08	1.06
54:CP:6:LEU:HD21	54:CP:116:HIS:NE2	1.43	1.06
50:CR:76:MET:HA	50:CR:76:MET:HE3	1.07	1.06
53:CT:147:GLU:HB3	53:CT:148:PRO:HD3	1.32	1.06
55:CU:80:LYS:HB3	55:CU:110:TYR:OH	1.55	1.06
59:CZ:10:VAL:O	59:CZ:83:THR:CG2	2.04	1.06
4:AK:3:MET:CE	4:AK:8:ARG:CZ	2.31	1.06
14:AT:29:LYS:HE3	14:AT:29:LYS:HA	1.38	1.06
14:AT:46:ALA:HB1	14:AT:47:PRO:HD2	1.08	1.06
17:AV:23:ILE:HD11	28:AC:249:SER:O	1.55	1.06
17:AV:24:ILE:CD1	17:AV:25:GLY:N	2.18	1.06
36:B2:1822:A:H2'	36:B2:1823:A:C8	1.90	1.06
63:CB:111:SER:O	63:CB:114:CYS:N	1.87	1.06
63:CB:378:ARG:CG	63:CB:378:ARG:HH11	1.67	1.06
82:CG:184:ILE:HG23	82:CG:185:LYS:H	0.98	1.06
80:CH:47:LEU:HD13	80:CH:55:LEU:HD21	1.08	1.06
40:CK:10:ILE:HG22	40:CK:66:ASN:HA	1.14	1.06
46:CN:115:VAL:HG22	46:CN:134:LEU:HD21	1.08	1.06
41:CO:65:ASN:CG	41:CO:68:ARG:CD	2.24	1.06
41:CO:7:LEU:CD1	52:CS:167:PHE:CE2	2.35	1.06
58:CW:2:LYS:NZ	58:CW:2:LYS:HB3	1.62	1.06
56:CX:87:MET:HA	56:CX:90:ILE:HD12	1.10	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:105:LEU:HD12	15:AB:110:MET:HE2	1.17	1.06
29:AG:176:ILE:HG21	29:AG:179:LEU:HD22	1.12	1.06
29:AG:50:VAL:HG11	29:AG:111:LEU:CD1	1.84	1.06
31:AH:10:LYS:CE	31:AH:17:ASP:H	1.68	1.06
13:AP:68:PRO:CB	13:AP:69:PRO:HD3	1.84	1.06
6:AX:94:ILE:HG12	6:AX:125:VAL:HG21	1.32	1.06
6:AX:7:LEU:O	11:AL:101:ARG:HB3	1.55	1.06
18:AY:20:ARG:CD	18:AY:74:MET:HE2	1.86	1.06
51:CA:32:VAL:CG2	51:CA:163:ARG:NH1	1.79	1.06
51:CA:242:ARG:HH12	51:CA:247:ARG:NH2	1.51	1.06
63:CB:58:ARG:HA	63:CB:366:LYS:HG3	1.36	1.06
74:CC:5:ARG:HG3	74:CC:24:LEU:HD12	1.17	1.06
44:CM:19:PRO:HD2	44:CM:20:HIS:H	1.17	1.06
49:CQ:119:LYS:HE3	49:CQ:121:LEU:HD21	1.37	1.06
52:CS:153:PRO:O	52:CS:155:PRO:HD3	1.54	1.06
16:AA:11:LYS:HG2	16:AA:13:GLU:CG	1.84	1.06
28:AC:192:LEU:CD2	28:AC:227:ARG:HG3	1.84	1.06
29:AG:176:ILE:HG22	29:AG:179:LEU:HB3	1.25	1.06
26:AJ:50:LEU:HD12	26:AJ:102:ILE:CD1	1.85	1.06
26:AJ:66:LYS:HA	26:AJ:71:LEU:HD11	1.37	1.06
10:AN:16:LEU:HD11	10:AN:62:GLN:HE22	1.13	1.06
8:AS:124:ARG:NH1	13:AP:123:TYR:CZ	2.11	1.06
31:AH:143:ARG:HE	32:AW:53:ILE:HG23	1.10	1.06
6:AX:126:ALA:HB3	6:AX:128:VAL:CB	1.84	1.06
74:CC:147:VAL:HG22	74:CC:175:LYS:HB3	1.08	1.06
80:CH:86:LEU:HD21	80:CH:189:GLN:HB2	1.10	1.06
44:CM:79:LYS:O	44:CM:79:LYS:HD2	1.53	1.06
53:CT:68:THR:OG1	53:CT:71:ALA:HB3	0.89	1.06
53:CT:7:LYS:HE2	53:CT:54:HIS:CD2	1.85	1.06
16:AA:127:PRO:HB2	16:AA:153:PRO:HG2	1.38	1.06
17:AV:23:ILE:HD12	28:AC:249:SER:HA	1.38	1.06
31:AH:15:LYS:HB3	31:AH:16:PRO:CD	1.84	1.06
26:AJ:89:GLU:N	26:AJ:92:MET:SD	2.29	1.06
7:AM:12:MET:HE1	7:AM:17:ALA:O	1.55	1.06
13:AP:39:ALA:HA	13:AP:42:ARG:NE	1.71	1.06
13:AP:53:GLN:HG2	13:AP:80:LEU:HD11	1.26	1.06
18:AY:36:PRO:HG2	18:AY:39:GLU:HG3	1.36	1.06
63:CB:107:ALA:HA	63:CB:201:LEU:HD23	1.35	1.06
63:CB:282:LYS:N	63:CB:282:LYS:HD2	1.66	1.06
63:CB:297:LYS:O	63:CB:300:LYS:HE3	1.54	1.06
63:CB:34:LYS:N	63:CB:34:LYS:HD2	1.63	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:14:LYS:CD	74:CC:15:GLY:N	2.17	1.06
74:CC:168:VAL:CG2	74:CC:224:ILE:HD11	1.85	1.06
48:CD:223:PHE:CD1	48:CD:226:TYR:CD2	2.42	1.06
82:CG:85:GLN:O	82:CG:183:ILE:HD13	1.55	1.06
80:CH:7:ASN:HB3	80:CH:58:ASP:OD1	1.47	1.06
80:CH:93:ARG:HE	80:CH:143:GLU:CG	1.67	1.06
41:CO:177:LEU:HB3	44:CM:130:LEU:HD23	1.33	1.06
50:CR:133:LYS:HD2	50:CR:137:ILE:HB	1.35	1.06
52:CS:147:ASP:HA	52:CS:148:SER:HB2	1.37	1.06
85:A5:958:G:C1'	85:A5:958:G:O4'	1.69	1.06
28:AC:113:GLN:HB2	28:AC:121:ARG:O	1.55	1.06
3:AU:61:LEU:CD2	23:AD:34:TYR:CE1	27.27	1.06
33:AI:136:ILE:HG23	33:AI:139:LYS:HE3	1.14	1.06
4:AK:11:ILE:CG2	4:AK:49:MET:HE1	1.68	1.06
18:AY:10:ARG:HE	18:AY:24:VAL:CG1	1.68	1.06
74:CC:147:VAL:HG13	74:CC:152:LEU:CD2	1.80	1.06
81:CE:83:LYS:NZ	81:CE:86:GLU:O	1.87	1.06
80:CH:106:GLN:HB3	80:CH:107:GLU:HG3	1.11	1.06
79:CJ:135:GLY:CA	79:CJ:139:PHE:HE2	1.68	1.06
79:CJ:26:VAL:CG1	79:CJ:33:LEU:CD2	2.34	1.06
46:CN:138:PHE:HA	46:CN:143:ARG:CZ	1.85	1.06
46:CN:44:ARG:HG3	46:CN:119:TYR:CE1	1.91	1.06
50:CR:10:LEU:HB3	50:CR:41:ILE:HD13	1.29	1.06
43:CV:39:ILE:HG23	43:CV:61:VAL:HG11	1.30	1.06
58:CW:12:LYS:O	58:CW:32:LEU:CD2	2.03	1.06
8:AS:39:ARG:CD	14:AT:38:LYS:CE	2.33	1.06
3:AU:48:LEU:N	3:AU:48:LEU:HD23	1.65	1.06
51:CA:118:GLU:CB	51:CA:125:LYS:HZ2	1.69	1.06
74:CC:144:ILE:HG23	74:CC:147:VAL:HG21	1.11	1.06
74:CC:283:LYS:HB2	74:CC:283:LYS:NZ	1.70	1.06
74:CC:296:PRO:HD2	74:CC:297:GLU:N	1.67	1.06
47:CI:214:SER:C	48:CD:291:GLN:NE2	2.09	1.06
81:CE:45:SER:CB	81:CE:49:VAL:HG11	1.73	1.06
80:CH:50:LYS:CE	80:CH:50:LYS:H	1.69	1.06
79:CJ:163:MET:HE2	79:CJ:174:ILE:HD13	1.08	1.06
40:CK:117:ARG:HE	40:CK:117:ARG:CA	1.67	1.06
41:CO:119:VAL:HG12	41:CO:124:LEU:HD11	1.09	1.06
44:CM:35:ARG:NH2	52:CS:108:GLN:NE2	2.04	1.06
55:CU:39:PHE:CD2	55:CU:70:ILE:CD1	2.37	1.06
43:CV:110:GLY:HA3	43:CV:129:TRP:HZ3	1.03	1.06
16:AA:125:THR:O	16:AA:147:LEU:CB	2.02	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:218:LEU:CG	23:AD:220:THR:HG21	1.80	1.06
29:AG:121:ILE:HG23	29:AG:122:PRO:HD3	1.09	1.06
31:AH:37:LYS:HE2	31:AH:41:ARG:HH11	1.17	1.06
11:AL:147:LYS:CD	11:AL:148:ALA:CA	2.30	1.06
11:AL:17:PHE:CE1	11:AL:18:GLN:O	2.08	1.06
10:AN:132:LYS:CA	10:AN:132:LYS:HE3	1.70	1.06
34:AQ:112:LEU:HD22	34:AQ:119:LEU:CD1	1.85	1.06
34:AQ:76:GLY:O	34:AQ:80:GLN:HG3	1.56	1.06
8:AS:120:HIS:CD2	8:AS:124:ARG:NE	2.23	1.06
6:AX:139:GLU:C	6:AX:141:PRO:HD3	1.76	1.06
18:AY:61:ARG:HD2	18:AY:61:ARG:N	1.71	1.06
19:AZ:64:ASN:O	19:AZ:111:ARG:NH2	1.89	1.06
81:CE:223:ARG:HD2	81:CE:223:ARG:N	1.51	1.06
74:CC:341:LEU:CD1	81:CE:52:ARG:HH22	1.62	1.06
44:CM:63:LYS:HE2	44:CM:63:LYS:C	1.75	1.06
54:CP:48:LEU:CD1	54:CP:91:LEU:HD11	1.83	1.06
55:CU:80:LYS:CB	55:CU:110:TYR:OH	2.01	1.06
59:CZ:47:ASP:OD2	59:CZ:69:LYS:CD	2.04	1.06
15:AB:113:MET:SD	15:AB:211:PHE:CE2	2.49	1.06
23:AD:177:LEU:HD23	23:AD:182:LEU:CD2	1.85	1.06
13:AP:4:VAL:N	13:AP:10:ARG:CG	2.19	1.06
51:CA:82:ILE:HD11	51:CA:99:GLY:HA2	1.33	1.06
74:CC:91:ALA:C	74:CC:92:PHE:CD2	2.29	1.06
48:CD:199:ILE:HG22	48:CD:200:MET:CE	1.86	1.06
48:CD:261:VAL:CB	48:CD:262:LYS:HA	1.86	1.06
82:CG:27:VAL:O	82:CG:31:LEU:HD21	1.52	1.06
79:CJ:53:ALA:HB2	79:CJ:68:ILE:CD1	1.86	1.06
40:CK:12:VAL:HB	40:CK:65:GLN:OE1	1.54	1.06
42:CL:75:GLY:O	42:CL:102:ARG:NH2	1.88	1.06
46:CN:192:TRP:HA	46:CN:195:ARG:HD2	1.38	1.06
49:CQ:14:ARG:O	49:CQ:14:ARG:HG2	1.43	1.06
52:CS:19:THR:HB	52:CS:20:PRO:HD2	1.07	1.06
56:CX:76:ILE:HG21	56:CX:112:ALA:HB2	1.38	1.06
59:CZ:16:GLY:O	59:CZ:19:SER:N	1.87	1.06
16:AA:30:LEU:HD21	16:AA:35:GLU:HG3	1.06	1.05
23:AD:201:LYS:O	23:AD:203:PRO:CD	2.04	1.05
26:AJ:131:ARG:HD2	26:AJ:143:ASN:OD1	1.56	1.05
11:AL:94:HIS:CB	11:AL:105:ARG:HD2	1.85	1.05
14:AT:77:LYS:CG	14:AT:92:PHE:CZ	2.34	1.05
31:AH:144:ILE:HB	32:AW:52:ILE:HG22	1.09	1.05
6:AX:95:GLU:CG	6:AX:140:ARG:HH22	1.69	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:147:GLY:O	81:CE:201:ILE:HG22	1.56	1.05
79:CJ:26:VAL:HG11	79:CJ:33:LEU:CD2	1.85	1.05
54:CP:6:LEU:HD23	54:CP:116:HIS:NE2	1.39	1.05
50:CR:4:LEU:HD11	50:CR:33:ALA:HB2	1.24	1.05
53:CT:145:GLY:C	53:CT:146:LYS:HG2	1.75	1.05
31:AH:164:ASN:OD1	31:AH:167:GLU:OE2	1.73	1.05
13:AP:70:MET:SD	79:CJ:93:GLU:OE1	2.14	1.05
18:AY:36:PRO:CD	18:AY:39:GLU:OE1	2.04	1.05
48:CD:190:PHE:HZ	48:CD:195:HIS:CB	1.69	1.05
82:CG:28:VAL:CA	82:CG:31:LEU:HD21	1.82	1.05
47:CI:99:ILE:HD12	47:CI:123:GLN:CD	1.76	1.05
50:CR:24:LEU:CD1	50:CR:32:ILE:HG21	1.85	1.05
50:CR:4:LEU:HD13	50:CR:33:ALA:HA	1.38	1.05
52:CS:98:ARG:HD2	52:CS:145:PHE:HB3	1.36	1.05
52:CS:2:LYS:NZ	52:CS:43:ARG:HG3	1.65	1.05
53:CT:39:ILE:HD12	53:CT:102:ARG:HD3	1.09	1.05
43:CV:57:VAL:HG12	43:CV:125:CYS:SG	1.95	1.05
58:CW:46:PRO:HB2	58:CW:54:LEU:HD23	1.37	1.05
29:AG:145:PHE:HB3	29:AG:147:LEU:HD11	1.30	1.05
4:AK:60:GLU:OE2	4:AK:67:PHE:HD1	1.38	1.05
7:AM:69:LEU:HD13	7:AM:76:LEU:HD23	1.33	1.05
13:AP:10:ARG:HH21	13:AP:11:THR:CG2	1.69	1.05
34:AQ:54:PRO:HG3	34:AQ:88:ILE:HD11	1.37	1.05
34:AQ:85:ARG:HH22	34:AQ:117:ARG:HG2	1.19	1.05
18:AY:78:SER:HB2	18:AY:81:TYR:CD2	1.90	1.05
74:CC:5:ARG:HG2	74:CC:24:LEU:CB	1.85	1.05
82:CG:27:VAL:C	82:CG:31:LEU:HD21	1.76	1.05
79:CJ:135:GLY:CA	79:CJ:139:PHE:CE2	2.40	1.05
42:CL:61:CYS:HB2	42:CL:66:TYR:HB3	1.09	1.05
49:CQ:187:LYS:HE2	49:CQ:188:ASN:H	1.17	1.05
50:CR:112:SER:O	50:CR:113:LYS:HB2	1.51	1.05
52:CS:87:ARG:HH11	52:CS:87:ARG:HG2	0.89	1.05
43:CV:57:VAL:CG1	43:CV:125:CYS:SG	2.44	1.05
59:CZ:30:ASP:OD2	59:CZ:31:ASP:HB2	1.56	1.05
16:AA:30:LEU:HD11	16:AA:38:ILE:HD11	1.35	1.05
16:AA:85:ARG:HH21	16:AA:201:LEU:HD12	1.21	1.05
26:AJ:89:GLU:HA	26:AJ:92:MET:SD	1.95	1.05
12:AR:38:ILE:C	23:AD:211:VAL:CG2	2.23	1.05
32:AW:90:GLN:HA	32:AW:102:ILE:HD11	1.37	1.05
81:CE:113:PRO:HD2	81:CE:114:ARG:H	1.11	1.05
81:CE:121:VAL:HG22	81:CE:122:PRO:HD3	1.39	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:223:ARG:O	81:CE:224:LYS:CE	2.05	1.05
40:CK:102:GLY:HA2	40:CK:139:VAL:HG12	1.38	1.05
40:CK:49:ALA:CA	40:CK:52:ASP:OD2	2.03	1.05
54:CP:24:VAL:HG12	54:CP:90:PHE:CE2	1.89	1.05
56:CX:41:ARG:HD2	82:CG:55:VAL:HG21	1.36	1.05
85:A5:1359:G:C1'	85:A5:1359:G:O4'	1.63	1.05
27:AE:21:ASP:OD2	27:AE:24:THR:HG21	1.52	1.05
11:AL:80:MET:HE2	11:AL:120:VAL:O	1.40	1.05
10:AN:125:LEU:HD13	10:AN:129:TYR:HE2	1.11	1.05
13:AP:8:LYS:O	13:AP:11:THR:HG22	1.54	1.05
34:AQ:58:LEU:CD2	34:AQ:111:ILE:HD13	1.84	1.05
34:AQ:58:LEU:CD1	34:AQ:108:ILE:HG23	1.86	1.05
12:AR:91:LEU:H	12:AR:91:LEU:HD12	1.10	1.05
12:AR:91:LEU:HB2	12:AR:92:ASP:C	1.77	1.05
18:AY:51:THR:HB	18:AY:52:PRO:HD3	1.34	1.05
19:AZ:80:ARG:HG2	19:AZ:82:SER:OG	1.56	1.05
63:CB:219:VAL:HG11	63:CB:345:LEU:HD21	1.32	1.05
48:CD:271:MET:HE3	48:CD:275:GLN:CB	1.84	1.05
48:CD:79:TYR:HB2	48:CD:81:HIS:CE1	1.89	1.05
40:CK:94:LYS:CD	40:CK:96:LYS:HE3	1.85	1.05
42:CL:19:GLN:HB2	42:CL:20:ARG:NH1	1.67	1.05
46:CN:116:LEU:CD1	46:CN:151:ILE:HD13	1.86	1.05
49:CQ:154:LYS:CE	49:CQ:156:PRO:HD3	1.86	1.05
59:CZ:105:ALA:O	59:CZ:108:ARG:HG3	1.56	1.05
59:CZ:115:LYS:NZ	59:CZ:119:GLU:OE2	1.89	1.05
59:CZ:57:MET:HE1	59:CZ:61:LYS:CB	1.85	1.05
30:AF:45:TYR:O	30:AF:47:LYS:HE2	1.56	1.05
30:AF:76:MET:HE1	30:AF:169:ILE:HG21	1.32	1.05
26:AJ:72:PHE:CE1	27:AE:248:ILE:CG1	2.39	1.05
26:AJ:91:LYS:HA	26:AJ:96:TYR:HB2	1.29	1.05
4:AK:11:ILE:HG23	4:AK:49:MET:CE	1.84	1.05
11:AL:10:TYR:CE2	11:AL:12:LYS:HE3	1.92	1.05
18:AY:7:ILE:CD1	18:AY:43:LYS:HB3	1.86	1.05
51:CA:143:THR:HA	51:CA:144:LYS:HG2	1.12	1.05
63:CB:354:GLN:HA	63:CB:354:GLN:OE1	1.47	1.05
74:CC:230:LEU:HD11	74:CC:239:LYS:HD2	1.36	1.05
47:CI:59:GLN:HB3	47:CI:126:VAL:HG11	1.39	1.05
47:CI:177:ASN:HB3	47:CI:180:GLU:OE1	1.53	1.05
47:CI:193:ASP:OD2	47:CI:198:LYS:HG3	1.50	1.05
44:CM:107:PHE:HE1	81:CE:270:TYR:HB2	1.13	1.05
41:CO:12:ARG:HD2	41:CO:37:ARG:NH1	0.72	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CP:71:ALA:HA	54:CP:74:LYS:HE3	1.38	1.05
54:CP:48:LEU:HD13	54:CP:91:LEU:HD11	1.10	1.05
52:CS:29:ARG:O	53:CT:150:LEU:HG	1.57	1.05
56:CX:76:ILE:O	56:CX:76:ILE:HD12	1.57	1.05
16:AA:120:ARG:CD	28:AC:266:TYR:HE2	1.68	1.05
29:AG:41:LEU:CD2	29:AG:45:TRP:HZ3	1.37	1.05
29:AG:50:VAL:HG12	29:AG:111:LEU:HD22	1.31	1.05
31:AH:83:LEU:HD22	31:AH:92:VAL:HG11	1.09	1.05
33:AI:142:SER:HB2	33:AI:143:LYS:NZ	1.72	1.05
26:AJ:39:ASN:OD1	26:AJ:42:GLU:OE2	1.73	1.05
4:AK:66:HIS:HE1	23:AD:76:ARG:CD	1.63	1.05
3:AU:50:VAL:HG21	3:AU:52:GLY:HA2	1.05	1.05
17:AV:42:VAL:O	17:AV:43:THR:HG23	1.55	1.05
74:CC:133:LEU:HD21	74:CC:136:LEU:CD1	1.87	1.05
81:CE:233:PHE:HB3	81:CE:235:THR:OG1	1.55	1.05
49:CQ:25:LEU:HD12	49:CQ:28:LEU:HD21	1.09	1.05
16:AA:39:TYR:HB2	16:AA:50:ASN:ND2	1.70	1.05
28:AC:91:SER:O	28:AC:94:ILE:HG23	1.54	1.05
27:AE:70:ILE:HG12	27:AE:92:ILE:HD13	1.37	1.05
31:AH:93:VAL:CG2	31:AH:94:PHE:N	2.13	1.05
74:CC:122:TYR:HD1	74:CC:280:PRO:CG	1.67	1.05
44:CM:107:PHE:CE1	81:CE:270:TYR:CB	2.36	1.05
82:CG:146:LEU:HD12	82:CG:147:VAL:N	1.68	1.05
82:CG:183:ILE:HG23	82:CG:184:ILE:N	1.51	1.05
46:CN:116:LEU:HD13	46:CN:151:ILE:HD13	1.38	1.05
52:CS:154:LEU:HD13	52:CS:157:ARG:HD2	1.38	1.05
53:CT:122:LYS:HB3	53:CT:124:THR:OG1	1.54	1.05
56:CX:76:ILE:HG21	56:CX:112:ALA:CB	1.85	1.05
56:CX:87:MET:HA	56:CX:90:ILE:HD11	1.39	1.05
5:AO:88:LEU:HD13	15:AB:25:PHE:CD2	1.90	1.05
30:AF:42:LYS:C	30:AF:44:LYS:N	1.88	1.05
13:AP:82:ASP:OD2	36:B2:1619:A:O2'	1.75	1.05
8:AS:120:HIS:CD2	8:AS:124:ARG:HE	1.73	1.05
17:AV:1:MET:HE1	17:AV:10:ASP:HB2	1.35	1.05
51:CA:143:THR:HA	51:CA:144:LYS:CB	1.84	1.05
40:CK:117:ARG:N	40:CK:117:ARG:HE	1.53	1.05
41:CO:121:PRO:HD2	41:CO:122:ALA:H	1.19	1.05
55:CU:91:LEU:CD2	55:CU:96:LEU:HB2	1.86	1.05
59:CZ:47:ASP:OD2	59:CZ:69:LYS:HD3	1.56	1.05
27:AE:152:PRO:HD2	29:AG:212:LEU:CD2	1.85	1.05
31:AH:10:LYS:HE3	31:AH:17:ASP:N	1.72	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:157:LYS:C	11:AL:158:PHE:HD2	1.56	1.05
8:AS:123:LEU:CD1	13:AP:121:ILE:HG21	1.86	1.05
14:AT:46:ALA:CB	14:AT:47:PRO:HD2	1.86	1.05
48:CD:57:ASN:CA	48:CD:58:ARG:CD	2.29	1.05
82:CG:151:LYS:C	82:CG:205:THR:HG22	1.76	1.05
49:CQ:66:MET:SD	49:CQ:100:VAL:CG2	2.45	1.05
15:AB:19:LYS:O	15:AB:21:VAL:CG1	2.05	1.04
30:AF:154:LEU:HD12	30:AF:155:CYS:N	1.71	1.04
33:AI:140:LYS:HG3	33:AI:141:ARG:H	1.16	1.04
26:AJ:21:GLU:O	26:AJ:23:SER:N	1.88	1.04
4:AK:14:LEU:HD22	4:AK:35:LEU:HD22	1.09	1.04
8:AS:120:HIS:CE1	8:AS:124:ARG:NH2	2.25	1.04
8:AS:61:GLU:O	8:AS:64:VAL:CG2	2.05	1.04
17:AV:40:ASP:CB	17:AV:47:ASN:ND2	2.20	1.04
81:CE:51:VAL:CG1	81:CE:52:ARG:HA	1.86	1.04
82:CG:162:ASP:CB	82:CG:163:PRO:CD	2.35	1.04
47:CI:72:ALA:O	47:CI:76:MET:HG3	1.54	1.04
40:CK:38:SER:HB2	40:CK:39:PRO:HD3	1.07	1.04
81:CE:106:VAL:CB	81:CE:107:VAL:CA	2.29	1.04
64:CF:67:THR:OG1	64:CF:71:MET:CE	2.06	1.04
79:CJ:90:ARG:NH2	79:CJ:108:GLY:CA	2.20	1.04
41:CO:190:ASP:CG	41:CO:193:THR:HB	1.76	1.04
59:CZ:57:MET:SD	59:CZ:58:GLY:N	2.30	1.04
16:AA:11:LYS:CG	16:AA:13:GLU:CG	2.35	1.04
23:AD:18:LYS:NZ	23:AD:37:VAL:HG23	1.71	1.04
12:AR:15:VAL:HG12	23:AD:210:ILE:HD13	1.33	1.04
29:AG:74:ARG:HD3	29:AG:94:ARG:HD2	1.36	1.04
26:AJ:88:ASP:O	26:AJ:91:LYS:HB2	1.55	1.04
10:AN:38:TYR:HE2	10:AN:74:ILE:HG22	1.21	1.04
34:AQ:42:ILE:HD13	34:AQ:51:LEU:HD22	1.33	1.04
34:AQ:8:GLN:HG3	34:AQ:99:TYR:CE1	1.76	1.04
12:AR:122:PRO:HA	12:AR:123:THR:CG2	1.86	1.04
14:AT:31:PRO:HB3	14:AT:33:TRP:CE2	1.91	1.04
6:AX:100:VAL:HG12	6:AX:125:VAL:HG22	1.36	1.04
6:AX:105:PHE:CE2	6:AX:119:ARG:CA	2.36	1.04
74:CC:22:VAL:CG2	74:CC:258:ARG:HE	1.55	1.04
74:CC:296:PRO:CD	74:CC:297:GLU:H	1.69	1.04
81:CE:215:ALA:CA	81:CE:218:LYS:HE2	1.86	1.04
47:CI:47:PRO:HB3	47:CI:171:TRP:CZ3	1.91	1.04
47:CI:38:ARG:CG	47:CI:83:ASP:HB2	1.87	1.04
15:AB:66:VAL:HG21	15:AB:87:ILE:HG22	1.34	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:176:LEU:N	23:AD:176:LEU:HD12	1.68	1.04
33:AI:48:VAL:HG22	33:AI:52:ASN:O	1.57	1.04
11:AL:80:MET:HE1	11:AL:121:GLN:HA	1.38	1.04
13:AP:41:GLN:HG2	13:AP:84:ILE:CG2	1.57	1.04
13:AP:41:GLN:HG3	13:AP:84:ILE:CG2	1.65	1.04
32:AW:128:PHE:CE1	32:AW:130:PHE:CE2	2.45	1.04
18:AY:29:HIS:CE1	18:AY:67:GLY:CA	2.39	1.04
74:CC:315:LYS:HG2	74:CC:316:LYS:N	1.65	1.04
40:CK:94:LYS:CA	40:CK:96:LYS:HD2	1.87	1.04
49:CQ:110:ARG:NE	49:CQ:120:ILE:HD13	1.72	1.04
53:CT:16:SER:O	53:CT:18:PRO:HD3	1.57	1.04
57:CY:55:VAL:CG1	57:CY:104:VAL:HG13	1.82	1.04
85:A5:4881:U:H5''	85:A5:4882:U:C5	1.92	1.04
28:AC:164:PRO:HB2	28:AC:248:TYR:CD2	1.93	1.04
23:AD:158:ILE:HD13	23:AD:189:MET:HE2	1.33	1.04
29:AG:70:HIS:HB2	29:AG:103:ASP:OD2	1.55	1.04
29:AG:130:PRO:CA	58:CW:81:ALA:HB3	1.86	1.04
33:AI:139:LYS:CB	33:AI:145:ILE:CD1	2.34	1.04
14:AT:111:LYS:CB	14:AT:126:GLN:NE2	2.21	1.04
74:CC:313:VAL:CA	74:CC:314:LEU:CD2	2.29	1.04
74:CC:76:ILE:CG2	74:CC:77:PRO:HD3	1.78	1.04
81:CE:96:VAL:CG1	81:CE:97:GLY:H	1.68	1.04
64:CF:219:GLY:O	64:CF:220:MET:HB2	1.55	1.04
82:CG:75:LYS:HD3	82:CG:240:ASN:HB2	1.07	1.04
79:CJ:48:PRO:HA	79:CJ:72:CYS:SG	1.97	1.04
40:CK:125:LEU:HD12	40:CK:163:PRO:HB3	1.35	1.04
42:CL:21:ARG:HG2	46:CN:196:ASN:O	1.54	1.04
41:CO:177:LEU:HD23	44:CM:130:LEU:HD21	1.38	1.04
41:CO:16:LEU:HD23	41:CO:41:ILE:CG1	1.86	1.04
41:CO:181:ALA:HB1	44:CM:126:GLU:HG2	1.35	1.04
54:CP:4:TYR:OH	54:CP:17:SER:O	1.71	1.04
49:CQ:124:ASP:OD2	74:CC:284:MET:HG2	1.55	1.04
12:AR:5:ARG:O	12:AR:10:LYS:CE	2.05	1.04
63:CB:159:VAL:HG11	63:CB:184:GLN:OE1	1.58	1.04
82:CG:163:PRO:HG2	82:CG:166:LEU:HD12	1.31	1.04
41:CO:82:ARG:HA	41:CO:85:ARG:CD	1.87	1.04
53:CT:127:GLN:C	53:CT:128:LEU:HD23	1.77	1.04
58:CW:91:MET:SD	58:CW:91:MET:N	2.30	1.04
57:CY:110:LYS:CA	57:CY:115:ARG:NH1	2.19	1.04
28:AC:74:LYS:HG3	28:AC:269:PHE:CD1	1.92	1.04
30:AF:91:ARG:HH11	30:AF:94:LYS:HB3	1.23	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AI:142:SER:HB2	33:AI:143:LYS:HZ3	1.21	1.04
33:AI:154:LYS:HD3	33:AI:155:ASN:N	1.72	1.04
26:AJ:37:LEU:HD21	26:AJ:42:GLU:CB	1.87	1.04
4:AK:40:VAL:HG22	4:AK:41:PRO:O	1.56	1.04
14:AT:84:ARG:HH21	14:AT:84:ARG:HG3	1.22	1.04
3:AU:61:LEU:HD22	23:AD:34:TYR:CE1	27.23	1.04
31:AH:146:VAL:CG1	32:AW:42:MET:SD	2.46	1.04
18:AY:54:VAL:O	18:AY:75:ILE:HA	1.55	1.04
51:CA:144:LYS:O	51:CA:145:LYS:CG	2.04	1.04
74:CC:109:ARG:HG2	74:CC:111:TRP:CH2	1.92	1.04
81:CE:181:LEU:HD11	81:CE:268:GLN:CG	1.86	1.04
46:CN:21:PHE:CE2	82:CG:80:ILE:HD12	1.89	1.04
59:CZ:29:ILE:HD13	59:CZ:40:HIS:CD2	1.93	1.04
28:AC:157:LEU:CA	28:AC:160:LEU:CD2	2.34	1.04
28:AC:166:ARG:HH12	28:AC:255:LEU:HD11	0.88	1.04
27:AE:208:VAL:CG1	27:AE:225:ILE:HD13	1.86	1.04
29:AG:14:LYS:HZ2	29:AG:123:GLY:CA	1.66	1.04
29:AG:64:LYS:CG	29:AG:67:VAL:HG13	1.87	1.04
13:AP:41:GLN:HG3	13:AP:84:ILE:HG21	1.13	1.04
31:AH:145:ARG:HD2	32:AW:51:GLU:CG	1.87	1.04
74:CC:128:LEU:HD21	74:CC:235:LEU:HD13	1.35	1.04
48:CD:21:ARG:HG3	48:CD:24:ARG:HH12	1.14	1.04
82:CG:154:LEU:HD12	82:CG:204:PHE:HD2	1.20	1.04
42:CL:27:ASN:O	42:CL:29:PRO:HD2	1.58	1.04
46:CN:4:TYR:HD1	46:CN:46:ASP:OD1	1.39	1.04
52:CS:83:ARG:HD3	53:CT:155:PRO:HA	1.08	1.04
16:AA:145:ILE:HD12	16:AA:159:ILE:HG21	1.36	1.04
16:AA:66:VAL:HG11	16:AA:186:ARG:HB3	1.35	1.04
29:AG:32:MET:HE1	29:AG:100:CYS:HA	1.06	1.04
31:AH:144:ILE:HD12	32:AW:52:ILE:HG21	1.05	1.04
5:AO:56:VAL:CG1	5:AO:81:VAL:HG22	1.83	1.04
34:AQ:47:LEU:HD22	34:AQ:81:ILE:HD12	1.26	1.04
12:AR:90:ALA:HB1	12:AR:92:ASP:OD2	1.58	1.04
3:AU:18:HIS:HE1	3:AU:98:VAL:HG21	1.23	1.04
19:AZ:73:VAL:HG12	19:AZ:79:ILE:HG21	1.35	1.04
63:CB:356:LYS:HA	63:CB:356:LYS:HE2	1.09	1.04
48:CD:130:TYR:C	48:CD:130:TYR:CD2	2.30	1.04
48:CD:56:THR:O	48:CD:58:ARG:CD	2.04	1.04
47:CI:92:HIS:HB3	47:CI:94:PHE:CE2	1.93	1.04
40:CK:124:GLU:HB2	40:CK:128:THR:CG2	1.87	1.04
46:CN:64:ILE:CD1	46:CN:102:ALA:CA	2.34	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:68:ARG:CD	46:CN:125:SER:O	2.05	1.04
41:CO:82:ARG:HA	41:CO:85:ARG:HD2	1.36	1.04
54:CP:18:ARG:HG3	85:A5:399:G:H5"	1.40	1.04
58:CW:50:ASN:OD1	58:CW:55:TYR:CZ	2.10	1.04
30:AF:14:THR:HG21	34:AQ:56:LEU:CD1	1.88	1.04
29:AG:121:ILE:HG23	29:AG:122:PRO:HD2	1.39	1.04
5:AO:56:VAL:CG1	5:AO:81:VAL:HG23	1.88	1.04
34:AQ:9:SER:HB3	34:AQ:26:LYS:HG2	1.40	1.04
14:AT:89:PRO:O	14:AT:91:HIS:NE2	1.90	1.04
31:AH:144:ILE:CB	32:AW:52:ILE:HG23	1.86	1.04
63:CB:174:ARG:HH11	63:CB:174:ARG:HG3	0.90	1.04
63:CB:298:LEU:CA	63:CB:299:ILE:N	2.19	1.04
63:CB:311:ASP:O	63:CB:312:LYS:HB3	1.56	1.04
48:CD:90:VAL:HG21	48:CD:226:TYR:CE1	1.92	1.04
48:CD:58:ARG:HH12	48:CD:93:THR:CB	1.69	1.04
81:CE:95:PRO:O	81:CE:96:VAL:HG23	1.58	1.04
47:CI:112:GLN:O	47:CI:113:THR:HG23	1.58	1.04
49:CQ:24:TYR:N	49:CQ:24:TYR:HD2	3.13	1.04
50:CR:101:ILE:HA	50:CR:104:ARG:HD2	1.38	1.04
85:A5:315:G:OP2	85:A5:4355:G:OP1	1.75	1.03
23:AD:105:LEU:HD23	23:AD:184:ILE:HD12	1.04	1.03
31:AH:9:VAL:CG1	31:AH:44:ASN:OD1	2.06	1.03
11:AL:146:THR:O	11:AL:147:LYS:CB	2.04	1.03
63:CB:47:LEU:HD11	63:CB:344:VAL:HG13	1.38	1.03
74:CC:168:VAL:HG22	74:CC:224:ILE:HD13	1.39	1.03
48:CD:184:ASP:OD2	48:CD:186:GLU:O	1.74	1.03
48:CD:271:MET:HE3	48:CD:275:GLN:HB2	1.40	1.03
81:CE:145:THR:HG21	81:CE:200:LYS:HG2	1.38	1.03
82:CG:46:GLN:NE2	82:CG:47:PRO:CD	2.19	1.03
82:CG:89:ARG:O	82:CG:93:THR:HG23	1.56	1.03
80:CH:86:LEU:CD2	80:CH:189:GLN:CB	2.35	1.03
79:CJ:29:SER:HA	79:CJ:33:LEU:CD1	1.86	1.03
46:CN:178:HIS:O	46:CN:181:HIS:CD2	2.10	1.03
43:CV:33:GLY:CA	43:CV:69:LYS:HE3	1.87	1.03
57:CY:52:ASP:OD1	57:CY:69:LYS:CD	2.06	1.03
59:CZ:33:THR:OG1	59:CZ:36:ARG:N	1.91	1.03
15:AB:131:ASP:OD2	15:AB:180:ASP:HB2	1.57	1.03
4:AK:4:PRO:HG2	4:AK:7:ASN:HB2	1.37	1.03
5:AO:55:ARG:O	5:AO:56:VAL:HG12	1.57	1.03
12:AR:122:PRO:HB3	12:AR:123:THR:HG21	1.40	1.03
63:CB:153:MET:SD	63:CB:160:ILE:HG12	1.98	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CD:262:LYS:HD3	48:CD:266:TRP:HE1	0.89	1.03
57:CY:42:TYR:HD1	57:CY:119:LEU:CD2	1.50	1.03
15:AB:19:LYS:HB2	15:AB:19:LYS:NZ	1.69	1.03
51:CA:22:HIS:O	51:CA:24:LYS:NZ	1.89	1.03
74:CC:309:ILE:HG23	74:CC:310:HIS:H	0.94	1.03
42:CL:27:ASN:C	42:CL:29:PRO:CD	2.26	1.03
58:CW:27:LYS:HE2	58:CW:29:PHE:CZ	1.92	1.03
5:AO:88:LEU:CD1	15:AB:25:PHE:CD2	2.40	1.03
26:AJ:130:ILE:HG23	26:AJ:135:ILE:HD11	1.35	1.03
8:AS:39:ARG:HD3	14:AT:38:LYS:CE	1.88	1.03
3:AU:50:VAL:HG21	3:AU:52:GLY:CA	1.87	1.03
18:AY:13:MET:HE2	18:AY:14:THR:O	1.58	1.03
74:CC:189:MET:CE	74:CC:200:ARG:HE	1.71	1.03
48:CD:271:MET:HE3	48:CD:275:GLN:OE1	1.58	1.03
81:CE:154:THR:CG2	85:A5:4942:C:OP1	2.05	1.03
46:CN:28:TRP:CZ3	82:CG:67:ARG:CD	2.42	1.03
40:CK:117:ARG:HG3	40:CK:133:LEU:HD11	1.36	1.03
42:CL:63:THR:OG1	42:CL:66:TYR:CD2	2.08	1.03
41:CO:177:LEU:HD22	44:CM:130:LEU:CD2	1.87	1.03
41:CO:9:LEU:HD11	52:CS:167:PHE:HE1	1.22	1.03
54:CP:109:VAL:HG12	54:CP:110:ASP:N	1.67	1.03
54:CP:124:LYS:HE2	54:CP:142:SER:OG	1.58	1.03
54:CP:48:LEU:CD1	54:CP:91:LEU:CD1	2.35	1.03
49:CQ:119:LYS:CE	49:CQ:121:LEU:HD21	1.86	1.03
50:CR:100:ARG:O	50:CR:104:ARG:CG	2.07	1.03
57:CY:110:LYS:O	57:CY:115:ARG:HD3	1.59	1.03
16:AA:205:ARG:HG2	16:AA:206:ASP:H	0.93	1.03
29:AG:176:ILE:HB	29:AG:179:LEU:CD2	1.87	1.03
26:AJ:67:ASP:OD1	26:AJ:68:PRO:HD2	1.56	1.03
13:AP:49:LEU:O	13:AP:51:ARG:N	1.89	1.03
14:AT:76:THR:O	14:AT:95:GLY:N	1.90	1.03
3:AU:18:HIS:HE1	3:AU:98:VAL:CG2	1.69	1.03
17:AV:24:ILE:O	17:AV:24:ILE:HG23	1.58	1.03
18:AY:101:LYS:O	18:AY:102:THR:HG23	1.57	1.03
63:CB:41:VAL:HA	63:CB:187:GLY:HA3	1.37	1.03
48:CD:21:ARG:HG3	48:CD:24:ARG:NH1	1.71	1.03
48:CD:223:PHE:O	48:CD:225:GLN:OE1	1.75	1.03
48:CD:261:VAL:CB	48:CD:262:LYS:CB	2.30	1.03
48:CD:37:VAL:HG22	48:CD:50:ARG:NH2	1.73	1.03
82:CG:162:ASP:N	82:CG:163:PRO:HD2	1.70	1.03
82:CG:39:PHE:CZ	82:CG:47:PRO:HG3	1.93	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:CG:99:ALA:HA	82:CG:204:PHE:HZ	1.21	1.03
47:CI:185:VAL:HG23	47:CI:190:LEU:CD1	1.68	1.03
40:CK:160:VAL:HA	40:CK:163:PRO:HG2	1.04	1.03
40:CK:79:ALA:O	40:CK:83:LYS:CG	2.07	1.03
42:CL:58:ILE:HD13	42:CL:157:VAL:HG12	1.36	1.03
54:CP:15:CYS:SG	54:CP:102:ALA:HA	1.97	1.03
50:CR:101:ILE:HA	50:CR:104:ARG:CD	1.86	1.03
52:CS:75:VAL:CG1	52:CS:76:LYS:N	2.16	1.03
52:CS:83:ARG:CG	52:CS:92:ASN:HD21	1.66	1.03
56:CX:81:LEU:HD21	56:CX:99:ILE:HG13	1.28	1.03
16:AA:180:ARG:HD3	16:AA:184:ARG:NH2	1.70	1.03
30:AF:201:LYS:HD2	30:AF:204:ARG:NH2	1.73	1.03
12:AR:105:MET:O	12:AR:109:LEU:CD1	2.06	1.03
3:AU:49:LYS:O	3:AU:50:VAL:HG12	1.57	1.03
16:AA:185:MET:HE1	17:AV:39:VAL:HG12	1.35	1.03
32:AW:129:PHE:HD1	32:AW:129:PHE:O	1.40	1.03
18:AY:21:LYS:HE2	18:AY:77:ASP:OD1	1.57	1.03
74:CC:133:LEU:CD2	74:CC:136:LEU:CG	2.37	1.03
64:CF:96:ARG:HG3	64:CF:139:TYR:HA	1.41	1.03
80:CH:110:SER:HB3	80:CH:128:MET:HG2	1.28	1.03
79:CJ:175:LEU:CB	79:CJ:176:PRO:CD	2.30	1.03
44:CM:60:PHE:CE2	44:CM:85:LYS:HG3	1.91	1.03
49:CQ:154:LYS:CE	49:CQ:163:THR:CG2	2.18	1.03
43:CV:110:GLY:CA	43:CV:129:TRP:CZ3	2.40	1.03
30:AF:185:SER:HA	30:AF:190:ILE:CG2	1.88	1.03
26:AJ:110:LEU:CD1	26:AJ:130:ILE:HD13	1.84	1.03
13:AP:127:LYS:HB2	13:AP:127:LYS:NZ	1.64	1.03
6:AX:40:PRO:HB3	6:AX:81:ILE:HD11	1.31	1.03
18:AY:36:PRO:CG	18:AY:39:GLU:CG	2.36	1.03
49:CQ:121:LEU:HD22	49:CQ:125:GLN:OE1	1.58	1.03
55:CU:39:PHE:CD2	55:CU:70:ILE:HD11	1.92	1.03
16:AA:118:GLU:OE1	28:AC:65:LYS:NZ	1.90	1.03
30:AF:25:THR:HG23	30:AF:41:VAL:CG2	1.89	1.03
8:AS:120:HIS:NE2	13:AP:123:TYR:CE2	2.25	1.03
13:AP:53:GLN:CD	13:AP:80:LEU:HD13	1.79	1.03
34:AQ:58:LEU:CD2	34:AQ:111:ILE:HD12	1.85	1.03
51:CA:250:LYS:HG2	51:CA:252:VAL:HG23	1.33	1.03
74:CC:109:ARG:HG2	74:CC:111:TRP:CZ2	1.94	1.03
74:CC:148:PRO:HG2	74:CC:152:LEU:HD13	1.38	1.03
81:CE:121:VAL:HG22	81:CE:122:PRO:HD2	1.05	1.03
81:CE:181:LEU:HD11	81:CE:268:GLN:HG3	1.09	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CJ:134:LEU:O	79:CJ:157:ILE:CD1	2.05	1.03
79:CJ:135:GLY:HA3	79:CJ:139:PHE:CE2	1.93	1.03
41:CO:108:ILE:CG2	41:CO:160:ARG:CD	2.37	1.03
54:CP:41:ILE:CG1	54:CP:150:LEU:HD22	1.88	1.03
53:CT:138:ALA:HA	53:CT:139:HIS:ND1	1.74	1.03
16:AA:32:PHE:HE1	16:AA:33:GLN:NE2	1.56	1.03
28:AC:116:THR:CG2	28:AC:119:GLY:O	2.06	1.03
23:AD:18:LYS:HZ2	23:AD:37:VAL:HG23	1.19	1.03
23:AD:43:PRO:O	23:AD:44:THR:HG23	1.58	1.03
27:AE:152:PRO:CD	29:AG:212:LEU:HD21	1.88	1.03
31:AH:144:ILE:HB	32:AW:52:ILE:HG23	1.33	1.03
26:AJ:161:LEU:O	26:AJ:162:ARG:HB2	1.52	1.03
34:AQ:100:VAL:HG12	34:AQ:101:ASP:H	0.87	1.03
34:AQ:19:ALA:HB2	34:AQ:74:GLY:C	1.78	1.03
34:AQ:9:SER:HB2	34:AQ:26:LYS:CE	1.86	1.03
12:AR:91:LEU:HD13	12:AR:92:ASP:HA	1.38	1.03
8:AS:108:ARG:CZ	79:CJ:119:TYR:CE2	2.42	1.03
6:AX:107:ARG:O	6:AX:110:HIS:CE1	2.12	1.03
82:CG:121:LYS:HG2	82:CG:126:GLY:O	0.86	1.03
80:CH:109:GLY:HA2	80:CH:110:SER:HB3	1.39	1.03
80:CH:110:SER:CB	80:CH:128:MET:CG	2.35	1.03
42:CL:64:VAL:CA	42:CL:67:HIS:CD2	2.41	1.03
46:CN:198:LEU:HD23	46:CN:198:LEU:N	1.53	1.03
52:CS:21:LYS:H	52:CS:22:CYS:HA	1.22	1.03
52:CS:2:LYS:CE	52:CS:43:ARG:HG2	1.87	1.03
52:CS:60:GLU:OE2	53:CT:136:ARG:NH2	1.92	1.03
16:AA:97:THR:CG2	16:AA:98:PRO:CD	2.37	1.03
15:AB:105:LEU:CD1	15:AB:110:MET:CE	2.36	1.03
30:AF:42:LYS:HE3	30:AF:42:LYS:C	1.78	1.03
33:AI:21:TYR:CE2	33:AI:22:HIS:CD2	2.47	1.03
26:AJ:127:ARG:HG3	26:AJ:127:ARG:NH1	1.55	1.03
11:AL:158:PHE:HD2	11:AL:158:PHE:N	1.56	1.03
12:AR:91:LEU:HB2	12:AR:93:GLN:N	1.74	1.03
63:CB:174:ARG:O	63:CB:174:ARG:HG2	1.57	1.03
40:CK:77:ALA:HB3	40:CK:80:LEU:HD12	1.40	1.03
42:CL:31:ARG:NH1	42:CL:34:ARG:HB2	1.70	1.03
44:CM:12:VAL:HG11	44:CM:60:PHE:HB3	1.41	1.03
44:CM:66:HIS:O	44:CM:67:SER:HB3	1.59	1.03
53:CT:2:THR:HG22	53:CT:2:THR:O	1.57	1.03
28:AC:74:LYS:HG3	28:AC:269:PHE:CE1	1.94	1.02
27:AE:86:PHE:HZ	27:AE:182:MET:HE3	1.24	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:23:ILE:HD13	31:AH:27:LEU:CD2	1.89	1.02
34:AQ:100:VAL:HG12	34:AQ:101:ASP:N	1.68	1.02
12:AR:42:PRO:HD2	12:AR:43:SER:H	1.22	1.02
6:AX:109:GLY:O	6:AX:119:ARG:HD3	1.56	1.02
82:CG:117:ARG:HG3	82:CG:130:THR:CG2	1.88	1.02
82:CG:32:PHE:C	82:CG:33:GLU:HG2	1.77	1.02
49:CQ:158:THR:HB	49:CQ:188:ASN:C	1.79	1.02
52:CS:83:ARG:CD	53:CT:156:TYR:H	1.71	1.02
23:AD:192:TRP:CE3	23:AD:196:GLY:HA2	1.72	1.02
30:AF:25:THR:HG23	30:AF:41:VAL:HG23	1.42	1.02
31:AH:146:VAL:HG12	32:AW:42:MET:SD	1.99	1.02
26:AJ:100:LEU:HG	26:AJ:101:LYS:N	1.73	1.02
13:AP:33:LEU:CD2	13:AP:87:PRO:HD2	1.84	1.02
18:AY:92:ALA:CA	18:AY:97:TYR:HB3	1.89	1.02
63:CB:157:CYS:SG	63:CB:160:ILE:HD12	1.99	1.02
74:CC:46:LYS:CB	74:CC:49:ARG:HH11	1.71	1.02
74:CC:91:ALA:CB	74:CC:92:PHE:CD2	2.42	1.02
81:CE:215:ALA:HA	81:CE:218:LYS:CE	1.88	1.02
81:CE:224:LYS:HA	81:CE:226:ARG:HH11	1.23	1.02
81:CE:71:ARG:C	81:CE:72:LYS:HG2	1.76	1.02
82:CG:154:LEU:HD12	82:CG:204:PHE:CD2	1.93	1.02
40:CK:47:ALA:HA	40:CK:72:GLU:HG2	1.40	1.02
46:CN:43:THR:CG2	46:CN:131:GLU:OE2	2.07	1.02
49:CQ:72:LEU:HB3	49:CQ:75:ARG:HE	1.23	1.02
50:CR:11:ALA:HB1	50:CR:50:ILE:HD11	1.08	1.02
52:CS:162:GLN:HA	52:CS:162:GLN:HE21	1.25	1.02
23:AD:176:LEU:CD1	23:AD:176:LEU:H	1.72	1.02
23:AD:218:LEU:HD23	23:AD:218:LEU:O	1.59	1.02
30:AF:201:LYS:CD	30:AF:204:ARG:HH21	1.71	1.02
30:AF:42:LYS:CB	30:AF:45:TYR:N	2.14	1.02
29:AG:130:PRO:HA	58:CW:81:ALA:HB3	1.05	1.02
27:AE:151:ASP:HB3	29:AG:212:LEU:HD21	1.05	1.02
31:AH:40:LEU:HD23	31:AH:43:LEU:CD1	1.82	1.02
48:CD:75:VAL:O	48:CD:112:ARG:NH2	1.92	1.02
79:CJ:128:LEU:HD13	79:CJ:130:PHE:CE2	1.89	1.02
42:CL:9:VAL:C	42:CL:10:LEU:CD2	2.28	1.02
41:CO:26:GLN:NE2	52:CS:166:ARG:HG2	1.73	1.02
49:CQ:187:LYS:CE	49:CQ:188:ASN:H	1.72	1.02
52:CS:164:LYS:NZ	52:CS:165:PRO:HD3	1.72	1.02
52:CS:83:ARG:HD3	53:CT:155:PRO:CA	1.89	1.02
57:CY:34:LEU:CG	57:CY:38:LEU:CB	2.35	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:4943:A:OP2	85:A5:4944:C:O5'	1.77	1.02
23:AD:21:LEU:HD11	23:AD:48:ILE:CD1	1.89	1.02
4:AK:83:LEU:O	4:AK:84:HIS:CG	2.13	1.02
3:AU:50:VAL:HG13	3:AU:51:LYS:N	1.74	1.02
81:CE:153:LEU:O	81:CE:158:ARG:HG3	1.58	1.02
81:CE:75:ALA:HB1	81:CE:76:ALA:HB3	1.05	1.02
82:CG:146:LEU:HD12	82:CG:147:VAL:H	1.18	1.02
47:CI:175:LYS:HB2	47:CI:176:PHE:CD1	1.93	1.02
49:CQ:99:LYS:NZ	49:CQ:119:LYS:HD2	1.73	1.02
52:CS:30:MET:CE	52:CS:47:PHE:HB3	1.87	1.02
52:CS:80:ILE:CG2	52:CS:95:ARG:HG3	1.90	1.02
57:CY:110:LYS:O	57:CY:115:ARG:CD	2.08	1.02
26:AJ:122:SER:OG	26:AJ:124:HIS:HB2	1.56	1.02
4:AK:66:HIS:HE1	23:AD:76:ARG:HD3	1.25	1.02
11:AL:95:TYR:CA	11:AL:102:PHE:HB3	1.90	1.02
11:AL:7:GLU:CG	11:AL:8:ARG:H	1.71	1.02
17:AV:23:ILE:CD1	28:AC:249:SER:O	2.06	1.02
18:AY:61:ARG:NH2	18:AY:61:ARG:HG3	1.63	1.02
51:CA:253:GLN:CG	51:CA:255:LYS:HD2	1.89	1.02
63:CB:303:ALA:HB2	63:CB:314:ILE:HA	1.42	1.02
82:CG:175:ARG:HH11	82:CG:176:LYS:HA	0.93	1.02
15:AB:52:THR:CG2	82:CG:264:LYS:HZ1	1.71	1.02
42:CL:16:LYS:HG2	85:A5:46:U:H5''	1.41	1.02
46:CN:116:LEU:HD11	46:CN:151:ILE:CD1	1.86	1.02
46:CN:46:ASP:O	46:CN:50:ARG:HB2	1.60	1.02
41:CO:20:ALA:CB	41:CO:87:MET:HE1	1.89	1.02
52:CS:7:LEU:H	52:CS:7:LEU:HD22	1.20	1.02
50:CR:49:LEU:HD21	55:CU:122:GLU:OE1	1.58	1.02
16:AA:190:SER:O	16:AA:191:ARG:HG2	1.56	1.02
14:AT:28:LEU:HD22	14:AT:28:LEU:O	1.58	1.02
63:CB:34:LYS:H	63:CB:34:LYS:HD2	1.13	1.02
74:CC:105:THR:HB	74:CC:109:ARG:HH22	1.21	1.02
74:CC:312:ARG:O	74:CC:313:VAL:HB	1.52	1.02
80:CH:41:ILE:O	80:CH:42:ASN:HB2	1.55	1.02
47:CI:109:ASP:OD2	47:CI:112:GLN:HB2	1.57	1.02
52:CS:74:ARG:HB3	52:CS:76:LYS:NZ	1.72	1.02
15:AB:47:THR:HG21	15:AB:67:PHE:CZ	1.94	1.02
7:AM:12:MET:HG3	7:AM:16:THR:CG2	1.90	1.02
5:AO:99:ALA:H	5:AO:133:THR:HG22	0.85	1.02
30:AF:47:LYS:CG	34:AQ:117:ARG:HH22	1.72	1.02
63:CB:39:LYS:HB2	63:CB:40:PRO:HD3	1.41	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:51:VAL:CB	81:CE:52:ARG:HA	1.90	1.02
81:CE:65:ARG:CG	81:CE:65:ARG:HH11	1.72	1.02
82:CG:104:PRO:HA	82:CG:105:GLU:OE2	1.58	1.02
80:CH:110:SER:HB3	80:CH:128:MET:HB2	1.41	1.02
80:CH:1:MET:C	80:CH:2:LYS:HG2	1.79	1.02
40:CK:56:LEU:CB	40:CK:91:ASP:OD1	2.05	1.02
44:CM:95:ILE:HD11	44:CM:124:LYS:CG	31.82	1.02
56:CX:119:ILE:C	56:CX:119:ILE:HD12	1.76	1.02
57:CY:22:PRO:CG	57:CY:25:ILE:HD12	1.89	1.02
59:CZ:42:LEU:HD22	59:CZ:96:VAL:HG12	1.35	1.02
10:AN:53:ILE:HD12	15:AB:52:THR:HG21	83.40	1.02
30:AF:42:LYS:CD	30:AF:42:LYS:H	1.73	1.02
29:AG:195:LYS:O	29:AG:199:THR:HG23	1.58	1.02
29:AG:27:PHE:CZ	29:AG:41:LEU:HD12	1.94	1.02
33:AI:110:ARG:HH21	33:AI:124:LYS:HD3	1.20	1.02
11:AL:82:MET:HE1	36:B2:373:G:H4'	1.39	1.02
18:AY:29:HIS:ND1	18:AY:67:GLY:C	2.13	1.02
49:CQ:24:TYR:HB2	74:CC:283:LYS:HD2	1.34	1.02
81:CE:37:PRO:HA	81:CE:37:PRO:N	1.75	1.02
64:CF:24:ASN:O	64:CF:26:ALA:N	1.92	1.02
82:CG:160:ASP:CG	82:CG:187:LYS:CG	2.27	1.02
82:CG:40:GLY:O	82:CG:43:GLN:HG3	1.58	1.02
40:CK:94:LYS:HG2	40:CK:96:LYS:HB3	1.35	1.02
46:CN:135:ILE:CG2	46:CN:142:ILE:HD13	1.90	1.02
46:CN:180:PHE:HB2	46:CN:184:ILE:HD12	1.02	1.02
46:CN:80:THR:OG1	46:CN:87:HIS:CD2	2.11	1.02
54:CP:108:ASP:OD1	54:CP:109:VAL:N	1.92	1.02
41:CO:22:ILE:HD11	52:CS:162:GLN:OE1	1.60	1.02
53:CT:127:GLN:O	53:CT:127:GLN:HG3	1.58	1.02
53:CT:134:PRO:HB2	53:CT:135:PRO:HD2	1.02	1.02
57:CY:86:GLN:HB2	57:CY:95:VAL:O	1.58	1.02
15:AB:105:LEU:O	15:AB:106:THR:HG23	1.58	1.02
4:AK:96:ARG:HG3	4:AK:97:SER:H	1.21	1.02
13:AP:10:ARG:NE	13:AP:11:THR:H	1.57	1.02
6:AX:139:GLU:O	6:AX:141:PRO:HD3	1.60	1.02
63:CB:153:MET:SD	63:CB:160:ILE:CG1	2.48	1.02
82:CG:77:PRO:HG3	82:CG:237:TRP:CZ3	1.95	1.02
82:CG:49:ARG:O	82:CG:51:LEU:CD2	2.08	1.02
16:AA:9:GLN:HB3	16:AA:10:MET:SD	2.00	1.02
23:AD:195:THR:O	23:AD:195:THR:HG22	1.58	1.02
30:AF:91:ARG:HH12	30:AF:94:LYS:CG	1.72	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AG:65:GLN:HA	29:AG:100:CYS:SG	1.98	1.02
33:AI:206:LYS:HD2	33:AI:207:GLY:H	1.24	1.02
26:AJ:127:ARG:HH12	26:AJ:145:PRO:HB2	1.23	1.02
10:AN:62:GLN:HB2	10:AN:65:PHE:HD2	1.07	1.02
13:AP:5:GLU:N	13:AP:10:ARG:HH11	1.56	1.02
13:AP:108:LYS:HB3	13:AP:110:GLU:OE1	1.60	1.02
12:AR:99:ASP:O	12:AR:119:VAL:CG1	2.03	1.02
8:AS:119:ALA:HB1	13:AP:118:GLU:O	1.58	1.02
14:AT:31:PRO:CB	14:AT:33:TRP:CZ2	2.42	1.02
18:AY:21:LYS:HD3	18:AY:21:LYS:N	1.74	1.02
82:CG:121:LYS:O	82:CG:125:LYS:O	1.76	1.02
82:CG:75:LYS:HD2	82:CG:240:ASN:CB	1.84	1.02
47:CI:212:LEU:HG	47:CI:213:HIS:H	1.21	1.02
40:CK:125:LEU:HD13	40:CK:163:PRO:HA	1.17	1.02
40:CK:48:LYS:O	40:CK:52:ASP:CG	1.97	1.02
44:CM:95:ILE:CD1	44:CM:124:LYS:HG3	31.67	1.02
41:CO:192:TYR:CD2	44:CM:122:ILE:CD1	2.43	1.02
50:CR:44:LEU:HD23	50:CR:49:LEU:HD12	1.37	1.02
12:AR:85:VAL:HG22	16:AA:201:LEU:CA	1.90	1.01
26:AJ:18:ARG:HB2	26:AJ:21:GLU:OE2	1.57	1.01
4:AK:83:LEU:CD1	4:AK:85:LEU:CD2	2.38	1.01
80:CH:111:LEU:HD23	80:CH:127:ARG:HA	1.38	1.01
79:CJ:163:MET:CE	79:CJ:174:ILE:HG12	1.90	1.01
40:CK:116:MET:O	40:CK:118:HIS:N	1.93	1.01
40:CK:123:ARG:HH11	40:CK:129:ILE:HD13	1.18	1.01
49:CQ:27:LEU:HD22	74:CC:289:LEU:HD11	1.37	1.01
50:CR:100:ARG:O	50:CR:104:ARG:HG3	1.60	1.01
28:AC:170:TRP:CZ2	32:AW:97:ARG:HD2	1.95	1.01
16:AA:118:GLU:OE1	28:AC:65:LYS:CE	2.08	1.01
27:AE:153:LEU:HD13	27:AE:172:PHE:CE1	1.94	1.01
26:AJ:72:PHE:HE1	27:AE:248:ILE:O	1.42	1.01
51:CA:120:PRO:HD3	51:CA:162:ASN:OD1	1.58	1.01
74:CC:154:VAL:HG11	74:CC:158:VAL:HG21	1.38	1.01
74:CC:212:ASN:O	74:CC:213:GLU:HB3	1.54	1.01
82:CG:160:ASP:O	82:CG:161:VAL:HG12	1.58	1.01
82:CG:254:GLU:OE1	82:CG:254:GLU:HA	1.52	1.01
40:CK:23:GLY:O	40:CK:24:ALA:CB	2.05	1.01
40:CK:61:LYS:HE2	40:CK:72:GLU:CG	1.90	1.01
40:CK:62:LEU:HD11	40:CK:73:VAL:CG2	1.90	1.01
46:CN:38:ARG:HG2	46:CN:62:TYR:CZ	1.95	1.01
41:CO:192:TYR:HD2	44:CM:122:ILE:CD1	1.71	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:103:LEU:HG	49:CQ:123:PHE:HE2	1.23	1.01
49:CQ:154:LYS:HB2	49:CQ:155:ALA:CB	1.88	1.01
52:CS:134:ALA:O	52:CS:136:LYS:CE	2.08	1.01
55:CU:25:CYS:O	55:CU:29:VAL:HG23	1.58	1.01
55:CU:60:VAL:HA	55:CU:75:GLU:HG2	1.04	1.01
56:CX:43:SER:H	82:CG:51:LEU:CD1	1.73	1.01
23:AD:112:GLY:CA	23:AD:113:LEU:HD12	1.89	1.01
12:AR:19:LYS:HD2	23:AD:212:GLU:CG	1.88	1.01
23:AD:218:LEU:HG	23:AD:220:THR:HG23	1.05	1.01
27:AE:120:LYS:O	27:AE:164:LEU:HB2	1.59	1.01
26:AJ:110:LEU:HD12	26:AJ:130:ILE:CG1	1.87	1.01
10:AN:54:LEU:HB3	10:AN:60:VAL:HG21	1.39	1.01
17:AV:40:ASP:HB3	17:AV:47:ASN:ND2	1.74	1.01
74:CC:147:VAL:HG13	74:CC:148:PRO:HD2	1.04	1.01
80:CH:4:ILE:HG23	80:CH:5:LEU:H	1.23	1.01
47:CI:207:ASP:OD2	47:CI:208:LYS:CD	2.08	1.01
40:CK:160:VAL:CA	40:CK:163:PRO:HG3	1.88	1.01
42:CL:156:PRO:O	42:CL:157:VAL:HG13	1.61	1.01
41:CO:65:ASN:ND2	41:CO:68:ARG:CD	2.21	1.01
49:CQ:154:LYS:HZ3	49:CQ:156:PRO:HD3	0.93	1.01
50:CR:133:LYS:HG3	50:CR:137:ILE:HG21	1.42	1.01
59:CZ:36:ARG:HE	59:CZ:74:VAL:HG11	1.24	1.01
16:AA:127:PRO:HG2	16:AA:153:PRO:HD2	1.42	1.01
15:AB:48:LEU:HD12	15:AB:48:LEU:H	1.22	1.01
27:AE:70:ILE:HG12	27:AE:92:ILE:HD11	1.04	1.01
29:AG:76:LEU:HD22	29:AG:92:ARG:HG2	1.05	1.01
14:AT:40:ALA:HB3	14:AT:43:LYS:HG2	1.01	1.01
3:AU:50:VAL:HG22	3:AU:51:LYS:O	1.60	1.01
3:AU:19:ARG:HG3	3:AU:92:HIS:CE1	1.95	1.01
13:AP:128:HIS:HE1	36:B2:1521:C:O2	1.42	1.01
81:CE:47:ASN:CB	81:CE:48:PRO:HD3	1.89	1.01
40:CK:111:ASN:HA	40:CK:114:ARG:HE	1.23	1.01
40:CK:56:LEU:HD12	40:CK:91:ASP:CG	1.81	1.01
49:CQ:41:SER:O	49:CQ:42:THR:C	1.97	1.01
50:CR:71:ARG:HH11	50:CR:71:ARG:CB	1.72	1.01
43:CV:30:ASP:OD2	43:CV:32:THR:CG2	2.07	1.01
56:CX:57:GLN:HA	56:CX:58:PRO:HG2	1.40	1.01
26:AJ:61:LEU:HD22	26:AJ:98:LEU:HD11	1.02	1.01
10:AN:132:LYS:HA	10:AN:132:LYS:HE3	1.01	1.01
14:AT:144:LYS:HB2	14:AT:144:LYS:NZ	1.71	1.01
18:AY:63:HIS:ND1	18:AY:64:PHE:HE1	1.58	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:17:LEU:HD23	63:CB:19:ARG:HG2	1.38	1.01
44:CM:107:PHE:CD1	81:CE:270:TYR:CG	2.48	1.01
82:CG:136:LEU:HD23	82:CG:204:PHE:CE1	1.86	1.01
57:CY:49:ILE:HD12	57:CY:101:PRO:HB3	1.02	1.01
57:CY:42:TYR:HB3	57:CY:119:LEU:HD11	1.42	1.01
82:CG:187:LYS:NZ	85:A5:150:U:O4	1.93	1.01
16:AA:145:ILE:HA	16:AA:159:ILE:HG22	1.41	1.01
12:AR:19:LYS:CD	23:AD:212:GLU:CB	2.37	1.01
23:AD:21:LEU:HD11	23:AD:48:ILE:HD12	1.01	1.01
30:AF:167:LYS:CD	30:AF:171:GLU:CG	2.37	1.01
30:AF:63:LYS:HD3	30:AF:71:ARG:NH1	1.67	1.01
31:AH:16:PRO:HA	31:AH:17:ASP:HB2	1.39	1.01
11:AL:95:TYR:HA	11:AL:102:PHE:CB	1.90	1.01
30:AF:18:LYS:HE3	34:AQ:115:TYR:CD1	1.96	1.01
34:AQ:9:SER:HB2	34:AQ:26:LYS:HE3	1.02	1.01
74:CC:130:ALA:CB	74:CC:246:VAL:CG1	2.39	1.01
48:CD:223:PHE:CD1	48:CD:226:TYR:HE2	1.41	1.01
81:CE:45:SER:OG	81:CE:49:VAL:CG1	2.04	1.01
41:CO:16:LEU:HD21	41:CO:138:LEU:HD22	1.04	1.01
55:CU:48:LYS:HG3	55:CU:52:LYS:HA	1.03	1.01
59:CZ:87:VAL:HG22	59:CZ:127:ASN:OD1	1.59	1.01
16:AA:11:LYS:HD3	16:AA:13:GLU:HG3	1.42	1.01
28:AC:116:THR:HG23	28:AC:118:ALA:O	1.59	1.01
28:AC:210:PRO:CG	28:AC:236:PHE:CZ	2.44	1.01
23:AD:196:GLY:N	23:AD:197:LYS:HA	1.58	1.01
27:AE:139:LEU:CD1	27:AE:154:ILE:HG21	1.90	1.01
33:AI:19:LYS:HE2	33:AI:20:PRO:HD2	1.39	1.01
4:AK:27:VAL:HG13	4:AK:43:LEU:HD21	1.43	1.01
74:CC:22:VAL:HG23	74:CC:258:ARG:NH2	1.73	1.01
81:CE:65:ARG:O	81:CE:69:TYR:CD2	2.13	1.01
79:CJ:90:ARG:CZ	79:CJ:107:PHE:HB2	1.91	1.01
46:CN:186:GLY:N	46:CN:191:ALA:HB2	1.76	1.01
41:CO:121:PRO:HA	41:CO:124:LEU:HD13	1.40	1.01
41:CO:88:LEU:CD1	41:CO:99:LEU:HD21	1.88	1.01
54:CP:16:LYS:HG3	54:CP:149:ILE:HG12	1.35	1.01
52:CS:15:ARG:O	52:CS:16:CYS:HB2	1.56	1.01
53:CT:127:GLN:HE21	53:CT:127:GLN:CA	1.73	1.01
55:CU:41:GLN:O	55:CU:45:GLU:OE1	1.79	1.01
59:CZ:42:LEU:HD23	59:CZ:96:VAL:CG1	1.87	1.01
23:AD:112:GLY:C	23:AD:113:LEU:CD1	2.29	1.01
26:AJ:79:ARG:NH1	26:AJ:83:ARG:CZ	2.23	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AQ:100:VAL:CG1	34:AQ:101:ASP:H	1.72	1.01
63:CB:189:THR:HG23	63:CB:192:GLU:CB	1.89	1.01
63:CB:314:ILE:HD11	63:CB:330:PHE:CE1	1.96	1.01
74:CC:233:SER:CA	74:CC:263:LEU:CD1	2.25	1.01
74:CC:262:GLU:C	74:CC:264:TYR:H	1.64	1.01
40:CK:94:LYS:HB3	40:CK:96:LYS:HD2	1.17	1.01
41:CO:88:LEU:HD12	41:CO:99:LEU:HD21	1.04	1.01
50:CR:101:ILE:HG12	50:CR:104:ARG:NH1	1.76	1.01
52:CS:2:LYS:NZ	52:CS:43:ARG:HG2	1.69	1.01
43:CV:25:VAL:CG1	43:CV:38:TYR:HD1	1.72	1.01
16:AA:205:ARG:CG	16:AA:206:ASP:N	2.23	1.01
16:AA:24:HIS:HD2	16:AA:48:ILE:HG23	1.26	1.01
30:AF:42:LYS:C	30:AF:42:LYS:CE	2.29	1.01
30:AF:42:LYS:HD3	30:AF:42:LYS:H	0.88	1.01
31:AH:169:LYS:HB2	31:AH:173:PHE:CE2	1.95	1.01
31:AH:50:GLU:OE2	31:AH:58:LYS:HD3	1.58	1.01
10:AN:127:ARG:O	10:AN:131:THR:HG23	1.58	1.01
8:AS:117:ILE:O	8:AS:118:ARG:CG	2.07	1.01
18:AY:99:LYS:CE	18:AY:99:LYS:CA	2.39	1.01
19:AZ:52:LYS:O	19:AZ:55:TYR:N	1.94	1.01
51:CA:104:VAL:CG1	51:CA:107:MET:HE2	1.89	1.01
74:CC:310:HIS:HB3	74:CC:311:ARG:HD2	1.05	1.01
48:CD:142:PHE:HB3	48:CD:171:LEU:HD22	1.01	1.01
79:CJ:29:SER:CA	79:CJ:33:LEU:HD12	1.91	1.01
40:CK:48:LYS:C	40:CK:52:ASP:OD1	1.99	1.01
44:CM:95:ILE:HD11	44:CM:124:LYS:HG3	31.89	1.01
52:CS:71:SER:CB	52:CS:74:ARG:HB2	1.91	1.01
15:AB:87:ILE:HG21	15:AB:101:HIS:CD2	1.95	1.01
15:AB:105:LEU:HD11	15:AB:213:ARG:CB	1.89	1.01
28:AC:127:PHE:CD2	28:AC:141:VAL:HG22	1.96	1.01
26:AJ:170:PRO:HB2	26:AJ:174:LYS:HE2	1.42	1.01
5:AO:54:CYS:SG	5:AO:84:ARG:HB3	2.01	1.01
18:AY:48:TYR:O	18:AY:50:THR:HG23	1.61	1.01
63:CB:290:GLY:O	63:CB:299:ILE:CG1	2.07	1.01
48:CD:129:GLU:CG	48:CD:177:THR:CG2	2.39	1.01
48:CD:190:PHE:CZ	48:CD:195:HIS:HB2	1.95	1.01
48:CD:79:TYR:CG	48:CD:81:HIS:HE1	1.79	1.01
82:CG:162:ASP:H	82:CG:163:PRO:HD2	1.23	1.01
42:CL:9:VAL:CA	42:CL:10:LEU:HD22	1.89	1.01
42:CL:191:LEU:HD23	42:CL:194:ILE:HD12	1.06	1.01
46:CN:46:ASP:O	46:CN:49:ARG:O	1.79	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CP:27:LYS:CG	54:CP:63:TYR:CD1	2.43	1.01
49:CQ:41:SER:O	49:CQ:43:PHE:N	1.93	1.01
53:CT:12:ARG:CG	53:CT:13:TYR:HE2	1.62	1.01
53:CT:150:LEU:CD2	53:CT:150:LEU:C	2.28	1.01
85:A5:4936:G:H8	85:A5:4936:G:OP2	1.41	1.00
16:AA:10:MET:N	16:AA:10:MET:SD	2.30	1.00
10:AN:21:SER:O	10:AN:22:VAL:HG13	1.61	1.00
12:AR:20:TYR:CE2	12:AR:38:ILE:HB	1.96	1.00
14:AT:143:LYS:O	14:AT:144:LYS:HB3	1.61	1.00
18:AY:20:ARG:HD3	18:AY:76:TYR:CZ	1.95	1.00
47:CI:106:ALA:CB	47:CI:108:ALA:HB2	1.88	1.00
47:CI:76:MET:HE3	47:CI:148:VAL:HA	1.02	1.00
79:CJ:134:LEU:C	79:CJ:157:ILE:CD1	2.28	1.00
79:CJ:173:ILE:HG22	79:CJ:174:ILE:O	1.61	1.00
79:CJ:26:VAL:CB	79:CJ:33:LEU:HD23	1.91	1.00
79:CJ:20:LEU:CD1	79:CJ:83:LEU:HD21	1.90	1.00
40:CK:162:CYS:N	40:CK:163:PRO:HD3	1.76	1.00
54:CP:72:GLN:OE1	54:CP:83:TRP:HZ2	1.42	1.00
56:CX:87:MET:CA	56:CX:90:ILE:CD1	2.37	1.00
57:CY:117:LYS:HE3	57:CY:121:ARG:HH21	1.26	1.00
16:AA:188:THR:HG23	16:AA:188:THR:O	1.57	1.00
15:AB:179:ASN:CG	15:AB:183:GLU:OE1	1.99	1.00
10:AN:19:ARG:CB	31:AH:138:GLU:OE2	2.09	1.00
33:AI:144:LYS:O	33:AI:145:ILE:CG1	2.09	1.00
33:AI:7:ASN:O	33:AI:9:HIS:O	1.78	1.00
13:AP:107:ILE:HA	13:AP:111:MET:SD	2.01	1.00
13:AP:41:GLN:NE2	13:AP:84:ILE:CB	2.19	1.00
13:AP:84:ILE:O	13:AP:86:LEU:HD23	1.59	1.00
14:AT:76:THR:HB	14:AT:95:GLY:O	1.61	1.00
17:AV:9:VAL:HG12	17:AV:10:ASP:N	1.76	1.00
63:CB:288:GLY:HA3	63:CB:330:PHE:CE1	1.97	1.00
48:CD:58:ARG:NH1	48:CD:93:THR:CB	2.24	1.00
82:CG:104:PRO:C	82:CG:105:GLU:CG	2.28	1.00
47:CI:80:CYS:SG	47:CI:147:HIS:CD2	2.53	1.00
47:CI:76:MET:HE3	47:CI:148:VAL:CA	1.90	1.00
40:CK:22:VAL:HG22	40:CK:48:LYS:HB2	1.32	1.00
42:CL:28:GLN:N	42:CL:29:PRO:HD3	1.73	1.00
46:CN:197:THR:C	46:CN:198:LEU:CD2	2.29	1.00
58:CW:47:ARG:O	58:CW:55:TYR:HD1	1.43	1.00
16:AA:205:ARG:HG2	16:AA:206:ASP:N	1.71	1.00
4:AK:83:LEU:CG	4:AK:85:LEU:HD21	1.90	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AQ:112:LEU:HD22	34:AQ:119:LEU:HD13	1.04	1.00
74:CC:309:ILE:CG2	74:CC:310:HIS:H	1.73	1.00
48:CD:271:MET:CE	48:CD:275:GLN:OE1	2.08	1.00
81:CE:152:ILE:HG23	81:CE:158:ARG:HA	1.42	1.00
82:CG:80:ILE:HG22	82:CG:81:ASN:H	1.26	1.00
80:CH:113:GLU:CD	80:CH:123:ILE:HD11	1.80	1.00
53:CT:135:PRO:HG2	53:CT:136:ARG:H	1.22	1.00
55:CU:48:LYS:HG3	55:CU:52:LYS:CA	1.91	1.00
56:CX:81:LEU:CD2	56:CX:99:ILE:CG1	2.27	1.00
59:CZ:13:VAL:HA	59:CZ:80:LEU:HD23	1.40	1.00
16:AA:66:VAL:CG2	16:AA:186:ARG:HD3	1.90	1.00
15:AB:136:ARG:HG2	15:AB:138:PHE:CE2	1.96	1.00
23:AD:132:LYS:N	23:AD:191:PRO:CD	2.25	1.00
29:AG:129:VAL:HB	58:CW:80:ARG:HH12	1.22	1.00
34:AQ:9:SER:HB2	34:AQ:26:LYS:HG3	1.34	1.00
13:AP:128:HIS:CE1	36:B2:1521:C:O2	2.14	1.00
48:CD:130:TYR:HD2	48:CD:131:ASN:N	1.59	1.00
81:CE:242:ILE:CD1	81:CE:246:ARG:NH1	2.24	1.00
80:CH:63:ASN:HB2	80:CH:66:GLU:OE1	1.62	1.00
79:CJ:175:LEU:HB2	79:CJ:176:PRO:HD2	1.39	1.00
79:CJ:95:ARG:HB2	79:CJ:97:ASN:HD21	1.19	1.00
46:CN:178:HIS:HA	46:CN:181:HIS:CE1	1.96	1.00
53:CT:125:TRP:CD1	53:CT:126:VAL:N	2.29	1.00
56:CX:40:ILE:CG1	56:CX:41:ARG:N	2.20	1.00
57:CY:67:ILE:HG22	57:CY:67:ILE:O	1.61	1.00
16:AA:66:VAL:HG13	16:AA:186:ARG:CD	1.90	1.00
23:AD:59:LEU:CD1	23:AD:60:GLY:N	2.23	1.00
30:AF:20:PHE:O	30:AF:22:LYS:CA	2.10	1.00
11:AL:35:ARG:HH21	11:AL:63:THR:HG21	1.26	1.00
7:AM:100:PRO:O	7:AM:101:ARG:HD2	1.61	1.00
8:AS:16:LEU:O	8:AS:17:ASN:CG	2.00	1.00
18:AY:36:PRO:HG2	18:AY:39:GLU:CB	1.91	1.00
63:CB:223:THR:HG22	63:CB:275:HIS:H	0.84	1.00
74:CC:273:LEU:C	74:CC:273:LEU:HD12	1.76	1.00
82:CG:121:LYS:C	82:CG:121:LYS:CD	2.30	1.00
80:CH:129:ARG:HB3	80:CH:130:PRO:CD	1.91	1.00
41:CO:190:ASP:HB3	41:CO:193:THR:HB	1.09	1.00
52:CS:170:LYS:O	52:CS:172:PRO:CA	2.08	1.00
56:CX:89:LYS:HZ1	56:CX:97:VAL:CG2	1.64	1.00
15:AB:19:LYS:O	15:AB:21:VAL:HG13	1.60	1.00
15:AB:55:THR:O	15:AB:56:LYS:HD2	1.62	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:2:ALA:CB	23:AD:3:VAL:C	2.30	1.00
29:AG:121:ILE:CG2	29:AG:122:PRO:HD3	1.91	1.00
74:CC:313:VAL:C	74:CC:314:LEU:CD2	2.28	1.00
74:CC:345:ARG:HH11	74:CC:345:ARG:HG2	1.24	1.00
48:CD:95:TYR:OH	48:CD:195:HIS:HE1	1.43	1.00
82:CG:24:ALA:O	82:CG:26:LYS:N	1.94	1.00
80:CH:18:ILE:CD1	80:CH:55:LEU:CD1	2.38	1.00
79:CJ:83:LEU:HD22	79:CJ:132:VAL:HG21	1.43	1.00
40:CK:80:LEU:HA	40:CK:83:LYS:CD	1.92	1.00
42:CL:156:PRO:O	42:CL:157:VAL:HG22	1.61	1.00
41:CO:187:LYS:HA	41:CO:187:LYS:CE	1.80	1.00
15:AB:137:LEU:HD22	15:AB:215:VAL:HG22	1.04	1.00
23:AD:178:ARG:NH1	36:B2:628:A:N3	2.07	1.00
29:AG:32:MET:SD	29:AG:100:CYS:HA	1.99	1.00
4:AK:62:PHE:CE1	4:AK:67:PHE:CE2	2.50	1.00
34:AQ:93:VAL:HG13	34:AQ:105:LYS:HD3	1.41	1.00
3:AU:51:LYS:HB2	3:AU:90:ASP:HB2	1.41	1.00
17:AV:41:LYS:O	17:AV:43:THR:N	1.94	1.00
63:CB:174:ARG:HH11	63:CB:174:ARG:CG	1.75	1.00
48:CD:254:GLU:OE2	48:CD:254:GLU:HA	1.62	1.00
81:CE:153:LEU:O	81:CE:158:ARG:CG	2.10	1.00
82:CG:189:ARG:CG	82:CG:190:LEU:HD22	1.92	1.00
82:CG:234:ARG:HG2	82:CG:234:ARG:NH2	1.69	1.00
47:CI:99:ILE:CD1	47:CI:123:GLN:NE2	2.24	1.00
40:CK:123:ARG:CB	40:CK:128:THR:OG1	2.08	1.00
44:CM:12:VAL:HG13	44:CM:60:PHE:C	1.81	1.00
48:CD:41:LYS:CG	53:CT:93:ILE:HD11	1.92	1.00
16:AA:119:PRO:HG2	16:AA:142:LEU:HD13	1.44	1.00
28:AC:210:PRO:CB	28:AC:236:PHE:CZ	2.36	1.00
31:AH:83:LEU:CD1	31:AH:92:VAL:HB	1.86	1.00
33:AI:154:LYS:C	33:AI:154:LYS:CE	2.29	1.00
10:AN:27:LYS:CE	10:AN:27:LYS:H	1.73	1.00
13:AP:62:LYS:HG3	13:AP:65:LYS:HE2	1.40	1.00
34:AQ:50:LYS:HZ1	34:AQ:117:ARG:HD2	1.14	1.00
8:AS:136:THR:OG1	36:B2:1521:C:OP2	1.79	1.00
63:CB:264:PHE:CD2	63:CB:265:SER:N	2.30	1.00
74:CC:229:LEU:HD23	74:CC:229:LEU:N	1.77	1.00
80:CH:49:GLY:CA	80:CH:50:LYS:HZ1	1.70	1.00
40:CK:38:SER:CB	40:CK:39:PRO:CD	2.39	1.00
46:CN:138:PHE:HB3	46:CN:143:ARG:NH2	1.76	1.00
54:CP:10:ASN:O	54:CP:12:THR:HG23	1.62	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CS:173:ASN:ND2	52:CS:174:THR:N	2.08	1.00
52:CS:17:LEU:CD2	52:CS:58:SER:HA	1.89	1.00
57:CY:34:LEU:HD21	57:CY:38:LEU:HB3	1.38	1.00
15:AB:87:ILE:CD1	15:AB:101:HIS:HD2	1.74	1.00
29:AG:25:ARG:CG	29:AG:28:TYR:CE2	2.45	1.00
33:AI:82:VAL:HG11	33:AI:202:ILE:CD1	1.91	1.00
13:AP:44:ARG:NH2	13:AP:84:ILE:N	2.09	1.00
17:AV:1:MET:HE2	17:AV:10:ASP:HB2	1.39	1.00
48:CD:129:GLU:CD	48:CD:177:THR:CG2	2.29	1.00
47:CI:92:HIS:CB	47:CI:94:PHE:CE2	2.45	1.00
79:CJ:29:SER:HA	79:CJ:33:LEU:HD12	1.00	1.00
42:CL:63:THR:OG1	42:CL:66:TYR:HD2	1.43	1.00
41:CO:192:TYR:CB	44:CM:122:ILE:HD13	1.90	1.00
44:CM:14:TYR:CD2	44:CM:56:GLN:OE1	2.14	1.00
41:CO:190:ASP:CB	41:CO:193:THR:N	2.24	1.00
53:CT:40:VAL:HG11	53:CT:96:ILE:HG22	1.02	1.00
16:AA:43:SER:C	16:AA:44:ASP:OD1	1.99	1.00
27:AE:151:ASP:CB	29:AG:212:LEU:CD2	2.39	1.00
27:AE:49:ARG:CD	27:AE:49:ARG:C	2.30	1.00
30:AF:122:ARG:NE	30:AF:193:LYS:NZ	2.10	1.00
7:AM:70:ALA:HB3	7:AM:71:GLU:OE2	1.61	1.00
6:AX:71:ARG:HE	6:AX:82:THR:CG2	1.75	1.00
51:CA:227:ARG:HG2	51:CA:227:ARG:HH11	0.85	1.00
51:CA:24:LYS:CE	51:CA:24:LYS:CA	2.36	1.00
81:CE:223:ARG:O	81:CE:224:LYS:HE2	1.59	1.00
82:CG:179:VAL:HG12	82:CG:179:VAL:O	1.61	1.00
42:CL:149:GLN:C	42:CL:150:LEU:HD23	1.82	1.00
44:CM:35:ARG:HH22	52:CS:108:GLN:NE2	1.59	1.00
46:CN:183:THR:HG22	46:CN:188:ARG:HB2	1.43	1.00
41:CO:124:LEU:HD22	52:CS:172:PRO:HG3	1.42	1.00
49:CQ:61:LEU:HD12	49:CQ:82:VAL:HG22	1.00	1.00
52:CS:59:GLY:C	52:CS:60:GLU:HG3	1.80	1.00
53:CT:134:PRO:CB	53:CT:135:PRO:HD2	1.88	1.00
55:CU:59:GLY:C	55:CU:61:VAL:N	2.12	1.00
55:CU:59:GLY:C	55:CU:61:VAL:HG22	1.82	1.00
29:AG:129:VAL:CA	58:CW:80:ARG:HH11	1.75	1.00
56:CX:39:LYS:C	56:CX:39:LYS:CD	2.30	1.00
30:AF:73:THR:CG2	30:AF:93:VAL:HG21	1.91	0.99
26:AJ:39:ASN:H	26:AJ:42:GLU:HG2	1.26	0.99
10:AN:21:SER:O	10:AN:22:VAL:HG22	1.61	0.99
81:CE:212:LEU:HD12	81:CE:216:TYR:HB2	1.01	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:53:GLY:C	81:CE:63:TYR:HB2	1.81	0.99
81:CE:65:ARG:HG2	81:CE:65:ARG:NH1	1.62	0.99
40:CK:102:GLY:CA	40:CK:139:VAL:CA	2.37	0.99
40:CK:56:LEU:HB3	40:CK:91:ASP:CG	1.83	0.99
46:CN:44:ARG:HD2	46:CN:119:TYR:CD1	1.96	0.99
54:CP:16:LYS:HG2	54:CP:149:ILE:HG12	1.41	0.99
53:CT:11:THR:HB	53:CT:15:PHE:HD2	1.20	0.99
50:CR:28:GLU:OE1	55:CU:124:GLU:OE2	1.80	0.99
59:CZ:73:LYS:CD	59:CZ:75:TYR:CE1	2.45	0.99
12:AR:85:VAL:CG2	16:AA:201:LEU:CD1	2.37	0.99
16:AA:32:PHE:CE1	16:AA:33:GLN:NE2	2.28	0.99
30:AF:93:VAL:O	30:AF:97:PHE:HD1	1.41	0.99
11:AL:10:TYR:HD2	11:AL:12:LYS:NZ	1.54	0.99
11:AL:4:ILE:HD12	11:AL:4:ILE:H	1.12	0.99
74:CC:147:VAL:CG1	74:CC:148:PRO:CD	2.40	0.99
74:CC:84:THR:O	74:CC:85:HIS:CB	2.04	0.99
81:CE:83:LYS:HD3	81:CE:86:GLU:H	1.26	0.99
51:CA:39:GLY:HA3	82:CG:41:ILE:CD1	1.92	0.99
28:AC:170:TRP:CZ2	32:AW:97:ARG:CD	2.45	0.99
26:AJ:72:PHE:CD1	27:AE:248:ILE:CD1	2.43	0.99
33:AI:139:LYS:CB	33:AI:145:ILE:HD11	1.92	0.99
26:AJ:50:LEU:HD12	26:AJ:102:ILE:HD13	1.45	0.99
13:AP:53:GLN:HG2	13:AP:80:LEU:HD12	1.39	0.99
8:AS:8:LYS:HD3	8:AS:9:PHE:HE1	0.84	0.99
6:AX:60:LYS:HG3	6:AX:116:PRO:HG3	1.44	0.99
74:CC:109:ARG:CG	74:CC:111:TRP:CH2	2.44	0.99
74:CC:349:LEU:HD11	74:CC:353:LYS:HE2	1.42	0.99
64:CF:30:ILE:CG2	64:CF:34:ARG:HE	1.72	0.99
56:CX:43:SER:N	82:CG:51:LEU:CD1	2.25	0.99
46:CN:138:PHE:HA	46:CN:143:ARG:NH2	1.75	0.99
54:CP:27:LYS:HG2	54:CP:63:TYR:CB	1.90	0.99
49:CQ:150:ARG:HB3	49:CQ:164:LYS:CB	1.92	0.99
49:CQ:25:LEU:HD12	49:CQ:28:LEU:CD2	1.91	0.99
53:CT:30:TYR:N	53:CT:30:TYR:HD2	1.52	0.99
43:CV:83:ARG:HD3	43:CV:120:PRO:O	1.62	0.99
58:CW:119:LYS:O	58:CW:122:SER:OG	1.79	0.99
57:CY:34:LEU:HG	57:CY:38:LEU:HB2	1.40	0.99
33:AI:79:ILE:HG22	33:AI:103:LEU:O	1.63	0.99
13:AP:111:MET:O	13:AP:114:HIS:CD2	2.15	0.99
18:AY:64:PHE:CD1	18:AY:64:PHE:N	2.29	0.99
74:CC:144:ILE:CG2	74:CC:147:VAL:HG23	1.76	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:354:ALA:O	74:CC:357:ALA:HB3	1.62	0.99
40:CK:123:ARG:NH1	40:CK:129:ILE:CD1	2.24	0.99
46:CN:96:ARG:NH1	46:CN:104:GLU:OE2	1.91	0.99
49:CQ:77:ASN:C	49:CQ:78:LYS:HE2	1.83	0.99
52:CS:145:PHE:C	52:CS:147:ASP:H	1.64	0.99
58:CW:21:TYR:HE2	58:CW:23:ARG:HD3	1.27	0.99
57:CY:44:VAL:HG21	57:CY:119:LEU:CD1	1.91	0.99
57:CY:2:LYS:HE2	57:CY:7:VAL:O	1.62	0.99
59:CZ:42:LEU:HD21	59:CZ:96:VAL:CG1	1.90	0.99
16:AA:145:ILE:HD13	16:AA:159:ILE:HG21	1.40	0.99
23:AD:157:MET:HE1	23:AD:187:LYS:CD	1.89	0.99
23:AD:67:ARG:HH11	23:AD:67:ARG:HG3	1.28	0.99
6:AX:60:LYS:CE	6:AX:116:PRO:HG3	1.92	0.99
74:CC:213:GLU:CA	74:CC:214:ASP:CB	2.40	0.99
74:CC:54:VAL:HG12	74:CC:55:SER:H	0.83	0.99
81:CE:222:LEU:HD22	81:CE:238:GLU:OE1	1.62	0.99
82:CG:189:ARG:HG2	82:CG:190:LEU:HD22	1.44	0.99
47:CI:26:VAL:HG13	47:CI:27:PRO:HD2	1.42	0.99
49:CQ:119:LYS:HE3	49:CQ:121:LEU:CD2	1.92	0.99
43:CV:25:VAL:HG12	43:CV:38:TYR:CD1	1.96	0.99
16:AA:57:LYS:CE	17:AV:70:LEU:CD1	2.41	0.99
16:AA:66:VAL:CG1	16:AA:186:ARG:HB3	1.93	0.99
15:AB:125:VAL:HG11	15:AB:173:THR:HG22	1.43	0.99
27:AE:152:PRO:HD3	29:AG:212:LEU:CD2	1.91	0.99
29:AG:176:ILE:HG22	29:AG:179:LEU:CB	1.91	0.99
5:AO:19:PRO:HG2	5:AO:27:VAL:HG21	1.01	0.99
13:AP:127:LYS:HE3	13:AP:127:LYS:O	1.60	0.99
13:AP:46:ASN:O	13:AP:49:LEU:CD2	2.11	0.99
17:AV:24:ILE:C	17:AV:24:ILE:CD1	2.29	0.99
6:AX:114:ASP:O	6:AX:116:PRO:CD	2.10	0.99
63:CB:173:LEU:HD11	63:CB:342:LYS:HG2	1.43	0.99
44:CM:77:TRP:CA	44:CM:82:ILE:CD1	2.18	0.99
52:CS:16:CYS:HA	52:CS:59:GLY:CA	1.91	0.99
52:CS:90:THR:CG2	53:CT:156:TYR:CG	2.44	0.99
58:CW:34:ALA:HA	58:CW:37:GLU:CD	1.81	0.99
16:AA:118:GLU:OE1	28:AC:65:LYS:HE2	1.62	0.99
23:AD:193:ASP:HA	23:AD:202:LYS:O	1.61	0.99
30:AF:136:ARG:O	30:AF:203:ASN:HB3	1.62	0.99
31:AH:83:LEU:HD13	31:AH:92:VAL:CB	1.86	0.99
13:AP:46:ASN:O	13:AP:49:LEU:HD22	1.61	0.99
3:AU:64:THR:HG22	3:AU:79:ARG:CG	1.91	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:22:VAL:HG22	74:CC:258:ARG:NH2	1.78	0.99
48:CD:223:PHE:HB2	48:CD:226:TYR:HD2	1.27	0.99
48:CD:79:TYR:HB3	48:CD:81:HIS:CE1	1.98	0.99
81:CE:106:VAL:HB	81:CE:108:LYS:H	1.25	0.99
82:CG:121:LYS:CD	82:CG:122:ALA:N	2.24	0.99
82:CG:175:ARG:HH11	82:CG:176:LYS:CA	1.74	0.99
56:CX:42:THR:HA	82:CG:51:LEU:HG	1.43	0.99
40:CK:61:LYS:CE	40:CK:72:GLU:CA	2.33	0.99
50:CR:162:ARG:O	50:CR:166:THR:CG2	2.10	0.99
52:CS:159:LEU:CD2	52:CS:159:LEU:C	2.30	0.99
52:CS:161:ARG:C	52:CS:163:HIS:N	1.91	0.99
56:CX:146:ALA:HA	56:CX:149:VAL:HG12	1.41	0.99
27:AE:128:LYS:CD	27:AE:130:PHE:CE1	2.44	0.99
31:AH:10:LYS:HZ1	31:AH:17:ASP:N	1.61	0.99
31:AH:83:LEU:HD11	31:AH:92:VAL:CB	1.92	0.99
7:AM:13:ASP:O	7:AM:16:THR:HG22	0.96	0.99
18:AY:32:LYS:CG	18:AY:33:ALA:N	2.13	0.99
18:AY:60:PHE:C	18:AY:61:ARG:HD2	1.82	0.99
74:CC:310:HIS:HB2	74:CC:311:ARG:HD3	1.11	0.99
74:CC:39:PHE:HD1	74:CC:39:PHE:C	1.66	0.99
74:CC:46:LYS:HB3	74:CC:49:ARG:NH1	1.76	0.99
81:CE:181:LEU:HD21	81:CE:268:GLN:HG2	1.45	0.99
79:CJ:83:LEU:HD21	79:CJ:132:VAL:CG2	1.91	0.99
50:CR:4:LEU:CD1	50:CR:33:ALA:CA	2.40	0.99
53:CT:138:ALA:HA	53:CT:139:HIS:CE1	1.97	0.99
15:AB:105:LEU:CD1	15:AB:110:MET:HE1	1.93	0.99
15:AB:31:TYR:HD1	15:AB:94:LYS:HA	1.26	0.99
28:AC:180:VAL:HG13	28:AC:181:PRO:HD2	1.40	0.99
11:AL:147:LYS:HG3	11:AL:148:ALA:HA	1.24	0.99
34:AQ:42:ILE:HD13	34:AQ:51:LEU:CG	1.93	0.99
3:AU:50:VAL:CG2	3:AU:52:GLY:HA2	1.91	0.99
6:AX:27:TYR:CD1	6:AX:31:HIS:NE2	2.30	0.99
18:AY:63:HIS:ND1	18:AY:64:PHE:CE1	2.29	0.99
33:AI:25:ARG:NH1	36:B2:433:A:OP1	1.93	0.99
63:CB:285:TYR:CE1	63:CB:363:ILE:HD13	1.93	0.99
74:CC:154:VAL:HG22	74:CC:174:LEU:HD13	1.42	0.99
74:CC:22:VAL:HG22	74:CC:258:ARG:HE	1.27	0.99
74:CC:122:TYR:HE1	74:CC:280:PRO:CB	1.76	0.99
81:CE:212:LEU:CD1	81:CE:216:TYR:CG	2.36	0.99
40:CK:125:LEU:HD11	40:CK:163:PRO:HA	1.44	0.99
40:CK:22:VAL:HG22	40:CK:48:LYS:CA	1.92	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:CO:177:LEU:CD2	44:CM:130:LEU:CD2	2.41	0.99
57:CY:50:ARG:HD2	57:CY:115:ARG:HH22	1.15	0.99
12:AR:19:LYS:HD3	23:AD:212:GLU:CG	1.90	0.99
29:AG:50:VAL:HG13	29:AG:111:LEU:HB3	1.45	0.99
29:AG:188:LYS:HA	29:AG:191:ARG:HD3	1.45	0.99
12:AR:100:PRO:HB2	12:AR:119:VAL:CG2	1.92	0.99
17:AV:81:LYS:N	17:AV:81:LYS:HD3	1.76	0.99
6:AX:105:PHE:HE2	6:AX:119:ARG:HA	0.85	0.99
18:AY:114:MET:CA	18:AY:124:ASN:ND2	2.25	0.99
19:AZ:44:LEU:CD1	19:AZ:44:LEU:C	2.30	0.99
63:CB:153:MET:HE1	63:CB:160:ILE:HG12	1.45	0.99
57:CY:3:PHE:CZ	74:CC:222:ARG:NE	2.31	0.99
81:CE:53:GLY:HA2	81:CE:63:TYR:CG	1.98	0.99
47:CI:191:ILE:HG23	47:CI:192:PRO:HD3	1.44	0.99
42:CL:125:ILE:CA	42:CL:138:ASP:OD2	2.10	0.99
52:CS:23:HIS:CB	52:CS:24:THR:HB	1.92	0.99
52:CS:45:TRP:NE1	52:CS:61:ILE:HD11	1.77	0.99
55:CU:91:LEU:HD22	55:CU:96:LEU:CB	1.92	0.99
56:CX:117:TYR:HB3	56:CX:119:ILE:CG2	1.90	0.99
59:CZ:73:LYS:HE2	59:CZ:75:TYR:HE1	0.82	0.99
33:AI:118:ALA:O	33:AI:119:LEU:HD23	1.61	0.98
26:AJ:170:PRO:CG	26:AJ:175:ARG:HG2	1.92	0.98
26:AJ:92:MET:O	26:AJ:93:LYS:CE	2.10	0.98
11:AL:19:ASN:HD21	33:AI:69:SER:HB2	0.86	0.98
5:AO:54:CYS:SG	5:AO:84:ARG:CB	2.51	0.98
13:AP:127:LYS:HZ1	13:AP:127:LYS:C	1.66	0.98
8:AS:47:LYS:HZ2	8:AS:78:LYS:HB2	1.11	0.98
18:AY:18:LEU:CG	18:AY:20:ARG:NH1	2.25	0.98
74:CC:124:ILE:HG13	74:CC:237:ILE:HD11	1.02	0.98
82:CG:136:LEU:HD23	82:CG:204:PHE:CD1	1.97	0.98
82:CG:208:ASN:HD22	82:CG:210:GLU:HG3	0.85	0.98
80:CH:162:GLN:OE1	80:CH:179:ILE:O	1.80	0.98
44:CM:47:ARG:HH22	44:CM:68:ALA:HB3	0.84	0.98
52:CS:30:MET:HE3	52:CS:47:PHE:CB	1.85	0.98
58:CW:2:LYS:HB3	58:CW:2:LYS:HZ3	1.12	0.98
16:AA:24:HIS:CD2	16:AA:48:ILE:HG23	1.95	0.98
15:AB:205:TYR:CG	15:AB:206:PRO:HD2	1.98	0.98
30:AF:42:LYS:HE3	30:AF:43:GLU:N	1.78	0.98
26:AJ:161:LEU:O	26:AJ:162:ARG:CB	1.96	0.98
26:AJ:165:TYR:N	26:AJ:165:TYR:HD1	1.60	0.98
4:AK:2:LEU:O	4:AK:3:MET:HB3	1.58	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AK:18:GLU:O	4:AK:92:ALA:HB3	1.60	0.98
63:CB:142:GLY:HA2	63:CB:147:GLU:OE1	1.63	0.98
48:CD:152:ARG:CG	79:CJ:145:LYS:HZ3	1.73	0.98
81:CE:286:LEU:HB2	81:CE:287:VAL:HA	1.01	0.98
81:CE:83:LYS:HD2	81:CE:86:GLU:H	1.26	0.98
82:CG:103:ARG:C	82:CG:104:PRO:CD	2.31	0.98
82:CG:99:ALA:HA	82:CG:204:PHE:CZ	1.98	0.98
42:CL:148:THR:HB	42:CL:150:LEU:HD21	1.02	0.98
54:CP:101:ASN:O	54:CP:105:LYS:CD	2.10	0.98
53:CT:143:THR:HA	53:CT:146:LYS:HG3	1.41	0.98
15:AB:137:LEU:HD23	15:AB:215:VAL:HG13	1.44	0.98
27:AE:53:LYS:HD2	27:AE:53:LYS:C	4.09	0.98
12:AR:102:THR:HG22	16:AA:24:HIS:NE2	1.78	0.98
51:CA:118:GLU:CG	51:CA:125:LYS:NZ	2.19	0.98
51:CA:126:LEU:HD13	51:CA:150:LEU:HD21	1.42	0.98
51:CA:45:VAL:HG22	51:CA:61:VAL:HG22	1.41	0.98
63:CB:264:PHE:C	63:CB:264:PHE:HD2	1.64	0.98
81:CE:56:ARG:CG	81:CE:65:ARG:HH12	1.76	0.98
82:CG:147:VAL:O	82:CG:177:MET:HG2	1.63	0.98
82:CG:243:GLY:C	82:CG:244:PRO:CA	2.30	0.98
79:CJ:103:GLY:HA3	79:CJ:157:ILE:CG2	1.92	0.98
46:CN:36:LEU:CD2	46:CN:109:HIS:CD2	2.47	0.98
52:CS:127:MET:HG3	52:CS:128:LYS:HG3	1.45	0.98
43:CV:30:ASP:CG	43:CV:32:THR:HG23	1.83	0.98
57:CY:40:GLN:HA	57:CY:43:ASN:OD1	1.63	0.98
23:AD:126:ILE:CD1	23:AD:134:CYS:SG	2.52	0.98
23:AD:2:ALA:HB1	23:AD:3:VAL:C	1.83	0.98
33:AI:141:ARG:CD	33:AI:144:LYS:HB2	1.88	0.98
4:AK:30:PRO:C	4:AK:31:LYS:HG3	1.73	0.98
13:AP:41:GLN:CG	13:AP:84:ILE:CG1	2.15	0.98
8:AS:14:ARG:NH1	8:AS:17:ASN:CA	2.25	0.98
8:AS:6:PRO:HA	19:AZ:50:PHE:CB	1.93	0.98
48:CD:246:ALA:CA	48:CD:249:GLU:OE2	2.10	0.98
80:CH:105:ILE:HG21	80:CH:112:VAL:HA	1.00	0.98
42:CL:50:PRO:CB	42:CL:51:ALA:HA	1.88	0.98
44:CM:65:PRO:O	44:CM:65:PRO:HG2	1.60	0.98
50:CR:65:LYS:O	50:CR:68:LEU:HG	1.63	0.98
52:CS:75:VAL:CG1	52:CS:76:LYS:H	1.75	0.98
52:CS:90:THR:HG23	53:CT:156:TYR:CG	1.98	0.98
56:CX:117:TYR:C	56:CX:119:ILE:HG22	1.82	0.98
56:CX:120:ASP:O	56:CX:121:VAL:CG2	2.11	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AC:125:LYS:HE3	28:AC:141:VAL:HG11	1.42	0.98
23:AD:177:LEU:HD22	23:AD:182:LEU:HD23	1.43	0.98
26:AJ:117:LEU:O	26:AJ:119:LEU:HD23	1.62	0.98
4:AK:98:ARG:HH11	4:AK:98:ARG:HG2	1.26	0.98
34:AQ:7:LEU:CD2	34:AQ:8:GLN:OE1	2.11	0.98
6:AX:29:LYS:CD	6:AX:34:THR:OG1	2.11	0.98
51:CA:117:GLU:CB	51:CA:122:ASP:OD1	2.10	0.98
74:CC:218:ILE:HA	74:CC:229:LEU:HD13	1.46	0.98
15:AB:52:THR:HG21	82:CG:264:LYS:NZ	1.70	0.98
46:CN:104:GLU:CD	46:CN:161:MET:SD	2.42	0.98
49:CQ:33:ARG:NH2	49:CQ:52:PHE:CZ	2.31	0.98
49:CQ:88:ASP:HB2	49:CQ:108:ARG:HB3	1.43	0.98
86:A7:48:G:O2'	86:A7:49:A:O4'	1.81	0.98
15:AB:20:LYS:C	15:AB:21:VAL:CG1	2.29	0.98
23:AD:105:LEU:HD23	23:AD:184:ILE:CD1	1.93	0.98
23:AD:108:LYS:HB3	23:AD:113:LEU:HD22	1.41	0.98
33:AI:5:ARG:HH11	33:AI:5:ARG:HG2	1.28	0.98
26:AJ:138:ARG:NH1	26:AJ:156:HIS:CG	2.31	0.98
14:AT:103:VAL:O	14:AT:107:LEU:HG	1.62	0.98
36:B2:318:A:H5'	36:B2:319:C:OP2	1.61	0.98
63:CB:159:VAL:CG1	63:CB:184:GLN:OE1	2.11	0.98
63:CB:341:LYS:O	63:CB:342:LYS:HB2	1.63	0.98
79:CJ:83:LEU:CD2	79:CJ:132:VAL:HG21	1.93	0.98
42:CL:167:ARG:HH22	42:CL:170:THR:HG21	1.20	0.98
46:CN:36:LEU:HD23	46:CN:109:HIS:CD2	1.98	0.98
46:CN:56:LYS:HE3	46:CN:59:TYR:HE2	0.82	0.98
49:CQ:25:LEU:O	49:CQ:28:LEU:HG	1.64	0.98
50:CR:32:ILE:CD1	50:CR:44:LEU:HD11	1.93	0.98
55:CU:21:PHE:HZ	55:CU:80:LYS:CE	1.68	0.98
58:CW:79:GLN:OE1	58:CW:94:ARG:NH2	1.94	0.98
56:CX:39:LYS:O	56:CX:40:ILE:HG22	1.62	0.98
59:CZ:33:THR:HG23	59:CZ:40:HIS:HE1	1.26	0.98
15:AB:36:PRO:HB3	15:AB:231:LEU:HD21	0.99	0.98
28:AC:116:THR:HG22	28:AC:119:GLY:C	1.84	0.98
27:AE:53:LYS:CD	27:AE:53:LYS:C	4.06	0.98
30:AF:76:MET:HE2	30:AF:169:ILE:HG21	1.43	0.98
29:AG:176:ILE:HB	29:AG:179:LEU:HD23	1.00	0.98
11:AL:20:LYS:O	11:AL:21:LYS:HB2	1.62	0.98
13:AP:4:VAL:CA	13:AP:10:ARG:CD	1.99	0.98
12:AR:19:LYS:HD2	23:AD:212:GLU:HB3	1.45	0.98
74:CC:147:VAL:HG12	74:CC:148:PRO:HD2	1.45	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:189:MET:HE1	74:CC:200:ARG:HE	1.29	0.98
74:CC:22:VAL:HG22	74:CC:258:ARG:NE	1.76	0.98
74:CC:92:PHE:N	74:CC:92:PHE:CD2	2.29	0.98
82:CG:160:ASP:CG	82:CG:187:LYS:HG2	1.83	0.98
40:CK:10:ILE:O	40:CK:66:ASN:OD1	1.81	0.98
40:CK:78:SER:CB	40:CK:117:ARG:NH1	2.17	0.98
42:CL:43:ALA:O	42:CL:47:ALA:N	1.95	0.98
44:CM:32:ASP:HB2	44:CM:35:ARG:CG	1.94	0.98
44:CM:32:ASP:CB	44:CM:35:ARG:HD2	1.93	0.98
54:CP:131:ARG:HH11	54:CP:137:ASN:ND2	1.60	0.98
49:CQ:92:VAL:O	49:CQ:112:ARG:CZ	2.12	0.98
50:CR:93:VAL:O	50:CR:97:ARG:HG3	1.62	0.98
43:CV:30:ASP:OD2	43:CV:32:THR:HG23	1.63	0.98
15:AB:179:ASN:OD1	15:AB:183:GLU:OE1	1.80	0.98
28:AC:70:VAL:CG2	28:AC:97:PHE:CE2	2.46	0.98
29:AG:157:VAL:CG1	29:AG:159:ARG:N	2.09	0.98
29:AG:84:TYR:CE2	29:AG:86:PRO:HG3	1.99	0.98
26:AJ:110:LEU:HD12	26:AJ:130:ILE:HD13	1.36	0.98
4:AK:62:PHE:HD1	4:AK:67:PHE:CE2	1.76	0.98
13:AP:9:LYS:O	13:AP:10:ARG:CG	2.10	0.98
14:AT:31:PRO:HB3	14:AT:33:TRP:CH2	1.97	0.98
14:AT:75:MET:CE	14:AT:79:TYR:HE2	1.77	0.98
18:AY:9:THR:OG1	18:AY:48:TYR:OH	1.80	0.98
51:CA:227:ARG:CG	51:CA:227:ARG:HH11	1.77	0.98
63:CB:264:PHE:C	63:CB:264:PHE:CD2	2.30	0.98
74:CC:189:MET:HE1	74:CC:200:ARG:NE	1.76	0.98
81:CE:46:ARG:NE	81:CE:46:ARG:HA	1.78	0.98
44:CM:24:LEU:HD11	44:CM:86:TRP:CG	1.98	0.98
46:CN:115:VAL:CA	46:CN:134:LEU:HD23	1.90	0.98
46:CN:75:VAL:HB	46:CN:76:PRO:HD2	1.44	0.98
41:CO:108:ILE:HG22	41:CO:160:ARG:NH1	1.77	0.98
41:CO:190:ASP:CB	41:CO:193:THR:H	1.75	0.98
54:CP:30:ARG:HD2	54:CP:63:TYR:HE2	1.26	0.98
52:CS:159:LEU:CD2	52:CS:160:ARG:N	2.26	0.98
55:CU:27:HIS:CD2	55:CU:114:TYR:HB3	1.97	0.98
63:CB:376:HIS:HE1	85:A5:4664:A:OP1	1.47	0.98
11:AL:7:GLU:HG3	11:AL:8:ARG:HG3	1.46	0.98
5:AO:31:CYS:CB	5:AO:95:ILE:HG12	1.92	0.98
8:AS:119:ALA:CB	13:AP:118:GLU:O	2.11	0.98
8:AS:46:ARG:CG	14:AT:50:GLU:OE2	2.10	0.98
32:AW:11:LEU:HD12	32:AW:74:VAL:HB	1.45	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:219:LYS:NZ	74:CC:222:ARG:NH1	2.04	0.98
79:CJ:20:LEU:HD13	79:CJ:83:LEU:HD21	0.98	0.98
79:CJ:97:ASN:O	79:CJ:99:PHE:N	1.97	0.98
46:CN:99:GLN:HE21	46:CN:130:PHE:HE1	1.06	0.98
85:A5:4881:U:H2'	85:A5:4882:U:C2	1.98	0.98
12:AR:13:ALA:CB	12:AR:54:VAL:HG22	1.92	0.98
51:CA:24:LYS:CE	51:CA:24:LYS:HA	1.91	0.98
63:CB:17:LEU:HD23	63:CB:19:ARG:CG	1.93	0.98
74:CC:54:VAL:HG12	74:CC:55:SER:N	1.59	0.98
81:CE:144:ILE:HD11	81:CE:196:ALA:CB	1.93	0.98
82:CG:28:VAL:HA	82:CG:31:LEU:HD21	1.39	0.98
40:CK:111:ASN:HA	40:CK:114:ARG:NE	1.78	0.98
46:CN:64:ILE:HD11	46:CN:102:ALA:CA	1.92	0.98
52:CS:164:LYS:HE3	52:CS:165:PRO:HD2	1.44	0.98
55:CU:21:PHE:CE1	55:CU:80:LYS:CG	2.42	0.98
55:CU:63:ILE:HD12	55:CU:72:VAL:HG22	0.98	0.98
16:AA:103:PHE:HE2	16:AA:136:GLU:CD	1.68	0.97
27:AE:47:PHE:CE2	27:AE:52:LEU:CD1	2.46	0.97
29:AG:32:MET:HE2	29:AG:63:MET:SD	2.04	0.97
31:AH:144:ILE:HD12	32:AW:52:ILE:HD13	1.42	0.97
4:AK:62:PHE:CD1	4:AK:67:PHE:CZ	2.51	0.97
11:AL:82:MET:CE	36:B2:373:G:H4'	1.93	0.97
13:AP:52:LYS:H	13:AP:54:HIS:CD2	1.81	0.97
34:AQ:58:LEU:HD13	34:AQ:108:ILE:HG23	1.44	0.97
34:AQ:21:ALA:HB2	34:AQ:72:VAL:HG22	1.45	0.97
12:AR:100:PRO:O	12:AR:103:LYS:N	1.90	0.97
8:AS:124:ARG:CZ	13:AP:123:TYR:OH	2.11	0.97
44:CM:77:TRP:NE1	44:CM:82:ILE:HG21	1.79	0.97
54:CP:57:CYS:SG	54:CP:83:TRP:CZ2	2.57	0.97
49:CQ:16:LYS:N	49:CQ:16:LYS:HD2	1.77	0.97
50:CR:132:PHE:CE1	50:CR:137:ILE:HG12	1.98	0.97
52:CS:2:LYS:HZ2	52:CS:43:ARG:HG3	0.83	0.97
52:CS:87:ARG:NH1	52:CS:87:ARG:HG2	1.70	0.97
15:AB:113:MET:HE3	15:AB:209:ASP:OD1	1.59	0.97
28:AC:117:ARG:CZ	28:AC:117:ARG:HB2	1.91	0.97
4:AK:11:ILE:CG2	4:AK:49:MET:HE2	1.79	0.97
63:CB:108:GLU:CB	63:CB:137:TRP:NE1	2.27	0.97
63:CB:361:GLU:OE2	63:CB:362:LYS:N	1.97	0.97
81:CE:232:ILE:HD12	81:CE:232:ILE:O	1.64	0.97
40:CK:102:GLY:CA	40:CK:139:VAL:HG12	1.89	0.97
49:CQ:88:ASP:CB	49:CQ:108:ARG:HB3	1.93	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CZ:5:MET:C	59:CZ:6:LYS:CG	2.29	0.97
15:AB:113:MET:CE	15:AB:209:ASP:CG	2.29	0.97
33:AI:114:GLU:OE1	33:AI:133:GLU:CD	1.93	0.97
26:AJ:72:PHE:CZ	27:AE:248:ILE:CB	2.47	0.97
26:AJ:72:PHE:HE1	27:AE:248:ILE:C	1.67	0.97
10:AN:22:VAL:CB	10:AN:23:PRO:HA	1.94	0.97
30:AF:14:THR:HB	34:AQ:56:LEU:HD13	1.43	0.97
36:B2:841:G:C2'	36:B2:842:C:H5'	1.93	0.97
74:CC:143:ARG:HH11	74:CC:143:ARG:HG2	1.29	0.97
81:CE:45:SER:CB	81:CE:49:VAL:HB	1.94	0.97
81:CE:51:VAL:HG12	81:CE:52:ARG:HA	1.42	0.97
80:CH:52:LYS:O	80:CH:53:LYS:HB2	1.62	0.97
47:CI:193:ASP:OD2	47:CI:198:LYS:HG2	1.63	0.97
40:CK:1:MET:H3	40:CK:2:PRO:HB3	1.29	0.97
44:CM:104:MET:HE2	44:CM:112:VAL:CG2	1.93	0.97
44:CM:32:ASP:HA	52:CS:145:PHE:HZ	1.21	0.97
56:CX:38:LYS:CE	56:CX:39:LYS:O	2.12	0.97
57:CY:42:TYR:CD1	57:CY:119:LEU:HD22	1.98	0.97
63:CB:248:LEU:N	85:A5:2838:G:OP1	1.97	0.97
15:AB:20:LYS:O	15:AB:21:VAL:CG1	2.12	0.97
17:AV:23:ILE:CD1	28:AC:249:SER:CA	2.41	0.97
28:AC:65:LYS:HD3	28:AC:266:TYR:CE1	1.98	0.97
27:AE:61:VAL:O	27:AE:65:CYS:SG	2.22	0.97
30:AF:42:LYS:C	30:AF:42:LYS:CD	2.29	0.97
30:AF:73:THR:HG22	30:AF:93:VAL:CG2	1.93	0.97
29:AG:10:THR:O	58:CW:80:ARG:NH1	1.96	0.97
31:AH:8:ILE:HG23	31:AH:9:VAL:HG22	0.98	0.97
3:AU:111:GLU:OE1	3:AU:111:GLU:HA	1.64	0.97
18:AY:18:LEU:CG	18:AY:20:ARG:HH11	1.76	0.97
63:CB:80:GLU:CD	63:CB:171:LEU:HD22	1.84	0.97
47:CI:38:ARG:HG3	47:CI:83:ASP:HB2	1.45	0.97
44:CM:120:ASN:O	44:CM:123:ILE:CG2	2.11	0.97
49:CQ:95:VAL:HG22	49:CQ:116:ALA:HB2	1.46	0.97
52:CS:15:ARG:HH12	52:CS:24:THR:HG21	1.29	0.97
56:CX:62:ARG:HH11	56:CX:62:ARG:HG2	1.29	0.97
59:CZ:26:VAL:CA	59:CZ:89:ILE:CD1	2.42	0.97
59:CZ:26:VAL:CA	59:CZ:89:ILE:HD11	1.95	0.97
15:AB:68:GLU:OE2	15:AB:83:LYS:HE2	1.64	0.97
28:AC:75:ILE:O	28:AC:97:PHE:HE1	1.45	0.97
30:AF:122:ARG:NE	30:AF:193:LYS:HZ1	1.60	0.97
33:AI:141:ARG:O	33:AI:143:LYS:HB3	1.65	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AS:85:ASN:OD1	8:AS:97:GLN:HA	1.65	0.97
51:CA:32:VAL:HG23	51:CA:163:ARG:HH22	1.27	0.97
82:CG:113:ARG:NH2	82:CG:113:ARG:HG3	1.53	0.97
80:CH:41:ILE:HG23	80:CH:42:ASN:N	1.74	0.97
79:CJ:175:LEU:O	79:CJ:176:PRO:O	1.82	0.97
79:CJ:175:LEU:HB3	79:CJ:176:PRO:HD2	1.28	0.97
44:CM:89:THR:OG1	44:CM:92:ALA:CB	2.12	0.97
49:CQ:95:VAL:CG2	49:CQ:116:ALA:CB	2.42	0.97
50:CR:32:ILE:HD12	50:CR:44:LEU:HD13	1.00	0.97
52:CS:98:ARG:HD2	52:CS:145:PHE:CG	1.97	0.97
57:CY:86:GLN:CB	57:CY:95:VAL:O	2.12	0.97
11:AL:80:MET:SD	11:AL:120:VAL:HG12	2.04	0.97
19:AZ:94:LYS:HD3	19:AZ:94:LYS:C	1.84	0.97
51:CA:28:ARG:HB3	51:CA:123:ARG:CG	1.94	0.97
63:CB:378:ARG:NH1	63:CB:378:ARG:HG3	1.52	0.97
48:CD:130:TYR:C	48:CD:130:TYR:HD2	1.67	0.97
81:CE:181:LEU:HD12	81:CE:261:ILE:HD12	1.44	0.97
80:CH:12:ILE:HD12	80:CH:13:PRO:CD	1.93	0.97
79:CJ:90:ARG:NH2	79:CJ:108:GLY:C	2.15	0.97
40:CK:160:VAL:O	40:CK:163:PRO:CG	2.12	0.97
41:CO:54:TYR:CD2	41:CO:145:VAL:HG21	1.99	0.97
49:CQ:83:VAL:HA	49:CQ:123:PHE:CZ	1.99	0.97
52:CS:111:ARG:NH2	52:CS:111:ARG:HG2	1.75	0.97
52:CS:18:PRO:C	52:CS:19:THR:HG22	1.81	0.97
53:CT:68:THR:HG1	53:CT:71:ALA:HB3	1.29	0.97
55:CU:63:ILE:HD12	55:CU:72:VAL:CG2	1.93	0.97
4:AK:15:LEU:HD13	4:AK:21:MET:HE2	1.46	0.97
4:AK:21:MET:HE1	4:AK:49:MET:SD	2.03	0.97
5:AO:44:VAL:HG21	5:AO:93:LEU:HD13	1.45	0.97
18:AY:93:ARG:NH1	18:AY:93:ARG:HG2	1.71	0.97
19:AZ:48:VAL:O	19:AZ:83:LEU:CD1	2.12	0.97
49:CQ:110:ARG:CZ	74:CC:281:MET:SD	2.51	0.97
81:CE:54:ILE:O	81:CE:63:TYR:N	1.97	0.97
80:CH:12:ILE:HD12	80:CH:13:PRO:N	1.79	0.97
79:CJ:53:ALA:HB2	79:CJ:68:ILE:HD11	1.46	0.97
49:CQ:154:LYS:HE2	49:CQ:156:PRO:CD	1.93	0.97
58:CW:98:PRO:O	58:CW:100:VAL:N	1.96	0.97
57:CY:124:LYS:O	57:CY:127:GLN:HG2	1.63	0.97
30:AF:185:SER:CA	30:AF:190:ILE:HG21	1.95	0.97
33:AI:10:LYS:HG3	33:AI:11:ARG:N	1.79	0.97
26:AJ:100:LEU:HD12	26:AJ:104:ASP:OD2	1.62	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AN:12:SER:O	10:AN:13:GLN:HG3	1.65	0.97
34:AQ:92:LEU:CG	34:AQ:96:TYR:HE2	1.77	0.97
18:AY:122:LYS:HD3	18:AY:123:ALA:N	1.79	0.97
74:CC:209:ILE:HD12	74:CC:227:ILE:HD11	1.47	0.97
74:CC:213:GLU:H	74:CC:214:ASP:HB3	1.16	0.97
74:CC:310:HIS:CG	74:CC:311:ARG:HD3	2.00	0.97
74:CC:349:LEU:CG	74:CC:353:LYS:HE2	1.94	0.97
40:CK:10:ILE:HG22	40:CK:66:ASN:N	1.66	0.97
40:CK:97:ASN:CA	40:CK:98:ILE:CG1	2.07	0.97
42:CL:125:ILE:HG22	42:CL:127:PHE:HE1	1.25	0.97
41:CO:181:ALA:CB	44:CM:126:GLU:HG2	1.94	0.97
50:CR:102:LEU:HD22	50:CR:138:LEU:HD12	1.47	0.97
58:CW:87:LEU:HD23	58:CW:90:ILE:HD11	1.42	0.97
16:AA:17:LYS:HE2	16:AA:17:LYS:N	1.79	0.97
28:AC:259:THR:CG2	28:AC:261:PHE:CA	2.43	0.97
27:AE:149:TYR:CD2	29:AG:205:GLU:CB	2.47	0.97
17:AV:18:SER:OG	17:AV:72:LEU:CD1	2.13	0.97
17:AV:81:LYS:NZ	17:AV:81:LYS:HB2	1.65	0.97
63:CB:56:ILE:HD11	63:CB:368:ILE:HG12	1.47	0.97
43:CV:93:GLY:HA3	63:CB:73:VAL:CG2	1.93	0.97
48:CD:273:LEU:CD1	48:CD:277:LYS:CE	2.36	0.97
81:CE:74:SER:CB	81:CE:74:SER:N	2.28	0.97
40:CK:61:LYS:HE2	40:CK:72:GLU:CB	1.94	0.97
41:CO:4:VAL:HG12	41:CO:4:VAL:O	1.62	0.97
52:CS:21:LYS:N	52:CS:22:CYS:HA	1.74	0.97
27:AE:122:LYS:CG	27:AE:164:LEU:HD21	1.95	0.97
30:AF:25:THR:HG22	30:AF:42:LYS:HD2	0.97	0.97
11:AL:7:GLU:HG3	11:AL:8:ARG:H	1.26	0.97
13:AP:108:LYS:H	13:AP:111:MET:HE3	1.24	0.97
13:AP:51:ARG:HD2	13:AP:51:ARG:N	1.77	0.97
18:AY:62:THR:HG22	18:AY:69:THR:HG22	1.45	0.97
63:CB:108:GLU:HA	63:CB:137:TRP:HE1	1.29	0.97
81:CE:121:VAL:CB	81:CE:122:PRO:HD2	1.93	0.97
64:CF:161:LYS:CG	64:CF:209:TRP:HZ3	1.78	0.97
80:CH:12:ILE:CD1	80:CH:13:PRO:HD2	1.93	0.97
58:CW:20:ARG:HH12	58:CW:28:VAL:HG11	1.16	0.97
5:AO:47:LEU:C	15:AB:67:PHE:CE1	2.37	0.96
15:AB:77:ASP:O	15:AB:79:VAL:HG22	1.64	0.96
28:AC:227:ARG:HH11	28:AC:228:GLY:HA2	0.82	0.96
29:AG:67:VAL:HG21	29:AG:99:GLY:HA2	1.45	0.96
26:AJ:72:PHE:CE1	27:AE:248:ILE:C	2.39	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AK:15:LEU:HD13	4:AK:21:MET:CE	1.96	0.96
3:AU:67:LYS:CG	3:AU:78:ASP:OD2	2.13	0.96
32:AW:7:LEU:HD11	32:AW:33:VAL:HG11	1.46	0.96
18:AY:35:VAL:HG12	18:AY:36:PRO:HD2	1.42	0.96
19:AZ:92:LEU:HD11	19:AZ:109:TYR:CE1	2.00	0.96
63:CB:61:ASP:CG	63:CB:361:GLU:HG3	1.85	0.96
82:CG:121:LYS:HD3	82:CG:125:LYS:O	1.65	0.96
82:CG:150:LYS:CB	82:CG:177:MET:CE	2.42	0.96
82:CG:77:PRO:CB	82:CG:237:TRP:HZ3	1.70	0.96
47:CI:101:LYS:O	47:CI:103:LEU:HD21	1.64	0.96
79:CJ:128:LEU:HD11	79:CJ:130:PHE:CD2	1.93	0.96
42:CL:19:GLN:HB2	42:CL:20:ARG:HH11	1.24	0.96
44:CM:31:ILE:O	52:CS:98:ARG:HD3	1.64	0.96
46:CN:11:TRP:CE3	46:CN:44:ARG:NH2	2.31	0.96
41:CO:65:ASN:HD22	41:CO:68:ARG:HE	1.13	0.96
49:CQ:76:GLU:OE2	49:CQ:97:LYS:NZ	1.97	0.96
53:CT:125:TRP:HD1	53:CT:126:VAL:HG23	0.80	0.96
53:CT:24:VAL:HG12	53:CT:25:VAL:H	0.81	0.96
53:CT:7:LYS:C	53:CT:7:LYS:HD3	1.81	0.96
55:CU:40:GLU:OE2	55:CU:70:ILE:CG1	2.12	0.96
15:AB:113:MET:CE	15:AB:211:PHE:CZ	2.40	0.96
15:AB:57:ILE:HG23	15:AB:57:ILE:O	1.62	0.96
27:AE:48:LEU:HD21	27:AE:70:ILE:CD1	1.95	0.96
29:AG:33:ALA:H	29:AG:52:ILE:HG23	1.30	0.96
26:AJ:70:ARG:NH2	26:AJ:94:LEU:HD21	1.80	0.96
8:AS:12:ILE:O	8:AS:12:ILE:HG22	1.60	0.96
6:AX:29:LYS:CD	6:AX:34:THR:HG21	1.94	0.96
18:AY:63:HIS:CB	18:AY:64:PHE:CE1	2.47	0.96
51:CA:219:ILE:HG22	51:CA:220:GLY:N	1.79	0.96
74:CC:122:TYR:CE1	74:CC:280:PRO:CB	2.48	0.96
46:CN:28:TRP:CZ3	82:CG:67:ARG:CZ	2.48	0.96
49:CQ:16:LYS:H	49:CQ:16:LYS:CD	1.77	0.96
59:CZ:5:MET:N	59:CZ:6:LYS:CD	2.28	0.96
16:AA:58:LEU:CD2	16:AA:178:LEU:HD21	1.94	0.96
28:AC:130:ILE:HD11	28:AC:155:ILE:HG23	1.45	0.96
29:AG:142:ARG:HH11	29:AG:142:ARG:CG	1.79	0.96
33:AI:161:LEU:HD11	33:AI:199:LEU:HD12	0.99	0.96
26:AJ:170:PRO:CB	26:AJ:174:LYS:HE2	1.95	0.96
4:AK:65:ARG:CB	4:AK:65:ARG:HH11	1.76	0.96
5:AO:72:TYR:HB3	30:AF:135:ARG:HH21	1.29	0.96
8:AS:137:LYS:C	8:AS:141:ARG:HH21	1.69	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AV:19:ALA:HB3	17:AV:59:ILE:CD1	1.95	0.96
63:CB:352:LEU:HD23	63:CB:353:VAL:N	1.80	0.96
63:CB:57:VAL:CG1	63:CB:366:LYS:HE2	1.94	0.96
42:CL:31:ARG:NH1	42:CL:34:ARG:HB3	1.80	0.96
46:CN:4:TYR:HE2	82:CG:141:ASN:HD21	1.04	0.96
41:CO:16:LEU:CD2	41:CO:138:LEU:CD2	2.44	0.96
41:CO:81:TRP:HZ3	41:CO:85:ARG:NE	1.57	0.96
49:CQ:36:ALA:HB1	49:CQ:45:GLN:NE2	1.79	0.96
50:CR:142:ILE:HA	50:CR:145:LEU:HD11	1.44	0.96
59:CZ:46:ILE:HD11	59:CZ:49:TYR:HE1	1.28	0.96
12:AR:19:LYS:HD2	23:AD:212:GLU:CB	1.96	0.96
23:AD:3:VAL:O	23:AD:3:VAL:HG12	1.65	0.96
27:AE:130:PHE:HB3	27:AE:138:HIS:CE1	2.00	0.96
31:AH:93:VAL:HG22	31:AH:94:PHE:H	1.28	0.96
14:AT:77:LYS:HA	14:AT:94:ARG:HG2	1.47	0.96
43:CV:93:GLY:CA	63:CB:73:VAL:CG2	2.43	0.96
64:CF:162:ILE:HG21	64:CF:177:ARG:NH2	1.80	0.96
40:CK:102:GLY:HA2	40:CK:139:VAL:CB	1.95	0.96
55:CU:120:ASP:O	55:CU:121:GLU:HG3	1.62	0.96
58:CW:34:ALA:CA	58:CW:37:GLU:HG3	1.94	0.96
56:CX:39:LYS:HD2	56:CX:40:ILE:N	1.80	0.96
59:CZ:5:MET:C	59:CZ:6:LYS:CD	2.34	0.96
64:CF:41:MET:HE3	85:A5:2121:C:H5'	1.47	0.96
16:AA:34:MET:HE1	16:AA:37:TYR:CE2	2.00	0.96
28:AC:164:PRO:HB2	28:AC:248:TYR:CE2	2.00	0.96
7:AM:76:LEU:O	7:AM:128:PHE:CZ	2.18	0.96
12:AR:83:ASN:O	16:AA:201:LEU:CD1	2.12	0.96
14:AT:84:ARG:HH21	14:AT:84:ARG:CB	1.77	0.96
14:AT:84:ARG:CB	14:AT:84:ARG:NH2	2.29	0.96
3:AU:40:ILE:HD11	3:AU:53:PRO:CB	1.94	0.96
6:AX:115:ILE:O	6:AX:115:ILE:HG22	1.65	0.96
74:CC:146:GLU:C	74:CC:175:LYS:HG3	1.85	0.96
74:CC:142:HIS:HE1	74:CC:249:PHE:H	1.03	0.96
74:CC:313:VAL:HG13	74:CC:314:LEU:H	1.20	0.96
47:CI:175:LYS:O	47:CI:176:PHE:HB2	1.63	0.96
50:CR:71:ARG:NH1	50:CR:71:ARG:HB3	1.80	0.96
4:AK:3:MET:SD	4:AK:8:ARG:NH2	2.34	0.96
11:AL:22:ARG:NH1	11:AL:22:ARG:HB3	1.79	0.96
10:AN:115:LEU:O	10:AN:119:GLU:CG	2.13	0.96
34:AQ:72:VAL:HG21	34:AQ:84:ILE:CG2	1.96	0.96
14:AT:77:LYS:CA	14:AT:94:ARG:HG2	1.96	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AA:143:PRO:CB	17:AV:34:MET:SD	2.52	0.96
63:CB:113:GLU:O	63:CB:178:ALA:HB3	1.62	0.96
63:CB:157:CYS:SG	63:CB:160:ILE:CD1	2.53	0.96
42:CL:9:VAL:CA	42:CL:10:LEU:CD2	2.43	0.96
44:CM:47:ARG:HH22	44:CM:68:ALA:CB	1.78	0.96
55:CU:40:GLU:CD	55:CU:70:ILE:HG12	1.85	0.96
57:CY:55:VAL:HG11	57:CY:104:VAL:HG11	0.98	0.96
27:AE:86:PHE:HZ	27:AE:182:MET:CE	1.79	0.96
29:AG:64:LYS:CD	29:AG:67:VAL:HG13	1.94	0.96
31:AH:144:ILE:O	32:AW:51:GLU:HA	1.65	0.96
33:AI:136:ILE:HG22	33:AI:139:LYS:HE3	1.48	0.96
33:AI:154:LYS:CD	33:AI:155:ASN:N	2.29	0.96
11:AL:97:ARG:O	11:AL:99:TYR:N	1.97	0.96
13:AP:41:GLN:CD	13:AP:84:ILE:CG2	2.20	0.96
8:AS:42:HIS:HD2	14:AT:45:LEU:CD1	1.53	0.96
6:AX:74:LEU:HD11	6:AX:81:ILE:HD12	1.47	0.96
18:AY:13:MET:HE2	18:AY:14:THR:C	1.86	0.96
63:CB:106:PHE:HE2	63:CB:110:ILE:HD12	1.29	0.96
74:CC:60:HIS:O	74:CC:62:THR:N	1.98	0.96
40:CK:46:ILE:HG22	40:CK:72:GLU:CD	1.85	0.96
44:CM:60:PHE:HZ	44:CM:85:LYS:CG	1.66	0.96
49:CQ:110:ARG:HG3	49:CQ:120:ILE:HD13	1.48	0.96
53:CT:132:PRO:HG2	64:CF:126:ASN:HD21	1.31	0.96
23:AD:177:LEU:CD2	23:AD:182:LEU:CD2	2.43	0.96
29:AG:162:LEU:HD12	29:AG:162:LEU:O	1.66	0.96
29:AG:210:ALA:HA	29:AG:213:LEU:CD2	1.94	0.96
31:AH:36:LEU:CD1	31:AH:36:LEU:C	2.29	0.96
26:AJ:48:PHE:HZ	26:AJ:52:LYS:NZ	1.57	0.96
7:AM:12:MET:CG	7:AM:16:THR:HG23	1.95	0.96
10:AN:99:ARG:HH21	10:AN:115:LEU:HD21	1.27	0.96
8:AS:46:ARG:CZ	14:AT:50:GLU:CG	2.44	0.96
64:CF:118:PHE:HE2	64:CF:215:SER:HG	1.14	0.96
64:CF:30:ILE:HG23	64:CF:34:ARG:HE	1.28	0.96
46:CN:96:ARG:HG2	46:CN:100:SER:OG	1.66	0.96
41:CO:190:ASP:HB2	41:CO:193:THR:H	1.14	0.96
58:CW:47:ARG:O	58:CW:55:TYR:CD1	2.17	0.96
56:CX:76:ILE:CD1	56:CX:104:ALA:CB	2.44	0.96
57:CY:34:LEU:CD2	57:CY:38:LEU:CB	2.43	0.96
16:AA:34:MET:CE	16:AA:37:TYR:CD2	2.49	0.96
15:AB:87:ILE:HD13	15:AB:101:HIS:HD2	0.80	0.96
12:AR:15:VAL:HG11	23:AD:210:ILE:HD12	0.96	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AF:103:LEU:HD23	30:AF:103:LEU:O	4.25	0.96
29:AG:142:ARG:HH11	29:AG:142:ARG:HG3	1.26	0.96
31:AH:147:LYS:HE2	31:AH:153:LEU:HD12	1.46	0.96
8:AS:8:LYS:CD	8:AS:9:PHE:CE1	2.42	0.96
3:AU:18:HIS:ND1	3:AU:93:SER:O	1.98	0.96
17:AV:64:GLU:O	17:AV:66:ASP:N	1.99	0.96
63:CB:174:ARG:HG3	63:CB:174:ARG:NH1	1.61	0.96
74:CC:144:ILE:CD1	74:CC:249:PHE:CG	2.49	0.96
48:CD:20:PHE:HD2	48:CD:30:TYR:CD2	1.83	0.96
82:CG:83:PHE:CZ	82:CG:159:HIS:HA	1.99	0.96
80:CH:106:GLN:CB	80:CH:107:GLU:HG3	1.95	0.96
80:CH:105:ILE:CG2	80:CH:111:LEU:O	2.13	0.96
80:CH:25:VAL:CG2	80:CH:38:PHE:HE2	1.77	0.96
47:CI:104:SER:CB	47:CI:112:GLN:HG3	1.96	0.96
79:CJ:83:LEU:CD2	79:CJ:132:VAL:CG2	2.44	0.96
42:CL:127:PHE:CE2	42:CL:144:LEU:CB	2.48	0.96
41:CO:65:ASN:OD1	41:CO:67:SER:OG	1.84	0.96
49:CQ:99:LYS:HZ3	49:CQ:119:LYS:CD	1.73	0.96
50:CR:24:LEU:HD11	50:CR:32:ILE:CG2	1.95	0.96
55:CU:48:LYS:HG2	55:CU:52:LYS:CA	1.92	0.96
43:CV:33:GLY:HA3	43:CV:69:LYS:HE3	1.44	0.96
58:CW:80:ARG:HH21	58:CW:80:ARG:CG	1.78	0.96
58:CW:87:LEU:CA	58:CW:90:ILE:CD1	2.41	0.96
57:CY:117:LYS:CE	57:CY:121:ARG:HH21	1.62	0.96
57:CY:34:LEU:CD2	57:CY:38:LEU:HB3	1.96	0.96
59:CZ:78:ASN:O	59:CZ:79:HIS:HB3	1.11	0.96
23:AD:21:LEU:CD1	23:AD:48:ILE:CD1	2.42	0.96
26:AJ:127:ARG:NH1	26:AJ:145:PRO:HB2	1.81	0.96
26:AJ:37:LEU:CG	26:AJ:42:GLU:CB	2.44	0.96
7:AM:77:ILE:HG23	7:AM:78:LYS:H	1.27	0.96
34:AQ:85:ARG:NH1	34:AQ:117:ARG:CG	2.26	0.96
34:AQ:42:ILE:HG21	34:AQ:51:LEU:HD23	1.48	0.96
30:AF:14:THR:CB	34:AQ:56:LEU:CB	2.42	0.96
12:AR:44:LYS:CG	12:AR:47:ARG:CZ	2.44	0.96
8:AS:137:LYS:O	8:AS:141:ARG:NH2	1.96	0.96
6:AX:51:VAL:CG1	6:AX:70:VAL:HG11	1.96	0.96
51:CA:104:VAL:HA	51:CA:107:MET:CE	1.95	0.96
63:CB:90:VAL:HG23	63:CB:104:THR:HG23	1.46	0.96
81:CE:65:ARG:HG2	81:CE:65:ARG:HH11	0.81	0.96
64:CF:197:VAL:HG12	64:CF:198:GLY:N	1.81	0.96
40:CK:147:HIS:HB3	40:CK:148:PRO:HD3	1.48	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CK:23:GLY:O	40:CK:24:ALA:HB3	1.63	0.96
42:CL:55:ILE:CD1	42:CL:120:TYR:CE1	2.47	0.96
42:CL:31:ARG:HH11	42:CL:34:ARG:HB2	1.30	0.96
49:CQ:110:ARG:NE	49:CQ:120:ILE:HD12	1.71	0.96
49:CQ:154:LYS:CE	49:CQ:156:PRO:CD	2.44	0.96
53:CT:30:TYR:CD2	53:CT:30:TYR:N	2.28	0.96
59:CZ:118:PHE:CZ	59:CZ:130:PHE:CZ	2.53	0.96
12:AR:83:ASN:O	16:AA:201:LEU:HD11	1.64	0.95
30:AF:112:LEU:HD23	30:AF:116:ILE:HD11	1.45	0.95
29:AG:11:GLY:HA3	58:CW:80:ARG:CZ	1.96	0.95
33:AI:141:ARG:HD3	33:AI:144:LYS:CB	1.92	0.95
26:AJ:115:PHE:CD1	26:AJ:122:SER:N	2.34	0.95
11:AL:147:LYS:CD	11:AL:147:LYS:C	2.30	0.95
7:AM:85:LEU:HA	7:AM:88:TRP:HE3	1.24	0.95
34:AQ:9:SER:CB	34:AQ:26:LYS:CE	2.43	0.95
34:AQ:47:LEU:HD23	34:AQ:81:ILE:CD1	1.95	0.95
12:AR:120:THR:O	12:AR:121:GLN:HB2	1.61	0.95
18:AY:7:ILE:CD1	18:AY:43:LYS:CB	2.44	0.95
81:CE:121:VAL:CG2	81:CE:122:PRO:CD	2.30	0.95
40:CK:97:ASN:HA	40:CK:98:ILE:HG12	1.47	0.95
41:CO:119:VAL:CG1	41:CO:124:LEU:CD1	2.43	0.95
30:AF:73:THR:HG22	30:AF:93:VAL:HG21	0.96	0.95
29:AG:157:VAL:CG1	29:AG:159:ARG:HG2	1.96	0.95
34:AQ:8:GLN:HB3	34:AQ:99:TYR:CE1	2.01	0.95
63:CB:140:GLU:OE1	63:CB:144:LYS:CB	2.13	0.95
81:CE:121:VAL:CG1	81:CE:122:PRO:HD2	1.96	0.95
82:CG:163:PRO:CG	82:CG:166:LEU:CD1	2.43	0.95
54:CP:57:CYS:SG	54:CP:72:GLN:OE1	2.24	0.95
49:CQ:187:LYS:CE	49:CQ:188:ASN:HD22	1.76	0.95
50:CR:28:GLU:HA	50:CR:28:GLU:OE1	2.75	0.95
59:CZ:57:MET:HE1	59:CZ:61:LYS:HB2	0.97	0.95
15:AB:125:VAL:HG11	15:AB:173:THR:CG2	1.95	0.95
23:AD:132:LYS:CB	23:AD:191:PRO:CG	2.16	0.95
30:AF:91:ARG:NH1	30:AF:94:LYS:HB3	1.76	0.95
29:AG:162:LEU:HD23	29:AG:172:LYS:HE2	1.46	0.95
33:AI:107:THR:OG1	33:AI:108:PRO:HD3	1.66	0.95
33:AI:62:VAL:CG2	33:AI:75:LYS:CE	2.45	0.95
7:AM:89:VAL:HG21	7:AM:109:VAL:HG11	1.46	0.95
34:AQ:135:PRO:HD3	34:AQ:141:TYR:CD1	2.02	0.95
34:AQ:50:LYS:HA	34:AQ:53:GLU:CD	1.85	0.95
12:AR:22:THR:HG22	12:AR:73:LEU:CD1	1.95	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AU:50:VAL:CG2	3:AU:51:LYS:C	2.34	0.95
17:AV:81:LYS:N	17:AV:81:LYS:CD	2.29	0.95
51:CA:28:ARG:HB3	51:CA:123:ARG:HG3	1.47	0.95
57:CY:3:PHE:CZ	74:CC:222:ARG:CZ	2.49	0.95
48:CD:47:PRO:CB	48:CD:66:TYR:CD1	2.31	0.95
82:CG:255:LYS:HE2	82:CG:259:LYS:CD	1.95	0.95
47:CI:21:ARG:NH1	47:CI:22:PHE:CE1	2.33	0.95
49:CQ:13:VAL:HG12	49:CQ:13:VAL:O	1.64	0.95
49:CQ:161:SER:OG	49:CQ:162:HIS:ND1	1.98	0.95
50:CR:4:LEU:HD11	50:CR:33:ALA:CA	1.96	0.95
52:CS:98:ARG:CD	52:CS:145:PHE:CG	2.49	0.95
52:CS:75:VAL:HG13	52:CS:76:LYS:H	0.97	0.95
43:CV:39:ILE:HG23	43:CV:61:VAL:CG1	1.97	0.95
58:CW:80:ARG:CD	58:CW:81:ALA:H	1.78	0.95
57:CY:55:VAL:HG13	57:CY:104:VAL:HG12	1.45	0.95
16:AA:76:VAL:CG2	16:AA:90:PHE:CD2	2.48	0.95
31:AH:37:LYS:HE2	31:AH:41:ARG:NH1	1.81	0.95
33:AI:161:LEU:CD1	33:AI:199:LEU:HD12	1.85	0.95
26:AJ:28:GLU:OE1	26:AJ:40:LYS:CD	2.14	0.95
11:AL:96:ILE:O	11:AL:100:ASN:HA	1.67	0.95
7:AM:13:ASP:O	7:AM:16:THR:N	1.98	0.95
34:AQ:109:LYS:HG3	34:AQ:113:ILE:HD11	1.48	0.95
63:CB:189:THR:CG2	63:CB:192:GLU:HB2	1.96	0.95
74:CC:124:ILE:CD1	74:CC:237:ILE:CD1	2.44	0.95
40:CK:131:GLU:OE2	40:CK:155:ILE:HD12	1.65	0.95
42:CL:148:THR:HB	42:CL:150:LEU:CD2	1.96	0.95
49:CQ:8:ASN:HD22	49:CQ:8:ASN:N	1.65	0.95
58:CW:87:LEU:HD23	58:CW:90:ILE:HD13	1.45	0.95
28:AC:153:GLY:O	28:AC:156:ILE:CG2	2.13	0.95
23:AD:48:ILE:CG2	23:AD:86:LEU:HG	1.95	0.95
27:AE:166:THR:O	27:AE:168:LYS:HD3	1.66	0.95
33:AI:21:TYR:CE2	33:AI:22:HIS:HD2	1.84	0.95
26:AJ:37:LEU:CD2	26:AJ:42:GLU:HB2	1.96	0.95
19:AZ:92:LEU:HD21	19:AZ:109:TYR:CE1	2.01	0.95
63:CB:219:VAL:CG1	63:CB:345:LEU:CD2	2.27	0.95
74:CC:209:ILE:CD1	74:CC:227:ILE:HD11	1.96	0.95
48:CD:115:MET:HE3	48:CD:139:PRO:CB	1.97	0.95
48:CD:51:MET:HE1	48:CD:173:ILE:CD1	1.96	0.95
48:CD:66:TYR:CD2	48:CD:66:TYR:C	2.29	0.95
81:CE:121:VAL:HG13	81:CE:122:PRO:CD	1.96	0.95
81:CE:264:ILE:HG21	81:CE:267:LEU:H	1.31	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:CH:110:SER:HG	80:CH:128:MET:H	1.10	0.95
40:CK:10:ILE:HB	40:CK:66:ASN:HA	1.46	0.95
53:CT:135:PRO:C	53:CT:136:ARG:HG3	1.82	0.95
55:CU:23:LEU:HD23	55:CU:110:TYR:O	1.67	0.95
58:CW:88:ALA:O	58:CW:91:MET:SD	2.24	0.95
56:CX:57:GLN:N	56:CX:58:PRO:CD	2.29	0.95
16:AA:143:PRO:HG3	17:AV:32:ILE:HG23	1.45	0.95
10:AN:53:ILE:HD13	15:AB:52:THR:HG21	83.43	0.95
27:AE:182:MET:HE2	27:AE:228:ILE:HG21	1.49	0.95
26:AJ:16:PRO:HD2	26:AJ:44:TRP:CZ2	2.01	0.95
4:AK:34:GLU:O	4:AK:35:LEU:CB	2.11	0.95
4:AK:83:LEU:HD12	4:AK:85:LEU:HD21	1.45	0.95
8:AS:113:ARG:NH1	13:AP:114:HIS:NE2	2.13	0.95
13:AP:59:ARG:HD3	13:AP:76:VAL:HG13	1.47	0.95
14:AT:77:LYS:HB2	14:AT:94:ARG:CG	1.95	0.95
3:AU:67:LYS:CE	3:AU:78:ASP:OD1	2.13	0.95
40:CK:10:ILE:HG13	40:CK:67:ARG:HA	1.47	0.95
41:CO:16:LEU:HD12	41:CO:43:ILE:HG12	1.45	0.95
54:CP:6:LEU:CD2	54:CP:116:HIS:CE1	2.50	0.95
41:CO:128:ARG:CZ	52:CS:161:ARG:HH21	1.79	0.95
59:CZ:128:LYS:NZ	82:CG:33:GLU:OE1	1.99	0.95
59:CZ:26:VAL:CB	59:CZ:89:ILE:HD11	1.95	0.95
27:AE:153:LEU:HD23	29:AG:216:ARG:NH1	1.81	0.95
27:AE:38:LEU:CD1	27:AE:38:LEU:C	2.33	0.95
26:AJ:169:ARG:CB	26:AJ:170:PRO:HD2	1.96	0.95
26:AJ:37:LEU:CG	26:AJ:42:GLU:HB3	1.96	0.95
12:AR:99:ASP:HA	12:AR:119:VAL:HG13	1.49	0.95
14:AT:102:ARG:NH2	14:AT:105:GLN:OE1	2.00	0.95
8:AS:39:ARG:NE	14:AT:38:LYS:CE	2.06	0.95
18:AY:12:PHE:CZ	18:AY:21:LYS:CB	2.49	0.95
74:CC:283:LYS:CB	74:CC:283:LYS:NZ	2.30	0.95
49:CQ:6:ARG:HH22	64:CF:113:ARG:CA	1.80	0.95
64:CF:161:LYS:HG3	64:CF:209:TRP:CZ3	2.02	0.95
82:CG:28:VAL:C	82:CG:31:LEU:CD2	2.35	0.95
40:CK:123:ARG:CG	40:CK:124:GLU:H	1.75	0.95
42:CL:20:ARG:H	42:CL:20:ARG:CD	1.77	0.95
49:CQ:72:LEU:O	49:CQ:75:ARG:CG	2.14	0.95
16:AA:186:ARG:HH11	16:AA:186:ARG:CG	1.78	0.95
15:AB:160:GLN:NE2	15:AB:205:TYR:HD1	1.58	0.95
28:AC:157:LEU:CA	28:AC:160:LEU:HD21	1.94	0.95
31:AH:145:ARG:HH11	31:AH:155:LYS:HZ2	1.14	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AJ:127:ARG:HG3	26:AJ:127:ARG:HH11	0.79	0.95
4:AK:3:MET:HE3	4:AK:8:ARG:HH22	1.25	0.95
4:AK:16:PHE:HD2	4:AK:79:LEU:HB3	1.29	0.95
8:AS:81:ASP:O	8:AS:87:GLN:NE2	2.00	0.95
14:AT:63:HIS:O	14:AT:67:ARG:HD2	1.67	0.95
3:AU:41:ARG:O	3:AU:45:GLU:HB2	1.65	0.95
32:AW:85:ASP:O	32:AW:89:TRP:HD1	1.47	0.95
6:AX:142:ARG:NH1	6:AX:142:ARG:CB	2.28	0.95
19:AZ:112:ASN:O	19:AZ:113:THR:CG2	2.13	0.95
63:CB:297:LYS:CD	63:CB:300:LYS:HZ3	1.79	0.95
81:CE:149:ILE:HG23	81:CE:197:THR:HB	1.48	0.95
47:CI:92:HIS:CD2	47:CI:94:PHE:CZ	2.55	0.95
47:CI:9:TYR:CE1	47:CI:97:ILE:CG2	2.49	0.95
40:CK:62:LEU:HD11	40:CK:73:VAL:CB	1.96	0.95
40:CK:95:GLN:O	40:CK:96:LYS:CD	2.13	0.95
44:CM:25:VAL:HG11	44:CM:38:VAL:HG12	0.96	0.95
44:CM:14:TYR:O	44:CM:56:GLN:HG2	1.66	0.95
46:CN:36:LEU:HD22	46:CN:109:HIS:HD2	1.30	0.95
49:CQ:154:LYS:HB2	49:CQ:155:ALA:O	1.64	0.95
49:CQ:24:TYR:N	49:CQ:24:TYR:CD2	3.34	0.95
53:CT:40:VAL:CG1	53:CT:96:ILE:HG22	1.81	0.95
58:CW:21:TYR:CE2	58:CW:23:ARG:HD3	2.02	0.95
56:CX:39:LYS:C	56:CX:39:LYS:HD2	1.87	0.95
59:CZ:92:ASP:CA	59:CZ:117:LYS:NZ	2.21	0.95
16:AA:186:ARG:HG2	16:AA:186:ARG:NH1	1.66	0.95
16:AA:94:THR:HG21	16:AA:182:VAL:HG21	1.45	0.95
23:AD:70:THR:CG2	23:AD:86:LEU:HD13	1.96	0.95
27:AE:151:ASP:HB3	29:AG:212:LEU:HD22	1.46	0.95
29:AG:76:LEU:CD2	29:AG:92:ARG:CG	2.40	0.95
31:AH:122:LEU:HD13	31:AH:123:THR:CA	1.95	0.95
33:AI:154:LYS:C	33:AI:154:LYS:HE2	1.86	0.95
26:AJ:110:LEU:CD1	26:AJ:130:ILE:HD11	1.78	0.95
4:AK:84:HIS:CE1	4:AK:85:LEU:HA	2.01	0.95
34:AQ:93:VAL:HG13	34:AQ:105:LYS:HE2	1.31	0.95
18:AY:99:LYS:N	18:AY:99:LYS:CE	2.29	0.95
51:CA:118:GLU:HG3	51:CA:119:LYS:N	1.80	0.95
51:CA:116:LEU:HD11	51:CA:126:LEU:CD1	1.96	0.95
63:CB:83:PRO:O	63:CB:167:GLN:NE2	1.97	0.95
74:CC:168:VAL:HG23	74:CC:224:ILE:HD11	1.49	0.95
74:CC:310:HIS:HB2	74:CC:311:ARG:CG	1.96	0.95
81:CE:165:LEU:HD12	81:CE:174:LEU:HG	1.48	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:274:VAL:CG1	81:CE:275:PHE:N	2.28	0.95
47:CI:181:PHE:CE1	47:CI:190:LEU:HD13	2.01	0.95
41:CO:27:VAL:HG12	41:CO:98:ALA:CB	1.97	0.95
49:CQ:154:LYS:NZ	49:CQ:156:PRO:CD	2.30	0.95
56:CX:117:TYR:HB2	56:CX:119:ILE:CG2	1.96	0.95
16:AA:185:MET:O	16:AA:186:ARG:C	2.01	0.95
15:AB:57:ILE:O	15:AB:60:ASP:N	1.99	0.95
33:AI:154:LYS:C	33:AI:154:LYS:CD	2.30	0.95
33:AI:62:VAL:HB	33:AI:75:LYS:HE2	1.49	0.95
11:AL:17:PHE:CE1	11:AL:18:GLN:HB2	2.01	0.95
7:AM:98:GLY:O	7:AM:100:PRO:CD	2.13	0.95
10:AN:22:VAL:HB	10:AN:23:PRO:CA	1.96	0.95
5:AO:31:CYS:SG	5:AO:93:LEU:HB3	2.07	0.95
13:AP:127:LYS:HZ1	13:AP:128:HIS:N	1.63	0.95
34:AQ:135:PRO:CG	34:AQ:141:TYR:HE1	1.78	0.95
74:CC:24:LEU:N	74:CC:24:LEU:HD23	1.81	0.95
82:CG:39:PHE:CE1	82:CG:47:PRO:HD3	2.01	0.95
40:CK:125:LEU:CD1	40:CK:163:PRO:CB	2.44	0.95
42:CL:140:SER:HA	42:CL:143:GLU:HG3	1.47	0.95
46:CN:135:ILE:HG23	46:CN:142:ILE:HD13	1.48	0.95
41:CO:66:PRO:HD2	41:CO:67:SER:H	1.30	0.95
50:CR:94:THR:HA	50:CR:97:ARG:CD	1.95	0.95
52:CS:82:LEU:CD1	52:CS:124:ILE:CG2	2.17	0.95
53:CT:19:PHE:CE2	53:CT:20:ARG:HG3	2.01	0.95
59:CZ:22:LYS:HD3	59:CZ:129:TRP:CH2	2.02	0.95
30:AF:20:PHE:O	30:AF:21:GLY:C	2.05	0.94
11:AL:149:ALA:HB1	11:AL:156:GLN:CG	1.77	0.94
34:AQ:34:VAL:HG23	34:AQ:39:LEU:HD23	0.95	0.94
6:AX:52:LEU:CD2	6:AX:71:ARG:HB3	1.94	0.94
19:AZ:77:LEU:O	19:AZ:78:LYS:HG2	1.66	0.94
36:B2:127:C:N4	36:B2:180:G:O2'	2.00	0.94
63:CB:133:TYR:CD1	63:CB:136:LYS:HD2	2.02	0.94
74:CC:110:ARG:HD2	74:CC:113:ARG:HH21	1.32	0.94
74:CC:174:LEU:O	74:CC:175:LYS:HB2	1.65	0.94
74:CC:313:VAL:HA	74:CC:314:LEU:HD21	1.48	0.94
74:CC:39:PHE:CD1	74:CC:39:PHE:C	2.37	0.94
74:CC:8:ILE:HD13	74:CC:149:GLU:OE1	1.67	0.94
47:CI:214:SER:C	48:CD:291:GLN:HE22	1.70	0.94
82:CG:146:LEU:CD1	82:CG:147:VAL:HG23	1.97	0.94
82:CG:103:ARG:HG2	82:CG:193:LEU:O	1.66	0.94
15:AB:52:THR:HB	82:CG:264:LYS:HZ2	1.32	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:CH:89:ARG:NH2	80:CH:91:LYS:CE	2.30	0.94
40:CK:1:MET:C	40:CK:2:PRO:CB	2.34	0.94
54:CP:40:HIS:HB3	54:CP:43:LYS:HB2	1.49	0.94
49:CQ:8:ASN:H	49:CQ:8:ASN:ND2	1.65	0.94
50:CR:94:THR:HA	50:CR:97:ARG:HD3	1.48	0.94
59:CZ:33:THR:CG2	59:CZ:40:HIS:CE1	2.50	0.94
16:AA:133:PRO:HD2	16:AA:134:LEU:N	1.82	0.94
26:AJ:54:ARG:NH2	28:AC:201:GLY:HA3	1.82	0.94
28:AC:259:THR:HG23	28:AC:261:PHE:H	1.20	0.94
31:AH:163:GLN:OE1	31:AH:189:PHE:HE2	1.37	0.94
31:AH:15:LYS:CB	31:AH:16:PRO:HD2	1.97	0.94
26:AJ:122:SER:OG	26:AJ:124:HIS:CB	2.15	0.94
26:AJ:138:ARG:NH1	26:AJ:156:HIS:ND1	2.11	0.94
26:AJ:15:THR:CG2	26:AJ:44:TRP:HZ3	1.80	0.94
26:AJ:61:LEU:HD13	26:AJ:94:LEU:HD13	1.48	0.94
12:AR:13:ALA:CA	12:AR:54:VAL:HG22	1.97	0.94
17:AV:18:SER:OG	17:AV:72:LEU:HD11	1.67	0.94
32:AW:104:LEU:HD11	32:AW:106:THR:CG2	1.97	0.94
18:AY:114:MET:HA	18:AY:124:ASN:CG	1.88	0.94
51:CA:189:TYR:CD1	51:CA:195:CYS:SG	2.60	0.94
63:CB:381:THR:CG2	63:CB:383:GLU:HG3	1.97	0.94
74:CC:122:TYR:CD1	74:CC:280:PRO:HG2	2.00	0.94
74:CC:144:ILE:HG23	74:CC:147:VAL:HG23	0.96	0.94
81:CE:106:VAL:HB	81:CE:107:VAL:HA	1.47	0.94
48:CD:27:LYS:CE	79:CJ:147:ARG:NE	2.28	0.94
42:CL:55:ILE:HD11	42:CL:120:TYR:CG	2.02	0.94
41:CO:88:LEU:CD1	41:CO:99:LEU:CD2	2.43	0.94
49:CQ:172:ARG:O	49:CQ:173:LYS:HB2	1.65	0.94
52:CS:30:MET:SD	52:CS:47:PHE:HB2	2.07	0.94
53:CT:17:ARG:CG	53:CT:17:ARG:HH21	1.80	0.94
43:CV:89:ARG:CG	43:CV:95:PHE:CE2	2.49	0.94
56:CX:52:LEU:HD12	56:CX:54:LEU:HD23	1.47	0.94
23:AD:226:GLN:HE21	23:AD:226:GLN:CA	1.80	0.94
13:AP:9:LYS:C	13:AP:10:ARG:HG3	1.82	0.94
34:AQ:16:LYS:HD2	34:AQ:17:LYS:N	1.82	0.94
51:CA:242:ARG:NH1	51:CA:247:ARG:NH2	2.09	0.94
63:CB:10:ARG:NH1	63:CB:265:SER:HB2	1.82	0.94
63:CB:297:LYS:HD2	63:CB:300:LYS:HZ1	1.23	0.94
63:CB:40:PRO:HB3	63:CB:42:HIS:HD2	1.32	0.94
48:CD:27:LYS:HE2	79:CJ:147:ARG:HE	0.92	0.94
81:CE:145:THR:HG22	81:CE:148:THR:HB	1.49	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:56:ARG:CD	81:CE:65:ARG:HH12	1.70	0.94
79:CJ:163:MET:CE	79:CJ:174:ILE:CG1	2.37	0.94
40:CK:116:MET:HB2	40:CK:117:ARG:HH21	1.28	0.94
41:CO:192:TYR:CG	44:CM:122:ILE:HD13	2.02	0.94
46:CN:68:ARG:NH1	46:CN:125:SER:O	1.99	0.94
41:CO:57:PHE:CZ	41:CO:82:ARG:NH2	2.35	0.94
54:CP:57:CYS:SG	54:CP:83:TRP:CE2	2.60	0.94
50:CR:64:ARG:HA	50:CR:67:THR:OG1	1.66	0.94
23:AD:70:THR:HG22	23:AD:86:LEU:CD1	1.96	0.94
27:AE:70:ILE:CG1	27:AE:92:ILE:HD11	1.84	0.94
29:AG:157:VAL:CG1	29:AG:159:ARG:CG	2.45	0.94
11:AL:149:ALA:CA	11:AL:156:GLN:HE21	1.79	0.94
7:AM:124:ILE:HA	7:AM:127:TYR:HD2	1.28	0.94
13:AP:12:PHE:CZ	79:CJ:88:LYS:CE	2.50	0.94
13:AP:41:GLN:HE21	13:AP:84:ILE:HB	0.78	0.94
13:AP:41:GLN:HE22	13:AP:45:LEU:HG	0.80	0.94
17:AV:81:LYS:N	17:AV:81:LYS:CE	2.30	0.94
51:CA:227:ARG:NH1	51:CA:227:ARG:HG2	1.64	0.94
63:CB:108:GLU:CG	63:CB:137:TRP:CG	2.32	0.94
74:CC:133:LEU:HD21	74:CC:136:LEU:HG	1.49	0.94
74:CC:144:ILE:CD1	74:CC:249:PHE:CD1	2.49	0.94
81:CE:45:SER:CB	81:CE:49:VAL:HG12	1.97	0.94
48:CD:27:LYS:CE	79:CJ:147:ARG:HE	1.80	0.94
40:CK:114:ARG:HA	40:CK:133:LEU:HD12	1.49	0.94
41:CO:16:LEU:HD12	41:CO:43:ILE:HD11	1.19	0.94
52:CS:164:LYS:CG	52:CS:165:PRO:HD2	1.98	0.94
16:AA:21:ALA:HB3	16:AA:173:LEU:CD1	1.78	0.94
30:AF:21:GLY:O	30:AF:22:LYS:HG3	1.67	0.94
30:AF:71:ARG:CG	30:AF:71:ARG:HH21	1.80	0.94
13:AP:127:LYS:C	13:AP:127:LYS:CE	2.36	0.94
8:AS:8:LYS:CB	8:AS:9:PHE:CD1	2.37	0.94
51:CA:77:ILE:HD12	51:CA:128:ARG:NH2	1.79	0.94
51:CA:24:LYS:CE	51:CA:24:LYS:N	2.30	0.94
63:CB:115:LYS:HZ3	63:CB:122:TRP:HZ3	1.11	0.94
74:CC:85:HIS:CA	74:CC:87:SER:N	2.31	0.94
81:CE:208:ILE:N	81:CE:209:PRO:HD2	1.71	0.94
81:CE:75:ALA:HB1	81:CE:76:ALA:CB	1.97	0.94
80:CH:89:ARG:NH2	80:CH:91:LYS:HE2	1.81	0.94
40:CK:20:GLY:HA3	40:CK:92:ARG:HH22	1.31	0.94
42:CL:31:ARG:HH11	42:CL:34:ARG:CB	1.79	0.94
42:CL:50:PRO:N	42:CL:51:ALA:CB	2.30	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:CM:77:TRP:HD1	44:CM:82:ILE:HG13	1.12	0.94
50:CR:158:GLN:O	50:CR:161:ALA:HB3	1.67	0.94
50:CR:28:GLU:HG3	50:CR:49:LEU:HD22	1.45	0.94
52:CS:137:CYS:SG	52:CS:143:LYS:HB2	2.07	0.94
52:CS:17:LEU:N	52:CS:59:GLY:HA2	1.82	0.94
85:A5:655:C:H2'	85:A5:656:C:H5''	1.47	0.94
27:AE:19:MET:CE	36:B2:846:G:C2'	2.45	0.94
29:AG:27:PHE:CZ	29:AG:41:LEU:CD1	2.51	0.94
5:AO:52:THR:O	5:AO:53:ILE:CG2	2.15	0.94
34:AQ:24:HIS:CD2	34:AQ:69:ARG:HB2	2.03	0.94
3:AU:97:ILE:HG23	3:AU:101:ILE:HD11	1.50	0.94
18:AY:36:PRO:HG2	18:AY:39:GLU:CD	1.83	0.94
63:CB:153:MET:CE	63:CB:160:ILE:CG1	2.43	0.94
81:CE:140:LEU:HG	81:CE:167:GLN:OE1	1.67	0.94
81:CE:65:ARG:O	81:CE:69:TYR:HD2	1.48	0.94
80:CH:25:VAL:HG21	80:CH:80:MET:HE1	1.49	0.94
49:CQ:103:LEU:HG	49:CQ:123:PHE:CE2	2.02	0.94
52:CS:164:LYS:HG3	52:CS:165:PRO:HD2	1.49	0.94
59:CZ:76:ASN:ND2	59:CZ:78:ASN:CB	2.30	0.94
16:AA:17:LYS:N	16:AA:17:LYS:CE	2.31	0.94
23:AD:195:THR:C	23:AD:197:LYS:CA	2.35	0.94
29:AG:157:VAL:HG13	29:AG:158:VAL:N	1.63	0.94
11:AL:118:ARG:CD	11:AL:118:ARG:C	2.31	0.94
11:AL:19:ASN:ND2	33:AI:69:SER:HB3	1.67	0.94
5:AO:17:LEU:CD2	15:AB:30:TRP:HE1	1.79	0.94
8:AS:31:THR:HA	8:AS:36:VAL:HG22	1.44	0.94
8:AS:8:LYS:O	19:AZ:49:LEU:HD22	1.67	0.94
63:CB:195:ASP:HA	63:CB:198:ARG:CD	1.96	0.94
82:CG:124:GLY:O	82:CG:125:LYS:CB	2.15	0.94
41:CO:192:TYR:HB3	44:CM:122:ILE:CD1	1.98	0.94
41:CO:12:ARG:HD2	41:CO:37:ARG:CZ	1.96	0.94
15:AB:137:LEU:HD21	15:AB:215:VAL:HG13	0.95	0.94
15:AB:113:MET:HE2	15:AB:209:ASP:OD1	1.60	0.94
28:AC:184:VAL:HG21	28:AC:243:ALA:O	1.68	0.94
23:AD:112:GLY:O	23:AD:113:LEU:HG	1.68	0.94
27:AE:139:LEU:HD13	27:AE:154:ILE:HG21	1.48	0.94
30:AF:91:ARG:HH12	30:AF:94:LYS:HG3	1.33	0.94
33:AI:154:LYS:HG3	33:AI:155:ASN:N	1.80	0.94
26:AJ:46:VAL:HG11	26:AJ:106:LEU:CD1	1.97	0.94
11:AL:158:PHE:CD2	11:AL:158:PHE:N	2.29	0.94
7:AM:94:ILE:CG2	7:AM:95:ASP:N	2.17	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:127:LYS:HE3	13:AP:127:LYS:C	1.88	0.94
13:AP:33:LEU:HD21	13:AP:87:PRO:HD3	0.97	0.94
16:AA:143:PRO:HG3	17:AV:32:ILE:CG2	1.98	0.94
18:AY:36:PRO:HG3	18:AY:39:GLU:CD	1.86	0.94
63:CB:301:ASN:HB2	63:CB:304:SER:OG	1.68	0.94
81:CE:56:ARG:HB3	81:CE:65:ARG:HH11	1.15	0.94
82:CG:49:ARG:O	82:CG:51:LEU:HD23	1.68	0.94
80:CH:123:ILE:HG23	80:CH:125:ARG:HH21	1.33	0.94
47:CI:183:ASP:O	47:CI:187:LYS:HG2	1.66	0.94
42:CL:9:VAL:HA	42:CL:10:LEU:CD2	1.98	0.94
44:CM:63:LYS:CE	44:CM:63:LYS:C	2.36	0.94
49:CQ:168:ARG:O	49:CQ:168:ARG:HG2	1.64	0.94
41:CO:119:VAL:O	52:CS:167:PHE:CA	2.15	0.94
16:AA:34:MET:CE	16:AA:37:TYR:CE2	2.51	0.94
16:AA:5:LEU:C	16:AA:5:LEU:HD22	1.87	0.94
28:AC:180:VAL:CG1	28:AC:181:PRO:HD2	1.98	0.94
26:AJ:72:PHE:CE1	27:AE:248:ILE:HG13	1.99	0.94
30:AF:91:ARG:HA	30:AF:91:ARG:HE	1.03	0.94
31:AH:144:ILE:CG1	32:AW:52:ILE:HG23	1.97	0.94
33:AI:19:LYS:HE2	33:AI:20:PRO:CD	1.98	0.94
33:AI:7:ASN:O	33:AI:9:HIS:N	1.99	0.94
4:AK:65:ARG:NH1	4:AK:65:ARG:CB	2.31	0.94
11:AL:125:ILE:HB	11:AL:146:THR:HG21	1.49	0.94
13:AP:33:LEU:HD23	13:AP:87:PRO:CD	1.98	0.94
12:AR:19:LYS:CD	23:AD:212:GLU:HB3	1.96	0.94
74:CC:28:PHE:CZ	74:CC:131:SER:OG	2.21	0.94
48:CD:42:ASN:HD21	53:CT:67:VAL:C	1.69	0.94
47:CI:97:ILE:HD11	47:CI:126:VAL:HG21	1.50	0.94
40:CK:31:LYS:O	40:CK:34:PRO:CG	2.16	0.94
41:CO:177:LEU:CB	44:CM:130:LEU:HD23	1.97	0.94
54:CP:27:LYS:HE2	54:CP:63:TYR:CD1	2.01	0.94
52:CS:162:GLN:HA	52:CS:162:GLN:NE2	1.78	0.94
57:CY:91:ASN:O	57:CY:93:THR:HG23	0.76	0.94
28:AC:259:THR:CG2	28:AC:261:PHE:N	2.31	0.94
28:AC:275:LYS:CG	28:AC:276:THR:N	2.30	0.94
23:AD:212:GLU:CB	23:AD:213:PRO:HD2	1.98	0.94
33:AI:139:LYS:O	33:AI:140:LYS:HB3	1.67	0.94
33:AI:141:ARG:HB3	33:AI:144:LYS:HB2	1.48	0.94
7:AM:35:ILE:HD13	7:AM:61:TYR:CZ	2.02	0.94
5:AO:95:ILE:HD13	5:AO:116:LEU:CD2	1.98	0.94
8:AS:26:ILE:HD11	8:AS:59:LEU:HD21	1.46	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CA:104:VAL:CG1	51:CA:107:MET:CE	2.46	0.94
63:CB:392:LEU:CD2	63:CB:392:LEU:N	2.28	0.94
48:CD:142:PHE:O	48:CD:172:SER:N	2.00	0.94
64:CF:67:THR:O	64:CF:71:MET:HG2	1.67	0.94
82:CG:143:VAL:C	82:CG:146:LEU:HG	1.87	0.94
80:CH:56:ARG:CG	80:CH:56:ARG:HH11	3.96	0.94
47:CI:104:SER:HA	47:CI:112:GLN:CG	1.97	0.94
41:CO:177:LEU:HD22	44:CM:130:LEU:HD21	1.45	0.94
53:CT:111:GLU:OE1	53:CT:115:LYS:HE3	1.67	0.94
58:CW:87:LEU:HD23	58:CW:90:ILE:HD12	0.96	0.94
59:CZ:95:VAL:O	59:CZ:100:VAL:HG21	1.68	0.94
59:CZ:36:ARG:O	59:CZ:38:TYR:N	1.99	0.94
16:AA:104:THR:O	16:AA:107:THR:CG2	2.15	0.94
23:AD:158:ILE:HD11	23:AD:189:MET:HE1	0.95	0.94
26:AJ:10:ARG:CB	26:AJ:10:ARG:NH1	2.31	0.94
8:AS:94:LYS:HE3	8:AS:95:TYR:O	1.66	0.94
18:AY:27:VAL:HG11	18:AY:35:VAL:HG21	1.47	0.94
74:CC:213:GLU:H	74:CC:214:ASP:CB	1.81	0.94
48:CD:246:ALA:HA	48:CD:249:GLU:CD	1.87	0.94
81:CE:283:PRO:CA	81:CE:286:LEU:HD13	1.97	0.94
64:CF:154:ILE:HG22	64:CF:187:MET:SD	2.08	0.94
82:CG:150:LYS:HB2	82:CG:177:MET:HE2	0.94	0.94
47:CI:101:LYS:NZ	47:CI:101:LYS:CB	2.29	0.94
44:CM:93:LYS:O	44:CM:124:LYS:HB2	26.86	0.94
44:CM:51:PRO:CD	44:CM:54:CYS:SG	2.54	0.94
46:CN:138:PHE:HA	46:CN:143:ARG:NE	1.81	0.94
41:CO:55:LEU:HD23	41:CO:58:LEU:CD1	1.97	0.94
54:CP:131:ARG:CD	54:CP:137:ASN:HD21	1.81	0.94
49:CQ:67:ILE:HG13	49:CQ:92:VAL:HG11	1.49	0.94
53:CT:146:LYS:HZ3	53:CT:146:LYS:HB3	1.00	0.94
50:CR:31:GLU:OE1	55:CU:126:ASP:OD1	1.84	0.94
57:CY:22:PRO:CD	57:CY:25:ILE:CD1	2.45	0.94
57:CY:39:ARG:O	57:CY:43:ASN:CA	2.15	0.94
23:AD:197:LYS:CB	23:AD:198:ILE:CG2	2.30	0.93
23:AD:43:PRO:C	23:AD:44:THR:HG23	1.88	0.93
23:AD:56:GLN:HA	23:AD:59:LEU:HD23	1.49	0.93
11:AL:22:ARG:HD2	33:AI:155:ASN:C	1.87	0.93
34:AQ:42:ILE:HG21	34:AQ:51:LEU:HD21	1.46	0.93
18:AY:44:LEU:HD11	18:AY:48:TYR:CD2	2.03	0.93
18:AY:87:PRO:HB2	18:AY:89:HIS:CE1	2.03	0.93
63:CB:297:LYS:CD	63:CB:300:LYS:NZ	2.31	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:CF:182:TYR:CD1	64:CF:200:ARG:NE	2.37	0.93
64:CF:30:ILE:HG22	64:CF:34:ARG:NE	1.84	0.93
82:CG:87:LEU:HD23	82:CG:184:ILE:CG1	1.99	0.93
79:CJ:20:LEU:CD1	79:CJ:132:VAL:HG22	1.97	0.93
40:CK:159:ALA:O	40:CK:163:PRO:HG3	1.69	0.93
44:CM:5:ARG:O	44:CM:6:PHE:HB2	1.68	0.93
46:CN:44:ARG:CG	46:CN:119:TYR:CE1	2.50	0.93
46:CN:116:LEU:CD1	46:CN:151:ILE:HD11	1.94	0.93
54:CP:27:LYS:C	54:CP:27:LYS:HD3	5.00	0.93
50:CR:71:ARG:CZ	50:CR:71:ARG:N	5.28	0.93
52:CS:87:ARG:HH11	52:CS:87:ARG:CG	1.79	0.93
55:CU:37:ALA:HA	55:CU:65:ARG:HH12	1.26	0.93
85:A5:5025:C:H6	85:A5:5026:U:H5'	1.33	0.93
16:AA:39:TYR:CA	16:AA:50:ASN:HD21	1.80	0.93
15:AB:208:HIS:O	15:AB:209:ASP:HB2	1.66	0.93
15:AB:20:LYS:C	15:AB:21:VAL:HG13	1.87	0.93
28:AC:108:LYS:HD2	28:AC:233:LEU:HD22	0.95	0.93
28:AC:163:VAL:HB	28:AC:164:PRO:HD2	1.51	0.93
23:AD:158:ILE:HD12	23:AD:189:MET:CE	1.98	0.93
27:AE:153:LEU:HD23	29:AG:216:ARG:CZ	1.98	0.93
13:AP:128:HIS:HE1	36:B2:1521:C:H1'	1.28	0.93
13:AP:49:LEU:CA	13:AP:51:ARG:HG3	1.96	0.93
13:AP:84:ILE:O	13:AP:86:LEU:HD21	1.68	0.93
3:AU:64:THR:CG2	3:AU:79:ARG:HG2	1.98	0.93
63:CB:153:MET:CE	63:CB:160:ILE:CD1	2.45	0.93
63:CB:40:PRO:CG	63:CB:42:HIS:HD2	1.81	0.93
74:CC:85:HIS:HA	74:CC:87:SER:H	1.29	0.93
48:CD:197:LYS:HD2	48:CD:202:GLN:CG	1.97	0.93
46:CN:28:TRP:HZ3	82:CG:67:ARG:HD3	1.27	0.93
40:CK:114:ARG:CD	40:CK:130:LYS:HA	1.98	0.93
42:CL:191:LEU:HD22	42:CL:194:ILE:CD1	1.97	0.93
41:CO:81:TRP:HZ3	41:CO:85:ARG:CZ	1.82	0.93
54:CP:131:ARG:HD2	54:CP:137:ASN:CG	1.88	0.93
54:CP:131:ARG:HH11	54:CP:137:ASN:HD22	1.05	0.93
54:CP:27:LYS:CG	54:CP:63:TYR:CG	2.51	0.93
52:CS:34:ALA:CB	52:CS:39:VAL:HG23	1.96	0.93
59:CZ:15:ALA:HA	59:CZ:19:SER:CB	1.97	0.93
23:AD:212:GLU:H	23:AD:212:GLU:CD	1.71	0.93
23:AD:27:ARG:HB2	23:AD:27:ARG:NH1	4.75	0.93
11:AL:12:LYS:NZ	33:AI:194:GLU:CD	2.22	0.93
11:AL:156:GLN:OE1	11:AL:158:PHE:HE2	1.35	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:93:MET:SD	13:AP:106:GLU:HB2	2.08	0.93
34:AQ:57:LEU:HD13	34:AQ:115:TYR:CE2	2.03	0.93
34:AQ:19:ALA:CB	34:AQ:74:GLY:O	2.17	0.93
34:AQ:19:ALA:HB1	34:AQ:80:GLN:HE21	1.31	0.93
14:AT:77:LYS:CB	14:AT:94:ARG:HG2	1.98	0.93
18:AY:62:THR:HG22	18:AY:69:THR:HG21	1.49	0.93
36:B2:852:G:H3'	36:B2:853:C:H5''	1.49	0.93
51:CA:141:PRO:O	51:CA:143:THR:N	2.01	0.93
74:CC:147:VAL:HG13	74:CC:152:LEU:HD21	1.46	0.93
74:CC:232:VAL:O	74:CC:263:LEU:CD1	2.17	0.93
74:CC:91:ALA:CB	74:CC:92:PHE:HE2	1.73	0.93
48:CD:110:LEU:CD1	48:CD:115:MET:O	2.15	0.93
82:CG:83:PHE:CZ	82:CG:158:ALA:O	2.21	0.93
47:CI:82:ARG:HH11	47:CI:82:ARG:HG2	1.28	0.93
48:CD:152:ARG:CG	79:CJ:145:LYS:HZ1	1.69	0.93
48:CD:27:LYS:HE2	79:CJ:147:ARG:CZ	1.97	0.93
54:CP:28:ASN:O	54:CP:32:THR:HG22	1.69	0.93
54:CP:71:ALA:CA	54:CP:74:LYS:HE3	1.98	0.93
49:CQ:88:ASP:OD2	49:CQ:108:ARG:HG2	1.67	0.93
57:CY:32:SER:HB3	57:CY:49:ILE:HD11	1.48	0.93
23:AD:74:GLN:HE22	23:AD:75:LYS:HE2	1.33	0.93
11:AL:77:VAL:HG11	11:AL:80:MET:SD	2.07	0.93
34:AQ:76:GLY:O	34:AQ:80:GLN:CG	2.16	0.93
17:AV:23:ILE:HD11	28:AC:249:SER:CA	1.97	0.93
18:AY:29:HIS:HE1	18:AY:68:LYS:H	0.96	0.93
74:CC:134:PRO:HD2	74:CC:135:ALA:H	1.33	0.93
74:CC:271:ALA:HB3	74:CC:274:LYS:HB2	1.50	0.93
40:CK:56:LEU:CB	40:CK:91:ASP:OD2	2.16	0.93
46:CN:7:ILE:HD11	82:CG:166:LEU:HD23	1.49	0.93
46:CN:8:GLN:HE21	46:CN:50:ARG:HH22	1.05	0.93
53:CT:145:GLY:O	53:CT:146:LYS:HE2	1.67	0.93
56:CX:52:LEU:CD1	56:CX:54:LEU:HD23	1.98	0.93
57:CY:34:LEU:HD21	57:CY:38:LEU:CA	1.98	0.93
59:CZ:42:LEU:HD23	59:CZ:96:VAL:HG11	1.50	0.93
59:CZ:10:VAL:C	59:CZ:83:THR:HG23	1.89	0.93
16:AA:176:TRP:HZ2	16:AA:195:TRP:HE3	1.12	0.93
15:AB:137:LEU:CB	15:AB:172:MET:HE1	1.99	0.93
28:AC:171:GLY:O	28:AC:172:ASN:ND2	2.00	0.93
28:AC:259:THR:CG2	28:AC:261:PHE:HA	1.99	0.93
28:AC:275:LYS:CD	28:AC:276:THR:HG22	1.97	0.93
29:AG:157:VAL:HG11	29:AG:159:ARG:CB	1.99	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AI:67:TRP:HZ2	33:AI:158:ILE:HD11	1.32	0.93
26:AJ:115:PHE:HD1	26:AJ:122:SER:H	0.97	0.93
11:AL:147:LYS:CG	11:AL:148:ALA:CA	2.29	0.93
13:AP:10:ARG:NH2	13:AP:11:THR:CG2	2.30	0.93
13:AP:56:LEU:CD1	13:AP:80:LEU:HD12	1.98	0.93
8:AS:95:TYR:CD1	8:AS:95:TYR:N	2.28	0.93
32:AW:42:MET:CE	32:AW:50:PHE:CD2	2.51	0.93
6:AX:67:ARG:C	6:AX:68:LYS:HG3	1.86	0.93
19:AZ:74:SER:HA	19:AZ:79:ILE:HG22	1.50	0.93
36:B2:1138:C:H5''	36:B2:1139:C:OP2	1.69	0.93
36:B2:24:C:H2'	36:B2:25:A:H8	1.29	0.93
74:CC:147:VAL:HG13	74:CC:148:PRO:CD	1.97	0.93
74:CC:122:TYR:HE1	74:CC:280:PRO:HB3	1.33	0.93
74:CC:341:LEU:HD11	81:CE:52:ARG:HH21	1.16	0.93
74:CC:349:LEU:HD11	74:CC:353:LYS:CE	1.98	0.93
82:CG:221:ALA:O	82:CG:224:THR:OG1	1.86	0.93
82:CG:180:PRO:HA	82:CG:227:ASN:HD21	1.33	0.93
80:CH:122:TYR:HE2	80:CH:124:ARG:HG3	1.31	0.93
47:CI:189:CYS:O	47:CI:200:VAL:HG13	1.44	0.93
42:CL:50:PRO:HB2	42:CL:51:ALA:HA	0.95	0.93
46:CN:104:GLU:OE2	46:CN:161:MET:SD	2.27	0.93
54:CP:72:GLN:OE1	54:CP:83:TRP:CZ2	2.20	0.93
58:CW:12:LYS:HE3	63:CB:388:PHE:CD2	2.04	0.93
59:CZ:5:MET:HG3	59:CZ:25:ILE:HD13	1.48	0.93
15:AB:139:CYS:HB2	15:AB:168:MET:SD	2.08	0.93
23:AD:226:GLN:O	23:AD:227:LYS:HG3	1.67	0.93
26:AJ:138:ARG:HH11	26:AJ:156:HIS:CE1	1.79	0.93
10:AN:16:LEU:HD22	10:AN:17:PRO:HD2	1.51	0.93
8:AS:58:GLU:O	8:AS:59:LEU:CD2	2.16	0.93
14:AT:76:THR:CB	14:AT:95:GLY:O	2.16	0.93
14:AT:75:MET:HE3	14:AT:79:TYR:HE2	1.22	0.93
56:CX:42:THR:HG22	82:CG:49:ARG:O	1.68	0.93
80:CH:56:ARG:NH1	80:CH:56:ARG:HG2	4.71	0.93
79:CJ:90:ARG:HH12	79:CJ:107:PHE:HB2	1.24	0.93
79:CJ:163:MET:HE2	79:CJ:174:ILE:CD1	1.86	0.93
42:CL:61:CYS:HB2	42:CL:66:TYR:CB	1.99	0.93
42:CL:77:SER:OG	42:CL:80:GLU:HG3	1.69	0.93
46:CN:77:LYS:HD2	46:CN:77:LYS:C	1.89	0.93
41:CO:118:MET:HE3	52:CS:168:THR:O	0.75	0.93
59:CZ:5:MET:SD	59:CZ:25:ILE:CD1	2.56	0.93
11:AL:10:TYR:HE2	11:AL:12:LYS:HE3	1.27	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AT:143:LYS:HD2	14:AT:144:LYS:H	1.26	0.93
3:AU:103:SER:O	3:AU:106:ILE:HG23	1.66	0.93
18:AY:102:THR:HG21	18:AY:107:ARG:CD	1.98	0.93
74:CC:28:PHE:HE1	74:CC:132:ALA:H	1.08	0.93
74:CC:144:ILE:CG2	74:CC:147:VAL:HG21	1.74	0.93
48:CD:79:TYR:HB3	48:CD:81:HIS:ND1	1.84	0.93
79:CJ:13:ARG:HA	79:CJ:137:PRO:HD2	1.48	0.93
79:CJ:16:ARG:NH1	79:CJ:17:ILE:O	2.01	0.93
44:CM:14:TYR:HD2	44:CM:56:GLN:OE1	1.49	0.93
54:CP:26:PHE:HA	54:CP:144:CYS:HG	1.23	0.93
43:CV:82:ILE:CG2	43:CV:121:VAL:CG1	2.35	0.93
57:CY:110:LYS:HB3	57:CY:115:ARG:CZ	1.99	0.93
23:AD:55:THR:O	23:AD:58:VAL:CG2	2.15	0.93
27:AE:152:PRO:CD	29:AG:212:LEU:HD23	1.92	0.93
26:AJ:127:ARG:NH1	26:AJ:145:PRO:CB	2.31	0.93
26:AJ:17:ARG:HB3	26:AJ:18:ARG:CG	1.99	0.93
8:AS:121:ARG:HG2	8:AS:131:VAL:HG13	1.48	0.93
8:AS:33:ILE:HB	8:AS:36:VAL:HG11	1.48	0.93
17:AV:23:ILE:CD1	28:AC:249:SER:C	2.37	0.93
28:AC:170:TRP:CZ3	32:AW:97:ARG:NH1	2.20	0.93
63:CB:59:GLU:OE1	63:CB:69:LYS:C	2.06	0.93
74:CC:62:THR:HG22	74:CC:64:ALA:H	1.33	0.93
47:CI:86:HIS:HD2	47:CI:139:ARG:HH12	0.97	0.93
79:CJ:83:LEU:HD21	79:CJ:132:VAL:HG22	1.48	0.93
44:CM:5:ARG:HB3	44:CM:11:ARG:NH2	1.82	0.93
44:CM:41:PRO:HG2	44:CM:73:VAL:HG21	0.95	0.93
56:CX:77:ILE:HA	56:CX:100:VAL:HG22	1.51	0.93
28:AC:256:TRP:CD2	32:AW:68:ARG:HD3	2.02	0.93
27:AE:128:LYS:HD3	27:AE:130:PHE:CD1	2.03	0.93
30:AF:110:GLN:O	30:AF:113:VAL:HG12	1.68	0.93
26:AJ:134:HIS:CE1	26:AJ:163:SER:CB	2.42	0.93
7:AM:13:ASP:O	7:AM:16:THR:CB	2.16	0.93
6:AX:51:VAL:HG13	6:AX:70:VAL:HG13	1.47	0.93
51:CA:250:LYS:CA	51:CA:251:THR:O	2.08	0.93
63:CB:115:LYS:CD	63:CB:129:ALA:HB3	1.99	0.93
63:CB:173:LEU:CD1	63:CB:342:LYS:CE	2.46	0.93
63:CB:397:ILE:HG22	63:CB:398:ALA:H	1.28	0.93
74:CC:28:PHE:CD1	74:CC:129:ALA:O	2.22	0.93
81:CE:111:LYS:O	81:CE:113:PRO:CD	2.15	0.93
79:CJ:90:ARG:HH11	79:CJ:107:PHE:HB2	1.10	0.93
46:CN:38:ARG:CG	46:CN:62:TYR:CZ	2.52	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:45:PRO:O	46:CN:49:ARG:HB3	1.69	0.93
49:CQ:38:ARG:HB3	74:CC:302:LEU:CD2	1.98	0.93
49:CQ:39:THR:CG2	49:CQ:41:SER:HB3	1.98	0.93
55:CU:66:SER:C	55:CU:67:LYS:HG2	1.88	0.93
58:CW:2:LYS:NZ	58:CW:2:LYS:CB	2.29	0.93
29:AG:25:ARG:CG	29:AG:28:TYR:CD2	2.51	0.93
29:AG:32:MET:HE1	29:AG:100:CYS:CA	1.92	0.93
29:AG:41:LEU:CD2	29:AG:45:TRP:CE3	2.27	0.93
31:AH:157:HIS:C	31:AH:158:LEU:HD23	1.89	0.93
33:AI:62:VAL:HG21	33:AI:75:LYS:NZ	1.82	0.93
11:AL:113:LEU:HD11	11:AL:120:VAL:CG2	1.98	0.93
13:AP:68:PRO:HB3	13:AP:69:PRO:HD3	1.51	0.93
8:AS:16:LEU:O	8:AS:17:ASN:ND2	2.01	0.93
32:AW:3:ARG:NH2	32:AW:9:ASP:OD2	2.01	0.93
8:AS:136:THR:O	36:B2:1521:C:H2'	1.67	0.93
82:CG:23:GLU:O	82:CG:26:LYS:N	2.02	0.93
40:CK:123:ARG:HG2	40:CK:124:GLU:N	1.84	0.93
43:CV:32:THR:CG2	43:CV:113:LYS:HG3	1.99	0.93
15:AB:19:LYS:HB2	15:AB:19:LYS:HZ3	1.32	0.92
15:AB:36:PRO:HB3	15:AB:231:LEU:CD2	1.96	0.92
29:AG:155:GLN:O	29:AG:156:TYR:CD1	2.21	0.92
26:AJ:165:TYR:CD1	26:AJ:165:TYR:N	2.27	0.92
26:AJ:89:GLU:N	26:AJ:92:MET:HG3	1.83	0.92
4:AK:83:LEU:O	4:AK:84:HIS:ND1	2.02	0.92
11:AL:7:GLU:HG3	11:AL:8:ARG:N	1.79	0.92
12:AR:99:ASP:HA	12:AR:119:VAL:HG12	1.49	0.92
14:AT:143:LYS:CD	14:AT:144:LYS:N	2.31	0.92
32:AW:129:PHE:HD1	32:AW:129:PHE:C	1.71	0.92
18:AY:92:ALA:CA	18:AY:97:TYR:O	2.17	0.92
51:CA:143:THR:HA	51:CA:144:LYS:HG3	1.49	0.92
74:CC:130:ALA:HB1	74:CC:246:VAL:CG1	1.98	0.92
74:CC:219:LYS:HZ1	74:CC:222:ARG:HH12	1.13	0.92
64:CF:67:THR:OG1	64:CF:71:MET:HE1	1.68	0.92
82:CG:143:VAL:O	82:CG:146:LEU:HD12	1.69	0.92
47:CI:101:LYS:HB2	47:CI:101:LYS:HZ2	1.17	0.92
46:CN:178:HIS:O	46:CN:181:HIS:HD2	1.48	0.92
55:CU:80:LYS:HG2	55:CU:110:TYR:HH	1.24	0.92
12:AR:123:THR:HG23	16:AA:44:ASP:HA	1.49	0.92
28:AC:75:ILE:O	28:AC:97:PHE:CZ	2.22	0.92
28:AC:66:LEU:CD1	28:AC:93:ILE:HD13	1.99	0.92
27:AE:21:ASP:CG	27:AE:24:THR:HG21	1.87	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AE:36:HIS:HB2	27:AE:41:CYS:SG	2.08	0.92
29:AG:50:VAL:CG1	29:AG:111:LEU:HB3	1.99	0.92
18:AY:10:ARG:CG	18:AY:24:VAL:HB	2.00	0.92
51:CA:62:VAL:CG2	51:CA:73:THR:HG22	1.99	0.92
48:CD:246:ALA:C	48:CD:249:GLU:HG2	1.88	0.92
82:CG:207:VAL:HG11	82:CG:215:LEU:HD12	1.48	0.92
82:CG:243:GLY:O	82:CG:247:VAL:CG2	2.18	0.92
47:CI:171:TRP:O	47:CI:174:THR:OG1	1.86	0.92
79:CJ:95:ARG:H	79:CJ:98:ASN:HD22	0.96	0.92
46:CN:147:ASP:O	46:CN:150:TRP:HD1	1.51	0.92
46:CN:180:PHE:O	46:CN:184:ILE:CB	2.17	0.92
53:CT:24:VAL:CG1	53:CT:25:VAL:N	2.13	0.92
58:CW:87:LEU:O	58:CW:90:ILE:CA	2.15	0.92
59:CZ:87:VAL:HG22	59:CZ:127:ASN:ND2	1.84	0.92
16:AA:11:LYS:HG2	16:AA:13:GLU:HG2	0.94	0.92
15:AB:209:ASP:OD1	15:AB:211:PHE:CZ	2.21	0.92
28:AC:125:LYS:HE3	28:AC:141:VAL:CG1	1.99	0.92
26:AJ:17:ARG:HB3	26:AJ:18:ARG:HG2	1.49	0.92
5:AO:88:LEU:HD11	15:AB:25:PHE:HE2	1.29	0.92
32:AW:104:LEU:CD1	32:AW:106:THR:CG2	2.47	0.92
32:AW:101:PHE:HA	32:AW:113:HIS:HE1	1.33	0.92
6:AX:27:TYR:CZ	6:AX:31:HIS:CD2	2.57	0.92
6:AX:29:LYS:HD3	6:AX:34:THR:HG21	1.51	0.92
51:CA:97:ASN:ND2	51:CA:100:ASN:HD21	1.67	0.92
63:CB:356:LYS:O	63:CB:358:ARG:N	1.98	0.92
48:CD:261:VAL:HG12	48:CD:262:LYS:HA	0.94	0.92
81:CE:283:PRO:O	81:CE:286:LEU:N	2.00	0.92
82:CG:87:LEU:CD2	82:CG:184:ILE:HG13	2.00	0.92
80:CH:25:VAL:HG21	80:CH:38:PHE:HE2	1.31	0.92
40:CK:12:VAL:CG1	40:CK:65:GLN:OE1	2.17	0.92
40:CK:21:GLU:HA	40:CK:21:GLU:OE2	1.67	0.92
42:CL:125:ILE:CG2	42:CL:127:PHE:CE1	2.53	0.92
46:CN:28:TRP:HZ3	82:CG:67:ARG:NE	1.59	0.92
54:CP:24:VAL:CG1	54:CP:90:PHE:CZ	2.51	0.92
53:CT:144:ASN:HD22	53:CT:144:ASN:C	1.70	0.92
56:CX:56:ARG:O	56:CX:57:GLN:CG	2.16	0.92
57:CY:55:VAL:HG12	57:CY:104:VAL:CG1	1.96	0.92
59:CZ:6:LYS:CD	59:CZ:6:LYS:N	2.29	0.92
59:CZ:73:LYS:CG	59:CZ:75:TYR:CD1	2.52	0.92
31:AH:57:ARG:HD2	31:AH:89:GLY:O	1.67	0.92
7:AM:116:LYS:O	7:AM:117:GLU:CB	2.17	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AV:55:ILE:CD1	17:AV:68:SER:OG	2.17	0.92
51:CA:32:VAL:CG2	51:CA:163:ARG:HH22	1.82	0.92
81:CE:212:LEU:CG	81:CE:216:TYR:HB2	1.98	0.92
82:CG:207:VAL:HG12	82:CG:208:ASN:O	1.69	0.92
80:CH:109:GLY:HA2	80:CH:128:MET:CB	1.70	0.92
80:CH:118:LEU:HD21	80:CH:177:ASP:CG	1.89	0.92
40:CK:56:LEU:CB	40:CK:91:ASP:CG	2.38	0.92
44:CM:63:LYS:HE2	44:CM:64:PHE:HA	1.50	0.92
41:CO:190:ASP:HB2	41:CO:193:THR:CA	1.98	0.92
41:CO:81:TRP:CZ3	41:CO:85:ARG:CZ	2.51	0.92
54:CP:95:LEU:HD12	54:CP:148:MET:CE	1.98	0.92
49:CQ:150:ARG:HB3	49:CQ:164:LYS:HG3	1.51	0.92
57:CY:47:MET:CE	57:CY:48:PRO:HD2	1.98	0.92
28:AC:114:LYS:HD2	28:AC:115:GLN:N	1.84	0.92
23:AD:112:GLY:N	23:AD:113:LEU:CD1	2.33	0.92
27:AE:208:VAL:HG21	27:AE:225:ILE:CD1	1.93	0.92
27:AE:98:ASN:HD21	27:AE:119:ALA:CB	1.81	0.92
31:AH:115:LYS:O	31:AH:116:ARG:HB3	1.65	0.92
31:AH:23:ILE:CD1	31:AH:27:LEU:CD2	2.47	0.92
10:AN:115:LEU:O	10:AN:119:GLU:HG2	1.68	0.92
13:AP:127:LYS:CB	13:AP:127:LYS:NZ	2.30	0.92
13:AP:44:ARG:HH21	13:AP:84:ILE:CB	1.83	0.92
12:AR:5:ARG:CB	12:AR:10:LYS:NZ	2.22	0.92
8:AS:91:LYS:HD2	13:AP:15:PHE:CE1	2.05	0.92
3:AU:73:GLY:O	3:AU:74:SER:C	2.07	0.92
6:AX:99:GLU:O	6:AX:100:VAL:CG1	2.16	0.92
18:AY:21:LYS:CD	18:AY:21:LYS:N	2.30	0.92
51:CA:143:THR:O	51:CA:143:THR:HG22	1.66	0.92
74:CC:133:LEU:HD21	74:CC:136:LEU:CG	1.97	0.92
48:CD:146:LEU:HD21	48:CD:163:LEU:CD1	1.96	0.92
81:CE:83:LYS:CD	81:CE:86:GLU:N	2.32	0.92
82:CG:74:LEU:N	82:CG:74:LEU:CD1	2.29	0.92
40:CK:107:ASP:OD1	40:CK:143:VAL:CG2	2.18	0.92
46:CN:172:ARG:NH2	46:CN:174:LEU:CD1	2.10	0.92
50:CR:10:LEU:CB	50:CR:41:ILE:CD1	2.47	0.92
50:CR:11:ALA:CB	50:CR:50:ILE:CD1	2.42	0.92
52:CS:75:VAL:O	52:CS:99:ASP:O	1.87	0.92
52:CS:76:LYS:HE3	52:CS:100:LEU:O	1.67	0.92
52:CS:90:THR:CG2	53:CT:156:TYR:CE1	2.52	0.92
59:CZ:6:LYS:HD2	59:CZ:6:LYS:N	1.85	0.92
16:AA:106:GLY:C	16:AA:113:GLN:OE1	2.08	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AA:177:MET:HE1	16:AA:180:ARG:HH22	1.25	0.92
28:AC:78:LEU:HD13	28:AC:82:TYR:OH	1.68	0.92
30:AF:167:LYS:HD3	30:AF:171:GLU:HG2	1.52	0.92
33:AI:206:LYS:CD	33:AI:207:GLY:H	1.83	0.92
7:AM:18:LEU:HD22	7:AM:22:LEU:HG	1.49	0.92
7:AM:28:HIS:CD2	7:AM:115:GLY:CA	2.51	0.92
5:AO:52:THR:HG21	36:B2:953:C:H4'	1.52	0.92
5:AO:56:VAL:HG11	5:AO:81:VAL:HG23	1.48	0.92
13:AP:49:LEU:HA	13:AP:51:ARG:CG	1.98	0.92
63:CB:179:HIS:CD2	63:CB:344:VAL:HG21	2.05	0.92
49:CQ:24:TYR:HB2	74:CC:283:LYS:CD	1.98	0.92
81:CE:150:LEU:HB3	81:CE:194:VAL:CG1	2.00	0.92
81:CE:223:ARG:O	81:CE:224:LYS:CD	2.18	0.92
81:CE:83:LYS:HZ2	81:CE:86:GLU:C	1.67	0.92
40:CK:78:SER:CA	40:CK:117:ARG:NH1	2.33	0.92
40:CK:102:GLY:CA	40:CK:139:VAL:HG13	1.89	0.92
46:CN:115:VAL:HA	46:CN:134:LEU:HD23	0.93	0.92
52:CS:10:TYR:HE1	52:CS:66:GLN:HG3	1.31	0.92
57:CY:3:PHE:CE1	74:CC:222:ARG:CZ	2.53	0.92
26:AJ:79:ARG:O	26:AJ:83:ARG:HG3	1.70	0.92
10:AN:137:PRO:O	10:AN:138:ASN:CG	2.07	0.92
12:AR:122:PRO:HB2	12:AR:123:THR:OG1	1.69	0.92
28:AC:256:TRP:CB	32:AW:68:ARG:NH1	2.32	0.92
18:AY:54:VAL:HG22	18:AY:79:LEU:HD23	1.49	0.92
36:B2:127:C:N3	36:B2:180:G:O2'	2.00	0.92
63:CB:11:HIS:ND1	63:CB:236:HIS:O	2.02	0.92
63:CB:82:PRO:HG3	63:CB:171:LEU:HD21	1.47	0.92
63:CB:92:TYR:HD2	63:CB:99:LEU:HD13	1.23	0.92
74:CC:218:ILE:HA	74:CC:229:LEU:CD1	1.99	0.92
74:CC:71:ARG:O	74:CC:73:VAL:HG23	1.70	0.92
48:CD:270:LYS:O	48:CD:271:MET:CG	2.18	0.92
81:CE:96:VAL:HG13	81:CE:97:GLY:H	1.32	0.92
82:CG:159:HIS:CE1	82:CG:186:GLY:H	1.83	0.92
82:CG:220:GLU:O	82:CG:224:THR:HG23	1.68	0.92
47:CI:103:LEU:N	47:CI:103:LEU:CD2	2.29	0.92
54:CP:59:PRO:HG2	54:CP:76:TRP:HD1	0.76	0.92
54:CP:86:LYS:O	54:CP:90:PHE:CD2	2.22	0.92
57:CY:49:ILE:HD11	57:CY:101:PRO:CB	1.96	0.92
57:CY:89:LYS:HD3	57:CY:90:ALA:H	1.22	0.92
16:AA:5:LEU:O	16:AA:5:LEU:HD22	1.70	0.92
15:AB:72:ALA:HB2	15:AB:79:VAL:O	1.70	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AC:78:LEU:HG	28:AC:98:LEU:HD13	1.51	0.92
27:AE:62:LYS:HA	27:AE:65:CYS:SG	2.10	0.92
30:AF:42:LYS:O	30:AF:44:LYS:HA	1.68	0.92
33:AI:154:LYS:CG	33:AI:155:ASN:N	2.30	0.92
6:AX:14:ARG:CB	11:AL:99:TYR:OH	2.16	0.92
13:AP:4:VAL:HA	13:AP:10:ARG:HD2	1.46	0.92
34:AQ:85:ARG:HH22	34:AQ:117:ARG:CG	1.82	0.92
63:CB:285:TYR:CE1	63:CB:363:ILE:HD12	2.02	0.92
63:CB:52:GLY:O	63:CB:78:ILE:HG13	1.68	0.92
48:CD:223:PHE:CG	48:CD:226:TYR:CE2	2.58	0.92
81:CE:280:GLY:O	81:CE:282:TYR:HE2	1.38	0.92
81:CE:286:LEU:HB2	81:CE:287:VAL:CB	1.99	0.92
80:CH:129:ARG:CB	80:CH:130:PRO:HD3	1.97	0.92
42:CL:26:PHE:O	42:CL:29:PRO:HG3	1.69	0.92
52:CS:23:HIS:CD2	52:CS:23:HIS:N	2.30	0.92
59:CZ:12:LEU:HD21	59:CZ:22:LYS:HE2	1.52	0.92
16:AA:140:VAL:HG12	16:AA:140:VAL:O	1.69	0.92
28:AC:125:LYS:HE2	28:AC:127:PHE:HZ	1.16	0.92
23:AD:197:LYS:HB2	23:AD:198:ILE:CB	1.99	0.92
23:AD:226:GLN:CA	23:AD:226:GLN:NE2	2.32	0.92
27:AE:48:LEU:HD21	27:AE:70:ILE:HD12	1.51	0.92
29:AG:32:MET:CE	29:AG:100:CYS:C	2.38	0.92
11:AL:10:TYR:HD2	11:AL:12:LYS:HZ2	1.12	0.92
5:AO:44:VAL:CG2	5:AO:93:LEU:HD13	2.00	0.92
12:AR:22:THR:CG2	12:AR:73:LEU:HD11	1.99	0.92
14:AT:76:THR:HG22	14:AT:96:SER:O	1.68	0.92
48:CD:223:PHE:HD1	48:CD:226:TYR:CZ	1.84	0.92
44:CM:107:PHE:CD1	81:CE:270:TYR:CD1	2.58	0.92
82:CG:46:GLN:CD	82:CG:47:PRO:HD2	1.90	0.92
80:CH:3:THR:OG1	80:CH:67:LEU:HD11	1.70	0.92
80:CH:49:GLY:HA2	80:CH:50:LYS:HZ1	1.19	0.92
80:CH:50:LYS:CE	80:CH:50:LYS:N	2.33	0.92
79:CJ:17:ILE:HD13	79:CJ:83:LEU:CD1	2.00	0.92
44:CM:5:ARG:HD2	44:CM:58:THR:O	1.69	0.92
49:CQ:110:ARG:CZ	49:CQ:120:ILE:CD1	2.40	0.92
55:CU:24:ASP:OD1	55:CU:26:THR:HG23	1.70	0.92
55:CU:39:PHE:HD2	55:CU:70:ILE:HD11	1.35	0.92
58:CW:50:ASN:OD1	58:CW:55:TYR:CE1	2.22	0.92
33:AI:110:ARG:NH2	33:AI:124:LYS:HD3	1.84	0.92
34:AQ:78:VAL:CG1	34:AQ:82:TYR:HE2	1.83	0.92
19:AZ:69:THR:CB	19:AZ:70:PRO:HD3	1.99	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AZ:48:VAL:C	19:AZ:83:LEU:CD1	2.38	0.92
63:CB:17:LEU:CD2	63:CB:19:ARG:HG2	1.99	0.92
49:CQ:22:ASP:CG	74:CC:33:ARG:HE	1.72	0.92
48:CD:20:PHE:CD2	48:CD:30:TYR:CD2	2.55	0.92
48:CD:56:THR:C	48:CD:58:ARG:H	1.72	0.92
48:CD:57:ASN:HA	48:CD:58:ARG:HD3	0.92	0.92
82:CG:160:ASP:HB2	82:CG:187:LYS:HD2	1.52	0.92
79:CJ:115:LEU:CD1	79:CJ:115:LEU:O	2.17	0.92
42:CL:126:LEU:CD2	42:CL:136:LYS:O	2.17	0.92
42:CL:178:ALA:O	42:CL:181:SER:OG	1.88	0.92
54:CP:4:TYR:CE1	54:CP:147:GLU:HB2	2.04	0.92
28:AC:138:GLY:HA2	28:AC:241:PHE:HZ	1.33	0.91
28:AC:65:LYS:HD3	28:AC:266:TYR:HE1	1.30	0.91
30:AF:25:THR:CG2	30:AF:42:LYS:CG	2.07	0.91
30:AF:36:GLN:CG	30:AF:37:ASP:CG	2.38	0.91
74:CC:109:ARG:HD2	74:CC:111:TRP:CZ3	2.03	0.91
74:CC:146:GLU:HG2	74:CC:175:LYS:HE2	1.51	0.91
74:CC:143:ARG:NH2	74:CC:182:LYS:HD2	1.85	0.91
48:CD:223:PHE:N	48:CD:223:PHE:HD2	1.65	0.91
40:CK:131:GLU:CG	40:CK:155:ILE:HD12	1.97	0.91
42:CL:148:THR:O	42:CL:149:GLN:CG	2.17	0.91
52:CS:137:CYS:SG	52:CS:143:LYS:CB	2.58	0.91
58:CW:34:ALA:HA	58:CW:37:GLU:OE1	1.69	0.91
16:AA:21:ALA:HB1	16:AA:173:LEU:HD12	1.49	0.91
16:AA:183:LEU:HB2	16:AA:189:ILE:HD11	1.50	0.91
16:AA:118:GLU:HB3	28:AC:65:LYS:HZ1	0.76	0.91
28:AC:70:VAL:HG11	28:AC:97:PHE:CE2	2.03	0.91
26:AJ:171:GLY:O	26:AJ:173:VAL:N	2.03	0.91
5:AO:44:VAL:HG21	5:AO:93:LEU:CD1	1.99	0.91
13:AP:49:LEU:HD12	13:AP:51:ARG:HE	0.74	0.91
13:AP:53:GLN:HE21	13:AP:80:LEU:HD13	1.27	0.91
18:AY:118:ARG:CZ	29:AG:85:ARG:NE	2.32	0.91
18:AY:7:ILE:HD11	18:AY:43:LYS:CD	2.00	0.91
63:CB:298:LEU:C	63:CB:298:LEU:N	2.23	0.91
48:CD:190:PHE:CZ	48:CD:195:HIS:CB	2.52	0.91
81:CE:242:ILE:HD13	81:CE:246:ARG:NH1	1.84	0.91
54:CP:131:ARG:CD	54:CP:137:ASN:HD22	1.55	0.91
16:AA:45:GLY:O	16:AA:46:ILE:CG1	2.17	0.91
15:AB:57:ILE:CD1	15:AB:60:ASP:OD2	2.19	0.91
28:AC:117:ARG:HG3	28:AC:118:ALA:N	1.84	0.91
4:AK:66:HIS:HE1	23:AD:76:ARG:NE	1.55	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AQ:47:LEU:CD2	34:AQ:81:ILE:HD13	1.97	0.91
32:AW:4:MET:SD	32:AW:4:MET:N	2.44	0.91
6:AX:98:ASP:O	6:AX:99:GLU:HB2	1.70	0.91
18:AY:114:MET:O	18:AY:124:ASN:ND2	2.02	0.91
18:AY:18:LEU:HB3	18:AY:20:ARG:HH11	0.74	0.91
36:B2:1597:C:H4'	36:B2:1603:G:C6	2.06	0.91
80:CH:106:GLN:HB3	80:CH:107:GLU:CG	2.00	0.91
42:CL:139:SER:OG	42:CL:142:GLU:HG2	1.68	0.91
41:CO:36:VAL:CG1	41:CO:107:GLY:O	2.18	0.91
23:AD:94:ARG:HG2	23:AD:95:GLY:N	1.84	0.91
30:AF:91:ARG:HH12	30:AF:94:LYS:CB	1.79	0.91
29:AG:157:VAL:CG1	29:AG:158:VAL:N	2.30	0.91
13:AP:125:PRO:O	13:AP:126:VAL:HG23	1.70	0.91
12:AR:13:ALA:HA	12:AR:54:VAL:HG22	1.50	0.91
12:AR:84:TYR:O	16:AA:85:ARG:NH2	2.03	0.91
12:AR:84:TYR:O	12:AR:85:VAL:HG23	1.69	0.91
32:AW:35:VAL:O	32:AW:39:THR:HG23	1.70	0.91
18:AY:44:LEU:CD1	18:AY:48:TYR:CE2	2.53	0.91
18:AY:52:PRO:HD2	18:AY:53:ASP:H	1.33	0.91
63:CB:395:ASP:CA	63:CB:396:ARG:HB2	1.93	0.91
74:CC:5:ARG:CG	74:CC:24:LEU:CD1	2.27	0.91
48:CD:256:LYS:O	48:CD:256:LYS:HD3	1.70	0.91
81:CE:106:VAL:CB	81:CE:108:LYS:H	1.82	0.91
81:CE:111:LYS:CA	81:CE:113:PRO:HD3	1.99	0.91
82:CG:83:PHE:O	82:CG:85:GLN:N	2.04	0.91
42:CL:20:ARG:N	42:CL:20:ARG:CD	2.30	0.91
42:CL:94:ILE:CG2	42:CL:120:TYR:HE2	1.83	0.91
41:CO:20:ALA:HB1	41:CO:87:MET:CE	1.99	0.91
41:CO:9:LEU:CD2	52:CS:167:PHE:CE1	2.37	0.91
52:CS:17:LEU:HG	52:CS:58:SER:HA	1.53	0.91
15:AB:72:ALA:CA	15:AB:79:VAL:HG23	1.99	0.91
30:AF:103:LEU:CD2	30:AF:178:ILE:CD1	2.22	0.91
26:AJ:48:PHE:HE1	26:AJ:52:LYS:HE3	1.24	0.91
11:AL:82:MET:HB2	11:AL:85:THR:CG2	2.00	0.91
7:AM:61:TYR:HE1	7:AM:108:CYS:HG	1.15	0.91
6:AX:5:ARG:O	32:AW:77:PRO:HD3	1.71	0.91
63:CB:219:VAL:HG13	63:CB:345:LEU:HD21	0.93	0.91
81:CE:175:VAL:O	81:CE:186:LEU:C	2.07	0.91
81:CE:75:ALA:CA	81:CE:76:ALA:CB	2.47	0.91
82:CG:163:PRO:CG	82:CG:166:LEU:HD11	2.00	0.91
80:CH:93:ARG:HD2	80:CH:143:GLU:HG2	0.93	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:CH:134:CYS:SG	80:CH:146:LEU:CD2	2.59	0.91
46:CN:21:PHE:HE2	82:CG:80:ILE:HD13	1.20	0.91
49:CQ:154:LYS:CE	49:CQ:155:ALA:C	2.38	0.91
55:CU:60:VAL:HA	55:CU:75:GLU:H	1.35	0.91
12:AR:85:VAL:CG2	16:AA:201:LEU:CG	2.48	0.91
15:AB:19:LYS:CB	15:AB:19:LYS:NZ	2.29	0.91
28:AC:192:LEU:HD21	28:AC:227:ARG:HG3	1.53	0.91
30:AF:116:ILE:HD13	30:AF:116:ILE:H	1.30	0.91
33:AI:141:ARG:CG	33:AI:144:LYS:CB	2.37	0.91
26:AJ:110:LEU:HD13	26:AJ:130:ILE:HD11	0.92	0.91
26:AJ:17:ARG:CB	26:AJ:18:ARG:CG	2.48	0.91
5:AO:72:TYR:CD2	30:AF:135:ARG:NH2	2.38	0.91
34:AQ:50:LYS:HZ1	34:AQ:117:ARG:CD	1.84	0.91
34:AQ:72:VAL:HG21	34:AQ:84:ILE:HG23	1.52	0.91
12:AR:13:ALA:HA	12:AR:54:VAL:CG2	2.00	0.91
63:CB:165:HIS:HB2	63:CB:180:LEU:CD1	1.93	0.91
48:CD:58:ARG:NH1	48:CD:93:THR:HB	1.85	0.91
81:CE:145:THR:HG21	81:CE:200:LYS:CD	2.00	0.91
53:CT:136:ARG:HD2	64:CF:86:GLU:HG3	1.50	0.91
46:CN:28:TRP:CZ3	82:CG:67:ARG:HD3	2.03	0.91
40:CK:22:VAL:CG2	40:CK:48:LYS:CG	2.48	0.91
56:CX:142:PRO:HD2	56:CX:143:ASP:H	1.34	0.91
57:CY:126:ARG:NH2	57:CY:130:LYS:HD3	1.85	0.91
28:AC:256:TRP:HB3	32:AW:68:ARG:HH11	1.30	0.91
27:AE:205:PHE:CE1	27:AE:221:ARG:NH1	2.39	0.91
29:AG:64:LYS:HD2	29:AG:64:LYS:O	1.69	0.91
33:AI:139:LYS:HB3	33:AI:145:ILE:HD13	1.51	0.91
13:AP:49:LEU:C	13:AP:51:ARG:HD2	1.91	0.91
14:AT:89:PRO:O	14:AT:91:HIS:CD2	2.23	0.91
18:AY:34:THR:CG2	18:AY:35:VAL:N	2.33	0.91
82:CG:143:VAL:O	82:CG:146:LEU:HD11	1.69	0.91
82:CG:234:ARG:CG	82:CG:234:ARG:HH21	1.84	0.91
82:CG:82:GLN:HG2	82:CG:233:ILE:HG22	1.53	0.91
82:CG:85:GLN:O	82:CG:183:ILE:CD1	2.19	0.91
40:CK:159:ALA:C	40:CK:163:PRO:HG3	1.90	0.91
40:CK:46:ILE:HG22	40:CK:72:GLU:OE1	1.71	0.91
44:CM:81:ASP:O	44:CM:84:THR:HG23	1.70	0.91
41:CO:128:ARG:HE	52:CS:161:ARG:CZ	1.84	0.91
54:CP:32:THR:HG21	54:CP:87:SER:HB3	1.52	0.91
49:CQ:132:LYS:CE	74:CC:301:ALA:HB1	2.01	0.91
55:CU:48:LYS:CE	55:CU:52:LYS:HG3	2.01	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:CY:34:LEU:CD1	57:CY:38:LEU:HD13	2.01	0.91
16:AA:180:ARG:HH11	16:AA:184:ARG:NH1	1.68	0.91
15:AB:113:MET:HE1	15:AB:211:PHE:HE2	1.34	0.91
15:AB:49:VAL:HG22	15:AB:65:ARG:NH2	1.83	0.91
28:AC:102:LEU:CD2	28:AC:130:ILE:HG23	1.99	0.91
27:AE:99:PHE:HE1	27:AE:113:ARG:HG3	1.20	0.91
29:AG:32:MET:HE3	29:AG:100:CYS:C	1.92	0.91
26:AJ:35:TYR:O	26:AJ:37:LEU:N	2.04	0.91
26:AJ:37:LEU:CD2	26:AJ:42:GLU:CB	2.49	0.91
4:AK:84:HIS:ND1	4:AK:85:LEU:HA	1.85	0.91
11:AL:125:ILE:HB	11:AL:146:THR:CG2	2.01	0.91
7:AM:61:TYR:HE1	7:AM:108:CYS:SG	1.94	0.91
8:AS:129:LEU:HD22	36:B2:1521:C:H5'	1.53	0.91
32:AW:42:MET:HE1	32:AW:50:PHE:CD2	2.06	0.91
63:CB:80:GLU:OE1	63:CB:171:LEU:HB3	1.70	0.91
48:CD:58:ARG:CD	48:CD:58:ARG:N	2.30	0.91
40:CK:80:LEU:HA	40:CK:83:LYS:HD3	1.52	0.91
44:CM:19:PRO:HD2	44:CM:20:HIS:N	1.84	0.91
50:CR:30:ASN:O	50:CR:34:ASN:OD1	1.89	0.91
53:CT:4:THR:HB	53:CT:9:ARG:NE	1.81	0.91
23:AD:166:TYR:CD1	23:AD:200:PRO:CB	2.52	0.91
30:AF:44:LYS:HB3	30:AF:45:TYR:HE1	1.09	0.91
30:AF:71:ARG:HH21	30:AF:71:ARG:HG2	1.34	0.91
31:AH:10:LYS:CE	31:AH:17:ASP:N	2.28	0.91
26:AJ:39:ASN:OD1	26:AJ:42:GLU:N	2.03	0.91
4:AK:40:VAL:HG13	4:AK:41:PRO:N	1.86	0.91
8:AS:11:HIS:HD2	8:AS:23:ARG:HH21	1.16	0.91
8:AS:11:HIS:HD2	8:AS:23:ARG:HH22	1.15	0.91
3:AU:18:HIS:CE1	3:AU:98:VAL:HG21	2.06	0.91
17:AV:1:MET:HE1	17:AV:10:ASP:CB	2.01	0.91
31:AH:145:ARG:CD	32:AW:51:GLU:HG2	1.99	0.91
18:AY:32:LYS:HG2	18:AY:33:ALA:N	1.86	0.91
74:CC:310:HIS:CB	74:CC:311:ARG:HD2	1.78	0.91
74:CC:33:ARG:HD3	74:CC:122:TYR:OH	1.71	0.91
48:CD:184:ASP:OD1	48:CD:186:GLU:O	1.89	0.91
13:AP:12:PHE:CZ	79:CJ:88:LYS:HE2	2.06	0.91
40:CK:125:LEU:CD1	40:CK:163:PRO:HB3	1.99	0.91
40:CK:12:VAL:CB	40:CK:65:GLN:OE1	2.18	0.91
44:CM:77:TRP:CG	44:CM:82:ILE:CG1	2.47	0.91
49:CQ:85:THR:HG22	49:CQ:104:ARG:CB	2.01	0.91
52:CS:10:TYR:CE1	52:CS:66:GLN:CG	2.54	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:CY:53:ASP:OD2	57:CY:109:LEU:HD23	1.70	0.91
28:AC:263:LYS:NZ	28:AC:268:GLU:OE1	2.02	0.91
27:AE:130:PHE:CG	27:AE:138:HIS:NE2	2.38	0.91
33:AI:142:SER:CA	33:AI:143:LYS:HB2	1.98	0.91
26:AJ:89:GLU:N	26:AJ:92:MET:CG	2.32	0.91
4:AK:60:GLU:OE2	4:AK:67:PHE:CD1	2.21	0.91
10:AN:125:LEU:CD1	10:AN:129:TYR:CE2	2.53	0.91
13:AP:49:LEU:HD13	13:AP:51:ARG:HE	1.34	0.91
34:AQ:135:PRO:CD	34:AQ:141:TYR:CD1	2.54	0.91
8:AS:108:ARG:NH2	79:CJ:119:TYR:CZ	2.39	0.91
36:B2:852:G:H5"	36:B2:853:C:OP2	1.69	0.91
51:CA:32:VAL:CG2	51:CA:163:ARG:NH2	2.33	0.91
74:CC:124:ILE:HD11	74:CC:237:ILE:CD1	2.01	0.91
74:CC:224:ILE:O	74:CC:227:ILE:HG22	1.71	0.91
74:CC:283:LYS:HB2	74:CC:283:LYS:HZ2	1.34	0.91
74:CC:40:VAL:HG12	74:CC:44:LEU:CD1	2.01	0.91
81:CE:46:ARG:CA	81:CE:46:ARG:NE	2.33	0.91
82:CG:163:PRO:HG2	82:CG:166:LEU:HD11	1.51	0.91
41:CO:127:VAL:HG13	52:CS:158:VAL:CG2	1.99	0.91
54:CP:131:ARG:HD3	54:CP:137:ASN:ND2	1.85	0.91
49:CQ:62:SER:HB2	49:CQ:89:ASP:OD2	1.70	0.91
5:AO:47:LEU:C	15:AB:67:PHE:CD1	2.44	0.90
23:AD:177:LEU:HD23	23:AD:182:LEU:HD21	1.52	0.90
29:AG:36:VAL:HG12	29:AG:37:ALA:H	1.36	0.90
29:AG:63:MET:HE3	29:AG:106:LEU:CD1	1.98	0.90
14:AT:31:PRO:HB2	14:AT:33:TRP:CE2	2.04	0.90
16:AA:57:LYS:HE2	17:AV:70:LEU:HD11	1.51	0.90
19:AZ:99:LEU:CD2	19:AZ:109:TYR:HE1	1.77	0.90
63:CB:87:VAL:HG23	63:CB:163:ILE:HG22	1.51	0.90
42:CL:19:GLN:HE22	74:CC:108:TRP:HH2	1.14	0.90
74:CC:24:LEU:H	74:CC:24:LEU:HD23	1.31	0.90
64:CF:51:TYR:HE2	81:CE:58:SER:O	1.47	0.90
80:CH:110:SER:OG	80:CH:111:LEU:HA	1.69	0.90
47:CI:72:ALA:O	47:CI:76:MET:CG	2.18	0.90
46:CN:172:ARG:HH21	46:CN:174:LEU:HD11	0.75	0.90
46:CN:192:TRP:HA	46:CN:195:ARG:CD	2.01	0.90
54:CP:95:LEU:CD1	54:CP:148:MET:CE	2.47	0.90
54:CP:41:ILE:HD13	54:CP:150:LEU:HD13	1.51	0.90
52:CS:17:LEU:CD2	52:CS:58:SER:CA	2.48	0.90
52:CS:10:TYR:HE1	52:CS:66:GLN:CG	1.84	0.90
53:CT:29:THR:C	53:CT:30:TYR:HD2	1.73	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AG:176:ILE:CG2	29:AG:179:LEU:CB	2.49	0.90
29:AG:5:ILE:HD12	29:AG:16:ILE:HD12	1.50	0.90
29:AG:77:LEU:HD11	29:AG:95:LYS:HB2	1.51	0.90
7:AM:13:ASP:CB	7:AM:16:THR:CB	2.28	0.90
12:AR:91:LEU:HD13	12:AR:92:ASP:CA	2.00	0.90
6:AX:74:LEU:CD1	6:AX:81:ILE:HD12	2.00	0.90
18:AY:61:ARG:N	18:AY:61:ARG:CD	2.35	0.90
36:B2:24:C:H2'	36:B2:25:A:C8	2.05	0.90
74:CC:168:VAL:CG2	74:CC:224:ILE:CD1	2.46	0.90
81:CE:67:ALA:O	81:CE:71:ARG:HG3	1.71	0.90
82:CG:143:VAL:HA	82:CG:146:LEU:CG	2.01	0.90
46:CN:184:ILE:CG2	46:CN:185:GLY:N	2.34	0.90
41:CO:181:ALA:CA	44:CM:126:GLU:HG2	2.00	0.90
49:CQ:36:ALA:HB1	49:CQ:45:GLN:HE21	1.33	0.90
52:CS:140:PRO:CD	52:CS:141:ALA:H	1.83	0.90
44:CM:57:LEU:HD11	52:CS:154:LEU:HB2	1.52	0.90
58:CW:76:VAL:CG1	58:CW:77:LYS:N	2.33	0.90
56:CX:119:ILE:CD1	56:CX:120:ASP:N	2.34	0.90
59:CZ:100:VAL:HA	59:CZ:106:LEU:HD21	1.53	0.90
26:AJ:130:ILE:HG12	26:AJ:135:ILE:CD1	2.00	0.90
4:AK:11:ILE:HG22	4:AK:49:MET:HE1	1.51	0.90
5:AO:31:CYS:HB2	5:AO:95:ILE:HG12	1.51	0.90
3:AU:108:PRO:O	3:AU:110:VAL:HG23	1.70	0.90
63:CB:298:LEU:C	63:CB:300:LYS:HG2	1.92	0.90
63:CB:285:TYR:HE1	63:CB:363:ILE:CD1	1.78	0.90
74:CC:295:SER:OG	74:CC:298:ILE:HB	1.72	0.90
74:CC:5:ARG:HH12	74:CC:26:ALA:HB2	1.37	0.90
74:CC:85:HIS:C	74:CC:87:SER:H	1.70	0.90
56:CX:43:SER:N	82:CG:51:LEU:HD11	1.83	0.90
80:CH:12:ILE:HD12	80:CH:13:PRO:HD2	1.53	0.90
47:CI:47:PRO:HB3	47:CI:171:TRP:CH2	2.06	0.90
47:CI:207:ASP:OD2	47:CI:208:LYS:HD2	1.71	0.90
40:CK:2:PRO:HB2	85:A5:2692:U:H2'	183.41	0.90
46:CN:145:ASN:OD1	46:CN:146:PRO:CD	2.18	0.90
41:CO:108:ILE:HG21	41:CO:160:ARG:NH2	1.86	0.90
54:CP:131:ARG:NH1	54:CP:137:ASN:HD22	1.69	0.90
58:CW:77:LYS:O	58:CW:78:PHE:CG	2.24	0.90
58:CW:86:SER:C	58:CW:90:ILE:HG13	1.92	0.90
15:AB:33:VAL:HG12	15:AB:44:ILE:HD12	1.53	0.90
28:AC:256:TRP:CB	32:AW:68:ARG:HH11	1.84	0.90
30:AF:122:ARG:CZ	30:AF:193:LYS:HZ1	1.83	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AQ:42:ILE:CD1	34:AQ:51:LEU:CD1	2.50	0.90
34:AQ:92:LEU:HD11	34:AQ:96:TYR:CZ	2.07	0.90
3:AU:22:ILE:HG12	3:AU:114:VAL:HG22	1.52	0.90
31:AH:143:ARG:NE	32:AW:53:ILE:HG23	1.86	0.90
51:CA:8:GLN:HE22	51:CA:231:ALA:HB1	1.35	0.90
74:CC:12:SER:HB2	74:CC:13:GLU:HG2	1.51	0.90
48:CD:223:PHE:HB2	48:CD:226:TYR:CD2	2.07	0.90
81:CE:282:TYR:HB3	81:CE:283:PRO:HD2	1.51	0.90
81:CE:75:ALA:HA	81:CE:76:ALA:CB	2.00	0.90
46:CN:53:TYR:CE1	46:CN:59:TYR:HB3	2.06	0.90
52:CS:148:SER:O	52:CS:149:LYS:HB2	1.71	0.90
53:CT:142:ARG:O	53:CT:143:THR:HG22	1.71	0.90
85:A5:655:C:C2'	85:A5:656:C:H5''	2.00	0.90
33:AI:140:LYS:HG3	33:AI:141:ARG:N	1.83	0.90
33:AI:37:LYS:O	33:AI:59:ARG:CA	2.17	0.90
13:AP:70:MET:O	13:AP:71:GLU:HB2	1.68	0.90
18:AY:13:MET:HE2	18:AY:14:THR:N	1.85	0.90
19:AZ:85:ARG:CZ	19:AZ:85:ARG:HB3	2.01	0.90
51:CA:97:ASN:ND2	51:CA:100:ASN:ND2	2.19	0.90
74:CC:170:LEU:HD12	74:CC:171:LEU:N	1.86	0.90
48:CD:152:ARG:NH1	79:CJ:145:LYS:NZ	2.18	0.90
48:CD:57:ASN:C	48:CD:58:ARG:HD3	1.90	0.90
81:CE:285:LYS:C	81:CE:287:VAL:HG12	1.91	0.90
49:CQ:61:LEU:HD13	49:CQ:139:LEU:HB3	1.54	0.90
44:CM:32:ASP:CA	52:CS:145:PHE:CZ	2.54	0.90
55:CU:39:PHE:HE2	55:CU:70:ILE:HD12	1.07	0.90
57:CY:22:PRO:HD2	57:CY:25:ILE:CD1	2.00	0.90
23:AD:226:GLN:HE21	23:AD:226:GLN:HA	1.34	0.90
27:AE:153:LEU:HD13	27:AE:172:PHE:HZ	1.33	0.90
27:AE:151:ASP:CB	29:AG:212:LEU:HD21	1.99	0.90
12:AR:11:LYS:O	12:AR:15:VAL:HG23	1.72	0.90
12:AR:91:LEU:H	12:AR:91:LEU:CD1	1.85	0.90
18:AY:37:LYS:O	18:AY:40:ILE:CG2	2.20	0.90
51:CA:242:ARG:CZ	51:CA:247:ARG:NH2	2.34	0.90
81:CE:140:LEU:CG	81:CE:167:GLN:OE1	2.18	0.90
81:CE:224:LYS:HA	81:CE:226:ARG:NH1	1.82	0.90
82:CG:96:LEU:CD1	82:CG:189:ARG:NH2	2.29	0.90
79:CJ:74:VAL:HG12	79:CJ:79:ALA:HB2	1.50	0.90
40:CK:78:SER:CA	40:CK:117:ARG:HH12	1.85	0.90
40:CK:92:ARG:O	40:CK:93:LYS:HB2	1.72	0.90
40:CK:97:ASN:OD1	40:CK:98:ILE:CD1	2.19	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CL:55:ILE:CD1	42:CL:120:TYR:CG	2.55	0.90
44:CM:51:PRO:HD2	44:CM:54:CYS:HG	1.35	0.90
41:CO:169:ARG:NH1	41:CO:173:GLN:HG3	1.85	0.90
49:CQ:124:ASP:OD2	74:CC:284:MET:CG	2.19	0.90
52:CS:83:ARG:HG3	52:CS:92:ASN:HD21	1.07	0.90
57:CY:55:VAL:HG12	57:CY:104:VAL:HG13	1.49	0.90
57:CY:34:LEU:HD21	57:CY:38:LEU:O	1.70	0.90
23:AD:59:LEU:HD12	23:AD:60:GLY:H	1.26	0.90
26:AJ:170:PRO:HG2	26:AJ:175:ARG:HG2	1.52	0.90
11:AL:157:LYS:O	11:AL:158:PHE:CD2	2.25	0.90
7:AM:12:MET:HE3	7:AM:120:ALA:HB2	1.53	0.90
10:AN:142:GLU:CG	10:AN:144:SER:OG	2.19	0.90
12:AR:44:LYS:HE2	12:AR:47:ARG:NH2	1.86	0.90
6:AX:29:LYS:HD2	6:AX:34:THR:HG1	1.35	0.90
18:AY:111:LYS:HZ3	18:AY:115:LYS:HZ1	1.16	0.90
74:CC:311:ARG:NH1	74:CC:311:ARG:HB3	1.86	0.90
81:CE:212:LEU:CG	81:CE:216:TYR:CB	2.49	0.90
44:CM:25:VAL:HG12	44:CM:38:VAL:HG13	1.52	0.90
46:CN:146:PRO:O	46:CN:148:THR:N	2.05	0.90
52:CS:71:SER:HB2	52:CS:74:ARG:HB2	1.51	0.90
50:CR:49:LEU:CD2	55:CU:122:GLU:OE1	2.20	0.90
28:AC:192:LEU:HD21	28:AC:227:ARG:CG	2.00	0.90
26:AJ:127:ARG:HH12	26:AJ:145:PRO:CB	1.85	0.90
12:AR:121:GLN:C	12:AR:121:GLN:HE21	1.74	0.90
8:AS:58:GLU:O	8:AS:59:LEU:HD13	1.72	0.90
6:AX:60:LYS:HE2	6:AX:116:PRO:CG	2.02	0.90
18:AY:98:GLU:C	18:AY:98:GLU:CD	2.31	0.90
51:CA:242:ARG:CZ	51:CA:247:ARG:HH21	1.84	0.90
51:CA:32:VAL:HG22	51:CA:163:ARG:NH2	1.87	0.90
63:CB:142:GLY:HA2	63:CB:147:GLU:N	1.87	0.90
74:CC:128:LEU:HD11	74:CC:235:LEU:HD12	1.54	0.90
79:CJ:144:LYS:O	79:CJ:148:THR:HG22	1.72	0.90
49:CQ:61:LEU:HD11	49:CQ:139:LEU:C	1.92	0.90
28:AC:65:LYS:CE	28:AC:266:TYR:HE1	1.83	0.90
28:AC:70:VAL:HG22	28:AC:97:PHE:CE2	2.06	0.90
23:AD:46:THR:OG1	23:AD:79:PHE:HZ	1.29	0.90
27:AE:129:ILE:HG12	27:AE:139:LEU:HD22	1.08	0.90
13:AP:59:ARG:CD	13:AP:76:VAL:HG13	2.00	0.90
12:AR:91:LEU:CD1	12:AR:91:LEU:N	2.29	0.90
19:AZ:99:LEU:HD21	19:AZ:109:TYR:CE1	2.07	0.90
74:CC:210:ILE:HD13	74:CC:252:TRP:CH2	2.05	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:341:LEU:O	74:CC:343:GLN:N	2.04	0.90
80:CH:111:LEU:HD23	80:CH:127:ARG:HD2	1.49	0.90
40:CK:62:LEU:HD11	40:CK:73:VAL:HB	1.52	0.90
42:CL:127:PHE:CD1	42:CL:127:PHE:N	2.39	0.90
52:CS:16:CYS:CA	52:CS:59:GLY:CA	2.48	0.90
52:CS:24:THR:HG23	52:CS:25:PRO:N	1.84	0.90
57:CY:110:LYS:HD3	57:CY:111:LEU:N	1.86	0.90
26:AJ:89:GLU:CA	26:AJ:92:MET:CB	2.36	0.90
4:AK:65:ARG:HH11	4:AK:65:ARG:HB3	1.29	0.90
4:AK:71:LEU:HD21	4:AK:76:ILE:CD1	1.93	0.90
3:AU:25:THR:HG22	3:AU:86:LYS:HG2	1.54	0.90
6:AX:29:LYS:HD2	6:AX:34:THR:CB	2.00	0.90
51:CA:188:LYS:HD3	51:CA:189:TYR:CE2	2.07	0.90
63:CB:298:LEU:CA	63:CB:300:LYS:HE3	2.02	0.90
63:CB:391:PRO:O	63:CB:392:LEU:HD13	1.70	0.90
63:CB:47:LEU:HD23	63:CB:166:THR:HG23	0.90	0.90
74:CC:7:LEU:HG	74:CC:8:ILE:N	1.87	0.90
48:CD:223:PHE:N	48:CD:223:PHE:CD2	2.29	0.90
81:CE:83:LYS:HB2	81:CE:84:LYS:HA	1.54	0.90
46:CN:147:ASP:O	46:CN:150:TRP:CD1	2.25	0.90
53:CT:113:ASP:OD1	53:CT:114:GLN:N	2.04	0.90
59:CZ:3:LYS:O	59:CZ:6:LYS:HE2	1.69	0.90
16:AA:30:LEU:HD11	16:AA:38:ILE:CD1	1.91	0.89
28:AC:163:VAL:HB	28:AC:164:PRO:CD	2.02	0.89
28:AC:70:VAL:CB	28:AC:97:PHE:CE2	2.54	0.89
28:AC:70:VAL:CG1	28:AC:97:PHE:CZ	2.38	0.89
23:AD:132:LYS:N	23:AD:191:PRO:CG	2.34	0.89
26:AJ:119:LEU:CD2	26:AJ:119:LEU:N	2.29	0.89
13:AP:107:ILE:CA	13:AP:111:MET:SD	2.60	0.89
3:AU:62:ARG:NH1	3:AU:64:THR:HG23	1.87	0.89
17:AV:78:ILE:C	17:AV:78:ILE:HA	1.90	0.89
81:CE:111:LYS:CB	81:CE:113:PRO:HD3	2.02	0.89
81:CE:148:THR:C	81:CE:163:VAL:CG1	2.34	0.89
81:CE:31:ASN:HA	81:CE:32:LEU:HD22	1.52	0.89
81:CE:46:ARG:CD	81:CE:47:ASN:H	1.85	0.89
82:CG:46:GLN:HE21	82:CG:47:PRO:CD	1.81	0.89
47:CI:212:LEU:HG	47:CI:213:HIS:N	1.78	0.89
79:CJ:35:ARG:HD2	79:CJ:123:ILE:O	1.71	0.89
57:CY:21:ALA:O	57:CY:26:ARG:NE	2.04	0.89
64:CF:41:MET:HE1	85:A5:2121:C:H5'	1.54	0.89
85:A5:2324:C:H2'	85:A5:2325:C:H6	1.37	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AA:66:VAL:HG13	16:AA:186:ARG:CG	2.01	0.89
16:AA:97:THR:HG22	16:AA:98:PRO:CD	2.02	0.89
15:AB:21:VAL:HG23	15:AB:21:VAL:O	1.70	0.89
28:AC:108:LYS:HD3	28:AC:233:LEU:HD21	0.90	0.89
28:AC:117:ARG:CG	28:AC:118:ALA:H	1.86	0.89
27:AE:208:VAL:CG1	27:AE:225:ILE:CD1	2.48	0.89
29:AG:162:LEU:HG	29:AG:170:ARG:HB2	1.53	0.89
10:AN:131:THR:O	11:AL:153:LYS:CG	2.20	0.89
5:AO:72:TYR:CG	30:AF:135:ARG:NH2	2.39	0.89
30:AF:18:LYS:HE3	34:AQ:115:TYR:HD1	1.34	0.89
27:AE:19:MET:HE1	36:B2:846:G:H2'	1.54	0.89
51:CA:77:ILE:CD1	51:CA:128:ARG:CZ	2.44	0.89
74:CC:63:SER:OG	74:CC:80:ARG:HD3	1.71	0.89
81:CE:283:PRO:HA	81:CE:286:LEU:CD1	2.01	0.89
81:CE:95:PRO:O	81:CE:96:VAL:CG2	2.19	0.89
82:CG:211:ASP:OD1	82:CG:214:ALA:CB	2.19	0.89
82:CG:46:GLN:HE21	82:CG:47:PRO:HD2	1.11	0.89
80:CH:109:GLY:HA3	80:CH:128:MET:HB3	0.90	0.89
80:CH:26:ILE:HG22	80:CH:35:ARG:HG2	1.52	0.89
47:CI:106:ALA:N	47:CI:108:ALA:CB	2.33	0.89
79:CJ:20:LEU:CD1	79:CJ:132:VAL:CG2	2.51	0.89
40:CK:10:ILE:HG21	40:CK:66:ASN:C	1.91	0.89
46:CN:116:LEU:HD13	46:CN:135:ILE:HD12	1.54	0.89
46:CN:184:ILE:HG22	46:CN:185:GLY:H	1.33	0.89
54:CP:29:THR:HA	54:CP:32:THR:HG21	1.49	0.89
57:CY:50:ARG:CD	57:CY:51:LYS:N	2.34	0.89
27:AE:98:ASN:HD21	27:AE:119:ALA:HB2	1.34	0.89
10:AN:46:THR:OG1	10:AN:49:GLN:HG3	1.68	0.89
34:AQ:21:ALA:CB	34:AQ:72:VAL:HG22	2.03	0.89
34:AQ:24:HIS:NE2	34:AQ:69:ARG:HB2	1.86	0.89
12:AR:17:ILE:HG21	12:AR:69:ILE:HD11	1.38	0.89
12:AR:99:ASP:O	12:AR:119:VAL:HG21	1.71	0.89
14:AT:11:GLN:NE2	14:AT:62:ARG:NH2	2.20	0.89
63:CB:40:PRO:C	63:CB:41:VAL:CG2	2.40	0.89
74:CC:40:VAL:HG22	74:CC:115:VAL:HG11	1.53	0.89
81:CE:223:ARG:O	81:CE:224:LYS:CG	2.20	0.89
47:CI:176:PHE:N	47:CI:176:PHE:CD1	2.30	0.89
41:CO:177:LEU:HD22	44:CM:130:LEU:HG	1.52	0.89
44:CM:25:VAL:CG1	44:CM:38:VAL:HG13	2.02	0.89
41:CO:168:TYR:HE2	41:CO:172:LYS:NZ	1.56	0.89
49:CQ:75:ARG:O	49:CQ:78:LYS:HB2	1.71	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AA:52:LYS:NZ	16:AA:52:LYS:HB3	1.86	0.89
16:AA:76:VAL:HG21	16:AA:90:PHE:HD2	1.31	0.89
5:AO:47:LEU:HB2	15:AB:67:PHE:CE1	2.07	0.89
28:AC:227:ARG:NH1	28:AC:228:GLY:CA	2.24	0.89
28:AC:210:PRO:CD	28:AC:236:PHE:CZ	2.55	0.89
30:AF:63:LYS:CD	30:AF:71:ARG:HH12	1.86	0.89
31:AH:121:THR:HG23	31:AH:124:ALA:H	1.37	0.89
31:AH:158:LEU:HD21	31:AH:187:PHE:CE1	2.07	0.89
4:AK:41:PRO:O	4:AK:41:PRO:HD2	1.70	0.89
11:AL:82:MET:CE	36:B2:373:G:C4'	2.50	0.89
7:AM:69:LEU:CD1	7:AM:76:LEU:HD23	2.02	0.89
10:AN:92:ILE:HG22	10:AN:150:VAL:CG2	2.01	0.89
5:AO:19:PRO:HG3	5:AO:27:VAL:CB	2.01	0.89
63:CB:355:THR:C	63:CB:356:LYS:HE3	1.90	0.89
74:CC:213:GLU:HA	74:CC:214:ASP:CB	1.98	0.89
74:CC:57:LEU:HD12	74:CC:61:GLN:HE21	1.34	0.89
81:CE:165:LEU:HD12	81:CE:174:LEU:CG	2.02	0.89
64:CF:24:ASN:O	64:CF:27:GLU:N	2.05	0.89
82:CG:21:LYS:O	82:CG:24:ALA:CB	2.17	0.89
54:CP:119:VAL:HG22	54:CP:146:ILE:HG12	1.53	0.89
58:CW:4:GLU:HG2	58:CW:30:GLN:OE1	1.73	0.89
58:CW:63:GLN:HG2	58:CW:64:SER:N	1.87	0.89
85:A5:4936:G:OP2	85:A5:4936:G:C8	2.26	0.89
28:AC:88:ILE:HD11	28:AC:93:ILE:HB	1.53	0.89
27:AE:128:LYS:CD	27:AE:130:PHE:HE1	1.84	0.89
29:AG:64:LYS:C	29:AG:64:LYS:CD	2.40	0.89
10:AN:132:LYS:CA	10:AN:132:LYS:CE	2.28	0.89
13:AP:83:MET:CE	13:AP:116:LEU:HD11	2.02	0.89
8:AS:132:ARG:CB	8:AS:134:GLN:OE1	2.14	0.89
14:AT:23:LYS:CD	14:AT:54:TYR:CE2	2.54	0.89
6:AX:91:LEU:O	6:AX:93:PHE:N	2.05	0.89
19:AZ:85:ARG:NH1	19:AZ:85:ARG:CB	2.35	0.89
74:CC:253:THR:O	74:CC:256:ALA:CB	2.19	0.89
48:CD:92:LEU:HD12	48:CD:92:LEU:O	1.73	0.89
40:CK:114:ARG:HA	40:CK:133:LEU:CD1	2.02	0.89
40:CK:140:GLY:O	40:CK:141:CYS:SG	2.30	0.89
40:CK:61:LYS:NZ	40:CK:72:GLU:HB3	1.88	0.89
40:CK:94:LYS:CG	40:CK:96:LYS:HB3	2.03	0.89
49:CQ:27:LEU:HD23	74:CC:289:LEU:HD11	1.52	0.89
53:CT:132:PRO:HG2	64:CF:126:ASN:ND2	1.86	0.89
56:CX:89:LYS:HZ1	56:CX:97:VAL:HG22	0.79	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:31:TYR:HE1	15:AB:94:LYS:H	1.20	0.89
23:AD:51:LEU:HG	23:AD:91:VAL:HG22	1.51	0.89
29:AG:162:LEU:HD23	29:AG:172:LYS:CE	2.01	0.89
33:AI:62:VAL:CG2	33:AI:75:LYS:HE2	2.03	0.89
33:AI:76:THR:HG22	33:AI:77:ARG:N	1.87	0.89
34:AQ:49:TYR:O	34:AQ:53:GLU:HG3	1.71	0.89
8:AS:30:ILE:HD11	8:AS:45:LEU:HD21	1.54	0.89
3:AU:24:LEU:HD23	3:AU:112:VAL:HG22	1.55	0.89
18:AY:78:SER:HB2	18:AY:81:TYR:CE2	2.07	0.89
51:CA:120:PRO:CG	51:CA:162:ASN:OD1	2.20	0.89
51:CA:250:LYS:CA	51:CA:251:THR:C	2.39	0.89
63:CB:34:LYS:CD	63:CB:34:LYS:H	1.81	0.89
74:CC:54:VAL:CG1	74:CC:55:SER:N	2.11	0.89
74:CC:76:ILE:HG22	74:CC:77:PRO:HD2	0.90	0.89
48:CD:152:ARG:HH11	79:CJ:145:LYS:NZ	1.71	0.89
82:CG:255:LYS:HE2	82:CG:259:LYS:HE3	1.51	0.89
82:CG:39:PHE:HZ	82:CG:47:PRO:CG	1.80	0.89
82:CG:87:LEU:O	82:CG:88:ASP:O	1.90	0.89
47:CI:109:ASP:CA	47:CI:112:GLN:HE21	1.85	0.89
47:CI:156:LYS:HG3	47:CI:163:GLN:HG2	1.55	0.89
40:CK:61:LYS:CE	40:CK:72:GLU:CG	2.48	0.89
49:CQ:148:VAL:HG12	49:CQ:152:PHE:CZ	2.06	0.89
50:CR:68:LEU:O	50:CR:71:ARG:HG3	1.73	0.89
85:A5:173:C:O2'	85:A5:174:C:O4'	1.89	0.89
16:AA:5:LEU:CB	17:AV:41:LYS:CE	2.50	0.89
10:AN:28:LEU:CD1	10:AN:58:HIS:NE2	2.36	0.89
5:AO:39:ASP:OD1	5:AO:40:THR:N	2.05	0.89
12:AR:17:ILE:HG21	12:AR:69:ILE:HD13	1.54	0.89
32:AW:85:ASP:O	32:AW:89:TRP:CD1	2.26	0.89
63:CB:116:ARG:NE	63:CB:122:TRP:CD2	2.26	0.89
48:CD:56:THR:O	48:CD:58:ARG:HD3	1.71	0.89
44:CM:107:PHE:HE1	81:CE:270:TYR:CG	1.68	0.89
50:CR:3:MET:SD	50:CR:3:MET:O	2.31	0.89
53:CT:136:ARG:HH21	64:CF:86:GLU:CD	1.76	0.89
43:CV:32:THR:HG21	43:CV:113:LYS:HG3	1.52	0.89
58:CW:8:PHE:HZ	58:CW:49:ILE:HD12	1.37	0.89
15:AB:137:LEU:HB2	15:AB:172:MET:CE	2.03	0.89
29:AG:65:GLN:CA	29:AG:100:CYS:SG	2.57	0.89
11:AL:22:ARG:HH12	33:AI:157:LYS:HB3	1.36	0.89
11:AL:17:PHE:CE2	11:AL:18:GLN:O	2.25	0.89
34:AQ:58:LEU:HD23	34:AQ:111:ILE:CD1	1.95	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AQ:7:LEU:HD23	34:AQ:8:GLN:OE1	1.69	0.89
12:AR:100:PRO:CG	12:AR:119:VAL:HG22	2.02	0.89
14:AT:77:LYS:HB2	14:AT:94:ARG:HD3	0.90	0.89
32:AW:30:CYS:SG	32:AW:61:ILE:HD11	2.12	0.89
18:AY:20:ARG:HD2	18:AY:74:MET:CE	2.01	0.89
63:CB:108:GLU:CA	63:CB:137:TRP:NE1	2.36	0.89
63:CB:108:GLU:CA	63:CB:137:TRP:HE1	1.85	0.89
63:CB:311:ASP:O	63:CB:312:LYS:HE3	1.73	0.89
63:CB:381:THR:HG23	63:CB:384:GLU:H	1.37	0.89
74:CC:109:ARG:HH11	74:CC:109:ARG:HB3	1.37	0.89
74:CC:232:VAL:O	74:CC:263:LEU:HD12	1.73	0.89
64:CF:66:ARG:HG2	64:CF:66:ARG:HH11	1.36	0.89
82:CG:42:GLY:C	82:CG:43:GLN:CG	2.37	0.89
80:CH:86:LEU:HD22	80:CH:189:GLN:HB2	1.53	0.89
79:CJ:95:ARG:HB2	79:CJ:97:ASN:ND2	1.87	0.89
41:CO:16:LEU:CD1	41:CO:43:ILE:HG13	1.99	0.89
41:CO:54:TYR:HE2	41:CO:145:VAL:CG1	1.69	0.89
53:CT:147:GLU:CB	53:CT:148:PRO:HD3	1.99	0.89
58:CW:109:ILE:O	58:CW:113:LYS:HG3	1.71	0.89
56:CX:68:ARG:O	56:CX:69:ASN:C	2.10	0.89
15:AB:32:ASP:OD1	15:AB:46:LYS:HD2	1.73	0.89
28:AC:210:PRO:HD3	28:AC:236:PHE:CZ	2.08	0.89
4:AK:59:LYS:HD2	4:AK:60:GLU:N	1.88	0.89
13:AP:33:LEU:HD23	13:AP:87:PRO:HD2	1.51	0.89
12:AR:44:LYS:HE3	12:AR:47:ARG:HH22	0.72	0.89
17:AV:80:SER:C	17:AV:81:LYS:CE	2.41	0.89
63:CB:21:ARG:CG	63:CB:274:TYR:CD2	2.55	0.89
63:CB:297:LYS:HD2	63:CB:300:LYS:HZ3	1.30	0.89
74:CC:22:VAL:HG22	74:CC:258:ARG:HH21	1.32	0.89
81:CE:36:LYS:C	81:CE:36:LYS:N	2.26	0.89
47:CI:104:SER:O	47:CI:105:CYS:HB2	1.71	0.89
40:CK:10:ILE:HB	40:CK:67:ARG:H	1.38	0.89
46:CN:80:THR:OG1	46:CN:87:HIS:HD2	1.49	0.89
54:CP:27:LYS:HG2	54:CP:63:TYR:CD1	2.07	0.89
50:CR:142:ILE:HA	50:CR:145:LEU:CD1	2.03	0.89
16:AA:191:ARG:HG3	16:AA:193:HIS:HB2	1.55	0.89
23:AD:200:PRO:O	23:AD:201:LYS:HG2	1.73	0.89
13:AP:41:GLN:CG	13:AP:84:ILE:HG23	2.03	0.89
34:AQ:105:LYS:HD2	34:AQ:105:LYS:C	1.92	0.89
6:AX:107:ARG:O	6:AX:110:HIS:ND1	2.05	0.89
36:B2:530:U:C6	36:B2:531:A:C8	2.60	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CA:5:ILE:HD13	51:CA:210:PRO:HD3	1.52	0.89
48:CD:130:TYR:OH	48:CD:132:VAL:HG22	1.73	0.89
81:CE:242:ILE:HD13	81:CE:246:ARG:HH11	1.38	0.89
81:CE:85:LYS:HB2	81:CE:92:VAL:CG1	2.03	0.89
79:CJ:113:ILE:H	79:CJ:113:ILE:HD13	1.36	0.89
49:CQ:105:VAL:HG12	49:CQ:106:THR:O	1.73	0.89
52:CS:20:PRO:O	52:CS:21:LYS:HD3	1.73	0.89
53:CT:150:LEU:HD23	53:CT:151:LEU:N	1.88	0.89
28:AC:170:TRP:HH2	32:AW:97:ARG:NH1	1.39	0.88
30:AF:167:LYS:CD	30:AF:171:GLU:HG3	1.99	0.88
30:AF:201:LYS:HE3	30:AF:204:ARG:NH2	1.88	0.88
33:AI:62:VAL:CB	33:AI:75:LYS:HE2	2.02	0.88
8:AS:103:LEU:HD12	8:AS:104:ASP:N	1.87	0.88
18:AY:44:LEU:HD11	18:AY:48:TYR:HE2	1.06	0.88
63:CB:150:PHE:O	63:CB:151:SER:C	2.03	0.88
82:CG:183:ILE:HG22	82:CG:183:ILE:O	1.66	0.88
82:CG:208:ASN:HD22	82:CG:210:GLU:CG	1.78	0.88
82:CG:27:VAL:O	82:CG:31:LEU:CD1	2.21	0.88
44:CM:57:LEU:CD1	52:CS:154:LEU:HB2	2.04	0.88
49:CQ:28:LEU:CD1	49:CQ:51:LEU:HD13	2.03	0.88
57:CY:39:ARG:O	57:CY:43:ASN:OD1	1.91	0.88
59:CZ:7:PRO:HD2	59:CZ:8:GLY:N	1.88	0.88
16:AA:125:THR:HA	16:AA:147:LEU:HB2	1.55	0.88
16:AA:154:LEU:CD1	17:AV:63:GLY:C	2.35	0.88
28:AC:256:TRP:HB3	32:AW:68:ARG:HH12	1.37	0.88
17:AV:29:HIS:CE1	28:AC:86:LEU:C	2.46	0.88
23:AD:195:THR:HG22	23:AD:197:LYS:HG2	1.53	0.88
23:AD:59:LEU:HD12	23:AD:60:GLY:CA	2.02	0.88
30:AF:91:ARG:HE	30:AF:91:ARG:CA	1.85	0.88
31:AH:43:LEU:HD13	31:AH:72:PHE:CE1	2.07	0.88
11:AL:147:LYS:CG	11:AL:148:ALA:N	2.29	0.88
13:AP:111:MET:O	13:AP:114:HIS:HD2	1.54	0.88
63:CB:311:ASP:O	63:CB:312:LYS:CE	2.21	0.88
43:CV:127:ASP:OD2	63:CB:66:LYS:NZ	2.05	0.88
81:CE:45:SER:HB3	81:CE:49:VAL:HG12	1.52	0.88
40:CK:117:ARG:NE	40:CK:117:ARG:HA	1.86	0.88
40:CK:56:LEU:CD1	40:CK:91:ASP:CG	2.40	0.88
40:CK:94:LYS:HB3	40:CK:96:LYS:HE3	1.56	0.88
46:CN:36:LEU:CD2	46:CN:109:HIS:HD2	1.81	0.88
57:CY:34:LEU:CD1	57:CY:38:LEU:HB3	1.92	0.88
16:AA:11:LYS:CD	16:AA:13:GLU:HG3	2.03	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AC:275:LYS:HD2	28:AC:276:THR:CG2	2.03	0.88
28:AC:69:LEU:HD11	28:AC:273:LEU:CD1	2.01	0.88
28:AC:64:THR:HG23	28:AC:90:GLU:OE1	1.72	0.88
8:AS:8:LYS:HE3	8:AS:9:PHE:CE1	2.07	0.88
14:AT:23:LYS:HD3	14:AT:54:TYR:CE2	2.08	0.88
14:AT:4:VAL:HA	14:AT:8:ASP:OD2	1.72	0.88
6:AX:5:ARG:CB	6:AX:5:ARG:HH21	1.86	0.88
18:AY:29:HIS:ND1	18:AY:67:GLY:HA2	1.87	0.88
18:AY:20:ARG:HG3	18:AY:74:MET:HE3	0.89	0.88
19:AZ:48:VAL:O	19:AZ:48:VAL:HG12	1.72	0.88
63:CB:53:MET:HG2	63:CB:76:VAL:O	1.73	0.88
74:CC:109:ARG:CD	74:CC:111:TRP:CH2	2.55	0.88
74:CC:14:LYS:CD	74:CC:14:LYS:C	2.29	0.88
74:CC:316:LYS:HB2	74:CC:324:ILE:CD1	2.03	0.88
82:CG:28:VAL:N	82:CG:31:LEU:HD21	1.87	0.88
82:CG:43:GLN:O	82:CG:44:ASP:HB2	1.72	0.88
80:CH:86:LEU:HD21	80:CH:189:GLN:CB	2.00	0.88
79:CJ:17:ILE:CD1	79:CJ:83:LEU:CD1	2.51	0.88
46:CN:65:ARG:CD	46:CN:129:PHE:HE1	1.86	0.88
54:CP:86:LYS:O	54:CP:90:PHE:HD2	1.55	0.88
52:CS:145:PHE:O	52:CS:147:ASP:N	2.05	0.88
41:CO:131:PRO:HG3	52:CS:156:HIS:NE2	1.88	0.88
57:CY:34:LEU:HD11	57:CY:38:LEU:HD13	1.55	0.88
16:AA:66:VAL:HG22	16:AA:186:ARG:CD	2.03	0.88
17:AV:27:LYS:NZ	28:AC:82:TYR:CE1	2.40	0.88
23:AD:157:MET:HE3	23:AD:187:LYS:CD	2.00	0.88
23:AD:97:CYS:SG	23:AD:99:ILE:HG12	2.13	0.88
29:AG:57:ASP:OD2	29:AG:98:ARG:CG	2.21	0.88
33:AI:153:LYS:O	33:AI:154:LYS:CB	2.20	0.88
33:AI:25:ARG:HD2	33:AI:27:TYR:CD2	2.08	0.88
26:AJ:170:PRO:HA	26:AJ:174:LYS:HZ1	1.32	0.88
11:AL:102:PHE:N	11:AL:102:PHE:CD1	2.39	0.88
12:AR:20:TYR:CE1	12:AR:38:ILE:CG2	2.37	0.88
8:AS:59:LEU:N	8:AS:59:LEU:HD13	1.85	0.88
18:AY:12:PHE:HZ	18:AY:21:LYS:CB	1.85	0.88
51:CA:120:PRO:N	51:CA:162:ASN:OD1	2.05	0.88
81:CE:138:ARG:NH2	81:CE:171:GLY:N	2.20	0.88
81:CE:224:LYS:HB3	81:CE:226:ARG:NH1	1.81	0.88
64:CF:101:VAL:CG1	64:CF:106:ARG:HD2	2.03	0.88
64:CF:162:ILE:CG2	64:CF:177:ARG:HH22	1.86	0.88
53:CT:136:ARG:HD2	64:CF:86:GLU:CG	2.03	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CI:101:LYS:O	47:CI:103:LEU:HD22	1.71	0.88
47:CI:164:LYS:CE	47:CI:166:HIS:CE1	2.57	0.88
47:CI:48:LEU:HD13	47:CI:49:GLY:N	1.88	0.88
49:CQ:150:ARG:HB3	49:CQ:164:LYS:CG	2.02	0.88
49:CQ:19:LYS:C	49:CQ:19:LYS:HD2	1.87	0.88
41:CO:127:VAL:CG1	52:CS:158:VAL:CG2	2.50	0.88
43:CV:110:GLY:CA	43:CV:129:TRP:HZ3	1.80	0.88
23:AD:123:LEU:CD2	23:AD:154:ASP:HB3	2.03	0.88
23:AD:221:THR:HB	23:AD:222:PRO:CD	2.03	0.88
29:AG:210:ALA:HA	29:AG:213:LEU:HD21	1.55	0.88
29:AG:213:LEU:HD12	29:AG:214:ALA:N	1.89	0.88
11:AL:80:MET:CE	11:AL:121:GLN:CA	2.51	0.88
30:AF:47:LYS:CG	34:AQ:117:ARG:NH2	2.30	0.88
34:AQ:12:VAL:HG12	34:AQ:13:PHE:N	1.89	0.88
8:AS:14:ARG:HH12	8:AS:17:ASN:HA	0.85	0.88
18:AY:55:ILE:CG1	18:AY:75:ILE:CD1	2.46	0.88
51:CA:94:ALA:CB	51:CA:102:LEU:HD21	2.03	0.88
51:CA:247:ARG:HD2	51:CA:247:ARG:O	1.73	0.88
81:CE:106:VAL:CG2	81:CE:107:VAL:HG13	2.04	0.88
81:CE:85:LYS:HB2	81:CE:92:VAL:HG12	1.55	0.88
80:CH:93:ARG:NE	80:CH:143:GLU:OE2	2.06	0.88
42:CL:64:VAL:HA	42:CL:67:HIS:HD2	1.16	0.88
54:CP:27:LYS:C	54:CP:27:LYS:CD	4.82	0.88
54:CP:29:THR:CA	54:CP:32:THR:CG2	2.49	0.88
57:CY:47:MET:HE2	57:CY:48:PRO:HD2	1.55	0.88
27:AE:133:THR:O	27:AE:134:LYS:HB2	1.74	0.88
31:AH:14:GLU:OE1	31:AH:16:PRO:HG2	1.74	0.88
31:AH:158:LEU:HD21	31:AH:187:PHE:HE1	1.36	0.88
26:AJ:134:HIS:O	26:AJ:135:ILE:CG2	2.22	0.88
13:AP:53:GLN:HE21	13:AP:80:LEU:CD1	1.85	0.88
34:AQ:112:LEU:CD2	34:AQ:119:LEU:HD13	1.99	0.88
18:AY:92:ALA:HA	18:AY:97:TYR:HB3	1.53	0.88
51:CA:5:ILE:HD11	51:CA:210:PRO:HD3	1.53	0.88
63:CB:299:ILE:CG2	63:CB:299:ILE:O	2.20	0.88
74:CC:146:GLU:HG2	74:CC:175:LYS:CE	2.02	0.88
81:CE:96:VAL:HG12	81:CE:97:GLY:N	1.86	0.88
80:CH:25:VAL:HG21	80:CH:38:PHE:CE2	2.09	0.88
41:CO:192:TYR:HD2	44:CM:122:ILE:HD13	1.22	0.88
41:CO:65:ASN:HD22	41:CO:68:ARG:NE	1.72	0.88
52:CS:146:HIS:ND1	52:CS:146:HIS:O	2.07	0.88
52:CS:83:ARG:HG3	52:CS:92:ASN:HD22	1.31	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AA:125:THR:HG22	16:AA:175:TRP:HE1	1.39	0.88
28:AC:256:TRP:CG	32:AW:68:ARG:HD3	2.09	0.88
4:AK:83:LEU:HD13	4:AK:85:LEU:CD2	2.02	0.88
34:AQ:61:GLU:O	34:AQ:63:PHE:N	2.07	0.88
12:AR:92:ASP:O	12:AR:93:GLN:HB3	1.74	0.88
32:AW:128:PHE:CE1	32:AW:130:PHE:CD2	2.61	0.88
19:AZ:92:LEU:HD23	19:AZ:97:ILE:HG13	1.54	0.88
63:CB:61:ASP:CG	63:CB:361:GLU:OE1	2.11	0.88
48:CD:146:LEU:HD11	48:CD:163:LEU:CG	2.04	0.88
81:CE:106:VAL:HB	81:CE:107:VAL:C	1.94	0.88
81:CE:264:ILE:HG22	81:CE:266:GLN:H	1.37	0.88
81:CE:284:HIS:CE1	81:CE:285:LYS:HD2	2.08	0.88
81:CE:46:ARG:HE	81:CE:46:ARG:CA	1.87	0.88
82:CG:83:PHE:HE1	82:CG:159:HIS:HA	1.07	0.88
82:CG:211:ASP:CG	82:CG:214:ALA:HB3	1.93	0.88
80:CH:109:GLY:HA2	80:CH:128:MET:CG	2.04	0.88
80:CH:118:LEU:HD23	80:CH:177:ASP:OD2	1.72	0.88
80:CH:47:LEU:HD12	80:CH:55:LEU:CD2	1.97	0.88
40:CK:117:ARG:HG2	40:CK:133:LEU:HD13	1.54	0.88
42:CL:21:ARG:CG	46:CN:196:ASN:O	2.22	0.88
49:CQ:72:LEU:C	49:CQ:75:ARG:HG2	1.93	0.88
52:CS:10:TYR:CE1	52:CS:66:GLN:HG3	2.09	0.88
53:CT:143:THR:O	53:CT:146:LYS:N	2.06	0.88
43:CV:57:VAL:HG13	43:CV:125:CYS:SG	2.13	0.88
43:CV:89:ARG:HB2	43:CV:95:PHE:CE1	2.08	0.88
59:CZ:15:ALA:HA	59:CZ:19:SER:HB2	1.56	0.88
15:AB:135:LEU:CD2	15:AB:217:MET:SD	2.62	0.88
28:AC:157:LEU:HA	28:AC:160:LEU:HD23	1.56	0.88
23:AD:18:LYS:O	23:AD:18:LYS:HD2	1.74	0.88
27:AE:124:CYS:SG	27:AE:162:ILE:HD13	2.14	0.88
31:AH:101:LEU:HG	31:AH:120:ARG:HG2	1.54	0.88
11:AL:76:VAL:HG12	11:AL:125:ILE:HD13	1.53	0.88
13:AP:41:GLN:CG	13:AP:84:ILE:CB	2.31	0.88
34:AQ:111:ILE:O	34:AQ:114:GLN:HG2	1.74	0.88
8:AS:31:THR:HA	8:AS:36:VAL:CG2	2.02	0.88
17:AV:81:LYS:HD3	17:AV:81:LYS:H	1.32	0.88
18:AY:29:HIS:ND1	18:AY:67:GLY:CA	2.37	0.88
19:AZ:44:LEU:HD13	19:AZ:45:ASN:N	1.87	0.88
74:CC:124:ILE:CD1	74:CC:237:ILE:HD12	2.04	0.88
48:CD:41:LYS:CE	53:CT:93:ILE:CD1	2.50	0.88
81:CE:54:ILE:HG22	81:CE:55:GLY:N	1.88	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:CF:51:TYR:CE1	81:CE:58:SER:HB3	2.09	0.88
47:CI:24:ARG:O	47:CI:24:ARG:HD3	1.72	0.88
40:CK:123:ARG:HG2	40:CK:124:GLU:H	1.34	0.88
42:CL:116:ARG:NH1	42:CL:155:MET:HB2	1.89	0.88
41:CO:38:CYS:SG	41:CO:104:VAL:HG13	2.13	0.88
49:CQ:95:VAL:HG22	49:CQ:116:ALA:CB	2.03	0.88
31:AH:29:GLU:OE2	31:AH:86:LYS:CE	2.22	0.88
11:AL:149:ALA:HB1	11:AL:156:GLN:HB3	0.89	0.88
8:AS:59:LEU:N	8:AS:59:LEU:CD1	2.37	0.88
17:AV:29:HIS:CE1	28:AC:86:LEU:O	2.27	0.88
6:AX:108:LYS:HB3	6:AX:110:HIS:NE2	1.89	0.88
18:AY:122:LYS:N	18:AY:122:LYS:HD3	1.85	0.88
51:CA:147:ARG:HG3	51:CA:157:VAL:HG22	1.55	0.88
74:CC:141:GLY:O	74:CC:142:HIS:HB2	1.74	0.88
74:CC:219:LYS:NZ	74:CC:222:ARG:HH22	1.72	0.88
47:CI:103:LEU:HD22	47:CI:103:LEU:H	1.38	0.88
47:CI:91:LEU:HD12	47:CI:135:ILE:HG23	1.55	0.88
41:CO:122:ALA:HB3	52:CS:162:GLN:OE1	1.72	0.88
52:CS:19:THR:OG1	52:CS:20:PRO:HB2	1.73	0.88
52:CS:74:ARG:C	52:CS:76:LYS:HG3	1.94	0.88
53:CT:147:GLU:CB	53:CT:148:PRO:CD	2.52	0.88
56:CX:38:LYS:HG2	56:CX:39:LYS:N	1.87	0.88
57:CY:53:ASP:CG	57:CY:109:LEU:HD23	1.93	0.88
85:A5:463:A:N1	85:A5:692:A:N1	2.22	0.88
15:AB:72:ALA:HA	15:AB:79:VAL:CG2	2.02	0.88
28:AC:233:LEU:HD12	28:AC:234:GLY:N	1.88	0.88
23:AD:135:GLU:CB	23:AD:153:VAL:HG22	2.03	0.88
23:AD:218:LEU:HD12	23:AD:220:THR:CG2	2.04	0.88
26:AJ:72:PHE:CB	27:AE:248:ILE:HD11	2.03	0.88
4:AK:71:LEU:HD23	4:AK:76:ILE:HD11	1.55	0.88
10:AN:38:TYR:CE2	10:AN:74:ILE:HG22	2.07	0.88
34:AQ:115:TYR:CD2	34:AQ:116:ASP:N	2.42	0.88
8:AS:120:HIS:CE1	13:AP:123:TYR:CZ	2.62	0.88
14:AT:124:THR:HG23	14:AT:126:GLN:N	1.89	0.88
63:CB:232:THR:HA	63:CB:237:THR:HG22	1.54	0.88
48:CD:56:THR:O	48:CD:58:ARG:HD2	1.72	0.88
81:CE:111:LYS:HB3	81:CE:113:PRO:HG3	1.55	0.88
47:CI:76:MET:HB2	47:CI:85:PHE:CZ	2.09	0.88
41:CO:177:LEU:CB	44:CM:130:LEU:CD2	2.52	0.88
46:CN:116:LEU:CD2	46:CN:135:ILE:CD1	2.37	0.88
58:CW:63:GLN:O	58:CW:64:SER:OG	1.92	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:CX:76:ILE:HD13	56:CX:104:ALA:CB	2.03	0.88
57:CY:2:LYS:CE	57:CY:7:VAL:O	2.20	0.88
59:CZ:100:VAL:HA	59:CZ:106:LEU:CD2	2.04	0.88
59:CZ:89:ILE:O	59:CZ:92:ASP:OD1	1.92	0.88
23:AD:221:THR:HB	23:AD:222:PRO:HD2	1.54	0.87
29:AG:27:PHE:HE2	29:AG:41:LEU:HD12	1.37	0.87
29:AG:57:ASP:HA	29:AG:106:LEU:HA	1.55	0.87
4:AK:84:HIS:C	4:AK:84:HIS:ND1	2.28	0.87
13:AP:41:GLN:HG2	13:AP:84:ILE:HG12	0.88	0.87
8:AS:46:ARG:CZ	14:AT:50:GLU:HG2	2.02	0.87
3:AU:67:LYS:HE2	3:AU:78:ASP:OD1	1.72	0.87
18:AY:7:ILE:CD1	18:AY:43:LYS:HG2	1.94	0.87
63:CB:116:ARG:HD2	63:CB:122:TRP:HB2	1.56	0.87
63:CB:32:PHE:N	63:CB:32:PHE:CD2	2.29	0.87
74:CC:234:LYS:O	74:CC:235:LEU:HB2	1.73	0.87
64:CF:30:ILE:O	64:CF:34:ARG:HG3	1.74	0.87
82:CG:27:VAL:C	82:CG:30:PRO:HD2	1.95	0.87
82:CG:31:LEU:HD22	82:CG:31:LEU:H	1.37	0.87
82:CG:28:VAL:C	82:CG:31:LEU:HD22	1.94	0.87
40:CK:31:LYS:C	40:CK:34:PRO:HD3	1.94	0.87
44:CM:19:PRO:CD	44:CM:20:HIS:H	1.87	0.87
49:CQ:33:ARG:HE	49:CQ:52:PHE:HZ	1.22	0.87
52:CS:30:MET:CE	52:CS:47:PHE:HB2	2.04	0.87
53:CT:13:TYR:N	53:CT:13:TYR:CD2	2.30	0.87
52:CS:83:ARG:CD	53:CT:155:PRO:HA	2.01	0.87
17:AV:27:LYS:NZ	28:AC:82:TYR:HE1	1.71	0.87
23:AD:132:LYS:HA	23:AD:191:PRO:HG2	1.54	0.87
23:AD:158:ILE:CD1	23:AD:189:MET:SD	2.62	0.87
4:AK:33:PRO:O	4:AK:34:GLU:HB3	1.72	0.87
8:AS:36:VAL:HG22	8:AS:36:VAL:O	1.71	0.87
3:AU:36:CYS:SG	3:AU:53:PRO:CB	2.62	0.87
18:AY:22:GLN:HB2	18:AY:74:MET:SD	2.14	0.87
51:CA:209:HIS:ND1	51:CA:211:PHE:N	2.22	0.87
51:CA:30:ARG:NH1	51:CA:33:ASP:OD1	2.07	0.87
63:CB:154:LYS:C	63:CB:154:LYS:HD2	1.92	0.87
74:CC:7:LEU:H	74:CC:24:LEU:HD23	1.36	0.87
82:CG:160:ASP:CB	82:CG:187:LYS:HD2	2.03	0.87
82:CG:189:ARG:HG2	82:CG:190:LEU:CD2	2.02	0.87
47:CI:41:ALA:HB3	47:CI:139:ARG:NH2	1.88	0.87
47:CI:212:LEU:O	47:CI:213:HIS:C	2.09	0.87
49:CQ:28:LEU:HD13	49:CQ:51:LEU:HD22	1.56	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CR:31:GLU:CD	55:CU:125:GLU:H	1.77	0.87
28:AC:138:GLY:CA	28:AC:241:PHE:HZ	1.87	0.87
30:AF:119:SER:O	30:AF:193:LYS:HG3	1.75	0.87
33:AI:154:LYS:CA	33:AI:154:LYS:CE	2.47	0.87
10:AN:12:SER:O	10:AN:13:GLN:HG2	1.73	0.87
5:AO:101:GLY:O	5:AO:104:ARG:HB2	1.74	0.87
34:AQ:117:ARG:O	34:AQ:118:THR:OG1	1.92	0.87
12:AR:85:VAL:HG23	16:AA:201:LEU:HD13	0.88	0.87
17:AV:23:ILE:HD11	28:AC:249:SER:C	1.94	0.87
32:AW:104:LEU:HD11	32:AW:106:THR:HG23	1.52	0.87
6:AX:105:PHE:CG	6:AX:112:VAL:HG23	2.09	0.87
51:CA:250:LYS:HD3	51:CA:250:LYS:C	1.95	0.87
74:CC:15:GLY:C	74:CC:16:GLU:HG2	1.94	0.87
74:CC:271:ALA:HB1	74:CC:274:LYS:HG3	1.54	0.87
64:CF:67:THR:OG1	64:CF:71:MET:HE2	1.72	0.87
47:CI:109:ASP:HA	47:CI:112:GLN:HG2	1.54	0.87
40:CK:91:ASP:O	40:CK:92:ARG:HB2	1.72	0.87
42:CL:127:PHE:HZ	42:CL:144:LEU:HB2	1.37	0.87
44:CM:25:VAL:CG1	44:CM:39:ASP:C	2.40	0.87
44:CM:95:ILE:CG1	44:CM:124:LYS:HG3	30.28	0.87
46:CN:138:PHE:CB	46:CN:143:ARG:NH2	2.37	0.87
46:CN:50:ARG:HG3	46:CN:50:ARG:HH21	1.38	0.87
49:CQ:150:ARG:CB	49:CQ:164:LYS:HG3	2.05	0.87
50:CR:99:MET:HE1	50:CR:127:VAL:C	1.94	0.87
53:CT:12:ARG:HG2	53:CT:13:TYR:CD2	2.07	0.87
57:CY:34:LEU:CD1	57:CY:38:LEU:HD12	2.04	0.87
85:A5:708:G:H21	85:A5:4941:G:H1	1.20	0.87
15:AB:175:GLU:HG2	15:AB:193:ILE:CD1	2.03	0.87
23:AD:70:THR:HA	23:AD:86:LEU:CD1	2.04	0.87
34:AQ:43:GLU:HA	34:AQ:45:ARG:N	1.90	0.87
30:AF:14:THR:HG23	34:AQ:56:LEU:CD2	1.99	0.87
12:AR:111:PHE:HE1	16:AA:12:GLU:HA	1.40	0.87
14:AT:111:LYS:CB	14:AT:126:GLN:HE22	1.85	0.87
18:AY:10:ARG:HE	18:AY:24:VAL:HG11	0.75	0.87
63:CB:58:ARG:HA	63:CB:366:LYS:CG	2.05	0.87
74:CC:14:LYS:O	74:CC:16:GLU:CD	2.11	0.87
81:CE:106:VAL:HB	81:CE:107:VAL:CA	1.99	0.87
81:CE:280:GLY:O	81:CE:282:TYR:CD2	2.27	0.87
42:CL:155:MET:CE	42:CL:155:MET:H	1.87	0.87
49:CQ:38:ARG:HB3	74:CC:302:LEU:HD22	1.54	0.87
43:CV:58:GLY:N	43:CV:125:CYS:SG	2.48	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AC:66:LEU:C	28:AC:66:LEU:HD22	1.95	0.87
27:AE:70:ILE:CG1	27:AE:92:ILE:HD12	1.88	0.87
29:AG:4:ASN:HA	29:AG:15:LEU:HD23	1.56	0.87
4:AK:27:VAL:CG1	4:AK:43:LEU:HD21	2.01	0.87
11:AL:5:GLN:HG3	33:AI:197:PHE:CE2	2.10	0.87
7:AM:78:LYS:C	7:AM:79:VAL:HG23	1.94	0.87
5:AO:20:GLN:HG2	5:AO:21:VAL:O	1.73	0.87
13:AP:52:LYS:N	13:AP:54:HIS:CD2	2.43	0.87
19:AZ:62:VAL:CG1	19:AZ:68:ILE:HD13	2.04	0.87
63:CB:113:GLU:O	63:CB:178:ALA:CB	2.21	0.87
74:CC:13:GLU:N	74:CC:13:GLU:CD	2.28	0.87
74:CC:210:ILE:CD1	74:CC:252:TRP:CH2	2.57	0.87
81:CE:127:SER:HA	81:CE:129:GLY:H	1.40	0.87
82:CG:95:LEU:HD21	82:CG:222:ILE:HD11	1.56	0.87
47:CI:91:LEU:CD1	47:CI:135:ILE:HG12	2.04	0.87
41:CO:72:HIS:HB2	41:CO:74:ARG:NH1	1.88	0.87
52:CS:17:LEU:CG	52:CS:58:SER:HA	2.05	0.87
52:CS:23:HIS:CA	52:CS:24:THR:CB	2.01	0.87
59:CZ:91:LEU:O	59:CZ:117:LYS:NZ	2.07	0.87
23:AD:196:GLY:N	23:AD:197:LYS:CA	2.38	0.87
26:AJ:48:PHE:CE1	26:AJ:52:LYS:NZ	2.42	0.87
5:AO:56:VAL:HG11	5:AO:81:VAL:CG2	2.04	0.87
34:AQ:50:LYS:HZ2	34:AQ:85:ARG:HH21	1.19	0.87
32:AW:90:GLN:HA	32:AW:102:ILE:CD1	2.05	0.87
63:CB:17:LEU:HB3	63:CB:18:PRO:HA	1.57	0.87
63:CB:88:GLY:N	63:CB:163:ILE:HG22	1.89	0.87
74:CC:273:LEU:O	74:CC:274:LYS:HG2	1.74	0.87
74:CC:311:ARG:CB	74:CC:311:ARG:HH11	1.86	0.87
81:CE:148:THR:O	81:CE:163:VAL:HG12	0.69	0.87
81:CE:165:LEU:HD12	81:CE:174:LEU:CD2	2.05	0.87
79:CJ:22:LEU:CD2	79:CJ:130:PHE:CE1	2.52	0.87
44:CM:107:PHE:CE1	81:CE:270:TYR:HB2	2.03	0.87
46:CN:44:ARG:HH11	46:CN:44:ARG:HB3	1.38	0.87
41:CO:119:VAL:HG11	41:CO:124:LEU:HD11	1.57	0.87
54:CP:59:PRO:HG3	54:CP:76:TRP:CD1	2.09	0.87
53:CT:16:SER:C	53:CT:18:PRO:HD3	1.94	0.87
16:AA:191:ARG:HG3	16:AA:191:ARG:O	1.73	0.87
17:AV:11:LEU:HD13	28:AC:79:GLU:OE1	1.73	0.87
26:AJ:138:ARG:NH1	26:AJ:156:HIS:CD2	2.43	0.87
26:AJ:91:LYS:HA	26:AJ:96:TYR:CG	2.08	0.87
8:AS:33:ILE:HB	8:AS:36:VAL:CG1	2.03	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AZ:103:HIS:CD2	19:AZ:105:ALA:CB	2.57	0.87
63:CB:356:LYS:N	63:CB:356:LYS:CE	2.30	0.87
63:CB:61:ASP:OD1	63:CB:361:GLU:OE1	1.93	0.87
82:CG:108:GLN:HA	82:CG:111:LYS:CE	2.05	0.87
82:CG:160:ASP:OD1	82:CG:187:LYS:HD2	1.74	0.87
80:CH:105:ILE:HG22	80:CH:111:LEU:C	1.95	0.87
79:CJ:90:ARG:CZ	79:CJ:108:GLY:H	1.88	0.87
42:CL:191:LEU:HD22	42:CL:194:ILE:HD13	1.56	0.87
46:CN:29:GLN:HG2	82:CG:67:ARG:NE	1.89	0.87
49:CQ:187:LYS:HE2	49:CQ:188:ASN:N	1.90	0.87
53:CT:17:ARG:HH21	53:CT:17:ARG:HG2	1.36	0.87
53:CT:39:ILE:HD12	53:CT:102:ARG:CD	2.02	0.87
58:CW:80:ARG:HG3	58:CW:80:ARG:NH2	1.86	0.87
57:CY:49:ILE:CD1	57:CY:101:PRO:HB2	2.05	0.87
59:CZ:32:GLY:O	59:CZ:33:THR:CG2	2.21	0.87
59:CZ:33:THR:HG23	59:CZ:40:HIS:CE1	2.07	0.87
23:AD:120:TYR:OH	28:AC:146:GLU:HG3	1.74	0.87
26:AJ:72:PHE:CG	27:AE:248:ILE:CG1	2.52	0.87
30:AF:112:LEU:HA	30:AF:177:LEU:HD11	1.55	0.87
31:AH:10:LYS:NZ	31:AH:17:ASP:N	2.23	0.87
8:AS:138:THR:N	8:AS:141:ARG:HH21	1.73	0.87
17:AV:65:SER:O	17:AV:69:ILE:HG12	1.73	0.87
51:CA:155:LYS:O	51:CA:155:LYS:HD2	1.75	0.87
51:CA:158:ILE:HG23	51:CA:162:ASN:ND2	1.88	0.87
63:CB:140:GLU:CG	63:CB:144:LYS:HZ3	1.86	0.87
82:CG:143:VAL:CA	82:CG:146:LEU:CD2	2.44	0.87
40:CK:117:ARG:CG	40:CK:133:LEU:CD1	2.09	0.87
42:CL:94:ILE:HG21	42:CL:120:TYR:HE2	1.37	0.87
41:CO:22:ILE:HG21	52:CS:166:ARG:HG3	1.54	0.87
50:CR:95:TRP:CH2	50:CR:130:ASN:HB3	2.10	0.87
50:CR:95:TRP:HH2	50:CR:130:ASN:HB3	1.39	0.87
29:AG:14:LYS:HZ1	29:AG:123:GLY:CA	1.85	0.87
29:AG:184:VAL:CG1	29:AG:188:LYS:CE	2.32	0.87
31:AH:93:VAL:HG22	31:AH:94:PHE:N	1.85	0.87
33:AI:142:SER:CB	33:AI:143:LYS:NZ	2.38	0.87
26:AJ:32:ILE:O	26:AJ:35:TYR:O	1.91	0.87
10:AN:28:LEU:C	10:AN:29:THR:HG23	1.95	0.87
13:AP:51:ARG:O	13:AP:52:LYS:CB	2.22	0.87
8:AS:118:ARG:HH12	13:AP:108:LYS:NZ	1.72	0.87
6:AX:126:ALA:O	6:AX:128:VAL:HB	1.75	0.87
18:AY:122:LYS:N	18:AY:122:LYS:CD	2.36	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:117:ARG:HA	63:CB:177:LYS:HD2	1.53	0.87
63:CB:355:THR:O	63:CB:356:LYS:HE2	1.74	0.87
81:CE:83:LYS:HD2	81:CE:86:GLU:N	1.90	0.87
15:AB:52:THR:CB	82:CG:264:LYS:HZ1	1.84	0.87
46:CN:29:GLN:HA	82:CG:67:ARG:NH2	1.90	0.87
79:CJ:90:ARG:HH12	79:CJ:107:PHE:CB	1.78	0.87
40:CK:131:GLU:CG	40:CK:152:ILE:HG23	2.05	0.87
40:CK:77:ALA:CB	40:CK:80:LEU:HD12	2.04	0.87
42:CL:9:VAL:HG12	42:CL:10:LEU:H	1.36	0.87
50:CR:131:VAL:HG12	50:CR:131:VAL:O	1.73	0.87
55:CU:125:GLU:CG	55:CU:126:ASP:H	1.82	0.87
59:CZ:55:ALA:O	59:CZ:56:ALA:HB2	1.75	0.87
16:AA:138:SER:O	17:AV:30:ALA:CB	2.23	0.86
27:AE:128:LYS:HD3	27:AE:130:PHE:HE1	0.95	0.86
30:AF:122:ARG:HE	30:AF:193:LYS:HZ1	1.20	0.86
31:AH:43:LEU:HD13	31:AH:72:PHE:CD1	2.10	0.86
26:AJ:170:PRO:CA	26:AJ:174:LYS:NZ	2.38	0.86
26:AJ:37:LEU:CD1	26:AJ:42:GLU:CB	2.42	0.86
4:AK:39:ASN:O	4:AK:40:VAL:HG12	1.75	0.86
13:AP:68:PRO:CB	13:AP:69:PRO:CD	2.53	0.86
34:AQ:105:LYS:NZ	34:AQ:109:LYS:HB2	1.90	0.86
8:AS:46:ARG:HH22	14:AT:50:GLU:HB3	1.38	0.86
18:AY:122:LYS:CD	18:AY:122:LYS:H	1.87	0.86
18:AY:54:VAL:HG12	18:AY:76:TYR:N	1.89	0.86
48:CD:44:TYR:HH	53:CT:67:VAL:HG21	1.29	0.86
82:CG:152:ALA:HA	82:CG:205:THR:CG2	2.04	0.86
82:CG:87:LEU:HG	82:CG:87:LEU:O	1.74	0.86
42:CL:55:ILE:HD11	42:CL:120:TYR:CZ	2.09	0.86
41:CO:16:LEU:HD12	41:CO:43:ILE:HG13	1.56	0.86
54:CP:41:ILE:HG12	54:CP:150:LEU:CD2	2.04	0.86
50:CR:44:LEU:CD2	50:CR:49:LEU:CD1	2.53	0.86
27:AE:36:HIS:CB	27:AE:41:CYS:SG	2.63	0.86
30:AF:39:ILE:CG2	30:AF:68:ILE:HG21	2.05	0.86
33:AI:84:ASN:ND2	33:AI:100:CYS:SG	2.48	0.86
5:AO:55:ARG:O	5:AO:56:VAL:CG1	2.23	0.86
34:AQ:42:ILE:CG2	34:AQ:51:LEU:CD2	2.53	0.86
32:AW:93:LEU:CD2	32:AW:128:PHE:CD2	2.57	0.86
18:AY:9:THR:HG1	18:AY:48:TYR:HH	1.04	0.86
19:AZ:69:THR:HB	19:AZ:70:PRO:CD	2.05	0.86
48:CD:129:GLU:CG	48:CD:177:THR:HG21	2.03	0.86
80:CH:105:ILE:HG21	80:CH:112:VAL:CG2	2.06	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CI:16:PRO:HD3	47:CI:128:ARG:HH12	1.39	0.86
41:CO:108:ILE:HG21	41:CO:160:ARG:HE	1.39	0.86
41:CO:131:PRO:C	41:CO:132:THR:HG23	1.94	0.86
54:CP:6:LEU:HD23	54:CP:116:HIS:CE1	2.09	0.86
52:CS:98:ARG:CD	52:CS:145:PHE:HB3	2.05	0.86
56:CX:153:ILE:HG13	56:CX:154:GLY:N	1.90	0.86
33:AI:161:LEU:HD13	33:AI:199:LEU:HD11	1.55	0.86
26:AJ:82:VAL:HG11	26:AJ:92:MET:CE	2.05	0.86
26:AJ:92:MET:C	26:AJ:93:LYS:HE3	1.96	0.86
13:AP:84:ILE:HD11	13:AP:115:TYR:CE1	2.10	0.86
13:AP:51:ARG:HD2	13:AP:51:ARG:H	1.39	0.86
8:AS:47:LYS:NZ	8:AS:78:LYS:CB	2.38	0.86
3:AU:27:ARG:HG3	3:AU:83:ARG:O	1.73	0.86
6:AX:105:PHE:CE2	6:AX:118:VAL:O	2.27	0.86
51:CA:39:GLY:HA3	82:CG:41:ILE:HD11	1.57	0.86
63:CB:142:GLY:CA	63:CB:147:GLU:H	1.87	0.86
48:CD:51:MET:HE1	48:CD:173:ILE:HD11	1.50	0.86
81:CE:111:LYS:O	81:CE:113:PRO:HD3	1.73	0.86
81:CE:75:ALA:CA	81:CE:76:ALA:HB2	2.05	0.86
79:CJ:26:VAL:HB	79:CJ:33:LEU:HD21	1.54	0.86
13:AP:12:PHE:CZ	79:CJ:88:LYS:CD	2.58	0.86
40:CK:2:PRO:HD2	40:CK:3:PRO:HD2	1.58	0.86
44:CM:89:THR:OG1	44:CM:92:ALA:HB2	1.75	0.86
55:CU:125:GLU:CD	55:CU:126:ASP:N	2.28	0.86
56:CX:78:LYS:HE3	56:CX:101:ASP:HA	1.55	0.86
16:AA:133:PRO:CD	16:AA:134:LEU:H	1.86	0.86
23:AD:158:ILE:HD12	23:AD:189:MET:HE1	1.57	0.86
30:AF:42:LYS:HB2	30:AF:45:TYR:CA	2.04	0.86
4:AK:40:VAL:HG22	4:AK:41:PRO:HD2	1.54	0.86
7:AM:117:GLU:O	7:AM:118:SER:OG	1.93	0.86
3:AU:50:VAL:CG1	3:AU:51:LYS:H	1.85	0.86
32:AW:93:LEU:HD21	32:AW:128:PHE:HD2	1.38	0.86
6:AX:114:ASP:C	6:AX:116:PRO:HD3	1.94	0.86
18:AY:120:THR:O	18:AY:122:LYS:HD2	1.74	0.86
63:CB:39:LYS:HB2	63:CB:40:PRO:CD	2.05	0.86
74:CC:183:VAL:O	74:CC:184:TYR:HB2	1.73	0.86
74:CC:7:LEU:HD11	74:CC:21:ASN:CB	2.04	0.86
42:CL:100:PRO:HD2	42:CL:101:ARG:H	1.41	0.86
42:CL:9:VAL:HA	42:CL:10:LEU:HD23	1.56	0.86
41:CO:177:LEU:CA	44:CM:130:LEU:CD2	2.54	0.86
85:A5:294:G:N1	85:A5:315:G:O2'	2.08	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AR:38:ILE:O	23:AD:211:VAL:CG2	2.21	0.86
30:AF:59:LYS:HD2	30:AF:62:ARG:HH22	1.41	0.86
26:AJ:17:ARG:CG	26:AJ:18:ARG:CD	2.29	0.86
7:AM:115:GLY:O	7:AM:116:LYS:HB2	1.73	0.86
10:AN:54:LEU:O	10:AN:58:HIS:O	1.93	0.86
8:AS:39:ARG:HD3	14:AT:38:LYS:HE2	1.54	0.86
51:CA:118:GLU:HB3	51:CA:125:LYS:HZ2	1.41	0.86
63:CB:355:THR:O	63:CB:356:LYS:CE	2.22	0.86
63:CB:40:PRO:CG	63:CB:42:HIS:CD2	2.55	0.86
63:CB:51:ALA:HB3	63:CB:78:ILE:HD13	1.57	0.86
63:CB:61:ASP:OD1	63:CB:361:GLU:CD	2.14	0.86
81:CE:264:ILE:CG2	81:CE:267:LEU:H	1.89	0.86
82:CG:121:LYS:C	82:CG:121:LYS:HD2	1.93	0.86
79:CJ:85:LYS:HG3	79:CJ:85:LYS:O	5.05	0.86
40:CK:9:GLU:HG3	40:CK:10:ILE:CA	2.05	0.86
40:CK:8:ASN:C	40:CK:9:GLU:HG2	1.94	0.86
54:CP:116:HIS:HE1	54:CP:118:GLN:HB3	1.39	0.86
49:CQ:19:LYS:C	49:CQ:19:LYS:CD	2.30	0.86
50:CR:103:ARG:HD2	50:CR:124:TYR:CE1	2.10	0.86
52:CS:45:TRP:CZ2	52:CS:56:LYS:HA	2.09	0.86
56:CX:146:ALA:HA	56:CX:149:VAL:CG1	2.05	0.86
57:CY:11:ARG:HH12	74:CC:200:ARG:HH12	1.20	0.86
16:AA:57:LYS:HE2	17:AV:70:LEU:CD1	2.04	0.86
28:AC:108:LYS:CE	28:AC:233:LEU:CD2	2.48	0.86
4:AK:14:LEU:HD22	4:AK:35:LEU:CG	2.04	0.86
13:AP:52:LYS:HA	13:AP:54:HIS:CD2	2.10	0.86
12:AR:91:LEU:HD12	12:AR:92:ASP:HA	1.56	0.86
36:B2:530:U:C5	36:B2:531:A:C8	2.64	0.86
51:CA:253:GLN:CB	51:CA:254:GLU:HA	2.05	0.86
63:CB:87:VAL:HG23	63:CB:163:ILE:HG21	1.55	0.86
74:CC:133:LEU:CD2	74:CC:136:LEU:HG	2.04	0.86
74:CC:159:GLU:OE2	74:CC:255:SER:OG	1.93	0.86
74:CC:272:SER:O	74:CC:273:LEU:CB	2.22	0.86
48:CD:110:LEU:HG	48:CD:115:MET:O	1.74	0.86
82:CG:181:TYR:CE2	82:CG:227:ASN:OD1	2.29	0.86
42:CL:20:ARG:H	42:CL:20:ARG:HD2	1.36	0.86
41:CO:181:ALA:HB1	44:CM:126:GLU:CG	2.06	0.86
46:CN:180:PHE:CB	46:CN:184:ILE:CD1	2.35	0.86
41:CO:125:LYS:HE3	41:CO:135:PHE:CE2	2.10	0.86
43:CV:82:ILE:HG21	43:CV:121:VAL:HG22	1.55	0.86
28:AC:244:ILE:HG13	28:AC:245:SER:N	1.91	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AI:139:LYS:HB2	33:AI:145:ILE:HD11	1.56	0.86
33:AI:62:VAL:HG21	33:AI:75:LYS:CE	2.06	0.86
26:AJ:180:LYS:HG3	26:AJ:181:GLY:N	1.90	0.86
4:AK:66:HIS:CE1	23:AD:76:ARG:HE	1.90	0.86
11:AL:80:MET:CE	11:AL:121:GLN:HA	2.06	0.86
7:AM:12:MET:CG	7:AM:16:THR:CG2	2.52	0.86
8:AS:9:PHE:CD1	8:AS:9:PHE:N	2.37	0.86
18:AY:7:ILE:HG13	18:AY:43:LYS:HD3	1.57	0.86
63:CB:173:LEU:HD13	63:CB:342:LYS:HE2	1.57	0.86
48:CD:273:LEU:HD13	48:CD:277:LYS:HE3	0.87	0.86
81:CE:51:VAL:HB	81:CE:52:ARG:HA	1.55	0.86
82:CG:117:ARG:NH1	82:CG:127:ASP:O	1.79	0.86
47:CI:103:LEU:HD23	47:CI:103:LEU:H	1.41	0.86
79:CJ:128:LEU:CD1	79:CJ:130:PHE:HD2	1.85	0.86
48:CD:152:ARG:HH12	79:CJ:145:LYS:HE2	1.41	0.86
52:CS:76:LYS:CE	52:CS:100:LEU:O	2.23	0.86
52:CS:9:GLU:OE1	52:CS:31:ARG:HD2	1.75	0.86
15:AB:53:GLN:O	15:AB:56:LYS:O	1.93	0.86
28:AC:275:LYS:CD	28:AC:276:THR:H	1.88	0.86
23:AD:218:LEU:CB	23:AD:220:THR:HG23	1.98	0.86
26:AJ:177:ASN:O	26:AJ:180:LYS:CB	2.23	0.86
5:AO:61:LYS:O	5:AO:62:VAL:CG2	2.23	0.86
36:B2:127:C:N3	36:B2:180:G:C2'	2.39	0.86
63:CB:126:LYS:O	63:CB:127:LYS:HG3	1.74	0.86
63:CB:40:PRO:O	63:CB:41:VAL:HG22	1.76	0.86
64:CF:116:GLN:HB2	64:CF:119:ASN:ND2	1.91	0.86
42:CL:136:LYS:H	42:CL:137:GLY:CA	1.86	0.86
52:CS:153:PRO:O	52:CS:155:PRO:CD	2.24	0.86
55:CU:23:LEU:CD2	55:CU:110:TYR:O	2.23	0.86
15:AB:137:LEU:CD2	15:AB:215:VAL:CG2	2.47	0.86
15:AB:62:LEU:HD23	15:AB:91:VAL:HG21	1.58	0.86
4:AK:66:HIS:ND1	23:AD:76:ARG:NE	2.23	0.86
29:AG:50:VAL:HG11	29:AG:111:LEU:CG	2.04	0.86
29:AG:64:LYS:HG3	29:AG:67:VAL:HG13	1.55	0.86
31:AH:146:VAL:HG11	32:AW:42:MET:SD	2.14	0.86
11:AL:147:LYS:HD2	11:AL:148:ALA:C	1.95	0.86
7:AM:28:HIS:HD2	7:AM:113:ASP:OD2	1.59	0.86
34:AQ:112:LEU:O	34:AQ:116:ASP:N	2.08	0.86
30:AF:53:ALA:O	34:AQ:125:ARG:NH2	2.08	0.86
34:AQ:9:SER:HB3	34:AQ:26:LYS:CD	2.05	0.86
12:AR:91:LEU:H	12:AR:92:ASP:HA	1.39	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AS:65:GLU:O	8:AS:69:THR:HG23	1.75	0.86
51:CA:143:THR:N	51:CA:144:LYS:HG2	1.89	0.86
74:CC:122:TYR:CE1	74:CC:280:PRO:HB3	2.08	0.86
79:CJ:20:LEU:CD1	79:CJ:83:LEU:CD2	2.49	0.86
52:CS:84:TYR:CE2	52:CS:85:ASP:O	2.29	0.86
12:AR:88:VAL:HG23	16:AA:198:MET:HB3	1.54	0.86
28:AC:275:LYS:HG3	28:AC:276:THR:N	1.89	0.86
27:AE:145:ARG:HG2	27:AE:145:ARG:HH11	1.37	0.86
30:AF:25:THR:CG2	30:AF:41:VAL:CG2	2.54	0.86
7:AM:28:HIS:CD2	7:AM:113:ASP:OD2	2.29	0.86
10:AN:80:LEU:O	10:AN:82:PRO:CD	2.22	0.86
34:AQ:128:GLU:OE1	36:B2:1649:U:H5'	1.74	0.86
12:AR:37:GLU:OE1	12:AR:38:ILE:HG23	1.75	0.86
8:AS:139:THR:O	8:AS:141:ARG:HG2	1.76	0.86
3:AU:97:ILE:HG23	3:AU:101:ILE:CD1	2.06	0.86
74:CC:28:PHE:HA	74:CC:129:ALA:HA	1.58	0.86
74:CC:318:PRO:O	74:CC:321:ASN:N	2.09	0.86
48:CD:261:VAL:HB	48:CD:262:LYS:HB2	0.87	0.86
82:CG:98:LEU:CD2	82:CG:215:LEU:HD23	2.06	0.86
47:CI:109:ASP:OD2	47:CI:112:GLN:CB	2.24	0.86
79:CJ:173:ILE:CG2	79:CJ:174:ILE:O	2.24	0.86
40:CK:62:LEU:HD11	40:CK:73:VAL:HG21	1.56	0.86
44:CM:25:VAL:CG1	44:CM:39:ASP:O	2.24	0.86
59:CZ:10:VAL:HG11	59:CZ:129:TRP:CZ3	2.11	0.86
16:AA:36:GLN:HA	16:AA:36:GLN:OE1	1.74	0.85
31:AH:107:LYS:C	31:AH:109:ARG:HA	1.96	0.85
33:AI:191:GLU:O	33:AI:192:GLY:C	2.14	0.85
5:AO:119:LEU:HD12	5:AO:120:ALA:N	1.91	0.85
5:AO:94:HIS:ND1	5:AO:127:GLY:O	2.09	0.85
12:AR:100:PRO:CB	12:AR:119:VAL:HG21	2.06	0.85
8:AS:26:ILE:HD11	8:AS:59:LEU:CD2	2.05	0.85
51:CA:118:GLU:HG3	51:CA:119:LYS:HG2	1.56	0.85
82:CG:174:CYS:HB3	82:CG:179:VAL:HG12	1.58	0.85
80:CH:110:SER:CB	80:CH:128:MET:CB	2.53	0.85
80:CH:25:VAL:CG2	80:CH:38:PHE:CE2	2.58	0.85
80:CH:43:VAL:HG11	80:CH:73:ILE:HD12	1.56	0.85
47:CI:26:VAL:CG1	47:CI:27:PRO:HD2	2.05	0.85
40:CK:117:ARG:NE	40:CK:117:ARG:CA	2.33	0.85
42:CL:149:GLN:O	42:CL:150:LEU:HD23	1.75	0.85
49:CQ:61:LEU:HD21	49:CQ:140:SER:O	1.75	0.85
55:CU:80:LYS:HB3	55:CU:110:TYR:CZ	2.11	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:CY:117:LYS:HE2	57:CY:121:ARG:HH22	0.89	0.85
5:AO:88:LEU:CD2	15:AB:25:PHE:HD2	1.87	0.85
23:AD:197:LYS:N	23:AD:198:ILE:C	2.30	0.85
29:AG:164:LYS:O	29:AG:165:GLU:C	2.11	0.85
29:AG:64:LYS:HG3	29:AG:67:VAL:CG1	2.06	0.85
31:AH:145:ARG:HD2	32:AW:51:GLU:CD	1.94	0.85
26:AJ:102:ILE:HG22	26:AJ:106:LEU:HD13	1.56	0.85
26:AJ:37:LEU:HD21	26:AJ:42:GLU:HB2	1.49	0.85
7:AM:124:ILE:O	7:AM:127:TYR:CD2	2.28	0.85
19:AZ:70:PRO:HD2	19:AZ:71:ALA:N	1.89	0.85
19:AZ:99:LEU:HD22	19:AZ:102:LYS:CD	2.04	0.85
51:CA:32:VAL:CB	51:CA:163:ARG:HH12	1.88	0.85
63:CB:165:HIS:CB	63:CB:180:LEU:HD11	2.04	0.85
81:CE:96:VAL:CG1	81:CE:97:GLY:N	2.29	0.85
82:CG:121:LYS:HD2	82:CG:122:ALA:CA	2.06	0.85
82:CG:194:VAL:O	82:CG:195:HIS:HB2	1.75	0.85
40:CK:33:GLY:O	40:CK:38:SER:OG	1.93	0.85
52:CS:30:MET:SD	52:CS:47:PHE:CB	2.64	0.85
52:CS:7:LEU:CD2	52:CS:7:LEU:N	2.38	0.85
53:CT:127:GLN:NE2	53:CT:127:GLN:C	2.29	0.85
53:CT:146:LYS:CB	53:CT:146:LYS:NZ	2.37	0.85
43:CV:33:GLY:HA3	43:CV:69:LYS:CE	2.04	0.85
29:AG:130:PRO:CA	58:CW:81:ALA:CB	2.48	0.85
28:AC:117:ARG:HB2	28:AC:117:ARG:HH21	1.38	0.85
23:AD:193:ASP:OD1	23:AD:203:PRO:HA	1.76	0.85
13:AP:53:GLN:CG	13:AP:80:LEU:HD11	1.88	0.85
34:AQ:135:PRO:HD2	34:AQ:141:TYR:CE1	2.11	0.85
14:AT:64:LEU:N	14:AT:64:LEU:HD23	1.90	0.85
17:AV:3:ASN:OD1	17:AV:7:GLU:HB2	1.76	0.85
18:AY:12:PHE:HZ	18:AY:21:LYS:HB3	1.33	0.85
18:AY:33:ALA:CB	36:B2:581:U:O2'	2.24	0.85
63:CB:108:GLU:HA	63:CB:137:TRP:NE1	1.90	0.85
74:CC:44:LEU:O	74:CC:47:ASN:N	2.07	0.85
48:CD:152:ARG:NH1	79:CJ:145:LYS:CE	2.39	0.85
47:CI:103:LEU:N	47:CI:103:LEU:HD22	1.91	0.85
47:CI:156:LYS:HG2	47:CI:163:GLN:HE21	1.41	0.85
79:CJ:169:LYS:HD2	79:CJ:170:TYR:CE2	2.11	0.85
40:CK:20:GLY:HA3	40:CK:92:ARG:NH2	1.91	0.85
40:CK:94:LYS:CG	40:CK:96:LYS:CE	2.52	0.85
46:CN:78:GLY:O	46:CN:80:THR:N	2.08	0.85
41:CO:14:HIS:NE2	41:CO:119:VAL:HG13	1.91	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:CO:185:VAL:N	44:CM:126:GLU:CD	2.27	0.85
41:CO:187:LYS:HE3	41:CO:187:LYS:CA	2.04	0.85
43:CV:106:VAL:HG13	43:CV:111:GLU:O	1.75	0.85
57:CY:50:ARG:CD	57:CY:51:LYS:H	1.89	0.85
85:A5:1823:G:H3'	85:A5:1824:G:C8	2.11	0.85
85:A5:4302:U:C5	85:A5:4303:C:C5	2.64	0.85
16:AA:145:ILE:HD13	16:AA:159:ILE:CG2	2.06	0.85
16:AA:54:THR:OG1	16:AA:162:PRO:HG2	1.77	0.85
23:AD:218:LEU:CB	23:AD:220:THR:HG21	1.99	0.85
27:AE:11:ARG:NH1	27:AE:20:LEU:HB3	1.90	0.85
31:AH:143:ARG:HD3	32:AW:53:ILE:HG12	0.86	0.85
31:AH:147:LYS:HE2	31:AH:153:LEU:CD1	2.06	0.85
26:AJ:87:LEU:HD11	26:AJ:91:LYS:CB	2.06	0.85
11:AL:12:LYS:HZ1	33:AI:194:GLU:HG2	0.75	0.85
32:AW:129:PHE:O	32:AW:129:PHE:CD1	2.30	0.85
36:B2:1412:C:H2'	36:B2:1413:G:C8	2.11	0.85
36:B2:24:C:O2'	36:B2:25:A:H5'	1.76	0.85
51:CA:253:GLN:HG3	51:CA:255:LYS:CD	2.04	0.85
74:CC:64:ALA:HB3	74:CC:92:PHE:HZ	1.39	0.85
48:CD:21:ARG:CG	48:CD:24:ARG:NH1	2.39	0.85
48:CD:262:LYS:HD3	48:CD:266:TRP:CD1	2.10	0.85
64:CF:182:TYR:HD1	64:CF:200:ARG:NE	1.73	0.85
64:CF:148:LYS:HB3	64:CF:245:ARG:NH1	1.90	0.85
82:CG:265:LEU:O	82:CG:266:GLY:O	1.94	0.85
82:CG:49:ARG:O	82:CG:51:LEU:HD21	1.75	0.85
41:CO:16:LEU:CD2	41:CO:41:ILE:CG1	2.51	0.85
50:CR:28:GLU:HG3	50:CR:49:LEU:CD2	2.05	0.85
53:CT:125:TRP:NE1	53:CT:126:VAL:HB	1.91	0.85
53:CT:40:VAL:HG11	53:CT:96:ILE:HG23	0.87	0.85
43:CV:99:GLU:OE1	58:CW:23:ARG:CG	2.24	0.85
58:CW:8:PHE:CD1	58:CW:46:PRO:HG3	2.11	0.85
56:CX:141:ALA:HB1	56:CX:142:PRO:HD3	1.57	0.85
85:A5:294:G:C6	85:A5:315:G:O2'	2.29	0.85
16:AA:186:ARG:C	16:AA:186:ARG:NH1	2.30	0.85
16:AA:30:LEU:HG	16:AA:31:ASP:O	1.75	0.85
28:AC:94:ILE:HD11	28:AC:162:ILE:CD1	2.04	0.85
27:AE:23:LEU:O	27:AE:24:THR:CG2	2.24	0.85
5:AO:72:TYR:CB	30:AF:135:ARG:NH2	2.40	0.85
18:AY:118:ARG:HH22	29:AG:85:ARG:HD2	1.35	0.85
26:AJ:65:GLU:O	26:AJ:66:LYS:HB2	1.75	0.85
13:AP:49:LEU:O	13:AP:50:ARG:C	2.08	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:33:LEU:HD22	13:AP:87:PRO:HG3	1.58	0.85
12:AR:105:MET:CG	16:AA:48:ILE:HG22	2.05	0.85
18:AY:122:LYS:CD	18:AY:123:ALA:H	1.87	0.85
18:AY:45:ALA:HA	18:AY:55:ILE:HD12	1.58	0.85
18:AY:63:HIS:CB	18:AY:64:PHE:CD1	2.59	0.85
74:CC:101:MET:HE3	74:CC:105:THR:H	1.41	0.85
82:CG:81:ASN:ND2	82:CG:238:GLY:H	1.73	0.85
44:CM:77:TRP:CG	44:CM:82:ILE:CD1	2.60	0.85
46:CN:187:SER:O	46:CN:188:ARG:HB3	1.76	0.85
41:CO:190:ASP:CB	41:CO:193:THR:CA	2.54	0.85
49:CQ:8:ASN:H	49:CQ:8:ASN:HD22	0.86	0.85
52:CS:140:PRO:HD2	52:CS:141:ALA:H	1.40	0.85
52:CS:98:ARG:CZ	52:CS:145:PHE:HB3	2.05	0.85
53:CT:127:GLN:NE2	53:CT:127:GLN:CA	2.30	0.85
55:CU:54:GLY:O	55:CU:55:ASN:HB2	1.77	0.85
57:CY:27:ARG:CZ	57:CY:28:LYS:HE3	2.05	0.85
59:CZ:88:ASP:HB3	59:CZ:121:ARG:NH2	1.91	0.85
85:A5:4936:G:H8	85:A5:4936:G:H5''	1.40	0.85
16:AA:180:ARG:HD3	16:AA:184:ARG:CZ	2.07	0.85
27:AE:124:CYS:HB3	27:AE:141:THR:HB	1.58	0.85
31:AH:144:ILE:CD1	32:AW:52:ILE:CG2	2.47	0.85
10:AN:27:LYS:HD2	10:AN:28:LEU:N	1.91	0.85
5:AO:51:GLU:OE2	15:AB:28:LYS:CE	2.25	0.85
13:AP:89:MET:HB3	13:AP:107:ILE:CD1	2.07	0.85
34:AQ:42:ILE:CD1	34:AQ:51:LEU:HD11	2.07	0.85
19:AZ:85:ARG:HH11	19:AZ:85:ARG:CG	1.89	0.85
11:AL:82:MET:HE1	36:B2:373:G:C4'	2.07	0.85
51:CA:116:LEU:CD1	51:CA:126:LEU:HD12	2.03	0.85
63:CB:81:THR:HB	63:CB:329:ASP:O	1.77	0.85
74:CC:204:ARG:HA	74:CC:204:ARG:HE	1.40	0.85
74:CC:9:SER:HA	74:CC:21:ASN:OD1	1.75	0.85
81:CE:149:ILE:CA	81:CE:163:VAL:HG13	2.05	0.85
44:CM:34:ASN:O	44:CM:35:ARG:HG2	1.77	0.85
41:CO:54:TYR:CE2	41:CO:58:LEU:HD21	2.12	0.85
50:CR:132:PHE:CD1	50:CR:137:ILE:HG12	2.11	0.85
52:CS:154:LEU:HD13	52:CS:157:ARG:NH1	1.89	0.85
58:CW:4:GLU:CD	58:CW:5:LEU:H	1.80	0.85
57:CY:50:ARG:C	57:CY:50:ARG:HD3	1.97	0.85
85:A5:2253:A:H61	85:A5:2260:C:N4	1.75	0.85
15:AB:49:VAL:HG22	15:AB:65:ARG:HH22	1.36	0.85
30:AF:121:PRO:HA	30:AF:193:LYS:HE3	1.58	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AF:195:GLU:OE1	30:AF:195:GLU:HA	1.77	0.85
4:AK:27:VAL:HG13	4:AK:43:LEU:HD23	1.51	0.85
12:AR:99:ASP:CA	12:AR:119:VAL:HG12	2.02	0.85
14:AT:18:LEU:CD1	14:AT:134:ILE:HD13	2.05	0.85
14:AT:11:GLN:HE22	14:AT:62:ARG:NH2	1.74	0.85
3:AU:49:LYS:O	3:AU:50:VAL:CG1	2.24	0.85
17:AV:60:ARG:HG2	17:AV:65:SER:HB3	1.58	0.85
18:AY:114:MET:CA	18:AY:124:ASN:HD22	1.88	0.85
34:AQ:16:LYS:NZ	36:B2:1648:G:O6	2.08	0.85
74:CC:289:LEU:H	74:CC:289:LEU:HD23	1.40	0.85
74:CC:77:PRO:HG2	74:CC:92:PHE:CE2	2.11	0.85
81:CE:149:ILE:CD1	81:CE:161:ARG:HB3	2.06	0.85
81:CE:212:LEU:HD11	81:CE:216:TYR:HD2	1.33	0.85
81:CE:224:LYS:CA	81:CE:226:ARG:HH11	1.80	0.85
81:CE:94:LYS:H	81:CE:95:PRO:HD2	1.39	0.85
82:CG:162:ASP:N	82:CG:163:PRO:CD	2.38	0.85
80:CH:69:THR:O	80:CH:72:THR:HG22	1.77	0.85
47:CI:10:ARG:NE	47:CI:58:GLU:OE1	2.09	0.85
40:CK:125:LEU:HD12	40:CK:163:PRO:CB	2.04	0.85
54:CP:109:VAL:CG1	54:CP:110:ASP:N	2.38	0.85
54:CP:27:LYS:HG3	54:CP:63:TYR:CD1	2.12	0.85
52:CS:20:PRO:O	52:CS:21:LYS:CG	2.23	0.85
52:CS:15:ARG:NH1	52:CS:24:THR:HG21	1.91	0.85
53:CT:29:THR:HG1	53:CT:30:TYR:HE2	1.15	0.85
56:CX:117:TYR:CB	56:CX:119:ILE:HG22	2.04	0.85
59:CZ:118:PHE:CZ	59:CZ:130:PHE:HZ	1.92	0.85
15:AB:75:GLN:HA	15:AB:75:GLN:NE2	1.90	0.85
28:AC:259:THR:HG21	28:AC:261:PHE:HA	1.59	0.85
23:AD:212:GLU:O	23:AD:213:PRO:O	1.95	0.85
29:AG:41:LEU:HD22	29:AG:45:TRP:HE3	1.33	0.85
31:AH:144:ILE:CG1	32:AW:52:ILE:CG2	2.53	0.85
11:AL:8:ARG:NH1	33:AI:85:ALA:HB1	1.89	0.85
4:AK:74:GLU:OE1	4:AK:74:GLU:HA	1.77	0.85
11:AL:151:THR:O	11:AL:153:LYS:N	2.09	0.85
10:AN:99:ARG:NH2	10:AN:115:LEU:CD2	2.40	0.85
12:AR:100:PRO:HA	12:AR:103:LYS:CB	2.03	0.85
3:AU:62:ARG:HH12	3:AU:64:THR:HG21	1.00	0.85
18:AY:119:GLY:O	18:AY:121:ALA:N	2.10	0.85
18:AY:34:THR:C	18:AY:35:VAL:HG22	1.97	0.85
63:CB:381:THR:HG23	63:CB:383:GLU:HG3	1.57	0.85
74:CC:144:ILE:CG2	74:CC:147:VAL:CB	2.53	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:28:PHE:HZ	74:CC:131:SER:OG	1.56	0.85
81:CE:121:VAL:HG13	81:CE:122:PRO:N	1.87	0.85
81:CE:151:ILE:O	81:CE:194:VAL:HG13	1.77	0.85
40:CK:102:GLY:O	40:CK:140:GLY:O	1.93	0.85
42:CL:27:ASN:O	42:CL:29:PRO:CD	2.24	0.85
46:CN:138:PHE:CA	46:CN:143:ARG:NH2	2.38	0.85
41:CO:122:ALA:CB	52:CS:161:ARG:CB	2.41	0.85
49:CQ:63:LEU:O	49:CQ:67:ILE:HG12	1.77	0.85
56:CX:41:ARG:NH1	56:CX:46:PHE:CE1	2.45	0.85
82:CG:139:GLY:HA2	85:A5:149:A:HO2'	1.40	0.85
15:AB:149:GLN:HE21	15:AB:151:ARG:HG2	1.41	0.85
29:AG:67:VAL:O	29:AG:68:LEU:HB2	1.76	0.85
8:AS:8:LYS:HA	19:AZ:49:LEU:HD23	1.57	0.85
51:CA:137:ILE:HG22	51:CA:137:ILE:O	1.76	0.85
74:CC:147:VAL:CA	74:CC:175:LYS:CG	2.50	0.85
81:CE:121:VAL:HG13	81:CE:122:PRO:HD2	1.58	0.85
40:CK:94:LYS:CB	40:CK:96:LYS:HE3	2.07	0.85
44:CM:60:PHE:HZ	44:CM:85:LYS:HG3	0.80	0.85
46:CN:115:VAL:HG22	46:CN:134:LEU:CD2	2.00	0.85
46:CN:186:GLY:CA	46:CN:191:ALA:HB2	2.07	0.85
41:CO:38:CYS:O	41:CO:41:ILE:HG22	1.76	0.85
49:CQ:146:ARG:NH1	49:CQ:148:VAL:HB	1.92	0.85
49:CQ:64:SER:HB3	49:CQ:92:VAL:HG23	1.59	0.85
48:CD:44:TYR:CZ	53:CT:34:TYR:O	2.29	0.85
53:CT:35:LYS:N	53:CT:38:ASP:OD2	2.09	0.85
16:AA:39:TYR:CB	16:AA:50:ASN:ND2	2.40	0.85
31:AH:31:GLU:CD	31:AH:41:ARG:CD	2.45	0.85
5:AO:20:GLN:CG	5:AO:21:VAL:N	2.39	0.85
13:AP:127:LYS:C	13:AP:127:LYS:NZ	2.29	0.85
12:AR:121:GLN:C	12:AR:121:GLN:NE2	2.30	0.85
8:AS:120:HIS:NE2	8:AS:124:ARG:NH2	2.20	0.85
6:AX:142:ARG:HG3	6:AX:142:ARG:NH1	1.91	0.85
6:AX:51:VAL:CG1	6:AX:70:VAL:CG1	2.52	0.85
18:AY:7:ILE:CD1	18:AY:43:LYS:CD	2.55	0.85
63:CB:108:GLU:HG3	63:CB:137:TRP:HD1	1.31	0.85
63:CB:114:CYS:SG	63:CB:180:LEU:HD22	2.15	0.85
63:CB:303:ALA:O	63:CB:312:LYS:NZ	2.09	0.85
74:CC:109:ARG:CD	74:CC:111:TRP:CZ3	2.60	0.85
48:CD:56:THR:C	48:CD:58:ARG:N	2.22	0.85
48:CD:57:ASN:C	48:CD:58:ARG:CG	2.43	0.85
47:CI:175:LYS:C	47:CI:176:PHE:CG	2.39	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CI:213:HIS:CG	47:CI:213:HIS:O	2.30	0.85
47:CI:82:ARG:HG2	47:CI:82:ARG:NH1	1.87	0.85
47:CI:86:HIS:CD2	47:CI:139:ARG:HH11	1.90	0.85
42:CL:160:VAL:HG23	42:CL:161:TYR:H	1.42	0.85
42:CL:50:PRO:CA	42:CL:51:ALA:CB	2.37	0.85
44:CM:42:CYS:HB2	44:CM:77:TRP:CD1	2.12	0.85
41:CO:119:VAL:HG12	41:CO:124:LEU:CD1	2.01	0.85
41:CO:121:PRO:CA	41:CO:124:LEU:HD13	2.06	0.85
54:CP:88:ALA:O	54:CP:91:LEU:HG	1.77	0.85
50:CR:101:ILE:HG12	50:CR:104:ARG:HH11	1.37	0.85
52:CS:83:ARG:HD2	53:CT:156:TYR:N	1.90	0.85
58:CW:88:ALA:C	58:CW:91:MET:SD	2.54	0.85
59:CZ:33:THR:HG21	59:CZ:40:HIS:CE1	2.12	0.85
15:AB:105:LEU:HD21	15:AB:213:ARG:HA	1.59	0.84
23:AD:132:LYS:CA	23:AD:191:PRO:HG2	2.04	0.84
23:AD:70:THR:HA	23:AD:86:LEU:HD13	1.56	0.84
27:AE:126:VAL:HG21	27:AE:129:ILE:HD11	1.58	0.84
27:AE:208:VAL:CB	27:AE:225:ILE:HD13	2.01	0.84
29:AG:147:LEU:O	29:AG:148:SER:OG	1.93	0.84
26:AJ:31:LEU:O	26:AJ:35:TYR:HB2	1.77	0.84
11:AL:59:LYS:HD3	11:AL:112:HIS:CD2	2.12	0.84
7:AM:91:LEU:HD22	7:AM:104:VAL:CG1	2.06	0.84
12:AR:85:VAL:HG13	16:AA:198:MET:HB2	1.56	0.84
17:AV:23:ILE:HD11	28:AC:249:SER:HA	1.57	0.84
6:AX:126:ALA:HB3	6:AX:128:VAL:CG1	2.07	0.84
18:AY:7:ILE:HD12	18:AY:43:LYS:CB	2.05	0.84
82:CG:113:ARG:HH21	82:CG:113:ARG:HG3	0.74	0.84
82:CG:39:PHE:HZ	82:CG:47:PRO:HD3	0.78	0.84
46:CN:21:PHE:CD2	82:CG:80:ILE:HD12	2.12	0.84
79:CJ:99:PHE:CD1	79:CJ:105:PHE:HB3	2.12	0.84
79:CJ:17:ILE:CD1	79:CJ:83:LEU:HD12	2.07	0.84
42:CL:64:VAL:HA	42:CL:67:HIS:NE2	1.91	0.84
42:CL:21:ARG:O	46:CN:197:THR:HA	1.77	0.84
46:CN:68:ARG:HG3	46:CN:69:GLY:N	1.91	0.84
41:CO:145:VAL:O	41:CO:145:VAL:HG12	1.77	0.84
55:CU:60:VAL:HA	55:CU:75:GLU:CB	2.06	0.84
43:CV:89:ARG:HG3	43:CV:95:PHE:CZ	2.11	0.84
58:CW:80:ARG:HD3	58:CW:81:ALA:H	1.38	0.84
59:CZ:10:VAL:C	59:CZ:83:THR:CG2	2.45	0.84
28:AC:169:TYR:OH	28:AC:177:PRO:CD	2.24	0.84
23:AD:198:ILE:O	23:AD:198:ILE:HD12	1.77	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AE:21:ASP:OD1	27:AE:24:THR:HG21	1.76	0.84
31:AH:36:LEU:HD12	31:AH:36:LEU:C	1.95	0.84
13:AP:10:ARG:NH2	13:AP:11:THR:CB	2.30	0.84
34:AQ:12:VAL:HG12	34:AQ:13:PHE:H	1.40	0.84
14:AT:4:VAL:HG12	14:AT:8:ASP:HB3	1.59	0.84
32:AW:90:GLN:CA	32:AW:102:ILE:HD11	2.06	0.84
6:AX:102:VAL:CG1	6:AX:120:PHE:HB3	2.07	0.84
51:CA:122:ASP:OD2	51:CA:125:LYS:HD3	1.77	0.84
48:CD:163:LEU:HD11	48:CD:173:ILE:HG22	1.59	0.84
82:CG:100:HIS:CG	82:CG:100:HIS:O	2.30	0.84
40:CK:107:ASP:OD1	40:CK:143:VAL:HG22	1.76	0.84
40:CK:57:ARG:NH2	40:CK:89:PRO:HA	1.90	0.84
41:CO:108:ILE:HG23	41:CO:160:ARG:CD	2.07	0.84
49:CQ:154:LYS:CE	49:CQ:156:PRO:N	2.38	0.84
49:CQ:50:ARG:HB3	49:CQ:83:VAL:HG11	1.60	0.84
52:CS:20:PRO:O	52:CS:21:LYS:CD	2.25	0.84
53:CT:17:ARG:NH2	53:CT:17:ARG:HG2	1.91	0.84
23:AD:218:LEU:HB2	23:AD:220:THR:HG21	1.53	0.84
27:AE:159:THR:HG21	27:AE:227:VAL:HG23	1.55	0.84
30:AF:14:THR:CB	34:AQ:56:LEU:CD1	2.55	0.84
63:CB:108:GLU:CD	63:CB:137:TRP:CG	2.50	0.84
63:CB:80:GLU:OE1	63:CB:171:LEU:CG	2.24	0.84
49:CQ:22:ASP:CG	74:CC:33:ARG:NE	2.29	0.84
81:CE:85:LYS:C	81:CE:92:VAL:HG13	1.97	0.84
64:CF:161:LYS:HD3	64:CF:209:TRP:CZ3	2.10	0.84
82:CG:108:GLN:HA	82:CG:111:LYS:HE2	1.57	0.84
82:CG:255:LYS:CE	82:CG:259:LYS:CE	2.54	0.84
57:CY:44:VAL:CG1	57:CY:122:LYS:HD3	2.06	0.84
57:CY:50:ARG:O	57:CY:53:ASP:HB2	1.77	0.84
12:AR:19:LYS:HD3	23:AD:212:GLU:CB	2.03	0.84
23:AD:97:CYS:SG	23:AD:99:ILE:CG1	2.65	0.84
30:AF:28:VAL:HG22	30:AF:110:GLN:HG2	1.57	0.84
12:AR:32:LYS:HE2	12:AR:33:ARG:HE	1.41	0.84
8:AS:117:ILE:C	8:AS:118:ARG:HG2	1.94	0.84
8:AS:95:TYR:HD1	8:AS:95:TYR:N	1.72	0.84
6:AX:95:GLU:CD	6:AX:140:ARG:NH2	2.31	0.84
6:AX:94:ILE:CG1	6:AX:125:VAL:HG21	2.07	0.84
36:B2:1412:C:OP1	36:B2:1412:C:H4'	1.76	0.84
64:CF:161:LYS:CD	64:CF:209:TRP:CZ3	2.60	0.84
82:CG:183:ILE:HG23	82:CG:184:ILE:C	1.96	0.84
82:CG:27:VAL:O	82:CG:31:LEU:HD22	1.75	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:158:THR:HB	49:CQ:188:ASN:O	1.76	0.84
16:AA:11:LYS:HD3	16:AA:13:GLU:CG	2.08	0.84
15:AB:139:CYS:SG	15:AB:212:VAL:HG12	2.16	0.84
23:AD:197:LYS:CB	23:AD:198:ILE:CB	2.55	0.84
27:AE:198:ARG:HG2	27:AE:198:ARG:O	1.75	0.84
30:AF:201:LYS:CE	30:AF:204:ARG:NH2	2.39	0.84
31:AH:122:LEU:CD1	31:AH:123:THR:HG23	2.08	0.84
7:AM:50:CYS:O	7:AM:77:ILE:HG22	1.78	0.84
8:AS:54:LYS:N	8:AS:54:LYS:HA	1.90	0.84
6:AX:105:PHE:CD1	6:AX:112:VAL:HG21	2.13	0.84
6:AX:125:VAL:O	6:AX:128:VAL:N	2.10	0.84
18:AY:13:MET:HE1	18:AY:14:THR:O	1.77	0.84
37:BC:37:A:H2'	37:BC:38:C:H5'	1.59	0.84
51:CA:66:PRO:HB2	51:CA:67:TYR:CE2	2.11	0.84
63:CB:397:ILE:CG2	63:CB:398:ALA:N	2.39	0.84
48:CD:119:TYR:OH	48:CD:139:PRO:O	1.94	0.84
80:CH:47:LEU:CD1	80:CH:55:LEU:HD23	2.00	0.84
79:CJ:175:LEU:HB3	79:CJ:176:PRO:HD3	1.59	0.84
40:CK:160:VAL:HA	40:CK:163:PRO:HG3	1.49	0.84
40:CK:57:ARG:HH22	40:CK:89:PRO:HA	1.41	0.84
40:CK:94:LYS:CB	40:CK:96:LYS:CE	2.51	0.84
46:CN:58:GLY:CA	46:CN:139:HIS:HD2	1.81	0.84
41:CO:118:MET:CE	52:CS:168:THR:C	2.32	0.84
54:CP:47:TYR:CE1	54:CP:56:GLN:OE1	2.30	0.84
50:CR:106:LEU:HD21	50:CR:127:VAL:HG21	1.57	0.84
52:CS:15:ARG:HG2	52:CS:25:PRO:HB2	1.59	0.84
53:CT:91:VAL:HB	53:CT:96:ILE:HD11	1.60	0.84
43:CV:33:GLY:HA2	43:CV:69:LYS:HE3	1.59	0.84
58:CW:110:ARG:HD3	58:CW:110:ARG:N	1.92	0.84
58:CW:87:LEU:O	58:CW:91:MET:SD	2.35	0.84
56:CX:43:SER:N	82:CG:51:LEU:HD12	1.92	0.84
23:AD:157:MET:HE3	23:AD:187:LYS:HD2	1.59	0.84
23:AD:141:LYS:HD2	23:AD:179:GLN:CG	2.07	0.84
31:AH:145:ARG:HD2	32:AW:51:GLU:OE1	1.78	0.84
26:AJ:46:VAL:CG1	26:AJ:102:ILE:HG23	2.07	0.84
26:AJ:90:GLY:C	26:AJ:96:TYR:CE2	2.50	0.84
4:AK:6:LYS:O	4:AK:9:ILE:HG22	1.77	0.84
63:CB:140:GLU:CD	63:CB:144:LYS:HZ3	1.81	0.84
63:CB:47:LEU:CD2	63:CB:166:THR:HG21	1.96	0.84
63:CB:392:LEU:O	63:CB:393:LYS:HB2	1.77	0.84
63:CB:59:GLU:OE2	63:CB:71:GLU:N	2.11	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:34:PHE:CG	74:CC:293:LEU:HD22	2.12	0.84
48:CD:152:ARG:HG2	79:CJ:145:LYS:HZ3	1.42	0.84
48:CD:104:LEU:CD2	48:CD:247:ILE:HG12	2.06	0.84
48:CD:37:VAL:CG2	48:CD:50:ARG:NH2	2.39	0.84
81:CE:144:ILE:CG2	81:CE:145:THR:N	2.40	0.84
82:CG:163:PRO:CG	82:CG:166:LEU:HD12	2.07	0.84
82:CG:164:ILE:HG12	82:CG:168:VAL:CG2	2.08	0.84
82:CG:74:LEU:HD12	82:CG:74:LEU:H	1.39	0.84
47:CI:21:ARG:HD2	47:CI:22:PHE:CE2	2.13	0.84
47:CI:24:ARG:O	47:CI:24:ARG:HG2	1.76	0.84
79:CJ:135:GLY:HA2	79:CJ:139:PHE:HE2	1.42	0.84
79:CJ:95:ARG:N	79:CJ:98:ASN:HD22	1.76	0.84
41:CO:201:LEU:O	44:CM:100:ARG:HD3	1.78	0.84
52:CS:154:LEU:CD1	52:CS:157:ARG:NH1	2.41	0.84
41:CO:124:LEU:CD2	52:CS:172:PRO:HG3	2.07	0.84
55:CU:80:LYS:H	55:CU:80:LYS:HD2	1.41	0.84
58:CW:27:LYS:HG3	58:CW:28:VAL:H	1.02	0.84
57:CY:42:TYR:O	57:CY:43:ASN:O	1.95	0.84
57:CY:44:VAL:HG11	57:CY:122:LYS:HD3	1.57	0.84
12:AR:83:ASN:C	16:AA:201:LEU:HD11	1.96	0.84
28:AC:157:LEU:CA	28:AC:160:LEU:HD23	2.04	0.84
23:AD:202:LYS:HB2	23:AD:203:PRO:CD	2.08	0.84
30:AF:20:PHE:O	30:AF:22:LYS:HA	1.78	0.84
30:AF:75:SER:O	30:AF:78:MET:HG3	1.78	0.84
29:AG:27:PHE:CE2	29:AG:41:LEU:CD1	2.60	0.84
7:AM:61:TYR:CE1	7:AM:108:CYS:SG	2.70	0.84
13:AP:41:GLN:HA	13:AP:84:ILE:CD1	2.07	0.84
34:AQ:105:LYS:HZ3	34:AQ:109:LYS:HB2	1.41	0.84
34:AQ:114:GLN:CG	34:AQ:115:TYR:H	1.91	0.84
8:AS:6:PRO:CA	19:AZ:50:PHE:HB2	2.03	0.84
63:CB:240:LEU:HB3	63:CB:244:THR:HG21	1.57	0.84
63:CB:223:THR:HG23	63:CB:274:TYR:H	1.42	0.84
74:CC:219:LYS:NZ	74:CC:222:ARG:NH2	2.26	0.84
74:CC:28:PHE:CZ	74:CC:132:ALA:N	2.42	0.84
74:CC:7:LEU:HD11	74:CC:21:ASN:HB3	1.58	0.84
82:CG:241:VAL:O	82:CG:242:LEU:CG	2.26	0.84
80:CH:19:THR:HG1	80:CH:26:ILE:CD1	1.89	0.84
41:CO:121:PRO:HD2	41:CO:122:ALA:N	1.90	0.84
54:CP:29:THR:HA	54:CP:32:THR:HG23	1.60	0.84
50:CR:32:ILE:HD13	50:CR:44:LEU:HD11	1.57	0.84
12:AR:102:THR:CG2	16:AA:24:HIS:NE2	2.40	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AC:84:PHE:CZ	28:AC:264:SER:HA	2.12	0.84
30:AF:161:ALA:HB3	30:AF:172:CYS:SG	2.18	0.84
11:AL:22:ARG:NE	33:AI:155:ASN:O	2.09	0.84
5:AO:62:VAL:HG22	5:AO:72:TYR:OH	1.75	0.84
6:AX:74:LEU:HD11	6:AX:81:ILE:CD1	2.08	0.84
74:CC:158:VAL:HA	74:CC:161:TYR:HE2	1.38	0.84
74:CC:219:LYS:HZ2	74:CC:222:ARG:NH2	1.75	0.84
48:CD:110:LEU:HD11	48:CD:115:MET:O	1.77	0.84
81:CE:75:ALA:CB	81:CE:76:ALA:CB	2.53	0.84
64:CF:23:ARG:HA	64:CF:23:ARG:C	1.95	0.84
40:CK:10:ILE:HB	40:CK:67:ARG:N	1.89	0.84
46:CN:59:TYR:OH	46:CN:148:THR:HG21	1.78	0.84
41:CO:190:ASP:OD1	41:CO:194:GLU:CA	2.25	0.84
52:CS:98:ARG:HH11	52:CS:145:PHE:HB3	1.35	0.84
16:AA:21:ALA:HB1	16:AA:173:LEU:CD1	2.05	0.84
28:AC:157:LEU:O	28:AC:160:LEU:CD2	2.26	0.84
23:AD:126:ILE:HD12	23:AD:134:CYS:CB	2.08	0.84
27:AE:100:ARG:CD	27:AE:102:ILE:HD11	2.08	0.84
29:AG:68:LEU:O	29:AG:69:THR:OG1	1.95	0.84
31:AH:29:GLU:OE2	31:AH:86:LYS:HE3	1.77	0.84
5:AO:105:THR:O	5:AO:106:LYS:CG	2.24	0.84
5:AO:44:VAL:HG12	5:AO:53:ILE:HD11	1.58	0.84
3:AU:67:LYS:HE3	3:AU:78:ASP:OD1	1.77	0.84
18:AY:54:VAL:CG1	18:AY:76:TYR:N	2.40	0.84
51:CA:23:ARG:C	51:CA:24:LYS:HE2	1.98	0.84
74:CC:143:ARG:CZ	74:CC:182:LYS:CD	2.56	0.84
74:CC:219:LYS:HZ3	74:CC:222:ARG:HH22	1.26	0.84
81:CE:160:LYS:HE2	81:CE:184:VAL:HG23	1.60	0.84
81:CE:208:ILE:N	81:CE:209:PRO:CD	2.40	0.84
81:CE:224:LYS:CG	81:CE:226:ARG:NH1	2.38	0.84
80:CH:109:GLY:CA	80:CH:128:MET:HB3	1.74	0.84
47:CI:91:LEU:CD1	47:CI:135:ILE:HA	2.08	0.84
40:CK:62:LEU:CG	40:CK:73:VAL:HB	2.06	0.84
44:CM:7:VAL:H	52:CS:152:PHE:H	1.19	0.84
41:CO:38:CYS:SG	41:CO:104:VAL:CG1	2.65	0.84
54:CP:118:GLN:HG3	54:CP:120:ASN:OD1	1.78	0.84
58:CW:57:ARG:NH2	58:CW:66:GLU:CD	2.27	0.84
56:CX:131:ASP:O	56:CX:133:GLU:OE1	1.94	0.84
56:CX:52:LEU:HD13	56:CX:53:ARG:N	1.92	0.84
57:CY:126:ARG:HH22	57:CY:130:LYS:CD	1.90	0.84
30:AF:167:LYS:HD3	30:AF:171:GLU:HB3	1.57	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AG:98:ARG:C	29:AG:98:ARG:HD3	1.92	0.84
31:AH:147:LYS:CE	31:AH:153:LEU:HD12	2.08	0.84
33:AI:154:LYS:HE2	33:AI:154:LYS:HA	1.58	0.84
4:AK:97:SER:OG	4:AK:98:ARG:N	2.10	0.84
11:AL:71:ARG:CD	11:AL:73:LEU:CD2	2.41	0.84
5:AO:95:ILE:CD1	5:AO:116:LEU:CD2	2.54	0.84
34:AQ:34:VAL:CG2	34:AQ:39:LEU:HD21	2.06	0.84
12:AR:85:VAL:HG21	16:AA:201:LEU:HB2	0.85	0.84
17:AV:55:ILE:CD1	17:AV:65:SER:HA	2.08	0.84
18:AY:36:PRO:CG	18:AY:39:GLU:OE1	2.23	0.84
74:CC:154:VAL:CG2	74:CC:174:LEU:HD13	2.07	0.84
74:CC:174:LEU:O	74:CC:175:LYS:CB	2.26	0.84
82:CG:191:GLY:HA2	82:CG:199:CYS:HG	0.83	0.84
80:CH:110:SER:CB	80:CH:128:MET:HB2	2.08	0.84
80:CH:120:GLU:HG3	80:CH:124:ARG:HH22	1.41	0.84
47:CI:185:VAL:HG21	47:CI:190:LEU:HD12	1.50	0.84
47:CI:191:ILE:CG2	47:CI:192:PRO:CD	2.56	0.84
42:CL:126:LEU:N	42:CL:138:ASP:OD2	2.10	0.84
46:CN:46:ASP:C	46:CN:50:ARG:NH1	2.31	0.84
52:CS:17:LEU:HD23	52:CS:58:SER:C	1.97	0.84
53:CT:29:THR:OG1	53:CT:30:TYR:CE2	2.30	0.84
43:CV:41:SER:OG	43:CV:62:MET:HB2	1.76	0.84
58:CW:14:TYR:OH	63:CB:380:GLN:HG3	1.78	0.84
58:CW:86:SER:HG	58:CW:89:ASP:HB2	1.03	0.84
59:CZ:36:ARG:NE	59:CZ:74:VAL:HG11	1.92	0.84
16:AA:180:ARG:HH11	16:AA:184:ARG:CZ	1.90	0.83
28:AC:113:GLN:CB	28:AC:121:ARG:O	2.27	0.83
28:AC:135:GLY:HA2	28:AC:165:VAL:CG2	2.07	0.83
23:AD:158:ILE:HD11	23:AD:189:MET:SD	2.18	0.83
23:AD:21:LEU:O	23:AD:25:LEU:HD23	1.76	0.83
23:AD:27:ARG:CB	23:AD:27:ARG:NH1	4.51	0.83
23:AD:56:GLN:O	23:AD:59:LEU:CG	2.25	0.83
23:AD:35:SER:OG	23:AD:97:CYS:SG	2.34	0.83
27:AE:191:ARG:CZ	27:AE:245:ARG:HD3	2.07	0.83
34:AQ:42:ILE:HD13	34:AQ:51:LEU:HD21	0.85	0.83
8:AS:94:LYS:CD	8:AS:96:SER:OG	2.24	0.83
18:AY:50:THR:HG21	18:AY:75:ILE:HG21	1.60	0.83
51:CA:242:ARG:HH22	51:CA:247:ARG:HH22	1.26	0.83
51:CA:83:HIS:CD2	51:CA:86:GLN:OE1	2.31	0.83
63:CB:92:TYR:HB3	63:CB:99:LEU:HD21	1.59	0.83
74:CC:130:ALA:CB	74:CC:246:VAL:HG11	2.08	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:210:ILE:HD13	74:CC:252:TRP:CZ3	2.13	0.83
81:CE:113:PRO:HD2	81:CE:114:ARG:N	1.93	0.83
47:CI:193:ASP:O	47:CI:194:GLY:C	2.13	0.83
47:CI:213:HIS:CD2	47:CI:213:HIS:O	2.30	0.83
44:CM:127:VAL:HG22	44:CM:128:LYS:O	7.82	0.83
44:CM:33:GLN:OE1	80:CH:61:TRP:NE1	2.11	0.83
53:CT:143:THR:O	53:CT:146:LYS:O	1.96	0.83
59:CZ:47:ASP:OD2	59:CZ:69:LYS:CG	2.26	0.83
54:CP:18:ARG:HG3	85:A5:399:G:C5'	2.07	0.83
15:AB:130:THR:HG21	15:AB:179:ASN:H	1.43	0.83
5:AO:128:ARG:HH22	15:AB:72:ALA:HB3	1.42	0.83
28:AC:275:LYS:CD	28:AC:276:THR:N	2.41	0.83
23:AD:212:GLU:HB2	23:AD:213:PRO:CD	2.07	0.83
30:AF:41:VAL:HG22	30:AF:42:LYS:H	0.72	0.83
29:AG:52:ILE:HA	29:AG:111:LEU:HD23	1.60	0.83
4:AK:84:HIS:ND1	4:AK:85:LEU:N	2.25	0.83
7:AM:92:CYS:HB2	7:AM:101:ARG:HG3	1.60	0.83
7:AM:52:GLN:HG3	7:AM:53:ALA:H	1.43	0.83
13:AP:39:ALA:HA	13:AP:42:ARG:HE	1.43	0.83
34:AQ:113:ILE:HG13	34:AQ:120:LEU:HD11	1.60	0.83
34:AQ:34:VAL:HG23	34:AQ:39:LEU:HD21	1.60	0.83
34:AQ:8:GLN:HB3	34:AQ:99:TYR:CZ	2.12	0.83
6:AX:105:PHE:CG	6:AX:112:VAL:CG2	2.62	0.83
6:AX:95:GLU:HG3	6:AX:140:ARG:HH22	1.41	0.83
36:B2:841:G:H2'	36:B2:842:C:H5'	1.59	0.83
51:CA:6:ARG:HH22	51:CA:198:ARG:CG	1.91	0.83
63:CB:168:MET:CE	63:CB:171:LEU:HB2	2.07	0.83
74:CC:44:LEU:O	74:CC:46:LYS:N	2.11	0.83
81:CE:197:THR:HG22	81:CE:199:THR:H	1.42	0.83
82:CG:96:LEU:CD1	82:CG:189:ARG:HH22	1.90	0.83
80:CH:41:ILE:O	80:CH:42:ASN:CG	2.16	0.83
46:CN:116:LEU:HD22	46:CN:135:ILE:HD12	1.60	0.83
46:CN:99:GLN:CG	46:CN:130:PHE:CZ	2.51	0.83
41:CO:9:LEU:HD22	52:CS:167:PHE:HD1	1.37	0.83
52:CS:23:HIS:CD2	52:CS:23:HIS:H	1.91	0.83
43:CV:36:ASN:ND2	43:CV:67:LYS:CG	2.41	0.83
58:CW:57:ARG:NH1	58:CW:57:ARG:HG2	1.88	0.83
16:AA:164:ASN:O	16:AA:166:LYS:N	2.10	0.83
30:AF:19:LEU:HD22	30:AF:24:SER:HA	1.60	0.83
29:AG:181:THR:OG1	29:AG:182:PRO:CD	2.25	0.83
12:AR:111:PHE:CE1	16:AA:12:GLU:HA	2.14	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AR:84:TYR:O	16:AA:201:LEU:HD13	1.77	0.83
12:AR:99:ASP:CB	12:AR:119:VAL:CG1	2.57	0.83
17:AV:40:ASP:HB2	17:AV:47:ASN:ND2	1.94	0.83
17:AV:19:ALA:HB3	17:AV:59:ILE:HD13	1.59	0.83
74:CC:128:LEU:HD21	74:CC:235:LEU:CD1	2.07	0.83
48:CD:51:MET:CE	48:CD:173:ILE:HD13	1.92	0.83
81:CE:71:ARG:O	81:CE:72:LYS:HG2	1.79	0.83
47:CI:90:ARG:O	47:CI:91:LEU:HG	1.77	0.83
46:CN:28:TRP:CE3	82:CG:67:ARG:NE	2.45	0.83
49:CQ:154:LYS:HZ3	49:CQ:156:PRO:CD	1.87	0.83
56:CX:117:TYR:HB3	56:CX:119:ILE:HG21	1.55	0.83
31:AH:100:ILE:HG12	31:AH:125:VAL:HG21	1.58	0.83
33:AI:103:LEU:HD23	33:AI:172:LEU:HD13	1.59	0.83
33:AI:70:GLU:OE2	33:AI:117:TYR:OH	1.95	0.83
26:AJ:15:THR:CB	26:AJ:44:TRP:CZ3	2.62	0.83
5:AO:16:SER:HA	5:AO:87:GLU:O	1.77	0.83
34:AQ:72:VAL:CG2	34:AQ:84:ILE:CG2	2.56	0.83
12:AR:91:LEU:CD1	12:AR:92:ASP:CA	2.53	0.83
8:AS:8:LYS:O	19:AZ:49:LEU:HD23	1.76	0.83
51:CA:253:GLN:HB3	51:CA:254:GLU:CA	2.08	0.83
64:CF:66:ARG:HG2	64:CF:66:ARG:NH1	1.89	0.83
40:CK:123:ARG:HB2	40:CK:128:THR:CB	2.07	0.83
57:CY:34:LEU:HD12	57:CY:38:LEU:HD12	1.60	0.83
16:AA:23:THR:O	16:AA:25:LEU:N	2.11	0.83
5:AO:72:TYR:CB	30:AF:135:ARG:HH21	1.91	0.83
4:AK:14:LEU:CD2	4:AK:35:LEU:HD21	1.96	0.83
11:AL:97:ARG:O	11:AL:99:TYR:CA	2.26	0.83
13:AP:14:LYS:O	13:AP:22:LEU:HD23	1.78	0.83
13:AP:97:TYR:HB2	13:AP:102:PHE:CE1	2.13	0.83
34:AQ:58:LEU:HD22	34:AQ:111:ILE:CD1	2.09	0.83
8:AS:55:ARG:HG3	19:AZ:48:VAL:HG11	1.60	0.83
14:AT:63:HIS:O	14:AT:67:ARG:CD	2.25	0.83
3:AU:33:GLU:OE2	36:B2:1447:G:O2'	1.95	0.83
6:AX:27:TYR:CE1	6:AX:31:HIS:CE1	2.67	0.83
63:CB:112:ASP:O	63:CB:113:GLU:C	2.04	0.83
63:CB:116:ARG:CD	63:CB:122:TRP:CG	2.58	0.83
81:CE:208:ILE:H	81:CE:209:PRO:CD	1.90	0.83
47:CI:16:PRO:CG	47:CI:128:ARG:NH1	2.41	0.83
47:CI:74:LYS:C	47:CI:74:LYS:HD2	4.60	0.83
40:CK:1:MET:N	40:CK:1:MET:SD	2.48	0.83
46:CN:44:ARG:NH1	46:CN:44:ARG:HB3	1.93	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CP:41:ILE:HD12	54:CP:112:LEU:HB3	0.85	0.83
50:CR:71:ARG:NH1	50:CR:71:ARG:CA	3.83	0.83
52:CS:7:LEU:CD2	52:CS:107:THR:OG1	2.26	0.83
53:CT:30:TYR:CZ	53:CT:94:GLU:HG3	2.12	0.83
55:CU:40:GLU:CG	55:CU:70:ILE:HG12	2.07	0.83
57:CY:91:ASN:O	57:CY:93:THR:N	2.10	0.83
28:AC:207:ALA:O	28:AC:210:PRO:HD2	1.79	0.83
14:AT:28:LEU:HD22	14:AT:28:LEU:C	1.90	0.83
3:AU:27:ARG:O	3:AU:28:ASN:C	2.11	0.83
18:AY:22:GLN:HB3	18:AY:74:MET:CE	2.09	0.83
51:CA:118:GLU:HB3	51:CA:125:LYS:NZ	1.94	0.83
81:CE:113:PRO:CD	81:CE:114:ARG:H	1.92	0.83
82:CG:150:LYS:HG3	82:CG:177:MET:HE3	1.60	0.83
47:CI:92:HIS:CD2	47:CI:94:PHE:HZ	1.97	0.83
44:CM:66:HIS:CG	44:CM:66:HIS:O	2.30	0.83
41:CO:188:LYS:NZ	41:CO:189:ILE:H	1.75	0.83
53:CT:135:PRO:HB2	64:CF:86:GLU:HB2	1.57	0.83
53:CT:143:THR:O	53:CT:146:LYS:CB	2.27	0.83
28:AC:135:GLY:HA2	28:AC:165:VAL:HG22	1.60	0.83
28:AC:70:VAL:CB	28:AC:97:PHE:HE2	1.91	0.83
30:AF:63:LYS:HD3	30:AF:71:ARG:HH22	1.42	0.83
29:AG:27:PHE:HZ	29:AG:41:LEU:CD1	1.92	0.83
13:AP:44:ARG:NH2	13:AP:84:ILE:HB	1.93	0.83
34:AQ:44:PRO:O	34:AQ:45:ARG:HG2	1.79	0.83
12:AR:110:ASP:O	12:AR:111:PHE:HD2	1.62	0.83
8:AS:34:LYS:CB	8:AS:103:LEU:CD2	2.01	0.83
3:AU:18:HIS:CE1	3:AU:98:VAL:CG2	2.60	0.83
28:AC:171:GLY:HA2	32:AW:98:GLN:HE22	1.43	0.83
63:CB:246:ARG:HD2	85:A5:4524:G:OP2	1.79	0.83
63:CB:47:LEU:HD11	63:CB:344:VAL:HG11	1.58	0.83
74:CC:144:ILE:HD11	74:CC:249:PHE:CB	2.08	0.83
64:CF:154:ILE:CG2	64:CF:187:MET:SD	2.67	0.83
82:CG:80:ILE:HG22	82:CG:81:ASN:N	1.94	0.83
44:CM:120:ASN:C	44:CM:123:ILE:HG22	1.99	0.83
46:CN:46:ASP:HB2	46:CN:50:ARG:NH1	1.94	0.83
50:CR:100:ARG:O	50:CR:104:ARG:CD	2.27	0.83
50:CR:133:LYS:HD3	50:CR:137:ILE:HB	1.58	0.83
50:CR:133:LYS:HG2	50:CR:137:ILE:HD13	1.60	0.83
53:CT:157:GLU:O	53:CT:158:PHE:HB3	1.78	0.83
56:CX:38:LYS:HG2	56:CX:39:LYS:C	1.99	0.83
56:CX:89:LYS:CE	56:CX:97:VAL:CG2	2.55	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:118:C:O2	85:A5:153:G:N2	2.12	0.83
85:A5:4751:G:C4	85:A5:4950:U:C5	2.66	0.83
16:AA:177:MET:HE1	16:AA:180:ARG:HH21	1.44	0.83
28:AC:137:VAL:HG13	28:AC:217:ALA:HA	1.61	0.83
27:AE:43:PRO:CG	27:AE:46:ILE:HD12	2.09	0.83
29:AG:64:LYS:CG	29:AG:67:VAL:CG1	2.55	0.83
31:AH:40:LEU:HD21	31:AH:43:LEU:HD12	0.84	0.83
11:AL:125:ILE:O	11:AL:146:THR:HG22	1.79	0.83
11:AL:147:LYS:HG3	11:AL:148:ALA:N	1.91	0.83
4:AK:84:HIS:HD2	7:AM:27:ILE:HG13	1.43	0.83
5:AO:54:CYS:SG	5:AO:84:ARG:HB2	2.17	0.83
13:AP:107:ILE:HA	13:AP:111:MET:HE3	1.60	0.83
8:AS:124:ARG:HG2	13:AP:123:TYR:OH	1.78	0.83
8:AS:26:ILE:HG22	8:AS:45:LEU:HD11	1.60	0.83
48:CD:110:LEU:CG	48:CD:115:MET:O	2.26	0.83
48:CD:118:ILE:HG23	48:CD:135:ILE:HD13	1.58	0.83
81:CE:85:LYS:C	81:CE:85:LYS:HA	1.95	0.83
82:CG:136:LEU:HD21	82:CG:204:PHE:CE2	2.10	0.83
82:CG:166:LEU:O	82:CG:167:VAL:HG23	1.79	0.83
82:CG:71:TYR:CE1	82:CG:72:LYS:HG2	2.14	0.83
80:CH:129:ARG:HB3	80:CH:130:PRO:HD2	1.58	0.83
79:CJ:22:LEU:HD21	79:CJ:130:PHE:CD1	2.13	0.83
44:CM:77:TRP:CD1	44:CM:82:ILE:HG21	2.13	0.83
54:CP:30:ARG:CZ	54:CP:62:ARG:NH2	2.41	0.83
54:CP:82:ARG:C	54:CP:84:PRO:HD3	1.99	0.83
49:CQ:32:TYR:CD2	49:CQ:51:LEU:HD11	2.13	0.83
56:CX:119:ILE:HD11	56:CX:140:LEU:CG	2.07	0.83
59:CZ:73:LYS:HG2	59:CZ:75:TYR:CD1	2.11	0.83
59:CZ:26:VAL:HB	59:CZ:89:ILE:HD11	1.59	0.83
59:CZ:42:LEU:HD21	59:CZ:96:VAL:HG13	1.58	0.83
15:AB:153:THR:O	15:AB:154:SER:OG	1.95	0.83
27:AE:180:LEU:HD22	27:AE:181:CYS:H	1.41	0.83
30:AF:45:TYR:N	30:AF:45:TYR:CD1	2.42	0.83
31:AH:83:LEU:CD2	31:AH:92:VAL:CG1	2.57	0.83
33:AI:206:LYS:CG	33:AI:207:GLY:N	2.42	0.83
4:AK:96:ARG:CG	4:AK:97:SER:H	1.91	0.83
13:AP:4:VAL:O	13:AP:4:VAL:HG12	1.76	0.83
8:AS:58:GLU:O	8:AS:59:LEU:CG	2.25	0.83
3:AU:61:LEU:HD21	23:AD:34:TYR:CE1	27.38	0.83
18:AY:29:HIS:CE1	18:AY:68:LYS:CA	2.62	0.83
51:CA:118:GLU:CB	51:CA:125:LYS:NZ	2.39	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CA:139:HIS:CE1	51:CA:146:THR:HG23	2.14	0.83
51:CA:6:ARG:HH22	51:CA:198:ARG:HG2	1.40	0.83
51:CA:23:ARG:C	51:CA:24:LYS:CE	2.47	0.83
63:CB:116:ARG:NH1	63:CB:122:TRP:HB3	1.92	0.83
13:AP:12:PHE:HZ	79:CJ:88:LYS:CE	1.89	0.83
52:CS:127:MET:C	52:CS:128:LYS:HG3	1.99	0.83
53:CT:126:VAL:HG12	53:CT:127:GLN:H	1.43	0.83
55:CU:63:ILE:CD1	55:CU:72:VAL:CG2	2.52	0.83
57:CY:30:MET:SD	57:CY:73:VAL:HG13	2.19	0.83
16:AA:43:SER:O	16:AA:44:ASP:OD1	1.97	0.83
33:AI:141:ARG:O	33:AI:143:LYS:CE	2.26	0.83
33:AI:21:TYR:CD2	33:AI:22:HIS:CD2	2.66	0.83
4:AK:26:ASP:OD2	4:AK:29:MET:HG3	1.77	0.83
10:AN:16:LEU:HD21	10:AN:62:GLN:CD	1.99	0.83
5:AO:128:ARG:HD3	15:AB:70:SER:HB2	1.60	0.83
8:AS:42:HIS:HD2	14:AT:45:LEU:HD11	1.01	0.83
3:AU:67:LYS:HE2	3:AU:78:ASP:CG	1.99	0.83
18:AY:18:LEU:HD13	18:AY:20:ARG:HH12	0.66	0.83
36:B2:181:A:H4'	36:B2:182:C:H5'	1.59	0.83
74:CC:154:VAL:CG1	74:CC:158:VAL:HG21	2.08	0.83
74:CC:233:SER:HA	74:CC:263:LEU:HD11	0.84	0.83
48:CD:62:CYS:HB3	48:CD:105:LEU:HD22	1.58	0.83
48:CD:223:PHE:HB3	86:A7:49:A:OP1	1.79	0.83
44:CM:107:PHE:CD1	81:CE:270:TYR:CD2	2.66	0.83
47:CI:30:LYS:HG2	47:CI:63:GLU:CG	2.08	0.83
40:CK:61:LYS:HE2	40:CK:72:GLU:HG3	1.57	0.83
44:CM:77:TRP:CB	44:CM:82:ILE:HD11	2.09	0.83
41:CO:27:VAL:HG13	41:CO:98:ALA:O	1.77	0.83
58:CW:109:ILE:HG22	58:CW:113:LYS:HE3	1.60	0.83
56:CX:117:TYR:HB2	56:CX:119:ILE:HG23	1.59	0.83
56:CX:89:LYS:HZ2	56:CX:97:VAL:HG22	1.44	0.83
57:CY:47:MET:HE3	57:CY:48:PRO:CD	2.08	0.83
30:AF:122:ARG:CZ	30:AF:193:LYS:NZ	2.40	0.82
29:AG:195:LYS:HE2	36:B2:125:C:HO2'	1.38	0.82
31:AH:145:ARG:HH11	31:AH:155:LYS:NZ	1.77	0.82
13:AP:53:GLN:HB3	13:AP:56:LEU:HD12	1.61	0.82
6:AX:69:CYS:SG	6:AX:84:PHE:HA	2.19	0.82
34:AQ:138:ARG:HH11	36:B2:1646:C:H5''	1.44	0.82
51:CA:24:LYS:HE3	51:CA:24:LYS:CA	2.02	0.82
82:CG:190:LEU:HB2	82:CG:199:CYS:HB2	1.58	0.82
82:CG:96:LEU:HD11	82:CG:189:ARG:HH22	1.03	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CS:140:PRO:CG	52:CS:141:ALA:H	1.92	0.82
52:CS:147:ASP:HA	52:CS:148:SER:CB	2.05	0.82
28:AC:227:ARG:CD	28:AC:228:GLY:N	2.41	0.82
28:AC:259:THR:O	28:AC:259:THR:HG22	1.77	0.82
23:AD:56:GLN:HA	23:AD:59:LEU:CD2	2.09	0.82
27:AE:86:PHE:CZ	27:AE:182:MET:CE	2.62	0.82
29:AG:84:TYR:HE2	29:AG:86:PRO:HG3	1.43	0.82
8:AS:34:LYS:HB3	8:AS:103:LEU:HD23	1.53	0.82
18:AY:32:LYS:HG3	18:AY:33:ALA:N	1.80	0.82
18:AY:78:SER:CB	18:AY:81:TYR:CE2	2.61	0.82
63:CB:214:ASP:OD2	63:CB:362:LYS:HG3	1.77	0.82
57:CY:3:PHE:HZ	74:CC:222:ARG:CD	1.92	0.82
74:CC:28:PHE:HD1	74:CC:129:ALA:O	1.62	0.82
48:CD:199:ILE:CG2	48:CD:200:MET:CE	2.57	0.82
48:CD:57:ASN:C	48:CD:58:ARG:CD	2.47	0.82
64:CF:200:ARG:HD3	64:CF:203:GLU:OE1	1.78	0.82
44:CM:14:TYR:HD2	44:CM:56:GLN:CD	1.83	0.82
41:CO:54:TYR:CZ	41:CO:145:VAL:HG11	2.13	0.82
54:CP:2:VAL:HG12	54:CP:3:ARG:H	0.70	0.82
49:CQ:101:CYS:SG	49:CQ:126:LEU:HB2	2.19	0.82
49:CQ:33:ARG:HG2	49:CQ:48:LEU:HD11	1.61	0.82
52:CS:164:LYS:HZ2	52:CS:165:PRO:HD3	1.42	0.82
53:CT:118:GLU:HG3	53:CT:122:LYS:HE2	1.61	0.82
85:A5:4943:A:OP2	85:A5:4944:C:C5'	2.26	0.82
87:A8:102:G:OP2	87:A8:104:A:O2'	1.97	0.82
15:AB:128:LYS:HG3	15:AB:132:GLY:O	1.79	0.82
28:AC:108:LYS:HE3	28:AC:110:MET:HB3	1.60	0.82
23:AD:135:GLU:HB2	23:AD:153:VAL:HG22	1.61	0.82
30:AF:44:LYS:HE3	30:AF:44:LYS:O	1.80	0.82
30:AF:91:ARG:HH11	30:AF:94:LYS:HB2	1.07	0.82
26:AJ:177:ASN:O	26:AJ:180:LYS:HG3	1.76	0.82
7:AM:12:MET:CE	7:AM:120:ALA:HB2	2.09	0.82
7:AM:26:LEU:HD11	7:AM:89:VAL:C	1.99	0.82
8:AS:119:ALA:CA	13:AP:118:GLU:O	2.27	0.82
34:AQ:92:LEU:HD12	34:AQ:96:TYR:CE2	2.13	0.82
63:CB:128:LYS:O	63:CB:131:THR:CG2	2.26	0.82
63:CB:189:THR:HG22	63:CB:192:GLU:OE1	1.77	0.82
48:CD:130:TYR:CD2	48:CD:131:ASN:C	2.52	0.82
81:CE:31:ASN:CA	81:CE:32:LEU:HD22	2.09	0.82
64:CF:51:TYR:CD1	81:CE:58:SER:HB2	2.13	0.82
40:CK:38:SER:HB2	40:CK:39:PRO:CD	2.01	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:44:ARG:HD2	46:CN:119:TYR:HE1	1.41	0.82
50:CR:45:ILE:HA	50:CR:50:ILE:HG22	1.61	0.82
52:CS:83:ARG:CD	53:CT:156:TYR:N	2.41	0.82
58:CW:87:LEU:C	58:CW:90:ILE:H	1.81	0.82
56:CX:119:ILE:C	56:CX:119:ILE:CD1	2.47	0.82
57:CY:27:ARG:NH2	57:CY:28:LYS:HE3	1.92	0.82
57:CY:38:LEU:HD12	57:CY:106:ILE:O	1.80	0.82
16:AA:131:HIS:O	16:AA:135:THR:HG23	1.79	0.82
16:AA:76:VAL:CG1	16:AA:175:TRP:CH2	2.56	0.82
16:AA:32:PHE:HE1	16:AA:33:GLN:HE21	0.84	0.82
15:AB:94:LYS:CD	15:AB:94:LYS:N	2.40	0.82
28:AC:207:ALA:C	28:AC:210:PRO:HD2	1.99	0.82
23:AD:59:LEU:CD1	23:AD:60:GLY:H	1.87	0.82
27:AE:126:VAL:CG2	27:AE:129:ILE:HD11	2.09	0.82
30:AF:40:ALA:H	30:AF:68:ILE:HG23	1.43	0.82
4:AK:36:ALA:C	4:AK:38:LYS:N	2.30	0.82
5:AO:17:LEU:HD23	5:AO:18:GLY:N	1.94	0.82
19:AZ:103:HIS:CD2	19:AZ:105:ALA:N	2.45	0.82
63:CB:140:GLU:CD	63:CB:144:LYS:NZ	2.31	0.82
63:CB:139:ASP:O	63:CB:141:ASP:N	2.12	0.82
63:CB:170:LEU:O	63:CB:171:LEU:HD23	1.79	0.82
63:CB:17:LEU:HD23	63:CB:19:ARG:CD	2.09	0.82
74:CC:144:ILE:HD13	74:CC:249:PHE:CD1	2.13	0.82
81:CE:172:LEU:CD1	85:A5:4940:C:O2'	2.28	0.82
64:CF:66:ARG:HH11	64:CF:66:ARG:CG	1.90	0.82
47:CI:100:ASN:O	47:CI:101:LYS:C	2.08	0.82
42:CL:127:PHE:CE2	42:CL:144:LEU:HB3	2.14	0.82
46:CN:178:HIS:HA	46:CN:181:HIS:CD2	2.15	0.82
49:CQ:154:LYS:HE3	49:CQ:163:THR:HG21	0.84	0.82
43:CV:9:SER:OG	43:CV:128:LEU:HD11	1.79	0.82
58:CW:31:PHE:HB3	58:CW:36:CYS:SG	2.19	0.82
81:CE:239:LYS:CD	85:A5:4939:C:C5	2.62	0.82
15:AB:136:ARG:HG2	15:AB:138:PHE:HE2	1.43	0.82
15:AB:55:THR:O	15:AB:56:LYS:CD	2.26	0.82
30:AF:179:ASN:O	30:AF:182:LYS:O	1.97	0.82
26:AJ:100:LEU:HG	26:AJ:101:LYS:H	1.44	0.82
26:AJ:138:ARG:HG2	26:AJ:138:ARG:O	1.77	0.82
11:AL:40:ILE:HD11	11:AL:68:ILE:CB	2.09	0.82
7:AM:76:LEU:O	7:AM:128:PHE:CE1	2.32	0.82
13:AP:10:ARG:CZ	13:AP:11:THR:HB	2.09	0.82
13:AP:14:LYS:O	13:AP:22:LEU:CD2	2.28	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AQ:58:LEU:HD11	34:AQ:108:ILE:HG23	1.60	0.82
12:AR:100:PRO:C	12:AR:103:LYS:H	1.82	0.82
8:AS:39:ARG:CD	14:AT:38:LYS:HE3	2.05	0.82
14:AT:87:VAL:HG13	14:AT:88:MET:HG3	1.61	0.82
51:CA:32:VAL:HG21	51:CA:163:ARG:HH12	1.39	0.82
63:CB:41:VAL:N	63:CB:187:GLY:HA3	1.94	0.82
48:CD:76:CYS:SG	48:CD:109:LEU:HD12	2.17	0.82
81:CE:280:GLY:C	81:CE:282:TYR:CE2	2.51	0.82
80:CH:105:ILE:HD13	80:CH:105:ILE:N	1.94	0.82
80:CH:158:ALA:O	80:CH:161:ILE:CG2	2.26	0.82
46:CN:180:PHE:CA	46:CN:184:ILE:HD12	2.09	0.82
49:CQ:19:LYS:O	49:CQ:19:LYS:CE	2.28	0.82
49:CQ:76:GLU:O	49:CQ:78:LYS:HE3	1.77	0.82
50:CR:44:LEU:HD22	50:CR:49:LEU:CB	2.09	0.82
53:CT:65:TYR:CD1	53:CT:65:TYR:O	2.32	0.82
57:CY:44:VAL:HG11	57:CY:122:LYS:CD	2.09	0.82
57:CY:62:TYR:CE1	57:CY:85:VAL:HG13	2.14	0.82
16:AA:32:PHE:CE1	16:AA:33:GLN:CG	2.61	0.82
15:AB:38:MET:CE	15:AB:186:ASN:HD21	1.75	0.82
23:AD:193:ASP:OD1	23:AD:203:PRO:CA	2.28	0.82
23:AD:55:THR:C	23:AD:58:VAL:HG22	1.98	0.82
31:AH:23:ILE:CD1	31:AH:27:LEU:HD21	2.10	0.82
26:AJ:114:VAL:CG1	26:AJ:119:LEU:O	2.27	0.82
12:AR:103:LYS:O	12:AR:107:LYS:HG3	1.80	0.82
8:AS:54:LYS:HA	8:AS:54:LYS:C	1.99	0.82
14:AT:11:GLN:HE21	14:AT:62:ARG:CZ	1.90	0.82
3:AU:97:ILE:CG2	3:AU:101:ILE:CD1	2.58	0.82
6:AX:67:ARG:C	6:AX:68:LYS:CG	2.48	0.82
18:AY:13:MET:CE	18:AY:14:THR:N	2.42	0.82
18:AY:17:LEU:HD12	18:AY:18:LEU:HG	1.61	0.82
74:CC:147:VAL:CA	74:CC:175:LYS:HG2	2.05	0.82
82:CG:80:ILE:HG12	82:CG:164:ILE:HD13	1.59	0.82
82:CG:208:ASN:HD21	82:CG:210:GLU:CG	1.89	0.82
48:CD:152:ARG:NH1	79:CJ:145:LYS:HE2	1.94	0.82
52:CS:23:HIS:HA	52:CS:24:THR:OG1	1.78	0.82
55:CU:21:PHE:HZ	55:CU:80:LYS:HE3	1.43	0.82
59:CZ:92:ASP:CB	59:CZ:117:LYS:HZ3	1.92	0.82
85:A5:1823:G:H3'	85:A5:1824:G:H8	1.41	0.82
23:AD:202:LYS:CB	23:AD:203:PRO:CD	2.57	0.82
30:AF:71:ARG:HG2	30:AF:71:ARG:NH2	1.89	0.82
26:AJ:39:ASN:OD1	26:AJ:42:GLU:CD	2.17	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AJ:45:ARG:O	26:AJ:49:THR:HG23	1.78	0.82
26:AJ:90:GLY:C	26:AJ:96:TYR:CD2	2.52	0.82
7:AM:124:ILE:CA	7:AM:127:TYR:CD2	2.62	0.82
5:AO:52:THR:HG21	36:B2:953:C:C4'	2.08	0.82
34:AQ:44:PRO:CG	34:AQ:81:ILE:HD11	2.06	0.82
14:AT:52:TRP:O	14:AT:55:THR:HG22	1.80	0.82
3:AU:62:ARG:HH11	3:AU:64:THR:CG2	1.92	0.82
17:AV:24:ILE:C	17:AV:24:ILE:HD13	1.95	0.82
17:AV:24:ILE:HD13	17:AV:25:GLY:H	1.42	0.82
6:AX:94:ILE:HD11	6:AX:122:VAL:HG11	1.60	0.82
18:AY:3:ASP:O	18:AY:4:THR:OG1	1.98	0.82
63:CB:149:ASP:O	63:CB:150:PHE:O	1.96	0.82
63:CB:168:MET:HE3	63:CB:168:MET:HA	1.62	0.82
74:CC:266:THR:HG23	74:CC:267:TRP:N	1.94	0.82
74:CC:318:PRO:CB	74:CC:325:MET:SD	2.67	0.82
40:CK:77:ALA:HB3	40:CK:80:LEU:CD1	2.10	0.82
23:AD:18:LYS:HZ2	23:AD:37:VAL:CG2	1.92	0.82
30:AF:122:ARG:NH2	30:AF:193:LYS:HZ1	1.77	0.82
26:AJ:138:ARG:HB2	26:AJ:156:HIS:HB3	1.61	0.82
26:AJ:61:LEU:HD22	26:AJ:98:LEU:HD12	1.60	0.82
4:AK:84:HIS:ND1	4:AK:85:LEU:CA	2.42	0.82
12:AR:21:TYR:HB3	12:AR:71:ILE:HG21	1.62	0.82
16:AA:141:ASN:HD21	17:AV:29:HIS:CB	1.92	0.82
18:AY:50:THR:O	18:AY:51:THR:OG1	1.97	0.82
18:AY:93:ARG:HH11	18:AY:93:ARG:CG	1.87	0.82
19:AZ:103:HIS:O	19:AZ:106:GLN:N	2.13	0.82
19:AZ:69:THR:CB	19:AZ:70:PRO:CD	2.58	0.82
19:AZ:91:LEU:HD22	19:AZ:96:LEU:HD12	1.59	0.82
36:B2:127:C:N3	36:B2:180:G:H2'	1.94	0.82
63:CB:107:ALA:CA	63:CB:201:LEU:HD23	2.09	0.82
48:CD:152:ARG:CG	48:CD:152:ARG:HH11	1.91	0.82
48:CD:210:TYR:CE1	48:CD:214:GLU:CD	2.52	0.82
64:CF:101:VAL:HG13	64:CF:106:ARG:HD2	1.60	0.82
64:CF:108:VAL:HG21	64:CF:135:ILE:HG21	1.60	0.82
47:CI:91:LEU:HD11	47:CI:135:ILE:HG12	1.59	0.82
47:CI:74:LYS:HE3	47:CI:74:LYS:CA	2.09	0.82
41:CO:177:LEU:HB3	44:CM:130:LEU:CD2	2.09	0.82
53:CT:68:THR:O	53:CT:69:GLN:C	2.15	0.82
56:CX:62:ARG:NH1	56:CX:62:ARG:HG2	1.90	0.82
28:AC:259:THR:HG22	28:AC:261:PHE:HD2	1.41	0.82
29:AG:38:ALA:HB1	29:AG:45:TRP:O	1.78	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AJ:89:GLU:O	26:AJ:92:MET:CB	2.28	0.82
5:AO:128:ARG:NH2	15:AB:72:ALA:HB3	1.95	0.82
34:AQ:9:SER:CA	34:AQ:26:LYS:HG3	2.10	0.82
3:AU:67:LYS:HE2	3:AU:78:ASP:OD2	1.78	0.82
17:AV:27:LYS:HZ1	28:AC:82:TYR:HE1	0.91	0.82
32:AW:7:LEU:HD11	32:AW:33:VAL:CG1	2.10	0.82
18:AY:59:GLY:O	18:AY:60:PHE:HB2	1.77	0.82
19:AZ:99:LEU:HD13	19:AZ:102:LYS:CD	2.09	0.82
51:CA:126:LEU:HD13	51:CA:150:LEU:CD2	2.08	0.82
63:CB:282:LYS:CB	63:CB:333:LEU:HD11	2.09	0.82
48:CD:64:ILE:CD1	48:CD:105:LEU:CD1	2.58	0.82
81:CE:56:ARG:CB	81:CE:65:ARG:HH12	1.84	0.82
82:CG:136:LEU:CD2	82:CG:204:PHE:CD1	2.59	0.82
82:CG:151:LYS:C	82:CG:205:THR:CG2	2.46	0.82
82:CG:167:VAL:HG13	82:CG:170:LEU:CD1	2.06	0.82
47:CI:3:ARG:HG3	47:CI:123:GLN:NE2	1.95	0.82
46:CN:84:PRO:HD2	46:CN:85:VAL:H	1.43	0.82
49:CQ:103:LEU:CD2	49:CQ:123:PHE:CD2	2.57	0.82
53:CT:125:TRP:CD1	53:CT:126:VAL:CB	2.62	0.82
58:CW:76:VAL:O	58:CW:77:LYS:CD	2.28	0.82
59:CZ:105:ALA:HA	59:CZ:108:ARG:CG	2.10	0.82
16:AA:159:ILE:O	16:AA:159:ILE:CG2	2.27	0.82
28:AC:169:TYR:HH	28:AC:176:LYS:HA	1.44	0.82
27:AE:130:PHE:CB	27:AE:138:HIS:CE1	2.63	0.82
7:AM:93:LYS:O	7:AM:94:ILE:CG2	2.26	0.82
10:AN:38:TYR:HE2	10:AN:74:ILE:HG23	1.43	0.82
10:AN:38:TYR:CE2	10:AN:74:ILE:HG23	2.13	0.82
14:AT:39:LEU:HD12	14:AT:99:VAL:HG21	1.60	0.82
18:AY:54:VAL:CG1	18:AY:76:TYR:H	1.92	0.82
36:B2:1069:U:H4'	51:CA:248:GLY:HA2	1.61	0.82
63:CB:327:THR:HG23	63:CB:328:ASN:CG	2.01	0.82
74:CC:167:ALA:O	74:CC:170:LEU:HG	1.80	0.82
64:CF:148:LYS:O	64:CF:152:GLU:HG2	1.80	0.82
80:CH:129:ARG:CB	80:CH:130:PRO:CD	2.53	0.82
42:CL:126:LEU:N	42:CL:138:ASP:CG	2.30	0.82
49:CQ:55:ARG:HD3	49:CQ:58:ARG:NH2	1.95	0.82
50:CR:133:LYS:HG2	50:CR:137:ILE:CD1	2.09	0.82
52:CS:18:PRO:C	52:CS:19:THR:CG2	2.47	0.82
53:CT:142:ARG:O	53:CT:143:THR:CG2	2.27	0.82
55:CU:48:LYS:CA	55:CU:52:LYS:O	2.27	0.82
59:CZ:10:VAL:HG11	59:CZ:129:TRP:HZ3	1.41	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
87:A8:110:U:O2'	87:A8:111:U:H5'	1.79	0.81
15:AB:105:LEU:CD1	15:AB:110:MET:HE2	2.02	0.81
23:AD:123:LEU:HD21	23:AD:154:ASP:CG	2.00	0.81
30:AF:42:LYS:CA	30:AF:45:TYR:H	1.91	0.81
30:AF:91:ARG:HD2	34:AQ:46:THR:HG21	1.60	0.81
11:AL:22:ARG:CZ	33:AI:157:LYS:CB	2.42	0.81
26:AJ:10:ARG:CB	26:AJ:10:ARG:CZ	2.58	0.81
26:AJ:134:HIS:ND1	26:AJ:163:SER:HB3	1.94	0.81
3:AU:19:ARG:HA	3:AU:92:HIS:ND1	1.95	0.81
36:B2:380:G:C8	36:B2:382:C:OP2	2.33	0.81
63:CB:223:THR:HG23	63:CB:274:TYR:N	1.94	0.81
74:CC:6:PRO:N	74:CC:24:LEU:HD21	1.95	0.81
48:CD:9:ASN:O	48:CD:13:PHE:HD2	1.63	0.81
82:CG:71:TYR:CG	82:CG:72:LYS:N	2.47	0.81
47:CI:101:LYS:C	47:CI:103:LEU:HD22	2.01	0.81
79:CJ:53:ALA:HB2	79:CJ:68:ILE:HD12	1.62	0.81
42:CL:80:GLU:HG3	42:CL:104:ASN:HD21	1.45	0.81
50:CR:100:ARG:O	50:CR:104:ARG:HD2	1.80	0.81
52:CS:90:THR:HG21	53:CT:156:TYR:CG	2.10	0.81
53:CT:157:GLU:O	53:CT:158:PHE:CB	2.25	0.81
43:CV:89:ARG:CG	43:CV:95:PHE:CZ	2.63	0.81
15:AB:94:LYS:HD2	15:AB:94:LYS:N	1.95	0.81
23:AD:67:ARG:HH11	23:AD:67:ARG:CG	1.92	0.81
27:AE:126:VAL:CG1	27:AE:158:ASP:O	2.25	0.81
33:AI:128:LYS:C	33:AI:131:PRO:HD2	2.01	0.81
34:AQ:90:LYS:HD3	34:AQ:120:LEU:HA	1.61	0.81
34:AQ:39:LEU:O	34:AQ:42:ILE:CD1	2.28	0.81
3:AU:108:PRO:O	3:AU:108:PRO:HG2	1.79	0.81
18:AY:118:ARG:NE	29:AG:85:ARG:NE	2.28	0.81
18:AY:99:LYS:O	18:AY:99:LYS:CD	2.28	0.81
63:CB:282:LYS:CB	63:CB:333:LEU:HD21	2.10	0.81
63:CB:352:LEU:CD2	63:CB:353:VAL:O	2.28	0.81
74:CC:303:ARG:CG	74:CC:303:ARG:HH11	1.93	0.81
74:CC:349:LEU:HD11	74:CC:353:LYS:NZ	1.96	0.81
49:CQ:6:ARG:NH2	64:CF:113:ARG:HA	1.92	0.81
46:CN:29:GLN:HG2	82:CG:67:ARG:HE	1.45	0.81
80:CH:34:LEU:HD21	80:CH:150:ASP:OD2	1.79	0.81
80:CH:43:VAL:HG11	80:CH:73:ILE:CD1	2.09	0.81
44:CM:127:VAL:CG1	44:CM:128:LYS:C	5.50	0.81
53:CT:148:PRO:CD	53:CT:148:PRO:O	2.28	0.81
85:A5:1174:G:H22	85:A5:1187:G:H21	1.26	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:195:THR:O	23:AD:197:LYS:HA	1.80	0.81
23:AD:70:THR:HG22	23:AD:86:LEU:HB2	1.61	0.81
30:AF:42:LYS:O	30:AF:42:LYS:CE	2.28	0.81
33:AI:155:ASN:ND2	33:AI:156:ALA:HA	1.95	0.81
26:AJ:10:ARG:HH11	26:AJ:10:ARG:HB3	1.44	0.81
13:AP:4:VAL:HA	13:AP:10:ARG:CG	2.10	0.81
12:AR:91:LEU:HB2	12:AR:92:ASP:CA	2.08	0.81
3:AU:18:HIS:CE1	3:AU:93:SER:O	2.33	0.81
18:AY:114:MET:HA	18:AY:124:ASN:HD22	1.43	0.81
18:AY:55:ILE:HG22	18:AY:55:ILE:O	1.78	0.81
19:AZ:96:LEU:O	19:AZ:112:ASN:HB3	1.80	0.81
63:CB:173:LEU:CD1	63:CB:342:LYS:HG2	2.10	0.81
63:CB:327:THR:HG23	63:CB:328:ASN:ND2	1.95	0.81
74:CC:148:PRO:CG	74:CC:152:LEU:CD1	2.25	0.81
74:CC:142:HIS:HE1	74:CC:248:ARG:HA	1.46	0.81
48:CD:115:MET:HE3	48:CD:139:PRO:HB3	1.61	0.81
80:CH:50:LYS:H	80:CH:50:LYS:CD	1.91	0.81
42:CL:167:ARG:HH21	42:CL:170:THR:HG21	1.02	0.81
46:CN:67:ARG:O	46:CN:126:THR:O	1.97	0.81
49:CQ:19:LYS:O	49:CQ:19:LYS:CD	2.29	0.81
53:CT:5:LYS:H	53:CT:9:ARG:NE	1.78	0.81
23:AD:112:GLY:O	23:AD:113:LEU:CG	2.28	0.81
23:AD:97:CYS:SG	23:AD:97:CYS:O	2.38	0.81
11:AL:94:HIS:HB2	11:AL:105:ARG:CD	2.10	0.81
32:AW:42:MET:HE2	32:AW:49:GLU:HA	1.62	0.81
74:CC:28:PHE:CE1	74:CC:128:LEU:O	2.33	0.81
81:CE:242:ILE:HG12	81:CE:246:ARG:HD2	1.62	0.81
81:CE:242:ILE:CG1	81:CE:246:ARG:HD2	2.10	0.81
80:CH:94:SER:OG	80:CH:142:ASP:CB	2.27	0.81
47:CI:109:ASP:O	47:CI:110:ARG:CG	2.29	0.81
40:CK:107:ASP:CG	40:CK:143:VAL:HG13	2.00	0.81
42:CL:127:PHE:CE2	42:CL:144:LEU:HB2	2.07	0.81
41:CO:12:ARG:HB3	41:CO:37:ARG:NH1	1.93	0.81
41:CO:57:PHE:CE1	41:CO:82:ARG:NH2	2.49	0.81
50:CR:68:LEU:HA	50:CR:71:ARG:HD2	1.60	0.81
50:CR:75:HIS:O	50:CR:76:MET:SD	2.38	0.81
58:CW:63:GLN:OE1	58:CW:67:ILE:CD1	2.29	0.81
56:CX:73:HIS:HB2	56:CX:116:LEU:HD21	1.61	0.81
87:A8:126:C:H1'	87:A8:127:U:OP1	1.80	0.81
29:AG:162:LEU:CD2	29:AG:172:LYS:NZ	2.43	0.81
29:AG:57:ASP:OD2	29:AG:98:ARG:HG3	1.80	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AI:118:ALA:HB2	33:AI:149:TYR:CE1	2.15	0.81
26:AJ:114:VAL:HG12	26:AJ:120:ALA:CB	2.07	0.81
7:AM:52:GLN:HG3	7:AM:53:ALA:N	1.95	0.81
12:AR:20:TYR:OH	12:AR:38:ILE:HB	1.74	0.81
8:AS:8:LYS:CE	8:AS:9:PHE:CE1	2.63	0.81
19:AZ:94:LYS:NZ	19:AZ:95:GLY:H	1.78	0.81
51:CA:118:GLU:OE1	51:CA:119:LYS:CG	2.26	0.81
74:CC:85:HIS:C	74:CC:87:SER:N	2.33	0.81
48:CD:21:ARG:NH2	48:CD:25:GLU:OE2	2.12	0.81
82:CG:85:GLN:O	82:CG:86:ALA:HB2	1.80	0.81
80:CH:18:ILE:HG22	80:CH:27:VAL:HG22	1.61	0.81
40:CK:96:LYS:O	40:CK:98:ILE:HG12	1.80	0.81
44:CM:1:MET:O	44:CM:3:PHE:HB2	1.79	0.81
44:CM:47:ARG:NH2	52:CS:73:LEU:CD1	2.44	0.81
44:CM:33:GLN:O	44:CM:52:PHE:CE2	2.34	0.81
49:CQ:103:LEU:HD21	49:CQ:123:PHE:CE2	2.16	0.81
50:CR:44:LEU:HD23	50:CR:49:LEU:CD1	2.11	0.81
52:CS:174:THR:HG23	52:CS:175:PHE:N	1.93	0.81
57:CY:111:LEU:HA	57:CY:115:ARG:HD2	1.63	0.81
59:CZ:76:ASN:HD21	59:CZ:78:ASN:ND2	1.78	0.81
85:A5:4943:A:P	85:A5:4944:C:O5'	2.38	0.81
16:AA:202:TYR:O	16:AA:203:PHE:CG	2.33	0.81
5:AO:51:GLU:OE1	15:AB:48:LEU:O	1.97	0.81
28:AC:192:LEU:O	28:AC:192:LEU:HD12	1.81	0.81
23:AD:214:LYS:CG	23:AD:215:ASP:OD2	2.28	0.81
30:AF:134:VAL:CG1	30:AF:136:ARG:NH2	2.43	0.81
31:AH:23:ILE:HD11	31:AH:27:LEU:HD21	1.62	0.81
26:AJ:109:ARG:O	26:AJ:110:LEU:O	1.98	0.81
13:AP:10:ARG:O	79:CJ:91:GLU:CD	2.18	0.81
34:AQ:72:VAL:CG2	34:AQ:84:ILE:HG22	2.10	0.81
8:AS:94:LYS:HD3	8:AS:96:SER:HG	1.42	0.81
63:CB:116:ARG:NE	63:CB:122:TRP:CE2	2.46	0.81
63:CB:89:ILE:HG22	63:CB:197:ALA:HB1	1.62	0.81
74:CC:190:ARG:HG3	74:CC:202:ILE:HD11	1.62	0.81
80:CH:106:GLN:CG	80:CH:107:GLU:HA	2.09	0.81
80:CH:20:LEU:HD22	80:CH:45:LEU:CD1	2.10	0.81
47:CI:164:LYS:CE	47:CI:166:HIS:NE2	2.44	0.81
42:CL:28:GLN:N	42:CL:29:PRO:CD	2.41	0.81
49:CQ:187:LYS:O	49:CQ:188:ASN:O	1.99	0.81
55:CU:60:VAL:HA	55:CU:75:GLU:N	1.95	0.81
27:AE:11:ARG:O	27:AE:12:VAL:HG23	1.80	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AE:128:LYS:CD	27:AE:130:PHE:CD1	2.63	0.81
29:AG:147:LEU:HD21	29:AG:156:TYR:CE2	2.15	0.81
31:AH:93:VAL:HG23	31:AH:94:PHE:N	1.83	0.81
26:AJ:130:ILE:CG1	26:AJ:135:ILE:HD13	2.10	0.81
26:AJ:134:HIS:CE1	26:AJ:164:PRO:HD3	2.15	0.81
26:AJ:170:PRO:HG2	26:AJ:175:ARG:HG3	0.83	0.81
5:AO:37:PHE:O	5:AO:38:ASN:HB2	1.78	0.81
14:AT:31:PRO:C	14:AT:33:TRP:H	1.83	0.81
36:B2:1410:C:H42	36:B2:1436:C:H42	1.26	0.81
63:CB:153:MET:CE	63:CB:160:ILE:HD11	2.07	0.81
74:CC:273:LEU:C	74:CC:273:LEU:CD1	2.49	0.81
74:CC:349:LEU:HG	74:CC:353:LYS:HE2	1.60	0.81
48:CD:130:TYR:HD2	48:CD:131:ASN:CA	1.94	0.81
48:CD:51:MET:CE	48:CD:173:ILE:CG1	2.58	0.81
81:CE:190:HIS:HB3	81:CE:193:PHE:CD1	2.15	0.81
64:CF:209:TRP:CD1	64:CF:210:PRO:HD2	2.16	0.81
82:CG:166:LEU:O	82:CG:167:VAL:CG2	2.29	0.81
82:CG:207:VAL:HG21	82:CG:215:LEU:HD13	1.61	0.81
82:CG:98:LEU:HD21	82:CG:215:LEU:CD2	2.10	0.81
82:CG:80:ILE:HG12	82:CG:164:ILE:CD1	2.10	0.81
79:CJ:135:GLY:CA	79:CJ:157:ILE:HD11	2.09	0.81
79:CJ:93:GLU:HG2	79:CJ:173:ILE:HB	1.61	0.81
57:CY:30:MET:CG	57:CY:101:PRO:HG3	2.09	0.81
28:AC:94:ILE:HG12	28:AC:159:LYS:HB3	1.63	0.81
23:AD:18:LYS:NZ	23:AD:37:VAL:CG2	2.44	0.81
23:AD:78:GLY:O	23:AD:80:PRO:HD3	1.79	0.81
29:AG:29:GLU:O	29:AG:29:GLU:HG2	1.78	0.81
29:AG:16:ILE:HD13	29:AG:45:TRP:HZ2	0.70	0.81
4:AK:83:LEU:HB2	4:AK:85:LEU:HD21	1.62	0.81
10:AN:59:GLY:O	10:AN:60:VAL:HG13	1.80	0.81
8:AS:11:HIS:CD2	8:AS:23:ARG:HH21	1.95	0.81
63:CB:119:TYR:CZ	63:CB:125:SER:HB2	2.16	0.81
74:CC:5:ARG:CA	74:CC:24:LEU:HD11	2.08	0.81
48:CD:129:GLU:CG	48:CD:177:THR:HG22	2.07	0.81
81:CE:149:ILE:CG2	81:CE:197:THR:HB	2.10	0.81
82:CG:121:LYS:HE2	82:CG:127:ASP:OD1	1.81	0.81
47:CI:175:LYS:CB	47:CI:176:PHE:CD1	2.64	0.81
47:CI:17:TYR:CE1	47:CI:23:CYS:SG	2.74	0.81
47:CI:48:LEU:HD13	47:CI:48:LEU:C	2.01	0.81
40:CK:93:LYS:O	40:CK:94:LYS:HB2	1.79	0.81
44:CM:60:PHE:HE2	44:CM:85:LYS:HB2	0.65	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:CM:66:HIS:O	44:CM:67:SER:CB	2.29	0.81
46:CN:136:ASP:O	46:CN:139:HIS:HB2	1.80	0.81
46:CN:183:THR:O	46:CN:184:ILE:HB	1.79	0.81
46:CN:186:GLY:H	46:CN:191:ALA:HB2	1.46	0.81
46:CN:80:THR:O	46:CN:81:TYR:C	2.18	0.81
54:CP:27:LYS:CE	54:CP:63:TYR:HD1	1.93	0.81
53:CT:127:GLN:NE2	53:CT:127:GLN:HA	1.94	0.81
53:CT:147:GLU:HB3	53:CT:148:PRO:CD	2.10	0.81
59:CZ:36:ARG:CZ	59:CZ:36:ARG:HB3	2.11	0.81
85:A5:4910:G:HO2'	85:A5:4911:A:H2'	1.45	0.81
28:AC:180:VAL:CG1	28:AC:181:PRO:CD	2.58	0.81
17:AV:29:HIS:CE1	28:AC:85:SER:O	2.33	0.81
28:AC:99:GLY:CA	28:AC:102:LEU:HB3	2.10	0.81
23:AD:105:LEU:HD21	23:AD:184:ILE:HD12	1.62	0.81
30:AF:39:ILE:CG2	30:AF:68:ILE:HD13	2.11	0.81
11:AL:149:ALA:HB2	11:AL:156:GLN:HE21	1.00	0.81
12:AR:44:LYS:HG3	12:AR:47:ARG:NH1	1.96	0.81
32:AW:102:ILE:H	32:AW:113:HIS:CE1	1.99	0.81
18:AY:99:LYS:O	18:AY:99:LYS:CE	2.29	0.81
64:CF:188:GLU:CD	74:CC:329:ASN:HD21	1.85	0.81
64:CF:30:ILE:HG22	64:CF:34:ARG:CZ	2.06	0.81
80:CH:18:ILE:HD11	80:CH:55:LEU:HD12	0.83	0.81
47:CI:106:ALA:C	47:CI:108:ALA:HB2	2.00	0.81
47:CI:109:ASP:HA	47:CI:112:GLN:HE21	1.44	0.81
79:CJ:22:LEU:CD2	79:CJ:130:PHE:CD2	2.64	0.81
40:CK:78:SER:HB3	40:CK:117:ARG:HH11	0.69	0.81
40:CK:17:CYS:O	40:CK:18:THR:OG1	1.97	0.81
50:CR:99:MET:HE1	50:CR:127:VAL:HG12	1.62	0.81
50:CR:175:GLU:OE2	50:CR:179:ALA:HB2	1.81	0.81
52:CS:88:SER:OG	52:CS:89:GLY:CA	2.29	0.81
55:CU:60:VAL:CA	55:CU:75:GLU:H	1.94	0.81
43:CV:36:ASN:ND2	43:CV:67:LYS:HG2	1.96	0.81
57:CY:34:LEU:CD2	57:CY:38:LEU:O	2.25	0.81
16:AA:127:PRO:HA	16:AA:134:LEU:HD11	1.61	0.81
16:AA:177:MET:HE3	16:AA:180:ARG:CZ	2.11	0.81
16:AA:57:LYS:HZ1	17:AV:70:LEU:HD11	1.00	0.81
15:AB:113:MET:HE3	15:AB:211:PHE:HZ	1.46	0.81
15:AB:130:THR:CG2	15:AB:179:ASN:H	1.93	0.81
23:AD:108:LYS:CB	23:AD:113:LEU:HD22	2.10	0.81
27:AE:49:ARG:HB3	27:AE:55:ALA:HB3	1.62	0.81
30:AF:44:LYS:HD2	30:AF:44:LYS:O	1.81	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:14:GLU:OE1	31:AH:16:PRO:CG	2.29	0.81
31:AH:98:ARG:CZ	31:AH:128:ALA:HB1	2.11	0.81
4:AK:11:ILE:HG22	4:AK:49:MET:CE	2.04	0.81
6:AX:11:ARG:CZ	11:AL:103:GLU:OE1	2.29	0.81
10:AN:46:THR:HG1	10:AN:49:GLN:HG2	1.40	0.81
8:AS:94:LYS:CE	8:AS:95:TYR:O	2.29	0.81
17:AV:32:ILE:HD12	17:AV:60:ARG:CD	2.10	0.81
6:AX:29:LYS:CD	6:AX:34:THR:CG2	2.58	0.81
18:AY:101:LYS:O	18:AY:102:THR:CG2	2.29	0.81
18:AY:114:MET:CE	18:AY:125:VAL:HG23	2.11	0.81
18:AY:20:ARG:CD	18:AY:74:MET:CE	2.51	0.81
36:B2:931:C:O5'	36:B2:931:C:H6	1.62	0.81
74:CC:14:LYS:HD2	74:CC:15:GLY:H	1.42	0.81
48:CD:190:PHE:CE2	48:CD:192:ALA:HA	2.16	0.81
82:CG:150:LYS:CG	82:CG:177:MET:CE	2.58	0.81
82:CG:42:GLY:O	82:CG:43:GLN:CG	2.29	0.81
80:CH:111:LEU:HD21	80:CH:127:ARG:HD3	1.59	0.81
80:CH:31:ARG:O	80:CH:149:ASN:ND2	2.14	0.81
47:CI:105:CYS:O	47:CI:108:ALA:CB	2.29	0.81
40:CK:116:MET:HB2	40:CK:117:ARG:NH2	1.95	0.81
46:CN:169:ARG:NH2	46:CN:169:ARG:HB3	1.95	0.81
41:CO:118:MET:HB3	52:CS:167:PHE:HB2	1.63	0.81
49:CQ:19:LYS:HG3	49:CQ:20:SER:N	1.93	0.81
52:CS:19:THR:HB	52:CS:20:PRO:CD	2.02	0.81
52:CS:35:PRO:HD2	52:CS:39:VAL:HG21	1.63	0.81
57:CY:22:PRO:CG	57:CY:25:ILE:CD1	2.59	0.81
57:CY:86:GLN:HB3	57:CY:96:HIS:HA	1.62	0.81
27:AE:129:ILE:HG13	27:AE:139:LEU:HD22	1.34	0.81
30:AF:25:THR:CB	30:AF:42:LYS:HG3	2.11	0.81
30:AF:44:LYS:CD	30:AF:44:LYS:O	2.29	0.81
31:AH:100:ILE:CG1	31:AH:125:VAL:HG21	2.11	0.81
13:AP:10:ARG:HE	13:AP:11:THR:H	1.26	0.81
13:AP:68:PRO:HB2	13:AP:69:PRO:CD	2.09	0.81
34:AQ:109:LYS:HG2	34:AQ:113:ILE:HD12	1.62	0.81
12:AR:99:ASP:O	12:AR:119:VAL:CB	2.29	0.81
8:AS:129:LEU:CD2	36:B2:1521:C:H5'	2.11	0.81
14:AT:31:PRO:CG	14:AT:102:ARG:HG3	2.10	0.81
16:AA:141:ASN:ND2	17:AV:29:HIS:HB3	1.95	0.81
18:AY:54:VAL:HG12	18:AY:76:TYR:H	1.44	0.81
63:CB:24:ARG:O	63:CB:26:ARG:N	2.14	0.81
63:CB:300:LYS:O	63:CB:301:ASN:OD1	1.99	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:CG:207:VAL:HG11	82:CG:215:LEU:CD1	2.10	0.81
80:CH:6:SER:OG	80:CH:67:LEU:HD22	1.80	0.81
47:CI:24:ARG:CG	47:CI:24:ARG:O	2.29	0.81
79:CJ:110:GLN:C	79:CJ:111:GLU:HG2	2.00	0.81
40:CK:102:GLY:C	40:CK:139:VAL:C	2.37	0.81
46:CN:44:ARG:HG3	46:CN:119:TYR:CZ	2.16	0.81
54:CP:64:ASN:OD1	54:CP:65:GLY:HA2	1.80	0.81
50:CR:142:ILE:HA	50:CR:145:LEU:CG	2.10	0.81
50:CR:65:LYS:HA	50:CR:68:LEU:CD2	2.09	0.81
50:CR:72:LYS:HD2	50:CR:72:LYS:C	5.37	0.81
56:CX:76:ILE:HD11	56:CX:104:ALA:CB	2.09	0.81
16:AA:145:ILE:CD1	16:AA:159:ILE:CG2	2.55	0.80
15:AB:72:ALA:HB1	15:AB:77:ASP:OD2	1.80	0.80
27:AE:175:PHE:HD2	27:AE:175:PHE:O	1.63	0.80
27:AE:241:GLY:O	27:AE:244:ILE:HG13	1.81	0.80
29:AG:147:LEU:O	29:AG:151:ASP:OD2	1.98	0.80
29:AG:157:VAL:HG11	29:AG:159:ARG:HG3	1.63	0.80
4:AK:83:LEU:HB2	4:AK:85:LEU:CD2	2.11	0.80
10:AN:113:PHE:CE2	10:AN:117:LEU:HD11	2.17	0.80
34:AQ:116:ASP:O	34:AQ:117:ARG:HB2	1.78	0.80
12:AR:99:ASP:CB	12:AR:119:VAL:HG11	2.10	0.80
18:AY:7:ILE:HD11	18:AY:43:LYS:CB	2.11	0.80
18:AY:46:LYS:O	18:AY:46:LYS:HD2	1.80	0.80
19:AZ:62:VAL:HA	19:AZ:65:TYR:CE2	2.16	0.80
82:CG:99:ALA:CA	82:CG:204:PHE:HZ	1.95	0.80
82:CG:28:VAL:O	82:CG:31:LEU:HD22	1.79	0.80
80:CH:49:GLY:HA2	80:CH:50:LYS:HZ2	1.00	0.80
54:CP:41:ILE:HD11	54:CP:150:LEU:HB3	1.62	0.80
54:CP:41:ILE:CD1	54:CP:150:LEU:HD22	2.10	0.80
50:CR:71:ARG:CZ	50:CR:71:ARG:H	4.96	0.80
50:CR:72:LYS:O	50:CR:72:LYS:CG	4.39	0.80
52:CS:173:ASN:HD22	52:CS:173:ASN:C	1.76	0.80
55:CU:48:LYS:HG3	55:CU:52:LYS:HG2	1.64	0.80
43:CV:25:VAL:CG1	43:CV:38:TYR:CD1	2.58	0.80
56:CX:52:LEU:C	56:CX:52:LEU:HD13	2.01	0.80
56:CX:89:LYS:HZ2	56:CX:97:VAL:CG2	1.93	0.80
57:CY:22:PRO:HD3	57:CY:25:ILE:HD12	1.63	0.80
16:AA:16:LEU:C	16:AA:17:LYS:HE2	2.02	0.80
28:AC:97:PHE:C	28:AC:98:LEU:HD12	2.00	0.80
27:AE:117:GLU:HG3	27:AE:118:GLU:H	1.46	0.80
10:AN:16:LEU:HD11	10:AN:62:GLN:NE2	1.95	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AQ:85:ARG:HH12	34:AQ:117:ARG:CB	1.93	0.80
34:AQ:30:GLY:O	34:AQ:31:LEU:CD1	2.29	0.80
14:AT:144:LYS:HB2	14:AT:144:LYS:HZ3	1.45	0.80
32:AW:129:PHE:C	32:AW:129:PHE:CD1	2.45	0.80
6:AX:126:ALA:O	6:AX:128:VAL:CB	2.29	0.80
18:AY:114:MET:HG2	18:AY:124:ASN:HB3	1.62	0.80
18:AY:7:ILE:CG1	18:AY:43:LYS:HD3	2.11	0.80
26:AJ:172:ARG:NH2	36:B2:562:U:C6	2.50	0.80
51:CA:62:VAL:HG22	51:CA:73:THR:CG2	2.10	0.80
74:CC:109:ARG:NE	74:CC:111:TRP:CH2	2.49	0.80
48:CD:142:PHE:CB	48:CD:171:LEU:CD2	2.47	0.80
81:CE:106:VAL:HG23	81:CE:107:VAL:CG1	2.11	0.80
81:CE:83:LYS:HD3	81:CE:86:GLU:N	1.93	0.80
82:CG:51:LEU:N	82:CG:51:LEU:HD23	1.94	0.80
82:CG:98:LEU:HG	82:CG:215:LEU:CD2	2.11	0.80
80:CH:105:ILE:HG21	80:CH:112:VAL:HG22	1.63	0.80
47:CI:102:MET:CG	47:CI:102:MET:O	2.29	0.80
47:CI:185:VAL:HG23	47:CI:190:LEU:HD11	1.64	0.80
47:CI:186:ALA:O	47:CI:187:LYS:HD3	1.81	0.80
47:CI:24:ARG:CD	47:CI:24:ARG:O	2.29	0.80
46:CN:45:PRO:HG2	82:CG:166:LEU:HD21	1.62	0.80
41:CO:108:ILE:HG23	41:CO:160:ARG:NE	1.95	0.80
41:CO:190:ASP:OD1	41:CO:194:GLU:HG2	1.80	0.80
49:CQ:187:LYS:HG3	49:CQ:188:ASN:N	1.96	0.80
50:CR:99:MET:SD	50:CR:127:VAL:CG1	2.69	0.80
52:CS:19:THR:OG1	52:CS:20:PRO:CD	2.29	0.80
53:CT:11:THR:CG2	53:CT:15:PHE:HE2	1.93	0.80
53:CT:148:PRO:O	53:CT:148:PRO:CG	2.29	0.80
43:CV:30:ASP:OD2	43:CV:32:THR:HG21	1.82	0.80
56:CX:89:LYS:HZ3	56:CX:137:TYR:HD1	0.84	0.80
57:CY:22:PRO:HD2	57:CY:25:ILE:HB	1.61	0.80
85:A5:1240:G:C2'	85:A5:1240:G:N9	2.44	0.80
29:AG:162:LEU:CG	29:AG:170:ARG:HB2	2.12	0.80
29:AG:36:VAL:HG12	29:AG:37:ALA:N	1.94	0.80
31:AH:14:GLU:OE1	31:AH:16:PRO:CB	2.29	0.80
26:AJ:170:PRO:HB2	26:AJ:174:LYS:HB3	1.63	0.80
4:AK:66:HIS:CE1	23:AD:76:ARG:HD3	2.05	0.80
3:AU:40:ILE:HD11	3:AU:53:PRO:HG3	0.81	0.80
3:AU:69:PRO:CD	3:AU:69:PRO:O	2.30	0.80
48:CD:256:LYS:CD	48:CD:256:LYS:O	2.29	0.80
81:CE:264:ILE:CG2	81:CE:265:PRO:N	2.44	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:CH:7:ASN:HB3	80:CH:58:ASP:CG	2.01	0.80
41:CO:143:HIS:HB2	41:CO:150:GLN:OE1	1.80	0.80
49:CQ:144:LYS:N	49:CQ:144:LYS:HE3	1.97	0.80
52:CS:11:LYS:HG3	52:CS:29:ARG:HD3	1.62	0.80
53:CT:125:TRP:HD1	53:CT:126:VAL:CG2	1.74	0.80
28:AC:169:TYR:HE1	28:AC:177:PRO:HG3	1.46	0.80
23:AD:112:GLY:O	23:AD:113:LEU:CD1	2.30	0.80
27:AE:244:ILE:O	27:AE:245:ARG:HB3	1.82	0.80
29:AG:157:VAL:HG11	29:AG:159:ARG:H	1.46	0.80
33:AI:140:LYS:O	33:AI:141:ARG:HG3	1.82	0.80
33:AI:29:LEU:HG	33:AI:30:GLY:H	1.46	0.80
33:AI:3:ILE:O	33:AI:3:ILE:CG2	2.29	0.80
26:AJ:37:LEU:HD21	26:AJ:42:GLU:C	2.01	0.80
6:AX:5:ARG:HA	11:AL:101:ARG:HH12	1.46	0.80
13:AP:51:ARG:CD	13:AP:51:ARG:H	1.93	0.80
13:AP:62:LYS:HG3	13:AP:65:LYS:CE	2.11	0.80
8:AS:94:LYS:CB	8:AS:95:TYR:O	2.30	0.80
14:AT:114:GLU:OE2	14:AT:122:LYS:HE3	1.81	0.80
3:AU:108:PRO:CG	3:AU:108:PRO:O	2.30	0.80
3:AU:97:ILE:HG22	3:AU:101:ILE:HD12	1.63	0.80
18:AY:98:GLU:OE2	18:AY:99:LYS:N	2.15	0.80
58:CW:14:TYR:CZ	63:CB:380:GLN:CG	2.64	0.80
63:CB:51:ALA:HB3	63:CB:78:ILE:HD12	1.60	0.80
74:CC:105:THR:HB	74:CC:109:ARG:NH2	1.96	0.80
81:CE:224:LYS:O	81:CE:226:ARG:CA	2.30	0.80
64:CF:41:MET:CE	85:A5:2121:C:C5'	2.58	0.80
46:CN:3:ALA:HB2	82:CG:140:VAL:HG12	1.63	0.80
80:CH:9:THR:HB	80:CH:54:ARG:HD3	1.63	0.80
40:CK:8:ASN:O	40:CK:9:GLU:CB	2.29	0.80
56:CX:120:ASP:O	56:CX:121:VAL:HG23	1.81	0.80
59:CZ:55:ALA:O	59:CZ:56:ALA:CB	2.29	0.80
46:CN:4:TYR:OH	85:A5:151:G:OP2	2.00	0.80
15:AB:209:ASP:O	15:AB:210:VAL:HG23	1.82	0.80
15:AB:21:VAL:CG2	15:AB:21:VAL:O	2.30	0.80
23:AD:47:GLU:CD	23:AD:85:GLU:OE2	2.19	0.80
30:AF:46:ALA:C	30:AF:47:LYS:CD	2.50	0.80
27:AE:148:ARG:NH2	29:AG:202:ASN:OD1	2.15	0.80
31:AH:83:LEU:HD12	31:AH:84:GLU:N	1.96	0.80
4:AK:39:ASN:O	4:AK:40:VAL:CG1	2.29	0.80
34:AQ:42:ILE:HD13	34:AQ:51:LEU:CD1	2.12	0.80
30:AF:14:THR:HG23	34:AQ:56:LEU:CB	2.00	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AQ:25:CYS:SG	34:AQ:91:ALA:CB	2.63	0.80
3:AU:104:ILE:O	3:AU:105:SER:C	2.13	0.80
3:AU:46:LYS:HZ1	3:AU:97:ILE:HG12	1.47	0.80
6:AX:105:PHE:CD1	6:AX:112:VAL:CG2	2.64	0.80
18:AY:120:THR:C	18:AY:122:LYS:HD2	2.02	0.80
8:AS:55:ARG:HH11	19:AZ:80:ARG:HE	1.26	0.80
74:CC:341:LEU:O	74:CC:344:ALA:N	2.13	0.80
81:CE:280:GLY:C	81:CE:282:TYR:HE2	1.84	0.80
82:CG:28:VAL:O	82:CG:31:LEU:CD2	2.29	0.80
80:CH:34:LEU:CD2	80:CH:150:ASP:CG	2.49	0.80
40:CK:126:SER:OG	40:CK:159:ALA:HA	1.81	0.80
44:CM:14:TYR:HB3	44:CM:56:GLN:HG3	1.63	0.80
46:CN:120:TRP:HD1	46:CN:128:LYS:NZ	1.79	0.80
49:CQ:13:VAL:O	49:CQ:13:VAL:CG1	2.29	0.80
50:CR:72:LYS:CD	50:CR:72:LYS:O	5.28	0.80
53:CT:145:GLY:O	53:CT:146:LYS:CD	2.30	0.80
55:CU:84:LYS:HE3	55:CU:102:VAL:HB	1.64	0.80
55:CU:90:TYR:CE2	55:CU:94:ASN:ND2	2.49	0.80
59:CZ:68:ILE:HG22	59:CZ:119:GLU:CG	2.12	0.80
16:AA:14:ASP:HB3	16:AA:18:PHE:HE2	1.46	0.80
16:AA:59:LEU:HD23	16:AA:181:GLU:HG2	1.64	0.80
15:AB:66:VAL:HG22	15:AB:87:ILE:CB	2.10	0.80
23:AD:195:THR:CA	23:AD:197:LYS:O	2.30	0.80
31:AH:9:VAL:C	31:AH:11:PRO:HD3	2.02	0.80
31:AH:12:ASN:CB	31:AH:46:THR:OG1	2.30	0.80
33:AI:139:LYS:HB2	33:AI:145:ILE:CD1	2.08	0.80
4:AK:98:ARG:NH1	4:AK:98:ARG:HG2	1.91	0.80
7:AM:89:VAL:HG12	7:AM:90:GLY:H	1.47	0.80
10:AN:23:PRO:HD2	10:AN:26:LEU:HD23	1.62	0.80
5:AO:34:PHE:HZ	5:AO:100:THR:HA	1.44	0.80
34:AQ:114:GLN:HG3	34:AQ:115:TYR:N	1.93	0.80
34:AQ:7:LEU:HD23	34:AQ:8:GLN:H	1.44	0.80
8:AS:10:GLN:HB3	8:AS:13:LEU:HD21	1.62	0.80
17:AV:42:VAL:O	17:AV:43:THR:CG2	2.30	0.80
32:AW:20:ARG:HH12	36:B2:1139:C:H1'	1.45	0.80
51:CA:139:HIS:ND1	51:CA:146:THR:HG23	1.96	0.80
51:CA:143:THR:O	51:CA:143:THR:CG2	2.30	0.80
51:CA:83:HIS:CE1	51:CA:86:GLN:HB2	2.15	0.80
63:CB:146:LEU:O	63:CB:150:PHE:CE1	2.35	0.80
63:CB:352:LEU:HD23	63:CB:353:VAL:C	2.02	0.80
80:CH:34:LEU:CG	80:CH:150:ASP:OD1	2.29	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CJ:163:MET:HE3	79:CJ:174:ILE:HD11	1.61	0.80
79:CJ:87:LEU:CD2	79:CJ:166:PHE:HZ	1.95	0.80
40:CK:162:CYS:N	40:CK:163:PRO:CD	2.44	0.80
46:CN:8:GLN:NE2	46:CN:50:ARG:NH2	2.30	0.80
41:CO:81:TRP:HZ3	41:CO:85:ARG:NH2	1.80	0.80
49:CQ:74:GLY:O	49:CQ:78:LYS:HG2	1.81	0.80
50:CR:134:ASN:OD1	50:CR:136:ARG:N	2.14	0.80
58:CW:76:VAL:O	58:CW:77:LYS:CE	2.29	0.80
56:CX:81:LEU:HD12	56:CX:135:LYS:HG3	1.62	0.80
85:A5:294:G:O6	85:A5:315:G:O2'	1.98	0.80
16:AA:60:LEU:HD13	16:AA:60:LEU:O	1.81	0.80
28:AC:259:THR:O	28:AC:259:THR:CG2	2.29	0.80
28:AC:69:LEU:CD2	28:AC:269:PHE:HB3	2.12	0.80
23:AD:192:TRP:HE3	23:AD:196:GLY:HA2	1.38	0.80
23:AD:226:GLN:O	23:AD:227:LYS:CG	2.30	0.80
30:AF:46:ALA:C	30:AF:47:LYS:HD2	2.00	0.80
31:AH:9:VAL:C	31:AH:11:PRO:CD	2.50	0.80
33:AI:145:ILE:HA	33:AI:148:LYS:HG3	1.64	0.80
26:AJ:110:LEU:HD11	26:AJ:130:ILE:HG12	1.63	0.80
7:AM:71:GLU:O	7:AM:72:HIS:O	1.98	0.80
13:AP:5:GLU:O	13:AP:6:GLN:CG	2.30	0.80
34:AQ:92:LEU:HD11	34:AQ:96:TYR:OH	1.81	0.80
12:AR:51:ALA:O	12:AR:55:THR:HG23	1.80	0.80
14:AT:23:LYS:CE	14:AT:54:TYR:CD2	2.63	0.80
6:AX:29:LYS:HD3	6:AX:34:THR:CG2	2.11	0.80
6:AX:52:LEU:HD12	6:AX:53:GLU:CB	2.11	0.80
18:AY:34:THR:HG22	18:AY:35:VAL:H	1.40	0.80
18:AY:44:LEU:CD1	18:AY:48:TYR:HE2	1.93	0.80
36:B2:242:U:H3	36:B2:280:G:H1	1.29	0.80
51:CA:60:LYS:HG2	51:CA:75:LEU:CD2	2.12	0.80
63:CB:92:TYR:CB	63:CB:99:LEU:HD11	2.11	0.80
57:CY:3:PHE:HZ	74:CC:222:ARG:NE	1.78	0.80
74:CC:210:ILE:HG23	74:CC:230:LEU:O	1.82	0.80
74:CC:316:LYS:HB2	74:CC:324:ILE:HD12	1.64	0.80
82:CG:154:LEU:CD1	82:CG:204:PHE:CD2	2.64	0.80
82:CG:24:ALA:O	82:CG:27:VAL:N	2.14	0.80
15:AB:52:THR:CG2	82:CG:264:LYS:HZ3	1.80	0.80
82:CG:41:ILE:CG2	82:CG:41:ILE:O	2.30	0.80
13:AP:12:PHE:CE2	79:CJ:88:LYS:HD2	2.16	0.80
42:CL:47:ALA:O	42:CL:50:PRO:O	1.98	0.80
42:CL:94:ILE:CG2	42:CL:120:TYR:CE2	2.65	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:CM:31:ILE:HG22	44:CM:35:ARG:HD3	1.63	0.80
56:CX:87:MET:CE	56:CX:156:ILE:HD12	2.12	0.80
57:CY:3:PHE:HZ	74:CC:222:ARG:HD3	1.45	0.80
57:CY:54:GLU:OE2	57:CY:69:LYS:HB2	1.81	0.80
82:CG:139:GLY:CA	85:A5:149:A:O2'	2.26	0.80
28:AC:259:THR:HG23	28:AC:261:PHE:CA	2.10	0.80
31:AH:122:LEU:HD12	31:AH:123:THR:HG23	1.63	0.80
31:AH:36:LEU:CD1	31:AH:36:LEU:O	2.29	0.80
33:AI:128:LYS:HE2	33:AI:133:GLU:OE1	1.81	0.80
26:AJ:89:GLU:CB	26:AJ:92:MET:SD	2.68	0.80
4:AK:36:ALA:O	4:AK:38:LYS:CD	2.29	0.80
7:AM:31:LEU:HD12	7:AM:33:ARG:HB3	1.64	0.80
7:AM:77:ILE:HG23	7:AM:78:LYS:N	1.97	0.80
34:AQ:25:CYS:HG	34:AQ:91:ALA:HB1	1.46	0.80
3:AU:108:PRO:O	3:AU:108:PRO:CD	2.30	0.80
51:CA:202:VAL:HG13	51:CA:217:GLN:HB3	1.64	0.80
63:CB:159:VAL:HG13	63:CB:184:GLN:NE2	1.97	0.80
74:CC:303:ARG:HG3	74:CC:303:ARG:HH11	1.45	0.80
80:CH:1:MET:O	80:CH:2:LYS:HG2	1.80	0.80
79:CJ:13:ARG:HB2	79:CJ:136:ARG:HD3	1.63	0.80
42:CL:9:VAL:HG12	42:CL:10:LEU:N	1.94	0.80
46:CN:99:GLN:NE2	46:CN:130:PHE:HE1	1.79	0.80
46:CN:135:ILE:HG23	46:CN:142:ILE:CD1	2.12	0.80
46:CN:180:PHE:HB2	46:CN:184:ILE:HD11	1.61	0.80
46:CN:4:TYR:HE2	82:CG:141:ASN:ND2	1.79	0.80
50:CR:71:ARG:NH1	50:CR:71:ARG:CB	2.56	0.80
53:CT:145:GLY:O	53:CT:146:LYS:CG	2.30	0.80
50:CR:31:GLU:CD	55:CU:125:GLU:N	2.34	0.80
56:CX:81:LEU:HG	56:CX:99:ILE:HG13	1.62	0.80
57:CY:3:PHE:CE1	74:CC:222:ARG:NH2	2.49	0.80
59:CZ:73:LYS:HE3	59:CZ:75:TYR:CE1	2.15	0.80
28:AC:190:SER:O	28:AC:227:ARG:NH1	2.15	0.80
28:AC:166:ARG:NH1	28:AC:255:LEU:CD1	2.25	0.80
28:AC:63:VAL:HG23	28:AC:90:GLU:CD	2.03	0.80
4:AK:4:PRO:HG2	4:AK:7:ASN:CB	2.11	0.80
7:AM:28:HIS:O	7:AM:29:ASP:HB2	1.82	0.80
10:AN:38:TYR:CD1	10:AN:78:LYS:CD	2.65	0.80
34:AQ:85:ARG:NH1	34:AQ:117:ARG:HB3	1.97	0.80
12:AR:5:ARG:N	12:AR:10:LYS:HZ1	1.79	0.80
3:AU:73:GLY:O	3:AU:74:SER:O	1.99	0.80
17:AV:24:ILE:CG2	17:AV:24:ILE:O	2.30	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AV:17:CYS:HG	17:AV:56:CYS:HB3	0.98	0.80
32:AW:38:LEU:HA	32:AW:41:MET:CE	2.12	0.80
18:AY:108:LYS:O	18:AY:111:LYS:HG3	1.82	0.80
48:CD:21:ARG:CG	48:CD:24:ARG:HH12	1.95	0.80
48:CD:34:LYS:O	48:CD:38:ILE:HG12	1.80	0.80
81:CE:274:VAL:HG13	81:CE:275:PHE:N	1.96	0.80
64:CF:30:ILE:HG21	64:CF:34:ARG:HH21	0.98	0.80
40:CK:61:LYS:CE	40:CK:72:GLU:HA	2.11	0.80
42:CL:156:PRO:O	42:CL:157:VAL:CG1	2.30	0.80
44:CM:79:LYS:O	44:CM:79:LYS:CD	2.30	0.80
44:CM:77:TRP:C	44:CM:82:ILE:HD11	2.02	0.80
46:CN:116:LEU:HD22	46:CN:135:ILE:HD11	0.81	0.80
41:CO:20:ALA:HB1	41:CO:87:MET:HE1	1.62	0.80
49:CQ:76:GLU:O	49:CQ:78:LYS:CE	2.30	0.80
50:CR:179:ALA:O	50:CR:183:GLU:HG3	1.81	0.80
52:CS:19:THR:OG1	52:CS:20:PRO:CG	2.30	0.80
43:CV:75:LYS:O	43:CV:75:LYS:CG	2.30	0.80
16:AA:190:SER:O	16:AA:191:ARG:CG	2.30	0.80
28:AC:171:GLY:C	28:AC:172:ASN:ND2	2.30	0.80
30:AF:103:LEU:CD2	30:AF:103:LEU:O	4.02	0.80
30:AF:112:LEU:HA	30:AF:177:LEU:CD1	2.11	0.80
26:AJ:16:PRO:CD	26:AJ:44:TRP:CZ2	2.64	0.80
34:AQ:9:SER:CB	34:AQ:26:LYS:CD	2.59	0.80
8:AS:11:HIS:CD2	8:AS:23:ARG:HH22	1.96	0.80
8:AS:39:ARG:CZ	14:AT:38:LYS:CD	2.59	0.80
8:AS:94:LYS:CD	8:AS:95:TYR:O	2.29	0.80
3:AU:50:VAL:HG22	3:AU:52:GLY:N	1.97	0.80
63:CB:150:PHE:O	63:CB:153:MET:N	2.14	0.80
63:CB:235:TRP:CD1	63:CB:267:ALA:HB1	2.17	0.80
48:CD:104:LEU:CD2	48:CD:247:ILE:CG1	2.59	0.80
47:CI:103:LEU:O	47:CI:104:SER:CB	2.30	0.80
40:CK:52:ASP:HB2	40:CK:53:TRP:NE1	1.96	0.80
42:CL:167:ARG:NE	42:CL:167:ARG:HA	1.96	0.80
42:CL:31:ARG:HH12	42:CL:34:ARG:HB3	1.47	0.80
46:CN:197:THR:O	46:CN:198:LEU:CD2	2.30	0.80
50:CR:72:LYS:CE	50:CR:72:LYS:O	6.48	0.80
58:CW:80:ARG:HD2	58:CW:81:ALA:N	1.96	0.80
56:CX:101:ASP:OD2	56:CX:103:LYS:HB2	1.83	0.80
16:AA:34:MET:HE1	16:AA:37:TYR:HE2	1.47	0.79
30:AF:138:ALA:HB2	30:AF:200:ALA:O	1.82	0.79
29:AG:142:ARG:CD	29:AG:147:LEU:CB	2.59	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AG:155:GLN:O	29:AG:156:TYR:HD1	1.64	0.79
26:AJ:117:LEU:O	26:AJ:119:LEU:N	2.15	0.79
34:AQ:50:LYS:NZ	34:AQ:85:ARG:HH22	1.58	0.79
12:AR:5:ARG:C	12:AR:10:LYS:HE2	2.02	0.79
19:AZ:70:PRO:CD	19:AZ:71:ALA:H	1.93	0.79
51:CA:220:GLY:O	51:CA:221:LYS:HB2	1.80	0.79
74:CC:236:ASN:OD1	74:CC:238:LEU:N	2.13	0.79
48:CD:107:ARG:NH2	48:CD:120:GLU:O	2.13	0.79
48:CD:164:LYS:CE	48:CD:168:ASP:OD2	2.21	0.79
82:CG:183:ILE:O	82:CG:183:ILE:CG2	2.28	0.79
52:CS:2:LYS:HE3	52:CS:39:VAL:HB	1.64	0.79
53:CT:80:VAL:N	53:CT:83:LYS:O	2.15	0.79
43:CV:89:ARG:HG3	43:CV:95:PHE:CD2	2.17	0.79
56:CX:114:LYS:HG2	56:CX:120:ASP:OD1	1.81	0.79
56:CX:99:ILE:HD11	56:CX:129:ARG:NH1	1.96	0.79
85:A5:2473:A:C2	85:A5:2506:G:C8	2.70	0.79
16:AA:76:VAL:HG21	16:AA:90:PHE:CE2	2.15	0.79
28:AC:169:TYR:CE1	28:AC:177:PRO:CG	2.64	0.79
29:AG:10:THR:O	58:CW:80:ARG:NE	2.15	0.79
13:AP:41:GLN:NE2	13:AP:84:ILE:CG2	2.43	0.79
13:AP:77:LYS:O	13:AP:78:THR:CG2	2.31	0.79
34:AQ:105:LYS:CD	34:AQ:105:LYS:O	2.30	0.79
8:AS:34:LYS:CG	8:AS:103:LEU:HD21	2.10	0.79
36:B2:127:C:OP1	36:B2:180:G:N2	2.14	0.79
74:CC:40:VAL:HG22	74:CC:115:VAL:CG1	2.12	0.79
74:CC:22:VAL:CG1	74:CC:22:VAL:O	2.30	0.79
74:CC:310:HIS:HB2	74:CC:311:ARG:HG2	1.64	0.79
48:CD:223:PHE:CG	48:CD:226:TYR:HE2	1.99	0.79
81:CE:231:GLU:HG3	81:CE:231:GLU:O	1.80	0.79
81:CE:282:TYR:N	81:CE:282:TYR:CD2	2.48	0.79
64:CF:182:TYR:CD1	64:CF:200:ARG:CZ	2.65	0.79
82:CG:207:VAL:HG21	82:CG:215:LEU:CD1	2.11	0.79
82:CG:23:GLU:O	82:CG:24:ALA:C	2.20	0.79
80:CH:56:ARG:NE	80:CH:58:ASP:OD2	2.15	0.79
47:CI:112:GLN:O	47:CI:113:THR:CG2	2.30	0.79
47:CI:38:ARG:CG	47:CI:83:ASP:CB	2.59	0.79
40:CK:160:VAL:N	40:CK:163:PRO:HG3	1.97	0.79
40:CK:60:VAL:HG12	40:CK:75:PRO:HG2	1.63	0.79
50:CR:179:ALA:O	50:CR:183:GLU:CG	2.30	0.79
52:CS:59:GLY:O	52:CS:60:GLU:CG	2.29	0.79
44:CM:47:ARG:CZ	52:CS:73:LEU:HD13	2.13	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:CY:82:ILE:CG2	57:CY:83:GLU:O	2.20	0.79
16:AA:149:ASN:HB2	16:AA:165:ASN:ND2	1.98	0.79
16:AA:66:VAL:HG13	16:AA:186:ARG:HD2	1.65	0.79
30:AF:14:THR:OG1	34:AQ:56:LEU:HB3	1.72	0.79
30:AF:36:GLN:CG	30:AF:37:ASP:OD2	2.30	0.79
30:AF:44:LYS:CE	30:AF:44:LYS:O	2.30	0.79
26:AJ:180:LYS:O	26:AJ:180:LYS:CD	2.30	0.79
4:AK:36:ALA:O	4:AK:38:LYS:CG	2.29	0.79
7:AM:124:ILE:HA	7:AM:127:TYR:CE2	2.17	0.79
13:AP:127:LYS:O	13:AP:127:LYS:CE	2.30	0.79
14:AT:11:GLN:HE21	14:AT:62:ARG:NH1	1.81	0.79
32:AW:42:MET:HE3	32:AW:50:PHE:CD2	2.16	0.79
74:CC:142:HIS:H	74:CC:182:LYS:HE2	1.45	0.79
74:CC:29:LYS:CD	74:CC:29:LYS:N	2.42	0.79
74:CC:64:ALA:HB3	74:CC:92:PHE:CZ	2.18	0.79
81:CE:112:MET:N	81:CE:113:PRO:HD3	1.97	0.79
81:CE:127:SER:HA	81:CE:129:GLY:N	1.98	0.79
81:CE:47:ASN:HD22	81:CE:48:PRO:HD3	1.47	0.79
82:CG:160:ASP:CG	82:CG:187:LYS:HD2	2.03	0.79
82:CG:28:VAL:HG13	82:CG:32:PHE:CD2	2.18	0.79
47:CI:105:CYS:C	47:CI:108:ALA:HB2	2.01	0.79
47:CI:17:TYR:CZ	47:CI:23:CYS:SG	2.73	0.79
46:CN:17:ASP:HB3	82:CG:237:TRP:HH2	1.46	0.79
41:CO:26:GLN:HE21	52:CS:166:ARG:HG2	1.46	0.79
49:CQ:154:LYS:CD	49:CQ:155:ALA:O	2.30	0.79
53:CT:142:ARG:O	53:CT:143:THR:CB	2.29	0.79
58:CW:80:ARG:CD	58:CW:81:ALA:N	2.45	0.79
56:CX:40:ILE:HD11	82:CG:50:ASP:HA	1.64	0.79
81:CE:172:LEU:HD11	85:A5:4940:C:O2'	1.82	0.79
16:AA:5:LEU:HD13	16:AA:6:ASP:H	1.41	0.79
23:AD:195:THR:O	23:AD:197:LYS:CG	2.30	0.79
29:AG:164:LYS:O	29:AG:166:GLY:N	2.16	0.79
31:AH:75:ILE:HG23	31:AH:76:GLN:H	1.47	0.79
5:AO:75:MET:SD	5:AO:118:ALA:HB2	2.22	0.79
13:AP:41:GLN:HG3	13:AP:84:ILE:HG23	1.57	0.79
13:AP:49:LEU:CD1	13:AP:51:ARG:CZ	2.61	0.79
13:AP:49:LEU:CD1	13:AP:51:ARG:HH21	1.95	0.79
34:AQ:19:ALA:HB2	34:AQ:75:GLY:CA	2.13	0.79
30:AF:14:THR:HG23	34:AQ:56:LEU:HD22	1.49	0.79
16:AA:4:ALA:HB1	17:AV:39:VAL:HG21	1.63	0.79
6:AX:139:GLU:O	6:AX:141:PRO:CD	2.30	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:154:LYS:O	63:CB:154:LYS:CD	2.30	0.79
74:CC:266:THR:HG23	74:CC:267:TRP:C	2.02	0.79
48:CD:146:LEU:HD11	48:CD:163:LEU:HD22	0.85	0.79
81:CE:181:LEU:HD12	81:CE:261:ILE:CD1	2.12	0.79
82:CG:41:ILE:O	82:CG:43:GLN:CG	2.29	0.79
79:CJ:90:ARG:CZ	79:CJ:108:GLY:N	2.46	0.79
40:CK:86:LYS:O	40:CK:104:ILE:HG21	1.82	0.79
40:CK:94:LYS:CG	40:CK:96:LYS:CG	2.50	0.79
49:CQ:15:ARG:O	49:CQ:15:ARG:CD	2.30	0.79
49:CQ:33:ARG:CG	49:CQ:48:LEU:HD11	2.12	0.79
53:CT:145:GLY:O	53:CT:146:LYS:CE	2.30	0.79
57:CY:124:LYS:O	57:CY:127:GLN:CG	2.30	0.79
59:CZ:57:MET:SD	59:CZ:57:MET:C	2.59	0.79
15:AB:105:LEU:O	15:AB:106:THR:CG2	2.30	0.79
15:AB:57:ILE:CG2	15:AB:57:ILE:O	2.29	0.79
23:AD:198:ILE:O	23:AD:198:ILE:CG1	2.30	0.79
23:AD:70:THR:CB	23:AD:86:LEU:HD13	2.12	0.79
23:AD:47:GLU:OE2	23:AD:85:GLU:OE2	1.99	0.79
11:AL:76:VAL:HG12	11:AL:125:ILE:HD12	1.64	0.79
7:AM:100:PRO:O	7:AM:101:ARG:CD	2.30	0.79
10:AN:139:TRP:CZ3	10:AN:140:LYS:C	2.55	0.79
5:AO:30:VAL:HG13	5:AO:47:LEU:HD23	1.63	0.79
34:AQ:38:PRO:O	34:AQ:41:MET:HG2	1.82	0.79
8:AS:91:LYS:HD2	13:AP:15:PHE:CZ	2.18	0.79
14:AT:124:THR:HG23	14:AT:126:GLN:H	1.47	0.79
14:AT:99:VAL:O	14:AT:103:VAL:HG23	1.82	0.79
17:AV:67:ASP:O	17:AV:70:LEU:N	2.14	0.79
32:AW:6:VAL:HG13	32:AW:29:PRO:HD2	1.63	0.79
18:AY:44:LEU:CD1	18:AY:48:TYR:CD2	2.66	0.79
18:AY:9:THR:CB	18:AY:48:TYR:OH	2.29	0.79
19:AZ:44:LEU:CD1	19:AZ:44:LEU:O	2.30	0.79
8:AS:23:ARG:HD3	19:AZ:48:VAL:HB	1.62	0.79
74:CC:213:GLU:CG	74:CC:213:GLU:O	2.30	0.79
48:CD:51:MET:HE1	48:CD:173:ILE:CG1	2.13	0.79
81:CE:120:ASP:O	81:CE:121:VAL:CB	2.26	0.79
81:CE:223:ARG:HD2	81:CE:223:ARG:H	0.68	0.79
81:CE:232:ILE:CD1	81:CE:232:ILE:O	2.29	0.79
82:CG:261:LEU:O	82:CG:262:ALA:C	2.18	0.79
82:CG:73:ARG:HH12	82:CG:242:LEU:C	1.86	0.79
40:CK:9:GLU:HG3	40:CK:10:ILE:H	0.64	0.79
40:CK:123:ARG:CG	40:CK:124:GLU:N	2.43	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:CO:185:VAL:HG13	44:CM:122:ILE:HG22	1.64	0.79
55:CU:66:SER:O	55:CU:67:LYS:CG	2.30	0.79
16:AA:103:PHE:HZ	16:AA:136:GLU:OE1	1.60	0.79
16:AA:186:ARG:CD	16:AA:186:ARG:O	2.31	0.79
15:AB:52:THR:HG22	15:AB:58:ALA:CB	2.12	0.79
28:AC:180:VAL:HG13	28:AC:181:PRO:CD	2.12	0.79
23:AD:218:LEU:CD2	23:AD:218:LEU:O	2.30	0.79
23:AD:94:ARG:O	23:AD:101:GLN:NE2	2.16	0.79
30:AF:49:LEU:HD12	30:AF:50:PRO:CD	2.11	0.79
29:AG:33:ALA:N	29:AG:52:ILE:HG23	1.98	0.79
33:AI:206:LYS:HD2	33:AI:207:GLY:N	1.97	0.79
26:AJ:37:LEU:HD11	26:AJ:42:GLU:HB3	0.81	0.79
34:AQ:6:PRO:HG2	34:AQ:6:PRO:O	1.81	0.79
14:AT:31:PRO:HB3	14:AT:33:TRP:CD2	2.17	0.79
32:AW:128:PHE:HE1	32:AW:130:PHE:CD2	2.01	0.79
18:AY:114:MET:HE1	18:AY:125:VAL:HG23	1.62	0.79
18:AY:45:ALA:HA	18:AY:55:ILE:CD1	2.12	0.79
51:CA:104:VAL:HG12	51:CA:107:MET:HE2	1.62	0.79
63:CB:155:LYS:HA	63:CB:155:LYS:HE3	1.64	0.79
63:CB:17:LEU:HD23	63:CB:19:ARG:HD3	1.65	0.79
74:CC:143:ARG:CZ	74:CC:182:LYS:HD2	2.12	0.79
64:CF:29:LYS:CG	64:CF:30:ILE:HD12	2.11	0.79
82:CG:179:VAL:O	82:CG:179:VAL:CG1	2.29	0.79
47:CI:74:LYS:HA	47:CI:74:LYS:HE3	1.62	0.79
44:CM:14:TYR:CE1	44:CM:22:GLY:O	2.35	0.79
44:CM:52:PHE:O	44:CM:55:MET:HG2	1.83	0.79
46:CN:184:ILE:HG22	46:CN:185:GLY:N	1.96	0.79
41:CO:151:ALA:O	41:CO:155:THR:HG23	1.82	0.79
49:CQ:154:LYS:CB	49:CQ:155:ALA:O	2.30	0.79
49:CQ:55:ARG:HD3	49:CQ:58:ARG:HH22	1.46	0.79
50:CR:101:ILE:HA	50:CR:104:ARG:HD3	1.64	0.79
50:CR:119:MET:CE	50:CR:119:MET:HA	2.11	0.79
50:CR:45:ILE:HA	50:CR:50:ILE:CG2	2.12	0.79
59:CZ:5:MET:O	59:CZ:6:LYS:CB	2.29	0.79
85:A5:5025:C:C6	85:A5:5026:U:H5'	2.17	0.79
23:AD:74:GLN:HE21	23:AD:75:LYS:HD3	1.45	0.79
33:AI:138:ASN:O	33:AI:139:LYS:O	1.99	0.79
26:AJ:170:PRO:CB	26:AJ:174:LYS:CE	2.60	0.79
10:AN:21:SER:O	10:AN:22:VAL:CG1	2.30	0.79
13:AP:12:PHE:CE2	79:CJ:88:LYS:CG	2.66	0.79
8:AS:36:VAL:O	8:AS:36:VAL:CG2	2.30	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AU:48:LEU:N	3:AU:48:LEU:CD2	2.29	0.79
17:AV:19:ALA:O	32:AW:23:ARG:NH2	2.15	0.79
32:AW:36:ARG:O	32:AW:39:THR:OG1	1.99	0.79
18:AY:99:LYS:O	18:AY:99:LYS:CG	2.29	0.79
63:CB:140:GLU:HG2	63:CB:144:LYS:HZ2	0.67	0.79
74:CC:130:ALA:HB3	74:CC:246:VAL:HG13	1.63	0.79
48:CD:232:THR:HB	48:CD:233:PRO:HD3	1.64	0.79
48:CD:271:MET:SD	48:CD:275:GLN:OE1	2.41	0.79
81:CE:106:VAL:HG21	81:CE:107:VAL:HG13	1.62	0.79
81:CE:286:LEU:HB2	81:CE:287:VAL:HB	1.64	0.79
64:CF:101:VAL:HG11	64:CF:106:ARG:HG3	1.65	0.79
82:CG:117:ARG:O	82:CG:121:LYS:HB3	1.81	0.79
82:CG:74:LEU:O	82:CG:240:ASN:N	2.14	0.79
80:CH:50:LYS:H	80:CH:50:LYS:NZ	1.80	0.79
47:CI:28:ASP:HB3	47:CI:32:ARG:HH21	1.45	0.79
40:CK:142:ASN:OD1	40:CK:143:VAL:N	2.15	0.79
40:CK:159:ALA:O	40:CK:163:PRO:CG	2.31	0.79
42:CL:10:LEU:HD22	42:CL:10:LEU:N	1.92	0.79
44:CM:35:ARG:N	44:CM:52:PHE:CE2	2.50	0.79
44:CM:86:TRP:O	44:CM:92:ALA:CB	2.30	0.79
54:CP:29:THR:O	54:CP:32:THR:HG23	1.82	0.79
49:CQ:99:LYS:HZ1	49:CQ:119:LYS:HD3	0.65	0.79
52:CS:173:ASN:HD22	52:CS:174:THR:H	1.30	0.79
16:AA:118:GLU:HB2	28:AC:65:LYS:NZ	1.98	0.79
16:AA:177:MET:CE	16:AA:180:ARG:CZ	2.61	0.79
27:AE:229:GLY:HA2	27:AE:235:TRP:CD1	2.18	0.79
29:AG:63:MET:CE	29:AG:106:LEU:HD13	2.12	0.79
29:AG:186:GLN:O	29:AG:190:ARG:HG3	1.82	0.79
33:AI:136:ILE:CG2	33:AI:139:LYS:CE	2.43	0.79
13:AP:5:GLU:N	13:AP:10:ARG:NH1	2.30	0.79
8:AS:138:THR:HA	8:AS:141:ARG:HH22	1.42	0.79
17:AV:29:HIS:CE1	28:AC:85:SER:C	2.57	0.79
18:AY:36:PRO:HD2	18:AY:39:GLU:OE1	1.83	0.79
18:AY:55:ILE:CB	18:AY:75:ILE:HG12	2.12	0.79
51:CA:254:GLU:HB3	51:CA:255:LYS:HB3	1.62	0.79
63:CB:108:GLU:HB2	63:CB:137:TRP:CE2	2.18	0.79
63:CB:18:PRO:C	63:CB:20:LYS:H	1.85	0.79
63:CB:297:LYS:C	63:CB:300:LYS:HE3	2.01	0.79
82:CG:146:LEU:HD12	82:CG:147:VAL:HG23	1.62	0.79
82:CG:22:GLN:O	82:CG:23:GLU:C	2.19	0.79
80:CH:111:LEU:CD2	80:CH:127:ARG:HA	2.12	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CJ:103:GLY:CA	79:CJ:157:ILE:HG22	2.09	0.79
40:CK:140:GLY:O	40:CK:141:CYS:CB	2.30	0.79
44:CM:63:LYS:O	44:CM:63:LYS:CE	2.30	0.79
46:CN:150:TRP:CZ2	46:CN:151:ILE:HD11	2.18	0.79
49:CQ:99:LYS:HE3	49:CQ:121:LEU:HD11	1.63	0.79
52:CS:153:PRO:O	52:CS:153:PRO:CD	2.30	0.79
58:CW:106:GLU:CB	58:CW:110:ARG:NH1	2.45	0.79
56:CX:142:PRO:HD2	56:CX:143:ASP:N	1.98	0.79
59:CZ:68:ILE:HG22	59:CZ:119:GLU:HG3	1.64	0.79
59:CZ:5:MET:C	59:CZ:6:LYS:HG2	2.03	0.79
16:AA:76:VAL:CG2	16:AA:90:PHE:CE2	2.66	0.79
28:AC:184:VAL:CG2	28:AC:243:ALA:O	2.31	0.79
23:AD:197:LYS:N	23:AD:199:GLY:N	2.30	0.79
23:AD:218:LEU:CD1	23:AD:220:THR:CG2	2.47	0.79
27:AE:130:PHE:CG	27:AE:138:HIS:CE1	2.70	0.79
27:AE:87:MET:HE2	27:AE:182:MET:HE1	1.63	0.79
29:AG:130:PRO:HA	58:CW:81:ALA:HB1	1.64	0.79
4:AK:65:ARG:CZ	4:AK:65:ARG:HB3	2.12	0.79
11:AL:80:MET:HE1	11:AL:121:GLN:CA	2.12	0.79
8:AS:136:THR:OG1	36:B2:1521:C:P	2.40	0.79
8:AS:61:GLU:C	8:AS:64:VAL:HG22	2.02	0.79
14:AT:91:HIS:CD2	14:AT:91:HIS:N	2.50	0.79
6:AX:129:SER:OG	6:AX:132:ALA:HB3	1.83	0.79
18:AY:37:LYS:O	18:AY:40:ILE:HG23	1.82	0.79
48:CD:178:LYS:HG2	48:CD:183:TYR:CE2	2.18	0.79
81:CE:51:VAL:HA	81:CE:54:ILE:HD12	1.63	0.79
82:CG:104:PRO:CA	82:CG:105:GLU:OE2	2.30	0.79
79:CJ:135:GLY:HA2	79:CJ:139:PHE:CE2	2.16	0.79
40:CK:61:LYS:HD3	40:CK:73:VAL:O	1.83	0.79
41:CO:66:PRO:HD2	41:CO:67:SER:N	1.97	0.79
49:CQ:110:ARG:NH1	74:CC:281:MET:HE3	1.98	0.79
49:CQ:154:LYS:CA	49:CQ:155:ALA:HB3	2.11	0.79
52:CS:18:PRO:O	52:CS:19:THR:CG2	2.30	0.79
53:CT:142:ARG:C	53:CT:143:THR:HG22	2.02	0.79
58:CW:63:GLN:OE1	58:CW:67:ILE:HD11	1.83	0.79
59:CZ:87:VAL:CG2	59:CZ:127:ASN:OD1	2.30	0.79
28:AC:65:LYS:CD	28:AC:266:TYR:CD1	2.38	0.79
23:AD:197:LYS:CB	23:AD:198:ILE:HG13	2.02	0.79
30:AF:127:ARG:CD	30:AF:127:ARG:O	2.31	0.79
29:AG:137:ARG:HD2	29:AG:140:ARG:HE	1.47	0.79
29:AG:180:VAL:O	29:AG:181:THR:CG2	2.30	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AJ:88:ASP:O	26:AJ:92:MET:HG3	1.80	0.79
7:AM:33:ARG:HH11	7:AM:33:ARG:HG3	1.45	0.79
12:AR:122:PRO:CB	12:AR:123:THR:OG1	2.30	0.79
32:AW:101:PHE:HA	32:AW:113:HIS:CE1	2.16	0.79
6:AX:22:TRP:O	6:AX:23:HIS:C	2.12	0.79
6:AX:35:ALA:HA	6:AX:39:ASN:ND2	1.98	0.79
6:AX:40:PRO:CB	6:AX:81:ILE:HD11	2.13	0.79
18:AY:120:THR:HB	18:AY:122:LYS:HE3	1.61	0.79
19:AZ:77:LEU:O	19:AZ:78:LYS:CG	2.30	0.79
19:AZ:92:LEU:HD21	19:AZ:109:TYR:CD1	2.18	0.79
74:CC:233:SER:C	74:CC:263:LEU:CD1	2.47	0.79
81:CE:73:TYR:C	81:CE:74:SER:CB	2.51	0.79
80:CH:171:ASP:OD1	80:CH:173:ARG:CD	2.30	0.79
42:CL:21:ARG:O	46:CN:197:THR:HG22	1.82	0.79
41:CO:9:LEU:HD11	52:CS:167:PHE:CE1	2.13	0.79
54:CP:125:MET:HB2	54:CP:141:SER:HG	1.45	0.79
54:CP:39:MET:HE1	54:CP:43:LYS:HE2	1.63	0.79
54:CP:71:ALA:CB	54:CP:74:LYS:HE3	2.12	0.79
54:CP:8:PRO:HG2	54:CP:9:GLU:N	1.97	0.79
49:CQ:15:ARG:CG	49:CQ:15:ARG:O	2.28	0.79
50:CR:179:ALA:O	50:CR:183:GLU:CD	2.21	0.79
41:CO:26:GLN:NE2	52:CS:166:ARG:CG	2.46	0.79
52:CS:75:VAL:HG13	52:CS:76:LYS:CA	2.13	0.79
58:CW:23:ARG:CZ	58:CW:29:PHE:HE2	1.95	0.79
57:CY:40:GLN:CA	57:CY:43:ASN:OD1	2.31	0.79
28:AC:66:LEU:CD2	28:AC:66:LEU:O	2.30	0.78
4:AK:11:ILE:CG2	4:AK:49:MET:HE3	2.13	0.78
11:AL:10:TYR:CD2	11:AL:12:LYS:CE	2.66	0.78
7:AM:94:ILE:O	7:AM:101:ARG:NH1	2.16	0.78
12:AR:91:LEU:CB	12:AR:92:ASP:CA	2.61	0.78
18:AY:37:LYS:O	18:AY:40:ILE:HG22	1.83	0.78
64:CF:161:LYS:CD	64:CF:209:TRP:HZ3	1.96	0.78
80:CH:50:LYS:HE3	80:CH:50:LYS:N	1.98	0.78
47:CI:9:TYR:CD1	47:CI:97:ILE:HG23	2.17	0.78
79:CJ:15:LEU:HD23	79:CJ:165:TRP:CD1	2.18	0.78
54:CP:39:MET:CE	54:CP:43:LYS:HE2	2.13	0.78
54:CP:24:VAL:HG13	54:CP:90:PHE:CZ	2.16	0.78
49:CQ:19:LYS:O	49:CQ:19:LYS:HD2	1.83	0.78
52:CS:138:ARG:HD3	52:CS:139:ARG:HH12	1.47	0.78
53:CT:11:THR:HB	53:CT:15:PHE:CE2	2.18	0.78
53:CT:33:ILE:CD1	53:CT:33:ILE:H	1.76	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CT:50:LYS:O	53:CT:51:GLY:O	2.00	0.78
56:CX:146:ALA:CA	56:CX:149:VAL:HG12	2.13	0.78
59:CZ:4:PHE:O	59:CZ:6:LYS:HG2	1.83	0.78
59:CZ:90:PRO:HD2	59:CZ:91:LEU:H	1.47	0.78
85:A5:3972:A:H4'	85:A5:3973:G:O5'	1.83	0.78
85:A5:4936:G:C8	85:A5:4936:G:H5''	2.19	0.78
16:AA:202:TYR:O	16:AA:203:PHE:CD1	2.37	0.78
16:AA:28:THR:O	16:AA:47:TYR:HE2	1.66	0.78
28:AC:207:ALA:O	28:AC:210:PRO:CD	2.31	0.78
23:AD:158:ILE:HD13	23:AD:189:MET:SD	2.24	0.78
29:AG:32:MET:HE3	29:AG:100:CYS:O	1.84	0.78
31:AH:122:LEU:CD1	31:AH:123:THR:H	1.92	0.78
31:AH:31:GLU:CD	31:AH:41:ARG:HD2	2.02	0.78
33:AI:82:VAL:HG11	33:AI:202:ILE:HD11	1.64	0.78
11:AL:8:ARG:NH1	33:AI:85:ALA:CB	2.46	0.78
7:AM:31:LEU:HD11	7:AM:109:VAL:HB	1.63	0.78
34:AQ:58:LEU:HD22	34:AQ:111:ILE:HD12	1.61	0.78
34:AQ:6:PRO:CD	34:AQ:6:PRO:O	2.28	0.78
17:AV:79:VAL:HG13	17:AV:80:SER:H	1.48	0.78
6:AX:54:LYS:HD2	6:AX:91:LEU:CD1	2.13	0.78
18:AY:84:LYS:CD	18:AY:84:LYS:O	2.31	0.78
63:CB:168:MET:HE1	63:CB:173:LEU:HD23	1.62	0.78
63:CB:298:LEU:N	63:CB:300:LYS:HE3	1.98	0.78
63:CB:391:PRO:C	63:CB:392:LEU:CD2	2.44	0.78
74:CC:147:VAL:HA	74:CC:175:LYS:CB	2.14	0.78
74:CC:44:LEU:C	74:CC:46:LYS:H	1.82	0.78
40:CK:1:MET:H3	40:CK:2:PRO:CB	1.94	0.78
42:CL:156:PRO:O	42:CL:157:VAL:CG2	2.30	0.78
46:CN:71:ARG:NH2	46:CN:73:ARG:HA	1.98	0.78
41:CO:16:LEU:CD2	41:CO:138:LEU:HD22	2.00	0.78
41:CO:202:LEU:HB3	44:CM:104:MET:HE2	1.65	0.78
41:CO:16:LEU:HD22	41:CO:41:ILE:HD13	1.58	0.78
52:CS:152:PHE:HB2	52:CS:153:PRO:HD3	1.65	0.78
53:CT:4:THR:CG2	53:CT:9:ARG:HD2	2.12	0.78
55:CU:21:PHE:HE1	55:CU:80:LYS:CE	1.78	0.78
56:CX:123:LYS:NZ	56:CX:139:ARG:CB	2.45	0.78
16:AA:183:LEU:HB2	16:AA:189:ILE:CD1	2.13	0.78
23:AD:226:GLN:O	23:AD:227:LYS:CB	2.31	0.78
23:AD:48:ILE:HG21	23:AD:86:LEU:HG	1.63	0.78
27:AE:130:PHE:CB	27:AE:138:HIS:NE2	2.45	0.78
29:AG:50:VAL:CG1	29:AG:111:LEU:CD2	2.61	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:147:LYS:CE	31:AH:153:LEU:CD1	2.61	0.78
11:AL:22:ARG:NH1	33:AI:157:LYS:CG	2.45	0.78
26:AJ:35:TYR:C	26:AJ:37:LEU:H	1.85	0.78
11:AL:147:LYS:CD	11:AL:148:ALA:N	2.45	0.78
11:AL:78:THR:HG22	11:AL:87:VAL:O	1.82	0.78
10:AN:62:GLN:CB	10:AN:65:PHE:CD2	2.64	0.78
13:AP:108:LYS:N	13:AP:111:MET:HE3	1.97	0.78
13:AP:125:PRO:O	13:AP:126:VAL:CG2	2.32	0.78
13:AP:12:PHE:CE2	79:CJ:88:LYS:HG3	2.18	0.78
12:AR:88:VAL:CG1	12:AR:88:VAL:O	2.32	0.78
8:AS:39:ARG:NH2	14:AT:38:LYS:CD	2.45	0.78
19:AZ:94:LYS:HD3	19:AZ:95:GLY:N	1.99	0.78
74:CC:77:PRO:HG2	74:CC:92:PHE:CD2	2.18	0.78
48:CD:146:LEU:CG	48:CD:163:LEU:HD13	2.13	0.78
48:CD:164:LYS:HE3	48:CD:168:ASP:CG	2.02	0.78
48:CD:188:LYS:O	48:CD:189:GLU:CG	2.30	0.78
81:CE:145:THR:CG2	81:CE:148:THR:HB	2.13	0.78
81:CE:46:ARG:NH1	81:CE:47:ASN:H	1.80	0.78
82:CG:34:LYS:CE	82:CG:34:LYS:O	2.30	0.78
82:CG:76:VAL:HB	82:CG:81:ASN:OD1	1.83	0.78
80:CH:122:TYR:CE2	80:CH:124:ARG:HG3	2.17	0.78
80:CH:19:THR:OG1	80:CH:26:ILE:HG12	1.82	0.78
54:CP:30:ARG:HD2	54:CP:63:TYR:CE2	2.15	0.78
50:CR:15:LEU:O	50:CR:16:ARG:HB2	1.84	0.78
44:CM:30:VAL:HG12	52:CS:145:PHE:HE1	1.49	0.78
57:CY:11:ARG:HH12	74:CC:200:ARG:HH11	0.79	0.78
57:CY:34:LEU:HD23	57:CY:38:LEU:C	2.04	0.78
59:CZ:15:ALA:HA	59:CZ:19:SER:HB3	1.65	0.78
15:AB:57:ILE:O	15:AB:58:ALA:C	2.21	0.78
15:AB:61:GLY:O	15:AB:65:ARG:NE	2.16	0.78
5:AO:47:LEU:CB	15:AB:67:PHE:CD1	2.66	0.78
4:AK:41:PRO:O	4:AK:41:PRO:CD	2.31	0.78
4:AK:4:PRO:HB2	4:AK:7:ASN:H	1.49	0.78
10:AN:125:LEU:HD11	10:AN:129:TYR:OH	1.83	0.78
34:AQ:92:LEU:HG	34:AQ:96:TYR:HE2	1.46	0.78
8:AS:139:THR:O	8:AS:141:ARG:N	2.17	0.78
6:AX:52:LEU:CD1	6:AX:53:GLU:HG2	2.14	0.78
6:AX:52:LEU:HD11	6:AX:71:ARG:HB2	1.64	0.78
8:AS:8:LYS:CA	19:AZ:49:LEU:HD23	2.13	0.78
19:AZ:48:VAL:C	19:AZ:83:LEU:HD12	2.04	0.78
36:B2:1214:A:H61	36:B2:1685:U:H3	1.32	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CA:250:LYS:HG2	51:CA:252:VAL:CG2	2.10	0.78
63:CB:54:THR:C	63:CB:76:VAL:HG23	2.02	0.78
74:CC:263:LEU:O	74:CC:264:TYR:CD1	2.36	0.78
74:CC:287:THR:HG23	74:CC:287:THR:O	1.83	0.78
74:CC:348:LYS:C	74:CC:349:LEU:N	0.73	0.78
44:CM:127:VAL:CG2	44:CM:128:LYS:O	7.64	0.78
41:CO:9:LEU:CD1	52:CS:167:PHE:HE1	1.97	0.78
52:CS:59:GLY:O	52:CS:60:GLU:HG3	1.83	0.78
53:CT:128:LEU:HD23	53:CT:128:LEU:N	1.95	0.78
53:CT:80:VAL:HG13	53:CT:81:LYS:N	1.98	0.78
57:CY:47:MET:CE	57:CY:48:PRO:CD	2.61	0.78
59:CZ:30:ASP:OD2	59:CZ:31:ASP:CB	2.30	0.78
15:AB:134:LEU:HD12	15:AB:219:LYS:HB2	1.65	0.78
23:AD:198:ILE:O	23:AD:198:ILE:CD1	2.31	0.78
23:AD:217:ILE:O	23:AD:218:LEU:HD22	1.82	0.78
29:AG:142:ARG:HH21	29:AG:152:ASP:H	1.31	0.78
33:AI:140:LYS:CD	33:AI:141:ARG:H	1.96	0.78
26:AJ:179:LYS:CG	26:AJ:182:GLN:OE1	2.30	0.78
10:AN:21:SER:O	10:AN:22:VAL:CG2	2.30	0.78
5:AO:94:HIS:CG	5:AO:127:GLY:O	2.35	0.78
34:AQ:50:LYS:NZ	34:AQ:85:ARG:HH21	1.69	0.78
12:AR:100:PRO:CB	12:AR:119:VAL:CG2	2.62	0.78
8:AS:12:ILE:O	8:AS:12:ILE:CG2	2.30	0.78
6:AX:142:ARG:NH1	6:AX:142:ARG:HB2	1.93	0.78
63:CB:80:GLU:OE1	63:CB:171:LEU:CB	2.30	0.78
63:CB:78:ILE:CD1	63:CB:78:ILE:O	2.29	0.78
48:CD:273:LEU:HD13	48:CD:277:LYS:NZ	1.97	0.78
41:CO:177:LEU:HA	44:CM:130:LEU:HD21	1.65	0.78
52:CS:19:THR:OG1	52:CS:20:PRO:CB	2.30	0.78
53:CT:132:PRO:O	53:CT:134:PRO:HD3	1.83	0.78
57:CY:83:GLU:CA	57:CY:83:GLU:OE2	2.28	0.78
28:AC:108:LYS:HD3	28:AC:233:LEU:CD2	1.74	0.78
23:AD:195:THR:O	23:AD:195:THR:CG2	2.30	0.78
23:AD:201:LYS:HA	23:AD:201:LYS:CE	2.14	0.78
27:AE:145:ARG:NH1	27:AE:145:ARG:HG2	1.94	0.78
27:AE:204:SER:O	27:AE:205:PHE:HB2	1.84	0.78
27:AE:38:LEU:CD1	27:AE:38:LEU:O	2.30	0.78
29:AG:153:VAL:O	29:AG:155:GLN:N	2.16	0.78
31:AH:149:ASP:O	31:AH:151:SER:N	2.16	0.78
33:AI:206:LYS:HG3	33:AI:207:GLY:N	1.97	0.78
26:AJ:138:ARG:NH1	26:AJ:156:HIS:NE2	2.31	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AM:35:ILE:HB	7:AM:61:TYR:CE2	2.19	0.78
7:AM:51:VAL:HA	7:AM:77:ILE:CG2	2.13	0.78
8:AS:80:PRO:HB2	8:AS:82:TRP:CD1	2.18	0.78
32:AW:38:LEU:HD23	32:AW:41:MET:CE	2.14	0.78
6:AX:27:TYR:CE2	6:AX:31:HIS:CD2	2.70	0.78
6:AX:71:ARG:HE	6:AX:82:THR:HG23	1.46	0.78
63:CB:117:ARG:NH1	63:CB:177:LYS:HE3	1.99	0.78
74:CC:122:TYR:CD1	74:CC:280:PRO:HG3	2.03	0.78
48:CD:104:LEU:HD21	48:CD:247:ILE:CD1	2.13	0.78
48:CD:76:CYS:SG	48:CD:109:LEU:CG	2.72	0.78
48:CD:90:VAL:HG21	48:CD:226:TYR:CZ	2.18	0.78
81:CE:149:ILE:CA	81:CE:163:VAL:CG1	2.62	0.78
81:CE:274:VAL:HG12	81:CE:275:PHE:N	1.97	0.78
81:CE:54:ILE:HG22	81:CE:55:GLY:H	1.47	0.78
81:CE:98:GLY:HA2	81:CE:99:ASP:CB	2.10	0.78
79:CJ:87:LEU:HD21	79:CJ:166:PHE:CZ	2.17	0.78
40:CK:2:PRO:HD3	40:CK:6:ASP:HB2	1.66	0.78
44:CM:19:PRO:CD	44:CM:20:HIS:N	2.46	0.78
44:CM:12:VAL:CG1	44:CM:60:PHE:C	2.44	0.78
58:CW:8:PHE:CZ	58:CW:49:ILE:HD12	2.18	0.78
59:CZ:5:MET:O	59:CZ:6:LYS:HG2	1.82	0.78
16:AA:60:LEU:HD13	16:AA:60:LEU:C	2.04	0.78
15:AB:62:LEU:HD21	15:AB:96:CYS:SG	2.23	0.78
27:AE:153:LEU:CD2	29:AG:216:ARG:NH1	2.46	0.78
11:AL:22:ARG:HD3	33:AI:155:ASN:O	1.80	0.78
7:AM:12:MET:HE1	7:AM:120:ALA:HB1	1.63	0.78
5:AO:143:LYS:O	5:AO:143:LYS:HG2	1.81	0.78
8:AS:120:HIS:CE1	13:AP:123:TYR:HE2	1.57	0.78
6:AX:14:ARG:HA	11:AL:99:TYR:HH	0.96	0.78
63:CB:298:LEU:CA	63:CB:300:LYS:HG2	2.14	0.78
63:CB:299:ILE:O	63:CB:299:ILE:HG22	1.82	0.78
63:CB:378:ARG:HH11	63:CB:378:ARG:HG3	0.73	0.78
74:CC:306:ARG:O	74:CC:307:LYS:HG2	1.84	0.78
74:CC:91:ALA:CA	74:CC:92:PHE:CD2	2.66	0.78
48:CD:47:PRO:HB3	48:CD:66:TYR:HE1	0.61	0.78
47:CI:164:LYS:NZ	47:CI:166:HIS:CE1	2.51	0.78
44:CM:63:LYS:C	44:CM:63:LYS:CD	2.50	0.78
46:CN:35:ALA:N	46:CN:65:ARG:NH1	2.32	0.78
41:CO:55:LEU:CD2	41:CO:58:LEU:HD12	2.11	0.78
50:CR:63:CYS:SG	50:CR:64:ARG:N	2.56	0.78
56:CX:76:ILE:CG2	56:CX:112:ALA:CB	2.61	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AA:198:MET:SD	16:AA:198:MET:N	2.57	0.78
23:AD:22:ASN:OD1	23:AD:37:VAL:HG22	1.84	0.78
31:AH:8:ILE:HG23	31:AH:9:VAL:N	1.98	0.78
18:AY:111:LYS:NZ	18:AY:115:LYS:HZ1	1.82	0.78
63:CB:47:LEU:CD1	63:CB:344:VAL:CG1	2.59	0.78
74:CC:262:GLU:C	74:CC:264:TYR:N	2.36	0.78
74:CC:28:PHE:O	74:CC:129:ALA:HB1	1.82	0.78
49:CQ:34:PHE:HD2	74:CC:293:LEU:HD22	1.01	0.78
74:CC:303:ARG:HH12	74:CC:306:ARG:H	1.30	0.78
48:CD:105:LEU:HD12	48:CD:105:LEU:O	3.03	0.78
64:CF:219:GLY:O	64:CF:220:MET:CB	2.32	0.78
80:CH:93:ARG:HE	80:CH:143:GLU:HG3	1.49	0.78
47:CI:191:ILE:CG2	47:CI:192:PRO:HD3	2.14	0.78
47:CI:69:ARG:HH11	47:CI:70:ILE:HG13	1.49	0.78
52:CS:10:TYR:CE1	52:CS:66:GLN:HG2	2.18	0.78
57:CY:89:LYS:CD	57:CY:90:ALA:H	1.97	0.78
59:CZ:11:VAL:HG13	59:CZ:81:MET:O	1.82	0.78
12:AR:40:ILE:HB	23:AD:209:SER:OG	1.83	0.78
30:AF:112:LEU:O	30:AF:116:ILE:CD1	2.31	0.78
30:AF:154:LEU:HD11	30:AF:155:CYS:SG	2.23	0.78
31:AH:191:GLU:C	31:AH:192:PHE:CD1	2.57	0.78
33:AI:82:VAL:CG1	33:AI:202:ILE:CD1	2.62	0.78
26:AJ:12:THR:O	26:AJ:48:PHE:CD2	2.37	0.78
5:AO:62:VAL:CG2	5:AO:72:TYR:OH	2.32	0.78
13:AP:4:VAL:C	13:AP:10:ARG:HD3	2.03	0.78
12:AR:98:VAL:CG1	12:AR:102:THR:OG1	2.32	0.78
3:AU:46:LYS:NZ	3:AU:97:ILE:HG12	1.99	0.78
63:CB:281:ASN:C	63:CB:282:LYS:HD2	2.03	0.78
48:CD:223:PHE:CB	48:CD:226:TYR:CD2	2.67	0.78
48:CD:51:MET:SD	48:CD:173:ILE:HD11	2.23	0.78
82:CG:243:GLY:C	82:CG:244:PRO:HA	2.03	0.78
44:CM:33:GLN:NE2	80:CH:61:TRP:CD1	2.51	0.78
46:CN:35:ALA:HA	46:CN:65:ARG:CZ	2.14	0.78
52:CS:2:LYS:HZ1	52:CS:43:ARG:CG	1.96	0.78
52:CS:72:PRO:O	52:CS:100:LEU:HD12	1.80	0.78
56:CX:66:PRO:O	56:CX:66:PRO:HD2	1.84	0.78
57:CY:53:ASP:OD2	57:CY:109:LEU:CD2	2.31	0.78
57:CY:49:ILE:HD11	57:CY:101:PRO:HB2	1.63	0.78
29:AG:184:VAL:HG12	29:AG:188:LYS:NZ	1.99	0.78
31:AH:122:LEU:CD1	31:AH:123:THR:CG2	2.62	0.78
31:AH:144:ILE:CD1	32:AW:52:ILE:HD13	2.13	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AJ:46:VAL:HG11	26:AJ:106:LEU:HD11	1.66	0.78
4:AK:11:ILE:HG23	4:AK:49:MET:HE1	1.47	0.78
7:AM:13:ASP:HB2	7:AM:16:THR:HB	0.81	0.78
12:AR:105:MET:O	12:AR:109:LEU:HD12	1.84	0.78
6:AX:67:ARG:HG2	6:AX:115:ILE:HG12	1.66	0.78
74:CC:322:LEU:HD22	74:CC:336:ARG:CZ	2.14	0.78
80:CH:129:ARG:HB3	80:CH:130:PRO:HD3	1.62	0.78
40:CK:59:THR:O	40:CK:60:VAL:HG23	1.83	0.78
42:CL:9:VAL:O	42:CL:10:LEU:HD22	1.84	0.78
44:CM:14:TYR:HE1	44:CM:22:GLY:O	1.67	0.78
41:CO:125:LYS:HG3	41:CO:129:LEU:HD22	1.66	0.78
41:CO:65:ASN:ND2	41:CO:68:ARG:NE	2.31	0.78
41:CO:19:LEU:HD23	41:CO:80:PHE:CE1	2.18	0.78
52:CS:12:VAL:HB	52:CS:44:PHE:CD1	2.19	0.78
53:CT:127:GLN:HE21	53:CT:128:LEU:N	1.80	0.78
58:CW:110:ARG:HE	58:CW:113:LYS:NZ	1.82	0.78
56:CX:76:ILE:HD13	56:CX:104:ALA:HB2	1.66	0.78
56:CX:87:MET:C	56:CX:90:ILE:HD12	2.03	0.78
59:CZ:5:MET:CG	59:CZ:25:ILE:HD13	2.13	0.78
59:CZ:88:ASP:HB3	59:CZ:121:ARG:HH22	1.48	0.78
85:A5:1965:G:H5'	85:A5:4695:C:O2	1.83	0.77
16:AA:39:TYR:HA	16:AA:50:ASN:HD21	1.48	0.77
28:AC:142:LYS:HD3	28:AC:157:LEU:HD11	1.65	0.77
23:AD:97:CYS:O	23:AD:98:ALA:C	2.23	0.77
27:AE:139:LEU:HD11	27:AE:154:ILE:HG21	1.65	0.77
30:AF:127:ARG:O	30:AF:127:ARG:CG	2.32	0.77
29:AG:32:MET:CE	29:AG:63:MET:SD	2.72	0.77
7:AM:42:LEU:HD11	7:AM:69:LEU:CD2	2.15	0.77
5:AO:64:ALA:O	5:AO:66:ARG:N	2.14	0.77
14:AT:65:TYR:HA	14:AT:123:LEU:HD13	1.64	0.77
14:AT:39:LEU:CD1	14:AT:99:VAL:HG21	2.14	0.77
51:CA:219:ILE:HD13	51:CA:223:SER:HB3	1.65	0.77
63:CB:54:THR:HG23	63:CB:76:VAL:HG21	1.66	0.77
48:CD:39:GLN:OE1	48:CD:40:ASP:N	2.17	0.77
48:CD:95:TYR:OH	48:CD:195:HIS:CE1	2.34	0.77
82:CG:77:PRO:HB3	82:CG:237:TRP:CZ3	2.15	0.77
80:CH:105:ILE:HG21	80:CH:112:VAL:CB	2.12	0.77
80:CH:138:GLN:O	80:CH:139:ALA:HB3	1.84	0.77
42:CL:62:PRO:CD	42:CL:71:ARG:NH2	2.47	0.77
44:CM:63:LYS:HE2	44:CM:63:LYS:O	1.84	0.77
54:CP:6:LEU:HD23	54:CP:116:HIS:CG	2.14	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CR:132:PHE:HE1	50:CR:137:ILE:HG12	1.50	0.77
44:CM:7:VAL:N	52:CS:152:PHE:H	1.82	0.77
28:AC:130:ILE:HD13	28:AC:159:LYS:HG3	1.67	0.77
28:AC:210:PRO:CD	28:AC:236:PHE:HZ	1.92	0.77
27:AE:174:LYS:O	27:AE:179:ASN:ND2	2.18	0.77
29:AG:58:LYS:O	29:AG:59:GLN:HB2	1.84	0.77
4:AK:4:PRO:HG3	4:AK:7:ASN:ND2	1.99	0.77
13:AP:10:ARG:HE	13:AP:11:THR:N	1.81	0.77
13:AP:75:VAL:HG21	13:AP:104:GLN:CD	2.04	0.77
12:AR:27:ASP:O	12:AR:31:ASN:ND2	2.17	0.77
6:AX:126:ALA:C	6:AX:128:VAL:HB	2.04	0.77
81:CE:144:ILE:HG23	81:CE:145:THR:N	1.99	0.77
64:CF:132:MET:O	64:CF:135:ILE:HG22	1.83	0.77
82:CG:82:GLN:HG2	82:CG:233:ILE:CG2	2.14	0.77
46:CN:64:ILE:HD13	46:CN:102:ALA:HB1	1.64	0.77
46:CN:7:ILE:CD1	82:CG:166:LEU:HD23	2.14	0.77
41:CO:81:TRP:CZ3	41:CO:85:ARG:NH2	2.53	0.77
52:CS:95:ARG:NH1	52:CS:97:TYR:OH	2.18	0.77
53:CT:146:LYS:C	53:CT:147:GLU:CD	2.42	0.77
56:CX:66:PRO:O	56:CX:66:PRO:CD	2.29	0.77
57:CY:42:TYR:HD1	57:CY:119:LEU:HD21	0.67	0.77
59:CZ:29:ILE:CD1	59:CZ:40:HIS:CD2	2.68	0.77
59:CZ:29:ILE:HG22	59:CZ:31:ASP:O	1.84	0.77
59:CZ:46:ILE:CG2	59:CZ:68:ILE:HD11	2.14	0.77
85:A5:4981:G:N3	85:A5:4981:G:H5"	1.99	0.77
12:AR:105:MET:HG3	16:AA:48:ILE:HG22	1.64	0.77
28:AC:173:LYS:O	28:AC:173:LYS:CE	2.30	0.77
27:AE:120:LYS:O	27:AE:164:LEU:CB	2.31	0.77
27:AE:208:VAL:HB	27:AE:225:ILE:HD11	0.80	0.77
29:AG:184:VAL:HG12	29:AG:188:LYS:HE2	0.78	0.77
29:AG:188:LYS:HA	29:AG:191:ARG:CD	2.12	0.77
31:AH:157:HIS:O	31:AH:158:LEU:HD23	1.84	0.77
13:AP:50:ARG:N	13:AP:51:ARG:HD2	1.99	0.77
13:AP:52:LYS:O	13:AP:52:LYS:CD	2.30	0.77
32:AW:14:ILE:HG13	32:AW:15:ASN:N	1.98	0.77
32:AW:7:LEU:HD23	32:AW:34:ILE:CG1	2.13	0.77
19:AZ:92:LEU:HD11	19:AZ:99:LEU:HD21	1.66	0.77
36:B2:1522:A:C2	36:B2:1523:C:C5	2.73	0.77
36:B2:688:U:H1'	36:B2:742:U:C4	2.18	0.77
51:CA:158:ILE:HG22	51:CA:159:SER:N	1.99	0.77
74:CC:310:HIS:CB	74:CC:311:ARG:CG	2.60	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CD:271:MET:HE1	48:CD:275:GLN:CB	1.98	0.77
81:CE:181:LEU:CD2	81:CE:268:GLN:CG	2.60	0.77
82:CG:191:GLY:CA	82:CG:199:CYS:HG	1.78	0.77
82:CG:247:VAL:O	82:CG:250:ILE:HG22	1.84	0.77
82:CG:39:PHE:HE2	82:CG:47:PRO:HG3	1.46	0.77
80:CH:129:ARG:HD3	80:CH:130:PRO:HD3	1.67	0.77
47:CI:164:LYS:HE2	47:CI:166:HIS:NE2	1.99	0.77
47:CI:74:LYS:HA	47:CI:74:LYS:CE	2.14	0.77
44:CM:20:HIS:CG	44:CM:45:VAL:HG13	2.18	0.77
52:CS:17:LEU:HD23	52:CS:58:SER:CA	2.13	0.77
52:CS:86:SER:HB2	52:CS:88:SER:HB3	1.67	0.77
85:A5:4463:U:O2'	85:A5:4464:A:H2'	1.83	0.77
16:AA:85:ARG:NH2	16:AA:201:LEU:HD12	2.00	0.77
27:AE:100:ARG:CD	27:AE:102:ILE:CD1	2.59	0.77
29:AG:179:LEU:HD12	29:AG:180:VAL:N	1.97	0.77
4:AK:36:ALA:O	4:AK:38:LYS:HG3	1.84	0.77
4:AK:95:ARG:HA	4:AK:95:ARG:HE	1.49	0.77
5:AO:23:GLU:O	5:AO:23:GLU:CG	2.32	0.77
13:AP:44:ARG:HD3	13:AP:115:TYR:HE1	1.47	0.77
12:AR:122:PRO:CA	12:AR:123:THR:CB	2.58	0.77
17:AV:31:SER:HA	17:AV:31:SER:C	2.02	0.77
18:AY:29:HIS:CD2	18:AY:34:THR:H	2.02	0.77
63:CB:149:ASP:O	63:CB:150:PHE:C	2.15	0.77
74:CC:110:ARG:HD2	74:CC:113:ARG:NH2	1.99	0.77
48:CD:207:TYR:CE1	48:CD:211:LEU:HD11	2.20	0.77
48:CD:79:TYR:CG	48:CD:81:HIS:CE1	2.63	0.77
81:CE:205:ASN:H	81:CE:205:ASN:HD22	1.32	0.77
81:CE:181:LEU:CG	81:CE:268:GLN:HG3	2.14	0.77
64:CF:105:VAL:HG22	64:CF:135:ILE:CD1	2.15	0.77
80:CH:118:LEU:CD2	80:CH:177:ASP:CG	2.52	0.77
40:CK:131:GLU:CG	40:CK:155:ILE:HD11	2.02	0.77
42:CL:157:VAL:O	42:CL:157:VAL:HG23	1.85	0.77
42:CL:191:LEU:CD2	42:CL:194:ILE:HD13	2.12	0.77
46:CN:99:GLN:NE2	46:CN:130:PHE:CE1	2.53	0.77
41:CO:203:VAL:HG12	41:CO:203:VAL:OXT	1.83	0.77
49:CQ:64:SER:HA	49:CQ:92:VAL:HG21	1.66	0.77
55:CU:125:GLU:CD	55:CU:126:ASP:H	1.87	0.77
58:CW:70:LYS:O	58:CW:71:ARG:CB	2.31	0.77
56:CX:52:LEU:HD22	56:CX:53:ARG:H	1.49	0.77
59:CZ:5:MET:C	59:CZ:6:LYS:HD3	2.00	0.77
59:CZ:14:LEU:HB3	59:CZ:79:HIS:O	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:1345:A:H61	85:A5:1511:U:H3	1.31	0.77
28:AC:70:VAL:HA	28:AC:97:PHE:HZ	1.48	0.77
29:AG:129:VAL:HB	58:CW:80:ARG:HH11	1.17	0.77
29:AG:5:ILE:HG22	29:AG:124:LEU:HD21	1.66	0.77
26:AJ:17:ARG:C	26:AJ:18:ARG:HG2	1.89	0.77
26:AJ:37:LEU:CG	26:AJ:42:GLU:HB2	2.13	0.77
4:AK:39:ASN:O	4:AK:40:VAL:CB	2.32	0.77
4:AK:45:VAL:O	4:AK:49:MET:HG2	1.84	0.77
5:AO:56:VAL:HG13	5:AO:81:VAL:CG2	2.14	0.77
5:AO:26:ASN:HB3	5:AO:91:THR:OG1	1.84	0.77
13:AP:89:MET:C	13:AP:107:ILE:HD11	2.05	0.77
13:AP:128:HIS:HE1	36:B2:1521:C:C2	2.02	0.77
13:AP:18:ARG:HD2	13:AP:37:TYR:HB3	1.66	0.77
8:AS:39:ARG:HD3	14:AT:38:LYS:NZ	1.99	0.77
18:AY:118:ARG:NE	29:AG:85:ARG:CZ	2.47	0.77
63:CB:150:PHE:CD1	63:CB:150:PHE:N	2.50	0.77
48:CD:273:LEU:O	48:CD:277:LYS:HG3	1.84	0.77
81:CE:162:VAL:HG13	81:CE:177:GLY:CA	2.15	0.77
81:CE:228:GLN:N	81:CE:228:GLN:NE2	2.32	0.77
81:CE:83:LYS:HB3	81:CE:85:LYS:N	2.00	0.77
46:CN:29:GLN:CA	82:CG:67:ARG:HH21	1.96	0.77
47:CI:164:LYS:NZ	47:CI:166:HIS:NE2	2.32	0.77
41:CO:20:ALA:HB3	41:CO:87:MET:HE1	1.64	0.77
52:CS:71:SER:HB2	52:CS:74:ARG:CB	2.13	0.77
53:CT:17:ARG:O	53:CT:22:HIS:CE1	2.37	0.77
58:CW:23:ARG:NH1	58:CW:23:ARG:CB	2.46	0.77
57:CY:63:LYS:HG2	57:CY:63:LYS:O	1.84	0.77
59:CZ:12:LEU:HD13	59:CZ:134:LEU:HD22	1.65	0.77
16:AA:37:TYR:OH	16:AA:160:ALA:HB3	1.85	0.77
28:AC:270:THR:HG23	28:AC:271:ASP:OD1	1.83	0.77
11:AL:7:GLU:CG	11:AL:8:ARG:HG3	2.14	0.77
5:AO:32:HIS:CE1	5:AO:96:LYS:HD2	2.19	0.77
13:AP:46:ASN:C	13:AP:49:LEU:HB2	2.05	0.77
12:AR:42:PRO:HD2	12:AR:43:SER:N	1.97	0.77
17:AV:40:ASP:CB	17:AV:47:ASN:HD21	1.98	0.77
6:AX:67:ARG:O	6:AX:68:LYS:CG	2.33	0.77
19:AZ:85:ARG:HH11	19:AZ:85:ARG:HG2	1.50	0.77
51:CA:206:PRO:HD2	51:CA:207:VAL:H	1.49	0.77
63:CB:140:GLU:OE1	63:CB:144:LYS:HB2	1.84	0.77
63:CB:17:LEU:CD2	63:CB:19:ARG:CG	2.60	0.77
63:CB:49:TYR:CE1	63:CB:344:VAL:HG22	2.19	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:22:VAL:HG21	74:CC:258:ARG:CD	2.14	0.77
74:CC:124:ILE:HG13	74:CC:237:ILE:CG1	1.96	0.77
81:CE:138:ARG:CZ	81:CE:169:ALA:O	2.32	0.77
81:CE:207:LYS:O	81:CE:208:ILE:HG13	1.83	0.77
82:CG:77:PRO:N	82:CG:237:TRP:CE3	2.52	0.77
80:CH:19:THR:HG1	80:CH:26:ILE:HD11	1.44	0.77
44:CM:33:GLN:CD	80:CH:61:TRP:CE2	2.58	0.77
46:CN:46:ASP:O	46:CN:50:ARG:CZ	2.33	0.77
49:CQ:76:GLU:HG3	49:CQ:77:ASN:OD1	1.85	0.77
50:CR:102:LEU:CD2	50:CR:138:LEU:HD12	2.15	0.77
53:CT:150:LEU:C	53:CT:151:LEU:CA	2.52	0.77
53:CT:36:LYS:CD	53:CT:36:LYS:C	2.52	0.77
59:CZ:116:VAL:O	59:CZ:120:GLU:HG3	1.85	0.77
16:AA:97:THR:HG23	16:AA:98:PRO:CD	2.06	0.77
23:AD:70:THR:CA	23:AD:86:LEU:HD13	2.15	0.77
26:AJ:100:LEU:HD11	26:AJ:104:ASP:OD2	1.85	0.77
11:AL:40:ILE:O	11:AL:40:ILE:HD13	1.84	0.77
7:AM:49:LEU:HD13	7:AM:50:CYS:N	2.00	0.77
13:AP:124:LYS:HG3	13:AP:124:LYS:O	1.84	0.77
13:AP:52:LYS:HA	13:AP:54:HIS:HD2	1.47	0.77
12:AR:98:VAL:HG13	12:AR:102:THR:OG1	1.83	0.77
18:AY:32:LYS:HG2	18:AY:33:ALA:H	1.41	0.77
63:CB:159:VAL:CG1	63:CB:184:GLN:CD	2.53	0.77
48:CD:58:ARG:HD3	48:CD:58:ARG:N	1.95	0.77
81:CE:264:ILE:HG23	81:CE:265:PRO:HD2	1.65	0.77
82:CG:184:ILE:CG2	82:CG:185:LYS:N	2.17	0.77
80:CH:111:LEU:CD2	80:CH:127:ARG:CD	2.09	0.77
80:CH:36:ARG:HD2	80:CH:38:PHE:CZ	2.20	0.77
47:CI:191:ILE:HG23	47:CI:192:PRO:CD	2.15	0.77
40:CK:62:LEU:HG	40:CK:73:VAL:HB	1.65	0.77
40:CK:92:ARG:HA	40:CK:95:GLN:CD	2.04	0.77
41:CO:27:VAL:CG1	41:CO:98:ALA:O	2.33	0.77
49:CQ:167:VAL:CG2	49:CQ:175:GLU:OE1	2.32	0.77
49:CQ:67:ILE:HD13	49:CQ:96:PRO:HD2	1.65	0.77
50:CR:71:ARG:NH1	50:CR:71:ARG:HA	3.80	0.77
53:CT:142:ARG:O	53:CT:143:THR:HB	1.84	0.77
56:CX:57:GLN:HA	56:CX:58:PRO:CG	2.08	0.77
27:AE:153:LEU:HD23	29:AG:216:ARG:NH2	2.00	0.77
26:AJ:72:PHE:CE1	27:AE:248:ILE:O	2.34	0.77
30:AF:122:ARG:HE	30:AF:193:LYS:NZ	1.75	0.77
31:AH:52:GLU:HG3	31:AH:58:LYS:HB3	1.67	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:109:MET:SD	11:AL:140:PHE:CD1	2.77	0.77
11:AL:97:ARG:O	11:AL:98:LYS:C	2.22	0.77
7:AM:85:LEU:HD22	7:AM:106:CYS:SG	2.25	0.77
7:AM:12:MET:CE	7:AM:120:ALA:CB	2.61	0.77
13:AP:44:ARG:NE	13:AP:84:ILE:CD1	2.14	0.77
8:AS:47:LYS:HZ2	8:AS:78:LYS:CB	1.93	0.77
8:AS:6:PRO:O	8:AS:7:GLU:HB2	1.84	0.77
3:AU:48:LEU:C	3:AU:49:LYS:HG3	2.05	0.77
17:AV:79:VAL:HG13	17:AV:80:SER:N	1.99	0.77
18:AY:122:LYS:HD2	18:AY:122:LYS:H	1.47	0.77
18:AY:36:PRO:HG2	18:AY:39:GLU:HB2	1.64	0.77
18:AY:55:ILE:CG1	18:AY:75:ILE:CG1	2.15	0.77
18:AY:33:ALA:HB2	36:B2:581:U:O2'	1.85	0.77
36:B2:841:G:O2'	36:B2:842:C:H5'	1.84	0.77
63:CB:10:ARG:HH11	63:CB:265:SER:HB2	1.48	0.77
63:CB:194:LEU:O	63:CB:198:ARG:CG	2.33	0.77
74:CC:28:PHE:CD1	74:CC:129:ALA:HA	2.20	0.77
81:CE:111:LYS:HB3	81:CE:113:PRO:CG	2.13	0.77
81:CE:212:LEU:CD1	81:CE:216:TYR:HD2	1.89	0.77
81:CE:78:SER:HA	81:CE:80:VAL:H	1.50	0.77
82:CG:159:HIS:CG	82:CG:185:LYS:HA	2.20	0.77
47:CI:105:CYS:C	47:CI:108:ALA:CB	2.53	0.77
42:CL:50:PRO:HD2	42:CL:51:ALA:CB	2.13	0.77
42:CL:62:PRO:HD3	42:CL:71:ARG:NH2	1.99	0.77
49:CQ:144:LYS:HE2	49:CQ:149:TYR:CZ	2.19	0.77
49:CQ:151:HIS:ND1	49:CQ:164:LYS:CB	2.44	0.77
49:CQ:27:LEU:HD22	74:CC:289:LEU:CD1	2.14	0.77
53:CT:13:TYR:N	53:CT:13:TYR:HD2	1.82	0.77
58:CW:80:ARG:HD2	58:CW:81:ALA:H	1.49	0.77
16:AA:66:VAL:CG1	16:AA:186:ARG:CB	2.63	0.77
31:AH:166:VAL:CG2	31:AH:173:PHE:CE2	2.67	0.77
5:AO:99:ALA:N	5:AO:133:THR:CG2	2.38	0.77
34:AQ:127:CYS:HA	36:B2:1648:G:H2'	1.65	0.77
12:AR:99:ASP:O	12:AR:119:VAL:CG2	2.32	0.77
14:AT:101:ARG:NH1	36:B2:1565:C:C5	2.53	0.77
27:AE:19:MET:HE1	36:B2:846:G:C2'	2.13	0.77
51:CA:104:VAL:HG13	51:CA:107:MET:HE1	1.66	0.77
74:CC:104:PRO:HD2	74:CC:104:PRO:O	1.84	0.77
64:CF:161:LYS:CG	64:CF:209:TRP:CZ3	2.64	0.77
80:CH:4:ILE:O	80:CH:4:ILE:CG2	4.27	0.77
42:CL:29:PRO:HD2	42:CL:30:ALA:H	1.50	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:39:ALA:HB3	46:CN:61:ILE:HG13	1.66	0.77
41:CO:12:ARG:CB	41:CO:37:ARG:NH1	2.47	0.77
54:CP:91:LEU:HD12	54:CP:92:LEU:N	1.99	0.77
50:CR:28:GLU:OE1	50:CR:28:GLU:CA	3.27	0.77
55:CU:60:VAL:CA	55:CU:75:GLU:HG3	2.15	0.77
58:CW:12:LYS:CE	63:CB:388:PHE:CD2	2.68	0.77
26:AJ:180:LYS:C	26:AJ:180:LYS:CD	2.50	0.77
11:AL:10:TYR:CE2	11:AL:12:LYS:CE	2.67	0.77
11:AL:5:GLN:NE2	11:AL:10:TYR:CD1	2.52	0.77
8:AS:16:LEU:C	8:AS:17:ASN:CG	2.43	0.77
8:AS:33:ILE:O	8:AS:36:VAL:HG13	1.85	0.77
14:AT:18:LEU:HB2	14:AT:134:ILE:CD1	2.15	0.77
16:AA:185:MET:HE2	17:AV:39:VAL:HG12	1.64	0.77
6:AX:29:LYS:CE	6:AX:34:THR:HG21	2.14	0.77
63:CB:51:ALA:C	63:CB:78:ILE:HD11	2.02	0.77
74:CC:11:TYR:HE1	74:CC:16:GLU:O	1.68	0.77
49:CQ:38:ARG:CB	74:CC:302:LEU:HD22	2.14	0.77
47:CI:52:MET:HE1	47:CI:152:LEU:O	1.85	0.77
40:CK:39:PRO:O	40:CK:40:LYS:CG	2.32	0.77
46:CN:75:VAL:CB	46:CN:76:PRO:HD2	2.13	0.77
46:CN:7:ILE:HB	46:CN:46:ASP:CG	2.02	0.77
49:CQ:39:THR:HG22	49:CQ:41:SER:HB3	1.65	0.77
50:CR:3:MET:CG	50:CR:3:MET:O	2.30	0.77
53:CT:19:PHE:CD2	53:CT:20:ARG:HG3	2.19	0.77
59:CZ:33:THR:HG21	59:CZ:40:HIS:NE2	1.98	0.77
12:AR:85:VAL:HG22	16:AA:201:LEU:HA	1.65	0.76
28:AC:259:THR:CG2	28:AC:261:PHE:CD2	2.65	0.76
23:AD:132:LYS:H	23:AD:191:PRO:CD	1.88	0.76
23:AD:200:PRO:O	23:AD:201:LYS:CG	2.32	0.76
27:AE:180:LEU:HD13	27:AE:228:ILE:CG1	2.15	0.76
29:AG:181:THR:CB	29:AG:182:PRO:HD2	2.13	0.76
31:AH:169:LYS:CB	31:AH:173:PHE:CE2	2.68	0.76
33:AI:25:ARG:NE	33:AI:27:TYR:HE2	1.83	0.76
33:AI:97:VAL:HG22	33:AI:100:CYS:SG	2.25	0.76
26:AJ:39:ASN:N	26:AJ:42:GLU:HG2	2.00	0.76
10:AN:80:LEU:C	10:AN:82:PRO:HD3	2.05	0.76
34:AQ:6:PRO:CG	34:AQ:6:PRO:O	2.29	0.76
12:AR:97:GLU:HA	12:AR:116:ASN:HB2	1.67	0.76
14:AT:76:THR:OG1	14:AT:94:ARG:HB3	1.83	0.76
3:AU:102:THR:O	3:AU:104:ILE:O	2.03	0.76
18:AY:102:THR:HG21	18:AY:107:ARG:CZ	2.12	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AY:52:PRO:HD2	18:AY:53:ASP:N	2.00	0.76
36:B2:1195:A:H2'	36:B2:1196:A:H8	1.49	0.76
63:CB:154:LYS:C	63:CB:154:LYS:CD	2.52	0.76
63:CB:352:LEU:HD23	63:CB:353:VAL:O	1.84	0.76
48:CD:122:GLN:NE2	48:CD:125:VAL:HA	1.99	0.76
48:CD:129:GLU:OE2	48:CD:177:THR:HG22	1.85	0.76
82:CG:51:LEU:O	82:CG:53:ARG:N	2.18	0.76
80:CH:118:LEU:CD2	80:CH:177:ASP:OD2	2.32	0.76
79:CJ:146:ARG:NH2	79:CJ:147:ARG:NE	2.32	0.76
79:CJ:165:TRP:CH2	79:CJ:169:LYS:HE3	2.20	0.76
41:CO:82:ARG:HA	41:CO:85:ARG:HD3	1.66	0.76
49:CQ:5:ILE:HG22	49:CQ:7:HIS:H	1.49	0.76
55:CU:91:LEU:CD2	55:CU:96:LEU:CB	2.56	0.76
57:CY:110:LYS:CG	57:CY:115:ARG:HH12	1.96	0.76
59:CZ:92:ASP:HA	59:CZ:117:LYS:HZ1	1.48	0.76
5:AO:17:LEU:HD21	15:AB:30:TRP:HE1	1.49	0.76
28:AC:102:LEU:HD21	28:AC:130:ILE:CG2	2.09	0.76
16:AA:120:ARG:CG	28:AC:266:TYR:HE2	1.98	0.76
31:AH:10:LYS:N	31:AH:11:PRO:CD	2.47	0.76
31:AH:8:ILE:HG23	31:AH:9:VAL:H	1.50	0.76
11:AL:1:MET:O	11:AL:2:ALA:HB3	1.84	0.76
13:AP:5:GLU:O	13:AP:6:GLN:CB	2.33	0.76
12:AR:1:MET:N	12:AR:1:MET:O	2.14	0.76
18:AY:62:THR:CG2	18:AY:69:THR:HG22	2.13	0.76
51:CA:139:HIS:CE1	51:CA:146:THR:CG2	2.67	0.76
51:CA:8:GLN:NE2	51:CA:231:ALA:HB1	2.00	0.76
63:CB:194:LEU:O	63:CB:198:ARG:HG3	1.86	0.76
74:CC:290:SER:O	74:CC:294:LYS:HD2	1.84	0.76
48:CD:118:ILE:CG2	48:CD:135:ILE:CD1	2.63	0.76
47:CI:61:SER:HA	47:CI:126:VAL:HG22	1.66	0.76
40:CK:10:ILE:CG1	40:CK:67:ARG:CA	2.49	0.76
40:CK:141:CYS:O	40:CK:142:ASN:CB	2.32	0.76
41:CO:18:ARG:N	41:CO:18:ARG:HD2	2.00	0.76
52:CS:17:LEU:HD21	52:CS:58:SER:HA	1.67	0.76
53:CT:135:PRO:HG2	53:CT:136:ARG:N	1.97	0.76
53:CT:145:GLY:C	53:CT:146:LYS:CG	2.51	0.76
59:CZ:13:VAL:HA	59:CZ:80:LEU:CD2	2.16	0.76
59:CZ:15:ALA:CA	59:CZ:19:SER:HB3	2.15	0.76
59:CZ:7:PRO:CD	59:CZ:8:GLY:H	1.94	0.76
16:AA:39:TYR:CA	16:AA:50:ASN:ND2	2.47	0.76
28:AC:65:LYS:HB2	28:AC:273:LEU:HB3	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:65:PRO:CD	31:AH:68:GLN:OE1	2.28	0.76
34:AQ:19:ALA:CB	34:AQ:74:GLY:C	2.52	0.76
3:AU:50:VAL:CG2	3:AU:52:GLY:CA	2.58	0.76
16:AA:141:ASN:HD21	17:AV:29:HIS:HB3	1.49	0.76
32:AW:38:LEU:HA	32:AW:41:MET:HE2	1.65	0.76
63:CB:163:ILE:O	63:CB:163:ILE:CG2	2.33	0.76
63:CB:300:LYS:O	63:CB:301:ASN:CG	2.23	0.76
74:CC:144:ILE:HG22	74:CC:144:ILE:O	1.84	0.76
48:CD:51:MET:CE	48:CD:173:ILE:HG12	2.15	0.76
81:CE:179:LEU:HG	81:CE:247:LYS:NZ	2.00	0.76
81:CE:282:TYR:CB	81:CE:283:PRO:HD2	2.15	0.76
81:CE:54:ILE:CG2	81:CE:55:GLY:H	1.98	0.76
47:CI:168:SER:C	47:CI:169:LYS:HD2	2.06	0.76
53:CT:2:THR:O	53:CT:2:THR:CG2	2.30	0.76
55:CU:60:VAL:C	55:CU:75:GLU:H	1.88	0.76
15:AB:59:SER:H	82:CG:264:LYS:HE2	1.50	0.76
23:AD:74:GLN:NE2	23:AD:75:LYS:HE2	1.99	0.76
23:AD:45:ARG:HA	23:AD:83:SER:OG	1.86	0.76
34:AQ:44:PRO:HG2	34:AQ:81:ILE:CD1	2.10	0.76
34:AQ:78:VAL:CG1	34:AQ:82:TYR:CE2	2.68	0.76
8:AS:58:GLU:O	8:AS:59:LEU:CD1	2.32	0.76
18:AY:117:VAL:HG21	18:AY:124:ASN:OD1	1.85	0.76
18:AY:99:LYS:CE	18:AY:99:LYS:C	2.54	0.76
63:CB:142:GLY:N	63:CB:147:GLU:OE1	2.18	0.76
49:CQ:24:TYR:CB	74:CC:283:LYS:CD	2.63	0.76
74:CC:47:ASN:HA	74:CC:112:HIS:ND1	2.01	0.76
81:CE:85:LYS:O	81:CE:86:GLU:HB2	1.86	0.76
64:CF:137:GLU:HB2	64:CF:138:PRO:HD3	1.65	0.76
82:CG:138:ALA:O	82:CG:143:VAL:HG23	1.85	0.76
47:CI:175:LYS:HB2	47:CI:176:PHE:CZ	2.21	0.76
44:CM:127:VAL:CB	44:CM:128:LYS:O	6.21	0.76
49:CQ:187:LYS:HE2	49:CQ:188:ASN:HB2	1.68	0.76
50:CR:105:LEU:HD21	50:CR:109:TYR:CE1	2.20	0.76
56:CX:120:ASP:O	56:CX:121:VAL:HG22	1.84	0.76
59:CZ:73:LYS:HG3	59:CZ:75:TYR:CD1	2.18	0.76
16:AA:158:ASP:HB3	17:AV:65:SER:CB	2.15	0.76
15:AB:146:ARG:O	15:AB:147:ASN:C	2.20	0.76
28:AC:213:LEU:HD11	28:AC:241:PHE:HD1	1.50	0.76
23:AD:175:VAL:CG1	23:AD:182:LEU:HB2	2.16	0.76
23:AD:21:LEU:HD13	23:AD:48:ILE:CD1	2.16	0.76
27:AE:184:THR:C	27:AE:189:LEU:HD13	2.06	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AI:202:ILE:O	33:AI:206:LYS:HB3	1.85	0.76
34:AQ:138:ARG:CG	36:B2:1649:U:H4'	2.16	0.76
34:AQ:47:LEU:HD23	34:AQ:81:ILE:HD13	1.64	0.76
32:AW:6:VAL:HG12	32:AW:34:ILE:HD11	1.68	0.76
6:AX:133:LEU:CD2	6:AX:139:GLU:O	2.33	0.76
19:AZ:58:LEU:HD23	19:AZ:77:LEU:HD11	1.66	0.76
36:B2:191:A:H2'	36:B2:192:C:OP1	1.84	0.76
74:CC:213:GLU:N	74:CC:214:ASP:CB	2.36	0.76
74:CC:211:TYR:OH	74:CC:218:ILE:HG13	1.85	0.76
81:CE:116:TYR:N	81:CE:117:PRO:HD2	2.01	0.76
81:CE:215:ALA:O	81:CE:218:LYS:CG	2.34	0.76
40:CK:62:LEU:CD1	40:CK:73:VAL:CB	2.56	0.76
42:CL:19:GLN:NE2	74:CC:108:TRP:HH2	1.82	0.76
54:CP:86:LYS:HD3	54:CP:90:PHE:CE2	2.20	0.76
53:CT:29:THR:C	53:CT:30:TYR:CD2	2.56	0.76
55:CU:59:GLY:O	55:CU:61:VAL:CB	2.33	0.76
58:CW:110:ARG:HE	58:CW:113:LYS:HZ1	1.32	0.76
59:CZ:95:VAL:HG21	59:CZ:113:GLU:OE1	1.85	0.76
64:CF:41:MET:HE3	85:A5:2121:C:C5'	2.15	0.76
15:AB:26:SER:O	15:AB:27:LYS:CG	2.28	0.76
15:AB:31:TYR:HD1	15:AB:94:LYS:CA	1.99	0.76
15:AB:81:PHE:O	15:AB:82:ARG:HB2	1.84	0.76
15:AB:66:VAL:HG22	15:AB:87:ILE:HG22	0.77	0.76
23:AD:70:THR:CG2	23:AD:86:LEU:HB2	2.16	0.76
23:AD:70:THR:HG22	23:AD:86:LEU:CB	2.15	0.76
11:AL:22:ARG:HD3	33:AI:157:LYS:HB2	0.82	0.76
26:AJ:66:LYS:CA	26:AJ:71:LEU:HD11	2.15	0.76
8:AS:119:ALA:HA	13:AP:118:GLU:O	1.86	0.76
13:AP:127:LYS:NZ	13:AP:128:HIS:N	2.33	0.76
32:AW:90:GLN:CA	32:AW:102:ILE:CD1	2.64	0.76
63:CB:116:ARG:HD2	63:CB:122:TRP:CB	2.16	0.76
81:CE:71:ARG:O	81:CE:72:LYS:CG	2.33	0.76
82:CG:71:TYR:CD2	82:CG:72:LYS:N	2.54	0.76
79:CJ:9:GLU:O	79:CJ:10:ASN:CB	2.33	0.76
49:CQ:172:ARG:O	49:CQ:173:LYS:CB	2.34	0.76
49:CQ:95:VAL:CG2	49:CQ:116:ALA:HB3	2.16	0.76
43:CV:88:TYR:OH	43:CV:90:ARG:HG3	1.85	0.76
58:CW:110:ARG:CD	58:CW:110:ARG:N	2.48	0.76
56:CX:41:ARG:HH11	82:CG:55:VAL:CG1	1.94	0.76
59:CZ:46:ILE:HG22	59:CZ:68:ILE:HD11	1.67	0.76
15:AB:120:MET:HE3	15:AB:142:PHE:HZ	1.51	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AC:170:TRP:CZ2	32:AW:97:ARG:HD3	2.18	0.76
28:AC:71:LYS:HD2	28:AC:72:ASP:OD1	1.85	0.76
27:AE:49:ARG:HD3	27:AE:50:ASN:N	2.00	0.76
29:AG:63:MET:HE3	29:AG:106:LEU:HD13	1.67	0.76
26:AJ:170:PRO:HA	26:AJ:174:LYS:HZ3	1.46	0.76
26:AJ:39:ASN:O	26:AJ:42:GLU:HB2	1.84	0.76
13:AP:127:LYS:HZ1	13:AP:127:LYS:CA	1.97	0.76
32:AW:93:LEU:HD21	32:AW:128:PHE:CE2	2.20	0.76
18:AY:120:THR:CG2	18:AY:122:LYS:HE2	2.14	0.76
18:AY:62:THR:HA	18:AY:69:THR:HG22	1.68	0.76
51:CA:242:ARG:HG2	51:CA:243:THR:H	1.50	0.76
63:CB:116:ARG:HH11	63:CB:122:TRP:HB3	1.49	0.76
46:CN:202:ARG:O	74:CC:112:HIS:HB2	1.86	0.76
81:CE:44:CYS:O	81:CE:45:SER:CB	2.33	0.76
47:CI:13:LYS:HG3	47:CI:13:LYS:O	4.84	0.76
79:CJ:17:ILE:HD13	79:CJ:83:LEU:HD11	1.65	0.76
40:CK:52:ASP:O	40:CK:54:LYS:C	2.23	0.76
40:CK:96:LYS:C	40:CK:98:ILE:HG12	2.05	0.76
42:CL:136:LYS:N	42:CL:137:GLY:CA	2.44	0.76
44:CM:65:PRO:CG	44:CM:65:PRO:O	2.30	0.76
46:CN:180:PHE:HB3	46:CN:184:ILE:HD12	1.60	0.76
54:CP:86:LYS:HD3	54:CP:90:PHE:HE2	1.51	0.76
49:CQ:187:LYS:NZ	49:CQ:188:ASN:ND2	2.30	0.76
50:CR:133:LYS:CD	50:CR:137:ILE:CB	2.61	0.76
53:CT:4:THR:HG22	53:CT:9:ARG:CD	2.14	0.76
43:CV:88:TYR:CE2	43:CV:96:LEU:HD21	2.20	0.76
58:CW:87:LEU:CA	58:CW:90:ILE:CG1	2.60	0.76
85:A5:4910:G:O2'	85:A5:4911:A:H2'	1.84	0.76
16:AA:24:HIS:O	16:AA:25:LEU:C	2.24	0.76
15:AB:149:GLN:NE2	15:AB:151:ARG:HG2	2.00	0.76
15:AB:57:ILE:O	15:AB:59:SER:N	2.18	0.76
27:AE:139:LEU:HG	27:AE:150:PRO:HG3	1.67	0.76
27:AE:166:THR:OG1	27:AE:168:LYS:HG3	1.86	0.76
29:AG:64:LYS:CD	29:AG:64:LYS:O	2.33	0.76
33:AI:141:ARG:HB2	33:AI:144:LYS:N	2.00	0.76
4:AK:83:LEU:O	4:AK:84:HIS:CB	2.34	0.76
5:AO:34:PHE:CZ	5:AO:100:THR:HA	2.20	0.76
13:AP:49:LEU:C	13:AP:50:ARG:HG3	2.06	0.76
13:AP:4:VAL:CA	13:AP:10:ARG:CG	2.60	0.76
34:AQ:19:ALA:HB2	34:AQ:75:GLY:HA3	1.68	0.76
8:AS:120:HIS:CE1	8:AS:124:ARG:HH21	2.01	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AT:77:LYS:HD2	14:AT:94:ARG:NH1	2.00	0.76
51:CA:120:PRO:HG3	51:CA:162:ASN:OD1	1.86	0.76
63:CB:36:ASP:OD1	63:CB:37:PRO:CD	4.54	0.76
81:CE:56:ARG:CG	81:CE:65:ARG:NH1	2.40	0.76
44:CM:31:ILE:CG2	44:CM:35:ARG:HD3	2.16	0.76
49:CQ:28:LEU:HD12	49:CQ:29:VAL:N	2.01	0.76
52:CS:162:GLN:CA	52:CS:162:GLN:NE2	2.49	0.76
52:CS:90:THR:HG23	53:CT:156:TYR:CD2	2.21	0.76
53:CT:36:LYS:HD3	53:CT:36:LYS:C	2.06	0.76
55:CU:21:PHE:CD1	55:CU:80:LYS:HG3	2.20	0.76
58:CW:63:GLN:CG	58:CW:64:SER:H	1.91	0.76
58:CW:76:VAL:O	58:CW:77:LYS:HD3	1.85	0.76
56:CX:114:LYS:CG	56:CX:120:ASP:OD1	2.33	0.76
15:AB:123:ALA:HB2	15:AB:165:ARG:HG2	1.67	0.76
29:AG:157:VAL:HG22	29:AG:158:VAL:H	1.50	0.76
33:AI:112:TRP:HH2	33:AI:117:TYR:OH	1.68	0.76
11:AL:5:GLN:HG3	33:AI:197:PHE:HE2	1.47	0.76
26:AJ:46:VAL:HG11	26:AJ:102:ILE:HG23	1.68	0.76
11:AL:80:MET:HE3	11:AL:121:GLN:CA	2.11	0.76
13:AP:107:ILE:HB	13:AP:111:MET:SD	2.26	0.76
34:AQ:32:ILE:O	34:AQ:39:LEU:HG	1.85	0.76
6:AX:95:GLU:CG	6:AX:140:ARG:NH2	2.48	0.76
19:AZ:91:LEU:CD2	19:AZ:96:LEU:HD12	2.16	0.76
51:CA:4:VAL:HG13	51:CA:8:GLN:OE1	1.86	0.76
74:CC:143:ARG:CZ	74:CC:182:LYS:HD3	2.16	0.76
74:CC:209:ILE:O	74:CC:229:LEU:HA	1.86	0.76
74:CC:22:VAL:HG12	74:CC:22:VAL:O	1.86	0.76
81:CE:106:VAL:HG23	81:CE:107:VAL:CG2	2.16	0.76
40:CK:114:ARG:CD	40:CK:130:LYS:CA	2.63	0.76
40:CK:107:ASP:CG	40:CK:143:VAL:CG1	2.52	0.76
46:CN:44:ARG:CG	46:CN:119:TYR:HE1	1.97	0.76
49:CQ:150:ARG:CG	49:CQ:164:LYS:HG3	2.16	0.76
49:CQ:154:LYS:HE2	49:CQ:155:ALA:O	1.86	0.76
55:CU:115:PHE:O	55:CU:116:GLN:CG	2.30	0.76
29:AG:129:VAL:N	58:CW:80:ARG:HH11	1.84	0.76
15:AB:105:LEU:CD1	15:AB:213:ARG:HB2	2.09	0.76
15:AB:137:LEU:CD2	15:AB:215:VAL:CB	2.63	0.76
27:AE:126:VAL:CG2	27:AE:156:VAL:HA	2.16	0.76
31:AH:122:LEU:HD12	31:AH:123:THR:N	2.00	0.76
31:AH:145:ARG:CD	32:AW:51:GLU:CG	2.60	0.76
10:AN:16:LEU:HD21	10:AN:62:GLN:NE2	2.01	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AA:5:LEU:HB2	17:AV:41:LYS:CE	2.14	0.76
6:AX:138:LYS:C	6:AX:139:GLU:CD	2.43	0.76
18:AY:29:HIS:HD1	18:AY:67:GLY:C	1.87	0.76
64:CF:242:ARG:O	64:CF:246:ARG:HG3	1.86	0.76
64:CF:95:ILE:CD1	64:CF:96:ARG:CG	2.64	0.76
82:CG:31:LEU:HD13	82:CG:31:LEU:N	2.01	0.76
82:CG:75:LYS:HZ2	82:CG:240:ASN:HD22	0.76	0.76
40:CK:131:GLU:CD	40:CK:155:ILE:HD12	2.05	0.76
40:CK:32:ILE:C	40:CK:34:PRO:HD3	2.07	0.76
40:CK:47:ALA:CA	40:CK:72:GLU:HG2	2.16	0.76
41:CO:131:PRO:HG2	52:CS:156:HIS:CD2	2.17	0.76
49:CQ:50:ARG:O	49:CQ:53:MET:CG	2.34	0.76
52:CS:2:LYS:HE3	52:CS:43:ARG:HG2	1.67	0.76
53:CT:11:THR:CB	53:CT:15:PHE:CD2	2.68	0.76
53:CT:33:ILE:CD1	53:CT:33:ILE:N	2.36	0.76
57:CY:42:TYR:CE1	57:CY:119:LEU:CD2	2.67	0.76
12:AR:108:LEU:HB2	16:AA:39:TYR:OH	1.84	0.75
29:AG:181:THR:CB	29:AG:182:PRO:CD	2.63	0.75
18:AY:118:ARG:CZ	29:AG:85:ARG:HD3	2.16	0.75
33:AI:8:TRP:HZ3	33:AI:20:PRO:HA	1.51	0.75
11:AL:5:GLN:O	11:AL:7:GLU:N	2.19	0.75
14:AT:143:LYS:CD	14:AT:144:LYS:H	1.95	0.75
16:AA:154:LEU:HD12	17:AV:63:GLY:CA	2.16	0.75
16:AA:158:ASP:HB3	17:AV:65:SER:HB2	1.68	0.75
19:AZ:103:HIS:NE2	19:AZ:105:ALA:HB3	2.00	0.75
19:AZ:62:VAL:CG1	19:AZ:68:ILE:CD1	2.61	0.75
74:CC:158:VAL:HA	74:CC:161:TYR:HD2	1.51	0.75
74:CC:90:GLY:HA2	74:CC:96:CYS:HB3	1.68	0.75
64:CF:162:ILE:HD13	64:CF:177:ARG:NH2	2.01	0.75
64:CF:182:TYR:HB3	64:CF:200:ARG:HG2	1.67	0.75
82:CG:260:GLU:O	82:CG:263:THR:HG22	1.86	0.75
47:CI:175:LYS:N	47:CI:176:PHE:CD2	2.53	0.75
47:CI:206:LEU:CB	47:CI:206:LEU:O	2.34	0.75
79:CJ:128:LEU:HD12	79:CJ:130:PHE:HD2	1.49	0.75
79:CJ:128:LEU:HD11	79:CJ:130:PHE:HE2	0.87	0.75
40:CK:48:LYS:HG2	40:CK:52:ASP:OD1	1.86	0.75
41:CO:192:TYR:HD2	44:CM:122:ILE:CG1	2.00	0.75
44:CM:12:VAL:HG22	44:CM:58:THR:HG1	1.47	0.75
44:CM:41:PRO:CD	44:CM:73:VAL:HG21	2.14	0.75
46:CN:115:VAL:HA	46:CN:134:LEU:HD22	1.62	0.75
49:CQ:154:LYS:HB3	49:CQ:163:THR:HG23	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:154:LYS:NZ	49:CQ:163:THR:HG21	2.00	0.75
56:CX:39:LYS:HD2	56:CX:40:ILE:O	1.85	0.75
57:CY:110:LYS:C	57:CY:110:LYS:HD3	2.05	0.75
59:CZ:57:MET:HE2	59:CZ:61:LYS:HB3	1.68	0.75
12:AR:85:VAL:HG12	16:AA:198:MET:HB2	1.69	0.75
29:AG:213:LEU:O	29:AG:217:MET:CG	2.32	0.75
26:AJ:94:LEU:HD12	26:AJ:95:ASP:N	2.00	0.75
11:AL:134:LEU:O	11:AL:134:LEU:HD23	1.87	0.75
11:AL:17:PHE:CD1	11:AL:18:GLN:HB2	2.21	0.75
10:AN:115:LEU:O	10:AN:119:GLU:HG3	1.84	0.75
10:AN:16:LEU:CD2	10:AN:17:PRO:HD2	2.15	0.75
13:AP:10:ARG:NE	13:AP:11:THR:HB	2.01	0.75
18:AY:29:HIS:HE1	18:AY:67:GLY:C	1.57	0.75
19:AZ:92:LEU:HD11	19:AZ:109:TYR:CZ	2.20	0.75
48:CD:270:LYS:O	48:CD:271:MET:CB	2.33	0.75
80:CH:53:LYS:O	80:CH:54:ARG:HG3	1.86	0.75
44:CM:33:GLN:OE1	80:CH:61:TRP:CG	2.39	0.75
40:CK:159:ALA:O	40:CK:163:PRO:CD	2.34	0.75
50:CR:133:LYS:HD2	50:CR:137:ILE:CB	2.14	0.75
50:CR:133:LYS:HD2	50:CR:137:ILE:HD12	1.69	0.75
58:CW:106:GLU:CB	58:CW:110:ARG:HH12	1.98	0.75
57:CY:104:VAL:HG12	57:CY:105:VAL:N	1.99	0.75
57:CY:22:PRO:HG2	57:CY:25:ILE:HG13	1.68	0.75
23:AD:188:ILE:HG22	23:AD:190:LEU:HD22	1.68	0.75
23:AD:212:GLU:O	23:AD:213:PRO:C	2.25	0.75
31:AH:6:ALA:O	31:AH:10:LYS:HG3	1.86	0.75
33:AI:29:LEU:HG	33:AI:30:GLY:N	2.01	0.75
4:AK:84:HIS:CD2	7:AM:27:ILE:HD11	2.21	0.75
10:AN:92:ILE:HG22	10:AN:150:VAL:HG21	1.69	0.75
5:AO:19:PRO:CD	5:AO:27:VAL:HG21	2.12	0.75
13:AP:77:LYS:O	13:AP:78:THR:HG23	1.85	0.75
34:AQ:85:ARG:O	34:AQ:88:ILE:HG12	1.86	0.75
12:AR:20:TYR:CE2	12:AR:38:ILE:HD13	2.22	0.75
12:AR:13:ALA:HB1	12:AR:54:VAL:HG22	1.67	0.75
19:AZ:48:VAL:HG21	19:AZ:80:ARG:HD3	1.65	0.75
51:CA:209:HIS:NE2	51:CA:235:VAL:HG11	1.97	0.75
81:CE:44:CYS:HB2	81:CE:54:ILE:HD11	1.67	0.75
81:CE:46:ARG:CD	81:CE:47:ASN:N	2.45	0.75
64:CF:105:VAL:HG11	64:CF:139:TYR:CD2	2.20	0.75
82:CG:255:LYS:CE	82:CG:259:LYS:HE3	2.15	0.75
80:CH:4:ILE:HG23	80:CH:5:LEU:N	2.01	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:CH:49:GLY:CA	80:CH:50:LYS:HZ2	1.83	0.75
47:CI:38:ARG:HG3	47:CI:83:ASP:CB	2.15	0.75
79:CJ:26:VAL:CG1	79:CJ:33:LEU:HD21	2.16	0.75
40:CK:53:TRP:O	40:CK:54:LYS:O	2.04	0.75
44:CM:107:PHE:HD1	81:CE:270:TYR:CD2	2.03	0.75
44:CM:113:MET:HE1	44:CM:117:LYS:HG3	1.68	0.75
46:CN:65:ARG:HG2	46:CN:129:PHE:CD1	2.22	0.75
52:CS:36:ASN:O	52:CS:39:VAL:HG22	1.86	0.75
28:AC:268:GLU:HG3	28:AC:269:PHE:CD2	2.21	0.75
23:AD:123:LEU:CD2	23:AD:154:ASP:CB	2.54	0.75
23:AD:200:PRO:O	23:AD:201:LYS:CB	2.34	0.75
10:AN:23:PRO:HD2	10:AN:26:LEU:CD2	2.16	0.75
13:AP:69:PRO:HD2	13:AP:70:MET:N	2.01	0.75
17:AV:53:TYR:CE2	17:AV:72:LEU:HB3	2.20	0.75
28:AC:256:TRP:CD2	32:AW:68:ARG:CD	2.69	0.75
51:CA:103:PRO:HG2	51:CA:106:THR:HG23	1.68	0.75
63:CB:153:MET:SD	63:CB:160:ILE:HG13	2.24	0.75
63:CB:80:GLU:CD	63:CB:171:LEU:HD13	2.06	0.75
81:CE:153:LEU:HD12	81:CE:193:PHE:O	1.86	0.75
82:CG:163:PRO:HB2	82:CG:166:LEU:CD1	2.17	0.75
47:CI:106:ALA:C	47:CI:108:ALA:CA	2.54	0.75
47:CI:12:CYS:SG	47:CI:57:TYR:OH	2.43	0.75
47:CI:156:LYS:HG2	47:CI:163:GLN:NE2	2.02	0.75
47:CI:175:LYS:CB	47:CI:176:PHE:CE1	2.60	0.75
46:CN:136:ASP:HB2	46:CN:139:HIS:HD2	1.48	0.75
52:CS:11:LYS:HG2	52:CS:11:LYS:O	1.86	0.75
56:CX:64:SER:OG	56:CX:65:ALA:N	2.16	0.75
59:CZ:53:VAL:HG22	59:CZ:54:THR:H	1.52	0.75
16:AA:11:LYS:CD	16:AA:13:GLU:CG	2.62	0.75
16:AA:147:LEU:HD22	16:AA:163:CYS:SG	2.27	0.75
28:AC:207:ALA:O	28:AC:210:PRO:HG2	1.86	0.75
3:AU:61:LEU:CD2	23:AD:34:TYR:CE2	26.69	0.75
30:AF:15:PRO:HD3	34:AQ:56:LEU:HB3	1.66	0.75
26:AJ:17:ARG:HG2	26:AJ:18:ARG:HD3	0.75	0.75
11:AL:17:PHE:CD1	11:AL:18:GLN:N	2.54	0.75
5:AO:20:GLN:CG	5:AO:21:VAL:O	2.33	0.75
8:AS:34:LYS:HB3	8:AS:103:LEU:CG	2.11	0.75
16:AA:185:MET:SD	17:AV:44:GLY:HA2	2.25	0.75
6:AX:142:ARG:HH11	6:AX:142:ARG:HG3	1.49	0.75
36:B2:1433:C:O2'	36:B2:1434:C:H5'	1.87	0.75
74:CC:273:LEU:O	74:CC:273:LEU:CD1	2.30	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:122:TYR:CE1	74:CC:280:PRO:CG	2.69	0.75
74:CC:309:ILE:CG2	74:CC:310:HIS:N	2.34	0.75
48:CD:22:ARG:CG	48:CD:28:THR:OG1	2.27	0.75
81:CE:106:VAL:CG2	81:CE:107:VAL:CG1	2.63	0.75
81:CE:212:LEU:HG	81:CE:216:TYR:CB	2.17	0.75
47:CI:99:ILE:CD1	47:CI:123:GLN:CD	2.54	0.75
79:CJ:163:MET:HB3	79:CJ:174:ILE:HD11	1.68	0.75
79:CJ:174:ILE:HG22	79:CJ:175:LEU:N	2.01	0.75
40:CK:107:ASP:OD1	40:CK:143:VAL:CB	2.34	0.75
40:CK:141:CYS:O	40:CK:147:HIS:O	2.04	0.75
42:CL:26:PHE:C	42:CL:29:PRO:HD3	2.05	0.75
44:CM:80:ALA:HB3	44:CM:82:ILE:HD13	1.68	0.75
41:CO:22:ILE:CG2	52:CS:166:ARG:HG3	2.15	0.75
54:CP:48:LEU:HD11	54:CP:91:LEU:CD1	2.16	0.75
44:CM:35:ARG:HH22	52:CS:108:GLN:HE21	0.75	0.75
56:CX:119:ILE:HD11	56:CX:140:LEU:HD22	0.76	0.75
56:CX:120:ASP:C	56:CX:121:VAL:HG23	2.06	0.75
57:CY:47:MET:HE3	57:CY:48:PRO:HD3	1.67	0.75
12:AR:83:ASN:O	16:AA:201:LEU:HD13	1.87	0.75
28:AC:192:LEU:CD2	28:AC:227:ARG:CG	2.61	0.75
23:AD:197:LYS:H	23:AD:199:GLY:N	1.82	0.75
27:AE:99:PHE:CD1	27:AE:113:ARG:HG3	2.19	0.75
27:AE:31:PRO:HG2	27:AE:38:LEU:HD13	1.69	0.75
30:AF:14:THR:HG23	30:AF:15:PRO:CD	2.16	0.75
29:AG:179:LEU:C	29:AG:179:LEU:HD12	2.07	0.75
31:AH:80:VAL:HA	31:AH:83:LEU:CD2	2.17	0.75
26:AJ:61:LEU:CD1	26:AJ:94:LEU:CD1	2.61	0.75
7:AM:124:ILE:CA	7:AM:127:TYR:HD2	1.97	0.75
13:AP:128:HIS:CE1	36:B2:1521:C:C1'	2.63	0.75
6:AX:115:ILE:CG2	6:AX:115:ILE:O	2.29	0.75
63:CB:10:ARG:NE	63:CB:14:LEU:HD11	2.01	0.75
63:CB:52:GLY:C	63:CB:78:ILE:HG12	2.06	0.75
74:CC:144:ILE:CG2	74:CC:147:VAL:HB	2.16	0.75
80:CH:52:LYS:O	80:CH:53:LYS:CB	2.32	0.75
80:CH:93:ARG:HH11	80:CH:93:ARG:HG3	1.52	0.75
46:CN:65:ARG:HD3	46:CN:129:PHE:HE1	1.51	0.75
49:CQ:81:VAL:HB	49:CQ:138:LEU:HD23	1.68	0.75
49:CQ:187:LYS:HE2	49:CQ:188:ASN:CB	2.17	0.75
49:CQ:50:ARG:O	49:CQ:53:MET:HG3	1.87	0.75
49:CQ:67:ILE:CD1	49:CQ:96:PRO:HD2	2.15	0.75
50:CR:176:ARG:O	50:CR:180:LYS:HE2	1.86	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CS:30:MET:CE	52:CS:47:PHE:CG	2.69	0.75
58:CW:86:SER:OG	58:CW:89:ASP:CG	2.23	0.75
57:CY:100:HIS:HD2	57:CY:102:SER:OG	1.70	0.75
59:CZ:13:VAL:HG22	59:CZ:80:LEU:HD21	1.68	0.75
59:CZ:5:MET:O	59:CZ:6:LYS:CG	2.34	0.75
15:AB:72:ALA:HA	15:AB:79:VAL:HG23	1.61	0.75
30:AF:187:SER:O	30:AF:190:ILE:HG22	1.85	0.75
29:AG:16:ILE:HG21	29:AG:45:TRP:CZ2	2.22	0.75
29:AG:210:ALA:O	29:AG:213:LEU:CG	2.35	0.75
29:AG:77:LEU:O	29:AG:92:ARG:HG3	1.86	0.75
26:AJ:155:LYS:HE3	26:AJ:156:HIS:CE1	2.22	0.75
13:AP:107:ILE:CB	13:AP:111:MET:SD	2.74	0.75
13:AP:86:LEU:HD23	13:AP:86:LEU:N	2.01	0.75
34:AQ:50:LYS:HZ3	34:AQ:117:ARG:NH1	1.85	0.75
8:AS:34:LYS:CA	8:AS:103:LEU:HD21	2.15	0.75
14:AT:39:LEU:HD11	14:AT:56:ARG:NH2	2.01	0.75
14:AT:90:SER:C	14:AT:91:HIS:CD2	2.59	0.75
3:AU:19:ARG:O	3:AU:116:ILE:O	2.04	0.75
6:AX:52:LEU:HD11	6:AX:53:GLU:HG2	1.68	0.75
36:B2:530:U:H2'	36:B2:531:A:H5'	1.69	0.75
36:B2:839:C:H2'	36:B2:841:G:C4'	2.17	0.75
63:CB:47:LEU:CD1	63:CB:344:VAL:HG13	2.16	0.75
63:CB:397:ILE:O	63:CB:398:ALA:CB	2.35	0.75
81:CE:282:TYR:CB	81:CE:283:PRO:CD	2.63	0.75
81:CE:54:ILE:N	81:CE:63:TYR:HB2	2.02	0.75
82:CG:107:LYS:O	82:CG:111:LYS:HG2	1.85	0.75
80:CH:19:THR:HG1	80:CH:26:ILE:CG1	1.98	0.75
48:CD:152:ARG:HH11	79:CJ:145:LYS:HZ3	1.33	0.75
44:CM:36:ALA:HB2	44:CM:52:PHE:CZ	2.22	0.75
54:CP:64:ASN:OD1	54:CP:65:GLY:CA	2.34	0.75
49:CQ:154:LYS:HE3	49:CQ:163:THR:CB	2.15	0.75
49:CQ:163:THR:O	49:CQ:165:PRO:HD3	1.86	0.75
49:CQ:72:LEU:CB	49:CQ:75:ARG:HE	1.98	0.75
52:CS:150:ILE:HD12	52:CS:151:LYS:H	1.49	0.75
43:CV:14:PHE:CE1	43:CV:91:LYS:HE3	2.21	0.75
58:CW:109:ILE:O	58:CW:113:LYS:HE3	1.85	0.75
59:CZ:92:ASP:N	59:CZ:117:LYS:HZ3	1.84	0.75
59:CZ:46:ILE:CD1	59:CZ:49:TYR:CZ	2.43	0.75
85:A5:2370:A:H8	85:A5:2370:A:H5'	1.51	0.75
28:AC:157:LEU:C	28:AC:160:LEU:HD23	2.07	0.75
33:AI:130:THR:HB	33:AI:131:PRO:HD3	1.66	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AI:154:LYS:C	33:AI:154:LYS:HD3	2.02	0.75
26:AJ:48:PHE:CZ	26:AJ:52:LYS:CE	2.66	0.75
26:AJ:50:LEU:HD22	26:AJ:54:ARG:HG3	1.68	0.75
8:AS:118:ARG:HH12	13:AP:108:LYS:HZ2	1.32	0.75
34:AQ:112:LEU:CD1	34:AQ:120:LEU:HD21	2.17	0.75
30:AF:14:THR:CG2	34:AQ:56:LEU:CD1	2.56	0.75
3:AU:44:LYS:O	3:AU:47:ASN:HA	1.87	0.75
3:AU:66:ARG:NH2	3:AU:75:LYS:HA	2.02	0.75
6:AX:142:ARG:NH1	6:AX:142:ARG:CG	2.30	0.75
18:AY:9:THR:CB	18:AY:48:TYR:HH	1.99	0.75
18:AY:99:LYS:C	18:AY:99:LYS:HE3	2.07	0.75
51:CA:189:TYR:HD1	51:CA:195:CYS:SG	2.08	0.75
74:CC:286:ASN:C	74:CC:287:THR:HG22	2.07	0.75
48:CD:118:ILE:HG23	48:CD:135:ILE:CD1	2.16	0.75
81:CE:190:HIS:HB3	81:CE:193:PHE:HD1	1.51	0.75
81:CE:195:ILE:HG21	81:CE:288:PHE:CE2	2.22	0.75
82:CG:190:LEU:O	82:CG:199:CYS:SG	2.43	0.75
82:CG:229:ARG:HG2	82:CG:233:ILE:CD1	2.16	0.75
82:CG:76:VAL:CG1	82:CG:81:ASN:OD1	2.35	0.75
82:CG:95:LEU:CD2	82:CG:222:ILE:HD11	2.16	0.75
80:CH:45:LEU:HD23	80:CH:57:VAL:HG12	0.76	0.75
80:CH:89:ARG:HD3	80:CH:91:LYS:CE	2.16	0.75
44:CM:95:ILE:HD11	44:CM:124:LYS:HG2	30.91	0.75
41:CO:203:VAL:O	44:CM:100:ARG:CG	2.32	0.75
49:CQ:146:ARG:O	49:CQ:148:VAL:N	2.20	0.75
50:CR:76:MET:CA	50:CR:76:MET:CE	2.62	0.75
53:CT:7:LYS:HE3	53:CT:54:HIS:HD2	0.92	0.75
58:CW:79:GLN:HB3	58:CW:94:ARG:HH22	1.50	0.75
57:CY:61:HIS:HE1	57:CY:62:TYR:CE2	1.94	0.75
15:AB:31:TYR:CD1	15:AB:94:LYS:CA	2.68	0.75
28:AC:196:ILE:HB	28:AC:223:TYR:HB2	1.68	0.75
31:AH:135:PHE:HD2	31:AH:136:PRO:HD3	1.51	0.75
31:AH:9:VAL:HG13	31:AH:44:ASN:OD1	1.86	0.75
33:AI:82:VAL:HG11	33:AI:202:ILE:HD13	1.69	0.75
26:AJ:16:PRO:HD3	26:AJ:44:TRP:CE2	2.22	0.75
26:AJ:82:VAL:HG11	26:AJ:92:MET:HE2	1.68	0.75
11:AL:147:LYS:HG3	11:AL:148:ALA:CB	2.16	0.75
30:AF:14:THR:CG2	34:AQ:56:LEU:HD13	2.16	0.75
34:AQ:50:LYS:HZ1	34:AQ:85:ARG:HH22	0.79	0.75
8:AS:39:ARG:NH2	14:AT:38:LYS:HG2	2.02	0.75
14:AT:75:MET:O	14:AT:78:ILE:HG22	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:146:VAL:HB	32:AW:42:MET:HE1	1.69	0.75
28:AC:183:LYS:HE3	32:AW:95:PRO:HA	1.68	0.75
18:AY:99:LYS:O	18:AY:99:LYS:HG2	1.86	0.75
63:CB:219:VAL:HG13	63:CB:345:LEU:HD23	1.64	0.75
49:CQ:38:ARG:CB	74:CC:302:LEU:CD2	2.64	0.75
82:CG:240:ASN:O	82:CG:241:VAL:HG12	1.87	0.75
82:CG:98:LEU:CD2	82:CG:215:LEU:CD2	2.64	0.75
80:CH:18:ILE:CG2	80:CH:27:VAL:HG22	2.16	0.75
40:CK:161:GLU:N	40:CK:163:PRO:HD3	2.01	0.75
42:CL:29:PRO:HD2	42:CL:30:ALA:N	2.02	0.75
16:AA:13:GLU:O	16:AA:17:LYS:CE	2.28	0.74
16:AA:125:THR:CG2	16:AA:175:TRP:HE1	1.99	0.74
28:AC:130:ILE:HD12	28:AC:158:ALA:HB3	1.68	0.74
27:AE:21:ASP:CG	27:AE:24:THR:CG2	2.51	0.74
30:AF:122:ARG:O	30:AF:141:VAL:CG1	2.21	0.74
30:AF:41:VAL:CG2	30:AF:42:LYS:CD	2.64	0.74
30:AF:42:LYS:O	30:AF:42:LYS:CG	2.28	0.74
30:AF:63:LYS:CD	30:AF:71:ARG:NH2	2.35	0.74
29:AG:162:LEU:CD2	29:AG:170:ARG:HB2	2.17	0.74
33:AI:141:ARG:HB2	33:AI:144:LYS:CA	2.16	0.74
26:AJ:28:GLU:OE1	26:AJ:40:LYS:NZ	2.20	0.74
7:AM:14:VAL:O	7:AM:15:ASN:OD1	2.04	0.74
5:AO:31:CYS:SG	5:AO:93:LEU:CB	2.75	0.74
13:AP:74:GLU:O	13:AP:75:VAL:HB	1.86	0.74
34:AQ:48:GLN:O	34:AQ:51:LEU:HG	1.87	0.74
34:AQ:54:PRO:HG3	34:AQ:88:ILE:HD12	1.66	0.74
12:AR:16:ILE:HG22	12:AR:24:LEU:HD11	1.68	0.74
12:AR:20:TYR:CD2	12:AR:38:ILE:HD13	2.22	0.74
3:AU:19:ARG:HG3	3:AU:92:HIS:ND1	2.02	0.74
17:AV:1:MET:CE	17:AV:10:ASP:CB	2.56	0.74
6:AX:76:LYS:O	6:AX:77:ASN:OD1	2.04	0.74
18:AY:51:THR:HB	18:AY:52:PRO:CD	2.14	0.74
63:CB:106:PHE:CE2	63:CB:110:ILE:HD12	2.19	0.74
63:CB:77:THR:HA	63:CB:78:ILE:HG23	1.68	0.74
74:CC:295:SER:HG	74:CC:298:ILE:HB	1.51	0.74
74:CC:345:ARG:HH11	74:CC:345:ARG:CG	1.95	0.74
74:CC:51:PRO:HB3	74:CC:111:TRP:NE1	2.02	0.74
74:CC:60:HIS:CD2	74:CC:60:HIS:H	2.05	0.74
81:CE:165:LEU:CD1	81:CE:174:LEU:CD2	2.65	0.74
81:CE:181:LEU:HD21	81:CE:268:GLN:HG3	1.64	0.74
81:CE:219:LYS:HE2	85:A5:1291:G:H5''	1.67	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:95:PRO:O	81:CE:96:VAL:CB	2.34	0.74
64:CF:24:ASN:O	64:CF:25:PHE:C	2.24	0.74
82:CG:117:ARG:CG	82:CG:130:THR:HG23	2.10	0.74
82:CG:189:ARG:HG3	82:CG:190:LEU:HD22	1.68	0.74
44:CM:127:VAL:HG13	44:CM:128:LYS:CA	5.06	0.74
49:CQ:88:ASP:CG	49:CQ:108:ARG:HB3	2.07	0.74
49:CQ:64:SER:CB	49:CQ:92:VAL:CG2	2.64	0.74
50:CR:60:ARG:HD3	50:CR:60:ARG:N	2.02	0.74
55:CU:94:ASN:O	55:CU:95:ASN:HB2	1.87	0.74
58:CW:79:GLN:CB	58:CW:94:ARG:HH22	2.00	0.74
57:CY:50:ARG:CD	57:CY:115:ARG:NH2	2.44	0.74
85:A5:1756:U:O4	85:A5:1775:A:N1	2.20	0.74
16:AA:174:MET:O	16:AA:178:LEU:HG	1.86	0.74
28:AC:64:THR:HG23	28:AC:90:GLU:CD	2.06	0.74
27:AE:185:GLY:N	27:AE:189:LEU:HD13	2.01	0.74
27:AE:23:LEU:C	27:AE:24:THR:HG23	2.05	0.74
29:AG:142:ARG:NH1	29:AG:142:ARG:CG	2.47	0.74
29:AG:142:ARG:NH2	29:AG:152:ASP:H	1.84	0.74
33:AI:104:ILE:HG13	33:AI:105:ASP:H	1.52	0.74
4:AK:96:ARG:HG3	4:AK:97:SER:N	2.00	0.74
5:AO:19:PRO:HG3	5:AO:27:VAL:CG1	2.17	0.74
13:AP:10:ARG:HE	13:AP:11:THR:HB	1.52	0.74
3:AU:109:GLY:O	3:AU:110:VAL:HG22	1.86	0.74
18:AY:7:ILE:CD1	18:AY:43:LYS:HD3	2.16	0.74
51:CA:104:VAL:HA	51:CA:107:MET:HE2	1.70	0.74
63:CB:41:VAL:N	63:CB:187:GLY:CA	2.50	0.74
48:CD:271:MET:O	48:CD:272:SER:O	2.04	0.74
81:CE:112:MET:O	81:CE:116:TYR:N	2.19	0.74
80:CH:109:GLY:CA	80:CH:110:SER:HB3	2.17	0.74
47:CI:68:ALA:CB	47:CI:159:PHE:CZ	2.70	0.74
41:CO:181:ALA:C	44:CM:126:GLU:HG2	2.08	0.74
46:CN:116:LEU:HD13	46:CN:151:ILE:CD1	2.05	0.74
49:CQ:53:MET:CE	49:CQ:143:ARG:NH2	2.50	0.74
49:CQ:88:ASP:O	49:CQ:89:ASP:OD1	2.05	0.74
52:CS:164:LYS:NZ	52:CS:164:LYS:HA	2.02	0.74
57:CY:45:ARG:HD3	57:CY:45:ARG:O	1.87	0.74
85:A5:2324:C:H2'	85:A5:2325:C:C6	2.22	0.74
15:AB:71:LEU:CG	15:AB:84:PHE:HE2	1.99	0.74
27:AE:73:ASP:OD2	27:AE:122:LYS:NZ	2.20	0.74
27:AE:43:PRO:CD	27:AE:46:ILE:HD12	2.16	0.74
27:AE:92:ILE:CB	27:AE:97:GLU:OE1	2.34	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AF:76:MET:HE2	30:AF:169:ILE:CG2	2.17	0.74
33:AI:9:HIS:O	33:AI:10:LYS:HG2	1.86	0.74
7:AM:33:ARG:O	7:AM:33:ARG:HD2	1.87	0.74
13:AP:10:ARG:NE	13:AP:11:THR:N	2.34	0.74
8:AS:87:GLN:O	8:AS:88:LYS:C	2.21	0.74
3:AU:59:LYS:CB	3:AU:84:ILE:HG22	2.12	0.74
63:CB:356:LYS:C	63:CB:358:ARG:N	2.39	0.74
48:CD:9:ASN:O	48:CD:13:PHE:CD2	2.40	0.74
81:CE:121:VAL:CG1	81:CE:122:PRO:CD	2.61	0.74
81:CE:222:LEU:CD2	81:CE:222:LEU:O	2.30	0.74
82:CG:143:VAL:CG1	82:CG:146:LEU:HD11	2.16	0.74
82:CG:63:LEU:HB3	82:CG:67:ARG:HH12	1.51	0.74
80:CH:123:ILE:CG2	80:CH:125:ARG:HH21	2.00	0.74
79:CJ:135:GLY:N	79:CJ:157:ILE:HD11	2.01	0.74
40:CK:141:CYS:O	40:CK:142:ASN:HB3	1.87	0.74
40:CK:62:LEU:HD23	40:CK:75:PRO:HB3	1.70	0.74
54:CP:93:HIS:O	54:CP:95:LEU:N	2.20	0.74
49:CQ:53:MET:CE	49:CQ:143:ARG:HH21	2.00	0.74
52:CS:47:PHE:HE1	52:CS:125:GLN:HG2	1.50	0.74
52:CS:127:MET:O	52:CS:128:LYS:HG3	1.87	0.74
52:CS:173:ASN:C	52:CS:173:ASN:ND2	2.30	0.74
30:AF:32:ASP:HB2	30:AF:117:ILE:HG21	1.67	0.74
31:AH:11:PRO:HG2	31:AH:12:ASN:N	2.02	0.74
33:AI:165:GLN:OE1	33:AI:172:LEU:HD23	1.87	0.74
33:AI:36:THR:HG21	33:AI:179:PRO:HB2	1.68	0.74
5:AO:30:VAL:HG23	5:AO:32:HIS:CD2	2.22	0.74
8:AS:82:TRP:HA	8:AS:87:GLN:HE22	1.52	0.74
8:AS:42:HIS:CB	14:AT:45:LEU:HD11	2.17	0.74
3:AU:56:MET:CE	3:AU:88:LEU:HD23	2.17	0.74
6:AX:60:LYS:CG	6:AX:116:PRO:CG	2.58	0.74
6:AX:105:PHE:CD2	6:AX:119:ARG:HA	2.21	0.74
51:CA:138:SER:OG	51:CA:147:ARG:HB3	1.88	0.74
41:CO:64:THR:HG21	63:CB:261:ARG:HD3	0.83	0.74
63:CB:40:PRO:O	63:CB:41:VAL:HG13	1.86	0.74
74:CC:133:LEU:HD23	74:CC:136:LEU:CG	2.08	0.74
74:CC:5:ARG:HA	74:CC:24:LEU:HD11	1.66	0.74
74:CC:318:PRO:O	74:CC:319:LEU:C	2.24	0.74
74:CC:7:LEU:CG	74:CC:21:ASN:HB3	2.17	0.74
81:CE:56:ARG:HB3	81:CE:65:ARG:HG2	1.69	0.74
82:CG:121:LYS:HD3	82:CG:121:LYS:C	2.07	0.74
47:CI:207:ASP:OD2	47:CI:208:LYS:HD3	1.86	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CI:30:LYS:HG2	47:CI:63:GLU:HG2	1.68	0.74
54:CP:29:THR:HA	54:CP:32:THR:HG22	1.64	0.74
23:AD:10:LYS:CE	23:AD:14:ASP:OD2	2.35	0.74
23:AD:44:THR:O	23:AD:45:ARG:HD3	1.87	0.74
29:AG:98:ARG:HD3	29:AG:99:GLY:H	1.50	0.74
31:AH:106:ARG:HD3	36:B2:861:A:C6	2.22	0.74
26:AJ:15:THR:HG22	26:AJ:44:TRP:HE3	1.48	0.74
7:AM:38:ALA:O	7:AM:42:LEU:HD23	1.87	0.74
5:AO:16:SER:O	5:AO:88:LEU:O	2.06	0.74
8:AS:111:LEU:CD2	8:AS:125:HIS:CE1	2.70	0.74
3:AU:50:VAL:O	3:AU:51:LYS:CD	2.30	0.74
17:AV:19:ALA:CB	17:AV:59:ILE:HD13	2.17	0.74
17:AV:53:TYR:OH	17:AV:76:ASP:CG	2.26	0.74
63:CB:59:GLU:OE2	63:CB:70:LYS:C	2.26	0.74
74:CC:76:ILE:HD13	74:CC:96:CYS:SG	2.28	0.74
81:CE:117:PRO:O	81:CE:119:GLU:N	2.21	0.74
81:CE:145:THR:CG2	81:CE:200:LYS:HG2	2.16	0.74
81:CE:218:LYS:HB2	81:CE:220:LYS:CE	2.16	0.74
81:CE:223:ARG:HB3	81:CE:233:PHE:HE1	1.51	0.74
82:CG:143:VAL:CA	82:CG:146:LEU:CG	2.66	0.74
80:CH:104:VAL:C	80:CH:105:ILE:HD13	2.06	0.74
42:CL:130:LYS:CB	42:CL:131:PRO:HD2	2.17	0.74
42:CL:150:LEU:O	42:CL:151:THR:HB	1.86	0.74
42:CL:33:ILE:HG23	42:CL:37:LYS:HE2	1.69	0.74
46:CN:71:ARG:HH12	46:CN:74:PRO:CD	1.99	0.74
41:CO:62:MET:SD	41:CO:68:ARG:HB2	2.27	0.74
49:CQ:108:ARG:O	49:CQ:111:SER:OG	2.05	0.74
49:CQ:167:VAL:HG22	49:CQ:175:GLU:OE1	1.86	0.74
50:CR:10:LEU:HD23	50:CR:41:ILE:HD12	1.68	0.74
50:CR:132:PHE:HD1	50:CR:137:ILE:CG2	2.01	0.74
50:CR:52:ARG:O	50:CR:53:LYS:HB3	1.86	0.74
43:CV:106:VAL:HG12	43:CV:107:ASN:O	1.87	0.74
56:CX:119:ILE:HD11	56:CX:140:LEU:HD21	1.58	0.74
56:CX:87:MET:O	56:CX:90:ILE:HD12	1.87	0.74
57:CY:52:ASP:O	57:CY:53:ASP:O	2.06	0.74
63:CB:239:LYS:HE3	85:A5:3844:U:H5''	1.66	0.74
85:A5:5022:U:H4'	85:A5:5023:C:OP1	1.87	0.74
16:AA:58:LEU:HD23	16:AA:178:LEU:HD21	1.57	0.74
27:AE:86:PHE:O	27:AE:87:MET:HB2	1.86	0.74
30:AF:116:ILE:N	30:AF:116:ILE:CD1	2.39	0.74
30:AF:41:VAL:HG22	30:AF:42:LYS:HD2	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AE:149:TYR:HD2	29:AG:205:GLU:HB3	1.51	0.74
29:AG:71:GLY:HA2	29:AG:98:ARG:NH2	2.02	0.74
5:AO:97:LEU:HD11	5:AO:112:ALA:HB1	1.70	0.74
34:AQ:105:LYS:CD	34:AQ:105:LYS:C	2.54	0.74
8:AS:91:LYS:CD	13:AP:15:PHE:CE1	2.70	0.74
14:AT:87:VAL:HG21	36:B2:1665:G:C2	2.23	0.74
31:AH:106:ARG:HD3	36:B2:861:A:C5	2.22	0.74
81:CE:203:ILE:HD11	81:CE:205:ASN:O	1.87	0.74
81:CE:242:ILE:CG1	81:CE:246:ARG:HH11	2.01	0.74
53:CT:132:PRO:CG	64:CF:126:ASN:HD21	2.00	0.74
82:CG:133:PRO:O	82:CG:133:PRO:HG2	1.88	0.74
13:AP:10:ARG:O	79:CJ:91:GLU:OE2	2.04	0.74
42:CL:117:LEU:O	42:CL:121:ARG:HG2	1.87	0.74
42:CL:64:VAL:CA	42:CL:67:HIS:HD2	1.89	0.74
46:CN:186:GLY:HA3	46:CN:191:ALA:N	2.03	0.74
41:CO:16:LEU:HD21	41:CO:41:ILE:HD13	1.62	0.74
52:CS:45:TRP:CZ3	52:CS:55:LYS:O	2.39	0.74
55:CU:125:GLU:O	55:CU:126:ASP:CG	2.26	0.74
57:CY:110:LYS:NZ	57:CY:111:LEU:O	2.14	0.74
57:CY:90:ALA:C	57:CY:91:ASN:OD1	2.25	0.74
16:AA:193:HIS:ND1	16:AA:194:PRO:CD	2.51	0.74
16:AA:27:GLY:O	16:AA:47:TYR:HD2	1.69	0.74
16:AA:57:LYS:NZ	17:AV:70:LEU:CG	2.50	0.74
16:AA:66:VAL:HG11	16:AA:186:ARG:CB	2.17	0.74
16:AA:94:THR:HG21	16:AA:182:VAL:CG2	2.17	0.74
28:AC:65:LYS:HD2	28:AC:266:TYR:HD1	1.39	0.74
28:AC:78:LEU:HB3	28:AC:82:TYR:CZ	2.23	0.74
27:AE:122:LYS:HG2	27:AE:164:LEU:HD21	1.69	0.74
30:AF:86:LYS:O	30:AF:89:THR:HG22	1.88	0.74
33:AI:104:ILE:O	33:AI:105:ASP:CG	2.25	0.74
33:AI:76:THR:CG2	33:AI:77:ARG:N	2.51	0.74
26:AJ:89:GLU:HB3	26:AJ:92:MET:SD	2.26	0.74
4:AK:60:GLU:OE1	4:AK:67:PHE:HE1	1.68	0.74
5:AO:20:GLN:CD	5:AO:21:VAL:O	2.26	0.74
5:AO:41:PHE:CD1	5:AO:57:THR:HG22	2.23	0.74
5:AO:44:VAL:CG1	5:AO:53:ILE:HD11	2.18	0.74
13:AP:53:GLN:NE2	13:AP:80:LEU:CD1	2.43	0.74
14:AT:31:PRO:HB3	14:AT:33:TRP:CZ3	2.22	0.74
18:AY:32:LYS:HG2	18:AY:33:ALA:O	1.85	0.74
48:CD:152:ARG:NH1	48:CD:152:ARG:HG3	2.03	0.74
82:CG:160:ASP:CG	82:CG:187:LYS:CB	2.55	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CI:86:HIS:CD2	47:CI:139:ARG:HH12	1.88	0.74
47:CI:206:LEU:HB3	47:CI:206:LEU:C	2.05	0.74
40:CK:74:VAL:HG12	40:CK:74:VAL:O	1.88	0.74
42:CL:61:CYS:O	42:CL:63:THR:N	2.21	0.74
41:CO:195:VAL:HG21	44:CM:118:MET:CG	2.17	0.74
50:CR:131:VAL:CG1	50:CR:131:VAL:O	2.36	0.74
58:CW:14:TYR:CZ	63:CB:380:GLN:HG3	2.21	0.74
43:CV:97:TYR:CE1	58:CW:21:TYR:HD1	2.06	0.74
29:AG:63:MET:HA	29:AG:98:ARG:O	1.88	0.74
33:AI:136:ILE:C	33:AI:139:LYS:HG3	2.03	0.74
26:AJ:178:ALA:O	26:AJ:182:GLN:CG	2.34	0.74
5:AO:19:PRO:HG3	5:AO:27:VAL:HG21	0.75	0.74
13:AP:39:ALA:HA	13:AP:42:ARG:CD	2.17	0.74
13:AP:62:LYS:CG	13:AP:65:LYS:HE2	2.18	0.74
34:AQ:12:VAL:CG1	34:AQ:13:PHE:H	1.99	0.74
34:AQ:12:VAL:HG11	34:AQ:90:LYS:HB2	1.70	0.74
14:AT:77:LYS:CB	14:AT:94:ARG:CD	2.48	0.74
3:AU:97:ILE:CG2	3:AU:101:ILE:HD12	2.18	0.74
18:AY:102:THR:HG21	18:AY:107:ARG:HE	0.92	0.74
51:CA:245:ARG:HD2	51:CA:245:ARG:N	2.03	0.74
42:CL:18:TRP:CH2	74:CC:108:TRP:CZ2	2.75	0.74
74:CC:17:SER:O	74:CC:18:SER:HB2	1.88	0.74
74:CC:233:SER:O	74:CC:263:LEU:CD1	2.36	0.74
74:CC:7:LEU:CD1	74:CC:21:ASN:HB3	2.18	0.74
48:CD:197:LYS:CD	48:CD:202:GLN:HG2	2.05	0.74
81:CE:51:VAL:CA	81:CE:54:ILE:HD12	2.18	0.74
80:CH:93:ARG:CZ	80:CH:143:GLU:OE2	2.36	0.74
47:CI:169:LYS:CD	47:CI:169:LYS:N	2.47	0.74
47:CI:191:ILE:HG22	47:CI:192:PRO:CD	2.18	0.74
40:CK:62:LEU:O	40:CK:62:LEU:CD1	2.29	0.74
42:CL:125:ILE:HG22	42:CL:127:PHE:CD1	2.22	0.74
42:CL:156:PRO:C	42:CL:157:VAL:HG13	2.07	0.74
46:CN:78:GLY:O	46:CN:79:ALA:C	2.25	0.74
54:CP:46:LYS:HD3	54:CP:46:LYS:O	1.87	0.74
54:CP:95:LEU:HD11	54:CP:148:MET:HE3	1.70	0.74
55:CU:84:LYS:HE3	55:CU:102:VAL:CB	2.18	0.74
57:CY:34:LEU:HD23	57:CY:39:ARG:N	2.03	0.74
15:AB:72:ALA:N	15:AB:79:VAL:HG23	2.03	0.74
28:AC:277:HIS:CG	28:AC:278:THR:H	2.02	0.74
23:AD:53:THR:HG22	23:AD:91:VAL:HG23	1.68	0.74
11:AL:95:TYR:HA	11:AL:102:PHE:CG	2.22	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:112:HIS:HB2	11:AL:134:LEU:HD13	1.68	0.74
11:AL:47:PRO:HG2	11:AL:116:CYS:SG	2.27	0.74
10:AN:21:SER:C	10:AN:22:VAL:HG13	2.05	0.74
12:AR:121:GLN:NE2	12:AR:122:PRO:N	2.34	0.74
12:AR:84:TYR:O	12:AR:85:VAL:CG2	2.35	0.74
17:AV:40:ASP:O	17:AV:42:VAL:HG23	1.87	0.74
51:CA:138:SER:OG	51:CA:147:ARG:CB	2.36	0.74
74:CC:101:MET:HE3	74:CC:105:THR:N	2.03	0.74
74:CC:11:TYR:CE1	74:CC:16:GLU:O	2.40	0.74
74:CC:283:LYS:HZ3	74:CC:283:LYS:HB2	1.51	0.74
74:CC:349:LEU:O	74:CC:353:LYS:HD3	1.88	0.74
81:CE:228:GLN:HE21	81:CE:228:GLN:N	1.86	0.74
82:CG:190:LEU:N	82:CG:190:LEU:HD22	2.03	0.74
40:CK:131:GLU:HG3	40:CK:155:ILE:CD1	2.18	0.74
44:CM:25:VAL:CG1	44:CM:39:ASP:N	2.51	0.74
46:CN:56:LYS:NZ	46:CN:145:ASN:HD22	1.86	0.74
54:CP:40:HIS:CB	54:CP:43:LYS:HB2	2.17	0.74
43:CV:89:ARG:HB2	43:CV:95:PHE:CZ	2.22	0.74
54:CP:18:ARG:CG	85:A5:399:G:H5"	2.16	0.74
16:AA:177:MET:HE3	16:AA:180:ARG:NH2	1.99	0.74
28:AC:192:LEU:CG	28:AC:227:ARG:HG3	2.18	0.74
19:AZ:110:THR:CG2	30:AF:102:LEU:HD13	2.17	0.74
33:AI:47:ARG:HH11	33:AI:47:ARG:HB3	1.53	0.74
26:AJ:169:ARG:HB3	26:AJ:175:ARG:HH11	1.53	0.74
10:AN:28:LEU:O	10:AN:29:THR:HG22	1.88	0.74
5:AO:100:THR:HG22	5:AO:104:ARG:HG3	1.67	0.74
13:AP:12:PHE:CE2	79:CJ:88:LYS:CD	2.71	0.74
34:AQ:50:LYS:HZ3	34:AQ:117:ARG:HH11	1.36	0.74
34:AQ:92:LEU:HG	34:AQ:96:TYR:CE2	2.23	0.74
8:AS:121:ARG:HG2	8:AS:131:VAL:CG1	2.17	0.74
32:AW:11:LEU:C	32:AW:14:ILE:HG12	2.07	0.74
31:AH:146:VAL:HG23	32:AW:50:PHE:CE1	2.21	0.74
51:CA:18:ALA:HA	51:CA:193:ARG:HG2	1.69	0.74
51:CA:51:ASP:OD2	51:CA:54:ARG:CD	2.35	0.74
51:CA:6:ARG:NH2	51:CA:198:ARG:CG	2.51	0.74
63:CB:142:GLY:CA	63:CB:147:GLU:HB2	2.18	0.74
74:CC:146:GLU:O	74:CC:146:GLU:CG	2.32	0.74
82:CG:164:ILE:O	82:CG:168:VAL:HG23	1.87	0.74
82:CG:98:LEU:CG	82:CG:215:LEU:HD21	2.18	0.74
80:CH:31:ARG:HD2	80:CH:149:ASN:OD1	1.88	0.74
79:CJ:128:LEU:HD13	79:CJ:130:PHE:CD2	2.09	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CK:113:ALA:HA	40:CK:116:MET:SD	2.28	0.74
42:CL:70:VAL:HG11	42:CL:157:VAL:HB	1.68	0.74
42:CL:167:ARG:NH2	42:CL:170:THR:CB	2.51	0.74
49:CQ:97:LYS:O	49:CQ:118:GLY:HA3	1.87	0.74
59:CZ:14:LEU:CB	59:CZ:79:HIS:O	2.36	0.74
15:AB:113:MET:SD	15:AB:211:PHE:CZ	2.78	0.73
27:AE:94:LYS:O	27:AE:95:THR:HG23	1.87	0.73
26:AJ:100:LEU:CG	26:AJ:101:LYS:H	2.01	0.73
26:AJ:147:PHE:O	26:AJ:148:ILE:HB	1.87	0.73
7:AM:94:ILE:N	7:AM:101:ARG:HD3	2.03	0.73
7:AM:12:MET:O	7:AM:13:ASP:OD1	2.05	0.73
13:AP:108:LYS:O	13:AP:111:MET:CG	2.34	0.73
13:AP:46:ASN:O	13:AP:49:LEU:CG	2.35	0.73
8:AS:137:LYS:HG2	8:AS:138:THR:CG2	2.17	0.73
8:AS:26:ILE:CD1	8:AS:59:LEU:HD21	2.17	0.73
8:AS:94:LYS:HD3	8:AS:95:TYR:O	1.88	0.73
14:AT:31:PRO:C	14:AT:33:TRP:N	2.37	0.73
28:AC:256:TRP:CE2	32:AW:68:ARG:CD	2.70	0.73
32:AW:93:LEU:HG	32:AW:93:LEU:O	1.88	0.73
6:AX:105:PHE:CE2	6:AX:119:ARG:C	2.61	0.73
51:CA:255:LYS:O	51:CA:256:GLU:O	2.05	0.73
63:CB:115:LYS:CD	63:CB:129:ALA:CB	2.61	0.73
74:CC:271:ALA:CB	74:CC:274:LYS:HB2	2.17	0.73
48:CD:207:TYR:CZ	48:CD:211:LEU:HD11	2.22	0.73
48:CD:271:MET:CE	48:CD:275:GLN:HB2	2.04	0.73
81:CE:149:ILE:HD11	81:CE:161:ARG:CB	2.18	0.73
81:CE:47:ASN:ND2	81:CE:48:PRO:CD	2.43	0.73
81:CE:51:VAL:N	81:CE:54:ILE:HD12	2.03	0.73
64:CF:182:TYR:HD1	64:CF:200:ARG:CZ	2.01	0.73
82:CG:121:LYS:CB	82:CG:126:GLY:O	2.36	0.73
56:CX:41:ARG:CD	82:CG:55:VAL:HG21	2.17	0.73
80:CH:81:ILE:O	80:CH:84:VAL:HG12	1.88	0.73
47:CI:28:ASP:HB3	47:CI:32:ARG:HH22	1.51	0.73
42:CL:140:SER:O	42:CL:143:GLU:HB2	1.88	0.73
46:CN:71:ARG:HH22	46:CN:73:ARG:HA	1.50	0.73
41:CO:131:PRO:O	41:CO:132:THR:CB	2.35	0.73
41:CO:12:ARG:CG	41:CO:37:ARG:NH1	2.50	0.73
54:CP:48:LEU:HD11	54:CP:91:LEU:HD13	1.69	0.73
41:CO:118:MET:HB3	52:CS:167:PHE:CB	2.18	0.73
53:CT:110:LYS:O	53:CT:113:ASP:OD1	2.05	0.73
85:A5:1755:C:H3'	85:A5:1756:U:H5''	1.67	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:1927:U:H3	85:A5:2056:G:H1	1.34	0.73
51:CA:21:LYS:HZ1	85:A5:2449:A:H5'	1.53	0.73
15:AB:225:LEU:O	15:AB:229:MET:HG2	1.87	0.73
28:AC:169:TYR:CZ	28:AC:177:PRO:CD	2.71	0.73
27:AE:229:GLY:CA	27:AE:235:TRP:CD1	2.71	0.73
29:AG:142:ARG:CD	29:AG:147:LEU:HB2	2.07	0.73
31:AH:71:SER:O	31:AH:74:LYS:HB2	1.88	0.73
31:AH:83:LEU:HD22	31:AH:92:VAL:CG1	2.05	0.73
26:AJ:61:LEU:HD13	26:AJ:94:LEU:HD11	1.71	0.73
11:AL:113:LEU:CD1	11:AL:120:VAL:HG21	2.13	0.73
7:AM:98:GLY:C	7:AM:100:PRO:HD3	2.08	0.73
12:AR:115:SER:O	12:AR:116:ASN:CG	2.27	0.73
18:AY:18:LEU:HB2	18:AY:20:ARG:NH1	2.00	0.73
51:CA:254:GLU:HB3	51:CA:255:LYS:CB	2.18	0.73
51:CA:60:LYS:HG2	51:CA:75:LEU:HD23	1.70	0.73
63:CB:133:TYR:O	63:CB:136:LYS:HG3	1.88	0.73
63:CB:92:TYR:HB3	63:CB:99:LEU:CD2	2.18	0.73
48:CD:254:GLU:OE2	48:CD:254:GLU:CA	2.36	0.73
81:CE:157:HIS:O	81:CE:160:LYS:HG3	1.88	0.73
49:CQ:6:ARG:NE	64:CF:110:GLN:HA	2.04	0.73
64:CF:22:ARG:HD2	64:CF:22:ARG:N	4.96	0.73
80:CH:107:GLU:HB2	80:CH:108:ASN:O	1.88	0.73
40:CK:50:THR:HG21	40:CK:72:GLU:O	1.88	0.73
46:CN:64:ILE:CD1	46:CN:102:ALA:CB	2.66	0.73
49:CQ:92:VAL:HG12	49:CQ:94:GLU:O	1.88	0.73
55:CU:48:LYS:HG3	55:CU:52:LYS:CG	2.17	0.73
58:CW:106:GLU:HG3	58:CW:110:ARG:HH11	0.93	0.73
23:AD:123:LEU:HD11	23:AD:154:ASP:HB2	1.68	0.73
23:AD:161:GLY:O	23:AD:164:VAL:HG12	1.88	0.73
23:AD:193:ASP:O	23:AD:194:PRO:O	2.06	0.73
27:AE:1:MET:HE1	36:B2:432:G:C8	2.24	0.73
29:AG:32:MET:SD	29:AG:100:CYS:O	2.46	0.73
33:AI:141:ARG:O	33:AI:143:LYS:CB	2.36	0.73
33:AI:182:CYS:SG	36:B2:305:U:C5	2.81	0.73
26:AJ:172:ARG:NH2	36:B2:562:U:C5	2.57	0.73
10:AN:12:SER:C	10:AN:13:GLN:HG3	2.06	0.73
34:AQ:135:PRO:HD2	34:AQ:141:TYR:CD1	2.21	0.73
63:CB:112:ASP:HA	63:CB:115:LYS:HB3	1.69	0.73
74:CC:266:THR:HG23	74:CC:268:ARG:N	2.03	0.73
74:CC:283:LYS:HZ3	74:CC:283:LYS:CB	2.01	0.73
48:CD:19:LYS:HB3	48:CD:23:ARG:HG2	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:116:TYR:N	81:CE:117:PRO:CD	2.50	0.73
81:CE:94:LYS:N	81:CE:95:PRO:HD2	2.02	0.73
82:CG:190:LEU:H	82:CG:190:LEU:CD2	2.00	0.73
79:CJ:84:GLU:HA	79:CJ:87:LEU:HD12	1.71	0.73
40:CK:10:ILE:HB	40:CK:66:ASN:CA	2.13	0.73
40:CK:55:GLY:O	40:CK:56:LEU:HD23	1.88	0.73
52:CS:113:MET:HG3	52:CS:124:ILE:CD1	2.18	0.73
52:CS:16:CYS:C	52:CS:59:GLY:HA2	2.09	0.73
55:CU:37:ALA:CA	55:CU:65:ARG:HH12	2.02	0.73
55:CU:40:GLU:OE2	55:CU:70:ILE:HA	1.88	0.73
59:CZ:33:THR:CG2	59:CZ:40:HIS:HE1	1.93	0.73
59:CZ:21:ARG:HD2	59:CZ:49:TYR:OH	1.87	0.73
85:A5:1757:U:H2'	85:A5:1758:G:O4'	1.89	0.73
87:A8:94:G:H1'	87:A8:95:A:OP1	1.88	0.73
23:AD:74:GLN:HB2	23:AD:84:VAL:CG1	2.19	0.73
27:AE:98:ASN:HD21	27:AE:119:ALA:CA	2.02	0.73
26:AJ:87:LEU:HD11	26:AJ:91:LYS:HB2	1.70	0.73
4:AK:83:LEU:HB2	4:AK:85:LEU:CG	2.18	0.73
11:AL:151:THR:O	11:AL:153:LYS:CD	2.33	0.73
11:AL:80:MET:HG3	11:AL:86:ILE:HG22	1.69	0.73
10:AN:92:ILE:O	10:AN:96:VAL:HG23	1.87	0.73
13:AP:49:LEU:CD1	13:AP:51:ARG:NH2	2.51	0.73
17:AV:23:ILE:HD13	28:AC:249:SER:O	1.86	0.73
6:AX:89:GLY:O	6:AX:92:ASN:HB2	1.88	0.73
36:B2:1601:A:H5'	36:B2:1602:U:C5	2.24	0.73
51:CA:31:ALA:H	51:CA:123:ARG:NH2	1.86	0.73
63:CB:173:LEU:HD12	63:CB:342:LYS:CE	2.07	0.73
74:CC:109:ARG:NE	74:CC:111:TRP:HH2	1.87	0.73
74:CC:144:ILE:HD11	74:CC:249:PHE:CD1	2.17	0.73
81:CE:55:GLY:HA3	81:CE:62:MET:H	1.52	0.73
82:CG:98:LEU:CG	82:CG:215:LEU:CD2	2.66	0.73
82:CG:86:ALA:HB1	82:CG:226:TYR:OH	1.88	0.73
80:CH:44:GLU:OE2	80:CH:46:SER:OG	2.06	0.73
47:CI:69:ARG:NH1	47:CI:70:ILE:CG1	2.51	0.73
79:CJ:48:PRO:CB	79:CJ:72:CYS:HG	1.98	0.73
40:CK:1:MET:N	40:CK:2:PRO:HB3	2.02	0.73
42:CL:150:LEU:O	42:CL:151:THR:CB	2.36	0.73
41:CO:121:PRO:CD	41:CO:122:ALA:H	2.00	0.73
49:CQ:110:ARG:HH21	49:CQ:120:ILE:HD12	1.49	0.73
49:CQ:161:SER:HG	49:CQ:162:HIS:CE1	2.05	0.73
52:CS:19:THR:O	52:CS:21:LYS:HG2	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CT:148:PRO:HD2	53:CT:148:PRO:O	1.86	0.73
27:AE:165:GLU:CA	27:AE:165:GLU:OE2	2.29	0.73
27:AE:180:LEU:HD13	27:AE:228:ILE:HD11	1.70	0.73
29:AG:130:PRO:HB2	58:CW:83:THR:HG22	1.69	0.73
29:AG:162:LEU:HD23	29:AG:172:LYS:NZ	2.03	0.73
26:AJ:88:ASP:C	26:AJ:92:MET:CG	2.48	0.73
7:AM:35:ILE:HB	7:AM:61:TYR:HE2	1.53	0.73
13:AP:80:LEU:O	13:AP:116:LEU:HD12	1.89	0.73
34:AQ:8:GLN:HG2	34:AQ:99:TYR:HD1	1.53	0.73
12:AR:91:LEU:CB	12:AR:92:ASP:HA	2.17	0.73
18:AY:87:PRO:HG2	18:AY:90:ARG:HB2	1.67	0.73
74:CC:341:LEU:CD1	81:CE:52:ARG:HH21	1.80	0.73
82:CG:160:ASP:CG	82:CG:187:LYS:HB3	2.06	0.73
47:CI:105:CYS:O	47:CI:108:ALA:HB3	1.88	0.73
40:CK:53:TRP:CD1	40:CK:53:TRP:N	2.51	0.73
42:CL:116:ARG:HH11	42:CL:155:MET:HB2	1.50	0.73
42:CL:50:PRO:HG2	42:CL:51:ALA:CB	2.17	0.73
41:CO:127:VAL:O	52:CS:158:VAL:CG2	2.30	0.73
54:CP:107:LEU:CD2	54:CP:107:LEU:N	2.30	0.73
49:CQ:110:ARG:CG	49:CQ:120:ILE:HD13	2.17	0.73
57:CY:44:VAL:HG21	57:CY:119:LEU:HD12	1.70	0.73
16:AA:177:MET:CE	16:AA:180:ARG:HH21	1.95	0.73
16:AA:180:ARG:NH1	16:AA:184:ARG:NH1	2.37	0.73
16:AA:169:HIS:HB3	16:AA:203:PHE:CZ	2.24	0.73
15:AB:49:VAL:HG22	15:AB:65:ARG:CZ	2.18	0.73
15:AB:52:THR:HG22	15:AB:58:ALA:HB3	1.71	0.73
3:AU:107:GLU:OE2	23:AD:40:ARG:CZ	2.36	0.73
31:AH:119:SER:O	31:AH:120:ARG:NE	2.22	0.73
26:AJ:162:ARG:O	26:AJ:162:ARG:HG2	1.88	0.73
26:AJ:134:HIS:HE1	26:AJ:164:PRO:HD3	1.53	0.73
4:AK:71:LEU:CD2	4:AK:76:ILE:HD11	2.14	0.73
7:AM:71:GLU:CD	7:AM:71:GLU:N	2.39	0.73
32:AW:90:GLN:HB2	32:AW:94:LEU:HD12	1.71	0.73
6:AX:52:LEU:HG	6:AX:71:ARG:O	1.88	0.73
18:AY:9:THR:HB	18:AY:23:MET:HG3	1.69	0.73
19:AZ:103:HIS:HD2	19:AZ:105:ALA:N	1.87	0.73
63:CB:89:ILE:CG2	63:CB:197:ALA:HB1	2.17	0.73
58:CW:12:LYS:CE	63:CB:388:PHE:HD2	2.02	0.73
63:CB:68:ASN:OD1	63:CB:69:LYS:HG2	1.89	0.73
74:CC:233:SER:O	74:CC:263:LEU:HD11	1.88	0.73
74:CC:350:ARG:H	74:CC:350:ARG:HD2	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:195:ILE:CG2	81:CE:288:PHE:HE2	2.02	0.73
81:CE:51:VAL:CB	81:CE:52:ARG:CA	2.66	0.73
81:CE:72:LYS:O	81:CE:74:SER:HB2	1.89	0.73
80:CH:45:LEU:HD21	80:CH:57:VAL:CG1	2.14	0.73
47:CI:69:ARG:NH1	47:CI:70:ILE:HG13	2.04	0.73
40:CK:120:SER:O	40:CK:122:ALA:N	2.15	0.73
49:CQ:138:LEU:C	49:CQ:139:LEU:HG	2.07	0.73
49:CQ:64:SER:HB3	49:CQ:92:VAL:CG2	2.18	0.73
50:CR:99:MET:HE1	50:CR:128:LYS:CA	2.18	0.73
53:CT:30:TYR:HH	53:CT:94:GLU:CG	2.02	0.73
53:CT:7:LYS:HE2	53:CT:54:HIS:CG	2.22	0.73
55:CU:58:GLY:O	55:CU:61:VAL:HG23	1.88	0.73
28:AC:94:ILE:HD13	28:AC:162:ILE:HD12	0.79	0.73
26:AJ:72:PHE:CZ	27:AE:248:ILE:HD12	2.21	0.73
30:AF:45:TYR:HD1	30:AF:45:TYR:N	1.85	0.73
11:AL:80:MET:CE	11:AL:121:GLN:N	2.32	0.73
14:AT:77:LYS:HA	14:AT:94:ARG:HA	1.71	0.73
18:AY:114:MET:C	18:AY:124:ASN:ND2	2.41	0.73
18:AY:19:GLN:HG2	18:AY:81:TYR:HD1	1.53	0.73
63:CB:34:LYS:CD	63:CB:34:LYS:N	2.42	0.73
63:CB:62:ARG:H	63:CB:68:ASN:HD22	1.34	0.73
74:CC:57:LEU:O	74:CC:58:ALA:HB3	1.88	0.73
81:CE:127:SER:CA	81:CE:129:GLY:H	2.02	0.73
80:CH:110:SER:CB	80:CH:128:MET:H	1.99	0.73
80:CH:118:LEU:HD11	80:CH:167:VAL:HG22	1.69	0.73
42:CL:167:ARG:HH22	42:CL:170:THR:CB	2.02	0.73
46:CN:46:ASP:C	46:CN:49:ARG:O	2.26	0.73
49:CQ:168:ARG:O	49:CQ:168:ARG:CG	2.34	0.73
56:CX:52:LEU:HD22	56:CX:53:ARG:N	2.02	0.73
16:AA:149:ASN:OD1	16:AA:150:THR:N	2.20	0.73
16:AA:45:GLY:O	16:AA:46:ILE:CD1	2.36	0.73
23:AD:53:THR:CG2	23:AD:91:VAL:HB	2.19	0.73
27:AE:18:TRP:CE3	27:AE:46:ILE:HD11	2.24	0.73
31:AH:148:LEU:O	31:AH:148:LEU:HD23	1.89	0.73
26:AJ:180:LYS:O	26:AJ:180:LYS:HD2	1.88	0.73
10:AN:131:THR:C	10:AN:132:LYS:HD2	2.08	0.73
10:AN:139:TRP:CE3	10:AN:140:LYS:N	2.57	0.73
34:AQ:108:ILE:HA	34:AQ:111:ILE:HD12	1.71	0.73
34:AQ:39:LEU:O	34:AQ:42:ILE:HD11	1.88	0.73
8:AS:136:THR:HG1	36:B2:1521:C:P	2.09	0.73
32:AW:36:ARG:CD	32:AW:110:ILE:HD12	2.14	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AX:60:LYS:CG	6:AX:116:PRO:HG3	2.19	0.73
19:AZ:103:HIS:O	19:AZ:105:ALA:N	2.21	0.73
19:AZ:92:LEU:HD11	19:AZ:109:TYR:HE1	1.52	0.73
63:CB:159:VAL:CG1	63:CB:184:GLN:NE2	2.52	0.73
63:CB:395:ASP:CA	63:CB:396:ARG:HB3	2.07	0.73
63:CB:39:LYS:HD3	63:CB:40:PRO:HD2	1.71	0.73
63:CB:90:VAL:CG2	63:CB:104:THR:HG23	2.18	0.73
48:CD:205:ALA:HB2	48:CD:236:MET:SD	2.29	0.73
48:CD:47:PRO:HB2	48:CD:66:TYR:HD1	1.43	0.73
48:CD:48:LYS:O	48:CD:66:TYR:HB2	1.88	0.73
81:CE:45:SER:CB	81:CE:49:VAL:CB	2.43	0.73
81:CE:91:THR:O	81:CE:93:THR:HG23	1.89	0.73
64:CF:28:LEU:O	64:CF:31:LYS:N	2.20	0.73
82:CG:162:ASP:H	82:CG:163:PRO:CD	1.98	0.73
82:CG:89:ARG:H	82:CG:89:ARG:HE	1.37	0.73
47:CI:52:MET:HB2	47:CI:152:LEU:HD22	1.68	0.73
79:CJ:9:GLU:O	79:CJ:10:ASN:CG	2.27	0.73
42:CL:179:PHE:CE2	42:CL:183:ARG:HG3	2.23	0.73
43:CV:9:SER:HG	43:CV:128:LEU:CD1	2.01	0.73
56:CX:156:ILE:HG23	56:CX:156:ILE:OXT	1.88	0.73
23:AD:105:LEU:CD2	23:AD:184:ILE:CD1	2.56	0.73
27:AE:258:ALA:O	27:AE:259:LYS:CB	2.33	0.73
29:AG:63:MET:HE3	29:AG:106:LEU:CD2	2.19	0.73
26:AJ:138:ARG:CG	26:AJ:138:ARG:O	2.36	0.73
7:AM:94:ILE:HG23	7:AM:95:ASP:H	0.67	0.73
34:AQ:50:LYS:HA	34:AQ:53:GLU:OE2	1.87	0.73
8:AS:111:LEU:HD21	8:AS:125:HIS:CE1	2.24	0.73
14:AT:63:HIS:O	14:AT:67:ARG:NE	2.22	0.73
6:AX:27:TYR:CE1	6:AX:31:HIS:CD2	2.70	0.73
18:AY:102:THR:CB	18:AY:107:ARG:HE	2.02	0.73
18:AY:92:ALA:HA	18:AY:97:TYR:CB	2.18	0.73
19:AZ:73:VAL:HG12	19:AZ:79:ILE:CG2	2.18	0.73
81:CE:202:ASP:O	81:CE:260:LYS:CD	2.29	0.73
82:CG:161:VAL:HG13	82:CG:164:ILE:HA	1.69	0.73
80:CH:93:ARG:NE	80:CH:143:GLU:CD	2.41	0.73
79:CJ:163:MET:HB3	79:CJ:174:ILE:CD1	2.19	0.73
40:CK:86:LYS:CA	40:CK:104:ILE:HG12	2.19	0.73
40:CK:160:VAL:C	40:CK:163:PRO:HG2	1.96	0.73
40:CK:22:VAL:HG22	40:CK:48:LYS:HA	1.70	0.73
42:CL:154:VAL:HA	42:CL:155:MET:SD	2.29	0.73
49:CQ:154:LYS:HB3	49:CQ:155:ALA:CB	2.08	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CZ:47:ASP:OD2	59:CZ:69:LYS:HG2	1.88	0.73
28:AC:237:ALA:O	28:AC:240:THR:HG22	1.89	0.73
27:AE:151:ASP:CB	29:AG:212:LEU:HD22	2.13	0.73
10:AN:125:LEU:CD1	10:AN:129:TYR:HE2	1.92	0.73
34:AQ:98:LYS:HE3	34:AQ:99:TYR:CZ	2.24	0.73
12:AR:44:LYS:CG	12:AR:47:ARG:NH2	2.51	0.73
3:AU:41:ARG:O	3:AU:45:GLU:CB	2.36	0.73
32:AW:11:LEU:O	32:AW:14:ILE:HG13	1.88	0.73
51:CA:245:ARG:HD2	51:CA:245:ARG:H	1.53	0.73
63:CB:397:ILE:O	63:CB:398:ALA:HB3	1.89	0.73
81:CE:224:LYS:O	81:CE:226:ARG:HA	1.89	0.73
82:CG:217:LYS:HE2	82:CG:217:LYS:N	2.04	0.73
51:CA:67:TYR:CD1	82:CG:46:GLN:CB	2.72	0.73
46:CN:47:LYS:C	46:CN:49:ARG:O	2.28	0.73
46:CN:46:ASP:HB3	46:CN:50:ARG:HH12	0.57	0.73
41:CO:130:LYS:CE	41:CO:133:ARG:HH21	2.02	0.73
50:CR:178:GLN:HA	50:CR:181:LYS:HD3	1.69	0.73
50:CR:44:LEU:HD22	50:CR:49:LEU:HB2	1.71	0.73
50:CR:94:THR:HA	50:CR:97:ARG:HD2	1.71	0.73
26:AJ:84:ILE:HD12	26:AJ:86:VAL:HG21	1.70	0.72
11:AL:80:MET:CE	11:AL:120:VAL:HG12	2.18	0.72
5:AO:38:ASN:O	5:AO:68:GLU:OE1	2.07	0.72
13:AP:39:ALA:O	13:AP:42:ARG:HG3	1.89	0.72
13:AP:53:GLN:HE21	13:AP:80:LEU:CD2	2.02	0.72
14:AT:117:GLN:O	14:AT:118:ASP:HB2	1.88	0.72
14:AT:30:VAL:O	14:AT:32:GLU:N	2.22	0.72
3:AU:50:VAL:CG2	3:AU:52:GLY:N	2.52	0.72
32:AW:11:LEU:CD1	32:AW:74:VAL:HB	2.17	0.72
32:AW:15:ASN:ND2	32:AW:19:LYS:HE3	2.03	0.72
32:AW:3:ARG:CZ	32:AW:9:ASP:OD2	2.37	0.72
36:B2:1741:U:O4	36:B2:1793:A:C2	2.42	0.72
51:CA:116:LEU:CD1	51:CA:126:LEU:HB2	2.19	0.72
51:CA:179:ILE:O	51:CA:184:ARG:HD2	1.89	0.72
74:CC:15:GLY:O	74:CC:16:GLU:HG2	1.89	0.72
74:CC:318:PRO:O	74:CC:320:LYS:C	2.28	0.72
48:CD:146:LEU:HD11	48:CD:163:LEU:CD1	2.17	0.72
48:CD:20:PHE:HD2	48:CD:30:TYR:HE2	1.23	0.72
81:CE:46:ARG:O	81:CE:47:ASN:CB	2.36	0.72
64:CF:135:ILE:HD13	64:CF:135:ILE:O	1.89	0.72
82:CG:49:ARG:HG2	82:CG:50:ASP:N	2.04	0.72
42:CL:19:GLN:CB	42:CL:20:ARG:HH12	2.02	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:CM:35:ARG:H	44:CM:52:PHE:HE2	1.34	0.72
41:CO:16:LEU:HD21	41:CO:138:LEU:HD21	1.66	0.72
54:CP:116:HIS:CE1	54:CP:118:GLN:HB3	2.21	0.72
43:CV:85:ARG:HB2	43:CV:101:ASN:OD1	1.89	0.72
15:AB:139:CYS:CB	15:AB:168:MET:SD	2.77	0.72
5:AO:47:LEU:CB	15:AB:67:PHE:CE1	2.72	0.72
23:AD:195:THR:CG2	23:AD:197:LYS:HG2	2.19	0.72
23:AD:166:TYR:HD1	23:AD:200:PRO:CB	2.02	0.72
27:AE:180:LEU:HD22	27:AE:181:CYS:N	2.04	0.72
26:AJ:72:PHE:CE2	27:AE:248:ILE:CD1	2.45	0.72
31:AH:164:ASN:HA	31:AH:167:GLU:HG3	1.71	0.72
11:AL:71:ARG:HD3	11:AL:73:LEU:HD21	0.79	0.72
5:AO:32:HIS:HE1	5:AO:96:LYS:HD2	1.53	0.72
13:AP:53:GLN:HE21	13:AP:80:LEU:HD22	1.51	0.72
13:AP:84:ILE:HG22	13:AP:86:LEU:HD22	1.71	0.72
34:AQ:130:LYS:HD2	34:AQ:135:PRO:O	1.88	0.72
34:AQ:42:ILE:CG2	34:AQ:51:LEU:HD21	2.19	0.72
34:AQ:19:ALA:HB2	34:AQ:75:GLY:N	2.03	0.72
12:AR:88:VAL:O	12:AR:88:VAL:HG13	1.89	0.72
18:AY:54:VAL:HG13	18:AY:76:TYR:O	1.87	0.72
18:AY:78:SER:HB3	18:AY:81:TYR:HD2	0.56	0.72
36:B2:1521:C:OP2	36:B2:1521:C:H6	1.72	0.72
36:B2:931:C:C6	36:B2:931:C:O5'	2.42	0.72
51:CA:82:ILE:CD1	51:CA:99:GLY:HA2	2.17	0.72
74:CC:295:SER:HB2	74:CC:296:PRO:CD	2.20	0.72
82:CG:133:PRO:O	82:CG:133:PRO:CG	2.36	0.72
40:CK:1:MET:C	40:CK:2:PRO:HB3	2.08	0.72
40:CK:39:PRO:C	40:CK:40:LYS:HG3	2.10	0.72
42:CL:100:PRO:HD2	42:CL:101:ARG:N	2.03	0.72
42:CL:129:ARG:O	42:CL:130:LYS:CB	2.37	0.72
42:CL:126:LEU:O	42:CL:138:ASP:HB2	1.89	0.72
44:CM:33:GLN:O	44:CM:52:PHE:CD2	2.42	0.72
43:CV:99:GLU:OE1	58:CW:24:THR:CG2	2.37	0.72
23:AD:162:ASP:CG	23:AD:166:TYR:HE2	1.92	0.72
27:AE:100:ARG:HD3	27:AE:102:ILE:HD12	1.71	0.72
30:AF:44:LYS:C	30:AF:45:TYR:CD1	2.62	0.72
29:AG:32:MET:O	29:AG:33:ALA:HB3	1.87	0.72
31:AH:164:ASN:OD1	31:AH:167:GLU:CD	2.26	0.72
26:AJ:114:VAL:CG1	26:AJ:120:ALA:HB2	2.13	0.72
11:AL:97:ARG:C	11:AL:99:TYR:N	2.33	0.72
5:AO:64:ALA:HB1	5:AO:66:ARG:HE	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AY:29:HIS:HD1	18:AY:67:GLY:HA2	1.52	0.72
19:AZ:48:VAL:CG2	19:AZ:80:ARG:CD	2.54	0.72
36:B2:1507:G:O5'	36:B2:1507:G:H1'	1.88	0.72
74:CC:128:LEU:HD21	74:CC:240:LEU:HD11	1.70	0.72
74:CC:28:PHE:CE1	74:CC:129:ALA:O	2.41	0.72
81:CE:144:ILE:CD1	81:CE:196:ALA:CB	2.67	0.72
81:CE:242:ILE:HD11	81:CE:246:ARG:NH1	2.03	0.72
81:CE:51:VAL:HB	81:CE:52:ARG:CA	2.17	0.72
47:CI:102:MET:SD	47:CI:102:MET:O	2.47	0.72
47:CI:39:LYS:HA	47:CI:86:HIS:CD2	2.23	0.72
79:CJ:18:ARG:HH21	79:CJ:139:PHE:HE1	1.29	0.72
40:CK:41:LYS:HE2	40:CK:45:ASP:OD2	1.88	0.72
46:CN:115:VAL:CA	46:CN:134:LEU:HD22	2.18	0.72
49:CQ:103:LEU:HD23	49:CQ:123:PHE:HD2	1.52	0.72
52:CS:16:CYS:SG	52:CS:54:MET:HE1	2.27	0.72
43:CV:82:ILE:HG21	43:CV:121:VAL:CG2	2.18	0.72
43:CV:9:SER:HG	43:CV:128:LEU:HG	1.52	0.72
57:CY:51:LYS:HG2	57:CY:70:VAL:O	1.89	0.72
57:CY:62:TYR:CE1	57:CY:85:VAL:CG1	2.72	0.72
40:CK:2:PRO:HB2	85:A5:2692:U:C2'	183.98	0.72
16:AA:58:LEU:HD21	16:AA:178:LEU:HD23	0.74	0.72
28:AC:256:TRP:CE2	32:AW:68:ARG:HD3	2.25	0.72
30:AF:103:LEU:HD23	30:AF:103:LEU:C	4.31	0.72
30:AF:166:ILE:H	30:AF:166:ILE:HD12	1.54	0.72
33:AI:142:SER:HB3	33:AI:143:LYS:CG	2.20	0.72
11:AL:19:ASN:CG	33:AI:69:SER:HB3	2.10	0.72
7:AM:11:VAL:O	7:AM:12:MET:CB	2.36	0.72
32:AW:101:PHE:HB2	32:AW:129:PHE:CE1	2.25	0.72
32:AW:22:LYS:O	32:AW:65:LEU:HD11	1.89	0.72
18:AY:102:THR:HB	18:AY:104:ARG:N	2.04	0.72
51:CA:188:LYS:HG2	51:CA:189:TYR:CD2	2.24	0.72
63:CB:165:HIS:HB3	63:CB:180:LEU:HD11	1.64	0.72
63:CB:58:ARG:CA	63:CB:366:LYS:HD3	2.19	0.72
48:CD:130:TYR:CD2	48:CD:131:ASN:O	2.41	0.72
81:CE:155:GLY:O	81:CE:158:ARG:HB3	1.89	0.72
81:CE:232:ILE:CG1	81:CE:232:ILE:O	2.30	0.72
81:CE:195:ILE:HG21	81:CE:288:PHE:CZ	2.24	0.72
64:CF:30:ILE:O	64:CF:34:ARG:CG	2.37	0.72
82:CG:73:ARG:NH1	82:CG:242:LEU:HA	2.03	0.72
80:CH:25:VAL:CG1	80:CH:38:PHE:CE2	2.72	0.72
79:CJ:90:ARG:HH12	79:CJ:107:PHE:CA	2.02	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CK:22:VAL:CG2	40:CK:48:LYS:HG3	2.20	0.72
41:CO:177:LEU:HA	44:CM:130:LEU:CD2	2.18	0.72
44:CM:39:ASP:CG	44:CM:47:ARG:HB2	2.09	0.72
46:CN:192:TRP:O	46:CN:195:ARG:HG2	1.89	0.72
52:CS:153:PRO:HD2	52:CS:153:PRO:O	1.87	0.72
52:CS:22:CYS:N	52:CS:23:HIS:CD2	2.57	0.72
53:CT:145:GLY:O	53:CT:146:LYS:HG2	1.89	0.72
55:CU:84:LYS:HE3	55:CU:102:VAL:CG1	2.19	0.72
43:CV:100:ASP:C	43:CV:101:ASN:OD1	2.28	0.72
16:AA:30:LEU:CD2	16:AA:35:GLU:CG	2.51	0.72
15:AB:104:ASP:OD1	15:AB:105:LEU:N	2.21	0.72
10:AN:53:ILE:HD13	15:AB:52:THR:CG2	83.73	0.72
27:AE:125:LYS:HB3	27:AE:226:PHE:CE1	2.23	0.72
29:AG:14:LYS:HZ1	29:AG:123:GLY:HA2	1.55	0.72
26:AJ:100:LEU:CG	26:AJ:101:LYS:N	2.50	0.72
4:AK:47:LYS:O	4:AK:50:GLN:HG2	1.88	0.72
10:AN:5:HIS:CD2	10:AN:121:ARG:HE	2.08	0.72
10:AN:27:LYS:H	10:AN:27:LYS:CD	1.96	0.72
13:AP:93:MET:SD	13:AP:106:GLU:CB	2.77	0.72
14:AT:11:GLN:NE2	14:AT:62:ARG:NH1	2.36	0.72
6:AX:108:LYS:CB	6:AX:110:HIS:CE1	2.72	0.72
18:AY:56:PHE:CB	18:AY:58:PHE:HE2	2.03	0.72
18:AY:56:PHE:CD2	18:AY:86:GLU:OE2	2.43	0.72
51:CA:209:HIS:HE1	51:CA:211:PHE:CD1	2.04	0.72
63:CB:133:TYR:CD1	63:CB:136:LYS:CD	2.73	0.72
63:CB:84:MET:SD	63:CB:164:ALA:HB3	2.30	0.72
63:CB:51:ALA:CB	63:CB:78:ILE:CD1	2.64	0.72
48:CD:273:LEU:CD1	48:CD:277:LYS:NZ	2.51	0.72
81:CE:111:LYS:CB	81:CE:113:PRO:CD	2.67	0.72
81:CE:182:ASN:HD21	81:CE:271:LEU:HB3	1.54	0.72
81:CE:83:LYS:HB3	81:CE:84:LYS:C	2.07	0.72
82:CG:128:VAL:N	82:CG:129:PRO:HD3	2.03	0.72
47:CI:87:MET:HG2	47:CI:138:ILE:HG12	1.71	0.72
40:CK:1:MET:N	40:CK:2:PRO:CD	2.51	0.72
46:CN:115:VAL:CG2	46:CN:134:LEU:CD2	2.63	0.72
54:CP:16:LYS:HG2	54:CP:149:ILE:CG1	2.18	0.72
49:CQ:28:LEU:HD12	49:CQ:51:LEU:HD13	1.70	0.72
53:CT:79:GLN:O	53:CT:79:GLN:CG	2.33	0.72
59:CZ:118:PHE:CZ	59:CZ:130:PHE:CE2	2.78	0.72
80:CH:64:ARG:NH2	85:A5:4693:C:OP1	2.22	0.72
28:AC:251:LEU:HD23	28:AC:252:THR:O	1.90	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AF:91:ARG:NE	30:AF:91:ARG:CA	2.33	0.72
33:AI:48:VAL:CG2	33:AI:52:ASN:HB3	2.19	0.72
26:AJ:114:VAL:HG13	26:AJ:119:LEU:O	1.90	0.72
26:AJ:131:ARG:HH11	26:AJ:143:ASN:HD21	1.36	0.72
26:AJ:138:ARG:HH12	26:AJ:156:HIS:CD2	2.05	0.72
34:AQ:85:ARG:HH12	34:AQ:117:ARG:HG2	1.18	0.72
12:AR:13:ALA:CB	12:AR:54:VAL:CG2	2.68	0.72
8:AS:106:LYS:HD2	8:AS:109:GLU:OE1	1.90	0.72
17:AV:55:ILE:HD13	17:AV:65:SER:CA	2.13	0.72
32:AW:14:ILE:HG13	32:AW:15:ASN:H	1.54	0.72
63:CB:297:LYS:HD2	63:CB:297:LYS:O	1.90	0.72
80:CH:50:LYS:N	80:CH:50:LYS:NZ	2.37	0.72
79:CJ:134:LEU:C	79:CJ:157:ILE:HD11	2.09	0.72
46:CN:44:ARG:CD	46:CN:119:TYR:CD1	2.69	0.72
50:CR:65:LYS:O	50:CR:68:LEU:CG	2.38	0.72
50:CR:68:LEU:CD1	50:CR:69:ALA:N	2.51	0.72
53:CT:68:THR:CB	53:CT:71:ALA:HB3	2.18	0.72
58:CW:76:VAL:HG12	58:CW:77:LYS:H	1.54	0.72
58:CW:87:LEU:O	58:CW:91:MET:CE	2.37	0.72
56:CX:38:LYS:CG	56:CX:39:LYS:N	2.52	0.72
23:AD:198:ILE:O	23:AD:198:ILE:HG13	1.90	0.72
27:AE:11:ARG:O	27:AE:12:VAL:CB	2.38	0.72
27:AE:123:LEU:HD12	27:AE:161:GLN:HA	1.72	0.72
27:AE:36:HIS:O	27:AE:41:CYS:SG	2.47	0.72
29:AG:157:VAL:HG13	29:AG:158:VAL:C	2.10	0.72
31:AH:143:ARG:HA	32:AW:52:ILE:O	1.89	0.72
26:AJ:101:LYS:HG2	26:AJ:103:GLU:OE1	1.89	0.72
26:AJ:127:ARG:NH1	26:AJ:145:PRO:HB3	2.03	0.72
4:AK:83:LEU:CB	4:AK:85:LEU:CG	2.68	0.72
13:AP:12:PHE:CZ	79:CJ:88:LYS:HD2	2.25	0.72
13:AP:49:LEU:HA	13:AP:51:ARG:CD	2.19	0.72
34:AQ:85:ARG:NH1	34:AQ:117:ARG:CB	2.51	0.72
8:AS:34:LYS:C	8:AS:103:LEU:HD23	2.10	0.72
51:CA:39:GLY:HA3	82:CG:41:ILE:HD12	1.71	0.72
74:CC:230:LEU:CD1	74:CC:239:LYS:CD	2.66	0.72
81:CE:54:ILE:H	81:CE:63:TYR:HD2	1.36	0.72
64:CF:132:MET:CE	64:CF:132:MET:HA	2.20	0.72
82:CG:241:VAL:O	82:CG:242:LEU:HG	1.90	0.72
79:CJ:96:LYS:O	79:CJ:97:ASN:O	2.07	0.72
46:CN:11:TRP:CE2	46:CN:44:ARG:CZ	2.72	0.72
41:CO:188:LYS:HZ1	41:CO:189:ILE:H	1.34	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CU:84:LYS:CE	55:CU:102:VAL:CB	2.66	0.72
43:CV:82:ILE:CG2	43:CV:121:VAL:HG22	2.19	0.72
58:CW:47:ARG:HH11	58:CW:58:LYS:HD3	1.55	0.72
16:AA:123:VAL:HG22	16:AA:145:ILE:HB	1.71	0.72
12:AR:85:VAL:HG11	16:AA:198:MET:HB2	1.69	0.72
5:AO:17:LEU:HD21	15:AB:30:TRP:NE1	2.05	0.72
28:AC:171:GLY:HA2	32:AW:98:GLN:NE2	2.03	0.72
28:AC:227:ARG:C	28:AC:227:ARG:CD	2.44	0.72
28:AC:69:LEU:HD21	28:AC:269:PHE:HB3	1.71	0.72
27:AE:229:GLY:CA	27:AE:235:TRP:HD1	2.03	0.72
29:AG:93:LYS:HD3	29:AG:95:LYS:HD2	1.70	0.72
33:AI:4:SER:O	33:AI:6:ASP:N	2.22	0.72
26:AJ:84:ILE:HG13	26:AJ:86:VAL:HG23	1.72	0.72
5:AO:72:TYR:HE1	5:AO:76:LEU:HD11	1.54	0.72
5:AO:88:LEU:HD13	15:AB:25:PHE:CE1	2.24	0.72
63:CB:235:TRP:O	63:CB:236:HIS:CB	2.21	0.72
63:CB:298:LEU:CA	63:CB:300:LYS:CG	2.68	0.72
63:CB:354:GLN:OE1	63:CB:354:GLN:CA	2.30	0.72
74:CC:213:GLU:HG2	74:CC:213:GLU:O	1.90	0.72
48:CD:57:ASN:C	48:CD:58:ARG:HG2	2.08	0.72
47:CI:13:LYS:CG	47:CI:13:LYS:O	4.34	0.72
47:CI:82:ARG:HH11	47:CI:82:ARG:CG	2.02	0.72
44:CM:104:MET:HG2	44:CM:108:ASP:HB3	1.70	0.72
46:CN:150:TRP:CE2	46:CN:151:ILE:HG13	2.24	0.72
41:CO:16:LEU:HD13	41:CO:43:ILE:HD11	1.66	0.72
54:CP:32:THR:OG1	54:CP:91:LEU:CD2	2.37	0.72
50:CR:160:GLU:O	50:CR:164:SER:CB	2.38	0.72
55:CU:60:VAL:H	55:CU:75:GLU:HG3	1.53	0.72
57:CY:82:ILE:HG22	57:CY:83:GLU:C	2.10	0.72
16:AA:127:PRO:CG	16:AA:152:SER:HB3	2.19	0.72
16:AA:186:ARG:O	16:AA:186:ARG:CZ	2.38	0.72
23:AD:21:LEU:HD13	23:AD:48:ILE:HD11	1.71	0.72
31:AH:166:VAL:HG22	31:AH:173:PHE:HE2	1.55	0.72
31:AH:66:VAL:HG22	31:AH:96:ALA:HB1	1.71	0.72
33:AI:148:LYS:O	33:AI:152:ARG:HG3	1.90	0.72
33:AI:70:GLU:HB3	33:AI:72:CYS:SG	2.30	0.72
33:AI:62:VAL:HG21	33:AI:75:LYS:HE2	1.70	0.72
26:AJ:37:LEU:HG	26:AJ:42:GLU:CB	2.20	0.72
4:AK:43:LEU:C	4:AK:45:VAL:N	2.43	0.72
7:AM:85:LEU:CA	7:AM:88:TRP:CE3	2.67	0.72
8:AS:119:ALA:HA	13:AP:119:PHE:HA	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:44:ARG:HE	13:AP:84:ILE:HD12	0.56	0.72
12:AR:115:SER:O	12:AR:116:ASN:OD1	2.08	0.72
14:AT:111:LYS:HB2	14:AT:126:GLN:NE2	2.03	0.72
6:AX:54:LYS:HD2	6:AX:91:LEU:HD12	1.72	0.72
19:AZ:99:LEU:HD21	19:AZ:109:TYR:HE1	1.47	0.72
19:AZ:96:LEU:O	19:AZ:112:ASN:CB	2.37	0.72
63:CB:165:HIS:HB3	63:CB:180:LEU:HD12	1.50	0.72
74:CC:230:LEU:HD12	74:CC:239:LYS:HD2	1.70	0.72
74:CC:30:ALA:HB1	74:CC:31:PRO:HD3	1.71	0.72
48:CD:190:PHE:HE2	48:CD:192:ALA:CB	2.03	0.72
81:CE:181:LEU:CD2	81:CE:268:GLN:HG3	2.18	0.72
81:CE:282:TYR:HB3	81:CE:283:PRO:CD	2.20	0.72
80:CH:187:VAL:HG12	80:CH:187:VAL:O	1.89	0.72
47:CI:101:LYS:HZ3	47:CI:101:LYS:CB	2.03	0.72
40:CK:105:THR:HG22	40:CK:144:ASP:H	1.55	0.72
44:CM:32:ASP:HB2	44:CM:35:ARG:HG3	1.70	0.72
41:CO:108:ILE:HG23	41:CO:108:ILE:O	1.90	0.72
49:CQ:158:THR:N	49:CQ:159:PRO:CD	2.53	0.72
49:CQ:88:ASP:HB2	49:CQ:108:ARG:CB	2.20	0.72
52:CS:17:LEU:HG	52:CS:58:SER:CA	2.19	0.72
52:CS:30:MET:HE1	52:CS:47:PHE:CB	2.20	0.72
53:CT:30:TYR:OH	53:CT:94:GLU:HG2	1.89	0.72
43:CV:16:ILE:HD12	43:CV:57:VAL:HB	1.70	0.72
58:CW:87:LEU:HD22	58:CW:90:ILE:HD12	1.68	0.72
56:CX:77:ILE:HD11	56:CX:113:VAL:HG23	1.72	0.72
57:CY:117:LYS:CE	57:CY:121:ARG:HH22	1.77	0.72
31:AH:32:MET:O	31:AH:33:ASN:CB	2.38	0.72
11:AL:19:ASN:HD22	33:AI:69:SER:HB2	1.53	0.72
10:AN:54:LEU:CB	10:AN:60:VAL:HG21	2.18	0.72
5:AO:48:SER:N	15:AB:67:PHE:HE1	1.84	0.72
34:AQ:8:GLN:CB	34:AQ:99:TYR:CZ	2.72	0.72
3:AU:51:LYS:CB	3:AU:90:ASP:HB2	2.18	0.72
17:AV:18:SER:OG	17:AV:72:LEU:HD13	1.90	0.72
18:AY:54:VAL:O	18:AY:54:VAL:HG12	1.89	0.72
63:CB:83:PRO:O	63:CB:167:GLN:CG	2.38	0.72
81:CE:223:ARG:O	81:CE:224:LYS:HG3	1.88	0.72
82:CG:117:ARG:HD2	82:CG:130:THR:HG21	1.72	0.72
82:CG:22:GLN:O	82:CG:25:LYS:HB3	1.90	0.72
46:CN:150:TRP:CD2	46:CN:151:ILE:HG13	2.25	0.72
41:CO:131:PRO:CD	52:CS:156:HIS:CE1	2.72	0.72
50:CR:132:PHE:CD1	50:CR:137:ILE:CG1	2.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CR:99:MET:CE	50:CR:128:LYS:HA	2.20	0.72
52:CS:23:HIS:H	52:CS:23:HIS:HD2	1.36	0.72
52:CS:45:TRP:HE1	52:CS:61:ILE:HD11	1.55	0.72
52:CS:80:ILE:CG2	52:CS:95:ARG:CG	2.67	0.72
55:CU:24:ASP:HB3	55:CU:111:GLU:HG2	1.72	0.72
43:CV:75:LYS:O	43:CV:75:LYS:HG3	1.90	0.72
56:CX:87:MET:HE1	56:CX:156:ILE:HD12	1.72	0.72
59:CZ:95:VAL:O	59:CZ:100:VAL:CG2	2.36	0.72
12:AR:123:THR:HG21	16:AA:44:ASP:HA	1.57	0.71
28:AC:164:PRO:CG	28:AC:164:PRO:O	2.30	0.71
23:AD:192:TRP:CE3	23:AD:196:GLY:CA	2.65	0.71
30:AF:134:VAL:HG11	30:AF:136:ARG:HH21	1.52	0.71
30:AF:66:CYS:SG	30:AF:67:PRO:HD2	2.30	0.71
18:AY:118:ARG:HE	29:AG:85:ARG:CZ	2.03	0.71
33:AI:106:SER:OG	33:AI:171:LEU:HG	1.90	0.71
26:AJ:110:LEU:HD13	26:AJ:130:ILE:CG1	2.04	0.71
4:AK:84:HIS:CG	4:AK:84:HIS:O	2.39	0.71
11:AL:6:THR:O	11:AL:7:GLU:O	2.06	0.71
13:AP:83:MET:HE3	13:AP:116:LEU:CD1	2.15	0.71
14:AT:124:THR:CG2	14:AT:127:GLY:H	2.01	0.71
17:AV:80:SER:O	17:AV:81:LYS:HE3	1.90	0.71
32:AW:128:PHE:CD1	32:AW:129:PHE:N	2.58	0.71
36:B2:1746:U:O2'	36:B2:1747:C:H5'	1.90	0.71
51:CA:51:ASP:OD2	51:CA:54:ARG:HD2	1.90	0.71
63:CB:58:ARG:HD3	63:CB:363:ILE:CG2	2.20	0.71
74:CC:40:VAL:HG12	74:CC:44:LEU:HD11	1.72	0.71
48:CD:42:ASN:OD1	53:CT:67:VAL:CB	2.37	0.71
48:CD:61:ILE:HG12	48:CD:79:TYR:CE1	2.24	0.71
82:CG:73:ARG:HB3	82:CG:74:LEU:HD12	1.70	0.71
79:CJ:128:LEU:HD12	79:CJ:130:PHE:CD2	2.19	0.71
79:CJ:174:ILE:HG22	79:CJ:175:LEU:H	1.55	0.71
44:CM:95:ILE:HG13	44:CM:124:LYS:HG3	29.64	0.71
44:CM:5:ARG:NH2	44:CM:59:ASP:OD1	2.23	0.71
41:CO:16:LEU:HA	41:CO:41:ILE:HD11	1.71	0.71
53:CT:11:THR:HG21	53:CT:15:PHE:HE2	1.53	0.71
59:CZ:36:ARG:HE	59:CZ:74:VAL:CG1	2.01	0.71
59:CZ:4:PHE:O	59:CZ:9:LYS:HG3	1.90	0.71
85:A5:1699:A:C8	85:A5:2096:G:OP2	2.43	0.71
15:AB:146:ARG:NH1	15:AB:146:ARG:N	2.38	0.71
28:AC:125:LYS:CE	28:AC:141:VAL:HG11	2.18	0.71
28:AC:210:PRO:HG3	28:AC:236:PHE:CZ	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:217:ILE:O	23:AD:218:LEU:CD2	2.38	0.71
23:AD:97:CYS:SG	23:AD:99:ILE:HG13	2.30	0.71
33:AI:54:LYS:HG2	33:AI:181:GLN:O	1.89	0.71
26:AJ:37:LEU:HD23	26:AJ:43:VAL:HG23	1.70	0.71
10:AN:26:LEU:HD21	10:AN:66:VAL:CG2	2.20	0.71
10:AN:6:ALA:HB1	10:AN:7:PRO:HD3	1.71	0.71
8:AS:120:HIS:CB	13:AP:121:ILE:HG22	2.20	0.71
13:AP:125:PRO:O	13:AP:126:VAL:CB	2.38	0.71
13:AP:48:GLY:O	13:AP:50:ARG:HD2	1.91	0.71
3:AU:97:ILE:CG2	3:AU:101:ILE:HD11	2.17	0.71
32:AW:17:ALA:HB2	32:AW:25:VAL:CG1	2.20	0.71
19:AZ:102:LYS:HA	19:AZ:107:VAL:HA	1.72	0.71
51:CA:254:GLU:HA	51:CA:255:LYS:HB2	1.72	0.71
63:CB:32:PHE:N	63:CB:32:PHE:HD2	1.85	0.71
82:CG:27:VAL:O	82:CG:31:LEU:HD11	1.88	0.71
44:CM:3:PHE:O	44:CM:5:ARG:N	2.23	0.71
44:CM:5:ARG:NH1	44:CM:57:LEU:O	2.22	0.71
49:CQ:154:LYS:CG	49:CQ:155:ALA:O	2.38	0.71
49:CQ:158:THR:N	49:CQ:159:PRO:HD3	2.06	0.71
50:CR:134:ASN:O	50:CR:137:ILE:CG2	2.34	0.71
56:CX:38:LYS:HG2	56:CX:39:LYS:CA	2.19	0.71
28:AC:170:TRP:CH2	32:AW:97:ARG:CZ	2.72	0.71
27:AE:124:CYS:HB2	27:AE:162:ILE:HD11	1.71	0.71
27:AE:191:ARG:HD3	27:AE:245:ARG:HB2	1.71	0.71
27:AE:19:MET:HE2	36:B2:846:G:C2'	2.14	0.71
30:AF:41:VAL:CG2	30:AF:42:LYS:N	2.29	0.71
31:AH:31:GLU:OE2	31:AH:41:ARG:NE	2.22	0.71
26:AJ:170:PRO:CA	26:AJ:174:LYS:HZ3	2.02	0.71
5:AO:64:ALA:HB1	5:AO:66:ARG:NE	2.04	0.71
8:AS:52:LEU:HD12	8:AS:53:THR:N	2.05	0.71
8:AS:58:GLU:CA	8:AS:59:LEU:HD13	2.21	0.71
14:AT:84:ARG:HG3	14:AT:84:ARG:NH2	1.98	0.71
18:AY:34:THR:C	18:AY:35:VAL:CG2	2.53	0.71
51:CA:116:LEU:HG	51:CA:126:LEU:HB2	1.72	0.71
74:CC:5:ARG:C	74:CC:24:LEU:HD21	2.10	0.71
49:CQ:110:ARG:NH2	74:CC:281:MET:SD	2.63	0.71
81:CE:264:ILE:HG22	81:CE:265:PRO:N	2.05	0.71
64:CF:51:TYR:CE2	81:CE:58:SER:C	2.63	0.71
47:CI:103:LEU:O	47:CI:104:SER:HB3	1.89	0.71
41:CO:203:VAL:HG13	44:CM:101:LYS:HE3	1.72	0.71
49:CQ:110:ARG:HH11	74:CC:281:MET:CE	2.01	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:148:VAL:CG1	49:CQ:152:PHE:CZ	2.72	0.71
49:CQ:61:LEU:HD21	49:CQ:141:GLY:N	2.03	0.71
50:CR:1:MET:O	50:CR:4:LEU:HD21	1.90	0.71
55:CU:106:SER:HB2	55:CU:107:LYS:HE2	1.71	0.71
55:CU:59:GLY:O	55:CU:61:VAL:N	2.24	0.71
56:CX:131:ASP:C	56:CX:133:GLU:OE1	2.28	0.71
15:AB:205:TYR:CD2	15:AB:206:PRO:CD	2.58	0.71
27:AE:166:THR:OG1	27:AE:168:LYS:CG	2.38	0.71
27:AE:74:GLY:C	27:AE:75:LYS:HG2	2.10	0.71
29:AG:131:ARG:HG2	29:AG:131:ARG:CD	2.15	0.71
29:AG:64:LYS:C	29:AG:64:LYS:HD3	2.09	0.71
29:AG:71:GLY:HA2	29:AG:98:ARG:HH21	1.55	0.71
33:AI:82:VAL:CG1	33:AI:202:ILE:HD13	2.21	0.71
26:AJ:110:LEU:HB3	26:AJ:130:ILE:HD13	1.73	0.71
26:AJ:164:PRO:HA	26:AJ:167:GLY:O	1.90	0.71
26:AJ:37:LEU:HD21	26:AJ:43:VAL:N	2.05	0.71
7:AM:131:LYS:O	7:AM:132:LYS:HG3	1.90	0.71
34:AQ:58:LEU:HD21	34:AQ:111:ILE:HD12	1.70	0.71
12:AR:77:GLU:O	12:AR:81:ARG:HG3	1.90	0.71
14:AT:42:HIS:CE1	14:AT:93:SER:CA	2.73	0.71
51:CA:188:LYS:CD	51:CA:189:TYR:CE2	2.73	0.71
63:CB:140:GLU:O	63:CB:141:ASP:HB3	1.90	0.71
63:CB:81:THR:OG1	63:CB:330:PHE:HA	1.90	0.71
74:CC:204:ARG:HA	74:CC:204:ARG:NE	2.04	0.71
81:CE:224:LYS:O	81:CE:226:ARG:HD3	1.90	0.71
82:CG:128:VAL:HG12	82:CG:128:VAL:O	1.90	0.71
82:CG:150:LYS:CG	82:CG:177:MET:HE3	2.19	0.71
82:CG:243:GLY:CA	82:CG:244:PRO:HD3	2.21	0.71
80:CH:79:ASN:HA	80:CH:82:LYS:HG3	1.71	0.71
40:CK:38:SER:OG	40:CK:39:PRO:CD	2.38	0.71
42:CL:50:PRO:HG2	42:CL:51:ALA:HB1	1.72	0.71
49:CQ:93:GLN:C	49:CQ:94:GLU:OE2	2.29	0.71
57:CY:27:ARG:NH2	57:CY:28:LYS:CE	2.53	0.71
86:A7:115:A:H8	86:A7:115:A:H5''	1.56	0.71
16:AA:39:TYR:CB	16:AA:50:ASN:HD21	2.01	0.71
16:AA:52:LYS:HZ1	16:AA:52:LYS:HB3	1.52	0.71
28:AC:91:SER:O	28:AC:94:ILE:CG2	2.38	0.71
29:AG:24:LEU:O	29:AG:26:THR:N	2.23	0.71
33:AI:112:TRP:CZ3	33:AI:117:TYR:HE2	2.08	0.71
33:AI:155:ASN:C	33:AI:157:LYS:H	1.93	0.71
5:AO:17:LEU:HG	5:AO:18:GLY:H	1.56	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AQ:112:LEU:HD13	34:AQ:120:LEU:CD2	2.21	0.71
8:AS:84:LEU:HD22	8:AS:97:GLN:HB2	1.73	0.71
14:AT:38:LYS:HD2	14:AT:45:LEU:C	2.11	0.71
14:AT:42:HIS:CE1	14:AT:83:GLN:HB3	2.25	0.71
14:AT:4:VAL:HG12	14:AT:8:ASP:CB	2.21	0.71
6:AX:60:LYS:CG	6:AX:116:PRO:HG2	2.11	0.71
63:CB:383:GLU:C	63:CB:383:GLU:OE1	2.28	0.71
74:CC:124:ILE:HG12	74:CC:237:ILE:HG13	0.76	0.71
74:CC:140:LYS:HD3	74:CC:245:HIS:O	1.91	0.71
74:CC:210:ILE:CD1	74:CC:252:TRP:CZ3	2.74	0.71
82:CG:80:ILE:CG2	82:CG:81:ASN:H	2.03	0.71
47:CI:59:GLN:HB3	47:CI:126:VAL:CG1	2.18	0.71
47:CI:30:LYS:HG2	47:CI:63:GLU:HG3	1.71	0.71
79:CJ:136:ARG:NH2	79:CJ:161:GLU:OE1	2.23	0.71
40:CK:105:THR:HG22	40:CK:144:ASP:CA	2.19	0.71
40:CK:160:VAL:O	40:CK:163:PRO:HG2	1.86	0.71
40:CK:86:LYS:HA	40:CK:104:ILE:HG12	1.72	0.71
44:CM:77:TRP:CB	44:CM:82:ILE:CG1	2.69	0.71
49:CQ:28:LEU:HD13	49:CQ:51:LEU:CD2	2.20	0.71
52:CS:164:LYS:HZ2	52:CS:165:PRO:CD	2.03	0.71
52:CS:45:TRP:O	52:CS:48:VAL:HG12	1.89	0.71
43:CV:39:ILE:CG2	43:CV:61:VAL:HG11	2.17	0.71
57:CY:62:TYR:HE1	57:CY:85:VAL:CG1	2.03	0.71
59:CZ:30:ASP:C	59:CZ:30:ASP:OD2	2.29	0.71
85:A5:1266:G:N2	85:A5:2111:G:N2	2.39	0.71
85:A5:173:C:O2	85:A5:263:G:N2	2.23	0.71
16:AA:127:PRO:HG3	16:AA:152:SER:HB3	1.72	0.71
15:AB:228:LEU:HD13	15:AB:232:HIS:HD2	1.55	0.71
23:AD:176:LEU:O	23:AD:177:LEU:HD13	1.90	0.71
23:AD:222:PRO:C	23:AD:223:ILE:HD12	2.09	0.71
33:AI:191:GLU:O	33:AI:192:GLY:O	2.09	0.71
4:AK:40:VAL:CG2	4:AK:41:PRO:O	2.38	0.71
13:AP:100:LYS:HD2	13:AP:101:THR:HG23	1.72	0.71
13:AP:69:PRO:HD2	13:AP:70:MET:H	1.53	0.71
8:AS:42:HIS:CD2	14:AT:45:LEU:HG	2.23	0.71
32:AW:42:MET:CE	32:AW:50:PHE:CE2	2.73	0.71
6:AX:90:CYS:O	6:AX:91:LEU:C	2.24	0.71
51:CA:209:HIS:CE1	51:CA:211:PHE:CB	2.72	0.71
48:CD:152:ARG:HH11	48:CD:152:ARG:HG3	1.54	0.71
82:CG:73:ARG:HH12	82:CG:243:GLY:N	1.88	0.71
80:CH:25:VAL:CG2	80:CH:80:MET:HE1	2.20	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:CH:12:ILE:HG21	80:CH:52:LYS:HE2	1.72	0.71
40:CK:94:LYS:CA	40:CK:95:GLN:C	2.54	0.71
54:CP:64:ASN:C	54:CP:64:ASN:OD1	2.26	0.71
49:CQ:53:MET:HE1	49:CQ:143:ARG:NH2	2.06	0.71
49:CQ:70:MET:HE1	49:CQ:98:LEU:HD21	1.72	0.71
49:CQ:64:SER:CB	49:CQ:92:VAL:HG21	2.21	0.71
50:CR:102:LEU:HD22	50:CR:138:LEU:CD1	2.20	0.71
50:CR:28:GLU:O	50:CR:30:ASN:C	3.68	0.71
52:CS:29:ARG:O	53:CT:150:LEU:CG	2.37	0.71
53:CT:7:LYS:C	53:CT:7:LYS:CD	2.59	0.71
55:CU:121:GLU:O	55:CU:122:GLU:HB2	1.89	0.71
55:CU:59:GLY:C	55:CU:61:VAL:H	1.93	0.71
57:CY:56:GLN:NE2	57:CY:105:VAL:HG11	2.05	0.71
59:CZ:12:LEU:CD1	59:CZ:134:LEU:HD22	2.19	0.71
85:A5:3965:A:H5'	85:A5:3965:A:C8	2.25	0.71
81:CE:75:ALA:O	85:A5:981:C:H1'	1.90	0.71
28:AC:157:LEU:C	28:AC:160:LEU:CD2	2.59	0.71
27:AE:23:LEU:O	27:AE:24:THR:OG1	2.08	0.71
30:AF:167:LYS:CE	30:AF:171:GLU:HG3	2.21	0.71
29:AG:71:GLY:CA	29:AG:98:ARG:NH2	2.54	0.71
26:AJ:87:LEU:HD11	26:AJ:91:LYS:HB3	1.72	0.71
4:AK:11:ILE:HG23	4:AK:49:MET:HE3	1.73	0.71
11:AL:40:ILE:CG2	11:AL:44:PHE:HB2	2.21	0.71
7:AM:59:PRO:O	7:AM:62:VAL:HG22	1.90	0.71
5:AO:30:VAL:HB	5:AO:32:HIS:NE2	2.06	0.71
8:AS:120:HIS:HA	13:AP:121:ILE:HG22	1.72	0.71
3:AU:69:PRO:CG	3:AU:69:PRO:O	2.29	0.71
16:AA:185:MET:CE	17:AV:39:VAL:CG1	2.66	0.71
32:AW:36:ARG:HD3	32:AW:110:ILE:CD1	2.16	0.71
6:AX:1:MET:O	6:AX:2:GLY:C	2.29	0.71
18:AY:36:PRO:CG	18:AY:39:GLU:HG3	2.10	0.71
32:AW:20:ARG:HH22	36:B2:1139:C:H1'	1.56	0.71
51:CA:193:ARG:HH22	85:A5:3685:C:H5''	1.55	0.71
63:CB:25:HIS:O	63:CB:222:VAL:HG23	1.91	0.71
43:CV:93:GLY:N	63:CB:73:VAL:HG22	2.05	0.71
74:CC:130:ALA:HB1	74:CC:246:VAL:HG11	1.69	0.71
74:CC:144:ILE:HD11	74:CC:249:PHE:HB2	1.72	0.71
74:CC:304:ALA:HB1	74:CC:305:PRO:HD2	1.72	0.71
74:CC:40:VAL:HG12	74:CC:44:LEU:HD12	1.70	0.71
48:CD:51:MET:HE1	48:CD:173:ILE:HG12	1.72	0.71
81:CE:264:ILE:HG21	81:CE:267:LEU:N	2.06	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:CG:85:GLN:O	82:CG:86:ALA:CB	2.38	0.71
47:CI:156:LYS:CG	47:CI:163:GLN:HG2	2.19	0.71
47:CI:92:HIS:HD2	47:CI:94:PHE:CZ	2.05	0.71
42:CL:139:SER:HG	42:CL:142:GLU:HG2	1.55	0.71
49:CQ:61:LEU:HD13	49:CQ:139:LEU:CB	2.20	0.71
50:CR:160:GLU:O	50:CR:164:SER:HB3	1.90	0.71
43:CV:61:VAL:HG12	43:CV:62:MET:O	1.90	0.71
57:CY:66:GLN:HE21	57:CY:66:GLN:HA	0.66	0.71
28:AC:99:GLY:HA2	28:AC:102:LEU:CB	2.16	0.71
23:AD:98:ALA:H	23:AD:188:ILE:HD12	1.55	0.71
23:AD:202:LYS:HB2	23:AD:203:PRO:HD2	1.73	0.71
27:AE:112:HIS:NE2	27:AE:237:SER:HB2	2.05	0.71
27:AE:153:LEU:HD11	27:AE:172:PHE:CZ	2.20	0.71
27:AE:92:ILE:HG22	27:AE:95:THR:OG1	1.89	0.71
31:AH:117:PRO:O	31:AH:120:ARG:N	2.24	0.71
31:AH:172:THR:O	31:AH:176:VAL:HG23	1.91	0.71
26:AJ:15:THR:CG2	26:AJ:44:TRP:CE3	2.56	0.71
6:AX:125:VAL:O	6:AX:126:ALA:HB3	1.90	0.71
18:AY:29:HIS:HD1	18:AY:67:GLY:CA	2.02	0.71
18:AY:54:VAL:O	18:AY:75:ILE:CA	2.37	0.71
18:AY:97:TYR:HD1	18:AY:98:GLU:N	1.89	0.71
13:AP:128:HIS:NE2	36:B2:1521:C:H1'	2.04	0.71
48:CD:19:LYS:CB	48:CD:23:ARG:HG2	2.20	0.71
81:CE:224:LYS:O	81:CE:226:ARG:N	2.23	0.71
81:CE:242:ILE:CG1	81:CE:246:ARG:CD	2.61	0.71
81:CE:264:ILE:HG22	81:CE:266:GLN:N	2.05	0.71
64:CF:182:TYR:CD1	64:CF:200:ARG:HD2	2.26	0.71
64:CF:220:MET:HB2	64:CF:232:ASP:OD2	1.90	0.71
82:CG:163:PRO:CB	82:CG:166:LEU:CD1	2.68	0.71
80:CH:25:VAL:HG11	80:CH:38:PHE:CE2	2.26	0.71
47:CI:206:LEU:HA	47:CI:209:TRP:CB	2.21	0.71
40:CK:80:LEU:HA	40:CK:83:LYS:HD2	1.70	0.71
40:CK:97:ASN:C	40:CK:98:ILE:HG13	2.11	0.71
52:CS:29:ARG:HB3	53:CT:150:LEU:HB2	1.71	0.71
43:CV:9:SER:HG	43:CV:128:LEU:CG	2.03	0.71
56:CX:123:LYS:HD3	56:CX:139:ARG:HB3	1.73	0.71
56:CX:40:ILE:CG1	56:CX:41:ARG:H	2.01	0.71
56:CX:63:LYS:HB3	56:CX:63:LYS:NZ	2.05	0.71
16:AA:103:PHE:CE2	16:AA:136:GLU:CD	2.50	0.71
15:AB:63:LYS:HD3	15:AB:63:LYS:C	2.11	0.71
15:AB:79:VAL:O	15:AB:79:VAL:HG23	1.90	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:90:ASP:CG	15:AB:91:VAL:H	1.92	0.71
28:AC:169:TYR:CZ	28:AC:177:PRO:HD3	2.24	0.71
26:AJ:171:GLY:C	26:AJ:173:VAL:H	1.92	0.71
13:AP:126:VAL:HG12	13:AP:127:LYS:H	0.60	0.71
34:AQ:109:LYS:CG	34:AQ:113:ILE:CD1	2.47	0.71
34:AQ:17:LYS:HE2	36:B2:1648:G:C6	2.26	0.71
12:AR:122:PRO:C	12:AR:123:THR:OG1	2.27	0.71
6:AX:125:VAL:C	6:AX:128:VAL:H	1.94	0.71
36:B2:181:A:H4'	36:B2:182:C:C5'	2.19	0.71
36:B2:532:C:C2'	36:B2:533:A:H5'	2.20	0.71
63:CB:24:ARG:O	63:CB:24:ARG:CG	2.35	0.71
74:CC:110:ARG:HD2	74:CC:113:ARG:HE	1.55	0.71
74:CC:134:PRO:HD2	74:CC:135:ALA:N	2.04	0.71
74:CC:209:ILE:HD13	74:CC:221:PHE:CE1	2.26	0.71
74:CC:40:VAL:O	74:CC:44:LEU:HG	1.89	0.71
48:CD:130:TYR:CE2	48:CD:131:ASN:C	2.64	0.71
48:CD:188:LYS:O	48:CD:189:GLU:CB	2.37	0.71
48:CD:61:ILE:HG12	48:CD:79:TYR:CD1	2.26	0.71
49:CQ:3:VAL:HG22	64:CF:116:GLN:HE21	1.55	0.71
64:CF:41:MET:HE1	85:A5:2121:C:C5'	2.20	0.71
82:CG:121:LYS:HG3	82:CG:127:ASP:OD1	1.89	0.71
40:CK:22:VAL:HG23	40:CK:48:LYS:HG3	1.71	0.71
42:CL:21:ARG:HB3	46:CN:196:ASN:O	1.91	0.71
44:CM:77:TRP:CB	44:CM:82:ILE:HG13	2.21	0.71
53:CT:45:MET:O	53:CT:95:HIS:HE1	1.73	0.71
56:CX:81:LEU:HB2	56:CX:97:VAL:HG12	1.71	0.71
46:CN:182:HIS:CD2	85:A5:291:U:O2'	2.44	0.71
85:A5:4229:U:N3	85:A5:4336:A:C2	2.59	0.71
28:AC:146:GLU:O	28:AC:149:THR:HG22	1.90	0.71
23:AD:132:LYS:HB2	23:AD:191:PRO:CD	2.20	0.71
27:AE:2:ALA:O	27:AE:3:ARG:HG2	1.90	0.71
31:AH:169:LYS:HB2	31:AH:173:PHE:HE2	1.51	0.71
33:AI:149:TYR:HD1	33:AI:152:ARG:HH12	1.34	0.71
26:AJ:87:LEU:CD1	26:AJ:91:LYS:CB	2.69	0.71
14:AT:16:ARG:HH11	14:AT:16:ARG:CG	2.03	0.71
6:AX:71:ARG:CG	6:AX:82:THR:HG22	2.16	0.71
51:CA:28:ARG:HD3	51:CA:123:ARG:HG2	1.72	0.71
51:CA:15:VAL:O	51:CA:15:VAL:HG12	1.90	0.71
63:CB:87:VAL:HG22	63:CB:163:ILE:O	1.90	0.71
63:CB:56:ILE:CD1	63:CB:368:ILE:HG12	2.20	0.71
63:CB:76:VAL:C	63:CB:77:THR:HG22	2.11	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:101:MET:HE3	74:CC:104:PRO:HA	1.72	0.71
74:CC:183:VAL:O	74:CC:184:TYR:CB	2.39	0.71
74:CC:212:ASN:O	74:CC:213:GLU:CB	2.35	0.71
74:CC:84:THR:O	74:CC:85:HIS:C	2.20	0.71
48:CD:115:MET:HE3	48:CD:139:PRO:HB2	1.73	0.71
81:CE:264:ILE:CG2	81:CE:266:GLN:H	2.04	0.71
64:CF:182:TYR:CD1	64:CF:200:ARG:CD	2.74	0.71
80:CH:105:ILE:HD12	80:CH:112:VAL:HG13	1.71	0.71
80:CH:134:CYS:SG	80:CH:146:LEU:HD23	2.30	0.71
47:CI:150:GLU:HA	47:CI:150:GLU:OE1	1.91	0.71
42:CL:179:PHE:O	42:CL:183:ARG:HG2	1.90	0.71
46:CN:42:PRO:N	46:CN:61:ILE:HD12	2.06	0.71
46:CN:64:ILE:HD13	46:CN:102:ALA:CB	2.20	0.71
49:CQ:101:CYS:SG	49:CQ:121:LEU:HB2	2.31	0.71
53:CT:91:VAL:HG12	53:CT:92:ARG:N	2.06	0.71
55:CU:21:PHE:HE1	55:CU:80:LYS:CD	2.03	0.71
58:CW:11:TYR:CD2	63:CB:378:ARG:NH2	2.59	0.71
56:CX:119:ILE:CD1	56:CX:140:LEU:HD21	2.16	0.71
57:CY:89:LYS:CD	57:CY:90:ALA:N	2.42	0.71
59:CZ:73:LYS:HE3	59:CZ:75:TYR:CD1	2.25	0.71
28:AC:253:PRO:HA	28:AC:256:TRP:CD1	2.26	0.70
27:AE:11:ARG:O	27:AE:12:VAL:CG2	2.39	0.70
30:AF:122:ARG:NE	30:AF:193:LYS:HZ3	1.89	0.70
33:AI:141:ARG:HD2	33:AI:144:LYS:CB	1.99	0.70
10:AN:53:ILE:CD1	15:AB:52:THR:HG22	82.84	0.70
12:AR:95:ILE:HA	12:AR:114:LEU:HD13	1.73	0.70
8:AS:15:VAL:HG13	8:AS:68:ILE:CD1	2.20	0.70
18:AY:55:ILE:HG13	18:AY:75:ILE:HG12	1.65	0.70
18:AY:93:ARG:HD2	18:AY:93:ARG:O	1.91	0.70
8:AS:8:LYS:C	19:AZ:49:LEU:HD23	2.12	0.70
19:AZ:85:ARG:HH11	19:AZ:85:ARG:CB	2.03	0.70
51:CA:32:VAL:HG12	51:CA:32:VAL:O	1.91	0.70
74:CC:316:LYS:CB	74:CC:324:ILE:HD12	2.21	0.70
64:CF:153:LEU:HD23	64:CF:248:ASN:ND2	2.06	0.70
47:CI:189:CYS:O	47:CI:200:VAL:CG1	2.33	0.70
79:CJ:134:LEU:CB	79:CJ:157:ILE:HD13	2.21	0.70
40:CK:103:ASN:C	40:CK:104:ILE:HG13	2.09	0.70
40:CK:10:ILE:CG2	40:CK:67:ARG:N	2.53	0.70
42:CL:9:VAL:CG1	42:CL:10:LEU:H	2.04	0.70
46:CN:64:ILE:HD13	46:CN:102:ALA:CA	2.19	0.70
49:CQ:154:LYS:CD	49:CQ:163:THR:CG2	2.64	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CT:17:ARG:CG	53:CT:17:ARG:NH2	2.48	0.70
43:CV:82:ILE:HG23	43:CV:121:VAL:HG13	0.74	0.70
58:CW:27:LYS:CE	58:CW:29:PHE:CZ	2.72	0.70
58:CW:34:ALA:CA	58:CW:37:GLU:OE1	2.39	0.70
56:CX:39:LYS:CD	56:CX:40:ILE:N	2.50	0.70
16:AA:154:LEU:HD22	16:AA:157:VAL:HG23	1.72	0.70
16:AA:57:LYS:CE	17:AV:70:LEU:HD21	2.21	0.70
28:AC:259:THR:O	28:AC:260:VAL:C	2.28	0.70
27:AE:163:ASP:O	27:AE:164:LEU:HB2	1.91	0.70
30:AF:35:LEU:HD12	30:AF:117:ILE:HG23	1.72	0.70
30:AF:53:ALA:HB1	34:AQ:125:ARG:HH21	1.56	0.70
30:AF:93:VAL:O	30:AF:97:PHE:CE1	2.43	0.70
29:AG:1:MET:HE1	29:AG:106:LEU:O	1.85	0.70
29:AG:64:LYS:CE	29:AG:67:VAL:HG13	2.22	0.70
31:AH:191:GLU:OE1	31:AH:193:GLN:OE1	2.10	0.70
33:AI:5:ARG:NH1	33:AI:5:ARG:HG2	2.06	0.70
4:AK:2:LEU:HD13	4:AK:3:MET:CA	2.21	0.70
4:AK:62:PHE:HE1	4:AK:67:PHE:CE2	2.07	0.70
7:AM:14:VAL:C	7:AM:16:THR:H	1.93	0.70
13:AP:52:LYS:HD3	13:AP:52:LYS:C	2.06	0.70
14:AT:110:LEU:O	14:AT:111:LYS:HB2	1.90	0.70
17:AV:80:SER:HB2	17:AV:81:LYS:HE2	1.73	0.70
6:AX:32:LEU:O	6:AX:37:LYS:HE3	1.91	0.70
51:CA:116:LEU:HD12	51:CA:116:LEU:O	1.92	0.70
51:CA:205:ASN:HB3	51:CA:206:PRO:HD3	1.73	0.70
63:CB:327:THR:CG2	63:CB:328:ASN:ND2	2.53	0.70
82:CG:217:LYS:HE2	82:CG:217:LYS:HA	0.73	0.70
47:CI:181:PHE:CE1	47:CI:190:LEU:CD1	2.74	0.70
79:CJ:26:VAL:CG2	79:CJ:33:LEU:HD23	2.21	0.70
40:CK:10:ILE:CG1	40:CK:67:ARG:HA	2.18	0.70
40:CK:86:LYS:HA	40:CK:104:ILE:CG1	2.21	0.70
44:CM:35:ARG:N	44:CM:52:PHE:CD2	2.59	0.70
49:CQ:94:GLU:HA	49:CQ:94:GLU:OE1	1.80	0.70
52:CS:140:PRO:O	52:CS:143:LYS:N	2.24	0.70
52:CS:71:SER:CB	52:CS:74:ARG:CB	2.68	0.70
12:AR:38:ILE:CA	23:AD:211:VAL:HG23	2.21	0.70
30:AF:79:HIS:O	30:AF:80:GLY:C	2.29	0.70
31:AH:10:LYS:HB3	31:AH:20:GLU:OE1	1.90	0.70
4:AK:43:LEU:O	4:AK:44:HIS:C	2.28	0.70
11:AL:10:TYR:CE1	33:AI:193:LYS:HG3	2.26	0.70
10:AN:27:LYS:HE2	10:AN:27:LYS:H	1.54	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:70:MET:SD	79:CJ:93:GLU:CD	2.70	0.70
34:AQ:78:VAL:HG13	34:AQ:82:TYR:HE2	1.55	0.70
12:AR:37:GLU:OE1	12:AR:38:ILE:CG2	2.39	0.70
12:AR:90:ALA:CA	12:AR:91:LEU:HD12	2.21	0.70
12:AR:91:LEU:CG	12:AR:92:ASP:HA	2.21	0.70
32:AW:128:PHE:CZ	32:AW:130:PHE:CE2	2.78	0.70
29:AG:191:ARG:HH22	36:B2:312:G:H8	1.38	0.70
36:B2:897:U:O2'	36:B2:898:U:O4'	2.06	0.70
63:CB:108:GLU:CB	63:CB:137:TRP:CD1	2.71	0.70
49:CQ:27:LEU:HD22	74:CC:289:LEU:HD21	1.72	0.70
82:CG:82:GLN:OE1	82:CG:233:ILE:HG21	1.90	0.70
82:CG:24:ALA:O	82:CG:25:LYS:C	2.28	0.70
46:CN:135:ILE:HG22	46:CN:142:ILE:HD13	1.72	0.70
46:CN:99:GLN:HG2	46:CN:130:PHE:CE1	2.26	0.70
54:CP:41:ILE:HD12	54:CP:112:LEU:HB2	1.68	0.70
49:CQ:25:LEU:HA	49:CQ:28:LEU:CD2	2.20	0.70
41:CO:127:VAL:HG12	52:CS:158:VAL:CG2	2.21	0.70
58:CW:11:TYR:HB3	58:CW:32:LEU:HD23	1.71	0.70
16:AA:154:LEU:HD22	16:AA:157:VAL:CG2	2.21	0.70
27:AE:143:ASP:CG	27:AE:145:ARG:HD2	2.11	0.70
27:AE:126:VAL:HG22	27:AE:157:ASN:H	1.56	0.70
27:AE:62:LYS:HD3	27:AE:80:ILE:HD11	0.79	0.70
33:AI:105:ASP:O	33:AI:169:GLY:O	2.09	0.70
26:AJ:130:ILE:HG23	26:AJ:135:ILE:CD1	2.17	0.70
7:AM:44:LYS:O	7:AM:46:GLN:N	2.25	0.70
10:AN:16:LEU:HD22	10:AN:17:PRO:CD	2.21	0.70
13:AP:108:LYS:H	13:AP:111:MET:CE	2.03	0.70
12:AR:19:LYS:HD2	23:AD:212:GLU:HG3	1.72	0.70
6:AX:128:VAL:HG11	6:AX:133:LEU:HD21	1.72	0.70
5:AO:52:THR:CG2	36:B2:953:C:H4'	2.22	0.70
63:CB:282:LYS:HB2	63:CB:333:LEU:HD11	1.74	0.70
63:CB:374:PHE:O	85:A5:4664:A:O3'	2.09	0.70
63:CB:39:LYS:CB	63:CB:40:PRO:CD	2.67	0.70
74:CC:56:GLU:CD	74:CC:56:GLU:O	2.30	0.70
64:CF:30:ILE:CG2	64:CF:34:ARG:HH21	1.90	0.70
15:AB:52:THR:HB	82:CG:264:LYS:HZ1	1.40	0.70
79:CJ:56:THR:HG22	79:CJ:64:ARG:H	1.54	0.70
49:CQ:88:ASP:OD2	49:CQ:108:ARG:CG	2.40	0.70
50:CR:56:THR:C	50:CR:57:VAL:HG13	2.11	0.70
58:CW:87:LEU:C	58:CW:91:MET:HE1	2.11	0.70
59:CZ:12:LEU:HD13	59:CZ:134:LEU:CD2	2.20	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CZ:47:ASP:C	59:CZ:47:ASP:OD1	2.30	0.70
16:AA:111:GLN:HB3	28:AC:63:VAL:HG11	1.73	0.70
16:AA:76:VAL:HG13	16:AA:175:TRP:CZ3	2.25	0.70
28:AC:137:VAL:CG1	28:AC:217:ALA:HA	2.22	0.70
16:AA:120:ARG:CG	28:AC:266:TYR:CE2	2.74	0.70
29:AG:78:SER:OG	29:AG:81:HIS:CD2	2.44	0.70
31:AH:190:PRO:HB2	31:AH:191:GLU:CG	2.22	0.70
7:AM:86:GLY:CA	7:AM:106:CYS:HB2	2.20	0.70
34:AQ:85:ARG:HH22	34:AQ:117:ARG:CD	2.03	0.70
12:AR:101:ASP:O	12:AR:105:MET:N	2.24	0.70
32:AW:27:ILE:CG1	32:AW:61:ILE:HB	2.19	0.70
36:B2:561:A:C2	36:B2:562:U:N3	2.59	0.70
63:CB:111:SER:O	63:CB:112:ASP:C	2.26	0.70
63:CB:219:VAL:HG21	63:CB:337:VAL:HG11	1.73	0.70
63:CB:298:LEU:C	63:CB:300:LYS:HE3	2.12	0.70
74:CC:109:ARG:HB3	74:CC:109:ARG:NH1	2.06	0.70
81:CE:140:LEU:CD1	81:CE:167:GLN:OE1	2.39	0.70
82:CG:143:VAL:CA	82:CG:146:LEU:HG	2.20	0.70
82:CG:95:LEU:CD2	82:CG:218:LEU:CD2	2.31	0.70
46:CN:32:GLN:HB2	82:CG:67:ARG:HH22	1.56	0.70
49:CQ:33:ARG:NE	49:CQ:52:PHE:HZ	1.90	0.70
50:CR:133:LYS:CG	50:CR:137:ILE:HG21	2.20	0.70
50:CR:161:ALA:O	50:CR:165:LYS:HB2	1.91	0.70
55:CU:25:CYS:O	55:CU:29:VAL:CG2	2.37	0.70
55:CU:60:VAL:N	55:CU:75:GLU:CG	2.54	0.70
56:CX:81:LEU:CD1	56:CX:135:LYS:HG3	2.21	0.70
56:CX:56:ARG:C	56:CX:58:PRO:HD2	2.10	0.70
85:A5:1268:G:C4	85:A5:2111:G:N2	2.59	0.70
85:A5:2855:G:H21	85:A5:2858:A:H61	1.37	0.70
85:A5:708:G:N2	85:A5:4941:G:H1	1.89	0.70
15:AB:114:VAL:HG22	15:AB:120:MET:HE3	1.73	0.70
27:AE:67:GLN:O	27:AE:68:ARG:HG3	1.91	0.70
30:AF:20:PHE:C	30:AF:22:LYS:N	2.40	0.70
29:AG:50:VAL:HG11	29:AG:111:LEU:HD22	1.73	0.70
26:AJ:138:ARG:CB	26:AJ:156:HIS:HB3	2.21	0.70
10:AN:18:TYR:CD2	31:AH:140:VAL:O	2.43	0.70
5:AO:130:GLU:CD	15:AB:83:LYS:NZ	2.43	0.70
5:AO:16:SER:O	5:AO:17:LEU:HB3	1.90	0.70
13:AP:84:ILE:CD1	13:AP:115:TYR:CE1	2.74	0.70
17:AV:53:TYR:CZ	17:AV:72:LEU:HB3	2.26	0.70
32:AW:78:ARG:CD	32:AW:126:LEU:HD23	2.22	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AY:48:TYR:O	18:AY:50:THR:CG2	2.38	0.70
74:CC:109:ARG:CG	74:CC:111:TRP:CZ3	2.73	0.70
74:CC:143:ARG:NH1	74:CC:143:ARG:HG2	2.06	0.70
48:CD:253:TYR:O	48:CD:254:GLU:OE2	2.09	0.70
82:CG:89:ARG:NE	82:CG:89:ARG:H	1.90	0.70
47:CI:99:ILE:HD12	47:CI:123:GLN:OE1	1.91	0.70
79:CJ:90:ARG:CZ	79:CJ:108:GLY:O	2.40	0.70
42:CL:127:PHE:HE2	42:CL:144:LEU:CD2	2.04	0.70
41:CO:120:VAL:HA	52:CS:166:ARG:O	1.91	0.70
41:CO:66:PRO:CD	41:CO:67:SER:H	2.03	0.70
50:CR:99:MET:CE	50:CR:127:VAL:CG1	2.63	0.70
52:CS:140:PRO:HD2	52:CS:141:ALA:N	2.05	0.70
52:CS:160:ARG:HH22	85:A5:1920:C:H5'	1.57	0.70
52:CS:24:THR:CG2	52:CS:25:PRO:N	2.55	0.70
53:CT:41:ASP:HB2	53:CT:61:THR:HG22	1.72	0.70
58:CW:23:ARG:HH11	58:CW:23:ARG:CB	1.90	0.70
56:CX:117:TYR:HB3	56:CX:119:ILE:HG22	1.69	0.70
16:AA:11:LYS:CG	16:AA:13:GLU:HG3	2.21	0.70
23:AD:132:LYS:CG	23:AD:191:PRO:HG3	2.19	0.70
23:AD:166:TYR:HD1	23:AD:200:PRO:HB2	1.53	0.70
30:AF:18:LYS:HD2	34:AQ:57:LEU:CD2	2.21	0.70
30:AF:19:LEU:HD22	30:AF:24:SER:CA	2.21	0.70
33:AI:5:ARG:HH11	33:AI:5:ARG:CG	2.04	0.70
26:AJ:15:THR:HB	26:AJ:44:TRP:CZ3	2.27	0.70
26:AJ:46:VAL:HG12	26:AJ:102:ILE:HG23	1.72	0.70
11:AL:147:LYS:HD2	11:AL:149:ALA:N	2.07	0.70
13:AP:49:LEU:HD13	13:AP:51:ARG:HH21	1.57	0.70
34:AQ:53:GLU:OE1	34:AQ:85:ARG:NH2	2.24	0.70
8:AS:50:ILE:CG1	8:AS:63:GLU:HG2	2.22	0.70
14:AT:101:ARG:HG2	14:AT:105:GLN:NE2	2.07	0.70
6:AX:29:LYS:CD	6:AX:34:THR:CB	2.69	0.70
74:CC:193:LYS:HG3	74:CC:196:MET:CE	2.22	0.70
74:CC:214:ASP:CG	74:CC:214:ASP:O	2.30	0.70
82:CG:243:GLY:C	82:CG:244:PRO:CD	2.59	0.70
82:CG:51:LEU:O	82:CG:54:PHE:N	2.23	0.70
82:CG:71:TYR:C	82:CG:71:TYR:CD2	2.63	0.70
47:CI:109:ASP:HA	47:CI:112:GLN:NE2	2.06	0.70
47:CI:3:ARG:CG	47:CI:123:GLN:NE2	2.54	0.70
47:CI:185:VAL:HG22	47:CI:190:LEU:HD12	0.71	0.70
42:CL:190:ARG:HG3	42:CL:190:ARG:HH11	1.56	0.70
42:CL:39:ARG:HH11	85:A5:1362:G:H5'	1.55	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:CM:32:ASP:CA	52:CS:145:PHE:HZ	1.95	0.70
41:CO:22:ILE:CD1	52:CS:162:GLN:OE1	2.40	0.70
56:CX:52:LEU:HD12	56:CX:54:LEU:CD2	2.21	0.70
59:CZ:105:ALA:HA	59:CZ:108:ARG:HG2	1.72	0.70
85:A5:3965:A:C8	85:A5:3965:A:C5'	2.74	0.70
16:AA:118:GLU:CB	28:AC:65:LYS:HZ3	2.03	0.70
5:AO:53:ILE:HG22	15:AB:25:PHE:HE1	1.54	0.70
13:AP:15:PHE:HE2	13:AP:110:GLU:HB3	1.55	0.70
3:AU:108:PRO:O	3:AU:109:GLY:C	2.30	0.70
3:AU:47:ASN:CG	3:AU:47:ASN:O	2.29	0.70
3:AU:62:ARG:HH12	3:AU:64:THR:CG2	1.76	0.70
8:AS:8:LYS:C	19:AZ:49:LEU:CD2	2.60	0.70
19:AZ:92:LEU:CD1	19:AZ:99:LEU:HD21	2.21	0.70
63:CB:311:ASP:O	63:CB:312:LYS:CB	2.38	0.70
74:CC:5:ARG:NH1	74:CC:26:ALA:HB2	2.06	0.70
74:CC:58:ALA:O	74:CC:59:GLY:C	2.30	0.70
48:CD:232:THR:CB	48:CD:233:PRO:HD3	2.22	0.70
48:CD:91:GLY:O	48:CD:94:ASN:ND2	2.24	0.70
81:CE:111:LYS:O	81:CE:113:PRO:HD2	1.91	0.70
81:CE:205:ASN:N	81:CE:205:ASN:ND2	2.36	0.70
64:CF:140:ILE:O	64:CF:233:ALA:HA	1.92	0.70
47:CI:99:ILE:HD12	47:CI:123:GLN:HE22	1.56	0.70
40:CK:123:ARG:NH1	40:CK:129:ILE:HD12	2.07	0.70
42:CL:21:ARG:HE	46:CN:196:ASN:HB3	1.56	0.70
46:CN:138:PHE:HA	46:CN:143:ARG:HH21	1.54	0.70
43:CV:32:THR:CG2	43:CV:113:LYS:CG	2.69	0.70
43:CV:26:ILE:HB	43:CV:101:ASN:O	1.92	0.70
58:CW:70:LYS:O	58:CW:71:ARG:CG	2.40	0.70
28:AC:65:LYS:CE	28:AC:266:TYR:CE1	2.67	0.70
23:AD:193:ASP:CA	23:AD:202:LYS:O	2.37	0.70
23:AD:216:GLU:C	23:AD:216:GLU:OE1	2.30	0.70
4:AK:38:LYS:O	4:AK:39:ASN:HB2	1.90	0.70
13:AP:52:LYS:CA	13:AP:54:HIS:CD2	2.74	0.70
12:AR:90:ALA:HA	12:AR:91:LEU:HD12	1.74	0.70
32:AW:38:LEU:HD23	32:AW:41:MET:HE3	1.71	0.70
34:AQ:138:ARG:HG3	36:B2:1649:U:H4'	1.74	0.70
74:CC:213:GLU:CD	74:CC:213:GLU:O	2.30	0.70
82:CG:121:LYS:O	82:CG:125:LYS:C	2.29	0.70
82:CG:157:ILE:HD11	82:CG:170:LEU:HB3	1.74	0.70
82:CG:22:GLN:O	82:CG:25:LYS:N	2.25	0.70
82:CG:42:GLY:O	82:CG:43:GLN:CD	2.30	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:CH:120:GLU:HG3	80:CH:124:ARG:NH2	2.07	0.70
47:CI:109:ASP:HA	47:CI:112:GLN:CG	2.21	0.70
44:CM:24:LEU:CD1	44:CM:86:TRP:CD1	2.70	0.70
46:CN:180:PHE:C	46:CN:184:ILE:HD12	2.11	0.70
41:CO:190:ASP:HB3	41:CO:193:THR:OG1	1.90	0.70
49:CQ:28:LEU:HD13	49:CQ:51:LEU:HD13	1.72	0.70
50:CR:96:MET:CE	85:A5:2667:C:H5'	2.21	0.70
52:CS:101:THR:HG23	52:CS:104:GLY:H	1.54	0.70
52:CS:153:PRO:O	52:CS:153:PRO:CG	2.29	0.70
52:CS:16:CYS:O	52:CS:17:LEU:O	2.10	0.70
52:CS:19:THR:O	52:CS:20:PRO:C	2.29	0.70
58:CW:14:TYR:OH	63:CB:380:GLN:CG	2.40	0.70
56:CX:119:ILE:CD1	56:CX:120:ASP:H	2.05	0.70
59:CZ:29:ILE:O	59:CZ:30:ASP:C	2.24	0.70
16:AA:180:ARG:CD	16:AA:184:ARG:NH2	2.53	0.70
23:AD:132:LYS:HB2	23:AD:191:PRO:HG3	0.70	0.70
27:AE:98:ASN:HD22	27:AE:119:ALA:HB2	1.47	0.70
4:AK:39:ASN:O	4:AK:40:VAL:HB	1.91	0.70
10:AN:54:LEU:HB3	10:AN:60:VAL:CG2	2.20	0.70
5:AO:51:GLU:OE2	15:AB:28:LYS:HD3	1.91	0.70
3:AU:40:ILE:HD11	3:AU:53:PRO:HB3	1.74	0.70
18:AY:29:HIS:NE2	18:AY:69:THR:HG23	2.06	0.70
63:CB:112:ASP:O	63:CB:115:LYS:N	2.25	0.70
74:CC:47:ASN:O	74:CC:49:ARG:N	2.25	0.70
81:CE:281:ILE:HG23	81:CE:281:ILE:O	1.92	0.70
64:CF:51:TYR:CZ	81:CE:58:SER:OG	2.45	0.70
53:CT:135:PRO:CB	64:CF:86:GLU:HB2	2.22	0.70
47:CI:16:PRO:CD	47:CI:128:ARG:HH12	2.05	0.70
47:CI:76:MET:HE1	47:CI:148:VAL:HA	1.70	0.70
79:CJ:57:VAL:CG1	79:CJ:60:PHE:HD2	2.02	0.70
40:CK:116:MET:CB	40:CK:117:ARG:HH21	2.02	0.70
52:CS:140:PRO:CD	52:CS:141:ALA:N	2.48	0.70
43:CV:83:ARG:CD	43:CV:120:PRO:O	2.39	0.70
57:CY:27:ARG:HH22	57:CY:28:LYS:NZ	1.90	0.70
16:AA:28:THR:HG22	16:AA:46:ILE:HD13	1.72	0.69
15:AB:131:ASP:CG	15:AB:180:ASP:HB2	2.12	0.69
23:AD:2:ALA:C	23:AD:4:GLN:H	1.94	0.69
31:AH:106:ARG:CD	36:B2:861:A:C5	2.75	0.69
33:AI:25:ARG:NE	33:AI:27:TYR:CE2	2.57	0.69
4:AK:21:MET:SD	4:AK:49:MET:SD	2.90	0.69
4:AK:16:PHE:HD2	4:AK:79:LEU:CB	1.86	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:31:GLU:O	13:AP:35:GLN:HG3	1.92	0.69
13:AP:32:GLN:HA	13:AP:35:GLN:OE1	1.92	0.69
14:AT:30:VAL:O	14:AT:31:PRO:C	2.29	0.69
31:AH:145:ARG:CD	32:AW:51:GLU:CD	2.59	0.69
6:AX:95:GLU:O	6:AX:98:ASP:HB2	1.92	0.69
18:AY:52:PRO:CD	18:AY:53:ASP:H	2.05	0.69
63:CB:80:GLU:CD	63:CB:171:LEU:CD2	2.61	0.69
74:CC:7:LEU:O	74:CC:8:ILE:HG12	1.92	0.69
48:CD:22:ARG:HH21	86:A7:6:C:H3'	1.56	0.69
48:CD:76:CYS:SG	48:CD:109:LEU:CB	2.80	0.69
64:CF:88:LYS:HB3	64:CF:197:VAL:HG21	1.73	0.69
46:CN:28:TRP:HZ3	82:CG:67:ARG:CZ	1.93	0.69
46:CN:38:ARG:CG	46:CN:62:TYR:CE2	2.70	0.69
49:CQ:19:LYS:O	49:CQ:20:SER:CB	2.33	0.69
49:CQ:61:LEU:CD2	49:CQ:140:SER:O	2.40	0.69
49:CQ:62:SER:CB	49:CQ:89:ASP:OD2	2.39	0.69
85:A5:4127:A:H1'	85:A5:4128:A:OP1	1.92	0.69
15:AB:66:VAL:HG21	15:AB:87:ILE:CG2	2.02	0.69
23:AD:97:CYS:C	23:AD:99:ILE:N	2.45	0.69
27:AE:86:PHE:CZ	27:AE:182:MET:HE3	2.16	0.69
31:AH:135:PHE:HB3	31:AH:136:PRO:CD	2.23	0.69
31:AH:40:LEU:HD23	31:AH:43:LEU:CG	2.21	0.69
33:AI:140:LYS:CG	33:AI:141:ARG:N	2.37	0.69
33:AI:144:LYS:O	33:AI:145:ILE:HG23	1.91	0.69
26:AJ:48:PHE:HZ	26:AJ:52:LYS:HZ2	1.39	0.69
26:AJ:61:LEU:CD1	26:AJ:94:LEU:HD13	2.22	0.69
4:AK:40:VAL:HG23	4:AK:44:HIS:N	2.07	0.69
12:AR:98:VAL:HG12	12:AR:100:PRO:N	2.07	0.69
8:AS:15:VAL:HG13	8:AS:68:ILE:HD11	1.73	0.69
6:AX:2:GLY:O	6:AX:3:LYS:CB	2.35	0.69
18:AY:33:ALA:C	18:AY:34:THR:OG1	2.29	0.69
13:AP:128:HIS:CD2	36:B2:1522:A:O5'	2.46	0.69
63:CB:108:GLU:CG	63:CB:137:TRP:NE1	2.28	0.69
74:CC:254:GLU:C	74:CC:256:ALA:H	1.95	0.69
81:CE:111:LYS:CB	81:CE:113:PRO:CG	2.70	0.69
81:CE:51:VAL:HG12	81:CE:52:ARG:CA	2.20	0.69
82:CG:255:LYS:HD3	82:CG:255:LYS:O	1.92	0.69
82:CG:71:TYR:C	82:CG:73:ARG:H	1.95	0.69
47:CI:111:LEU:O	47:CI:112:GLN:C	2.30	0.69
42:CL:127:PHE:CE2	42:CL:144:LEU:CD2	2.75	0.69
46:CN:183:THR:HG22	46:CN:188:ARG:CB	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:CO:16:LEU:CD2	41:CO:41:ILE:HG12	2.21	0.69
55:CU:60:VAL:HG12	55:CU:61:VAL:HG13	1.73	0.69
57:CY:3:PHE:CE1	74:CC:222:ARG:NE	2.59	0.69
16:AA:125:THR:HG22	16:AA:175:TRP:NE1	2.05	0.69
30:AF:141:VAL:CG2	30:AF:146:ARG:HG2	2.22	0.69
30:AF:122:ARG:NH2	30:AF:193:LYS:NZ	2.39	0.69
30:AF:28:VAL:HG13	30:AF:110:GLN:CG	2.22	0.69
30:AF:41:VAL:CG2	30:AF:42:LYS:HD2	2.22	0.69
29:AG:57:ASP:OD2	29:AG:98:ARG:HG2	1.91	0.69
31:AH:157:HIS:NE2	31:AH:188:GLU:OE1	2.23	0.69
31:AH:6:ALA:HB1	31:AH:10:LYS:NZ	2.07	0.69
26:AJ:169:ARG:CB	26:AJ:170:PRO:CD	2.44	0.69
5:AO:117:ARG:O	5:AO:121:ARG:HB2	1.92	0.69
8:AS:120:HIS:HB2	13:AP:121:ILE:HG22	1.75	0.69
3:AU:59:LYS:HB2	3:AU:84:ILE:HG23	1.70	0.69
16:AA:57:LYS:HZ3	17:AV:70:LEU:CG	2.05	0.69
6:AX:133:LEU:HD21	6:AX:139:GLU:O	1.91	0.69
18:AY:18:LEU:HB3	18:AY:20:ARG:CZ	2.21	0.69
12:AR:67:ARG:HH11	36:B2:1375:G:H5'	1.58	0.69
74:CC:14:LYS:HB3	74:CC:16:GLU:OE2	1.91	0.69
74:CC:271:ALA:O	74:CC:272:SER:C	2.30	0.69
48:CD:56:THR:C	48:CD:58:ARG:HD3	2.13	0.69
81:CE:149:ILE:HD12	81:CE:271:LEU:CD2	2.22	0.69
81:CE:71:ARG:C	81:CE:72:LYS:CG	2.58	0.69
80:CH:134:CYS:SG	80:CH:146:LEU:HD21	2.32	0.69
47:CI:92:HIS:HB3	47:CI:94:PHE:CZ	2.26	0.69
41:CO:27:VAL:CG1	41:CO:98:ALA:CB	2.61	0.69
49:CQ:124:ASP:CG	74:CC:284:MET:HG3	2.13	0.69
49:CQ:187:LYS:CG	49:CQ:188:ASN:H	2.05	0.69
59:CZ:15:ALA:CA	59:CZ:19:SER:CB	2.71	0.69
59:CZ:52:LYS:O	59:CZ:52:LYS:HG3	1.82	0.69
86:A7:49:A:O2'	86:A7:50:A:H5'	1.93	0.69
27:AE:18:TRP:CE3	27:AE:46:ILE:CD1	2.75	0.69
31:AH:145:ARG:CD	32:AW:51:GLU:OE1	2.40	0.69
18:AY:64:PHE:HE2	26:AJ:140:GLN:NE2	1.91	0.69
26:AJ:179:LYS:HA	26:AJ:182:GLN:OE1	1.92	0.69
11:AL:112:HIS:CD2	11:AL:134:LEU:HD11	2.27	0.69
12:AR:102:THR:HA	12:AR:105:MET:HB2	1.74	0.69
12:AR:91:LEU:N	12:AR:92:ASP:HA	2.02	0.69
3:AU:47:ASN:HD22	3:AU:47:ASN:N	1.88	0.69
17:AV:79:VAL:CG1	17:AV:80:SER:N	2.54	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:128:LYS:C	63:CB:131:THR:HG23	2.13	0.69
63:CB:41:VAL:HA	63:CB:187:GLY:CA	2.18	0.69
63:CB:77:THR:C	63:CB:78:ILE:HG23	2.10	0.69
48:CD:146:LEU:CD1	48:CD:163:LEU:CD2	2.27	0.69
48:CD:76:CYS:SG	48:CD:109:LEU:HG	2.32	0.69
81:CE:108:LYS:HA	81:CE:108:LYS:HE3	0.76	0.69
47:CI:109:ASP:N	47:CI:112:GLN:HE21	1.90	0.69
47:CI:109:ASP:OD2	47:CI:112:GLN:HG2	1.91	0.69
40:CK:123:ARG:HD2	40:CK:129:ILE:HD11	0.79	0.69
52:CS:98:ARG:HD3	52:CS:145:PHE:CG	2.26	0.69
55:CU:60:VAL:N	55:CU:75:GLU:HG3	2.08	0.69
58:CW:2:LYS:CB	58:CW:2:LYS:HZ3	1.94	0.69
56:CX:40:ILE:HG13	82:CG:52:THR:HG23	1.73	0.69
23:AD:103:GLU:HA	23:AD:103:GLU:OE2	1.91	0.69
27:AE:129:ILE:CB	27:AE:139:LEU:HD23	2.22	0.69
27:AE:180:LEU:HD13	27:AE:228:ILE:HG13	1.74	0.69
27:AE:159:THR:CG2	27:AE:227:VAL:HG22	2.04	0.69
29:AG:214:ALA:HA	29:AG:217:MET:HG3	1.74	0.69
4:AK:32:HIS:ND1	4:AK:33:PRO:HD2	2.07	0.69
11:AL:82:MET:HB2	11:AL:85:THR:HG23	1.74	0.69
7:AM:12:MET:HE1	7:AM:120:ALA:CB	2.20	0.69
7:AM:18:LEU:HD22	7:AM:22:LEU:CG	2.22	0.69
7:AM:50:CYS:SG	7:AM:69:LEU:HD11	2.32	0.69
7:AM:19:GLN:HG2	7:AM:88:TRP:CD1	2.27	0.69
5:AO:30:VAL:CG2	5:AO:32:HIS:NE2	2.55	0.69
13:AP:98:ASN:O	13:AP:122:THR:OG1	2.10	0.69
13:AP:67:ALA:CB	13:AP:73:PRO:HB3	2.23	0.69
34:AQ:112:LEU:O	34:AQ:116:ASP:CA	2.40	0.69
12:AR:85:VAL:HG21	16:AA:201:LEU:CG	2.16	0.69
3:AU:50:VAL:CG2	3:AU:51:LYS:O	2.38	0.69
6:AX:105:PHE:CZ	6:AX:118:VAL:O	2.46	0.69
51:CA:218:HIS:O	51:CA:219:ILE:O	2.09	0.69
51:CA:242:ARG:HH12	51:CA:247:ARG:HH21	0.70	0.69
63:CB:47:LEU:HD21	63:CB:179:HIS:HB2	1.75	0.69
48:CD:142:PHE:CD2	48:CD:171:LEU:HD22	2.27	0.69
48:CD:64:ILE:HD11	48:CD:105:LEU:HG	1.73	0.69
81:CE:139:LYS:HD3	81:CE:140:LEU:H	1.56	0.69
81:CE:205:ASN:N	81:CE:205:ASN:HD22	1.87	0.69
81:CE:181:LEU:CD1	81:CE:261:ILE:HD12	2.22	0.69
81:CE:195:ILE:CG2	81:CE:288:PHE:CE2	2.76	0.69
80:CH:130:PRO:O	80:CH:130:PRO:HD2	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CI:106:ALA:CB	47:CI:108:ALA:HB1	2.04	0.69
40:CK:102:GLY:HA2	40:CK:140:GLY:N	2.07	0.69
42:CL:130:LYS:HB2	42:CL:131:PRO:HD2	1.73	0.69
41:CO:195:VAL:CG2	44:CM:118:MET:HG2	2.17	0.69
44:CM:63:LYS:CE	44:CM:64:PHE:N	2.48	0.69
54:CP:2:VAL:CG1	54:CP:3:ARG:N	2.30	0.69
49:CQ:38:ARG:HB3	74:CC:302:LEU:HD23	1.74	0.69
52:CS:168:THR:HG23	52:CS:170:LYS:H	1.57	0.69
53:CT:25:VAL:HG13	53:CT:26:PRO:HD3	1.73	0.69
58:CW:14:TYR:HB3	58:CW:15:PRO:CD	2.23	0.69
59:CZ:26:VAL:HG21	59:CZ:96:VAL:HG11	1.73	0.69
85:A5:2551:A:H2'	85:A5:2552:G:H5'	1.74	0.69
28:AC:259:THR:HG22	28:AC:261:PHE:CG	2.26	0.69
23:AD:197:LYS:CB	23:AD:198:ILE:HG12	2.11	0.69
30:AF:14:THR:HG23	30:AF:15:PRO:HD3	1.73	0.69
30:AF:45:TYR:C	30:AF:47:LYS:HE2	2.13	0.69
33:AI:141:ARG:HD3	33:AI:144:LYS:HB3	1.62	0.69
7:AM:13:ASP:O	7:AM:16:THR:CA	2.41	0.69
34:AQ:43:GLU:HG2	34:AQ:45:ARG:HB3	1.75	0.69
12:AR:21:TYR:CB	12:AR:71:ILE:HG21	2.23	0.69
12:AR:93:GLN:HG2	12:AR:94:GLU:O	1.92	0.69
19:AZ:44:LEU:HD12	19:AZ:44:LEU:O	1.91	0.69
19:AZ:65:TYR:HD2	19:AZ:68:ILE:HG12	1.55	0.69
51:CA:137:ILE:CG2	51:CA:137:ILE:O	2.41	0.69
74:CC:292:ILE:O	74:CC:298:ILE:CD1	2.33	0.69
74:CC:341:LEU:O	74:CC:342:ARG:C	2.30	0.69
74:CC:348:LYS:O	74:CC:349:LEU:CA	2.27	0.69
48:CD:223:PHE:CD1	48:CD:226:TYR:CZ	2.69	0.69
48:CD:255:LYS:HG3	48:CD:255:LYS:O	1.93	0.69
81:CE:115:TYR:C	81:CE:117:PRO:CD	2.61	0.69
81:CE:153:LEU:C	81:CE:158:ARG:HB2	2.12	0.69
82:CG:160:ASP:CG	82:CG:187:LYS:CD	2.55	0.69
82:CG:34:LYS:HE2	82:CG:34:LYS:O	1.91	0.69
40:CK:102:GLY:HA3	40:CK:139:VAL:C	1.91	0.69
46:CN:124:ASP:O	46:CN:125:SER:C	2.30	0.69
52:CS:45:TRP:CE2	52:CS:56:LYS:HA	2.26	0.69
55:CU:125:GLU:CG	55:CU:126:ASP:N	2.56	0.69
55:CU:60:VAL:C	55:CU:75:GLU:HG2	2.11	0.69
56:CX:52:LEU:HD11	56:CX:54:LEU:CA	2.22	0.69
59:CZ:11:VAL:HG22	59:CZ:82:PRO:HA	1.74	0.69
59:CZ:76:ASN:HD21	59:CZ:78:ASN:HD22	1.41	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:4881:U:H5''	85:A5:4882:U:C6	2.27	0.69
87:A8:19:C:H2'	87:A8:20:A:C8	2.28	0.69
28:AC:227:ARG:HD2	28:AC:228:GLY:CA	2.22	0.69
27:AE:180:LEU:HD13	27:AE:228:ILE:CD1	2.22	0.69
31:AH:9:VAL:HG12	31:AH:44:ASN:CG	2.13	0.69
26:AJ:48:PHE:HZ	26:AJ:52:LYS:HZ1	1.20	0.69
12:AR:5:ARG:CA	12:AR:10:LYS:HZ1	2.05	0.69
8:AS:58:GLU:O	8:AS:59:LEU:CB	2.40	0.69
8:AS:7:GLU:OE2	8:AS:7:GLU:CA	2.39	0.69
14:AT:77:LYS:HG2	14:AT:92:PHE:CZ	2.24	0.69
32:AW:42:MET:HE3	32:AW:50:PHE:HD2	1.57	0.69
63:CB:58:ARG:C	63:CB:366:LYS:HD3	2.12	0.69
74:CC:147:VAL:HG11	74:CC:152:LEU:HD22	0.73	0.69
74:CC:39:PHE:HD1	74:CC:40:VAL:N	1.89	0.69
48:CD:268:ARG:HH11	48:CD:268:ARG:HG3	0.64	0.69
81:CE:261:ILE:HA	81:CE:267:LEU:HD23	1.73	0.69
82:CG:117:ARG:CG	82:CG:130:THR:CG2	2.67	0.69
82:CG:75:LYS:HD3	82:CG:240:ASN:CG	2.13	0.69
42:CL:148:THR:C	42:CL:149:GLN:HG2	2.11	0.69
44:CM:33:GLN:CD	80:CH:61:TRP:NE1	2.45	0.69
46:CN:77:LYS:CD	46:CN:77:LYS:O	2.30	0.69
50:CR:129:GLY:O	50:CR:130:ASN:CG	2.30	0.69
44:CM:47:ARG:CZ	52:CS:73:LEU:CD1	2.70	0.69
43:CV:82:ILE:HD12	43:CV:104:VAL:HG13	1.74	0.69
58:CW:34:ALA:C	58:CW:37:GLU:HG3	2.13	0.69
56:CX:76:ILE:O	56:CX:76:ILE:CD1	2.39	0.69
16:AA:172:GLY:HA3	16:AA:203:PHE:CD1	2.28	0.69
15:AB:209:ASP:O	15:AB:210:VAL:CB	2.39	0.69
28:AC:256:TRP:CE2	32:AW:68:ARG:HD2	2.28	0.69
29:AG:180:VAL:C	29:AG:181:THR:HG22	2.13	0.69
33:AI:103:LEU:CD2	33:AI:172:LEU:HD13	2.22	0.69
4:AK:9:ILE:O	4:AK:13:GLU:HG2	1.93	0.69
4:AK:59:LYS:HD2	4:AK:60:GLU:H	1.58	0.69
11:AL:97:ARG:HG2	11:AL:98:LYS:N	2.06	0.69
10:AN:114:ARG:HG2	10:AN:114:ARG:HH21	1.57	0.69
8:AS:8:LYS:HD3	8:AS:8:LYS:N	2.07	0.69
14:AT:77:LYS:CA	14:AT:94:ARG:CG	2.68	0.69
16:AA:158:ASP:HB3	17:AV:65:SER:OG	1.91	0.69
32:AW:7:LEU:HD23	32:AW:34:ILE:HG13	1.75	0.69
36:B2:1597:C:C4'	36:B2:1603:G:O6	2.33	0.69
36:B2:191:A:C2'	36:B2:192:C:OP1	2.40	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:845:G:H2'	36:B2:846:G:C8	2.26	0.69
51:CA:189:TYR:HA	51:CA:192:LYS:HG3	1.75	0.69
63:CB:173:LEU:HD13	63:CB:342:LYS:CE	2.16	0.69
74:CC:31:PRO:O	74:CC:31:PRO:HD2	1.93	0.69
74:CC:7:LEU:HD21	74:CC:21:ASN:HB3	1.74	0.69
74:CC:91:ALA:O	74:CC:92:PHE:C	2.29	0.69
48:CD:119:TYR:CE1	48:CD:135:ILE:HG13	2.27	0.69
81:CE:264:ILE:HG23	81:CE:265:PRO:CD	2.22	0.69
81:CE:95:PRO:HD3	81:CE:105:ARG:O	1.93	0.69
82:CG:167:VAL:CG1	82:CG:170:LEU:HD12	2.08	0.69
82:CG:86:ALA:HB3	82:CG:183:ILE:HG21	1.75	0.69
46:CN:116:LEU:HA	46:CN:159:ARG:NH2	2.08	0.69
46:CN:71:ARG:HH12	46:CN:74:PRO:HD3	1.56	0.69
54:CP:64:ASN:CG	54:CP:64:ASN:O	2.28	0.69
50:CR:133:LYS:HG3	50:CR:137:ILE:CG2	2.19	0.69
52:CS:90:THR:HG22	53:CT:156:TYR:CE1	2.27	0.69
55:CU:125:GLU:OE1	55:CU:125:GLU:CA	2.40	0.69
85:A5:4083:U:C2	85:A5:4085:A:H4'	2.28	0.69
15:AB:61:GLY:O	15:AB:65:ARG:CZ	2.41	0.69
28:AC:164:PRO:HG2	28:AC:164:PRO:O	1.92	0.69
23:AD:123:LEU:HD21	23:AD:154:ASP:HB2	1.72	0.69
27:AE:139:LEU:HD11	27:AE:154:ILE:CG2	2.23	0.69
29:AG:147:LEU:HD21	29:AG:156:TYR:HE2	1.57	0.69
31:AH:12:ASN:HB3	31:AH:46:THR:OG1	1.92	0.69
26:AJ:110:LEU:HD12	26:AJ:130:ILE:HG12	1.55	0.69
11:AL:18:GLN:HE21	11:AL:20:LYS:HD2	1.58	0.69
11:AL:5:GLN:O	11:AL:6:THR:C	2.31	0.69
13:AP:110:GLU:CD	13:AP:110:GLU:H	1.94	0.69
8:AS:34:LYS:C	8:AS:103:LEU:CD2	2.61	0.69
8:AS:92:ASP:HA	13:AP:19:GLY:N	2.07	0.69
14:AT:42:HIS:CE1	14:AT:93:SER:CB	2.76	0.69
17:AV:47:ASN:O	17:AV:48:GLY:C	2.30	0.69
19:AZ:70:PRO:CD	19:AZ:71:ALA:N	2.55	0.69
36:B2:1518:C:OP2	36:B2:1519:U:H2'	1.92	0.69
63:CB:116:ARG:HH11	63:CB:122:TRP:CB	2.00	0.69
63:CB:62:ARG:O	63:CB:68:ASN:HB2	1.93	0.69
48:CD:271:MET:CE	48:CD:275:GLN:CD	2.60	0.69
81:CE:182:ASN:O	81:CE:183:ARG:HB3	1.90	0.69
81:CE:207:LYS:O	81:CE:208:ILE:CG1	2.40	0.69
81:CE:51:VAL:H	81:CE:54:ILE:HD12	1.57	0.69
64:CF:160:GLY:HA3	64:CF:207:PHE:CZ	2.28	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:CF:213:LEU:HD11	64:CF:244:ILE:HD11	1.75	0.69
79:CJ:17:ILE:HD11	79:CJ:83:LEU:CD1	2.22	0.69
42:CL:140:SER:O	42:CL:146:LEU:CD1	2.33	0.69
44:CM:90:ARG:O	44:CM:94:LYS:HG3	1.93	0.69
49:CQ:143:ARG:O	49:CQ:145:GLY:N	2.22	0.69
53:CT:146:LYS:HB3	53:CT:146:LYS:HZ2	1.54	0.69
53:CT:148:PRO:HG2	53:CT:148:PRO:O	1.91	0.69
58:CW:77:LYS:O	58:CW:78:PHE:CD1	2.46	0.69
57:CY:44:VAL:HG21	57:CY:119:LEU:HD11	1.70	0.69
28:AC:127:PHE:CD2	28:AC:141:VAL:CG2	2.73	0.69
28:AC:180:VAL:HG12	28:AC:181:PRO:N	2.08	0.69
23:AD:215:ASP:O	23:AD:216:GLU:HB2	1.93	0.69
27:AE:195:ILE:HG22	27:AE:196:THR:N	2.06	0.69
29:AG:164:LYS:C	29:AG:166:GLY:N	2.44	0.69
18:AY:118:ARG:HH21	29:AG:85:ARG:HD2	1.53	0.69
4:AK:18:GLU:O	4:AK:92:ALA:HB2	1.89	0.69
11:AL:5:GLN:CG	33:AI:197:PHE:CE2	2.76	0.69
10:AN:46:THR:O	10:AN:50:ILE:HD12	1.93	0.69
17:AV:59:ILE:CG2	17:AV:64:GLU:HB2	2.23	0.69
6:AX:108:LYS:HB3	6:AX:110:HIS:CE1	2.28	0.69
18:AY:55:ILE:CD1	18:AY:75:ILE:CD1	2.70	0.69
36:B2:1781:A:H2'	36:B2:1782:G:C8	2.28	0.69
63:CB:124:LYS:O	63:CB:124:LYS:HG3	1.91	0.69
43:CV:91:LYS:HZ3	63:CB:67:VAL:HG21	1.58	0.69
74:CC:295:SER:HB2	74:CC:296:PRO:HD3	1.75	0.69
48:CD:223:PHE:CB	48:CD:226:TYR:CE2	2.75	0.69
82:CG:82:GLN:OE1	82:CG:233:ILE:CG2	2.40	0.69
80:CH:103:VAL:HG12	80:CH:105:ILE:HD11	1.75	0.69
80:CH:5:LEU:HD23	80:CH:60:TRP:CH2	2.28	0.69
47:CI:48:LEU:HB2	47:CI:142:LEU:HD23	1.73	0.69
46:CN:75:VAL:HB	46:CN:76:PRO:CD	2.22	0.69
46:CN:84:PRO:HD2	46:CN:85:VAL:N	2.08	0.69
46:CN:72:LYS:HE2	46:CN:89:VAL:HG13	1.75	0.69
54:CP:95:LEU:HD11	54:CP:148:MET:CE	2.23	0.69
50:CR:101:ILE:CA	50:CR:104:ARG:HD2	2.20	0.69
52:CS:98:ARG:NH1	52:CS:145:PHE:CB	2.51	0.69
58:CW:14:TYR:CD1	63:CB:367:PHE:CZ	2.81	0.69
58:CW:86:SER:O	58:CW:90:ILE:HG12	1.91	0.69
56:CX:87:MET:HE3	56:CX:156:ILE:CD1	2.23	0.69
56:CX:96:LEU:HB3	56:CX:98:PHE:CE2	2.28	0.69
57:CY:52:ASP:O	57:CY:53:ASP:C	2.31	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:195:LYS:HA	15:AB:195:LYS:HE2	1.73	0.69
30:AF:36:GLN:CG	30:AF:37:ASP:OD1	2.30	0.69
31:AH:6:ALA:CB	31:AH:10:LYS:HD3	2.22	0.69
31:AH:6:ALA:HB1	31:AH:10:LYS:HZ3	1.58	0.69
31:AH:32:MET:O	31:AH:33:ASN:CG	2.30	0.69
33:AI:141:ARG:HG3	33:AI:144:LYS:O	1.93	0.69
4:AK:12:TYR:CD2	4:AK:82:TYR:HD2	2.11	0.69
12:AR:95:ILE:H	12:AR:114:LEU:HD13	1.58	0.69
12:AR:72:LYS:O	12:AR:76:GLU:HG2	1.93	0.69
8:AS:15:VAL:HG12	8:AS:16:LEU:H	1.57	0.69
17:AV:18:SER:HB3	17:AV:54:ALA:O	1.93	0.69
17:AV:45:ARG:O	17:AV:46:PHE:C	2.30	0.69
32:AW:30:CYS:HA	32:AW:34:ILE:HD12	1.74	0.69
63:CB:109:HIS:HB2	63:CB:202:GLU:OE2	1.92	0.69
63:CB:117:ARG:HA	63:CB:177:LYS:CD	2.23	0.69
74:CC:262:GLU:O	74:CC:264:TYR:N	2.25	0.69
48:CD:115:MET:CE	48:CD:139:PRO:HB3	2.23	0.69
48:CD:51:MET:HE3	48:CD:173:ILE:CG1	2.20	0.69
82:CG:98:LEU:HD23	82:CG:218:LEU:HD12	1.75	0.69
46:CN:38:ARG:HG3	46:CN:62:TYR:CZ	2.27	0.69
41:CO:54:TYR:O	41:CO:58:LEU:HG	1.92	0.69
41:CO:60:LYS:O	41:CO:61:ARG:HG3	1.92	0.69
43:CV:32:THR:HG21	43:CV:113:LYS:CG	2.23	0.69
57:CY:83:GLU:O	57:CY:84:ARG:CB	2.39	0.69
59:CZ:118:PHE:HZ	59:CZ:130:PHE:HZ	1.41	0.69
59:CZ:26:VAL:HG22	59:CZ:42:LEU:O	1.93	0.69
16:AA:76:VAL:HG12	16:AA:87:VAL:CG1	2.23	0.68
15:AB:61:GLY:O	15:AB:65:ARG:NH2	2.26	0.68
3:AU:107:GLU:OE2	23:AD:40:ARG:NH1	2.26	0.68
27:AE:74:GLY:O	27:AE:75:LYS:HG2	1.93	0.68
31:AH:10:LYS:CE	31:AH:16:PRO:C	2.61	0.68
33:AI:154:LYS:HD3	33:AI:155:ASN:CA	2.22	0.68
26:AJ:37:LEU:CD2	26:AJ:43:VAL:HG23	2.22	0.68
26:AJ:66:LYS:HA	26:AJ:71:LEU:CD1	2.19	0.68
11:AL:82:MET:HB2	11:AL:85:THR:HG22	1.74	0.68
10:AN:92:ILE:CG2	10:AN:150:VAL:CG2	2.72	0.68
5:AO:84:ARG:HA	5:AO:87:GLU:HB2	1.75	0.68
13:AP:52:LYS:N	13:AP:54:HIS:NE2	2.41	0.68
14:AT:29:LYS:HE3	14:AT:29:LYS:CA	2.10	0.68
32:AW:128:PHE:HD1	32:AW:129:PHE:N	1.91	0.68
6:AX:126:ALA:C	6:AX:128:VAL:N	2.40	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AZ:99:LEU:HD23	19:AZ:109:TYR:CD1	2.27	0.68
51:CA:122:ASP:O	51:CA:123:ARG:HB2	1.93	0.68
51:CA:210:PRO:HG2	51:CA:233:ARG:HA	1.75	0.68
51:CA:97:ASN:HD21	51:CA:100:ASN:HD21	1.39	0.68
64:CF:87:PRO:O	64:CF:125:LEU:HD12	1.93	0.68
64:CF:148:LYS:HB3	64:CF:245:ARG:HH11	1.56	0.68
80:CH:118:LEU:HD21	80:CH:177:ASP:CB	2.23	0.68
47:CI:112:GLN:OE1	47:CI:112:GLN:HA	1.93	0.68
41:CO:88:LEU:CD1	41:CO:99:LEU:HD23	2.22	0.68
54:CP:127:ARG:O	54:CP:139:TYR:O	2.10	0.68
50:CR:93:VAL:O	50:CR:97:ARG:CG	2.38	0.68
57:CY:2:LYS:NZ	57:CY:7:VAL:O	2.26	0.68
59:CZ:33:THR:HG21	59:CZ:36:ARG:HG3	1.75	0.68
16:AA:32:PHE:CD1	16:AA:33:GLN:HG2	2.26	0.68
16:AA:84:GLN:O	16:AA:88:LEU:HD23	1.93	0.68
15:AB:146:ARG:NH1	15:AB:146:ARG:H	1.89	0.68
23:AD:43:PRO:O	23:AD:44:THR:CG2	2.38	0.68
23:AD:66:ILE:O	23:AD:70:THR:HG23	1.92	0.68
29:AG:50:VAL:CG1	29:AG:111:LEU:HD13	2.11	0.68
31:AH:40:LEU:O	31:AH:42:GLU:N	2.27	0.68
31:AH:57:ARG:CD	31:AH:89:GLY:O	2.40	0.68
26:AJ:87:LEU:CD1	26:AJ:91:LYS:HB3	2.22	0.68
7:AM:28:HIS:HD2	7:AM:115:GLY:HA3	1.53	0.68
13:AP:5:GLU:H	13:AP:10:ARG:HH11	1.35	0.68
13:AP:70:MET:O	13:AP:71:GLU:CB	2.39	0.68
14:AT:83:GLN:HE22	14:AT:85:ASN:HA	1.58	0.68
3:AU:109:GLY:C	3:AU:110:VAL:HG23	2.14	0.68
18:AY:54:VAL:CG2	18:AY:79:LEU:CD2	2.71	0.68
74:CC:175:LYS:HD2	74:CC:175:LYS:N	2.08	0.68
74:CC:22:VAL:HG11	74:CC:257:PHE:HD2	1.58	0.68
74:CC:40:VAL:CG1	74:CC:44:LEU:HD11	2.22	0.68
81:CE:274:VAL:HG12	81:CE:275:PHE:CA	2.23	0.68
64:CF:87:PRO:HG3	64:CF:144:TYR:CZ	2.27	0.68
64:CF:162:ILE:HD13	64:CF:177:ARG:HH21	1.57	0.68
64:CF:185:ILE:HG22	64:CF:185:ILE:O	1.92	0.68
15:AB:58:ALA:H	82:CG:264:LYS:HZ1	1.39	0.68
82:CG:34:LYS:CG	82:CG:34:LYS:O	2.42	0.68
47:CI:106:ALA:C	47:CI:108:ALA:N	2.37	0.68
79:CJ:169:LYS:C	79:CJ:171:ASP:H	1.91	0.68
40:CK:50:THR:OG1	40:CK:72:GLU:HB3	1.93	0.68
46:CN:41:ARG:C	46:CN:61:ILE:HD12	2.12	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:35:ALA:CA	46:CN:65:ARG:NH1	2.56	0.68
41:CO:22:ILE:HD12	41:CO:120:VAL:HG11	1.73	0.68
41:CO:55:LEU:HA	41:CO:58:LEU:HD12	1.75	0.68
55:CU:108:GLU:HA	55:CU:110:TYR:CZ	2.28	0.68
58:CW:23:ARG:CZ	58:CW:29:PHE:CE2	2.74	0.68
56:CX:156:ILE:OXT	56:CX:156:ILE:CG2	2.41	0.68
81:CE:154:THR:HG21	85:A5:4942:C:OP1	1.93	0.68
16:AA:147:LEU:CD2	16:AA:163:CYS:SG	2.82	0.68
16:AA:180:ARG:HD3	16:AA:184:ARG:HH21	1.57	0.68
12:AR:105:MET:HG2	16:AA:48:ILE:HG21	0.69	0.68
15:AB:77:ASP:HA	15:AB:79:VAL:HG22	1.75	0.68
28:AC:156:ILE:HG23	28:AC:157:LEU:N	2.06	0.68
28:AC:275:LYS:HD2	28:AC:276:THR:N	2.08	0.68
28:AC:66:LEU:C	28:AC:66:LEU:CD2	2.61	0.68
27:AE:175:PHE:CD2	27:AE:175:PHE:O	2.45	0.68
26:AJ:133:ARG:HD3	26:AJ:141:VAL:HG11	1.73	0.68
26:AJ:14:VAL:HG23	26:AJ:48:PHE:CD1	2.29	0.68
13:AP:108:LYS:HB3	13:AP:110:GLU:CD	2.13	0.68
30:AF:14:THR:OG1	34:AQ:56:LEU:CD1	2.42	0.68
34:AQ:50:LYS:HG3	34:AQ:85:ARG:HH21	1.56	0.68
8:AS:54:LYS:C	8:AS:54:LYS:CB	2.61	0.68
8:AS:87:GLN:O	8:AS:88:LYS:O	2.10	0.68
3:AU:44:LYS:O	3:AU:47:ASN:CA	2.42	0.68
19:AZ:92:LEU:HD11	19:AZ:109:TYR:OH	1.93	0.68
51:CA:180:LEU:HD23	51:CA:184:ARG:CZ	2.23	0.68
63:CB:168:MET:HE2	63:CB:171:LEU:HB2	1.75	0.68
63:CB:305:THR:CG2	63:CB:308:ASP:H	2.06	0.68
81:CE:203:ILE:CD1	81:CE:205:ASN:O	2.42	0.68
80:CH:110:SER:CB	80:CH:111:LEU:CA	2.68	0.68
80:CH:1:MET:O	80:CH:2:LYS:CG	2.41	0.68
79:CJ:155:HIS:O	79:CJ:156:ARG:HB3	1.91	0.68
40:CK:34:PRO:HD2	40:CK:35:LEU:N	2.08	0.68
40:CK:39:PRO:C	40:CK:40:LYS:CG	2.60	0.68
42:CL:144:LEU:CD1	42:CL:150:LEU:HG	2.23	0.68
50:CR:15:LEU:HD13	50:CR:45:ILE:HD11	1.75	0.68
50:CR:11:ALA:HB2	50:CR:50:ILE:CD1	2.23	0.68
56:CX:63:LYS:HB3	56:CX:63:LYS:HZ2	1.59	0.68
57:CY:34:LEU:HD23	57:CY:39:ARG:HA	1.73	0.68
28:AC:84:PHE:CE1	28:AC:264:SER:HA	2.28	0.68
29:AG:151:ASP:OD1	58:CW:105:ARG:NE	2.26	0.68
29:AG:161:PRO:O	29:AG:161:PRO:HD2	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:22:ARG:HD2	33:AI:155:ASN:CA	2.22	0.68
26:AJ:102:ILE:CG2	26:AJ:106:LEU:HD13	2.23	0.68
4:AK:46:MET:HA	4:AK:69:TRP:CH2	2.28	0.68
10:AN:142:GLU:HG2	10:AN:144:SER:OG	1.93	0.68
10:AN:87:ASP:OD1	10:AN:88:LEU:N	2.27	0.68
13:AP:51:ARG:O	13:AP:52:LYS:HB3	1.91	0.68
8:AS:39:ARG:NH2	14:AT:38:LYS:CG	2.57	0.68
6:AX:95:GLU:CD	6:AX:140:ARG:HH22	1.95	0.68
18:AY:54:VAL:HG22	18:AY:79:LEU:CD2	2.23	0.68
36:B2:499:G:N1	36:B2:501:C:H1'	2.09	0.68
36:B2:852:G:H3'	36:B2:853:C:C5'	2.24	0.68
63:CB:82:PRO:CG	63:CB:171:LEU:HD21	2.21	0.68
74:CC:24:LEU:N	74:CC:24:LEU:CD2	2.55	0.68
74:CC:263:LEU:O	74:CC:264:TYR:CG	2.46	0.68
81:CE:179:LEU:HD13	81:CE:179:LEU:O	1.94	0.68
80:CH:103:VAL:HG12	80:CH:105:ILE:CD1	2.23	0.68
80:CH:31:ARG:CD	80:CH:149:ASN:OD1	2.41	0.68
47:CI:185:VAL:HG21	47:CI:190:LEU:CD1	2.15	0.68
47:CI:9:TYR:CZ	47:CI:97:ILE:CG2	2.75	0.68
42:CL:87:HIS:O	42:CL:90:VAL:N	2.25	0.68
41:CO:177:LEU:CA	44:CM:130:LEU:HD21	2.22	0.68
44:CM:77:TRP:CD1	44:CM:82:ILE:CG2	2.77	0.68
41:CO:27:VAL:O	41:CO:101:ARG:NH1	2.24	0.68
41:CO:60:LYS:HE3	85:A5:2046:G:C5	2.29	0.68
54:CP:106:GLY:C	54:CP:107:LEU:HD23	2.14	0.68
54:CP:39:MET:SD	54:CP:43:LYS:HE2	2.33	0.68
50:CR:134:ASN:OD1	50:CR:134:ASN:C	2.32	0.68
52:CS:78:PHE:CZ	52:CS:102:THR:HG22	2.28	0.68
52:CS:138:ARG:HD3	52:CS:139:ARG:NH1	2.09	0.68
52:CS:141:ALA:HA	52:CS:144:GLN:NE2	2.09	0.68
52:CS:154:LEU:HD13	52:CS:157:ARG:CD	2.20	0.68
52:CS:83:ARG:HH21	53:CT:156:TYR:HB2	1.59	0.68
53:CT:50:LYS:O	53:CT:51:GLY:C	2.31	0.68
55:CU:66:SER:O	55:CU:67:LYS:HG2	1.90	0.68
43:CV:9:SER:OG	43:CV:128:LEU:HD12	1.89	0.68
58:CW:14:TYR:O	58:CW:17:HIS:HB2	1.94	0.68
58:CW:87:LEU:CA	58:CW:90:ILE:HG13	2.20	0.68
56:CX:76:ILE:HD11	56:CX:104:ALA:HB1	1.74	0.68
59:CZ:5:MET:O	59:CZ:6:LYS:HB2	1.93	0.68
86:A7:49:A:HO2'	86:A7:50:A:H8	1.41	0.68
23:AD:112:GLY:O	23:AD:113:LEU:HD12	1.86	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AE:139:LEU:CD1	27:AE:154:ILE:CG2	2.69	0.68
27:AE:43:PRO:HG2	27:AE:46:ILE:HD12	1.74	0.68
31:AH:107:LYS:O	31:AH:109:ARG:HA	1.94	0.68
26:AJ:15:THR:HG21	26:AJ:44:TRP:HZ3	1.58	0.68
26:AJ:21:GLU:O	26:AJ:22:LYS:C	2.31	0.68
4:AK:14:LEU:CD2	4:AK:35:LEU:CD1	2.71	0.68
4:AK:36:ALA:C	4:AK:38:LYS:H	1.95	0.68
7:AM:79:VAL:HG12	7:AM:80:ASP:N	2.09	0.68
13:AP:49:LEU:C	13:AP:51:ARG:CD	2.62	0.68
34:AQ:12:VAL:CG1	34:AQ:13:PHE:N	2.55	0.68
34:AQ:92:LEU:CG	34:AQ:96:TYR:CE2	2.69	0.68
17:AV:78:ILE:C	17:AV:78:ILE:CB	2.60	0.68
8:AS:6:PRO:O	19:AZ:49:LEU:HD11	1.94	0.68
13:AP:128:HIS:HD2	36:B2:1522:A:C5'	2.07	0.68
51:CA:134:ALA:HB1	51:CA:148:VAL:CG1	2.23	0.68
51:CA:82:ILE:HD11	51:CA:99:GLY:CA	2.19	0.68
63:CB:311:ASP:O	63:CB:312:LYS:HE2	1.93	0.68
74:CC:311:ARG:O	74:CC:312:ARG:HB3	1.94	0.68
48:CD:130:TYR:CD2	48:CD:131:ASN:CA	2.77	0.68
64:CF:51:TYR:CE2	81:CE:58:SER:CB	2.53	0.68
82:CG:121:LYS:CD	82:CG:122:ALA:CA	2.70	0.68
82:CG:75:LYS:HZ2	82:CG:240:ASN:ND2	1.58	0.68
42:CL:58:ILE:CG2	42:CL:70:VAL:CG1	2.70	0.68
44:CM:51:PRO:HD2	44:CM:51:PRO:O	1.93	0.68
46:CN:112:ALA:O	46:CN:138:PHE:CZ	2.45	0.68
46:CN:192:TRP:CE2	46:CN:196:ASN:ND2	2.62	0.68
54:CP:105:LYS:CD	54:CP:105:LYS:N	2.57	0.68
58:CW:76:VAL:CG1	58:CW:77:LYS:H	2.03	0.68
28:AC:81:ILE:HG23	28:AC:86:LEU:HB2	1.74	0.68
23:AD:10:LYS:HE2	23:AD:14:ASP:OD2	1.94	0.68
30:AF:91:ARG:NH1	30:AF:94:LYS:CG	2.37	0.68
27:AE:152:PRO:HG3	29:AG:209:TYR:CE1	2.29	0.68
26:AJ:90:GLY:C	26:AJ:91:LYS:O	2.24	0.68
13:AP:30:TYR:O	13:AP:34:MET:HG3	1.94	0.68
13:AP:49:LEU:C	13:AP:51:ARG:N	2.45	0.68
34:AQ:57:LEU:CD1	34:AQ:115:TYR:CZ	2.60	0.68
3:AU:25:THR:CG2	3:AU:86:LYS:HG2	2.22	0.68
17:AV:40:ASP:CB	17:AV:47:ASN:HD22	2.06	0.68
32:AW:18:GLU:HG2	32:AW:65:LEU:HD13	1.76	0.68
19:AZ:48:VAL:HA	19:AZ:83:LEU:HD12	1.76	0.68
29:AG:195:LYS:CE	36:B2:125:C:O2'	2.32	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CA:24:LYS:HE2	51:CA:24:LYS:HA	1.76	0.68
51:CA:44:ILE:HG22	51:CA:87:PHE:CD1	2.29	0.68
81:CE:215:ALA:O	81:CE:218:LYS:HG2	1.93	0.68
82:CG:35:ARG:CA	82:CG:36:PRO:N	2.56	0.68
80:CH:109:GLY:C	80:CH:128:MET:CB	2.34	0.68
42:CL:10:LEU:CD2	42:CL:10:LEU:N	2.46	0.68
46:CN:116:LEU:CD1	46:CN:135:ILE:HD12	2.22	0.68
41:CO:133:ARG:HD3	41:CO:133:ARG:N	2.09	0.68
52:CS:90:THR:HG21	53:CT:156:TYR:HD1	1.52	0.68
53:CT:111:GLU:OE1	53:CT:115:LYS:CE	2.42	0.68
55:CU:100:LEU:HD21	55:CU:114:TYR:HB2	1.75	0.68
55:CU:24:ASP:HB3	55:CU:111:GLU:CD	2.12	0.68
16:AA:66:VAL:CG1	16:AA:186:ARG:CD	2.71	0.68
15:AB:209:ASP:O	15:AB:210:VAL:CG2	2.40	0.68
23:AD:2:ALA:HB3	23:AD:3:VAL:C	2.04	0.68
27:AE:1:MET:CE	36:B2:432:G:C8	2.77	0.68
26:AJ:91:LYS:O	26:AJ:93:LYS:N	2.25	0.68
7:AM:49:LEU:HD13	7:AM:50:CYS:H	1.58	0.68
13:AP:56:LEU:HD11	13:AP:80:LEU:HD12	1.75	0.68
12:AR:122:PRO:CB	12:AR:123:THR:CB	2.71	0.68
8:AS:111:LEU:HD22	8:AS:125:HIS:ND1	2.09	0.68
14:AT:124:THR:HG21	14:AT:126:GLN:HB3	1.76	0.68
36:B2:742:U:C6	36:B2:743:U:C5	2.82	0.68
74:CC:147:VAL:HG22	74:CC:175:LYS:HB2	1.71	0.68
74:CC:312:ARG:O	74:CC:313:VAL:CB	2.36	0.68
48:CD:190:PHE:CE2	48:CD:192:ALA:HB2	2.28	0.68
80:CH:34:LEU:HD22	80:CH:150:ASP:CG	2.10	0.68
47:CI:109:ASP:O	47:CI:110:ARG:HG3	1.92	0.68
40:CK:78:SER:HA	40:CK:117:ARG:HH12	1.56	0.68
46:CN:156:HIS:HB3	46:CN:159:ARG:HD3	1.75	0.68
46:CN:35:ALA:N	46:CN:65:ARG:HH11	1.91	0.68
41:CO:12:ARG:HB3	41:CO:37:ARG:HD2	1.75	0.68
41:CO:74:ARG:HG2	41:CO:145:VAL:O	1.94	0.68
41:CO:26:GLN:NE2	52:CS:166:ARG:CB	2.56	0.68
50:CR:15:LEU:O	50:CR:16:ARG:CB	2.42	0.68
43:CV:32:THR:HG22	43:CV:113:LYS:HG3	1.76	0.68
56:CX:43:SER:CA	82:CG:51:LEU:HD12	2.23	0.68
44:CM:91:TRP:CE3	85:A5:4871:C:OP1	2.46	0.68
15:AB:160:GLN:CD	15:AB:205:TYR:CD1	2.67	0.68
28:AC:213:LEU:HD11	28:AC:241:PHE:CD1	2.28	0.68
28:AC:84:PHE:CZ	28:AC:262:THR:OG1	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:197:LYS:HB3	23:AD:198:ILE:HG23	0.77	0.68
31:AH:14:GLU:CD	31:AH:16:PRO:HB2	2.13	0.68
33:AI:36:THR:O	33:AI:95:THR:HG23	1.92	0.68
26:AJ:158:ASP:OD1	26:AJ:159:PHE:N	2.27	0.68
26:AJ:177:ASN:HA	26:AJ:180:LYS:HB3	1.76	0.68
26:AJ:54:ARG:NH2	28:AC:201:GLY:CA	2.54	0.68
11:AL:118:ARG:O	11:AL:119:ASP:HB2	1.92	0.68
7:AM:94:ILE:O	7:AM:95:ASP:HB2	1.93	0.68
5:AO:41:PHE:CD1	5:AO:57:THR:CG2	2.76	0.68
13:AP:126:VAL:O	13:AP:127:LYS:HB3	1.93	0.68
14:AT:40:ALA:CB	14:AT:43:LYS:CG	2.58	0.68
17:AV:24:ILE:C	17:AV:24:ILE:HD12	2.11	0.68
18:AY:13:MET:HE2	18:AY:14:THR:CA	2.24	0.68
18:AY:57:VAL:HG12	18:AY:60:PHE:HE2	1.59	0.68
19:AZ:48:VAL:CG1	19:AZ:48:VAL:O	2.40	0.68
63:CB:206:PRO:HB2	63:CB:208:ASN:OD1	1.94	0.68
63:CB:40:PRO:HB2	63:CB:42:HIS:NE2	2.03	0.68
48:CD:10:LYS:HB3	48:CD:14:LYS:HE3	1.76	0.68
48:CD:190:PHE:CE2	48:CD:192:ALA:CA	2.77	0.68
48:CD:21:ARG:O	48:CD:25:GLU:HG3	1.94	0.68
81:CE:165:LEU:CB	81:CE:174:LEU:HD23	2.23	0.68
80:CH:38:PHE:O	80:CH:41:ILE:HG22	1.93	0.68
47:CI:38:ARG:CD	47:CI:83:ASP:HB2	2.24	0.68
46:CN:178:HIS:C	46:CN:181:HIS:CD2	2.66	0.68
27:AE:129:ILE:HG13	27:AE:139:LEU:HD23	1.44	0.68
31:AH:121:THR:O	31:AH:125:VAL:HG23	1.94	0.68
4:AK:83:LEU:HB2	4:AK:85:LEU:HG	1.76	0.68
5:AO:116:LEU:HD23	5:AO:119:LEU:HD21	1.76	0.68
8:AS:42:HIS:CE1	14:AT:45:LEU:CD2	2.54	0.68
14:AT:144:LYS:NZ	14:AT:144:LYS:CB	2.55	0.68
36:B2:1657:G:H1	36:B2:1667:U:H3	1.39	0.68
42:CL:18:TRP:CZ3	74:CC:108:TRP:CZ2	2.81	0.68
74:CC:146:GLU:CG	74:CC:175:LYS:CE	2.72	0.68
48:CD:223:PHE:O	48:CD:225:GLN:N	2.27	0.68
81:CE:144:ILE:CD1	81:CE:196:ALA:HB2	2.15	0.68
47:CI:205:PRO:C	47:CI:207:ASP:N	2.46	0.68
42:CL:126:LEU:C	42:CL:127:PHE:HD1	1.98	0.68
42:CL:21:ARG:O	46:CN:197:THR:CA	2.42	0.68
41:CO:122:ALA:HB2	52:CS:161:ARG:HB2	0.76	0.68
41:CO:125:LYS:HE3	41:CO:135:PHE:CD2	2.29	0.68
41:CO:130:LYS:HE3	41:CO:133:ARG:HH21	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CP:93:HIS:O	54:CP:94:MET:C	2.31	0.68
49:CQ:69:LYS:O	49:CQ:75:ARG:HG3	1.94	0.68
50:CR:132:PHE:CD1	50:CR:137:ILE:CG2	2.76	0.68
52:CS:140:PRO:CG	52:CS:141:ALA:N	2.56	0.68
52:CS:27:LEU:H	52:CS:27:LEU:HD12	1.58	0.68
52:CS:75:VAL:O	52:CS:76:LYS:HB2	1.94	0.68
48:CD:69:ILE:CG2	53:CT:31:MET:CB	2.72	0.68
53:CT:7:LYS:CD	53:CT:7:LYS:O	2.30	0.68
59:CZ:46:ILE:CG2	59:CZ:118:PHE:CE2	2.77	0.68
42:CL:39:ARG:NH1	85:A5:1362:G:H5'	2.09	0.68
85:A5:4751:G:N7	85:A5:4950:U:OP2	2.27	0.68
16:AA:76:VAL:CG1	16:AA:87:VAL:HG12	2.24	0.68
15:AB:136:ARG:CG	15:AB:138:PHE:CE2	2.74	0.68
28:AC:72:ASP:O	28:AC:73:MET:HB2	1.94	0.68
23:AD:45:ARG:HG3	23:AD:83:SER:O	1.94	0.68
27:AE:87:MET:O	27:AE:122:LYS:HE3	1.94	0.68
30:AF:109:LEU:O	30:AF:109:LEU:HD23	1.94	0.68
30:AF:167:LYS:CD	30:AF:171:GLU:HB3	2.24	0.68
29:AG:77:LEU:CD1	29:AG:95:LYS:HD3	2.23	0.68
33:AI:117:TYR:CD2	33:AI:117:TYR:N	2.61	0.68
4:AK:96:ARG:CG	4:AK:97:SER:N	2.57	0.68
17:AV:59:ILE:HG23	17:AV:64:GLU:HB2	1.75	0.68
6:AX:32:LEU:O	6:AX:37:LYS:CE	2.42	0.68
63:CB:142:GLY:HA3	63:CB:147:GLU:CG	2.23	0.68
63:CB:140:GLU:HB2	63:CB:144:LYS:HB2	1.75	0.68
63:CB:338:VAL:O	63:CB:345:LEU:HD11	1.94	0.68
63:CB:40:PRO:CA	63:CB:41:VAL:HG22	2.24	0.68
63:CB:54:THR:C	63:CB:76:VAL:CG2	2.61	0.68
48:CD:64:ILE:HD11	48:CD:105:LEU:CG	2.24	0.68
81:CE:165:LEU:CD1	81:CE:174:LEU:HD21	2.24	0.68
82:CG:49:ARG:CG	82:CG:50:ASP:N	2.57	0.68
40:CK:131:GLU:CG	40:CK:152:ILE:CG2	2.71	0.68
40:CK:34:PRO:HD2	40:CK:35:LEU:H	1.57	0.68
41:CO:190:ASP:HA	41:CO:191:LYS:CB	2.24	0.68
50:CR:65:LYS:HA	50:CR:68:LEU:HD23	1.73	0.68
52:CS:30:MET:HE1	52:CS:47:PHE:CG	2.28	0.68
43:CV:106:VAL:HG11	43:CV:110:GLY:HA2	1.76	0.68
43:CV:107:ASN:ND2	43:CV:111:GLU:HB2	2.09	0.68
58:CW:87:LEU:HA	58:CW:90:ILE:HG13	1.76	0.68
58:CW:90:ILE:HB	58:CW:91:MET:CE	2.24	0.68
57:CY:27:ARG:NH2	57:CY:28:LYS:NZ	2.42	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:146:ARG:HH11	15:AB:146:ARG:CB	2.07	0.67
15:AB:97:LEU:HB3	15:AB:232:HIS:CD2	2.29	0.67
27:AE:102:ILE:HD13	27:AE:236:ILE:HD12	1.75	0.67
27:AE:148:ARG:NH2	36:B2:124:U:OP1	2.26	0.67
30:AF:154:LEU:CD1	30:AF:155:CYS:N	2.55	0.67
4:AK:40:VAL:CG2	4:AK:41:PRO:HD2	2.18	0.67
5:AO:53:ILE:O	5:AO:53:ILE:HG13	1.94	0.67
13:AP:41:GLN:CD	13:AP:41:GLN:C	2.52	0.67
13:AP:56:LEU:HD22	13:AP:78:THR:HG22	1.75	0.67
12:AR:90:ALA:HA	12:AR:91:LEU:CD1	2.24	0.67
8:AS:106:LYS:CD	8:AS:109:GLU:OE1	2.42	0.67
8:AS:6:PRO:O	8:AS:7:GLU:CB	2.42	0.67
6:AX:52:LEU:CG	6:AX:71:ARG:HB3	2.24	0.67
51:CA:118:GLU:CG	51:CA:119:LYS:HG2	2.22	0.67
51:CA:254:GLU:HB3	51:CA:255:LYS:CA	2.24	0.67
63:CB:116:ARG:CD	63:CB:122:TRP:CD2	2.76	0.67
74:CC:144:ILE:HG21	74:CC:147:VAL:HG21	1.74	0.67
74:CC:144:ILE:HG12	74:CC:249:PHE:CZ	2.29	0.67
82:CG:87:LEU:HB2	82:CG:183:ILE:HG22	1.76	0.67
46:CN:32:GLN:HB2	82:CG:67:ARG:NH2	2.08	0.67
82:CG:77:PRO:N	82:CG:237:TRP:CZ3	2.62	0.67
80:CH:25:VAL:HG22	80:CH:36:ARG:O	1.94	0.67
46:CN:186:GLY:HA3	46:CN:191:ALA:HB2	1.75	0.67
46:CN:41:ARG:CA	46:CN:61:ILE:HD11	2.23	0.67
41:CO:199:HIS:O	41:CO:203:VAL:HG23	1.94	0.67
54:CP:114:ILE:HA	54:CP:150:LEU:HD23	1.76	0.67
49:CQ:151:HIS:CG	49:CQ:164:LYS:O	2.46	0.67
50:CR:44:LEU:CD2	50:CR:49:LEU:HD13	2.24	0.67
50:CR:72:LYS:CD	50:CR:72:LYS:C	5.00	0.67
23:AD:217:ILE:CG2	23:AD:218:LEU:N	2.57	0.67
23:AD:43:PRO:C	23:AD:44:THR:CG2	2.60	0.67
27:AE:175:PHE:CD2	27:AE:175:PHE:C	2.67	0.67
27:AE:250:GLU:O	27:AE:254:LYS:HG2	1.95	0.67
30:AF:40:ALA:N	30:AF:68:ILE:HG23	2.08	0.67
33:AI:118:ALA:HB2	33:AI:149:TYR:CZ	2.29	0.67
4:AK:36:ALA:O	4:AK:38:LYS:HD2	1.94	0.67
10:AN:26:LEU:HD21	10:AN:66:VAL:HG21	1.76	0.67
5:AO:136:PRO:C	5:AO:138:ASP:N	2.44	0.67
12:AR:21:TYR:CD2	12:AR:73:LEU:HD12	2.30	0.67
8:AS:26:ILE:HG22	8:AS:45:LEU:CD1	2.24	0.67
8:AS:51:ASP:OD2	8:AS:53:THR:OG1	2.12	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CA:245:ARG:NH1	51:CA:247:ARG:HG3	2.09	0.67
51:CA:45:VAL:HG22	51:CA:61:VAL:CG2	2.22	0.67
81:CE:138:ARG:NH1	81:CE:167:GLN:HE21	1.92	0.67
64:CF:87:PRO:CG	64:CF:144:TYR:CZ	2.77	0.67
47:CI:206:LEU:HD23	48:CD:283:LYS:HD3	1.75	0.67
47:CI:21:ARG:HD2	47:CI:22:PHE:CZ	2.28	0.67
40:CK:64:ILE:HB	40:CK:71:ILE:HD12	1.76	0.67
42:CL:127:PHE:N	42:CL:127:PHE:HD1	1.90	0.67
42:CL:148:THR:C	42:CL:149:GLN:CG	2.62	0.67
41:CO:120:VAL:O	41:CO:124:LEU:CD1	2.42	0.67
54:CP:30:ARG:NH2	54:CP:62:ARG:HH22	1.93	0.67
52:CS:17:LEU:N	52:CS:59:GLY:CA	2.55	0.67
57:CY:44:VAL:CG2	57:CY:119:LEU:HD11	2.25	0.67
59:CZ:18:TYR:CD2	59:CZ:75:TYR:OH	2.47	0.67
15:AB:31:TYR:CE1	15:AB:94:LYS:HA	2.29	0.67
27:AE:62:LYS:CD	27:AE:80:ILE:CD1	2.44	0.67
29:AG:159:ARG:HH21	29:AG:171:THR:HA	1.57	0.67
31:AH:12:ASN:HD22	31:AH:46:THR:CB	2.06	0.67
31:AH:135:PHE:CD2	31:AH:136:PRO:HD3	2.29	0.67
10:AN:18:TYR:CE2	31:AH:140:VAL:O	2.47	0.67
31:AH:177:TYR:HE2	31:AH:183:LYS:HB2	1.59	0.67
31:AH:52:GLU:HA	31:AH:58:LYS:HA	1.76	0.67
26:AJ:180:LYS:HD2	26:AJ:180:LYS:C	2.15	0.67
11:AL:94:HIS:HB3	11:AL:105:ARG:HD2	1.75	0.67
5:AO:95:ILE:HD12	5:AO:116:LEU:HD21	1.70	0.67
5:AO:119:LEU:O	5:AO:122:SER:OG	2.07	0.67
34:AQ:112:LEU:CD1	34:AQ:120:LEU:CD2	2.73	0.67
34:AQ:57:LEU:HD11	34:AQ:115:TYR:OH	1.94	0.67
12:AR:7:LYS:HB2	12:AR:11:LYS:HE3	1.77	0.67
14:AT:83:GLN:NE2	14:AT:85:ASN:HA	2.09	0.67
14:AT:85:ASN:O	14:AT:88:MET:HE3	1.94	0.67
18:AY:114:MET:HA	18:AY:124:ASN:CB	2.24	0.67
31:AH:182:GLY:O	36:B2:690:G:O2'	2.11	0.67
51:CA:247:ARG:CD	51:CA:247:ARG:O	2.42	0.67
74:CC:189:MET:HE3	74:CC:200:ARG:HE	1.55	0.67
74:CC:142:HIS:CE1	74:CC:248:ARG:HA	2.29	0.67
48:CD:130:TYR:CD2	48:CD:131:ASN:N	2.50	0.67
48:CD:146:LEU:HD13	48:CD:163:LEU:HD22	1.68	0.67
81:CE:287:VAL:HG23	81:CE:288:PHE:N	2.10	0.67
82:CG:157:ILE:HG23	82:CG:167:VAL:HG11	1.77	0.67
47:CI:52:MET:CE	47:CI:152:LEU:O	2.42	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CK:62:LEU:HD13	40:CK:64:ILE:HD11	1.76	0.67
40:CK:81:ILE:HD11	40:CK:113:ALA:HB1	1.75	0.67
46:CN:136:ASP:CB	46:CN:139:HIS:CD2	2.68	0.67
46:CN:38:ARG:HG3	46:CN:62:TYR:OH	1.95	0.67
49:CQ:82:VAL:HG21	49:CQ:86:ILE:HD11	1.75	0.67
52:CS:20:PRO:O	52:CS:21:LYS:HG2	1.95	0.67
57:CY:34:LEU:CD2	57:CY:39:ARG:N	2.57	0.67
82:CG:140:VAL:HG21	85:A5:150:U:H5'	1.76	0.67
28:AC:176:LYS:HD2	28:AC:177:PRO:HD2	1.77	0.67
27:AE:9:LEU:HB2	27:AE:30:ARG:HB2	1.76	0.67
27:AE:94:LYS:C	27:AE:95:THR:HG23	2.15	0.67
30:AF:154:LEU:HD12	30:AF:155:CYS:CA	2.25	0.67
30:AF:49:LEU:CD1	30:AF:50:PRO:HD2	2.16	0.67
30:AF:67:PRO:HG2	30:AF:70:GLU:HB3	1.76	0.67
27:AE:149:TYR:CD2	29:AG:205:GLU:HB2	2.28	0.67
33:AI:112:TRP:CH2	33:AI:117:TYR:OH	2.46	0.67
7:AM:24:THR:O	7:AM:27:ILE:HG22	1.94	0.67
10:AN:26:LEU:HD12	10:AN:27:LYS:HE3	1.77	0.67
10:AN:50:ILE:O	10:AN:54:LEU:HG	1.94	0.67
17:AV:40:ASP:CG	17:AV:40:ASP:O	2.33	0.67
17:AV:9:VAL:HG12	17:AV:10:ASP:H	1.60	0.67
6:AX:52:LEU:HD12	6:AX:53:GLU:CA	2.24	0.67
19:AZ:96:LEU:O	19:AZ:112:ASN:ND2	2.27	0.67
63:CB:189:THR:CG2	63:CB:192:GLU:CD	2.61	0.67
63:CB:290:GLY:O	63:CB:299:ILE:CD1	2.43	0.67
74:CC:92:PHE:O	74:CC:93:GLY:C	2.30	0.67
81:CE:165:LEU:HD12	81:CE:174:LEU:HD21	1.76	0.67
82:CG:83:PHE:HE1	82:CG:159:HIS:CA	1.84	0.67
80:CH:12:ILE:HD13	80:CH:13:PRO:HD2	1.73	0.67
80:CH:19:THR:OG1	80:CH:26:ILE:HG13	1.90	0.67
47:CI:91:LEU:HD11	47:CI:135:ILE:HA	1.73	0.67
40:CK:105:THR:HG22	40:CK:144:ASP:N	2.09	0.67
40:CK:22:VAL:HG21	40:CK:48:LYS:HB2	0.67	0.67
40:CK:52:ASP:O	40:CK:54:LYS:O	2.12	0.67
40:CK:78:SER:N	40:CK:117:ARG:HH12	1.91	0.67
40:CK:93:LYS:O	40:CK:94:LYS:CB	2.40	0.67
41:CO:203:VAL:OXT	41:CO:203:VAL:CG1	2.41	0.67
49:CQ:59:PRO:HG2	49:CQ:141:GLY:O	1.94	0.67
50:CR:81:ARG:HG2	50:CR:88:ARG:CZ	2.23	0.67
50:CR:94:THR:CA	50:CR:97:ARG:HD3	2.24	0.67
52:CS:169:THR:HG22	52:CS:170:LYS:NZ	2.09	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CT:4:THR:O	53:CT:5:LYS:HB2	1.94	0.67
53:CT:7:LYS:CE	53:CT:54:HIS:CG	2.73	0.67
56:CX:76:ILE:C	56:CX:76:ILE:HD12	2.14	0.67
57:CY:74:TYR:CD1	57:CY:81:TYR:HE2	2.13	0.67
85:A5:2099:G:H2'	85:A5:2100:A:O4'	1.95	0.67
16:AA:138:SER:O	17:AV:30:ALA:HB1	1.95	0.67
15:AB:179:ASN:CB	15:AB:183:GLU:OE1	2.43	0.67
28:AC:138:GLY:C	28:AC:241:PHE:CZ	2.67	0.67
12:AR:38:ILE:O	23:AD:211:VAL:O	2.12	0.67
27:AE:159:THR:OG1	27:AE:227:VAL:HG23	1.93	0.67
30:AF:25:THR:HG21	30:AF:42:LYS:HG3	0.67	0.67
26:AJ:131:ARG:HH11	26:AJ:143:ASN:ND2	1.93	0.67
26:AJ:84:ILE:CD1	26:AJ:86:VAL:HG21	2.24	0.67
4:AK:94:LEU:HD23	4:AK:95:ARG:H	1.58	0.67
34:AQ:19:ALA:CB	34:AQ:80:GLN:HE21	2.06	0.67
14:AT:77:LYS:CG	14:AT:92:PHE:HZ	2.03	0.67
14:AT:85:ASN:ND2	14:AT:91:HIS:CD2	2.62	0.67
14:AT:42:HIS:HE1	14:AT:93:SER:CB	2.08	0.67
6:AX:29:LYS:HE3	6:AX:34:THR:HG21	1.75	0.67
19:AZ:99:LEU:HD11	19:AZ:102:LYS:CE	2.23	0.67
51:CA:104:VAL:HA	51:CA:107:MET:HE1	1.75	0.67
81:CE:115:TYR:C	81:CE:117:PRO:HD2	2.14	0.67
82:CG:143:VAL:HA	82:CG:146:LEU:HD23	1.71	0.67
47:CI:169:LYS:HD2	47:CI:169:LYS:N	2.10	0.67
42:CL:126:LEU:HD23	42:CL:136:LYS:HB3	1.76	0.67
44:CM:6:PHE:O	44:CM:11:ARG:CZ	2.42	0.67
41:CO:185:VAL:O	41:CO:188:LYS:HB2	1.95	0.67
54:CP:32:THR:OG1	54:CP:91:LEU:HD23	1.94	0.67
54:CP:30:ARG:NH2	54:CP:62:ARG:NH2	2.42	0.67
50:CR:184:ILE:O	50:CR:188:LEU:HD12	1.93	0.67
50:CR:68:LEU:HD12	50:CR:69:ALA:CA	2.23	0.67
53:CT:91:VAL:CB	53:CT:96:ILE:HD11	2.25	0.67
55:CU:68:SER:OG	55:CU:69:LYS:NZ	2.23	0.67
59:CZ:33:THR:HG1	59:CZ:36:ARG:N	1.92	0.67
85:A5:2409:U:C5	85:A5:2783:A:N1	2.63	0.67
15:AB:105:LEU:C	15:AB:106:THR:HG23	2.14	0.67
28:AC:73:MET:HE3	28:AC:96:PHE:HZ	1.59	0.67
23:AD:59:LEU:HD12	23:AD:60:GLY:C	2.14	0.67
27:AE:194:VAL:HG22	27:AE:211:LYS:O	1.95	0.67
30:AF:99:ILE:HD13	30:AF:171:GLU:OE1	1.93	0.67
29:AG:131:ARG:CD	29:AG:131:ARG:HG3	2.15	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:143:ARG:HE	32:AW:53:ILE:CG2	1.99	0.67
4:AK:36:ALA:O	4:AK:38:LYS:N	2.28	0.67
34:AQ:50:LYS:CE	34:AQ:117:ARG:HD2	2.25	0.67
34:AQ:78:VAL:HG12	34:AQ:82:TYR:CE2	2.29	0.67
12:AR:99:ASP:CB	12:AR:119:VAL:HG12	2.22	0.67
14:AT:85:ASN:HB3	14:AT:88:MET:HB2	1.76	0.67
36:B2:125:C:H5'	36:B2:125:C:H6	1.60	0.67
36:B2:532:C:H2'	36:B2:533:A:H5'	1.75	0.67
51:CA:77:ILE:HD12	51:CA:128:ARG:HH21	1.57	0.67
51:CA:28:ARG:HB3	51:CA:123:ARG:HG2	1.74	0.67
63:CB:140:GLU:OE1	63:CB:144:LYS:CG	2.42	0.67
63:CB:257:TRP:HD1	63:CB:257:TRP:O	1.77	0.67
63:CB:40:PRO:O	63:CB:187:GLY:CA	2.42	0.67
74:CC:146:GLU:CG	74:CC:175:LYS:HE2	2.23	0.67
48:CD:76:CYS:SG	48:CD:109:LEU:CD1	2.82	0.67
47:CI:16:PRO:CD	47:CI:128:ARG:NH1	2.57	0.67
46:CN:172:ARG:HH21	46:CN:174:LEU:HD12	1.52	0.67
49:CQ:61:LEU:HD13	49:CQ:82:VAL:HG22	1.74	0.67
53:CT:125:TRP:NE1	53:CT:126:VAL:CB	2.58	0.67
59:CZ:15:ALA:C	59:CZ:19:SER:HB3	2.15	0.67
59:CZ:73:LYS:CE	59:CZ:75:TYR:CD1	2.78	0.67
50:CR:124:TYR:OH	85:A5:2666:U:OP2	2.11	0.67
16:AA:141:ASN:HD21	17:AV:29:HIS:CA	2.06	0.67
16:AA:186:ARG:O	16:AA:186:ARG:HD3	1.93	0.67
28:AC:66:LEU:O	28:AC:70:VAL:HG23	1.94	0.67
23:AD:141:LYS:HD2	23:AD:179:GLN:CD	2.15	0.67
23:AD:18:LYS:O	23:AD:18:LYS:CD	2.41	0.67
23:AD:216:GLU:O	23:AD:217:ILE:HG13	1.94	0.67
30:AF:28:VAL:CG2	30:AF:110:GLN:HG2	2.24	0.67
29:AG:41:LEU:HD21	29:AG:45:TRP:HZ3	1.09	0.67
31:AH:53:VAL:HG22	31:AH:57:ARG:C	2.05	0.67
31:AH:60:ILE:CG2	31:AH:92:VAL:HG22	2.25	0.67
33:AI:108:PRO:O	33:AI:111:GLN:HG2	1.94	0.67
26:AJ:50:LEU:CD1	26:AJ:102:ILE:HD13	2.22	0.67
5:AO:22:ALA:C	5:AO:24:GLY:H	1.93	0.67
13:AP:49:LEU:HD13	13:AP:51:ARG:NE	1.97	0.67
14:AT:94:ARG:HG3	14:AT:94:ARG:NH1	2.10	0.67
6:AX:40:PRO:HB3	6:AX:81:ILE:CD1	2.15	0.67
36:B2:1522:A:C2	36:B2:1523:C:C6	2.82	0.67
37:BC:37:A:H2'	37:BC:38:C:C5'	2.25	0.67
63:CB:117:ARG:HD3	63:CB:177:LYS:HD2	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:211:TYR:O	74:CC:231:ASN:HA	1.95	0.67
48:CD:66:TYR:C	48:CD:66:TYR:HD2	1.96	0.67
81:CE:229:GLU:O	81:CE:231:GLU:N	2.27	0.67
81:CE:46:ARG:HD3	81:CE:47:ASN:N	2.10	0.67
82:CG:229:ARG:HG2	82:CG:233:ILE:HG13	1.76	0.67
46:CN:22:LEU:HD21	82:CG:80:ILE:HD11	1.77	0.67
44:CM:33:GLN:OE1	80:CH:61:TRP:CD1	2.48	0.67
47:CI:106:ALA:O	47:CI:107:GLY:C	2.29	0.67
42:CL:105:LYS:O	47:CI:19:LYS:HA	108.91	0.67
42:CL:51:ALA:O	42:CL:52:SER:C	2.29	0.67
42:CL:70:VAL:CG1	42:CL:157:VAL:HB	2.24	0.67
48:CD:42:ASN:CG	53:CT:67:VAL:HG12	2.10	0.67
55:CU:60:VAL:CB	55:CU:76:VAL:H	2.08	0.67
43:CV:36:ASN:HD22	43:CV:67:LYS:HG2	1.60	0.67
56:CX:40:ILE:CD1	82:CG:50:ASP:HA	2.23	0.67
59:CZ:90:PRO:HD2	59:CZ:91:LEU:N	2.08	0.67
23:AD:127:MET:HG2	23:AD:154:ASP:OD2	1.94	0.67
27:AE:85:GLY:N	27:AE:88:ASP:OD2	2.21	0.67
30:AF:112:LEU:HD23	30:AF:116:ILE:CD1	2.22	0.67
29:AG:14:LYS:HZ2	29:AG:123:GLY:HA3	0.71	0.67
29:AG:162:LEU:HG	29:AG:170:ARG:CB	2.25	0.67
33:AI:144:LYS:C	33:AI:145:ILE:HG23	2.15	0.67
26:AJ:130:ILE:CG2	26:AJ:135:ILE:HD11	2.21	0.67
8:AS:113:ARG:HH22	13:AP:114:HIS:CE1	2.11	0.67
13:AP:98:ASN:HD21	13:AP:120:SER:HB2	1.60	0.67
14:AT:21:PHE:CD1	14:AT:22:LEU:HD23	2.30	0.67
32:AW:7:LEU:HD23	32:AW:34:ILE:HG12	1.74	0.67
18:AY:7:ILE:HD11	18:AY:43:LYS:HB3	1.72	0.67
51:CA:122:ASP:OD2	51:CA:125:LYS:CD	2.43	0.67
51:CA:137:ILE:O	51:CA:138:SER:HB3	1.93	0.67
51:CA:144:LYS:HE3	51:CA:160:SER:HB2	1.77	0.67
63:CB:142:GLY:HA3	63:CB:147:GLU:HB2	1.77	0.67
74:CC:307:LYS:HB2	74:CC:310:HIS:CE1	2.29	0.67
74:CC:322:LEU:HD22	74:CC:336:ARG:NH1	2.10	0.67
48:CD:31:TYR:OH	48:CD:35:ARG:NH1	2.28	0.67
81:CE:181:LEU:CD2	81:CE:268:GLN:HG2	2.22	0.67
82:CG:163:PRO:CB	82:CG:166:LEU:HD11	2.24	0.67
79:CJ:136:ARG:NH1	79:CJ:155:HIS:HA	2.09	0.67
46:CN:49:ARG:O	46:CN:50:ARG:HB2	1.92	0.67
41:CO:177:LEU:CA	44:CM:130:LEU:HD23	2.20	0.67
54:CP:8:PRO:HG2	54:CP:9:GLU:H	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CT:127:GLN:HE21	53:CT:127:GLN:HA	1.52	0.67
53:CT:29:THR:OG1	53:CT:30:TYR:HE2	1.72	0.67
59:CZ:91:LEU:C	59:CZ:117:LYS:NZ	2.47	0.67
85:A5:2370:A:H5'	85:A5:2370:A:C8	2.30	0.67
85:A5:741:C:H42	85:A5:923:C:N4	1.93	0.67
15:AB:148:ASN:H	15:AB:148:ASN:ND2	1.93	0.67
15:AB:19:LYS:O	15:AB:19:LYS:CG	2.42	0.67
15:AB:188:LEU:HD22	15:AB:212:VAL:HG21	1.77	0.67
28:AC:117:ARG:CZ	28:AC:117:ARG:CB	2.70	0.67
28:AC:192:LEU:HD21	28:AC:227:ARG:HG2	1.76	0.67
23:AD:145:GLN:HG3	23:AD:146:ARG:N	2.10	0.67
27:AE:102:ILE:CD1	27:AE:236:ILE:HD12	2.24	0.67
27:AE:260:GLN:N	27:AE:260:GLN:OE1	2.28	0.67
30:AF:154:LEU:CD1	30:AF:155:CYS:SG	2.83	0.67
4:AK:84:HIS:HD2	7:AM:27:ILE:CG1	2.07	0.67
7:AM:12:MET:C	7:AM:13:ASP:OD1	2.33	0.67
5:AO:128:ARG:HH22	15:AB:72:ALA:CB	2.08	0.67
34:AQ:50:LYS:HA	34:AQ:53:GLU:CG	2.25	0.67
17:AV:15:ARG:O	17:AV:24:ILE:HG22	1.93	0.67
18:AY:37:LYS:C	18:AY:40:ILE:HG22	2.15	0.67
63:CB:141:ASP:CG	63:CB:142:GLY:H	1.97	0.67
63:CB:189:THR:CG2	63:CB:192:GLU:CG	2.73	0.67
63:CB:160:ILE:HD13	63:CB:190:VAL:HG13	1.75	0.67
63:CB:260:ALA:O	63:CB:261:ARG:HG2	1.94	0.67
63:CB:298:LEU:HA	63:CB:300:LYS:HG3	1.76	0.67
74:CC:17:SER:O	74:CC:18:SER:CB	2.43	0.67
48:CD:69:ILE:HG22	53:CT:31:MET:CG	2.24	0.67
64:CF:226:HIS:HB3	64:CF:229:GLU:HG2	1.77	0.67
82:CG:87:LEU:HG	82:CG:92:ALA:HB2	1.75	0.67
47:CI:80:CYS:SG	47:CI:147:HIS:ND1	2.67	0.67
41:CO:131:PRO:O	41:CO:132:THR:OG1	2.13	0.67
49:CQ:61:LEU:CD2	49:CQ:140:SER:C	2.53	0.67
53:CT:146:LYS:O	53:CT:147:GLU:OE2	2.13	0.67
43:CV:33:GLY:HA3	43:CV:69:LYS:CD	2.25	0.67
56:CX:39:LYS:C	56:CX:39:LYS:HD3	2.13	0.67
85:A5:3894:A:H61	85:A5:4566:U:H3	1.42	0.67
16:AA:185:MET:O	16:AA:187:GLY:N	2.28	0.67
15:AB:115:LYS:O	15:AB:118:GLN:HG3	1.95	0.67
23:AD:216:GLU:O	23:AD:217:ILE:CG1	2.43	0.67
29:AG:163:ASN:O	29:AG:164:LYS:HB3	1.94	0.67
29:AG:4:ASN:HA	29:AG:15:LEU:CD2	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:35:ASP:OD1	31:AH:36:LEU:N	2.27	0.67
33:AI:142:SER:CB	33:AI:143:LYS:CB	2.29	0.67
33:AI:145:ILE:HA	33:AI:148:LYS:HD3	1.77	0.67
11:AL:118:ARG:O	11:AL:119:ASP:CB	2.43	0.67
11:AL:82:MET:CE	11:AL:85:THR:HG21	2.23	0.67
7:AM:70:ALA:CB	7:AM:71:GLU:OE2	2.41	0.67
10:AN:125:LEU:CD2	10:AN:129:TYR:CZ	2.78	0.67
5:AO:17:LEU:HD22	15:AB:30:TRP:HE1	1.59	0.67
34:AQ:98:LYS:HE3	34:AQ:99:TYR:CE2	2.30	0.67
12:AR:17:ILE:HG22	12:AR:69:ILE:CD1	2.04	0.67
12:AR:1:MET:HB3	12:AR:2:GLY:N	2.05	0.67
14:AT:31:PRO:CG	14:AT:102:ARG:CG	2.73	0.67
14:AT:85:ASN:HB2	14:AT:88:MET:O	1.95	0.67
6:AX:3:LYS:O	6:AX:4:CYS:O	2.13	0.67
18:AY:111:LYS:NZ	18:AY:115:LYS:NZ	2.43	0.67
36:B2:141:A:H61	36:B2:177:G:H21	1.42	0.67
63:CB:160:ILE:CD1	63:CB:190:VAL:HG13	2.25	0.67
63:CB:291:TYR:CD1	63:CB:292:LEU:HB3	2.30	0.67
82:CG:164:ILE:HG12	82:CG:168:VAL:HG23	1.74	0.67
47:CI:191:ILE:HG22	47:CI:192:PRO:HD2	1.77	0.67
47:CI:206:LEU:HA	47:CI:209:TRP:HB3	1.77	0.67
40:CK:113:ALA:O	40:CK:116:MET:CG	2.32	0.67
42:CL:76:PHE:CZ	42:CL:117:LEU:HD21	2.30	0.67
42:CL:167:ARG:CZ	42:CL:170:THR:OG1	2.43	0.67
44:CM:77:TRP:HE1	44:CM:82:ILE:HG21	1.59	0.67
49:CQ:103:LEU:CG	49:CQ:123:PHE:CE2	2.53	0.67
58:CW:106:GLU:CD	58:CW:110:ARG:HH12	1.96	0.67
59:CZ:87:VAL:CG2	59:CZ:127:ASN:CG	2.57	0.67
85:A5:1995:G:H2'	85:A5:1996:C:C6	2.30	0.66
15:AB:98:THR:O	15:AB:232:HIS:CE1	2.48	0.66
15:AB:57:ILE:CD1	15:AB:60:ASP:CG	2.33	0.66
28:AC:117:ARG:CB	28:AC:117:ARG:NH2	2.43	0.66
28:AC:157:LEU:O	28:AC:160:LEU:HD23	1.95	0.66
28:AC:65:LYS:O	28:AC:273:LEU:HD22	1.94	0.66
28:AC:66:LEU:HD13	28:AC:93:ILE:CD1	2.17	0.66
28:AC:63:VAL:HG23	28:AC:90:GLU:CG	2.24	0.66
23:AD:162:ASP:CG	23:AD:166:TYR:CE2	2.68	0.66
29:AG:32:MET:CE	29:AG:100:CYS:O	2.43	0.66
31:AH:51:ILE:CD1	31:AH:176:VAL:HA	2.26	0.66
33:AI:112:TRP:HH2	33:AI:117:TYR:HH	1.39	0.66
33:AI:79:ILE:CG2	33:AI:103:LEU:HB2	2.24	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:7:GLU:CG	11:AL:8:ARG:N	2.41	0.66
5:AO:43:HIS:O	5:AO:43:HIS:CG	2.47	0.66
13:AP:109:PRO:O	13:AP:112:ILE:HG13	1.94	0.66
8:AS:137:LYS:HA	36:B2:1521:C:C5	2.29	0.66
14:AT:144:LYS:HZ2	14:AT:144:LYS:HB2	1.59	0.66
32:AW:3:ARG:C	32:AW:4:MET:SD	2.74	0.66
51:CA:31:ALA:H	51:CA:123:ARG:HH21	1.43	0.66
63:CB:112:ASP:C	63:CB:114:CYS:N	2.46	0.66
63:CB:293:ILE:HG12	63:CB:297:LYS:HA	1.77	0.66
58:CW:1:MET:SD	63:CB:367:PHE:HB2	2.35	0.66
74:CC:7:LEU:HD21	74:CC:21:ASN:CB	2.24	0.66
74:CC:230:LEU:HD12	74:CC:239:LYS:CD	2.25	0.66
74:CC:232:VAL:HG22	74:CC:252:TRP:HZ3	1.59	0.66
81:CE:70:LYS:C	81:CE:72:LYS:HE3	2.16	0.66
47:CI:71:CYS:SG	47:CI:158:LYS:CE	2.74	0.66
41:CO:20:ALA:CB	41:CO:87:MET:CE	2.61	0.66
41:CO:122:ALA:CA	52:CS:161:ARG:CB	2.73	0.66
52:CS:98:ARG:NH1	52:CS:145:PHE:C	2.48	0.66
55:CU:107:LYS:H	55:CU:107:LYS:HE2	1.60	0.66
55:CU:27:HIS:NE2	55:CU:114:TYR:HB3	2.10	0.66
43:CV:33:GLY:HA3	43:CV:69:LYS:HD2	1.76	0.66
43:CV:72:LEU:HA	43:CV:75:LYS:NZ	2.11	0.66
58:CW:14:TYR:HB3	58:CW:15:PRO:HD2	1.75	0.66
58:CW:99:GLU:O	58:CW:102:LYS:N	2.28	0.66
56:CX:87:MET:CE	56:CX:156:ILE:CD1	2.72	0.66
56:CX:62:ARG:HH12	87:A8:135:C:H4'	1.60	0.66
15:AB:42:ARG:HH22	15:AB:232:HIS:HA	1.60	0.66
23:AD:163:PRO:HA	23:AD:166:TYR:HD2	1.60	0.66
18:AY:17:LEU:HD13	27:AE:64:ILE:HG12	1.77	0.66
30:AF:127:ARG:HG2	30:AF:127:ARG:O	1.94	0.66
30:AF:36:GLN:O	30:AF:37:ASP:CB	2.43	0.66
31:AH:64:VAL:HG13	31:AH:68:GLN:OE1	1.94	0.66
10:AN:13:GLN:CB	10:AN:14:SER:O	2.43	0.66
34:AQ:33:LYS:HG3	34:AQ:69:ARG:HG2	1.75	0.66
12:AR:105:MET:HE1	16:AA:50:ASN:ND2	2.09	0.66
14:AT:99:VAL:HG23	14:AT:100:ALA:N	2.09	0.66
14:AT:77:LYS:CD	14:AT:92:PHE:CE2	2.77	0.66
18:AY:55:ILE:HG12	18:AY:75:ILE:HG12	0.70	0.66
29:AG:195:LYS:CD	36:B2:126:G:H5'	2.19	0.66
36:B2:852:G:C3'	36:B2:853:C:H5''	2.24	0.66
63:CB:282:LYS:HB3	63:CB:333:LEU:HD21	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:66:LYS:HG3	81:CE:67:ALA:N	2.10	0.66
64:CF:182:TYR:HB3	64:CF:200:ARG:CG	2.25	0.66
51:CA:67:TYR:HD1	82:CG:46:GLN:CB	2.08	0.66
47:CI:9:TYR:OH	47:CI:98:ARG:O	2.09	0.66
40:CK:161:GLU:C	40:CK:163:PRO:HD3	2.14	0.66
40:CK:40:LYS:HD2	40:CK:40:LYS:N	2.10	0.66
42:CL:115:GLN:HA	42:CL:115:GLN:NE2	2.07	0.66
42:CL:41:ALA:HA	42:CL:44:ARG:HD2	1.77	0.66
42:CL:55:ILE:HD12	42:CL:96:ILE:HG12	1.77	0.66
41:CO:121:PRO:CD	41:CO:122:ALA:N	2.57	0.66
41:CO:14:HIS:CE1	41:CO:119:VAL:HG13	2.30	0.66
41:CO:190:ASP:HA	41:CO:191:LYS:C	2.14	0.66
54:CP:105:LYS:HB2	54:CP:107:LEU:CD2	2.24	0.66
49:CQ:187:LYS:HG3	49:CQ:188:ASN:H	1.56	0.66
52:CS:41:LYS:HG2	52:CS:61:ILE:HG12	1.76	0.66
55:CU:33:ILE:HG12	55:CU:96:LEU:CD2	2.25	0.66
56:CX:81:LEU:HD22	56:CX:129:ARG:HH11	1.58	0.66
16:AA:183:LEU:CB	16:AA:189:ILE:HD11	2.23	0.66
15:AB:63:LYS:HD3	15:AB:63:LYS:O	1.95	0.66
28:AC:84:PHE:CZ	28:AC:262:THR:CG2	2.79	0.66
28:AC:64:THR:CG2	28:AC:90:GLU:HG3	2.26	0.66
23:AD:74:GLN:NE2	23:AD:75:LYS:CE	2.57	0.66
30:AF:113:VAL:HG13	30:AF:114:ASN:N	2.08	0.66
33:AI:206:LYS:CD	33:AI:207:GLY:N	2.56	0.66
11:AL:58:LYS:O	11:AL:64:GLY:HA3	1.95	0.66
11:AL:71:ARG:CG	11:AL:73:LEU:HG	2.25	0.66
5:AO:133:THR:O	15:AB:107:ARG:CZ	2.43	0.66
5:AO:62:VAL:HG21	5:AO:72:TYR:CZ	2.30	0.66
13:AP:53:GLN:CB	13:AP:56:LEU:HD12	2.26	0.66
34:AQ:134:GLY:HA2	34:AQ:141:TYR:CD1	2.30	0.66
34:AQ:15:ARG:HH12	34:AQ:20:THR:HG21	1.61	0.66
8:AS:34:LYS:CA	8:AS:103:LEU:CD2	2.73	0.66
18:AY:87:PRO:O	18:AY:87:PRO:HD2	1.95	0.66
36:B2:531:A:C2	36:B2:554:A:N7	2.64	0.66
63:CB:51:ALA:HA	63:CB:323:TYR:CD1	2.30	0.66
48:CD:233:PRO:O	48:CD:235:MET:N	2.28	0.66
81:CE:153:LEU:O	81:CE:158:ARG:CB	2.44	0.66
82:CG:21:LYS:O	82:CG:22:GLN:O	2.12	0.66
82:CG:36:PRO:O	82:CG:37:LYS:CB	2.41	0.66
79:CJ:145:LYS:HE3	86:A7:44:C:C5'	2.26	0.66
49:CQ:187:LYS:CG	49:CQ:188:ASN:N	2.57	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:61:LEU:HD11	49:CQ:139:LEU:O	1.95	0.66
49:CQ:76:GLU:O	49:CQ:77:ASN:HB2	1.94	0.66
50:CR:1:MET:O	50:CR:4:LEU:CD2	2.43	0.66
53:CT:134:PRO:CB	53:CT:135:PRO:HD3	2.25	0.66
55:CU:24:ASP:HB3	55:CU:111:GLU:CG	2.25	0.66
55:CU:90:TYR:CZ	55:CU:94:ASN:ND2	2.64	0.66
59:CZ:5:MET:CA	59:CZ:6:LYS:CD	2.63	0.66
16:AA:127:PRO:CB	16:AA:153:PRO:HG2	2.22	0.66
16:AA:193:HIS:ND1	16:AA:194:PRO:HD3	2.09	0.66
15:AB:125:VAL:HG21	15:AB:169:MET:HG3	1.76	0.66
15:AB:146:ARG:HH11	15:AB:146:ARG:N	1.93	0.66
5:AO:51:GLU:OE2	15:AB:28:LYS:HE2	1.95	0.66
28:AC:207:ALA:O	28:AC:210:PRO:CG	2.43	0.66
28:AC:70:VAL:CG1	28:AC:97:PHE:CD2	2.74	0.66
27:AE:192:ILE:CD1	27:AE:238:LEU:HD22	2.25	0.66
30:AF:25:THR:HG21	30:AF:42:LYS:CB	2.19	0.66
29:AG:38:ALA:CB	29:AG:45:TRP:O	2.42	0.66
31:AH:44:ASN:HB3	31:AH:68:GLN:HE22	1.60	0.66
7:AM:89:VAL:HG12	7:AM:90:GLY:N	2.11	0.66
10:AN:129:TYR:O	10:AN:134:VAL:HG13	1.96	0.66
5:AO:19:PRO:CG	5:AO:27:VAL:HG22	2.15	0.66
14:AT:95:GLY:O	14:AT:96:SER:O	2.14	0.66
18:AY:91:LEU:C	18:AY:97:TYR:HB3	2.14	0.66
36:B2:907:G:C6	36:B2:908:A:C6	2.84	0.66
63:CB:133:TYR:CG	63:CB:136:LYS:HD2	2.29	0.66
63:CB:381:THR:CG2	63:CB:383:GLU:CG	2.73	0.66
48:CD:190:PHE:HE2	48:CD:192:ALA:HB2	1.60	0.66
81:CE:83:LYS:NZ	81:CE:86:GLU:CA	2.58	0.66
82:CG:104:PRO:CA	82:CG:105:GLU:HG3	2.26	0.66
82:CG:143:VAL:CB	82:CG:146:LEU:HD21	2.24	0.66
82:CG:41:ILE:HG22	82:CG:41:ILE:O	1.94	0.66
80:CH:106:GLN:HG2	80:CH:107:GLU:CA	2.18	0.66
40:CK:4:LYS:O	40:CK:5:PHE:HB2	1.95	0.66
42:CL:129:ARG:O	42:CL:130:LYS:HB3	1.95	0.66
46:CN:56:LYS:HE2	46:CN:59:TYR:CZ	2.29	0.66
49:CQ:97:LYS:O	49:CQ:118:GLY:CA	2.44	0.66
52:CS:2:LYS:CE	52:CS:39:VAL:HB	2.26	0.66
58:CW:46:PRO:HB2	58:CW:54:LEU:CD2	2.21	0.66
57:CY:22:PRO:HD2	57:CY:25:ILE:CB	2.26	0.66
16:AA:193:HIS:CB	16:AA:194:PRO:HD2	2.26	0.66
5:AO:17:LEU:CD2	15:AB:30:TRP:NE1	2.56	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AC:163:VAL:CB	28:AC:164:PRO:HD2	2.26	0.66
23:AD:226:GLN:O	23:AD:227:LYS:HB2	1.94	0.66
23:AD:2:ALA:HB1	23:AD:4:GLN:N	2.09	0.66
23:AD:74:GLN:HE21	23:AD:75:LYS:CD	2.08	0.66
29:AG:63:MET:HE2	29:AG:106:LEU:HD11	1.69	0.66
26:AJ:171:GLY:O	26:AJ:174:LYS:N	2.29	0.66
4:AK:40:VAL:HG21	4:AK:45:VAL:H	1.59	0.66
13:AP:22:LEU:HA	13:AP:25:LEU:HB2	1.76	0.66
12:AR:119:VAL:O	12:AR:119:VAL:HG23	1.96	0.66
12:AR:77:GLU:HG3	12:AR:80:ARG:HH21	1.60	0.66
8:AS:39:ARG:CD	14:AT:38:LYS:NZ	2.57	0.66
14:AT:85:ASN:HD21	14:AT:91:HIS:CD2	2.13	0.66
63:CB:301:ASN:HB3	63:CB:311:ASP:HA	1.77	0.66
63:CB:333:LEU:HD23	63:CB:337:VAL:CG1	2.24	0.66
74:CC:110:ARG:CD	74:CC:113:ARG:HE	2.09	0.66
74:CC:143:ARG:CG	74:CC:143:ARG:HH11	2.06	0.66
74:CC:144:ILE:HG22	74:CC:147:VAL:HB	1.78	0.66
81:CE:44:CYS:O	81:CE:45:SER:HB2	1.94	0.66
82:CG:215:LEU:O	82:CG:219:VAL:HG23	1.95	0.66
79:CJ:87:LEU:CD2	79:CJ:166:PHE:CZ	2.75	0.66
44:CM:77:TRP:CB	44:CM:82:ILE:CD1	2.71	0.66
54:CP:27:LYS:CE	54:CP:63:TYR:CD1	2.74	0.66
54:CP:49:LYS:HE3	54:CP:92:LEU:HD21	1.76	0.66
50:CR:28:GLU:O	50:CR:30:ASN:N	2.95	0.66
52:CS:30:MET:HE3	52:CS:47:PHE:CG	2.29	0.66
53:CT:150:LEU:O	53:CT:151:LEU:N	2.28	0.66
59:CZ:39:SER:HB2	59:CZ:77:TYR:CD2	2.29	0.66
59:CZ:11:VAL:HG13	59:CZ:81:MET:C	2.15	0.66
85:A5:118:C:N3	85:A5:153:G:N1	2.44	0.66
23:AD:219:PRO:O	23:AD:220:THR:O	2.13	0.66
27:AE:71:LYS:HE3	27:AE:75:LYS:HA	1.78	0.66
29:AG:19:ASP:O	29:AG:20:ASP:CB	2.43	0.66
29:AG:30:LYS:HD2	29:AG:30:LYS:N	2.08	0.66
29:AG:32:MET:SD	29:AG:100:CYS:C	2.74	0.66
31:AH:75:ILE:HG23	31:AH:76:GLN:N	2.11	0.66
4:AK:33:PRO:O	4:AK:34:GLU:CB	2.42	0.66
13:AP:75:VAL:HG12	13:AP:76:VAL:N	2.11	0.66
14:AT:112:MET:SD	14:AT:127:GLY:HA2	2.35	0.66
17:AV:31:SER:HB3	17:AV:57:GLY:N	2.11	0.66
6:AX:100:VAL:HG12	6:AX:125:VAL:CG2	2.21	0.66
6:AX:108:LYS:HB2	6:AX:110:HIS:CE1	2.31	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AZ:103:HIS:NE2	19:AZ:105:ALA:CB	2.58	0.66
63:CB:21:ARG:CD	63:CB:274:TYR:CD2	2.79	0.66
74:CC:332:ALA:O	74:CC:336:ARG:HG3	1.95	0.66
81:CE:228:GLN:C	81:CE:230:GLY:H	1.84	0.66
82:CG:22:GLN:O	82:CG:23:GLU:O	2.14	0.66
82:CG:73:ARG:HB3	82:CG:74:LEU:CD1	2.26	0.66
80:CH:150:ASP:OD2	80:CH:150:ASP:N	2.29	0.66
80:CH:4:ILE:HG22	80:CH:4:ILE:O	4.63	0.66
79:CJ:135:GLY:HA2	79:CJ:157:ILE:HD11	1.78	0.66
40:CK:61:LYS:HE3	40:CK:72:GLU:C	2.15	0.66
85:A5:1446:C:H2'	85:A5:1447:C:H5'	1.78	0.66
85:A5:1753:G:H2'	85:A5:1755:C:H5''	1.77	0.66
85:A5:4881:U:H2'	85:A5:4882:U:N1	2.09	0.66
16:AA:75:SER:HB2	16:AA:122:LEU:HD23	1.76	0.66
15:AB:31:TYR:HE1	15:AB:94:LYS:N	1.92	0.66
28:AC:153:GLY:C	28:AC:156:ILE:HG22	2.14	0.66
28:AC:213:LEU:HD13	28:AC:240:THR:HG23	1.77	0.66
27:AE:259:LYS:HG2	27:AE:260:GLN:OE1	1.96	0.66
30:AF:42:LYS:CB	30:AF:46:ALA:N	2.59	0.66
29:AG:162:LEU:HD22	29:AG:172:LYS:HZ1	1.60	0.66
31:AH:146:VAL:O	32:AW:49:GLU:HB2	1.95	0.66
31:AH:65:PRO:C	31:AH:67:PRO:HD2	2.15	0.66
5:AO:63:LYS:O	5:AO:64:ALA:HB2	1.94	0.66
12:AR:21:TYR:CG	12:AR:71:ILE:HD13	2.28	0.66
8:AS:81:ASP:OD2	8:AS:95:TYR:CD2	2.48	0.66
32:AW:17:ALA:CB	32:AW:25:VAL:CG1	2.74	0.66
6:AX:52:LEU:CD1	6:AX:53:GLU:CG	2.74	0.66
18:AY:7:ILE:HD11	18:AY:43:LYS:CG	2.11	0.66
36:B2:1551:U:O4	36:B2:1579:A:C2	2.49	0.66
8:AS:82:TRP:CD1	36:B2:1567:G:C4	2.83	0.66
49:CQ:24:TYR:HB3	74:CC:283:LYS:CG	2.26	0.66
74:CC:350:ARG:HD2	74:CC:350:ARG:N	2.07	0.66
64:CF:26:ALA:O	64:CF:30:ILE:HD13	1.95	0.66
64:CF:60:GLU:O	64:CF:64:MET:CG	2.29	0.66
82:CG:159:HIS:HD1	82:CG:185:LYS:N	1.94	0.66
82:CG:21:LYS:O	82:CG:22:GLN:C	2.33	0.66
40:CK:23:GLY:O	40:CK:24:ALA:HB2	1.96	0.66
42:CL:37:LYS:HD3	42:CL:37:LYS:N	2.10	0.66
44:CM:89:THR:HG1	44:CM:92:ALA:HB2	1.61	0.66
54:CP:131:ARG:NH1	54:CP:137:ASN:ND2	2.33	0.66
49:CQ:19:LYS:NZ	49:CQ:19:LYS:O	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:53:MET:HE1	49:CQ:143:ARG:HH21	1.59	0.66
41:CO:26:GLN:HE21	52:CS:166:ARG:CG	2.06	0.66
52:CS:80:ILE:HG23	52:CS:95:ARG:CG	2.26	0.66
55:CU:84:LYS:HE3	55:CU:102:VAL:HG12	1.78	0.66
15:AB:76:ASN:O	15:AB:76:ASN:ND2	2.29	0.66
28:AC:260:VAL:O	28:AC:261:PHE:HB2	1.96	0.66
23:AD:196:GLY:O	23:AD:199:GLY:CA	2.44	0.66
23:AD:48:ILE:HG23	23:AD:86:LEU:HG	1.74	0.66
27:AE:258:ALA:O	27:AE:259:LYS:HB2	1.96	0.66
30:AF:79:HIS:O	30:AF:81:ARG:N	2.29	0.66
31:AH:10:LYS:HZ1	31:AH:17:ASP:CA	2.09	0.66
31:AH:117:PRO:HG2	31:AH:120:ARG:NE	2.11	0.66
31:AH:122:LEU:HD11	31:AH:123:THR:CG2	2.26	0.66
33:AI:110:ARG:NH2	33:AI:124:LYS:CD	2.58	0.66
4:AK:16:PHE:HE2	4:AK:79:LEU:CA	2.09	0.66
11:AL:49:GLU:HB2	11:AL:116:CYS:SG	2.36	0.66
7:AM:42:LEU:HD11	7:AM:69:LEU:HD23	1.77	0.66
10:AN:13:GLN:HB2	10:AN:14:SER:O	1.96	0.66
10:AN:76:LYS:HD2	10:AN:77:SER:N	2.11	0.66
13:AP:49:LEU:HD13	13:AP:51:ARG:NH2	2.11	0.66
12:AR:99:ASP:HB3	12:AR:119:VAL:CG1	2.26	0.66
31:AH:143:ARG:NE	32:AW:53:ILE:HG12	2.11	0.66
18:AY:102:THR:CG2	18:AY:107:ARG:CD	2.68	0.66
18:AY:114:MET:CE	18:AY:125:VAL:CG2	2.74	0.66
63:CB:325:GLU:O	63:CB:326:VAL:CG1	2.36	0.66
63:CB:53:MET:CG	63:CB:76:VAL:O	2.44	0.66
74:CC:156:ASP:O	74:CC:158:VAL:N	2.28	0.66
74:CC:62:THR:HG22	74:CC:64:ALA:N	2.08	0.66
48:CD:113:PHE:HE1	48:CD:142:PHE:CE1	2.13	0.66
82:CG:159:HIS:HD1	82:CG:185:LYS:CA	2.06	0.66
49:CQ:31:LEU:O	49:CQ:31:LEU:HD22	1.96	0.66
50:CR:21:LYS:O	50:CR:52:ARG:O	2.13	0.66
52:CS:7:LEU:H	52:CS:7:LEU:CD2	2.01	0.66
53:CT:125:TRP:NE1	53:CT:126:VAL:CG2	2.58	0.66
16:AA:191:ARG:CG	16:AA:193:HIS:HB2	2.24	0.66
16:AA:89:LYS:HB3	16:AA:202:TYR:CZ	2.31	0.66
15:AB:49:VAL:CG2	15:AB:65:ARG:NH1	2.59	0.66
28:AC:138:GLY:HA2	28:AC:241:PHE:CZ	2.24	0.66
27:AE:153:LEU:CD1	27:AE:172:PHE:CE2	2.77	0.66
33:AI:182:CYS:SG	36:B2:305:U:C4	2.88	0.66
26:AJ:109:ARG:O	26:AJ:110:LEU:C	2.34	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AJ:143:ASN:C	26:AJ:144:ILE:HG13	2.13	0.66
4:AK:18:GLU:C	4:AK:92:ALA:CB	2.64	0.66
11:AL:40:ILE:HG21	11:AL:44:PHE:HB2	1.78	0.66
8:AS:121:ARG:CG	8:AS:131:VAL:HG13	2.25	0.66
8:AS:46:ARG:NE	14:AT:50:GLU:CG	2.58	0.66
14:AT:42:HIS:CE1	14:AT:93:SER:HB3	2.30	0.66
32:AW:7:LEU:HD12	32:AW:78:ARG:HH21	1.60	0.66
6:AX:52:LEU:CD1	6:AX:53:GLU:N	2.54	0.66
6:AX:90:CYS:HA	6:AX:93:PHE:HD2	1.60	0.66
36:B2:1195:A:H2'	36:B2:1196:A:C8	2.31	0.66
26:AJ:134:HIS:CE1	36:B2:562:U:OP1	2.48	0.66
63:CB:126:LYS:C	63:CB:127:LYS:CG	2.64	0.66
63:CB:381:THR:HG21	63:CB:383:GLU:HG3	1.76	0.66
74:CC:232:VAL:C	74:CC:263:LEU:HD12	2.16	0.66
48:CD:254:GLU:HB3	48:CD:255:LYS:HG2	1.77	0.66
81:CE:140:LEU:HA	81:CE:191:GLN:NE2	2.11	0.66
82:CG:27:VAL:O	82:CG:30:PRO:HD2	1.95	0.66
40:CK:15:LEU:HD11	40:CK:60:VAL:CG1	2.25	0.66
46:CN:138:PHE:CA	46:CN:143:ARG:HH21	2.06	0.66
54:CP:93:HIS:O	54:CP:96:LYS:N	2.28	0.66
50:CR:10:LEU:HD23	50:CR:41:ILE:CD1	2.25	0.66
58:CW:27:LYS:HE2	58:CW:29:PHE:CE1	2.29	0.66
17:AV:27:LYS:HE3	28:AC:162:ILE:O	1.96	0.66
28:AC:138:GLY:CA	28:AC:241:PHE:CZ	2.76	0.66
30:AF:122:ARG:HH21	30:AF:193:LYS:HZ1	1.44	0.66
30:AF:76:MET:CE	30:AF:169:ILE:CG2	2.60	0.66
29:AG:135:PRO:HG2	29:AG:144:LEU:HD23	1.76	0.66
4:AK:71:LEU:CG	4:AK:76:ILE:HD13	2.25	0.66
13:AP:22:LEU:HD12	13:AP:23:ASP:N	2.11	0.66
8:AS:58:GLU:OE2	19:AZ:49:LEU:HD13	1.96	0.66
14:AT:31:PRO:CB	14:AT:33:TRP:CD2	2.77	0.66
18:AY:21:LYS:H	18:AY:21:LYS:HD3	1.61	0.66
63:CB:179:HIS:CG	63:CB:344:VAL:HG21	2.31	0.66
42:CL:19:GLN:NE2	74:CC:108:TRP:CH2	2.61	0.66
74:CC:12:SER:CB	74:CC:13:GLU:HG2	2.24	0.66
74:CC:142:HIS:HE1	74:CC:249:PHE:N	1.68	0.66
74:CC:147:VAL:HG12	74:CC:148:PRO:CD	2.14	0.66
74:CC:232:VAL:CG1	74:CC:260:LEU:HD23	2.26	0.66
74:CC:22:VAL:CG2	74:CC:258:ARG:HH21	1.95	0.66
74:CC:5:ARG:CG	74:CC:24:LEU:CB	2.57	0.66
81:CE:140:LEU:HD11	81:CE:167:GLN:OE1	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:46:ARG:C	81:CE:46:ARG:NE	2.49	0.66
82:CG:156:VAL:O	82:CG:156:VAL:HG12	1.95	0.66
82:CG:32:PHE:N	82:CG:32:PHE:HD1	1.94	0.66
82:CG:32:PHE:CD1	82:CG:32:PHE:N	2.62	0.66
82:CG:41:ILE:O	82:CG:43:GLN:HG2	1.94	0.66
80:CH:12:ILE:CD1	80:CH:13:PRO:CD	2.61	0.66
47:CI:105:CYS:O	47:CI:107:GLY:N	2.29	0.66
47:CI:85:PHE:CD1	47:CI:87:MET:HG3	2.30	0.66
40:CK:3:PRO:HD2	40:CK:6:ASP:OD2	1.96	0.66
44:CM:110:PHE:CE1	44:CM:114:LYS:HE2	2.30	0.66
46:CN:192:TRP:HA	46:CN:195:ARG:CG	2.25	0.66
41:CO:190:ASP:OD1	41:CO:194:GLU:CG	2.44	0.66
53:CT:11:THR:CB	53:CT:15:PHE:CE2	2.79	0.66
53:CT:25:VAL:CG1	53:CT:26:PRO:CD	2.74	0.66
58:CW:17:HIS:O	58:CW:18:GLY:C	2.34	0.66
59:CZ:105:ALA:HA	59:CZ:108:ARG:CD	2.26	0.66
85:A5:1756:U:C4	85:A5:1776:A:C2	2.83	0.65
16:AA:172:GLY:HA3	16:AA:203:PHE:CE1	2.31	0.65
15:AB:87:ILE:HG21	15:AB:101:HIS:CG	2.31	0.65
28:AC:75:ILE:C	28:AC:97:PHE:CE1	2.70	0.65
30:AF:91:ARG:CD	34:AQ:46:THR:HG21	2.26	0.65
29:AG:50:VAL:HG11	29:AG:111:LEU:CD2	2.22	0.65
31:AH:149:ASP:O	31:AH:149:ASP:CG	2.34	0.65
31:AH:87:PHE:O	31:AH:88:SER:O	2.14	0.65
4:AK:3:MET:HG2	4:AK:4:PRO:O	1.97	0.65
4:AK:16:PHE:CE2	4:AK:79:LEU:C	2.69	0.65
7:AM:51:VAL:HA	7:AM:77:ILE:HG22	1.76	0.65
5:AO:55:ARG:C	5:AO:56:VAL:HG12	2.16	0.65
13:AP:41:GLN:CD	13:AP:41:GLN:O	2.33	0.65
34:AQ:115:TYR:HD2	34:AQ:116:ASP:H	1.44	0.65
8:AS:8:LYS:CA	19:AZ:49:LEU:CD2	2.75	0.65
3:AU:19:ARG:CG	3:AU:92:HIS:CE1	2.76	0.65
18:AY:35:VAL:HG12	18:AY:36:PRO:CD	2.21	0.65
63:CB:24:ARG:O	63:CB:24:ARG:HG2	1.95	0.65
63:CB:298:LEU:C	63:CB:300:LYS:CE	2.64	0.65
63:CB:84:MET:SD	63:CB:164:ALA:CB	2.84	0.65
74:CC:14:LYS:O	74:CC:15:GLY:C	2.35	0.65
74:CC:210:ILE:HA	74:CC:230:LEU:O	1.96	0.65
74:CC:58:ALA:O	74:CC:60:HIS:N	2.29	0.65
15:AB:52:THR:HG22	82:CG:264:LYS:HZ1	1.61	0.65
79:CJ:18:ARG:NH2	79:CJ:139:PHE:HE1	1.86	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CJ:55:TYR:CE1	79:CJ:57:VAL:CG2	2.79	0.65
79:CJ:90:ARG:NH1	79:CJ:107:PHE:CA	2.59	0.65
40:CK:86:LYS:C	40:CK:104:ILE:HG21	2.16	0.65
40:CK:20:GLY:CA	40:CK:92:ARG:NH2	2.58	0.65
42:CL:55:ILE:HD13	42:CL:120:TYR:CG	2.31	0.65
42:CL:71:ARG:HG2	42:CL:72:ALA:N	2.09	0.65
44:CM:20:HIS:ND1	44:CM:45:VAL:HG22	2.10	0.65
41:CO:81:TRP:CE3	41:CO:85:ARG:NE	2.54	0.65
54:CP:60:PHE:CZ	54:CP:82:ARG:HB2	2.30	0.65
50:CR:132:PHE:HD1	50:CR:137:ILE:CG1	2.09	0.65
50:CR:63:CYS:O	50:CR:66:ASN:N	2.28	0.65
58:CW:57:ARG:NH2	58:CW:66:GLU:OE1	2.29	0.65
29:AG:131:ARG:N	58:CW:81:ALA:HB3	2.11	0.65
59:CZ:100:VAL:CA	59:CZ:106:LEU:HD21	2.26	0.65
16:AA:109:THR:O	16:AA:110:ASN:HB2	1.95	0.65
28:AC:76:LYS:HA	28:AC:97:PHE:HE1	1.61	0.65
23:AD:59:LEU:CD1	23:AD:60:GLY:O	2.44	0.65
27:AE:165:GLU:N	27:AE:165:GLU:OE2	2.30	0.65
27:AE:191:ARG:HD3	27:AE:245:ARG:CB	2.25	0.65
27:AE:43:PRO:O	27:AE:43:PRO:HD2	1.96	0.65
29:AG:120:ASP:O	29:AG:121:ILE:HD13	1.96	0.65
29:AG:138:ALA:HB2	29:AG:179:LEU:HB2	1.77	0.65
29:AG:50:VAL:CG1	29:AG:111:LEU:CB	2.74	0.65
33:AI:10:LYS:HG3	33:AI:11:ARG:H	1.61	0.65
33:AI:136:ILE:HG23	33:AI:139:LYS:HE2	1.73	0.65
11:AL:10:TYR:CD2	33:AI:194:GLU:HG2	2.32	0.65
11:AL:147:LYS:O	11:AL:147:LYS:HD3	1.94	0.65
11:AL:99:TYR:O	11:AL:99:TYR:HD2	1.78	0.65
5:AO:101:GLY:O	5:AO:104:ARG:CB	2.43	0.65
5:AO:88:LEU:HD22	15:AB:25:PHE:CG	2.30	0.65
13:AP:5:GLU:O	13:AP:6:GLN:HB2	1.96	0.65
13:AP:98:ASN:OD1	13:AP:120:SER:CB	2.43	0.65
34:AQ:113:ILE:HG13	34:AQ:120:LEU:CD1	2.24	0.65
12:AR:32:LYS:HE2	12:AR:33:ARG:NE	2.11	0.65
32:AW:104:LEU:HD12	32:AW:106:THR:HG23	1.76	0.65
28:AC:170:TRP:CE2	32:AW:97:ARG:CD	2.79	0.65
6:AX:60:LYS:HE2	6:AX:116:PRO:CB	2.26	0.65
19:AZ:85:ARG:CB	19:AZ:85:ARG:CZ	2.70	0.65
36:B2:664:A:H61	36:B2:1163:C:H42	1.44	0.65
36:B2:1659:U:H3'	36:B2:1660:C:O2	1.96	0.65
51:CA:118:GLU:OE1	51:CA:119:LYS:HG2	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CA:159:SER:OG	51:CA:162:ASN:CG	2.34	0.65
51:CA:5:ILE:HD13	51:CA:210:PRO:CD	2.24	0.65
63:CB:77:THR:CA	63:CB:78:ILE:HG23	2.26	0.65
74:CC:316:LYS:HD2	74:CC:324:ILE:HD11	1.78	0.65
81:CE:56:ARG:CB	81:CE:65:ARG:HH11	1.96	0.65
82:CG:175:ARG:HD3	82:CG:175:ARG:C	2.16	0.65
82:CG:190:LEU:H	82:CG:190:LEU:HD22	1.60	0.65
82:CG:98:LEU:HD11	82:CG:215:LEU:HD21	1.77	0.65
80:CH:109:GLY:C	80:CH:128:MET:O	2.35	0.65
42:CL:83:VAL:HG21	42:CL:110:LEU:HD11	1.78	0.65
42:CL:176:PHE:CD1	42:CL:176:PHE:C	2.69	0.65
44:CM:14:TYR:O	44:CM:56:GLN:CG	2.41	0.65
46:CN:175:GLY:O	46:CN:184:ILE:HD11	1.95	0.65
49:CQ:119:LYS:HE3	49:CQ:121:LEU:HD23	1.78	0.65
52:CS:169:THR:HG22	52:CS:170:LYS:HZ1	1.61	0.65
53:CT:144:ASN:HA	53:CT:146:LYS:O	1.97	0.65
53:CT:91:VAL:HG12	53:CT:92:ARG:H	1.61	0.65
58:CW:25:ASP:OD1	58:CW:26:GLY:N	2.29	0.65
58:CW:4:GLU:CD	58:CW:5:LEU:N	2.49	0.65
58:CW:97:LYS:HG3	58:CW:98:PRO:HD3	1.76	0.65
59:CZ:33:THR:CB	59:CZ:36:ARG:HG3	2.26	0.65
15:AB:147:ASN:O	15:AB:149:GLN:N	2.29	0.65
15:AB:49:VAL:HG22	15:AB:65:ARG:NH1	2.11	0.65
23:AD:202:LYS:CB	23:AD:203:PRO:HD3	2.25	0.65
23:AD:226:GLN:HE21	23:AD:226:GLN:C	1.99	0.65
27:AE:130:PHE:HB2	27:AE:138:HIS:CD2	2.31	0.65
27:AE:159:THR:CB	27:AE:227:VAL:HG23	2.24	0.65
30:AF:110:GLN:O	30:AF:113:VAL:CG1	2.44	0.65
30:AF:115:ALA:CB	30:AF:177:LEU:HD22	2.26	0.65
31:AH:6:ALA:CB	31:AH:10:LYS:NZ	2.59	0.65
33:AI:104:ILE:O	33:AI:105:ASP:CB	2.42	0.65
33:AI:155:ASN:O	33:AI:157:LYS:N	2.27	0.65
11:AL:99:TYR:C	11:AL:100:ASN:OD1	2.35	0.65
11:AL:71:ARG:HG2	11:AL:73:LEU:HG	1.78	0.65
10:AN:94:LYS:HG2	10:AN:118:ILE:HD13	1.78	0.65
12:AR:98:VAL:HG12	12:AR:99:ASP:N	2.10	0.65
8:AS:8:LYS:HB2	8:AS:9:PHE:HD1	0.65	0.65
14:AT:49:ASP:OD2	14:AT:51:ASN:HB2	1.96	0.65
6:AX:108:LYS:HB3	6:AX:110:HIS:HE2	1.60	0.65
18:AY:10:ARG:NE	18:AY:24:VAL:CG1	2.40	0.65
18:AY:98:GLU:C	18:AY:98:GLU:OE2	2.35	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:314:ILE:HD11	63:CB:330:PHE:CD1	2.31	0.65
74:CC:6:PRO:N	74:CC:24:LEU:CD2	2.60	0.65
81:CE:117:PRO:O	81:CE:118:THR:C	2.28	0.65
82:CG:41:ILE:C	82:CG:43:GLN:HG2	2.17	0.65
82:CG:90:GLN:O	82:CG:91:THR:C	2.28	0.65
80:CH:23:ARG:NH2	80:CH:42:ASN:HA	2.11	0.65
40:CK:114:ARG:CA	40:CK:133:LEU:HD12	2.24	0.65
54:CP:4:TYR:HE1	54:CP:147:GLU:HB2	1.58	0.65
54:CP:30:ARG:CD	54:CP:63:TYR:HE2	2.07	0.65
49:CQ:88:ASP:OD2	49:CQ:108:ARG:HB3	1.97	0.65
50:CR:10:LEU:CB	50:CR:41:ILE:HD13	2.16	0.65
52:CS:17:LEU:HD23	52:CS:59:GLY:N	2.10	0.65
16:AA:159:ILE:O	16:AA:159:ILE:HG22	1.96	0.65
15:AB:49:VAL:CG2	15:AB:65:ARG:HH12	2.09	0.65
27:AE:130:PHE:CD2	27:AE:138:HIS:CE1	2.84	0.65
27:AE:259:LYS:O	27:AE:260:GLN:CG	2.45	0.65
29:AG:185:LEU:N	29:AG:188:LYS:HE3	2.12	0.65
29:AG:3:LEU:HD11	29:AG:41:LEU:HD11	1.76	0.65
4:AK:40:VAL:CG2	4:AK:41:PRO:HD3	2.24	0.65
11:AL:8:ARG:CD	33:AI:85:ALA:HB1	2.26	0.65
10:AN:114:ARG:HG2	10:AN:114:ARG:NH2	2.11	0.65
3:AU:50:VAL:HG23	3:AU:89:ILE:HG23	1.79	0.65
6:AX:122:VAL:HG12	6:AX:130:LEU:HD11	1.79	0.65
18:AY:7:ILE:HD12	18:AY:43:LYS:HB3	1.66	0.65
19:AZ:99:LEU:CD1	19:AZ:102:LYS:NZ	2.58	0.65
51:CA:116:LEU:CG	51:CA:126:LEU:HB2	2.26	0.65
51:CA:158:ILE:CG2	51:CA:159:SER:N	2.58	0.65
63:CB:80:GLU:OE1	63:CB:323:TYR:OH	2.14	0.65
74:CC:232:VAL:HG22	74:CC:252:TRP:CZ3	2.32	0.65
48:CD:22:ARG:HG2	48:CD:28:THR:CB	2.26	0.65
48:CD:33:ARG:NH1	48:CD:50:ARG:HH12	1.94	0.65
48:CD:52:ILE:HG23	48:CD:54:ARG:NH1	2.11	0.65
81:CE:31:ASN:N	81:CE:32:LEU:HD22	2.12	0.65
80:CH:110:SER:HB2	80:CH:111:LEU:CA	2.24	0.65
80:CH:168:LYS:O	80:CH:169:ASN:HB2	1.96	0.65
80:CH:26:ILE:HG22	80:CH:35:ARG:CG	2.25	0.65
79:CJ:82:ILE:HG22	79:CJ:130:PHE:HE1	1.61	0.65
44:CM:34:ASN:O	44:CM:35:ARG:CG	2.43	0.65
41:CO:127:VAL:HG12	41:CO:127:VAL:O	1.97	0.65
49:CQ:84:GLY:HA2	49:CQ:103:LEU:HD12	1.78	0.65
52:CS:145:PHE:C	52:CS:147:ASP:N	2.39	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CT:154:ILE:HG22	53:CT:155:PRO:HD2	1.76	0.65
53:CT:64:VAL:HG13	53:CT:72:VAL:HG13	1.76	0.65
29:AG:131:ARG:HG2	58:CW:80:ARG:C	2.17	0.65
57:CY:51:LYS:O	57:CY:70:VAL:O	2.15	0.65
15:AB:148:ASN:H	15:AB:148:ASN:HD22	1.42	0.65
27:AE:259:LYS:NZ	27:AE:260:GLN:OE1	2.29	0.65
27:AE:72:ILE:CD1	27:AE:82:TYR:CD2	2.80	0.65
29:AG:157:VAL:HG13	29:AG:158:VAL:CA	2.25	0.65
33:AI:104:ILE:O	33:AI:105:ASP:OD2	2.15	0.65
26:AJ:125:HIS:CD2	26:AJ:129:LEU:CD1	2.70	0.65
26:AJ:170:PRO:HD2	26:AJ:175:ARG:HH11	1.61	0.65
26:AJ:78:LEU:HD13	26:AJ:92:MET:O	1.96	0.65
10:AN:139:TRP:CZ3	10:AN:141:TYR:N	2.65	0.65
10:AN:142:GLU:CD	10:AN:144:SER:OG	2.34	0.65
34:AQ:144:SER:O	34:AQ:145:TYR:HB2	1.96	0.65
12:AR:31:ASN:ND2	12:AR:55:THR:HG22	2.11	0.65
3:AU:47:ASN:O	3:AU:47:ASN:ND2	2.30	0.65
32:AW:90:GLN:N	32:AW:102:ILE:CD1	2.60	0.65
18:AY:20:ARG:HG3	18:AY:74:MET:HE2	1.68	0.65
18:AY:99:LYS:O	18:AY:99:LYS:NZ	2.29	0.65
36:B2:500:A:O2'	36:B2:501:C:H5'	1.97	0.65
36:B2:698:G:H1	36:B2:732:U:H3	1.41	0.65
63:CB:117:ARG:CZ	63:CB:177:LYS:HE3	2.27	0.65
63:CB:234:ARG:NH1	63:CB:270:GLY:C	2.49	0.65
74:CC:143:ARG:NH2	74:CC:182:LYS:CD	2.56	0.65
74:CC:349:LEU:CD1	74:CC:353:LYS:CE	2.63	0.65
48:CD:79:TYR:CB	48:CD:81:HIS:ND1	2.49	0.65
81:CE:152:ILE:CG2	81:CE:158:ARG:HA	2.23	0.65
81:CE:46:ARG:NH2	81:CE:47:ASN:O	2.29	0.65
64:CF:51:TYR:CD1	81:CE:58:SER:CB	2.75	0.65
82:CG:105:GLU:OE2	82:CG:105:GLU:N	2.29	0.65
40:CK:10:ILE:HG21	40:CK:67:ARG:N	2.10	0.65
42:CL:167:ARG:HH22	42:CL:170:THR:CG2	1.83	0.65
46:CN:145:ASN:O	46:CN:149:GLN:HG3	1.96	0.65
46:CN:65:ARG:HB3	46:CN:127:TYR:CD1	2.31	0.65
50:CR:75:HIS:HB3	50:CR:80:LYS:HZ3	1.61	0.65
52:CS:130:GLU:HA	52:CS:130:GLU:OE1	1.95	0.65
85:A5:1367:C:H3'	85:A5:1367:C:C6	2.31	0.65
44:CM:94:LYS:HG2	85:A5:4872:G:C2	2.32	0.65
16:AA:32:PHE:CD1	16:AA:33:GLN:NE2	2.64	0.65
16:AA:98:PRO:O	16:AA:99:ILE:HG13	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:32:ASP:OD1	15:AB:46:LYS:CD	2.45	0.65
15:AB:93:GLY:C	15:AB:94:LYS:CD	2.65	0.65
28:AC:130:ILE:CD1	28:AC:159:LYS:HG3	2.27	0.65
28:AC:69:LEU:HD22	28:AC:269:PHE:HB3	1.79	0.65
23:AD:215:ASP:O	23:AD:216:GLU:CB	2.45	0.65
27:AE:182:MET:CE	27:AE:228:ILE:HG21	2.26	0.65
31:AH:122:LEU:HD12	31:AH:123:THR:H	1.56	0.65
31:AH:163:GLN:HG2	31:AH:164:ASN:N	2.12	0.65
31:AH:64:VAL:HG13	31:AH:65:PRO:HD2	1.79	0.65
33:AI:154:LYS:NZ	33:AI:154:LYS:O	2.30	0.65
33:AI:191:GLU:N	33:AI:195:LEU:HB2	2.10	0.65
33:AI:4:SER:O	33:AI:5:ARG:C	2.32	0.65
26:AJ:165:TYR:OH	36:B2:561:A:H5'	1.97	0.65
11:AL:10:TYR:CD2	11:AL:12:LYS:HE3	2.28	0.65
13:AP:100:LYS:HG2	36:B2:1240:A:H61	1.61	0.65
13:AP:8:LYS:O	13:AP:11:THR:CG2	2.37	0.65
12:AR:100:PRO:CG	12:AR:119:VAL:CG2	2.73	0.65
8:AS:7:GLU:OE2	8:AS:7:GLU:N	2.29	0.65
14:AT:21:PHE:CD1	14:AT:21:PHE:C	2.70	0.65
3:AU:49:LYS:C	3:AU:50:VAL:HG12	2.16	0.65
18:AY:54:VAL:HG13	18:AY:76:TYR:CA	2.27	0.65
51:CA:205:ASN:CB	51:CA:206:PRO:HD3	2.27	0.65
51:CA:23:ARG:HA	51:CA:52:PRO:CD	2.26	0.65
51:CA:245:ARG:N	51:CA:245:ARG:CD	2.59	0.65
63:CB:115:LYS:O	63:CB:115:LYS:CE	2.30	0.65
63:CB:108:GLU:CB	63:CB:137:TRP:CE2	2.78	0.65
63:CB:141:ASP:OD2	63:CB:142:GLY:N	2.30	0.65
63:CB:61:ASP:O	63:CB:61:ASP:CG	2.34	0.65
74:CC:286:ASN:O	74:CC:287:THR:CB	2.45	0.65
74:CC:85:HIS:ND1	74:CC:85:HIS:O	2.29	0.65
48:CD:142:PHE:CG	48:CD:171:LEU:HD22	2.31	0.65
81:CE:157:HIS:ND1	81:CE:184:VAL:HG22	2.12	0.65
81:CE:83:LYS:HZ2	81:CE:86:GLU:CA	2.09	0.65
80:CH:90:TYR:CE1	80:CH:184:LYS:HG2	2.31	0.65
47:CI:102:MET:HG2	47:CI:102:MET:O	1.96	0.65
47:CI:105:CYS:O	47:CI:108:ALA:N	2.30	0.65
47:CI:10:ARG:HH22	47:CI:56:GLU:CD	1.99	0.65
79:CJ:17:ILE:HD13	79:CJ:83:LEU:HD12	1.70	0.65
44:CM:104:MET:HG2	44:CM:108:ASP:CB	2.27	0.65
44:CM:86:TRP:O	44:CM:92:ALA:HB2	1.96	0.65
50:CR:170:ARG:O	50:CR:174:GLU:CB	2.44	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CR:72:LYS:O	50:CR:72:LYS:NZ	7.00	0.65
53:CT:36:LYS:CD	53:CT:37:GLY:N	2.55	0.65
53:CT:68:THR:OG1	53:CT:71:ALA:CA	2.45	0.65
55:CU:108:GLU:HA	55:CU:110:TYR:OH	1.96	0.65
55:CU:125:GLU:HA	55:CU:125:GLU:OE1	1.97	0.65
57:CY:82:ILE:CG2	57:CY:83:GLU:N	2.59	0.65
85:A5:4522:G:O2'	85:A5:4525:C:OP2	2.14	0.65
42:CL:16:LYS:CG	85:A5:46:U:H5''	2.24	0.65
15:AB:77:ASP:O	15:AB:79:VAL:HG13	1.97	0.65
23:AD:179:GLN:NE2	23:AD:179:GLN:O	2.30	0.65
23:AD:53:THR:HG21	23:AD:91:VAL:HB	1.78	0.65
27:AE:48:LEU:HD11	27:AE:70:ILE:CD1	2.26	0.65
30:AF:39:ILE:HG23	30:AF:68:ILE:HD13	1.79	0.65
29:AG:16:ILE:HG21	29:AG:45:TRP:CH2	2.30	0.65
29:AG:210:ALA:C	29:AG:213:LEU:HG	2.15	0.65
31:AH:190:PRO:HB2	31:AH:191:GLU:HG2	1.79	0.65
31:AH:85:LYS:C	31:AH:85:LYS:CD	2.51	0.65
31:AH:85:LYS:O	31:AH:85:LYS:CD	2.35	0.65
33:AI:144:LYS:O	33:AI:145:ILE:CB	2.45	0.65
33:AI:62:VAL:CG2	33:AI:75:LYS:NZ	2.52	0.65
26:AJ:16:PRO:O	26:AJ:17:ARG:C	2.33	0.65
11:AL:113:LEU:HD11	11:AL:120:VAL:CB	2.27	0.65
7:AM:14:VAL:C	7:AM:16:THR:N	2.49	0.65
10:AN:60:VAL:HG23	10:AN:60:VAL:O	1.97	0.65
13:AP:13:ARG:C	13:AP:14:LYS:HG2	2.16	0.65
13:AP:41:GLN:NE2	13:AP:45:LEU:CG	2.40	0.65
13:AP:41:GLN:HB2	13:AP:84:ILE:HG12	1.77	0.65
12:AR:44:LYS:HE3	12:AR:47:ARG:CZ	2.23	0.65
12:AR:92:ASP:O	12:AR:93:GLN:CB	2.43	0.65
14:AT:85:ASN:O	14:AT:88:MET:CE	2.44	0.65
36:B2:127:C:OP1	36:B2:180:G:C2	2.50	0.65
36:B2:742:U:C5	36:B2:743:U:C4	2.84	0.65
36:B2:839:C:H2'	36:B2:841:G:H5'	1.78	0.65
51:CA:23:ARG:O	51:CA:24:LYS:HE2	1.97	0.65
63:CB:159:VAL:HG11	63:CB:184:GLN:CD	2.16	0.65
63:CB:381:THR:HG21	63:CB:383:GLU:CG	2.26	0.65
74:CC:116:ASN:N	74:CC:116:ASN:OD1	2.30	0.65
81:CE:264:ILE:HG21	81:CE:267:LEU:HB2	1.77	0.65
81:CE:159:GLY:O	81:CE:275:PHE:N	2.30	0.65
64:CF:105:VAL:HG22	64:CF:135:ILE:HD13	1.77	0.65
64:CF:89:LEU:HD22	64:CF:90:ALA:H	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CJ:169:LYS:HD2	79:CJ:170:TYR:CD2	2.32	0.65
42:CL:77:SER:OG	42:CL:80:GLU:CG	2.44	0.65
44:CM:5:ARG:O	44:CM:11:ARG:NH1	2.30	0.65
44:CM:63:LYS:NZ	44:CM:63:LYS:O	2.30	0.65
46:CN:192:TRP:O	46:CN:195:ARG:CG	2.44	0.65
46:CN:36:LEU:HD22	46:CN:109:HIS:CD2	2.17	0.65
41:CO:57:PHE:O	41:CO:72:HIS:HE1	1.80	0.65
41:CO:72:HIS:HB2	41:CO:74:ARG:HH12	1.60	0.65
41:CO:27:VAL:HG11	41:CO:98:ALA:HB1	1.77	0.65
54:CP:4:TYR:OH	54:CP:18:ARG:N	2.30	0.65
49:CQ:154:LYS:CE	49:CQ:155:ALA:O	2.44	0.65
49:CQ:94:GLU:OE2	49:CQ:94:GLU:N	2.30	0.65
50:CR:24:LEU:CD2	50:CR:32:ILE:HG13	2.27	0.65
50:CR:34:ASN:OD1	50:CR:34:ASN:N	2.30	0.65
50:CR:8:LYS:HG2	50:CR:22:VAL:HG21	1.79	0.65
55:CU:37:ALA:CA	55:CU:65:ARG:NH1	2.51	0.65
57:CY:104:VAL:CG1	57:CY:105:VAL:N	2.59	0.65
59:CZ:16:GLY:O	59:CZ:19:SER:CB	2.44	0.65
16:AA:39:TYR:N	16:AA:50:ASN:ND2	2.44	0.65
16:AA:5:LEU:CD1	16:AA:6:ASP:N	2.51	0.65
15:AB:105:LEU:HD11	15:AB:213:ARG:CG	2.27	0.65
15:AB:209:ASP:O	15:AB:210:VAL:HB	1.97	0.65
15:AB:57:ILE:C	82:CG:264:LYS:HE3	2.16	0.65
28:AC:170:TRP:CH2	32:AW:97:ARG:HD3	2.32	0.65
28:AC:78:LEU:HD13	28:AC:82:TYR:HH	1.62	0.65
23:AD:112:GLY:C	23:AD:113:LEU:CG	2.65	0.65
23:AD:216:GLU:O	23:AD:217:ILE:HD12	1.97	0.65
30:AF:42:LYS:NZ	30:AF:42:LYS:O	2.29	0.65
31:AH:16:PRO:O	31:AH:20:GLU:CD	2.35	0.65
26:AJ:134:HIS:C	26:AJ:135:ILE:HG23	2.17	0.65
26:AJ:110:LEU:HD11	26:AJ:135:ILE:HD12	1.76	0.65
4:AK:53:LYS:HG3	4:AK:54:SER:N	2.11	0.65
11:AL:17:PHE:CD1	11:AL:18:GLN:O	2.49	0.65
5:AO:30:VAL:CG2	5:AO:32:HIS:CD2	2.80	0.65
5:AO:88:LEU:HD13	15:AB:25:PHE:CG	2.32	0.65
13:AP:110:GLU:OE2	13:AP:110:GLU:N	2.30	0.65
34:AQ:39:LEU:O	34:AQ:42:ILE:HD12	1.96	0.65
63:CB:139:ASP:O	63:CB:140:GLU:C	2.33	0.65
63:CB:167:GLN:HB2	63:CB:170:LEU:HD12	1.77	0.65
63:CB:80:GLU:CG	63:CB:171:LEU:HD22	2.26	0.65
74:CC:13:GLU:N	74:CC:13:GLU:OE1	2.28	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CD:44:TYR:HE1	53:CT:34:TYR:C	1.94	0.65
81:CE:187:ARG:HG2	81:CE:189:THR:CG2	2.26	0.65
81:CE:245:GLN:O	81:CE:248:ILE:HG22	1.97	0.65
64:CF:148:LYS:HD3	64:CF:245:ARG:HH12	1.61	0.65
82:CG:76:VAL:CB	82:CG:81:ASN:OD1	2.44	0.65
80:CH:41:ILE:CG2	80:CH:42:ASN:N	2.50	0.65
80:CH:78:GLN:HB3	80:CH:82:LYS:CE	2.26	0.65
47:CI:89:VAL:HG22	47:CI:136:MET:SD	2.37	0.65
79:CJ:79:ALA:O	79:CJ:83:LEU:HG	1.95	0.65
40:CK:123:ARG:HG2	40:CK:125:LEU:H	1.61	0.65
50:CR:44:LEU:CD2	50:CR:49:LEU:HD12	2.10	0.65
53:CT:11:THR:CG2	53:CT:15:PHE:CE2	2.80	0.65
85:A5:1820:C:N4	85:A5:1822:U:C6	2.65	0.65
85:A5:2609:G:H1	85:A5:2730:U:H3	1.45	0.65
86:A7:115:A:C8	86:A7:115:A:H5'	2.31	0.65
28:AC:161:SER:O	28:AC:163:VAL:HG13	1.97	0.65
33:AI:119:LEU:O	33:AI:120:PRO:O	2.15	0.65
33:AI:157:LYS:O	33:AI:158:ILE:O	2.14	0.65
33:AI:21:TYR:CE1	36:B2:433:A:H5'	2.32	0.65
26:AJ:10:ARG:CZ	26:AJ:10:ARG:HB3	2.24	0.65
26:AJ:130:ILE:HA	26:AJ:135:ILE:CD1	2.26	0.65
26:AJ:137:VAL:HG22	26:AJ:157:ILE:HG12	1.79	0.65
4:AK:18:GLU:C	4:AK:92:ALA:HB2	2.17	0.65
11:AL:100:ASN:OD1	11:AL:100:ASN:N	2.29	0.65
7:AM:35:ILE:HD13	7:AM:61:TYR:CE2	2.32	0.65
10:AN:89:TYR:CE1	10:AN:150:VAL:HG13	2.32	0.65
5:AO:119:LEU:CD1	5:AO:126:ILE:HD11	2.26	0.65
13:AP:98:ASN:OD1	13:AP:120:SER:HB2	1.97	0.65
14:AT:31:PRO:CG	14:AT:33:TRP:CZ2	2.79	0.65
6:AX:126:ALA:CB	6:AX:128:VAL:CB	2.57	0.65
36:B2:1334:G:H1	36:B2:1496:U:H3	1.43	0.65
36:B2:242:U:O2'	36:B2:243:C:H5'	1.97	0.65
63:CB:170:LEU:C	63:CB:171:LEU:HD23	2.17	0.65
63:CB:285:TYR:CZ	63:CB:363:ILE:HD13	2.32	0.65
74:CC:300:ARG:C	74:CC:300:ARG:CD	2.65	0.65
74:CC:6:PRO:HB2	74:CC:24:LEU:HD22	1.79	0.65
48:CD:260:GLU:CG	48:CD:261:VAL:HG23	2.27	0.65
81:CE:95:PRO:C	81:CE:96:VAL:HG23	2.17	0.65
82:CG:35:ARG:C	82:CG:36:PRO:CA	2.64	0.65
79:CJ:12:MET:O	79:CJ:14:GLU:N	2.29	0.65
40:CK:105:THR:HG22	40:CK:144:ASP:HA	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CK:57:ARG:NH2	40:CK:89:PRO:CA	2.59	0.65
40:CK:94:LYS:CG	40:CK:96:LYS:HE3	2.24	0.65
46:CN:49:ARG:O	46:CN:50:ARG:CB	2.44	0.65
41:CO:119:VAL:HG12	41:CO:120:VAL:N	2.10	0.65
41:CO:22:ILE:CD1	41:CO:120:VAL:HG11	2.27	0.65
41:CO:120:VAL:O	41:CO:124:LEU:HD12	1.97	0.65
54:CP:75:GLN:C	54:CP:76:TRP:HE3	2.00	0.65
52:CS:168:THR:HG21	52:CS:172:PRO:CB	2.27	0.65
52:CS:170:LYS:O	52:CS:172:PRO:CB	2.45	0.65
85:A5:2483:G:H1	85:A5:2495:U:H3	1.45	0.65
85:A5:708:G:O2'	85:A5:709:C:H5'	1.97	0.65
16:AA:66:VAL:HG13	16:AA:186:ARG:CB	2.27	0.65
28:AC:192:LEU:HG	28:AC:227:ARG:HG3	1.77	0.65
28:AC:73:MET:CE	28:AC:96:PHE:HZ	2.10	0.65
28:AC:66:LEU:HD23	28:AC:75:ILE:HD12	1.79	0.65
29:AG:185:LEU:HB3	29:AG:189:ARG:NH1	2.12	0.65
29:AG:64:LYS:HE2	29:AG:67:VAL:CG1	2.26	0.65
33:AI:167:GLN:HG3	33:AI:168:GLN:N	2.12	0.65
33:AI:3:ILE:HG22	33:AI:3:ILE:O	1.96	0.65
33:AI:47:ARG:NH1	33:AI:47:ARG:HB3	2.12	0.65
26:AJ:37:LEU:HG	26:AJ:42:GLU:HB2	1.77	0.65
4:AK:4:PRO:CG	4:AK:7:ASN:ND2	2.60	0.65
10:AN:59:GLY:O	10:AN:60:VAL:CG1	2.45	0.65
5:AO:37:PHE:O	5:AO:38:ASN:CB	2.45	0.65
12:AR:88:VAL:HG21	16:AA:198:MET:CB	2.16	0.65
14:AT:87:VAL:HG21	36:B2:1665:G:N1	2.13	0.65
36:B2:845:G:H3'	36:B2:846:G:C8	2.32	0.65
74:CC:5:ARG:HH22	74:CC:26:ALA:CB	2.09	0.65
81:CE:87:LYS:O	81:CE:92:VAL:HG21	1.98	0.65
81:CE:95:PRO:O	81:CE:96:VAL:HB	1.96	0.65
64:CF:224:THR:O	64:CF:225:THR:O	2.15	0.65
82:CG:156:VAL:HG11	82:CG:190:LEU:HD11	1.78	0.65
82:CG:42:GLY:O	82:CG:43:GLN:NE2	2.30	0.65
41:CO:198:THR:HG21	44:CM:115:ALA:HB2	1.78	0.65
46:CN:124:ASP:O	46:CN:126:THR:N	2.30	0.65
49:CQ:28:LEU:CD1	49:CQ:51:LEU:HD22	2.27	0.65
56:CX:119:ILE:HD11	56:CX:140:LEU:CD1	2.27	0.65
56:CX:41:ARG:NH1	82:CG:55:VAL:CG1	2.53	0.65
57:CY:34:LEU:HD23	57:CY:39:ARG:CA	2.26	0.65
85:A5:2005:G:O2'	85:A5:2006:U:H5'	1.97	0.64
81:CE:242:ILE:HD12	85:A5:4939:C:H1'	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:207:HIS:O	23:AD:208:VAL:HG23	1.97	0.64
4:AK:64:TRP:HE1	23:AD:23:GLU:HG2	1.60	0.64
27:AE:117:GLU:O	27:AE:119:ALA:N	2.26	0.64
27:AE:11:ARG:O	27:AE:12:VAL:HB	1.96	0.64
27:AE:129:ILE:CB	27:AE:139:LEU:CD2	2.73	0.64
27:AE:149:TYR:CE2	29:AG:205:GLU:HB2	2.31	0.64
8:AS:34:LYS:CB	8:AS:103:LEU:HD23	2.20	0.64
8:AS:47:LYS:CE	8:AS:78:LYS:HB2	2.27	0.64
8:AS:46:ARG:NE	14:AT:50:GLU:HG2	2.11	0.64
3:AU:33:GLU:OE1	3:AU:55:ARG:NH2	2.29	0.64
18:AY:63:HIS:ND1	18:AY:64:PHE:CD1	2.65	0.64
19:AZ:48:VAL:C	19:AZ:83:LEU:HD11	2.06	0.64
6:AX:4:CYS:SG	36:B2:1161:U:OP2	2.55	0.64
36:B2:1365:G:H2'	36:B2:1366:G:C8	2.31	0.64
36:B2:1726:G:H1	36:B2:1808:U:H3	1.43	0.64
36:B2:925:G:H1	36:B2:1017:U:H3	1.43	0.64
37:BC:17:G:O6	37:BC:53:A:N1	2.29	0.64
63:CB:62:ARG:N	63:CB:68:ASN:HD22	1.95	0.64
74:CC:253:THR:OG1	74:CC:256:ALA:HB2	1.96	0.64
64:CF:160:GLY:HA3	64:CF:207:PHE:CE2	2.31	0.64
47:CI:185:VAL:HG22	47:CI:190:LEU:CG	2.26	0.64
40:CK:2:PRO:HD2	40:CK:3:PRO:CD	2.27	0.64
40:CK:61:LYS:HA	40:CK:75:PRO:HD3	1.79	0.64
42:CL:58:ILE:HD11	42:CL:157:VAL:HG12	1.75	0.64
46:CN:184:ILE:HG23	46:CN:185:GLY:N	2.13	0.64
49:CQ:17:GLU:OE2	49:CQ:18:PRO:HD2	1.97	0.64
50:CR:32:ILE:HD11	50:CR:44:LEU:HD13	1.71	0.64
50:CR:62:ARG:NH2	85:A5:4645:C:C5	2.64	0.64
58:CW:86:SER:HG	58:CW:89:ASP:CB	1.90	0.64
57:CY:61:HIS:CE1	57:CY:62:TYR:CD2	2.84	0.64
85:A5:4046:A:H2'	85:A5:4047:A:C8	2.31	0.64
16:AA:186:ARG:NE	16:AA:186:ARG:O	2.30	0.64
16:AA:193:HIS:HB3	16:AA:194:PRO:HD2	1.80	0.64
15:AB:62:LEU:HD23	15:AB:91:VAL:CG2	2.28	0.64
23:AD:132:LYS:HA	23:AD:191:PRO:CG	2.10	0.64
23:AD:193:ASP:O	23:AD:194:PRO:C	2.28	0.64
27:AE:145:ARG:HH11	27:AE:145:ARG:CG	2.10	0.64
30:AF:195:GLU:O	30:AF:199:VAL:HG23	1.97	0.64
33:AI:8:TRP:CZ3	33:AI:20:PRO:HA	2.32	0.64
7:AM:20:GLU:OE1	7:AM:20:GLU:HA	1.96	0.64
10:AN:4:MET:HE2	10:AN:124:ARG:HH22	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AO:41:PHE:CE1	5:AO:57:THR:HG21	2.31	0.64
13:AP:10:ARG:NH2	13:AP:11:THR:HG21	2.10	0.64
16:AA:185:MET:HE2	17:AV:39:VAL:CG1	2.27	0.64
17:AV:67:ASP:O	17:AV:68:SER:C	2.35	0.64
6:AX:93:PHE:O	6:AX:140:ARG:NH1	2.30	0.64
18:AY:92:ALA:HA	18:AY:97:TYR:CA	2.27	0.64
36:B2:1219:C:H2'	36:B2:1220:A:C8	2.33	0.64
51:CA:206:PRO:HD2	51:CA:207:VAL:N	2.13	0.64
63:CB:12:GLY:H	85:A5:4622:A:H5''	1.61	0.64
63:CB:365:LEU:HD12	63:CB:368:ILE:HD11	1.78	0.64
74:CC:146:GLU:CD	74:CC:175:LYS:HE3	2.17	0.64
74:CC:189:MET:HE1	74:CC:200:ARG:CZ	2.27	0.64
74:CC:259:LYS:O	74:CC:262:GLU:N	2.30	0.64
74:CC:85:HIS:HA	74:CC:87:SER:N	2.06	0.64
81:CE:27:VAL:CA	81:CE:28:LYS:HG3	2.27	0.64
82:CG:146:LEU:HD11	82:CG:147:VAL:HG23	1.79	0.64
40:CK:71:ILE:HG22	40:CK:73:VAL:HG23	1.78	0.64
42:CL:130:LYS:CB	42:CL:131:PRO:CD	2.75	0.64
46:CN:151:ILE:HG22	46:CN:151:ILE:O	1.98	0.64
46:CN:35:ALA:HA	46:CN:65:ARG:NH1	2.12	0.64
41:CO:169:ARG:HH12	41:CO:173:GLN:HG3	1.62	0.64
41:CO:12:ARG:HB2	41:CO:37:ARG:HD3	1.78	0.64
54:CP:131:ARG:HD3	54:CP:137:ASN:HD21	1.49	0.64
49:CQ:66:MET:SD	49:CQ:100:VAL:HG22	2.37	0.64
52:CS:69:GLU:HA	52:CS:69:GLU:OE2	1.95	0.64
53:CT:144:ASN:C	53:CT:144:ASN:ND2	2.45	0.64
55:CU:100:LEU:CD2	55:CU:114:TYR:HB2	2.27	0.64
58:CW:21:TYR:HE2	58:CW:23:ARG:CD	2.08	0.64
56:CX:107:HIS:HE1	85:A5:2777:G:H5''	1.61	0.64
57:CY:22:PRO:HG2	57:CY:25:ILE:CG1	2.27	0.64
59:CZ:105:ALA:C	59:CZ:108:ARG:HG3	2.17	0.64
16:AA:16:LEU:HB2	16:AA:17:LYS:CE	2.28	0.64
15:AB:178:THR:O	15:AB:179:ASN:HB2	1.95	0.64
28:AC:270:THR:CG2	28:AC:271:ASP:OD1	2.45	0.64
27:AE:98:ASN:ND2	27:AE:114:ILE:HG13	2.12	0.64
30:AF:42:LYS:CB	30:AF:46:ALA:H	2.09	0.64
29:AG:212:LEU:HA	29:AG:215:LYS:HE2	1.79	0.64
33:AI:140:LYS:O	33:AI:144:LYS:O	2.14	0.64
26:AJ:17:ARG:HB3	26:AJ:18:ARG:HG3	1.79	0.64
11:AL:112:HIS:HB2	11:AL:134:LEU:CD1	2.28	0.64
11:AL:148:ALA:C	11:AL:150:GLY:H	2.01	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AM:124:ILE:CA	7:AM:127:TYR:CE2	2.79	0.64
10:AN:62:GLN:HB2	10:AN:65:PHE:CE2	2.31	0.64
13:AP:49:LEU:CA	13:AP:51:ARG:CG	2.68	0.64
8:AS:88:LYS:H	8:AS:95:TYR:HD1	1.42	0.64
18:AY:114:MET:HE1	18:AY:125:VAL:CG2	2.27	0.64
18:AY:54:VAL:HG23	18:AY:79:LEU:HD21	1.78	0.64
36:B2:338:G:C6	36:B2:339:A:C5	2.85	0.64
63:CB:360:LEU:O	63:CB:361:GLU:C	2.28	0.64
74:CC:57:LEU:CD1	74:CC:61:GLN:HE21	2.08	0.64
48:CD:113:PHE:HE1	48:CD:142:PHE:HE1	1.45	0.64
81:CE:149:ILE:HG22	81:CE:199:THR:HB	1.80	0.64
64:CF:176:ALA:HB2	64:CF:185:ILE:HG23	1.78	0.64
64:CF:42:LEU:O	64:CF:42:LEU:HD23	1.96	0.64
64:CF:89:LEU:HD22	64:CF:123:VAL:O	1.96	0.64
82:CG:36:PRO:O	82:CG:37:LYS:CG	2.45	0.64
47:CI:91:LEU:HD11	47:CI:135:ILE:CG1	2.25	0.64
42:CL:125:ILE:CG2	42:CL:127:PHE:HE1	1.99	0.64
44:CM:12:VAL:CG1	44:CM:60:PHE:HB3	2.21	0.64
54:CP:115:GLU:OE1	54:CP:151:THR:HB	1.97	0.64
49:CQ:15:ARG:HD2	49:CQ:15:ARG:O	1.97	0.64
50:CR:132:PHE:CD1	50:CR:137:ILE:HD13	2.32	0.64
50:CR:18:GLY:H	50:CR:21:LYS:HD2	1.62	0.64
52:CS:45:TRP:NE1	52:CS:61:ILE:CD1	2.59	0.64
59:CZ:33:THR:C	59:CZ:35:ASP:H	2.00	0.64
85:A5:2100:A:OP1	85:A5:2100:A:H4'	1.97	0.64
86:A7:115:A:H2'	86:A7:116:G:O4'	1.96	0.64
16:AA:149:ASN:HB2	16:AA:165:ASN:CG	2.18	0.64
16:AA:34:MET:CE	16:AA:37:TYR:HE2	2.01	0.64
5:AO:128:ARG:HD3	15:AB:70:SER:CB	2.27	0.64
15:AB:71:LEU:HB2	15:AB:84:PHE:CE2	2.33	0.64
23:AD:126:ILE:CD1	23:AD:134:CYS:CB	2.75	0.64
27:AE:153:LEU:HD23	29:AG:216:ARG:HH12	1.58	0.64
27:AE:62:LYS:HD2	27:AE:80:ILE:CG1	2.28	0.64
30:AF:129:GLY:O	30:AF:134:VAL:HG22	1.97	0.64
29:AG:162:LEU:HD22	29:AG:172:LYS:NZ	2.12	0.64
31:AH:10:LYS:CB	31:AH:20:GLU:OE1	2.46	0.64
4:AK:64:TRP:C	4:AK:65:ARG:CG	2.66	0.64
7:AM:85:LEU:HD13	7:AM:106:CYS:SG	2.38	0.64
7:AM:51:VAL:HB	7:AM:77:ILE:HG21	1.78	0.64
10:AN:139:TRP:CE3	10:AN:140:LYS:CA	2.80	0.64
8:AS:118:ARG:NH1	13:AP:108:LYS:NZ	2.43	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AQ:72:VAL:HG23	34:AQ:84:ILE:HG22	1.77	0.64
8:AS:54:LYS:N	8:AS:54:LYS:CB	2.57	0.64
14:AT:111:LYS:O	14:AT:124:THR:HG21	1.98	0.64
8:AS:46:ARG:NH1	14:AT:50:GLU:HG2	2.12	0.64
16:AA:66:VAL:HG11	17:AV:46:PHE:CB	2.28	0.64
6:AX:99:GLU:C	6:AX:100:VAL:HG13	2.18	0.64
6:AX:11:ARG:CZ	11:AL:103:GLU:CD	2.66	0.64
18:AY:21:LYS:HE2	18:AY:77:ASP:CG	2.17	0.64
36:B2:1522:A:H2	36:B2:1523:C:C5	2.16	0.64
36:B2:530:U:C5	36:B2:531:A:N9	2.66	0.64
63:CB:140:GLU:OE1	63:CB:144:LYS:HB3	1.97	0.64
63:CB:165:HIS:HB3	63:CB:180:LEU:CG	2.27	0.64
63:CB:40:PRO:HA	63:CB:41:VAL:HG22	1.77	0.64
82:CG:100:HIS:CD2	82:CG:100:HIS:O	2.49	0.64
82:CG:240:ASN:O	82:CG:241:VAL:CG1	2.46	0.64
80:CH:53:LYS:O	80:CH:54:ARG:CG	2.45	0.64
79:CJ:9:GLU:O	79:CJ:10:ASN:HB2	1.98	0.64
79:CJ:26:VAL:HG21	79:CJ:33:LEU:HD23	1.78	0.64
40:CK:10:ILE:CG2	40:CK:66:ASN:C	2.54	0.64
49:CQ:34:PHE:HD2	74:CC:293:LEU:CD2	1.84	0.64
52:CS:27:LEU:H	52:CS:27:LEU:CD1	2.10	0.64
48:CD:41:LYS:CE	53:CT:93:ILE:HD13	2.09	0.64
57:CY:61:HIS:HE1	57:CY:62:TYR:CZ	2.15	0.64
16:AA:176:TRP:HE3	16:AA:177:MET:SD	2.16	0.64
16:AA:180:ARG:NH1	16:AA:184:ARG:HH12	1.95	0.64
23:AD:201:LYS:O	23:AD:202:LYS:HB2	1.96	0.64
30:AF:112:LEU:CA	30:AF:177:LEU:HD11	2.27	0.64
29:AG:142:ARG:HH21	29:AG:152:ASP:N	1.95	0.64
29:AG:145:PHE:CB	29:AG:147:LEU:CD1	2.65	0.64
26:AJ:114:VAL:HG12	26:AJ:119:LEU:O	1.96	0.64
4:AK:38:LYS:O	4:AK:39:ASN:CB	2.45	0.64
4:AK:50:GLN:O	4:AK:53:LYS:HG2	1.98	0.64
13:AP:124:LYS:O	13:AP:125:PRO:C	2.35	0.64
34:AQ:42:ILE:CG1	34:AQ:51:LEU:HD21	2.28	0.64
30:AF:51:HIS:ND1	34:AQ:82:TYR:OH	2.31	0.64
8:AS:42:HIS:CG	14:AT:45:LEU:CD1	2.46	0.64
14:AT:124:THR:HG22	14:AT:127:GLY:H	1.61	0.64
18:AY:18:LEU:HD12	18:AY:20:ARG:NH1	2.08	0.64
18:AY:5:VAL:HG12	18:AY:6:THR:N	2.13	0.64
18:AY:62:THR:CB	18:AY:69:THR:HG22	2.27	0.64
18:AY:92:ALA:O	18:AY:97:TYR:O	2.15	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:AW:20:ARG:NH1	36:B2:1139:C:H1'	2.11	0.64
36:B2:1418:C:H42	36:B2:1421:A:N6	1.95	0.64
51:CA:185:ALA:HA	51:CA:188:LYS:HD2	1.80	0.64
51:CA:219:ILE:CD1	51:CA:223:SER:HB3	2.27	0.64
63:CB:138:GLN:HA	63:CB:138:GLN:OE1	1.98	0.64
63:CB:86:VAL:HG13	63:CB:162:VAL:CG1	2.28	0.64
48:CD:152:ARG:NH1	79:CJ:145:LYS:HZ1	1.94	0.64
48:CD:33:ARG:NE	53:CT:27:LEU:HD11	2.13	0.64
81:CE:138:ARG:HH22	81:CE:169:ALA:C	2.01	0.64
81:CE:145:THR:HG21	81:CE:200:LYS:HD3	1.79	0.64
64:CF:188:GLU:OE1	74:CC:329:ASN:CG	2.36	0.64
80:CH:89:ARG:HG3	80:CH:93:ARG:HE	12.18	0.64
44:CM:66:HIS:ND1	44:CM:66:HIS:O	2.30	0.64
46:CN:197:THR:O	46:CN:198:LEU:HD22	1.97	0.64
41:CO:190:ASP:CG	41:CO:194:GLU:N	2.50	0.64
50:CR:71:ARG:CZ	50:CR:71:ARG:CA	4.73	0.64
56:CX:65:ALA:HB1	56:CX:66:PRO:HD2	1.79	0.64
85:A5:1377:G:H3'	85:A5:1378:C:C5'	2.28	0.64
16:AA:176:TRP:CD1	16:AA:199:PRO:HA	2.33	0.64
5:AO:51:GLU:OE2	15:AB:28:LYS:CD	2.45	0.64
15:AB:57:ILE:HD12	15:AB:60:ASP:OD2	1.98	0.64
15:AB:71:LEU:HD13	15:AB:84:PHE:HE2	0.85	0.64
28:AC:251:LEU:CD2	28:AC:252:THR:O	2.45	0.64
28:AC:274:VAL:HG12	28:AC:274:VAL:O	1.97	0.64
23:AD:47:GLU:HG2	23:AD:85:GLU:HG3	1.79	0.64
29:AG:142:ARG:CD	29:AG:147:LEU:HB3	2.27	0.64
33:AI:145:ILE:HA	33:AI:148:LYS:CG	2.28	0.64
26:AJ:118:GLY:O	26:AJ:120:ALA:N	2.29	0.64
26:AJ:177:ASN:O	26:AJ:180:LYS:HB3	1.96	0.64
26:AJ:84:ILE:CD1	26:AJ:86:VAL:CG2	2.75	0.64
4:AK:2:LEU:HD13	4:AK:3:MET:H	0.53	0.64
4:AK:3:MET:HG2	4:AK:4:PRO:N	2.13	0.64
5:AO:30:VAL:CG2	5:AO:45:THR:OG1	2.46	0.64
13:AP:10:ARG:HE	13:AP:11:THR:CB	2.11	0.64
13:AP:98:ASN:ND2	13:AP:120:SER:HB2	2.12	0.64
14:AT:84:ARG:CZ	14:AT:84:ARG:HB2	2.27	0.64
6:AX:5:ARG:NH2	36:B2:1159:G:OP2	2.28	0.64
18:AY:87:PRO:CB	18:AY:89:HIS:CE1	2.80	0.64
36:B2:499:G:C2	36:B2:501:C:H1'	2.32	0.64
48:CD:216:GLU:CD	48:CD:216:GLU:O	2.35	0.64
64:CF:162:ILE:CD1	64:CF:174:LEU:HD11	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CI:205:PRO:CA	47:CI:206:LEU:N	2.61	0.64
40:CK:102:GLY:CA	40:CK:139:VAL:HA	2.24	0.64
40:CK:131:GLU:HB3	40:CK:152:ILE:HG21	1.79	0.64
42:CL:86:ILE:HD11	42:CL:121:ARG:NE	2.12	0.64
42:CL:31:ARG:O	42:CL:35:ARG:HG3	1.97	0.64
44:CM:89:THR:OG1	44:CM:92:ALA:N	2.30	0.64
46:CN:67:ARG:O	46:CN:68:ARG:HB3	1.98	0.64
46:CN:68:ARG:HH11	46:CN:125:SER:C	1.98	0.64
54:CP:4:TYR:O	54:CP:5:SER:O	2.16	0.64
50:CR:99:MET:HE2	50:CR:128:LYS:HA	1.79	0.64
52:CS:173:ASN:HD21	52:CS:174:THR:HG22	1.63	0.64
53:CT:118:GLU:CD	53:CT:122:LYS:HD3	2.18	0.64
53:CT:40:VAL:HG12	53:CT:96:ILE:HG23	1.72	0.64
15:AB:160:GLN:NE2	15:AB:205:TYR:CE1	2.55	0.64
28:AC:252:THR:OG1	28:AC:255:LEU:HD13	1.97	0.64
23:AD:222:PRO:O	23:AD:223:ILE:HB	1.97	0.64
26:AJ:72:PHE:CD1	27:AE:248:ILE:HD12	2.16	0.64
27:AE:72:ILE:HD13	27:AE:82:TYR:CE2	2.32	0.64
27:AE:98:ASN:ND2	27:AE:114:ILE:CD1	2.60	0.64
29:AG:32:MET:O	29:AG:33:ALA:CB	2.44	0.64
26:AJ:34:GLU:HB2	26:AJ:35:TYR:HD2	1.61	0.64
26:AJ:88:ASP:O	26:AJ:91:LYS:CB	2.42	0.64
26:AJ:82:VAL:CG1	26:AJ:92:MET:CE	2.76	0.64
11:AL:113:LEU:HD21	11:AL:117:PHE:HB2	1.78	0.64
10:AN:6:ALA:HB1	10:AN:7:PRO:CD	2.27	0.64
5:AO:20:GLN:NE2	5:AO:21:VAL:O	2.31	0.64
14:AT:29:LYS:HA	14:AT:29:LYS:CE	2.20	0.64
8:AS:39:ARG:HD3	14:AT:38:LYS:HZ1	1.61	0.64
14:AT:77:LYS:HA	14:AT:94:ARG:CG	2.26	0.64
51:CA:10:LYS:HG2	51:CA:16:PHE:CD1	2.33	0.64
51:CA:21:LYS:NZ	85:A5:2449:A:H5'	2.13	0.64
51:CA:221:LYS:O	51:CA:222:PRO:C	2.36	0.64
74:CC:33:ARG:HD3	74:CC:122:TYR:CZ	2.33	0.64
81:CE:212:LEU:HG	81:CE:216:TYR:HB3	1.78	0.64
81:CE:83:LYS:CB	81:CE:84:LYS:CA	2.48	0.64
82:CG:77:PRO:HB3	82:CG:237:TRP:CH2	2.32	0.64
47:CI:92:HIS:HB2	47:CI:94:PHE:CE2	2.33	0.64
79:CJ:135:GLY:HA2	79:CJ:157:ILE:CD1	2.28	0.64
79:CJ:163:MET:CE	79:CJ:174:ILE:HD11	2.18	0.64
40:CK:56:LEU:HD23	40:CK:56:LEU:O	4.64	0.64
40:CK:66:ASN:HB2	40:CK:69:ALA:HB3	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:115:VAL:N	46:CN:134:LEU:HD22	2.13	0.64
42:CL:21:ARG:CB	46:CN:196:ASN:O	2.45	0.64
54:CP:105:LYS:HD2	54:CP:105:LYS:N	2.12	0.64
54:CP:67:VAL:HG12	54:CP:68:GLY:N	2.13	0.64
54:CP:75:GLN:C	54:CP:76:TRP:CE3	2.71	0.64
49:CQ:18:PRO:O	49:CQ:19:LYS:C	2.33	0.64
50:CR:129:GLY:O	50:CR:130:ASN:ND2	2.30	0.64
50:CR:132:PHE:CD1	50:CR:137:ILE:HG23	2.32	0.64
52:CS:9:GLU:CD	52:CS:33:PHE:CE2	2.71	0.64
52:CS:83:ARG:HD3	53:CT:156:TYR:N	2.10	0.64
57:CY:54:GLU:OE2	57:CY:69:LYS:CB	2.46	0.64
59:CZ:91:LEU:HB3	59:CZ:117:LYS:HE2	1.79	0.64
16:AA:119:PRO:O	16:AA:142:LEU:CD2	2.45	0.64
16:AA:7:VAL:HG22	17:AV:43:THR:HG21	1.79	0.64
17:AV:9:VAL:HG21	28:AC:176:LYS:HD3	1.80	0.64
28:AC:232:THR:O	28:AC:234:GLY:N	2.31	0.64
28:AC:256:TRP:CD1	32:AW:68:ARG:HD3	2.32	0.64
27:AE:86:PHE:O	27:AE:142:HIS:HE1	1.81	0.64
30:AF:201:LYS:CD	30:AF:204:ARG:NH2	2.39	0.64
30:AF:20:PHE:HB3	30:AF:23:TRP:HB2	1.78	0.64
29:AG:64:LYS:HE2	29:AG:67:VAL:HG13	1.79	0.64
31:AH:163:GLN:O	31:AH:166:VAL:HG12	1.97	0.64
33:AI:112:TRP:CZ3	33:AI:117:TYR:CE2	2.86	0.64
13:AP:100:LYS:HG2	36:B2:1240:A:N1	2.13	0.64
13:AP:13:ARG:O	13:AP:14:LYS:HG3	1.97	0.64
13:AP:44:ARG:HD2	13:AP:82:ASP:O	1.97	0.64
13:AP:98:ASN:OD1	13:AP:120:SER:OG	2.14	0.64
12:AR:99:ASP:CA	12:AR:119:VAL:HG13	2.13	0.64
8:AS:20:ILE:HD11	8:AS:33:ILE:HD11	1.79	0.64
18:AY:111:LYS:HD2	18:AY:115:LYS:HE3	1.80	0.64
36:B2:556:U:H2'	36:B2:557:U:C5'	2.28	0.64
51:CA:158:ILE:CG2	51:CA:159:SER:H	2.11	0.64
63:CB:311:ASP:CG	63:CB:312:LYS:N	2.51	0.64
74:CC:232:VAL:C	74:CC:263:LEU:CD1	2.66	0.64
48:CD:40:ASP:OD2	48:CD:43:LYS:HE3	1.98	0.64
48:CD:48:LYS:HE3	48:CD:145:TYR:CD2	2.32	0.64
81:CE:223:ARG:HB3	81:CE:233:PHE:CE1	2.32	0.64
81:CE:285:LYS:O	81:CE:286:LEU:C	2.36	0.64
64:CF:197:VAL:CG1	64:CF:198:GLY:H	1.96	0.64
82:CG:162:ASP:HB3	82:CG:163:PRO:HD3	1.73	0.64
82:CG:175:ARG:HD3	82:CG:176:LYS:N	2.13	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:CG:180:PRO:HA	82:CG:227:ASN:ND2	2.08	0.64
80:CH:108:ASN:ND2	80:CH:132:VAL:O	2.29	0.64
47:CI:77:VAL:CG1	47:CI:82:ARG:HD2	2.27	0.64
79:CJ:175:LEU:C	79:CJ:176:PRO:O	2.36	0.64
79:CJ:95:ARG:N	79:CJ:98:ASN:ND2	2.33	0.64
40:CK:62:LEU:CD1	40:CK:73:VAL:CG2	2.72	0.64
42:CL:20:ARG:H	42:CL:20:ARG:HD3	1.61	0.64
44:CM:5:ARG:HB3	44:CM:11:ARG:HH21	1.61	0.64
46:CN:4:TYR:HA	46:CN:46:ASP:OD1	1.98	0.64
46:CN:65:ARG:CD	46:CN:129:PHE:CE1	2.75	0.64
50:CR:86:ASN:C	50:CR:86:ASN:OD1	2.36	0.64
58:CW:74:ARG:O	58:CW:75:ALA:CB	2.45	0.64
5:AO:47:LEU:C	15:AB:67:PHE:HE1	1.97	0.64
28:AC:108:LYS:CD	28:AC:233:LEU:HD22	1.83	0.64
23:AD:123:LEU:HD21	23:AD:154:ASP:OD2	1.97	0.64
33:AI:139:LYS:HB3	33:AI:145:ILE:HD11	1.57	0.64
4:AK:48:ALA:O	4:AK:52:LEU:HD23	1.98	0.64
11:AL:82:MET:HE1	36:B2:373:G:C5'	2.28	0.64
5:AO:47:LEU:O	15:AB:67:PHE:CD1	2.51	0.64
13:AP:44:ARG:HH22	13:AP:84:ILE:H	1.37	0.64
34:AQ:140:ARG:HB3	36:B2:1644:C:H4'	1.78	0.64
34:AQ:42:ILE:CD1	34:AQ:51:LEU:HD22	2.03	0.64
12:AR:19:LYS:NZ	23:AD:212:GLU:HG2	2.12	0.64
6:AX:138:LYS:C	6:AX:139:GLU:OE2	2.35	0.64
6:AX:74:LEU:CD1	6:AX:81:ILE:CD1	2.71	0.64
51:CA:118:GLU:HG3	51:CA:119:LYS:CG	2.28	0.64
51:CA:210:PRO:CG	51:CA:233:ARG:HA	2.27	0.64
48:CD:104:LEU:CD2	48:CD:247:ILE:HD13	2.27	0.64
48:CD:223:PHE:CG	48:CD:226:TYR:CD2	2.85	0.64
47:CI:109:ASP:OD2	47:CI:112:GLN:CG	2.45	0.64
47:CI:30:LYS:CG	47:CI:63:GLU:HG2	2.28	0.64
47:CI:97:ILE:HD11	47:CI:126:VAL:CG2	2.27	0.64
46:CN:138:PHE:HA	46:CN:143:ARG:HE	1.58	0.64
46:CN:149:GLN:HE21	46:CN:150:TRP:H	1.45	0.64
41:CO:9:LEU:CG	52:CS:167:PHE:CE1	2.81	0.64
54:CP:71:ALA:HB1	54:CP:74:LYS:HE3	1.79	0.64
50:CR:28:GLU:N	50:CR:28:GLU:OE1	4.28	0.64
50:CR:99:MET:CE	50:CR:128:LYS:CA	2.76	0.64
48:CD:69:ILE:HG22	53:CT:31:MET:HG3	1.80	0.64
56:CX:68:ARG:O	56:CX:69:ASN:O	2.14	0.64
57:CY:62:TYR:HE1	57:CY:85:VAL:HG11	1.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CZ:37:PRO:HD2	59:CZ:38:TYR:CE2	2.33	0.64
16:AA:125:THR:O	16:AA:147:LEU:HD12	1.98	0.64
23:AD:141:LYS:HD2	23:AD:179:GLN:HG2	1.78	0.64
27:AE:67:GLN:HG2	27:AE:69:PHE:CE2	2.33	0.64
19:AZ:110:THR:HG22	30:AF:102:LEU:HD13	1.78	0.64
31:AH:110:THR:O	31:AH:110:THR:CG2	2.46	0.64
33:AI:145:ILE:CA	33:AI:148:LYS:HG3	2.28	0.64
33:AI:82:VAL:CG1	33:AI:202:ILE:HD11	2.25	0.64
33:AI:36:THR:HB	33:AI:57:ALA:O	1.97	0.64
26:AJ:35:TYR:CE1	26:AJ:112:THR:HG21	2.33	0.64
26:AJ:84:ILE:HD12	26:AJ:86:VAL:CG2	2.28	0.64
10:AN:21:SER:O	10:AN:22:VAL:CB	2.46	0.64
12:AR:123:THR:HG22	16:AA:44:ASP:C	2.15	0.64
12:AR:5:ARG:CA	12:AR:10:LYS:NZ	2.59	0.64
8:AS:92:ASP:OD2	8:AS:92:ASP:N	2.30	0.64
14:AT:11:GLN:NE2	14:AT:62:ARG:NE	2.44	0.64
3:AU:117:ALA:C	3:AU:118:ASP:O	2.28	0.64
3:AU:48:LEU:HD12	3:AU:91:LEU:HD22	1.80	0.64
17:AV:53:TYR:OH	17:AV:72:LEU:O	2.08	0.64
36:B2:530:U:O4	36:B2:555:A:N3	2.31	0.64
63:CB:40:PRO:O	63:CB:187:GLY:HA3	1.98	0.64
63:CB:40:PRO:HG2	63:CB:42:HIS:CD2	2.31	0.64
63:CB:61:ASP:CG	63:CB:361:GLU:CG	2.56	0.64
74:CC:128:LEU:HD11	74:CC:235:LEU:CD1	2.27	0.64
74:CC:158:VAL:CA	74:CC:161:TYR:CD2	2.74	0.64
48:CD:14:LYS:O	53:CT:20:ARG:NH1	2.30	0.64
48:CD:178:LYS:HG3	48:CD:183:TYR:CZ	2.33	0.64
82:CG:136:LEU:CD2	82:CG:204:PHE:CE2	2.75	0.64
82:CG:42:GLY:CA	82:CG:43:GLN:HG2	2.28	0.64
80:CH:34:LEU:HD21	80:CH:150:ASP:CG	2.18	0.64
47:CI:92:HIS:HB3	47:CI:94:PHE:CD2	2.33	0.64
40:CK:123:ARG:CG	40:CK:128:THR:OG1	2.46	0.64
40:CK:22:VAL:HG23	40:CK:48:LYS:CG	2.28	0.64
40:CK:91:ASP:O	40:CK:92:ARG:CB	2.46	0.64
42:CL:127:PHE:CE2	42:CL:144:LEU:HD22	2.33	0.64
46:CN:96:ARG:HE	46:CN:100:SER:HB2	1.62	0.64
49:CQ:61:LEU:CD1	49:CQ:82:VAL:CG2	2.53	0.64
50:CR:31:GLU:OE2	55:CU:125:GLU:C	2.36	0.64
52:CS:23:HIS:CD2	52:CS:23:HIS:O	2.51	0.64
53:CT:139:HIS:O	64:CF:82:TYR:CD1	2.51	0.64
55:CU:50:ASN:ND2	55:CU:50:ASN:O	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:CV:85:ARG:HG3	43:CV:99:GLU:O	1.97	0.64
58:CW:66:GLU:O	58:CW:70:LYS:HD2	1.98	0.64
57:CY:118:ILE:HG22	57:CY:122:LYS:HE2	1.78	0.64
57:CY:15:ARG:HG2	57:CY:15:ARG:NH1	2.12	0.64
59:CZ:57:MET:HG3	59:CZ:57:MET:O	1.98	0.64
12:AR:84:TYR:C	16:AA:201:LEU:HD13	2.19	0.63
15:AB:31:TYR:CE2	15:AB:62:LEU:HD22	2.33	0.63
28:AC:164:PRO:O	28:AC:164:PRO:CD	2.46	0.63
23:AD:55:THR:CA	23:AD:58:VAL:HG22	2.27	0.63
23:AD:63:GLY:O	23:AD:67:ARG:NH1	2.31	0.63
23:AD:53:THR:HG22	23:AD:91:VAL:CG2	2.27	0.63
27:AE:98:ASN:ND2	27:AE:114:ILE:HD11	2.13	0.63
30:AF:186:ASN:O	30:AF:191:LYS:NZ	2.31	0.63
29:AG:74:ARG:HD3	29:AG:94:ARG:CD	2.22	0.63
33:AI:141:ARG:C	33:AI:143:LYS:HB3	2.19	0.63
26:AJ:171:GLY:C	26:AJ:173:VAL:N	2.48	0.63
11:AL:22:ARG:CZ	11:AL:22:ARG:HB3	2.27	0.63
7:AM:35:ILE:HG23	7:AM:36:ARG:N	2.13	0.63
10:AN:28:LEU:HD13	10:AN:58:HIS:CE1	2.33	0.63
10:AN:76:LYS:HD2	10:AN:76:LYS:C	2.18	0.63
13:AP:41:GLN:HA	13:AP:84:ILE:HD11	1.78	0.63
8:AS:89:ASP:O	8:AS:90:VAL:HB	1.98	0.63
8:AS:8:LYS:HB2	8:AS:9:PHE:CE1	2.26	0.63
3:AU:56:MET:CE	3:AU:88:LEU:CD2	2.76	0.63
6:AX:35:ALA:HA	6:AX:39:ASN:HD22	1.60	0.63
18:AY:101:LYS:C	18:AY:102:THR:OG1	2.29	0.63
19:AZ:99:LEU:HD11	19:AZ:102:LYS:NZ	2.13	0.63
36:B2:1417:C:H3'	36:B2:1417:C:H6	1.62	0.63
51:CA:5:ILE:HG22	51:CA:6:ARG:N	2.13	0.63
63:CB:329:ASP:OD2	63:CB:329:ASP:N	2.31	0.63
74:CC:146:GLU:HG2	74:CC:175:LYS:HE3	1.79	0.63
74:CC:284:MET:HG2	74:CC:285:ILE:N	2.14	0.63
48:CD:210:TYR:HA	48:CD:213:GLU:OE2	1.98	0.63
81:CE:47:ASN:HD22	81:CE:48:PRO:CD	2.09	0.63
82:CG:254:GLU:CA	82:CG:254:GLU:OE1	2.36	0.63
82:CG:98:LEU:HD21	82:CG:215:LEU:HD23	1.74	0.63
80:CH:117:PHE:O	80:CH:120:GLU:HG2	1.98	0.63
47:CI:64:ALA:O	47:CI:159:PHE:HE1	1.80	0.63
40:CK:10:ILE:CB	40:CK:66:ASN:C	2.66	0.63
42:CL:157:VAL:O	42:CL:157:VAL:CG2	2.46	0.63
44:CM:124:LYS:HA	44:CM:124:LYS:HE2	1.78	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:150:TRP:CZ3	46:CN:151:ILE:HG12	2.33	0.63
54:CP:39:MET:CE	54:CP:43:LYS:HB3	2.29	0.63
49:CQ:150:ARG:HG2	49:CQ:164:LYS:HG3	1.80	0.63
49:CQ:88:ASP:OD1	49:CQ:89:ASP:N	2.31	0.63
50:CR:44:LEU:HD22	50:CR:49:LEU:HB3	1.78	0.63
52:CS:15:ARG:NH1	52:CS:24:THR:CG2	2.60	0.63
52:CS:80:ILE:HG22	52:CS:95:ARG:HG3	1.76	0.63
56:CX:56:ARG:O	56:CX:57:GLN:CD	2.36	0.63
56:CX:89:LYS:NZ	56:CX:97:VAL:HG23	2.10	0.63
57:CY:51:LYS:O	57:CY:52:ASP:C	2.25	0.63
57:CY:61:HIS:CE1	57:CY:62:TYR:HE2	2.11	0.63
28:AC:135:GLY:CA	28:AC:165:VAL:HG22	2.29	0.63
23:AD:74:GLN:HB2	23:AD:84:VAL:HG12	1.80	0.63
27:AE:133:THR:O	27:AE:134:LYS:CB	2.46	0.63
29:AG:62:PRO:HG2	29:AG:83:CYS:SG	2.38	0.63
33:AI:142:SER:CB	33:AI:143:LYS:HZ2	2.11	0.63
26:AJ:16:PRO:HD2	26:AJ:44:TRP:CH2	2.32	0.63
4:AK:14:LEU:HD21	4:AK:35:LEU:CD1	2.26	0.63
10:AN:5:HIS:CD2	10:AN:121:ARG:NE	2.66	0.63
13:AP:10:ARG:HH21	13:AP:11:THR:HG21	1.61	0.63
13:AP:83:MET:HB3	13:AP:116:LEU:CD1	2.28	0.63
12:AR:71:ILE:O	12:AR:75:GLU:HG3	1.97	0.63
8:AS:46:ARG:HH12	14:AT:50:GLU:HA	1.62	0.63
17:AV:56:CYS:SG	17:AV:59:ILE:HG13	2.38	0.63
19:AZ:65:TYR:HD2	19:AZ:68:ILE:CG1	2.11	0.63
63:CB:301:ASN:CB	63:CB:304:SER:OG	2.45	0.63
74:CC:28:PHE:CD1	74:CC:129:ALA:C	2.71	0.63
48:CD:123:VAL:HG22	48:CD:248:ARG:NH2	2.12	0.63
81:CE:138:ARG:O	81:CE:139:LYS:HB2	1.98	0.63
81:CE:162:VAL:HG13	81:CE:177:GLY:N	2.12	0.63
81:CE:239:LYS:HA	85:A5:4939:C:N3	2.13	0.63
82:CG:183:ILE:HG22	82:CG:184:ILE:CA	2.07	0.63
80:CH:183:GLU:C	80:CH:183:GLU:OE1	2.36	0.63
47:CI:164:LYS:HE3	47:CI:166:HIS:CE1	2.32	0.63
79:CJ:42:GLN:O	79:CJ:42:GLN:HG2	1.98	0.63
40:CK:113:ALA:C	40:CK:116:MET:HG2	2.17	0.63
40:CK:94:LYS:HA	40:CK:96:LYS:HD2	1.75	0.63
46:CN:46:ASP:CA	46:CN:50:ARG:NH1	2.61	0.63
41:CO:43:ILE:HG22	41:CO:44:SER:O	1.98	0.63
50:CR:106:LEU:HB3	50:CR:120:TYR:CD1	2.32	0.63
55:CU:63:ILE:HD13	55:CU:72:VAL:HA	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:CV:110:GLY:HA2	43:CV:129:TRP:CZ3	2.29	0.63
43:CV:65:VAL:HG23	43:CV:77:HIS:CE1	2.32	0.63
56:CX:76:ILE:CD1	56:CX:104:ALA:HB3	2.28	0.63
56:CX:57:GLN:O	56:CX:58:PRO:HB2	1.96	0.63
56:CX:87:MET:CA	56:CX:90:ILE:HD11	2.18	0.63
57:CY:35:SER:HA	57:CY:105:VAL:HG21	1.80	0.63
85:A5:741:C:H42	85:A5:923:C:H42	1.43	0.63
16:AA:196:GLU:OE2	16:AA:196:GLU:HA	1.97	0.63
15:AB:181:LEU:O	15:AB:185:VAL:HG23	1.97	0.63
27:AE:191:ARG:NE	27:AE:245:ARG:HD3	2.13	0.63
30:AF:134:VAL:CG1	30:AF:136:ARG:HH21	2.09	0.63
31:AH:14:GLU:CG	31:AH:16:PRO:HB2	2.29	0.63
31:AH:65:PRO:HG2	31:AH:68:GLN:CD	2.19	0.63
33:AI:112:TRP:CH2	33:AI:117:TYR:CE2	2.86	0.63
7:AM:115:GLY:O	7:AM:116:LYS:CB	2.44	0.63
7:AM:13:ASP:OD1	7:AM:13:ASP:N	2.30	0.63
10:AN:137:PRO:O	10:AN:138:ASN:ND2	2.31	0.63
10:AN:16:LEU:CD2	10:AN:17:PRO:CD	2.74	0.63
13:AP:39:ALA:CA	13:AP:42:ARG:HE	2.09	0.63
13:AP:53:GLN:O	13:AP:56:LEU:HB2	1.97	0.63
13:AP:41:GLN:CD	13:AP:84:ILE:CB	2.61	0.63
34:AQ:34:VAL:HG21	34:AQ:39:LEU:CD2	2.22	0.63
8:AS:120:HIS:NE2	13:AP:123:TYR:CZ	2.66	0.63
8:AS:54:LYS:HD3	8:AS:58:GLU:OE1	1.97	0.63
3:AU:59:LYS:CB	3:AU:84:ILE:CG2	2.61	0.63
17:AV:3:ASN:OD1	17:AV:7:GLU:CB	2.45	0.63
32:AW:128:PHE:HE1	32:AW:130:PHE:CE2	2.09	0.63
32:AW:26:LEU:CD1	32:AW:26:LEU:O	2.39	0.63
18:AY:19:GLN:HG2	18:AY:81:TYR:CG	2.32	0.63
74:CC:209:ILE:HD11	74:CC:227:ILE:HD11	1.79	0.63
48:CD:86:TYR:CE1	48:CD:247:ILE:HA	2.34	0.63
81:CE:144:ILE:HG23	81:CE:145:THR:H	1.63	0.63
64:CF:41:MET:HE1	85:A5:2121:C:C4'	2.28	0.63
82:CG:143:VAL:HG12	82:CG:146:LEU:HD11	1.80	0.63
82:CG:71:TYR:O	82:CG:73:ARG:N	2.31	0.63
47:CI:77:VAL:HG13	47:CI:82:ARG:HD2	1.81	0.63
79:CJ:165:TRP:CZ2	79:CJ:169:LYS:HE3	2.32	0.63
79:CJ:17:ILE:HD11	79:CJ:83:LEU:HD12	1.80	0.63
79:CJ:22:LEU:HD22	79:CJ:130:PHE:CZ	2.10	0.63
44:CM:119:ARG:CG	44:CM:120:ASN:N	2.60	0.63
46:CN:138:PHE:HB3	46:CN:143:ARG:HH22	1.61	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:72:LYS:HE3	46:CN:90:ASN:HD22	0.61	0.63
41:CO:178:ARG:HA	44:CM:127:VAL:HG22	1.81	0.63
50:CR:72:LYS:HG3	50:CR:72:LYS:O	4.78	0.63
56:CX:76:ILE:HG23	56:CX:77:ILE:HG13	1.81	0.63
57:CY:22:PRO:O	57:CY:23:SER:C	2.37	0.63
16:AA:193:HIS:ND1	16:AA:194:PRO:HD2	2.12	0.63
16:AA:40:LYS:HD3	16:AA:41:ARG:H	1.62	0.63
28:AC:73:MET:CE	28:AC:96:PHE:CZ	2.81	0.63
30:AF:42:LYS:HE3	30:AF:43:GLU:CA	2.27	0.63
29:AG:102:VAL:HG22	29:AG:109:LEU:HD21	1.79	0.63
29:AG:179:LEU:N	29:AG:179:LEU:HD23	4.82	0.63
26:AJ:103:GLU:O	26:AJ:107:GLU:HG3	1.98	0.63
11:AL:40:ILE:HG23	11:AL:41:GLY:O	1.99	0.63
7:AM:11:VAL:O	7:AM:12:MET:HB3	1.99	0.63
7:AM:124:ILE:HG13	7:AM:125:GLU:N	2.13	0.63
5:AO:98:ARG:HG3	5:AO:133:THR:HA	1.81	0.63
13:AP:10:ARG:HE	13:AP:11:THR:CA	2.11	0.63
13:AP:65:LYS:HG3	13:AP:66:GLU:N	2.14	0.63
13:AP:85:ILE:C	13:AP:86:LEU:HD23	2.19	0.63
34:AQ:12:VAL:HG11	34:AQ:90:LYS:CB	2.28	0.63
34:AQ:54:PRO:CG	34:AQ:88:ILE:CD1	2.70	0.63
12:AR:42:PRO:CD	12:AR:43:SER:H	2.07	0.63
12:AR:84:TYR:C	12:AR:85:VAL:HG23	2.18	0.63
8:AS:91:LYS:C	8:AS:92:ASP:OD2	2.37	0.63
17:AV:80:SER:CB	17:AV:81:LYS:HE2	2.27	0.63
18:AY:117:VAL:CG2	18:AY:124:ASN:OD1	2.46	0.63
36:B2:940:U:H3	36:B2:1002:U:H3	1.46	0.63
74:CC:132:ALA:O	74:CC:133:LEU:HB3	1.98	0.63
74:CC:322:LEU:HD22	74:CC:336:ARG:NH2	2.13	0.63
48:CD:69:ILE:HG22	53:CT:31:MET:CB	2.28	0.63
81:CE:152:ILE:HG22	81:CE:160:LYS:O	1.97	0.63
64:CF:162:ILE:HG22	64:CF:163:ASN:OD1	1.98	0.63
64:CF:29:LYS:HG3	64:CF:30:ILE:N	2.13	0.63
82:CG:157:ILE:CG2	82:CG:167:VAL:HG11	2.28	0.63
80:CH:19:THR:HG1	80:CH:26:ILE:HG12	1.60	0.63
80:CH:89:ARG:HH21	80:CH:91:LYS:HE3	1.58	0.63
40:CK:147:HIS:CB	40:CK:148:PRO:HD3	2.25	0.63
42:CL:130:LYS:HG3	42:CL:131:PRO:HD2	1.81	0.63
41:CO:177:LEU:O	44:CM:130:LEU:CD2	2.46	0.63
46:CN:31:ARG:HH11	46:CN:31:ARG:HB2	1.62	0.63
46:CN:49:ARG:HH22	85:A5:151:G:H3'	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:144:LYS:CA	49:CQ:144:LYS:HE3	2.28	0.63
50:CR:132:PHE:CD1	50:CR:137:ILE:CD1	2.82	0.63
50:CR:176:ARG:O	50:CR:180:LYS:CE	2.47	0.63
52:CS:164:LYS:CE	52:CS:165:PRO:HD2	2.11	0.63
53:CT:146:LYS:HZ3	53:CT:146:LYS:CB	1.94	0.63
56:CX:117:TYR:O	56:CX:119:ILE:CG2	2.36	0.63
85:A5:1820:C:N4	85:A5:1822:U:H1'	2.13	0.63
15:AB:75:GLN:CA	15:AB:75:GLN:NE2	2.61	0.63
27:AE:55:ALA:C	27:AE:56:LEU:HD23	2.17	0.63
30:AF:28:VAL:HG13	30:AF:110:GLN:OE1	1.96	0.63
30:AF:44:LYS:CA	30:AF:45:TYR:HD1	2.12	0.63
29:AG:212:LEU:O	29:AG:216:ARG:CG	2.34	0.63
31:AH:193:GLN:H	31:AH:193:GLN:CD	2.00	0.63
33:AI:5:ARG:HH21	36:B2:382:C:N4	1.96	0.63
26:AJ:170:PRO:HB3	26:AJ:174:LYS:CE	2.27	0.63
7:AM:42:LEU:HD11	7:AM:69:LEU:HD21	1.81	0.63
7:AM:78:LYS:O	7:AM:79:VAL:CB	2.47	0.63
12:AR:100:PRO:HG2	12:AR:119:VAL:CG2	2.16	0.63
14:AT:75:MET:CE	14:AT:79:TYR:CE2	2.61	0.63
17:AV:66:ASP:O	17:AV:67:ASP:C	2.30	0.63
6:AX:52:LEU:HD21	6:AX:71:ARG:HD3	1.79	0.63
6:AX:90:CYS:HA	6:AX:93:PHE:CD2	2.34	0.63
63:CB:365:LEU:N	63:CB:365:LEU:HD23	2.12	0.63
63:CB:40:PRO:C	63:CB:187:GLY:CA	2.67	0.63
74:CC:128:LEU:CD2	74:CC:240:LEU:CD1	2.77	0.63
74:CC:6:PRO:O	74:CC:7:LEU:HB3	1.98	0.63
82:CG:166:LEU:C	82:CG:167:VAL:HG23	2.19	0.63
82:CG:42:GLY:O	82:CG:43:GLN:HG2	1.93	0.63
40:CK:123:ARG:CD	40:CK:129:ILE:HD12	1.89	0.63
40:CK:147:HIS:HB3	40:CK:148:PRO:CD	2.27	0.63
40:CK:14:TYR:CD1	40:CK:14:TYR:C	2.72	0.63
44:CM:89:THR:OG1	44:CM:92:ALA:HB3	1.96	0.63
41:CO:16:LEU:CD2	41:CO:138:LEU:HD21	2.26	0.63
49:CQ:77:ASN:HB2	49:CQ:78:LYS:HE2	1.81	0.63
50:CR:154:LEU:O	50:CR:158:GLN:HG3	1.99	0.63
52:CS:43:ARG:O	52:CS:47:PHE:HD2	1.81	0.63
55:CU:105:ASN:ND2	55:CU:111:GLU:OE1	2.31	0.63
43:CV:92:ASP:OD1	43:CV:92:ASP:N	2.29	0.63
58:CW:47:ARG:NH1	58:CW:58:LYS:HD3	2.14	0.63
58:CW:91:MET:O	58:CW:95:ASN:ND2	2.31	0.63
56:CX:78:LYS:HE3	56:CX:101:ASP:CA	2.27	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CR:117:ARG:HH11	85:A5:2663:G:H4'	1.64	0.63
12:AR:98:VAL:HG22	16:AA:19:LEU:HD11	1.80	0.63
23:AD:59:LEU:HD12	23:AD:60:GLY:O	1.99	0.63
27:AE:49:ARG:NH2	27:AE:50:ASN:HD21	1.97	0.63
27:AE:75:LYS:O	27:AE:76:VAL:O	2.17	0.63
10:AN:19:ARG:CA	31:AH:138:GLU:OE2	2.46	0.63
31:AH:158:LEU:HD11	31:AH:187:PHE:CE1	2.33	0.63
26:AJ:48:PHE:HE1	26:AJ:52:LYS:CE	1.87	0.63
4:AK:57:TYR:CD1	4:AK:75:GLY:HA2	2.33	0.63
5:AO:72:TYR:CE1	5:AO:76:LEU:HD11	2.33	0.63
8:AS:113:ARG:HH22	13:AP:114:HIS:HE1	1.47	0.63
8:AS:89:ASP:O	8:AS:90:VAL:CB	2.47	0.63
32:AW:41:MET:HG2	32:AW:129:PHE:HD2	1.63	0.63
32:AW:65:LEU:O	32:AW:65:LEU:HD12	1.98	0.63
6:AX:41:PHE:HZ	6:AX:102:VAL:HG12	1.64	0.63
6:AX:52:LEU:HD11	6:AX:71:ARG:CB	2.28	0.63
18:AY:58:PHE:CE1	18:AY:72:PHE:CD2	2.86	0.63
63:CB:142:GLY:HA3	63:CB:147:GLU:CB	2.28	0.63
48:CD:51:MET:SD	48:CD:173:ILE:CD1	2.84	0.63
48:CD:92:LEU:CD1	48:CD:92:LEU:O	2.46	0.63
64:CF:80:ASN:N	64:CF:80:ASN:OD1	2.98	0.63
82:CG:103:ARG:O	82:CG:104:PRO:N	2.30	0.63
82:CG:81:ASN:O	82:CG:84:THR:OG1	2.16	0.63
79:CJ:32:ARG:HG3	79:CJ:35:ARG:HH22	1.62	0.63
44:CM:20:HIS:CE1	44:CM:45:VAL:HA	2.34	0.63
41:CO:184:ASN:O	41:CO:188:LYS:HD2	1.98	0.63
49:CQ:53:MET:HE3	49:CQ:143:ARG:NH2	2.13	0.63
49:CQ:75:ARG:HD3	49:CQ:75:ARG:N	2.13	0.63
49:CQ:83:VAL:HG12	49:CQ:83:VAL:O	1.99	0.63
50:CR:55:VAL:O	50:CR:57:VAL:HG13	1.99	0.63
50:CR:7:GLN:H	50:CR:7:GLN:CD	2.01	0.63
52:CS:4:SER:O	52:CS:35:PRO:HG3	1.99	0.63
43:CV:113:LYS:C	43:CV:113:LYS:CD	2.67	0.63
56:CX:123:LYS:HZ3	56:CX:139:ARG:CB	1.93	0.63
59:CZ:76:ASN:HD22	59:CZ:78:ASN:HB2	1.56	0.63
16:AA:205:ARG:O	16:AA:206:ASP:HB2	1.97	0.63
5:AO:47:LEU:HB3	15:AB:67:PHE:CD1	2.34	0.63
28:AC:256:TRP:C	28:AC:257:LYS:HG3	2.17	0.63
28:AC:74:LYS:CG	28:AC:269:PHE:CE1	2.77	0.63
23:AD:112:GLY:H	23:AD:113:LEU:CD1	2.08	0.63
27:AE:86:PHE:CE2	27:AE:87:MET:HG2	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AG:135:PRO:CG	29:AG:144:LEU:CD2	2.76	0.63
29:AG:25:ARG:O	29:AG:27:PHE:N	2.32	0.63
8:AS:80:PRO:CG	8:AS:82:TRP:CE2	2.82	0.63
17:AV:12:TYR:CZ	28:AC:248:TYR:CE1	2.87	0.63
18:AY:57:VAL:C	18:AY:58:PHE:CD2	2.72	0.63
36:B2:1472:C:N4	36:B2:1475:G:C8	2.65	0.63
51:CA:220:GLY:O	51:CA:221:LYS:CB	2.46	0.63
51:CA:232:GLY:O	51:CA:234:LYS:N	2.31	0.63
63:CB:194:LEU:O	63:CB:198:ARG:HG2	1.99	0.63
63:CB:25:HIS:O	63:CB:222:VAL:CG2	2.47	0.63
74:CC:22:VAL:HG22	74:CC:258:ARG:CZ	1.98	0.63
48:CD:115:MET:CE	48:CD:139:PRO:CB	2.74	0.63
81:CE:165:LEU:HB2	81:CE:174:LEU:HD23	1.81	0.63
81:CE:149:ILE:HG23	81:CE:197:THR:CB	2.26	0.63
81:CE:222:LEU:HD22	81:CE:238:GLU:CD	2.19	0.63
82:CG:229:ARG:HG2	82:CG:233:ILE:HD11	1.81	0.63
40:CK:102:GLY:C	40:CK:140:GLY:HA2	2.19	0.63
42:CL:76:PHE:CZ	42:CL:117:LEU:CD2	2.82	0.63
44:CM:34:ASN:O	44:CM:35:ARG:CB	2.47	0.63
44:CM:94:LYS:HG2	85:A5:4872:G:N1	2.14	0.63
56:CX:120:ASP:C	56:CX:121:VAL:CG2	2.65	0.63
57:CY:21:ALA:HB3	57:CY:78:TYR:OH	1.98	0.63
57:CY:91:ASN:OD1	57:CY:91:ASN:N	2.30	0.63
59:CZ:11:VAL:HG11	59:CZ:80:LEU:HB3	0.71	0.63
15:AB:150:ILE:HG23	15:AB:150:ILE:O	1.97	0.63
17:AV:23:ILE:HD13	28:AC:249:SER:C	2.18	0.63
16:AA:120:ARG:NH2	28:AC:267:GLN:OE1	2.31	0.63
27:AE:49:ARG:CB	27:AE:55:ALA:HB3	2.27	0.63
29:AG:176:ILE:CG2	29:AG:179:LEU:HD22	1.95	0.63
10:AN:93:LYS:HG3	10:AN:150:VAL:HG11	1.81	0.63
10:AN:38:TYR:CE1	10:AN:78:LYS:CG	2.81	0.63
5:AO:41:PHE:HD1	5:AO:57:THR:HG22	1.63	0.63
13:AP:41:GLN:HE21	13:AP:44:ARG:HH21	1.47	0.63
34:AQ:112:LEU:HD13	34:AQ:120:LEU:HD21	1.80	0.63
34:AQ:112:LEU:O	34:AQ:116:ASP:HA	1.99	0.63
8:AS:58:GLU:HB2	8:AS:59:LEU:HD13	1.80	0.63
18:AY:114:MET:HE3	18:AY:125:VAL:N	2.13	0.63
18:AY:56:PHE:HB3	18:AY:58:PHE:HE2	1.64	0.63
51:CA:247:ARG:O	51:CA:250:LYS:HB3	1.99	0.63
63:CB:159:VAL:CG1	63:CB:184:GLN:HE22	2.11	0.63
63:CB:303:ALA:HB2	63:CB:314:ILE:CA	2.25	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:218:ILE:CA	74:CC:229:LEU:CD1	2.76	0.63
74:CC:233:SER:HA	74:CC:263:LEU:CG	2.27	0.63
48:CD:190:PHE:CE2	48:CD:192:ALA:CB	2.81	0.63
48:CD:260:GLU:HG2	48:CD:261:VAL:HG23	1.80	0.63
82:CG:150:LYS:HG3	82:CG:177:MET:CE	2.26	0.63
82:CG:240:ASN:O	82:CG:241:VAL:CB	2.46	0.63
80:CH:89:ARG:HG3	80:CH:147:GLU:HG2	1.80	0.63
42:CL:150:LEU:O	42:CL:151:THR:HG22	1.98	0.63
44:CM:63:LYS:CE	44:CM:64:PHE:CA	2.67	0.63
44:CM:77:TRP:O	44:CM:82:ILE:CD1	2.46	0.63
49:CQ:16:LYS:N	49:CQ:16:LYS:CD	2.48	0.63
52:CS:17:LEU:C	52:CS:18:PRO:O	2.34	0.63
55:CU:120:ASP:O	55:CU:121:GLU:CG	2.44	0.63
55:CU:21:PHE:HE1	55:CU:80:LYS:HE2	1.15	0.63
29:AG:10:THR:C	58:CW:80:ARG:CZ	2.66	0.63
56:CX:69:ASN:OD1	56:CX:69:ASN:N	2.30	0.63
59:CZ:7:PRO:CD	59:CZ:8:GLY:N	2.56	0.63
16:AA:120:ARG:CD	28:AC:266:TYR:CE2	2.61	0.63
23:AD:29:LEU:CB	23:AD:34:TYR:HB2	2.28	0.63
27:AE:98:ASN:CG	27:AE:119:ALA:HB2	2.15	0.63
30:AF:165:ASN:OD1	30:AF:167:LYS:HB2	1.98	0.63
30:AF:19:LEU:CD2	30:AF:24:SER:HA	2.28	0.63
31:AH:51:ILE:HD11	31:AH:176:VAL:HA	1.81	0.63
4:AK:65:ARG:HB2	4:AK:65:ARG:HH11	1.63	0.63
7:AM:56:CYS:SG	7:AM:57:ASP:N	2.71	0.63
10:AN:40:LEU:HB3	10:AN:45:LEU:HD12	1.79	0.63
36:B2:1822:A:H2'	36:B2:1823:A:H8	1.56	0.63
63:CB:189:THR:CG2	63:CB:192:GLU:CB	2.69	0.63
63:CB:381:THR:HG23	63:CB:384:GLU:N	2.10	0.63
74:CC:140:LYS:CD	74:CC:245:HIS:O	2.47	0.63
48:CD:129:GLU:OE1	48:CD:177:THR:HG22	1.96	0.63
48:CD:76:CYS:HB2	48:CD:109:LEU:HD12	1.80	0.63
82:CG:73:ARG:C	82:CG:74:LEU:HD12	2.17	0.63
40:CK:46:ILE:HG22	40:CK:72:GLU:OE2	1.98	0.63
40:CK:52:ASP:O	40:CK:53:TRP:C	2.35	0.63
40:CK:61:LYS:HE3	40:CK:72:GLU:HB3	0.67	0.63
41:CO:177:LEU:O	44:CM:130:LEU:HD22	1.99	0.63
46:CN:145:ASN:O	46:CN:149:GLN:CG	2.47	0.63
49:CQ:110:ARG:O	49:CQ:114:LEU:HG	1.98	0.63
49:CQ:95:VAL:CG2	49:CQ:116:ALA:HB2	2.15	0.63
55:CU:23:LEU:CD2	55:CU:110:TYR:HB2	2.29	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:CX:62:ARG:HH11	56:CX:62:ARG:CG	2.06	0.63
85:A5:1245:C:C5	85:A5:1269:G:C6	2.86	0.62
40:CK:2:PRO:CB	85:A5:2692:U:H2'	183.68	0.62
85:A5:4349:C:H3'	85:A5:4350:C:H5'	1.81	0.62
16:AA:17:LYS:H	16:AA:17:LYS:CE	2.08	0.62
15:AB:156:ALA:HB1	15:AB:160:GLN:OE1	1.98	0.62
5:AO:47:LEU:HB3	15:AB:67:PHE:HD1	1.64	0.62
28:AC:166:ARG:CZ	28:AC:255:LEU:HD11	2.29	0.62
23:AD:67:ARG:NH1	23:AD:67:ARG:CG	2.56	0.62
27:AE:167:GLY:C	27:AE:168:LYS:HG2	2.19	0.62
27:AE:260:GLN:O	27:AE:261:SER:OG	2.13	0.62
27:AE:43:PRO:HA	27:AE:82:TYR:O	2.00	0.62
31:AH:10:LYS:N	31:AH:11:PRO:HD3	2.11	0.62
11:AL:118:ARG:CG	11:AL:119:ASP:N	2.62	0.62
13:AP:11:THR:O	13:AP:12:PHE:CB	2.33	0.62
6:AX:105:PHE:CG	6:AX:112:VAL:HG21	2.32	0.62
6:AX:126:ALA:CA	6:AX:128:VAL:HB	2.28	0.62
18:AY:58:PHE:CE1	18:AY:72:PHE:HD2	2.17	0.62
19:AZ:44:LEU:O	19:AZ:44:LEU:HD13	1.95	0.62
14:AT:44:GLU:HG3	36:B2:1538:C:H4'	1.81	0.62
63:CB:18:PRO:O	63:CB:20:LYS:HB3	1.99	0.62
74:CC:315:LYS:CG	74:CC:316:LYS:H	1.99	0.62
48:CD:112:ARG:O	48:CD:112:ARG:HG2	1.98	0.62
48:CD:261:VAL:HG11	48:CD:262:LYS:HA	1.68	0.62
48:CD:20:PHE:CE2	48:CD:30:TYR:CE2	2.82	0.62
64:CF:236:ARG:HD2	64:CF:240:ILE:HA	1.80	0.62
82:CG:28:VAL:CA	82:CG:31:LEU:HD23	2.03	0.62
82:CG:35:ARG:HA	82:CG:36:PRO:HD3	1.81	0.62
80:CH:89:ARG:NH2	80:CH:91:LYS:NZ	2.47	0.62
80:CH:93:ARG:HG3	80:CH:93:ARG:NH1	2.14	0.62
47:CI:86:HIS:HB3	47:CI:139:ARG:HG2	1.80	0.62
47:CI:21:ARG:HD2	47:CI:22:PHE:CD2	2.34	0.62
40:CK:78:SER:HA	40:CK:117:ARG:NH1	2.11	0.62
42:CL:156:PRO:O	42:CL:157:VAL:CB	2.46	0.62
49:CQ:144:LYS:CA	49:CQ:144:LYS:CE	2.76	0.62
41:CO:122:ALA:CA	52:CS:161:ARG:HB2	2.26	0.62
52:CS:51:LEU:HD11	53:CT:152:GLU:O	1.98	0.62
55:CU:48:LYS:HE2	55:CU:52:LYS:CG	2.16	0.62
58:CW:24:THR:OG1	58:CW:25:ASP:N	2.29	0.62
57:CY:30:MET:HG2	57:CY:30:MET:O	1.99	0.62
59:CZ:105:ALA:O	59:CZ:108:ARG:CG	2.42	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AC:130:ILE:HD13	28:AC:159:LYS:CG	2.29	0.62
28:AC:70:VAL:HG21	28:AC:97:PHE:HE2	1.63	0.62
23:AD:3:VAL:O	23:AD:3:VAL:CG1	2.37	0.62
30:AF:46:ALA:C	30:AF:47:LYS:HD3	2.18	0.62
33:AI:67:TRP:CZ2	33:AI:158:ILE:HD11	2.24	0.62
33:AI:33:ALA:HA	36:B2:379:C:H5'	1.80	0.62
33:AI:80:ASP:OD1	33:AI:94:LYS:HG2	1.98	0.62
13:AP:100:LYS:HG2	36:B2:1240:A:N6	2.13	0.62
13:AP:15:PHE:CE2	13:AP:110:GLU:HB3	2.34	0.62
34:AQ:30:GLY:CA	34:AQ:66:VAL:O	2.40	0.62
8:AS:108:ARG:NH1	8:AS:112:GLU:OE2	2.32	0.62
3:AU:69:PRO:HD2	3:AU:69:PRO:O	1.98	0.62
31:AH:145:ARG:NE	32:AW:51:GLU:CD	2.52	0.62
18:AY:120:THR:CA	18:AY:122:LYS:HE2	2.29	0.62
18:AY:17:LEU:CD1	27:AE:64:ILE:HG12	2.29	0.62
19:AZ:99:LEU:CD1	19:AZ:102:LYS:CD	2.72	0.62
36:B2:306:C:O2'	36:B2:307:G:H5'	1.99	0.62
26:AJ:174:LYS:HG3	36:B2:560:A:H5'	1.82	0.62
51:CA:61:VAL:HB	51:CA:76:PHE:CE2	2.34	0.62
63:CB:153:MET:HE2	63:CB:194:LEU:HB2	1.81	0.62
63:CB:157:CYS:SG	63:CB:160:ILE:HD11	2.38	0.62
81:CE:212:LEU:HD21	81:CE:216:TYR:CG	2.34	0.62
40:CK:159:ALA:O	40:CK:163:PRO:HD3	1.98	0.62
40:CK:1:MET:H2	40:CK:2:PRO:CD	2.11	0.62
44:CM:107:PHE:CD1	81:CE:270:TYR:CE1	2.87	0.62
46:CN:89:VAL:CG1	46:CN:90:ASN:N	2.61	0.62
54:CP:29:THR:CA	54:CP:32:THR:HG23	2.22	0.62
54:CP:41:ILE:O	54:CP:45:THR:HG23	1.99	0.62
49:CQ:64:SER:CA	49:CQ:92:VAL:HG21	2.27	0.62
52:CS:156:HIS:ND1	52:CS:156:HIS:O	2.30	0.62
53:CT:134:PRO:HB3	53:CT:135:PRO:CD	2.26	0.62
55:CU:106:SER:HG	55:CU:109:SER:HG	0.67	0.62
55:CU:24:ASP:OD1	55:CU:26:THR:CG2	2.44	0.62
58:CW:63:GLN:OE1	58:CW:67:ILE:HD12	1.97	0.62
56:CX:81:LEU:HD23	56:CX:99:ILE:CD1	2.25	0.62
57:CY:15:ARG:HG2	57:CY:15:ARG:HH11	1.64	0.62
16:AA:120:ARG:HG2	28:AC:266:TYR:CE2	2.34	0.62
16:AA:169:HIS:HD2	16:AA:203:PHE:CE2	2.17	0.62
23:AD:166:TYR:CE1	23:AD:200:PRO:CB	2.83	0.62
23:AD:202:LYS:HB2	23:AD:203:PRO:HD3	1.81	0.62
29:AG:145:PHE:HB3	29:AG:147:LEU:HD13	1.77	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:117:PRO:HD2	31:AH:120:ARG:HD2	1.80	0.62
31:AH:147:LYS:HE3	31:AH:153:LEU:HD11	1.81	0.62
31:AH:23:ILE:CD1	31:AH:27:LEU:HD23	2.12	0.62
26:AJ:80:ARG:HA	26:AJ:83:ARG:CD	2.28	0.62
10:AN:62:GLN:CB	10:AN:65:PHE:CE2	2.82	0.62
5:AO:77:ALA:O	5:AO:81:VAL:HG23	1.98	0.62
14:AT:31:PRO:HB3	14:AT:33:TRP:CE3	2.34	0.62
19:AZ:48:VAL:CA	19:AZ:83:LEU:HD12	2.29	0.62
36:B2:1501:C:H2'	36:B2:1502:C:O4'	1.99	0.62
36:B2:839:C:O2'	36:B2:841:G:H4'	2.00	0.62
51:CA:114:CYS:SG	51:CA:167:GLY:O	2.56	0.62
51:CA:188:LYS:HG2	51:CA:189:TYR:N	2.14	0.62
74:CC:14:LYS:HE3	74:CC:15:GLY:HA3	1.80	0.62
74:CC:6:PRO:CA	74:CC:24:LEU:HD21	2.29	0.62
48:CD:271:MET:HE3	48:CD:275:GLN:CD	2.19	0.62
81:CE:185:PRO:HB2	81:CE:250:GLN:NE2	2.15	0.62
81:CE:225:PRO:O	81:CE:229:GLU:HB2	1.98	0.62
81:CE:281:ILE:HD12	81:CE:282:TYR:N	2.13	0.62
47:CI:92:HIS:CG	47:CI:94:PHE:CZ	2.88	0.62
79:CJ:57:VAL:HG11	79:CJ:60:PHE:CD2	2.33	0.62
42:CL:79:GLU:N	42:CL:79:GLU:CD	2.52	0.62
46:CN:41:ARG:HA	46:CN:61:ILE:HD11	1.80	0.62
52:CS:120:ARG:HB2	52:CS:122:HIS:CD2	2.34	0.62
56:CX:119:ILE:HD12	56:CX:140:LEU:HD22	1.68	0.62
59:CZ:100:VAL:O	59:CZ:106:LEU:HD23	1.99	0.62
16:AA:17:LYS:H	16:AA:17:LYS:HE3	1.65	0.62
16:AA:206:ASP:O	16:AA:207:PRO:O	2.17	0.62
15:AB:146:ARG:HH11	15:AB:146:ARG:CG	2.12	0.62
28:AC:169:TYR:CZ	28:AC:177:PRO:N	2.68	0.62
28:AC:270:THR:HG23	28:AC:271:ASP:N	2.14	0.62
29:AG:220:ALA:O	29:AG:224:ARG:CG	2.48	0.62
29:AG:80:GLY:O	29:AG:81:HIS:CG	2.52	0.62
31:AH:170:VAL:HA	31:AH:173:PHE:HD2	1.64	0.62
31:AH:80:VAL:HA	31:AH:83:LEU:HD21	1.81	0.62
26:AJ:91:LYS:CA	26:AJ:96:TYR:CG	2.80	0.62
26:AJ:61:LEU:HD23	26:AJ:98:LEU:HD11	1.74	0.62
34:AQ:42:ILE:HD11	34:AQ:51:LEU:CD1	2.29	0.62
3:AU:106:ILE:HG12	3:AU:106:ILE:O	1.98	0.62
17:AV:62:MET:O	17:AV:62:MET:HG3	1.98	0.62
18:AY:114:MET:HE2	18:AY:121:ALA:O	1.99	0.62
36:B2:318:A:C5'	36:B2:319:C:OP2	2.41	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CA:120:PRO:HD3	51:CA:159:SER:OG	2.00	0.62
74:CC:32:ILE:HD11	74:CC:129:ALA:HB3	1.82	0.62
74:CC:148:PRO:CD	74:CC:175:LYS:HG2	2.29	0.62
48:CD:104:LEU:CD2	48:CD:247:ILE:HG21	2.13	0.62
81:CE:138:ARG:HH21	81:CE:171:GLY:N	1.97	0.62
53:CT:137:GLU:O	64:CF:85:ALA:HA	1.99	0.62
80:CH:183:GLU:OE1	80:CH:184:LYS:N	2.33	0.62
47:CI:106:ALA:C	47:CI:108:ALA:CB	2.65	0.62
46:CN:53:TYR:HE1	46:CN:59:TYR:HB3	1.62	0.62
52:CS:29:ARG:C	53:CT:150:LEU:HG	2.19	0.62
55:CU:62:THR:O	55:CU:63:ILE:HD13	2.00	0.62
58:CW:35:LYS:HE2	58:CW:51:TRP:CE2	2.34	0.62
57:CY:54:GLU:O	57:CY:55:VAL:CG2	2.48	0.62
85:A5:2266:C:H4'	85:A5:2267:U:C5'	2.29	0.62
16:AA:103:PHE:CZ	16:AA:107:THR:OG1	2.53	0.62
15:AB:87:ILE:CG2	15:AB:101:HIS:CD2	2.77	0.62
28:AC:173:LYS:HE2	28:AC:173:LYS:C	2.18	0.62
23:AD:31:GLU:HA	23:AD:107:TYR:OH	2.00	0.62
27:AE:176:ASP:O	27:AE:195:ILE:HD12	2.00	0.62
30:AF:112:LEU:O	30:AF:116:ILE:HD11	1.97	0.62
30:AF:103:LEU:HD22	30:AF:178:ILE:CD1	2.23	0.62
30:AF:42:LYS:HG2	30:AF:42:LYS:O	1.99	0.62
31:AH:135:PHE:HD2	31:AH:136:PRO:CD	2.12	0.62
31:AH:66:VAL:CG2	31:AH:97:GLN:O	2.47	0.62
13:AP:21:ASP:O	13:AP:25:LEU:N	2.29	0.62
8:AS:58:GLU:HB2	8:AS:59:LEU:CD1	2.30	0.62
3:AU:59:LYS:HE3	3:AU:86:LYS:HE2	1.82	0.62
36:B2:530:U:C2'	36:B2:531:A:H5'	2.29	0.62
36:B2:71:G:H3'	36:B2:72:C:H5''	1.82	0.62
63:CB:49:TYR:O	63:CB:79:VAL:HG13	1.99	0.62
74:CC:76:ILE:HG22	74:CC:77:PRO:O	1.99	0.62
48:CD:152:ARG:HG3	79:CJ:145:LYS:HZ1	0.73	0.62
81:CE:53:GLY:HA2	81:CE:63:TYR:CB	2.28	0.62
80:CH:171:ASP:OD2	80:CH:173:ARG:NH1	2.32	0.62
42:CL:140:SER:HA	42:CL:143:GLU:CG	2.26	0.62
42:CL:151:THR:HG23	42:CL:151:THR:O	1.98	0.62
44:CM:20:HIS:CD2	44:CM:45:VAL:HG13	2.34	0.62
46:CN:169:ARG:CB	46:CN:169:ARG:CZ	2.77	0.62
46:CN:56:LYS:CE	46:CN:59:TYR:CZ	2.79	0.62
41:CO:169:ARG:O	41:CO:173:GLN:HB2	1.99	0.62
41:CO:22:ILE:CG2	52:CS:166:ARG:CG	2.77	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CP:118:GLN:CG	54:CP:120:ASN:OD1	2.47	0.62
49:CQ:6:ARG:CZ	64:CF:110:GLN:HA	2.30	0.62
50:CR:184:ILE:HG22	50:CR:184:ILE:O	2.00	0.62
52:CS:113:MET:HG3	52:CS:124:ILE:HD11	1.80	0.62
52:CS:71:SER:HB3	52:CS:73:LEU:C	2.19	0.62
53:CT:143:THR:C	53:CT:144:ASN:O	2.31	0.62
59:CZ:16:GLY:O	59:CZ:17:ARG:C	2.33	0.62
85:A5:1661:C:H42	85:A5:2288:G:H1	1.47	0.62
46:CN:182:HIS:CD2	85:A5:291:U:HO2'	2.17	0.62
63:CB:376:HIS:CE1	85:A5:4664:A:OP1	2.40	0.62
16:AA:85:ARG:O	16:AA:85:ARG:HG2	2.86	0.62
15:AB:105:LEU:HD21	15:AB:213:ARG:CA	2.28	0.62
23:AD:200:PRO:O	23:AD:201:LYS:HB2	1.98	0.62
23:AD:53:THR:HG22	23:AD:91:VAL:H	1.65	0.62
30:AF:28:VAL:HA	30:AF:110:GLN:OE1	1.99	0.62
30:AF:154:LEU:HD12	30:AF:154:LEU:C	2.19	0.62
31:AH:160:LYS:HB2	31:AH:192:PHE:HZ	1.64	0.62
33:AI:76:THR:HG21	33:AI:105:ASP:HB2	1.81	0.62
26:AJ:81:LEU:CD1	26:AJ:97:ILE:HD13	2.30	0.62
7:AM:18:LEU:CD2	7:AM:22:LEU:HG	2.25	0.62
7:AM:71:GLU:O	7:AM:72:HIS:C	2.38	0.62
13:AP:100:LYS:CG	36:B2:1240:A:H61	2.13	0.62
13:AP:62:LYS:C	13:AP:65:LYS:HG2	2.14	0.62
8:AS:8:LYS:CD	8:AS:8:LYS:N	2.63	0.62
14:AT:21:PHE:CE1	14:AT:22:LEU:HD23	2.33	0.62
3:AU:71:GLY:O	3:AU:72:GLU:C	2.37	0.62
18:AY:22:GLN:CA	18:AY:74:MET:SD	2.88	0.62
19:AZ:44:LEU:HD21	19:AZ:46:ASN:OD1	2.00	0.62
19:AZ:65:TYR:CD2	19:AZ:68:ILE:HD11	2.35	0.62
51:CA:116:LEU:HD11	51:CA:126:LEU:HB2	1.81	0.62
63:CB:292:LEU:HB2	63:CB:299:ILE:HG13	1.80	0.62
63:CB:371:THR:OG1	63:CB:377:GLY:HA3	1.99	0.62
63:CB:59:GLU:OE1	63:CB:70:LYS:N	2.32	0.62
74:CC:311:ARG:O	74:CC:312:ARG:HD3	2.00	0.62
81:CE:224:LYS:C	81:CE:226:ARG:NH1	2.52	0.62
81:CE:261:ILE:HG13	81:CE:262:LYS:N	2.13	0.62
82:CG:36:PRO:O	82:CG:37:LYS:HG3	2.00	0.62
82:CG:38:ASN:OD1	82:CG:38:ASN:N	2.29	0.62
82:CG:82:GLN:O	82:CG:83:PHE:O	2.17	0.62
79:CJ:146:ARG:HH21	79:CJ:147:ARG:NE	1.95	0.62
50:CR:99:MET:CE	50:CR:128:LYS:N	2.56	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CS:11:LYS:CG	52:CS:11:LYS:O	2.47	0.62
52:CS:2:LYS:HE2	52:CS:34:ALA:CB	2.29	0.62
58:CW:11:TYR:HB3	58:CW:32:LEU:CD2	2.28	0.62
57:CY:32:SER:OG	57:CY:106:ILE:HG13	1.98	0.62
57:CY:91:ASN:C	57:CY:93:THR:H	2.02	0.62
59:CZ:46:ILE:HG23	59:CZ:118:PHE:CE2	2.34	0.62
27:AE:126:VAL:HG21	27:AE:129:ILE:CD1	2.27	0.62
29:AG:70:HIS:CB	29:AG:103:ASP:OD2	2.42	0.62
29:AG:177:GLN:NE2	36:B2:315:C:H5'	2.14	0.62
29:AG:31:ARG:O	29:AG:34:THR:HG23	2.00	0.62
31:AH:106:ARG:CD	36:B2:861:A:C4	2.83	0.62
31:AH:36:LEU:HD13	31:AH:36:LEU:C	2.03	0.62
26:AJ:35:TYR:CD1	26:AJ:112:THR:HG21	2.34	0.62
11:AL:5:GLN:NE2	11:AL:10:TYR:CE1	2.59	0.62
7:AM:91:LEU:CD2	7:AM:104:VAL:HG13	2.21	0.62
7:AM:51:VAL:HG13	7:AM:109:VAL:CG2	2.30	0.62
8:AS:92:ASP:HA	13:AP:19:GLY:H	1.65	0.62
3:AU:27:ARG:CG	3:AU:83:ARG:O	2.45	0.62
32:AW:29:PRO:O	32:AW:30:CYS:HB3	1.99	0.62
6:AX:109:GLY:O	6:AX:119:ARG:CD	2.41	0.62
18:AY:34:THR:HG22	18:AY:35:VAL:CA	2.29	0.62
18:AY:57:VAL:CG1	18:AY:60:PHE:HE2	2.12	0.62
19:AZ:51:ASP:O	19:AZ:53:ALA:N	2.32	0.62
36:B2:1536:G:H8	36:B2:1536:G:O5'	1.83	0.62
51:CA:143:THR:H	51:CA:144:LYS:HG2	1.65	0.62
63:CB:203:GLN:HG3	63:CB:204:GLN:H	1.64	0.62
63:CB:208:ASN:OD1	63:CB:208:ASN:N	2.30	0.62
63:CB:297:LYS:HD3	63:CB:300:LYS:HZ3	1.62	0.62
63:CB:304:SER:HB3	63:CB:310:SER:O	2.00	0.62
63:CB:81:THR:HG21	63:CB:207:VAL:HG21	1.81	0.62
74:CC:148:PRO:HD3	74:CC:175:LYS:HG2	1.81	0.62
48:CD:210:TYR:CE1	48:CD:214:GLU:OE2	2.52	0.62
48:CD:262:LYS:CE	48:CD:266:TRP:HE1	2.12	0.62
81:CE:108:LYS:CA	81:CE:108:LYS:CE	2.42	0.62
81:CE:73:TYR:O	81:CE:74:SER:CB	2.48	0.62
82:CG:128:VAL:N	82:CG:129:PRO:CD	2.62	0.62
82:CG:117:ARG:NH1	82:CG:130:THR:OG1	2.33	0.62
82:CG:159:HIS:ND1	82:CG:185:LYS:N	2.48	0.62
82:CG:74:LEU:CD1	82:CG:74:LEU:H	2.03	0.62
40:CK:114:ARG:HD3	40:CK:130:LYS:CA	2.14	0.62
40:CK:123:ARG:CD	40:CK:129:ILE:CG1	2.57	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CK:94:LYS:CD	40:CK:96:LYS:HE2	2.10	0.62
44:CM:77:TRP:CD1	44:CM:82:ILE:CB	2.81	0.62
41:CO:27:VAL:CG1	41:CO:98:ALA:C	2.67	0.62
54:CP:105:LYS:CB	54:CP:107:LEU:HD21	2.30	0.62
49:CQ:99:LYS:CE	49:CQ:119:LYS:HD3	2.26	0.62
49:CQ:146:ARG:HH11	49:CQ:148:VAL:HB	1.62	0.62
44:CM:30:VAL:HG12	52:CS:145:PHE:CE1	2.33	0.62
52:CS:45:TRP:CH2	52:CS:56:LYS:HA	2.35	0.62
53:CT:156:TYR:C	53:CT:156:TYR:CD2	2.72	0.62
55:CU:43:LEU:O	55:CU:47:ILE:HG13	1.99	0.62
57:CY:56:GLN:NE2	57:CY:105:VAL:CG1	2.62	0.62
59:CZ:100:VAL:CA	59:CZ:106:LEU:CD2	2.76	0.62
85:A5:4879:C:O2'	85:A5:4880:C:H5'	1.99	0.62
16:AA:125:THR:CA	16:AA:147:LEU:HB2	2.27	0.62
16:AA:23:THR:O	16:AA:24:HIS:C	2.36	0.62
16:AA:30:LEU:O	16:AA:31:ASP:CB	2.48	0.62
15:AB:195:LYS:CE	15:AB:195:LYS:HA	2.29	0.62
28:AC:170:TRP:CE2	32:AW:97:ARG:HD3	2.34	0.62
27:AE:21:ASP:OD2	27:AE:24:THR:HG23	1.94	0.62
30:AF:36:GLN:HG2	30:AF:37:ASP:OD2	1.99	0.62
30:AF:91:ARG:HH21	34:AQ:46:THR:CG2	2.13	0.62
29:AG:197:GLN:O	29:AG:201:LYS:HG2	1.99	0.62
26:AJ:10:ARG:CB	26:AJ:10:ARG:HH11	2.06	0.62
26:AJ:110:LEU:O	26:AJ:112:THR:N	2.32	0.62
11:AL:86:ILE:HG21	11:AL:113:LEU:HD12	1.82	0.62
13:AP:44:ARG:HH21	13:AP:84:ILE:N	1.96	0.62
34:AQ:63:PHE:HD1	34:AQ:68:ILE:HD11	1.65	0.62
12:AR:99:ASP:HB3	12:AR:119:VAL:HG12	1.81	0.62
8:AS:39:ARG:HH22	14:AT:38:LYS:HG2	1.60	0.62
14:AT:90:SER:C	14:AT:91:HIS:HD2	2.03	0.62
3:AU:56:MET:HE3	3:AU:88:LEU:CD2	2.30	0.62
18:AY:27:VAL:HG11	18:AY:35:VAL:CG2	2.25	0.62
18:AY:54:VAL:CG2	18:AY:79:LEU:HD23	2.23	0.62
19:AZ:80:ARG:CG	19:AZ:82:SER:OG	2.40	0.62
74:CC:33:ARG:HD3	74:CC:122:TYR:CE2	2.35	0.62
48:CD:76:CYS:CB	48:CD:109:LEU:HD12	2.30	0.62
48:CD:269:PRO:HD2	48:CD:269:PRO:O	1.98	0.62
81:CE:287:VAL:CG2	81:CE:288:PHE:N	2.62	0.62
40:CK:123:ARG:CG	40:CK:129:ILE:HG13	2.30	0.62
44:CM:32:ASP:O	44:CM:33:GLN:C	2.36	0.62
44:CM:86:TRP:O	44:CM:92:ALA:HB3	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CP:105:LYS:HB3	54:CP:107:LEU:HD21	1.82	0.62
54:CP:24:VAL:CG1	54:CP:90:PHE:CD2	2.39	0.62
49:CQ:156:PRO:HB2	49:CQ:157:GLY:HA2	1.82	0.62
49:CQ:38:ARG:CG	74:CC:302:LEU:HD22	2.29	0.62
49:CQ:70:MET:CE	49:CQ:98:LEU:CD2	2.77	0.62
52:CS:95:ARG:HD3	52:CS:97:TYR:CE1	2.34	0.62
57:CY:44:VAL:CG2	57:CY:119:LEU:CD1	2.73	0.62
57:CY:91:ASN:O	57:CY:93:THR:CB	2.46	0.62
59:CZ:53:VAL:HG22	59:CZ:54:THR:N	2.13	0.62
85:A5:2643:G:H1	85:A5:2691:U:H3	1.48	0.62
16:AA:149:ASN:CB	16:AA:165:ASN:HD21	2.11	0.62
16:AA:24:HIS:HB3	16:AA:51:LEU:HD21	1.81	0.62
15:AB:87:ILE:CD1	15:AB:220:LYS:NZ	2.63	0.62
23:AD:70:THR:HG22	23:AD:86:LEU:CG	2.29	0.62
27:AE:128:LYS:HG3	27:AE:130:PHE:HD1	1.65	0.62
27:AE:151:ASP:N	27:AE:151:ASP:OD2	2.29	0.62
27:AE:94:LYS:O	27:AE:95:THR:CG2	2.48	0.62
30:AF:42:LYS:HB2	30:AF:46:ALA:H	1.64	0.62
30:AF:78:MET:HB2	30:AF:159:ARG:CZ	2.30	0.62
31:AH:166:VAL:HG22	31:AH:173:PHE:CE2	2.30	0.62
26:AJ:16:PRO:O	26:AJ:18:ARG:N	2.32	0.62
11:AL:94:HIS:ND1	11:AL:96:ILE:HD11	2.14	0.62
5:AO:128:ARG:C	5:AO:129:ILE:HG12	2.17	0.62
5:AO:88:LEU:HD22	15:AB:25:PHE:HD2	1.44	0.62
13:AP:13:ARG:C	13:AP:14:LYS:CG	2.68	0.62
13:AP:44:ARG:HD3	13:AP:115:TYR:CE1	2.33	0.62
14:AT:11:GLN:CD	14:AT:62:ARG:NE	2.53	0.62
14:AT:40:ALA:HB3	14:AT:43:LYS:CD	2.30	0.62
14:AT:94:ARG:HG3	14:AT:94:ARG:HH11	1.64	0.62
3:AU:103:SER:O	3:AU:106:ILE:HG21	1.97	0.62
32:AW:101:PHE:HD2	32:AW:129:PHE:HE1	1.46	0.62
19:AZ:103:HIS:HD2	19:AZ:105:ALA:CA	2.13	0.62
51:CA:245:ARG:CD	51:CA:245:ARG:O	2.34	0.62
63:CB:288:GLY:HA3	63:CB:330:PHE:CZ	2.35	0.62
63:CB:58:ARG:HD3	63:CB:363:ILE:HG23	1.80	0.62
81:CE:70:LYS:O	81:CE:72:LYS:HE3	2.00	0.62
82:CG:157:ILE:CG2	82:CG:167:VAL:CG1	2.77	0.62
82:CG:184:ILE:HG22	82:CG:185:LYS:H	1.57	0.62
47:CI:54:SER:OG	47:CI:130:HIS:O	2.15	0.62
47:CI:189:CYS:O	47:CI:200:VAL:HG22	1.99	0.62
40:CK:77:ALA:HB3	40:CK:80:LEU:CG	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CL:8:MET:C	42:CL:10:LEU:CD2	2.67	0.62
42:CL:74:ARG:O	42:CL:74:ARG:HD3	1.99	0.62
41:CO:54:TYR:HE2	41:CO:58:LEU:HD21	1.60	0.62
49:CQ:105:VAL:HG11	49:CQ:110:ARG:HB2	1.81	0.62
49:CQ:187:LYS:CE	49:CQ:188:ASN:N	2.53	0.62
53:CT:138:ALA:HA	53:CT:139:HIS:CG	2.34	0.62
56:CX:52:LEU:HD13	56:CX:54:LEU:N	2.11	0.62
48:CD:48:LYS:NZ	85:A5:4325:A:O2'	2.30	0.62
16:AA:76:VAL:CG1	16:AA:175:TRP:CZ3	2.83	0.62
27:AE:154:ILE:HG21	27:AE:160:ILE:HD11	1.82	0.62
27:AE:259:LYS:O	27:AE:260:GLN:CD	2.38	0.62
27:AE:48:LEU:HD11	27:AE:70:ILE:HD11	1.82	0.62
30:AF:42:LYS:HB2	30:AF:45:TYR:H	0.82	0.62
26:AJ:170:PRO:CA	26:AJ:174:LYS:HZ1	2.06	0.62
26:AJ:87:LEU:CD1	26:AJ:91:LYS:HB2	2.29	0.62
10:AN:27:LYS:N	10:AN:27:LYS:CD	2.62	0.62
5:AO:88:LEU:HD21	15:AB:25:PHE:CD2	2.30	0.62
13:AP:128:HIS:HE1	36:B2:1521:C:C1'	2.06	0.62
18:AY:54:VAL:CG1	18:AY:76:TYR:C	2.68	0.62
51:CA:30:ARG:NH1	51:CA:33:ASP:CG	2.53	0.62
74:CC:210:ILE:HG21	74:CC:252:TRP:CZ3	2.35	0.62
74:CC:236:ASN:C	74:CC:236:ASN:OD1	2.38	0.62
81:CE:166:LYS:HG2	81:CE:167:GLN:N	2.15	0.62
81:CE:231:GLU:O	81:CE:231:GLU:CG	2.48	0.62
64:CF:119:ASN:OD1	64:CF:212:LYS:HG2	2.00	0.62
82:CG:190:LEU:N	82:CG:190:LEU:CD2	2.61	0.62
82:CG:229:ARG:HG2	82:CG:233:ILE:CG1	2.30	0.62
47:CI:100:ASN:O	47:CI:101:LYS:O	2.18	0.62
79:CJ:35:ARG:HB3	79:CJ:126:TYR:OH	2.00	0.62
40:CK:61:LYS:CD	40:CK:72:GLU:HA	2.30	0.62
44:CM:80:ALA:O	44:CM:81:ASP:HB2	1.99	0.62
46:CN:29:GLN:CG	82:CG:67:ARG:HE	2.11	0.62
41:CO:198:THR:HG21	44:CM:115:ALA:CB	2.30	0.62
54:CP:46:LYS:HD3	54:CP:46:LYS:C	2.21	0.62
52:CS:154:LEU:CD1	52:CS:157:ARG:HD2	2.23	0.62
52:CS:164:LYS:CB	52:CS:165:PRO:HD2	2.30	0.62
55:CU:23:LEU:HA	55:CU:110:TYR:O	1.99	0.62
55:CU:40:GLU:HG2	55:CU:70:ILE:CG2	2.30	0.62
57:CY:54:GLU:C	57:CY:55:VAL:HG23	2.21	0.62
85:A5:173:C:H2'	85:A5:174:C:H6	1.65	0.61
85:A5:2490:U:H2'	85:A5:2491:C:O4'	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:74:GLN:HG3	23:AD:79:PHE:O	2.00	0.61
27:AE:87:MET:O	27:AE:122:LYS:CE	2.47	0.61
33:AI:87:ASN:OD1	33:AI:89:GLU:HG2	2.00	0.61
26:AJ:10:ARG:HB2	26:AJ:10:ARG:CZ	2.29	0.61
26:AJ:130:ILE:HA	26:AJ:135:ILE:HD13	1.80	0.61
4:AK:2:LEU:CG	4:AK:3:MET:H	2.07	0.61
11:AL:102:PHE:N	11:AL:102:PHE:HD1	1.95	0.61
11:AL:113:LEU:CD1	11:AL:120:VAL:HG11	2.29	0.61
34:AQ:85:ARG:NH2	34:AQ:117:ARG:CG	2.47	0.61
34:AQ:15:ARG:NH1	34:AQ:20:THR:CG2	2.63	0.61
14:AT:130:ASP:OD2	14:AT:131:LEU:CD2	2.48	0.61
19:AZ:63:PRO:O	19:AZ:111:ARG:NH1	2.33	0.61
36:B2:1284:A:OP1	36:B2:1286:G:H5'	1.99	0.61
74:CC:182:LYS:C	74:CC:183:VAL:O	2.33	0.61
74:CC:5:ARG:HH12	74:CC:26:ALA:CB	2.12	0.61
74:CC:85:HIS:H	74:CC:87:SER:CB	2.09	0.61
74:CC:8:ILE:HD11	74:CC:151:PRO:HD2	1.82	0.61
48:CD:56:THR:O	48:CD:58:ARG:N	2.33	0.61
81:CE:185:PRO:HB2	81:CE:250:GLN:HE22	1.63	0.61
81:CE:83:LYS:HD2	81:CE:86:GLU:CA	2.30	0.61
82:CG:71:TYR:HE2	82:CG:76:VAL:HG21	1.64	0.61
82:CG:98:LEU:CD1	82:CG:215:LEU:HD21	2.30	0.61
80:CH:110:SER:OG	80:CH:111:LEU:CA	2.46	0.61
47:CI:156:LYS:CG	47:CI:163:GLN:HE21	2.13	0.61
40:CK:142:ASN:HB3	40:CK:147:HIS:O	1.91	0.61
44:CM:41:PRO:O	44:CM:42:CYS:C	2.36	0.61
44:CM:89:THR:HG1	44:CM:92:ALA:CB	2.12	0.61
41:CO:145:VAL:CG1	41:CO:145:VAL:O	2.48	0.61
49:CQ:16:LYS:CE	49:CQ:16:LYS:H	2.12	0.61
49:CQ:19:LYS:HE3	49:CQ:20:SER:HB2	1.81	0.61
50:CR:45:ILE:CA	50:CR:50:ILE:HG22	2.29	0.61
44:CM:6:PHE:CD1	52:CS:152:PHE:O	2.53	0.61
53:CT:118:GLU:O	53:CT:122:LYS:HB2	2.00	0.61
53:CT:127:GLN:O	53:CT:128:LEU:HD23	2.00	0.61
55:CU:27:HIS:CD2	55:CU:114:TYR:H	2.18	0.61
16:AA:14:ASP:OD2	16:AA:55:TRP:CH2	2.53	0.61
15:AB:228:LEU:CD1	15:AB:232:HIS:HD2	2.12	0.61
15:AB:93:GLY:C	15:AB:94:LYS:CG	2.69	0.61
27:AE:70:ILE:CD1	27:AE:92:ILE:HD11	2.29	0.61
29:AG:162:LEU:CD2	29:AG:172:LYS:HZ3	2.12	0.61
31:AH:6:ALA:HA	31:AH:10:LYS:HD3	0.73	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:110:THR:HG23	31:AH:110:THR:O	1.99	0.61
33:AI:144:LYS:NZ	36:B2:192:C:C6	2.66	0.61
7:AM:45:ARG:H	7:AM:45:ARG:HE	1.47	0.61
13:AP:125:PRO:O	13:AP:126:VAL:HB	2.00	0.61
13:AP:77:LYS:C	13:AP:78:THR:HG23	2.20	0.61
8:AS:120:HIS:CA	13:AP:121:ILE:HG22	2.29	0.61
14:AT:76:THR:C	14:AT:95:GLY:H	1.98	0.61
3:AU:40:ILE:HD13	3:AU:53:PRO:CG	2.07	0.61
6:AX:57:VAL:O	6:AX:67:ARG:HB2	2.00	0.61
18:AY:101:LYS:O	18:AY:102:THR:CB	2.44	0.61
63:CB:260:ALA:C	63:CB:261:ARG:HG3	2.21	0.61
63:CB:82:PRO:HG3	63:CB:171:LEU:CD2	2.26	0.61
74:CC:229:LEU:H	74:CC:229:LEU:HD23	1.61	0.61
74:CC:44:LEU:C	74:CC:46:LYS:N	2.54	0.61
81:CE:115:TYR:CA	81:CE:117:PRO:HD3	2.30	0.61
81:CE:183:ARG:HG3	81:CE:183:ARG:O	1.99	0.61
81:CE:281:ILE:HD12	81:CE:281:ILE:C	2.20	0.61
81:CE:27:VAL:CB	81:CE:28:LYS:HG3	2.30	0.61
81:CE:69:TYR:O	81:CE:72:LYS:HE2	2.00	0.61
64:CF:126:ASN:O	64:CF:130:ILE:HG13	2.01	0.61
82:CG:78:PRO:HD3	82:CG:237:TRP:CD2	2.35	0.61
79:CJ:169:LYS:CD	79:CJ:170:TYR:CD2	2.83	0.61
40:CK:39:PRO:HA	40:CK:40:LYS:HE2	1.83	0.61
46:CN:71:ARG:NH1	46:CN:72:LYS:O	2.33	0.61
49:CQ:158:THR:CG2	49:CQ:187:LYS:O	2.49	0.61
49:CQ:70:MET:HE1	49:CQ:98:LEU:CD2	2.31	0.61
53:CT:150:LEU:HD23	53:CT:151:LEU:CA	2.29	0.61
53:CT:14:MET:CE	53:CT:55:LYS:HB2	2.31	0.61
55:CU:50:ASN:CG	55:CU:50:ASN:O	2.38	0.61
55:CU:60:VAL:HA	55:CU:75:GLU:CA	2.29	0.61
57:CY:77:LYS:O	57:CY:79:VAL:HG23	2.00	0.61
59:CZ:33:THR:OG1	59:CZ:36:ARG:CA	2.48	0.61
85:A5:1303:A:H2'	85:A5:1304:C:C5'	2.30	0.61
85:A5:2464:C:H2'	85:A5:2465:C:C6	2.34	0.61
85:A5:3969:G:H1	85:A5:4052:C:H42	1.48	0.61
85:A5:4072:C:H2'	85:A5:4073:A:H5''	1.80	0.61
15:AB:68:GLU:OE2	15:AB:83:LYS:CE	2.45	0.61
23:AD:27:ARG:HH21	36:B2:1263:U:H4'	23.08	0.61
27:AE:159:THR:HG21	27:AE:227:VAL:CG2	2.21	0.61
29:AG:226:GLU:O	29:AG:230:LYS:CG	2.48	0.61
29:AG:62:PRO:CG	29:AG:83:CYS:SG	2.89	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:144:ILE:HD12	32:AW:52:ILE:CD1	2.25	0.61
31:AH:193:GLN:C	31:AH:194:LEU:O	2.32	0.61
26:AJ:100:LEU:CD1	26:AJ:101:LYS:H	2.14	0.61
26:AJ:125:HIS:NE2	26:AJ:129:LEU:HD11	2.15	0.61
11:AL:118:ARG:HG2	11:AL:119:ASP:N	2.14	0.61
10:AN:27:LYS:HD2	10:AN:28:LEU:H	1.63	0.61
13:AP:41:GLN:HE22	13:AP:45:LEU:CD1	2.13	0.61
30:AF:91:ARG:HH21	34:AQ:46:THR:HG22	1.65	0.61
34:AQ:85:ARG:HH22	34:AQ:117:ARG:HD2	1.63	0.61
8:AS:94:LYS:HB3	8:AS:95:TYR:C	2.19	0.61
14:AT:91:HIS:N	14:AT:91:HIS:HD2	1.97	0.61
6:AX:71:ARG:NE	6:AX:82:THR:CG2	2.58	0.61
36:B2:464:A:H4'	36:B2:465:A:OP2	2.00	0.61
51:CA:96:LEU:HD23	51:CA:166:VAL:HG21	1.82	0.61
63:CB:112:ASP:N	63:CB:112:ASP:OD1	2.29	0.61
63:CB:81:THR:CG2	63:CB:207:VAL:HG11	2.30	0.61
81:CE:138:ARG:HH22	81:CE:171:GLY:N	1.98	0.61
64:CF:132:MET:HE2	64:CF:132:MET:HA	1.81	0.61
82:CG:174:CYS:HB2	82:CG:181:TYR:CD2	2.35	0.61
80:CH:109:GLY:HA2	80:CH:128:MET:HG3	1.78	0.61
47:CI:64:ALA:O	47:CI:159:PHE:CE1	2.53	0.61
40:CK:123:ARG:NE	40:CK:129:ILE:HD11	2.10	0.61
40:CK:58:ILE:HG22	40:CK:59:THR:N	2.15	0.61
42:CL:50:PRO:CG	42:CL:51:ALA:HB1	2.20	0.61
46:CN:34:SER:OG	46:CN:37:HIS:HB3	2.00	0.61
46:CN:4:TYR:CE2	82:CG:141:ASN:ND2	2.59	0.61
46:CN:64:ILE:HD11	46:CN:102:ALA:CB	2.30	0.61
41:CO:178:ARG:CG	41:CO:182:GLU:OE2	2.48	0.61
52:CS:140:PRO:O	52:CS:141:ALA:C	2.37	0.61
57:CY:124:LYS:C	57:CY:127:GLN:HG2	2.21	0.61
57:CY:86:GLN:HB3	57:CY:95:VAL:O	1.98	0.61
59:CZ:33:THR:OG1	59:CZ:36:ARG:CB	2.48	0.61
26:AJ:34:GLU:HB2	26:AJ:35:TYR:CD2	2.35	0.61
26:AJ:37:LEU:HD21	26:AJ:42:GLU:CA	2.31	0.61
4:AK:84:HIS:CD2	7:AM:27:ILE:CD1	2.84	0.61
34:AQ:76:GLY:H	34:AQ:79:ALA:HB3	1.64	0.61
12:AR:91:LEU:HB2	12:AR:93:GLN:H	1.66	0.61
8:AS:8:LYS:HA	19:AZ:49:LEU:CD2	2.30	0.61
14:AT:134:ILE:HG13	14:AT:135:ALA:N	2.14	0.61
8:AS:39:ARG:CD	14:AT:38:LYS:HE2	2.16	0.61
51:CA:23:ARG:HA	51:CA:52:PRO:CG	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:115:LYS:HD3	63:CB:129:ALA:HB1	1.74	0.61
63:CB:87:VAL:HG22	63:CB:163:ILE:HG23	1.75	0.61
48:CD:190:PHE:HZ	48:CD:195:HIS:HB3	1.60	0.61
81:CE:112:MET:HG2	81:CE:113:PRO:N	2.14	0.61
81:CE:258:LEU:HB2	81:CE:259:PRO:HD2	1.82	0.61
46:CN:47:LYS:HZ2	46:CN:51:LEU:HD11	1.65	0.61
54:CP:108:ASP:OD1	54:CP:108:ASP:C	2.29	0.61
54:CP:131:ARG:CZ	54:CP:137:ASN:HD22	2.14	0.61
49:CQ:143:ARG:C	49:CQ:145:GLY:N	2.51	0.61
50:CR:10:LEU:HB3	50:CR:41:ILE:HD12	1.74	0.61
53:CT:26:PRO:O	53:CT:26:PRO:HD2	1.98	0.61
29:AG:129:VAL:O	58:CW:80:ARG:NH1	2.31	0.61
56:CX:73:HIS:O	56:CX:76:ILE:HG22	1.99	0.61
59:CZ:73:LYS:CG	59:CZ:75:TYR:CE2	2.63	0.61
85:A5:3845:A:H4'	85:A5:4668:U:O2'	2.00	0.61
85:A5:3971:G:H8	85:A5:3971:G:H3'	1.64	0.61
16:AA:148:CYS:O	16:AA:162:PRO:HA	2.00	0.61
16:AA:158:ASP:O	16:AA:159:ILE:HB	2.00	0.61
16:AA:66:VAL:O	16:AA:67:ALA:HB3	2.01	0.61
15:AB:161:VAL:HG12	15:AB:165:ARG:NH1	2.15	0.61
15:AB:206:PRO:O	15:AB:207:LEU:HB2	2.01	0.61
15:AB:52:THR:HG22	15:AB:58:ALA:HB2	1.82	0.61
5:AO:47:LEU:HB2	15:AB:67:PHE:CD1	2.30	0.61
15:AB:72:ALA:CA	15:AB:79:VAL:CG2	2.69	0.61
28:AC:102:LEU:HD23	28:AC:102:LEU:C	2.21	0.61
28:AC:265:PRO:O	28:AC:269:PHE:HB2	2.00	0.61
27:AE:260:GLN:CA	27:AE:260:GLN:OE1	2.47	0.61
31:AH:122:LEU:HD11	31:AH:123:THR:HG22	1.83	0.61
26:AJ:37:LEU:CD2	26:AJ:42:GLU:HB3	2.25	0.61
26:AJ:12:THR:O	26:AJ:48:PHE:CE2	2.53	0.61
26:AJ:82:VAL:CG1	26:AJ:92:MET:HE3	2.30	0.61
4:AK:25:LYS:HD2	4:AK:62:PHE:HE1	1.65	0.61
4:AK:90:VAL:HG13	4:AK:90:VAL:O	1.99	0.61
34:AQ:88:ILE:HG13	34:AQ:89:SER:N	2.15	0.61
12:AR:28:PHE:HA	12:AR:55:THR:HG21	1.82	0.61
8:AS:85:ASN:HD21	8:AS:98:VAL:H	1.47	0.61
19:AZ:62:VAL:HG11	19:AZ:91:LEU:CD1	2.30	0.61
63:CB:356:LYS:O	63:CB:359:ALA:O	2.18	0.61
63:CB:52:GLY:CA	63:CB:78:ILE:HD11	2.21	0.61
74:CC:286:ASN:O	74:CC:287:THR:HG22	2.00	0.61
81:CE:72:LYS:O	81:CE:73:TYR:C	2.39	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:76:ALA:O	81:CE:77:LYS:HG3	1.99	0.61
64:CF:116:GLN:OE1	64:CF:212:LYS:HE3	2.00	0.61
82:CG:102:TYR:HB2	82:CG:204:PHE:HE1	1.66	0.61
82:CG:143:VAL:C	82:CG:146:LEU:CG	2.55	0.61
80:CH:12:ILE:HG21	80:CH:52:LYS:CE	2.29	0.61
47:CI:18:PRO:O	47:CI:23:CYS:SG	2.58	0.61
42:CL:57:PRO:HG3	42:CL:75:GLY:O	2.00	0.61
44:CM:104:MET:SD	44:CM:109:ARG:HA	2.39	0.61
44:CM:11:ARG:HD2	44:CM:57:LEU:HD22	1.82	0.61
41:CO:188:LYS:NZ	41:CO:189:ILE:N	2.46	0.61
50:CR:75:HIS:HB3	50:CR:80:LYS:NZ	2.14	0.61
53:CT:111:GLU:CD	53:CT:115:LYS:HE3	2.20	0.61
57:CY:100:HIS:CD2	57:CY:102:SER:OG	2.53	0.61
28:AC:263:LYS:HD2	28:AC:268:GLU:HB3	1.82	0.61
23:AD:29:LEU:HB2	23:AD:34:TYR:HB2	1.82	0.61
27:AE:259:LYS:C	27:AE:260:GLN:OE1	2.39	0.61
27:AE:87:MET:HG3	27:AE:123:LEU:O	2.00	0.61
31:AH:29:GLU:CD	31:AH:86:LYS:HE3	2.20	0.61
33:AI:62:VAL:HB	33:AI:75:LYS:CE	2.28	0.61
26:AJ:124:HIS:O	26:AJ:125:HIS:C	2.38	0.61
5:AO:17:LEU:CG	5:AO:18:GLY:H	2.12	0.61
12:AR:100:PRO:HD2	12:AR:119:VAL:HG13	1.82	0.61
8:AS:27:ALA:O	8:AS:31:THR:HG23	2.01	0.61
8:AS:46:ARG:NH1	14:AT:50:GLU:HA	2.14	0.61
17:AV:9:VAL:CG1	17:AV:10:ASP:N	2.52	0.61
32:AW:30:CYS:HA	32:AW:34:ILE:CD1	2.29	0.61
6:AX:138:LYS:CA	6:AX:139:GLU:OE2	2.49	0.61
6:AX:71:ARG:HE	6:AX:82:THR:HG22	1.62	0.61
18:AY:13:MET:HE3	18:AY:14:THR:H	1.65	0.61
36:B2:124:U:H2'	36:B2:125:C:H5''	1.83	0.61
51:CA:148:VAL:HG12	51:CA:149:LYS:N	2.16	0.61
63:CB:112:ASP:O	63:CB:114:CYS:CA	2.48	0.61
63:CB:140:GLU:OE2	63:CB:144:LYS:HD2	1.96	0.61
63:CB:282:LYS:HB3	63:CB:333:LEU:CG	2.31	0.61
74:CC:33:ARG:CD	74:CC:122:TYR:OH	2.48	0.61
74:CC:346:ASN:O	74:CC:350:ARG:HD2	2.00	0.61
81:CE:111:LYS:HB3	81:CE:113:PRO:CD	2.30	0.61
81:CE:46:ARG:O	81:CE:47:ASN:HB3	2.00	0.61
82:CG:157:ILE:HD13	82:CG:170:LEU:HB2	1.82	0.61
82:CG:98:LEU:HD23	82:CG:218:LEU:CD1	2.31	0.61
82:CG:77:PRO:N	82:CG:237:TRP:HE3	1.98	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CI:90:ARG:O	47:CI:91:LEU:CG	2.47	0.61
79:CJ:174:ILE:CG2	79:CJ:175:LEU:H	2.12	0.61
40:CK:107:ASP:OD1	40:CK:143:VAL:HG11	1.95	0.61
44:CM:35:ARG:HH21	52:CS:108:GLN:NE2	1.96	0.61
46:CN:87:HIS:CD2	46:CN:87:HIS:O	2.54	0.61
54:CP:71:ALA:HB1	54:CP:74:LYS:CE	2.30	0.61
50:CR:4:LEU:CD1	50:CR:33:ALA:HB2	2.17	0.61
43:CV:73:ARG:C	43:CV:74:LYS:HG2	2.21	0.61
43:CV:62:MET:HE3	43:CV:76:VAL:HG12	1.81	0.61
58:CW:55:TYR:CZ	58:CW:59:HIS:NE2	2.68	0.61
5:AO:88:LEU:CG	15:AB:25:PHE:CD2	2.84	0.61
23:AD:166:TYR:CE1	23:AD:200:PRO:HB3	2.36	0.61
23:AD:218:LEU:HB2	23:AD:220:THR:HG22	1.78	0.61
30:AF:76:MET:HB3	30:AF:89:THR:OG1	2.00	0.61
29:AG:226:GLU:O	29:AG:230:LYS:HG3	2.00	0.61
29:AG:28:TYR:OH	29:AG:104:ALA:HB2	2.01	0.61
29:AG:63:MET:CE	29:AG:106:LEU:CD2	2.78	0.61
31:AH:37:LYS:NZ	31:AH:41:ARG:HG3	2.16	0.61
33:AI:190:LEU:HB2	33:AI:195:LEU:HD13	1.83	0.61
26:AJ:135:ILE:O	26:AJ:135:ILE:HG13	1.99	0.61
4:AK:12:TYR:CD2	4:AK:82:TYR:CD2	2.89	0.61
4:AK:2:LEU:O	4:AK:3:MET:CB	2.40	0.61
4:AK:87:PRO:C	4:AK:89:ILE:H	2.03	0.61
10:AN:125:LEU:HD21	10:AN:129:TYR:CZ	2.35	0.61
13:AP:44:ARG:CZ	13:AP:84:ILE:HD12	2.24	0.61
6:AX:5:ARG:HH21	6:AX:5:ARG:CG	2.12	0.61
18:AY:111:LYS:HZ3	18:AY:115:LYS:NZ	1.95	0.61
18:AY:34:THR:CG2	18:AY:35:VAL:H	2.07	0.61
36:B2:928:G:H1	36:B2:1013:U:H3	1.47	0.61
51:CA:225:ILE:HD13	51:CA:234:LYS:N	2.15	0.61
74:CC:154:VAL:CG1	74:CC:158:VAL:CG2	2.78	0.61
74:CC:14:LYS:O	74:CC:16:GLU:OE2	2.18	0.61
74:CC:303:ARG:HH12	74:CC:306:ARG:N	1.97	0.61
74:CC:77:PRO:HD2	74:CC:77:PRO:O	2.01	0.61
74:CC:91:ALA:CA	74:CC:92:PHE:HD2	2.09	0.61
48:CD:41:LYS:HG2	53:CT:93:ILE:CD1	2.23	0.61
48:CD:42:ASN:ND2	53:CT:67:VAL:C	2.42	0.61
81:CE:111:LYS:HB3	81:CE:113:PRO:HD3	1.80	0.61
81:CE:121:VAL:CG1	81:CE:122:PRO:N	2.59	0.61
81:CE:56:ARG:H	81:CE:61:ALA:H	1.46	0.61
80:CH:110:SER:N	80:CH:128:MET:HB2	2.12	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:CH:130:PRO:O	80:CH:130:PRO:CD	2.48	0.61
47:CI:105:CYS:C	47:CI:107:GLY:N	2.54	0.61
40:CK:132:ILE:O	40:CK:135:THR:OG1	2.19	0.61
40:CK:17:CYS:C	40:CK:18:THR:HG1	2.01	0.61
42:CL:27:ASN:C	42:CL:29:PRO:HD2	2.05	0.61
42:CL:31:ARG:HH12	42:CL:34:ARG:HH11	1.48	0.61
46:CN:96:ARG:CZ	46:CN:104:GLU:OE2	2.48	0.61
46:CN:76:PRO:O	46:CN:77:LYS:CB	2.48	0.61
41:CO:130:LYS:HE3	41:CO:133:ARG:NH2	2.16	0.61
41:CO:190:ASP:CG	41:CO:194:GLU:H	2.03	0.61
54:CP:10:ASN:O	54:CP:10:ASN:ND2	2.30	0.61
54:CP:114:ILE:HD11	54:CP:117:ILE:HB	1.82	0.61
54:CP:124:LYS:CE	54:CP:142:SER:OG	2.43	0.61
49:CQ:18:PRO:C	49:CQ:20:SER:N	2.49	0.61
49:CQ:8:ASN:ND2	49:CQ:8:ASN:N	2.30	0.61
50:CR:133:LYS:CG	50:CR:137:ILE:CD1	2.77	0.61
50:CR:161:ALA:HA	50:CR:164:SER:HG	1.65	0.61
55:CU:33:ILE:HG12	55:CU:96:LEU:HD22	1.81	0.61
59:CZ:10:VAL:HG12	59:CZ:83:THR:HG21	1.82	0.61
85:A5:2385:U:H2'	85:A5:2386:U:C6	2.35	0.61
85:A5:2505:C:H4'	85:A5:2506:G:H5'	1.83	0.61
16:AA:180:ARG:CD	16:AA:184:ARG:CZ	2.78	0.61
31:AH:166:VAL:HG23	31:AH:173:PHE:CE2	2.35	0.61
33:AI:152:ARG:O	33:AI:153:LYS:HB3	1.99	0.61
33:AI:157:LYS:O	33:AI:158:ILE:HG22	2.00	0.61
26:AJ:17:ARG:CG	26:AJ:17:ARG:O	2.29	0.61
34:AQ:140:ARG:O	34:AQ:141:TYR:O	2.19	0.61
14:AT:85:ASN:HD22	14:AT:85:ASN:H	1.49	0.61
17:AV:41:LYS:C	17:AV:43:THR:N	2.52	0.61
18:AY:13:MET:CE	18:AY:14:THR:H	2.13	0.61
34:AQ:138:ARG:HB2	36:B2:1649:U:O3'	1.98	0.61
16:AA:85:ARG:H	36:B2:1866:A:H61	44.18	0.61
36:B2:193:C:O2'	36:B2:194:C:H5'	2.00	0.61
36:B2:536:A:N6	36:B2:548:C:O2	2.34	0.61
63:CB:365:LEU:H	63:CB:365:LEU:HD23	1.64	0.61
74:CC:210:ILE:O	74:CC:253:THR:HG23	2.01	0.61
74:CC:5:ARG:HH22	74:CC:26:ALA:HB2	1.66	0.61
74:CC:85:HIS:CG	74:CC:85:HIS:O	2.53	0.61
48:CD:153:THR:HG22	48:CD:179:ARG:HD2	1.82	0.61
48:CD:158:LYS:O	48:CD:161:GLY:N	2.33	0.61
44:CM:107:PHE:HD1	81:CE:270:TYR:CE2	2.19	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:CF:162:ILE:HD12	64:CF:174:LEU:HD11	1.83	0.61
82:CG:108:GLN:CA	82:CG:111:LYS:HE2	2.30	0.61
80:CH:123:ILE:CG2	80:CH:125:ARG:NH2	2.64	0.61
80:CH:86:LEU:HD23	80:CH:189:GLN:CG	2.29	0.61
79:CJ:22:LEU:CD2	79:CJ:130:PHE:CD1	2.81	0.61
79:CJ:145:LYS:HE3	86:A7:44:C:H5'	1.83	0.61
40:CK:109:ILE:O	40:CK:113:ALA:N	2.34	0.61
41:CO:185:VAL:CG1	44:CM:122:ILE:HG22	2.30	0.61
54:CP:9:GLU:O	54:CP:10:ASN:ND2	2.33	0.61
41:CO:124:LEU:CD2	52:CS:172:PRO:HD3	2.30	0.61
52:CS:30:MET:SD	52:CS:47:PHE:HB3	2.36	0.61
56:CX:142:PRO:CD	56:CX:143:ASP:H	2.09	0.61
85:A5:2005:G:N2	85:A5:2015:U:H1'	2.16	0.61
85:A5:32:G:H21	85:A5:50:C:H5	1.49	0.61
85:A5:3866:C:H6	85:A5:3866:C:O5'	1.84	0.61
85:A5:4752:U:O2	85:A5:4949:G:C8	2.54	0.61
16:AA:176:TRP:HZ2	16:AA:195:TRP:CE3	1.94	0.61
28:AC:139:LEU:HD13	28:AC:140:GLY:N	2.16	0.61
30:AF:45:TYR:O	30:AF:47:LYS:HE3	1.94	0.61
31:AH:10:LYS:HE3	31:AH:16:PRO:C	2.22	0.61
26:AJ:147:PHE:HE2	26:AJ:149:VAL:HA	1.64	0.61
13:AP:69:PRO:CD	13:AP:70:MET:N	2.61	0.61
8:AS:26:ILE:O	8:AS:30:ILE:HG13	2.01	0.61
8:AS:40:TYR:CA	8:AS:83:PHE:HZ	2.14	0.61
17:AV:9:VAL:HG12	17:AV:10:ASP:CA	2.31	0.61
32:AW:128:PHE:CD1	32:AW:129:PHE:CA	2.84	0.61
28:AC:170:TRP:CH2	32:AW:97:ARG:CD	2.84	0.61
18:AY:18:LEU:HD21	27:AE:64:ILE:HG13	1.81	0.61
19:AZ:65:TYR:N	19:AZ:65:TYR:CD1	2.67	0.61
36:B2:124:U:C2'	36:B2:125:C:H5''	2.31	0.61
36:B2:1446:A:O2'	36:B2:1447:G:H5''	2.01	0.61
63:CB:213:GLN:NE2	63:CB:286:LYS:HA	2.16	0.61
63:CB:58:ARG:HA	63:CB:366:LYS:CD	2.29	0.61
74:CC:12:SER:HB2	74:CC:13:GLU:CG	2.26	0.61
74:CC:304:ALA:HB1	74:CC:305:PRO:CD	2.30	0.61
48:CD:69:ILE:CG2	53:CT:31:MET:HB2	2.29	0.61
81:CE:201:ILE:HD11	81:CE:260:LYS:HG2	1.81	0.61
82:CG:154:LEU:CD1	82:CG:204:PHE:HB2	2.31	0.61
80:CH:25:VAL:CG1	80:CH:38:PHE:HE2	2.10	0.61
47:CI:3:ARG:HG2	47:CI:4:ARG:N	2.15	0.61
79:CJ:20:LEU:CD1	79:CJ:132:VAL:HG23	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CK:124:GLU:HB2	40:CK:128:THR:HG21	1.79	0.61
42:CL:57:PRO:HG3	42:CL:75:GLY:C	2.21	0.61
44:CM:36:ALA:HB2	44:CM:52:PHE:CE1	2.36	0.61
49:CQ:32:TYR:HD2	49:CQ:51:LEU:HD11	1.65	0.61
49:CQ:72:LEU:HB3	49:CQ:75:ARG:NE	2.06	0.61
49:CQ:77:ASN:CB	49:CQ:78:LYS:HE2	2.31	0.61
52:CS:2:LYS:CE	52:CS:43:ARG:CG	2.62	0.61
56:CX:79:PHE:HD2	56:CX:99:ILE:HB	1.66	0.61
59:CZ:33:THR:OG1	59:CZ:36:ARG:CG	2.48	0.61
59:CZ:30:ASP:O	59:CZ:39:SER:HA	2.00	0.61
59:CZ:18:TYR:HD2	59:CZ:75:TYR:OH	1.84	0.61
85:A5:463:A:H61	85:A5:692:A:H61	1.47	0.61
48:CD:74:ILE:HD12	86:A7:115:A:H1'	1.83	0.61
15:AB:58:ALA:N	82:CG:264:LYS:CE	2.64	0.61
15:AB:87:ILE:CG2	15:AB:101:HIS:CG	2.84	0.61
28:AC:84:PHE:CZ	28:AC:262:THR:CB	2.83	0.61
27:AE:129:ILE:CG2	27:AE:139:LEU:CD2	2.79	0.61
27:AE:163:ASP:O	27:AE:164:LEU:CB	2.49	0.61
30:AF:36:GLN:HG3	30:AF:37:ASP:OD2	1.96	0.61
30:AF:44:LYS:CB	30:AF:45:TYR:CE1	2.69	0.61
29:AG:184:VAL:CG1	29:AG:188:LYS:NZ	2.62	0.61
31:AH:169:LYS:HD2	31:AH:173:PHE:HZ	1.66	0.61
33:AI:112:TRP:CH2	33:AI:117:TYR:HE2	2.19	0.61
33:AI:62:VAL:HG21	33:AI:75:LYS:HZ3	1.65	0.61
12:AR:87:GLU:O	12:AR:88:VAL:HG12	2.00	0.61
8:AS:50:ILE:HG12	8:AS:63:GLU:HG2	1.83	0.61
14:AT:45:LEU:HG	14:AT:46:ALA:N	2.15	0.61
18:AY:76:TYR:CG	18:AY:82:ALA:HB2	2.35	0.61
19:AZ:80:ARG:HB3	19:AZ:83:LEU:H	1.66	0.61
36:B2:532:C:O2'	36:B2:533:A:H5'	2.00	0.61
36:B2:742:U:C5	36:B2:743:U:C5	2.88	0.61
51:CA:134:ALA:HB1	51:CA:148:VAL:HG11	1.80	0.61
49:CQ:124:ASP:CG	74:CC:284:MET:CG	2.69	0.61
74:CC:285:ILE:O	74:CC:286:ASN:CB	2.48	0.61
81:CE:188:ARG:HH12	85:A5:4940:C:C1'	2.13	0.61
81:CE:46:ARG:NH1	81:CE:47:ASN:N	2.45	0.61
64:CF:172:ASN:OD1	64:CF:173:ALA:N	2.34	0.61
82:CG:121:LYS:CD	82:CG:122:ALA:HA	2.30	0.61
80:CH:41:ILE:O	80:CH:42:ASN:OD1	2.19	0.61
42:CL:55:ILE:CD1	42:CL:120:TYR:CZ	2.80	0.61
41:CO:82:ARG:CD	41:CO:85:ARG:HD3	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CP:29:THR:C	54:CP:32:THR:HG23	2.20	0.61
49:CQ:187:LYS:CD	49:CQ:188:ASN:H	2.14	0.61
49:CQ:6:ARG:NH2	49:CQ:6:ARG:NE	2.43	0.61
52:CS:88:SER:OG	52:CS:89:GLY:HA3	1.99	0.61
57:CY:110:LYS:O	57:CY:115:ARG:HD2	2.00	0.61
57:CY:62:TYR:HB3	57:CY:66:GLN:HG2	1.82	0.61
59:CZ:5:MET:SD	59:CZ:25:ILE:HD13	2.41	0.61
85:A5:173:C:H2'	85:A5:174:C:C6	2.35	0.60
85:A5:1268:G:C5	85:A5:2111:G:N2	2.69	0.60
81:CE:113:PRO:HB3	85:A5:458:C:O5'	2.00	0.60
16:AA:27:GLY:O	16:AA:47:TYR:CD2	2.54	0.60
16:AA:84:GLN:O	16:AA:88:LEU:CD2	2.49	0.60
27:AE:122:LYS:CD	27:AE:164:LEU:HD21	2.31	0.60
30:AF:195:GLU:OE1	30:AF:195:GLU:CA	2.49	0.60
31:AH:117:PRO:C	31:AH:119:SER:N	2.54	0.60
33:AI:155:ASN:OD1	33:AI:155:ASN:C	2.36	0.60
33:AI:48:VAL:HG23	33:AI:52:ASN:HB3	1.81	0.60
26:AJ:124:HIS:O	26:AJ:126:ALA:N	2.33	0.60
26:AJ:92:MET:O	26:AJ:93:LYS:NZ	2.34	0.60
14:AT:27:LYS:O	14:AT:27:LYS:HG3	2.00	0.60
19:AZ:64:ASN:O	19:AZ:111:ARG:CZ	2.48	0.60
36:B2:1286:G:N2	36:B2:1313:A:N7	2.49	0.60
29:AG:177:GLN:HE22	36:B2:315:C:H5'	1.66	0.60
63:CB:159:VAL:HG13	63:CB:184:GLN:CD	2.21	0.60
63:CB:260:ALA:O	63:CB:261:ARG:CG	2.48	0.60
64:CF:148:LYS:HD3	64:CF:245:ARG:NH1	2.15	0.60
82:CG:135:VAL:HG12	82:CG:136:LEU:O	2.01	0.60
82:CG:140:VAL:CG2	85:A5:150:U:H5'	2.31	0.60
15:AB:59:SER:H	82:CG:264:LYS:CE	2.13	0.60
80:CH:63:ASN:CB	80:CH:66:GLU:OE1	2.43	0.60
47:CI:105:CYS:C	47:CI:107:GLY:H	2.04	0.60
47:CI:38:ARG:HG3	47:CI:83:ASP:CA	2.31	0.60
40:CK:22:VAL:CG1	40:CK:44:ASP:O	2.49	0.60
40:CK:1:MET:N	40:CK:2:PRO:CB	2.61	0.60
42:CL:154:VAL:HG13	42:CL:154:VAL:O	2.00	0.60
46:CN:112:ALA:O	46:CN:138:PHE:CE2	2.54	0.60
54:CP:64:ASN:OD1	54:CP:65:GLY:N	2.34	0.60
49:CQ:119:LYS:HE2	49:CQ:121:LEU:HD21	1.80	0.60
49:CQ:43:PHE:CE1	49:CQ:138:LEU:HD21	2.36	0.60
49:CQ:157:GLY:C	49:CQ:159:PRO:CD	2.70	0.60
49:CQ:77:ASN:C	49:CQ:78:LYS:CE	2.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CS:160:ARG:HB3	52:CS:163:HIS:HB2	1.83	0.60
52:CS:168:THR:HG21	52:CS:172:PRO:HB2	1.83	0.60
55:CU:63:ILE:HD11	55:CU:72:VAL:HG22	1.75	0.60
55:CU:97:ARG:O	55:CU:98:ASP:HB2	2.01	0.60
56:CX:38:LYS:HE3	56:CX:40:ILE:HG22	1.82	0.60
81:CE:219:LYS:CE	85:A5:1291:G:OP1	2.50	0.60
16:AA:202:TYR:O	16:AA:203:PHE:CB	2.49	0.60
28:AC:108:LYS:CE	28:AC:110:MET:HG2	2.31	0.60
27:AE:115:THR:HB	27:AE:116:PRO:HD2	1.81	0.60
29:AG:177:GLN:HG2	29:AG:178:ARG:H	1.66	0.60
31:AH:192:PHE:O	31:AH:193:GLN:C	2.40	0.60
26:AJ:16:PRO:CD	26:AJ:44:TRP:CE2	2.83	0.60
11:AL:59:LYS:HE2	11:AL:134:LEU:HD21	1.83	0.60
11:AL:96:ILE:O	11:AL:99:TYR:O	2.20	0.60
7:AM:12:MET:CE	7:AM:17:ALA:O	2.40	0.60
10:AN:27:LYS:CE	10:AN:27:LYS:N	2.57	0.60
13:AP:83:MET:CE	13:AP:116:LEU:CD1	2.78	0.60
17:AV:9:VAL:CG2	28:AC:176:LYS:HD3	2.31	0.60
32:AW:20:ARG:HB3	32:AW:22:LYS:HD3	1.82	0.60
18:AY:98:GLU:OE2	18:AY:99:LYS:HA	2.01	0.60
19:AZ:94:LYS:C	19:AZ:94:LYS:CD	2.63	0.60
36:B2:319:C:H2'	36:B2:319:C:O2	2.01	0.60
63:CB:126:LYS:O	63:CB:127:LYS:CG	2.48	0.60
63:CB:168:MET:CE	63:CB:173:LEU:HD23	2.32	0.60
63:CB:150:PHE:HB3	63:CB:194:LEU:HD21	0.82	0.60
63:CB:58:ARG:HA	63:CB:366:LYS:HD3	1.82	0.60
74:CC:104:PRO:CD	74:CC:104:PRO:O	2.48	0.60
74:CC:295:SER:OG	74:CC:298:ILE:CB	2.48	0.60
74:CC:7:LEU:N	74:CC:24:LEU:HD22	2.10	0.60
81:CE:149:ILE:CG2	81:CE:199:THR:HB	2.31	0.60
81:CE:149:ILE:HD12	81:CE:271:LEU:HD23	1.82	0.60
81:CE:181:LEU:HD11	81:CE:268:GLN:CB	2.31	0.60
81:CE:284:HIS:NE2	81:CE:285:LYS:HD2	2.16	0.60
64:CF:134:ARG:HH12	86:A7:97:G:H1'	1.65	0.60
64:CF:155:TYR:HE1	64:CF:191:ILE:HD11	1.66	0.60
64:CF:241:ASN:O	64:CF:244:ILE:HG22	2.01	0.60
79:CJ:117:ILE:O	79:CJ:118:LYS:O	2.19	0.60
44:CM:127:VAL:O	44:CM:127:VAL:HG12	2.64	0.60
46:CN:99:GLN:O	46:CN:102:ALA:HB3	2.01	0.60
46:CN:96:ARG:NH1	46:CN:104:GLU:CG	2.63	0.60
46:CN:50:ARG:CG	46:CN:50:ARG:HH21	2.07	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CZ:91:LEU:O	59:CZ:117:LYS:CE	2.49	0.60
85:A5:4755:G:N2	85:A5:4878:C:C2	2.69	0.60
16:AA:119:PRO:HG2	16:AA:142:LEU:CD1	2.27	0.60
16:AA:57:LYS:HE2	17:AV:70:LEU:CD2	2.31	0.60
15:AB:225:LEU:O	15:AB:229:MET:CG	2.48	0.60
27:AE:122:LYS:HG3	27:AE:164:LEU:HD21	1.81	0.60
27:AE:23:LEU:O	27:AE:24:THR:CB	2.49	0.60
27:AE:93:ASP:O	27:AE:95:THR:N	2.32	0.60
30:AF:103:LEU:HG	30:AF:103:LEU:O	2.01	0.60
33:AI:6:ASP:OD2	33:AI:8:TRP:CD1	2.54	0.60
33:AI:7:ASN:C	33:AI:9:HIS:H	2.02	0.60
4:AK:95:ARG:HD3	4:AK:96:ARG:O	2.00	0.60
7:AM:95:ASP:HB2	7:AM:101:ARG:NH1	2.17	0.60
7:AM:89:VAL:CG2	7:AM:109:VAL:HG11	2.26	0.60
7:AM:89:VAL:HG21	7:AM:109:VAL:CG1	2.27	0.60
13:AP:28:MET:HB3	13:AP:32:GLN:OE1	2.01	0.60
13:AP:49:LEU:HA	13:AP:51:ARG:NE	2.17	0.60
8:AS:47:LYS:HZ1	8:AS:78:LYS:CB	2.14	0.60
8:AS:85:ASN:HD21	8:AS:98:VAL:HB	1.64	0.60
36:B2:744:G:H2'	36:B2:745:C:C6	2.37	0.60
63:CB:133:TYR:HE1	63:CB:136:LYS:HZ2	1.47	0.60
63:CB:229:LYS:HB2	63:CB:272:LYS:HB3	1.83	0.60
74:CC:130:ALA:HB1	74:CC:246:VAL:HG12	1.81	0.60
49:CQ:22:ASP:OD1	74:CC:33:ARG:HB3	2.01	0.60
74:CC:9:SER:CA	74:CC:21:ASN:OD1	2.49	0.60
81:CE:153:LEU:O	81:CE:158:ARG:HB2	2.01	0.60
82:CG:240:ASN:O	82:CG:241:VAL:HB	2.00	0.60
82:CG:73:ARG:HH12	82:CG:242:LEU:CA	2.13	0.60
82:CG:243:GLY:HA3	82:CG:244:PRO:HD3	1.82	0.60
47:CI:48:LEU:C	47:CI:48:LEU:CD1	2.70	0.60
79:CJ:134:LEU:HB2	79:CJ:157:ILE:HD13	1.83	0.60
42:CL:29:PRO:CD	42:CL:30:ALA:H	2.14	0.60
54:CP:40:HIS:O	54:CP:41:ILE:C	2.36	0.60
49:CQ:110:ARG:NE	49:CQ:120:ILE:HD11	1.76	0.60
52:CS:169:THR:HG22	52:CS:169:THR:O	2.01	0.60
58:CW:8:PHE:HZ	58:CW:49:ILE:CD1	2.13	0.60
85:A5:42:A:O2'	85:A5:43:U:H5'	2.02	0.60
81:CE:239:LYS:HE2	85:A5:4939:C:C6	2.36	0.60
16:AA:149:ASN:HB2	16:AA:165:ASN:HD21	1.65	0.60
16:AA:186:ARG:H	17:AV:46:PHE:H	1.48	0.60
23:AD:55:THR:HA	23:AD:58:VAL:HG22	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:71:ALA:O	23:AD:75:LYS:HG2	2.01	0.60
27:AE:180:LEU:CD1	27:AE:228:ILE:HD11	2.32	0.60
29:AG:135:PRO:HG2	29:AG:144:LEU:CD2	2.32	0.60
31:AH:166:VAL:HG23	31:AH:173:PHE:CZ	2.37	0.60
26:AJ:106:LEU:O	26:AJ:109:ARG:HG3	2.02	0.60
26:AJ:170:PRO:HG3	26:AJ:175:ARG:HG2	1.81	0.60
4:AK:62:PHE:HE1	4:AK:67:PHE:HE2	1.48	0.60
10:AN:94:LYS:HE3	10:AN:118:ILE:HD11	1.82	0.60
5:AO:17:LEU:CD2	5:AO:18:GLY:N	2.63	0.60
13:AP:108:LYS:CB	13:AP:110:GLU:OE1	2.45	0.60
34:AQ:58:LEU:HD13	34:AQ:108:ILE:CG2	2.26	0.60
12:AR:111:PHE:HE1	16:AA:12:GLU:CA	2.12	0.60
12:AR:13:ALA:CA	12:AR:54:VAL:CG2	2.68	0.60
8:AS:111:LEU:HD22	8:AS:125:HIS:CE1	2.37	0.60
17:AV:4:ASP:HA	28:AC:173:LYS:NZ	2.16	0.60
6:AX:1:MET:O	6:AX:3:LYS:HB2	2.02	0.60
6:AX:5:ARG:HH21	6:AX:5:ARG:HB2	1.65	0.60
18:AY:118:ARG:NH1	29:AG:85:ARG:HD3	2.16	0.60
63:CB:92:TYR:O	63:CB:157:CYS:HA	2.01	0.60
63:CB:19:ARG:O	63:CB:275:HIS:HE1	1.85	0.60
63:CB:299:ILE:HG23	63:CB:299:ILE:O	2.00	0.60
74:CC:142:HIS:HE1	74:CC:248:ARG:CA	2.13	0.60
74:CC:222:ARG:HG2	74:CC:222:ARG:O	2.01	0.60
48:CD:190:PHE:HZ	48:CD:195:HIS:CG	2.19	0.60
81:CE:258:LEU:HA	81:CE:261:ILE:HG12	1.83	0.60
82:CG:261:LEU:HG	82:CG:265:LEU:HD23	1.83	0.60
80:CH:129:ARG:CD	80:CH:130:PRO:HD3	2.30	0.60
80:CH:47:LEU:HA	80:CH:55:LEU:HD23	1.82	0.60
40:CK:111:ASN:O	40:CK:115:GLN:HG3	2.00	0.60
40:CK:121:LEU:HB2	40:CK:129:ILE:HD11	1.83	0.60
40:CK:48:LYS:C	40:CK:52:ASP:CG	2.54	0.60
42:CL:160:VAL:CG2	42:CL:161:TYR:H	2.13	0.60
46:CN:155:VAL:HG12	46:CN:155:VAL:O	1.99	0.60
46:CN:3:ALA:HB2	82:CG:140:VAL:CG1	2.30	0.60
41:CO:39:GLU:OE2	41:CO:157:GLU:OE2	2.18	0.60
41:CO:192:TYR:HD1	41:CO:192:TYR:H	1.48	0.60
54:CP:124:LYS:HD2	54:CP:140:MET:CE	2.31	0.60
49:CQ:4:ASP:HB2	64:CF:98:ILE:HG13	1.82	0.60
49:CQ:50:ARG:O	49:CQ:53:MET:HG2	2.01	0.60
49:CQ:61:LEU:CD1	49:CQ:139:LEU:HB3	2.29	0.60
50:CR:133:LYS:HD2	50:CR:137:ILE:CD1	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CS:16:CYS:C	52:CS:59:GLY:CA	2.70	0.60
53:CT:143:THR:HA	53:CT:146:LYS:CG	2.24	0.60
53:CT:91:VAL:CG1	53:CT:96:ILE:HD11	2.31	0.60
55:CU:24:ASP:H	55:CU:111:GLU:HG2	1.66	0.60
58:CW:87:LEU:C	58:CW:90:ILE:HB	2.18	0.60
58:CW:87:LEU:CB	58:CW:90:ILE:HD12	2.32	0.60
58:CW:90:ILE:HB	58:CW:91:MET:HE3	1.83	0.60
57:CY:54:GLU:O	57:CY:55:VAL:HG23	2.01	0.60
57:CY:89:LYS:HD3	57:CY:90:ALA:CA	2.31	0.60
48:CD:10:LYS:HG2	86:A7:65:G:O3'	2.01	0.60
28:AC:244:ILE:CG1	28:AC:245:SER:N	2.64	0.60
28:AC:164:PRO:CB	28:AC:248:TYR:CD2	2.80	0.60
23:AD:177:LEU:HD12	23:AD:178:ARG:NH2	2.15	0.60
23:AD:196:GLY:O	23:AD:199:GLY:HA3	2.02	0.60
23:AD:53:THR:O	23:AD:90:LYS:HE2	2.01	0.60
29:AG:131:ARG:O	58:CW:83:THR:HG23	2.01	0.60
29:AG:63:MET:HE2	29:AG:106:LEU:HD21	1.82	0.60
26:AJ:79:ARG:HD2	26:AJ:83:ARG:HD2	1.82	0.60
4:AK:84:HIS:CD2	7:AM:27:ILE:CG1	2.85	0.60
7:AM:86:GLY:N	7:AM:106:CYS:HB2	2.16	0.60
34:AQ:8:GLN:HA	34:AQ:99:TYR:OH	2.01	0.60
14:AT:28:LEU:CD2	14:AT:28:LEU:C	2.61	0.60
18:AY:33:ALA:O	18:AY:34:THR:CB	2.49	0.60
18:AY:52:PRO:CD	18:AY:53:ASP:N	2.64	0.60
19:AZ:51:ASP:O	19:AZ:52:LYS:HB2	2.02	0.60
63:CB:126:LYS:C	63:CB:127:LYS:HG3	2.22	0.60
63:CB:219:VAL:HG21	63:CB:337:VAL:CG1	2.31	0.60
63:CB:298:LEU:HA	63:CB:300:LYS:CG	2.31	0.60
74:CC:15:GLY:H	74:CC:173:LYS:HG3	1.67	0.60
74:CC:184:TYR:CE2	74:CC:225:PRO:HG2	2.36	0.60
49:CQ:25:LEU:N	74:CC:283:LYS:HD3	2.15	0.60
74:CC:63:SER:CB	74:CC:80:ARG:NH1	2.33	0.60
81:CE:182:ASN:O	81:CE:183:ARG:CB	2.50	0.60
81:CE:74:SER:HB2	81:CE:74:SER:N	2.14	0.60
64:CF:118:PHE:HE2	64:CF:215:SER:OG	1.81	0.60
82:CG:76:VAL:C	82:CG:237:TRP:HE3	2.04	0.60
82:CG:73:ARG:NH1	82:CG:242:LEU:CA	2.65	0.60
80:CH:105:ILE:HG23	80:CH:112:VAL:CA	2.03	0.60
47:CI:76:MET:CB	47:CI:85:PHE:CZ	2.84	0.60
40:CK:92:ARG:O	40:CK:93:LYS:CB	2.42	0.60
44:CM:33:GLN:OE1	80:CH:61:TRP:CZ2	2.45	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:110:ARG:CD	49:CQ:120:ILE:HD13	2.31	0.60
50:CR:71:ARG:NE	50:CR:71:ARG:N	5.08	0.60
50:CR:7:GLN:CD	50:CR:7:GLN:N	2.55	0.60
43:CV:101:ASN:OD1	43:CV:101:ASN:N	2.29	0.60
56:CX:60:TYR:O	56:CX:60:TYR:CD1	2.54	0.60
57:CY:3:PHE:CZ	74:CC:222:ARG:CD	2.77	0.60
59:CZ:21:ARG:HG3	59:CZ:46:ILE:O	2.00	0.60
3:AU:107:GLU:OE2	23:AD:40:ARG:HD3	2.02	0.60
27:AE:67:GLN:O	27:AE:68:ARG:CG	2.50	0.60
30:AF:36:GLN:O	30:AF:37:ASP:HB2	2.01	0.60
29:AG:50:VAL:CG1	29:AG:111:LEU:CG	2.78	0.60
26:AJ:136:ARG:HG3	26:AJ:160:SER:HB3	1.82	0.60
4:AK:14:LEU:HD21	4:AK:35:LEU:HD13	1.81	0.60
13:AP:53:GLN:HE21	13:AP:80:LEU:CG	2.14	0.60
12:AR:36:GLU:OE2	12:AR:47:ARG:HD2	2.00	0.60
32:AW:96:SER:OG	32:AW:98:GLN:HG2	2.01	0.60
19:AZ:103:HIS:O	19:AZ:104:ARG:C	2.35	0.60
63:CB:198:ARG:O	63:CB:201:LEU:HD13	2.02	0.60
63:CB:360:LEU:C	63:CB:361:GLU:O	2.39	0.60
63:CB:36:ASP:CG	63:CB:36:ASP:O	2.39	0.60
74:CC:124:ILE:CD1	74:CC:237:ILE:HD11	2.18	0.60
74:CC:12:SER:CA	74:CC:13:GLU:OE1	2.49	0.60
48:CD:20:PHE:CE2	48:CD:30:TYR:CD2	2.89	0.60
48:CD:104:LEU:CD2	48:CD:247:ILE:CD1	2.80	0.60
82:CG:124:GLY:C	82:CG:125:LYS:HD2	2.21	0.60
82:CG:183:ILE:HB	82:CG:226:TYR:CE1	2.36	0.60
80:CH:111:LEU:CD2	80:CH:127:ARG:CG	2.78	0.60
40:CK:140:GLY:O	40:CK:141:CYS:HB2	2.00	0.60
40:CK:52:ASP:O	40:CK:54:LYS:N	2.35	0.60
41:CO:202:LEU:HB3	44:CM:104:MET:CE	2.31	0.60
41:CO:12:ARG:CB	41:CO:37:ARG:HD2	2.31	0.60
54:CP:53:LEU:O	54:CP:54:GLN:HB2	2.01	0.60
50:CR:8:LYS:HG2	50:CR:22:VAL:CG2	2.32	0.60
52:CS:169:THR:CG2	52:CS:169:THR:O	2.50	0.60
53:CT:125:TRP:CG	53:CT:126:VAL:N	2.50	0.60
53:CT:16:SER:O	53:CT:18:PRO:CD	2.44	0.60
43:CV:62:MET:CE	43:CV:76:VAL:HG12	2.31	0.60
57:CY:55:VAL:HG13	57:CY:104:VAL:HG11	1.05	0.60
57:CY:83:GLU:O	57:CY:84:ARG:HB3	2.00	0.60
81:CE:219:LYS:CE	85:A5:1291:G:H5"	2.31	0.60
15:AB:31:TYR:CE1	15:AB:94:LYS:N	2.68	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AC:94:ILE:HD11	28:AC:162:ILE:HD11	1.83	0.60
27:AE:104:ASP:HB2	27:AE:108:ARG:H	1.65	0.60
27:AE:124:CYS:SG	27:AE:162:ILE:CD1	2.88	0.60
27:AE:62:LYS:CA	27:AE:65:CYS:SG	2.88	0.60
29:AG:176:ILE:CG2	29:AG:179:LEU:CG	2.78	0.60
29:AG:7:PHE:HB2	29:AG:124:LEU:HG	1.84	0.60
26:AJ:122:SER:OG	26:AJ:124:HIS:HB3	1.98	0.60
26:AJ:28:GLU:CD	26:AJ:40:LYS:HD2	2.20	0.60
4:AK:1:MET:HG3	36:B2:1274:G:H5''	1.83	0.60
4:AK:71:LEU:CG	4:AK:76:ILE:CD1	2.80	0.60
5:AO:19:PRO:HG3	5:AO:27:VAL:HG11	1.81	0.60
17:AV:31:SER:HB3	17:AV:57:GLY:H	1.67	0.60
18:AY:110:ARG:O	18:AY:114:MET:HG3	2.01	0.60
36:B2:1601:A:H5'	36:B2:1602:U:H5	1.67	0.60
63:CB:41:VAL:CA	63:CB:187:GLY:CA	2.70	0.60
74:CC:57:LEU:HD12	74:CC:61:GLN:NE2	2.12	0.60
82:CG:78:PRO:HD3	82:CG:237:TRP:CE2	2.37	0.60
82:CG:24:ALA:C	82:CG:26:LYS:N	2.53	0.60
47:CI:55:ASP:OD1	47:CI:55:ASP:O	2.18	0.60
40:CK:39:PRO:C	40:CK:40:LYS:CD	2.70	0.60
42:CL:9:VAL:CG1	42:CL:10:LEU:N	2.60	0.60
42:CL:94:ILE:HG21	42:CL:120:TYR:CE2	2.27	0.60
41:CO:177:LEU:C	44:CM:130:LEU:HD23	2.21	0.60
41:CO:119:VAL:HG11	41:CO:124:LEU:HD21	1.84	0.60
41:CO:127:VAL:HG12	52:CS:158:VAL:HG21	1.82	0.60
50:CR:182:GLU:O	50:CR:186:LYS:HG2	2.01	0.60
52:CS:82:LEU:HD21	52:CS:124:ILE:CD1	2.32	0.60
55:CU:40:GLU:CG	55:CU:70:ILE:CG1	2.78	0.60
58:CW:21:TYR:HE2	58:CW:23:ARG:HB2	1.65	0.60
57:CY:79:VAL:HG11	57:CY:98:GLY:HA3	1.84	0.60
59:CZ:46:ILE:HG22	59:CZ:118:PHE:CD2	2.36	0.60
85:A5:1756:U:H2'	85:A5:1756:U:O2	2.02	0.60
58:CW:19:ARG:HH22	85:A5:4630:G:H4'	1.67	0.60
16:AA:127:PRO:HA	16:AA:134:LEU:CD1	2.31	0.60
16:AA:140:VAL:CG1	16:AA:140:VAL:O	2.43	0.60
15:AB:136:ARG:HD3	15:AB:138:PHE:CZ	2.37	0.60
15:AB:38:MET:CE	15:AB:186:ASN:ND2	2.52	0.60
28:AC:156:ILE:O	28:AC:160:LEU:HD23	2.02	0.60
27:AE:130:PHE:CB	27:AE:138:HIS:CD2	2.84	0.60
27:AE:56:LEU:N	27:AE:56:LEU:HD23	2.16	0.60
31:AH:12:ASN:CG	31:AH:46:THR:OG1	2.38	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AI:140:LYS:O	33:AI:141:ARG:CG	2.48	0.60
33:AI:144:LYS:O	33:AI:145:ILE:CG2	2.49	0.60
26:AJ:77:LEU:O	26:AJ:81:LEU:HG	2.01	0.60
4:AK:90:VAL:HG22	4:AK:90:VAL:O	2.02	0.60
11:AL:148:ALA:C	11:AL:150:GLY:N	2.50	0.60
11:AL:32:LYS:O	11:AL:33:LEU:HD23	2.01	0.60
10:AN:28:LEU:CD1	10:AN:58:HIS:CE1	2.85	0.60
34:AQ:109:LYS:NZ	34:AQ:113:ILE:HD11	2.17	0.60
34:AQ:54:PRO:CG	34:AQ:88:ILE:HD12	2.32	0.60
12:AR:120:THR:O	12:AR:121:GLN:CB	2.44	0.60
8:AS:88:LYS:N	8:AS:94:LYS:O	2.35	0.60
32:AW:23:ARG:HH11	32:AW:23:ARG:HG2	1.66	0.60
32:AW:3:ARG:NE	32:AW:9:ASP:OD2	2.35	0.60
6:AX:139:GLU:CD	6:AX:139:GLU:N	2.55	0.60
18:AY:62:THR:CA	18:AY:69:THR:HG22	2.32	0.60
36:B2:752:G:N2	36:B2:791:C:O2	2.31	0.60
51:CA:103:PRO:HG2	51:CA:106:THR:CG2	2.32	0.60
51:CA:246:LEU:HB3	51:CA:250:LYS:O	2.01	0.60
51:CA:95:GLN:OE1	51:CA:97:ASN:OD1	2.18	0.60
74:CC:229:LEU:CD2	74:CC:229:LEU:N	2.52	0.60
74:CC:286:ASN:O	74:CC:287:THR:HB	2.01	0.60
74:CC:28:PHE:CD1	74:CC:129:ALA:CA	2.84	0.60
48:CD:110:LEU:HD11	48:CD:115:MET:HB3	1.84	0.60
64:CF:200:ARG:O	64:CF:203:GLU:OE1	2.20	0.60
82:CG:45:ILE:HD13	82:CG:45:ILE:O	2.02	0.60
47:CI:101:LYS:HB3	47:CI:101:LYS:HZ3	1.66	0.60
47:CI:9:TYR:CD1	47:CI:97:ILE:CG2	2.81	0.60
40:CK:52:ASP:HB2	40:CK:53:TRP:CD1	2.36	0.60
42:CL:29:PRO:CD	42:CL:30:ALA:N	2.64	0.60
44:CM:25:VAL:HG13	44:CM:39:ASP:CA	2.28	0.60
52:CS:113:MET:CB	52:CS:124:ILE:HD11	2.32	0.60
53:CT:64:VAL:HG13	53:CT:72:VAL:CG1	2.32	0.60
53:CT:5:LYS:H	53:CT:9:ARG:CD	2.14	0.60
58:CW:86:SER:OG	58:CW:89:ASP:OD2	2.19	0.60
56:CX:153:ILE:CG1	56:CX:155:ILE:HG22	2.32	0.60
85:A5:4751:G:H1'	85:A5:4950:U:C4	2.36	0.60
16:AA:180:ARG:NH1	16:AA:184:ARG:CZ	2.65	0.60
16:AA:14:ASP:O	16:AA:18:PHE:HD2	1.84	0.60
16:AA:6:ASP:O	16:AA:8:LEU:N	2.35	0.60
28:AC:102:LEU:HG	28:AC:131:GLY:C	2.21	0.60
28:AC:169:TYR:OH	28:AC:176:LYS:N	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:135:GLU:HB3	23:AD:153:VAL:HG22	1.82	0.60
27:AE:86:PHE:CE1	27:AE:182:MET:SD	2.95	0.60
27:AE:67:GLN:HA	27:AE:67:GLN:OE1	2.02	0.60
26:AJ:81:LEU:HD12	26:AJ:97:ILE:HD11	1.83	0.60
4:AK:83:LEU:CB	4:AK:85:LEU:HG	2.30	0.60
11:AL:152:LYS:C	11:AL:154:GLN:H	2.04	0.60
13:AP:13:ARG:O	13:AP:14:LYS:CG	2.50	0.60
34:AQ:116:ASP:O	34:AQ:117:ARG:CB	2.50	0.60
34:AQ:50:LYS:HZ2	34:AQ:85:ARG:NH2	1.76	0.60
16:AA:143:PRO:CG	17:AV:32:ILE:HG23	2.26	0.60
6:AX:10:ALA:N	11:AL:101:ARG:HB2	2.16	0.60
36:B2:1086:G:O2'	36:B2:1087:A:H5'	2.02	0.60
36:B2:1528:G:H22	36:B2:1665:G:H21	1.50	0.60
51:CA:23:ARG:C	51:CA:24:LYS:HE3	2.12	0.60
51:CA:248:GLY:C	51:CA:250:LYS:N	2.55	0.60
51:CA:52:PRO:O	51:CA:52:PRO:HD2	2.02	0.60
63:CB:40:PRO:C	63:CB:187:GLY:HA3	2.22	0.60
74:CC:303:ARG:O	74:CC:304:ALA:O	2.19	0.60
74:CC:318:PRO:O	74:CC:320:LYS:CA	2.49	0.60
74:CC:7:LEU:CD2	74:CC:21:ASN:HB3	2.30	0.60
81:CE:115:TYR:C	81:CE:117:PRO:HD3	2.22	0.60
82:CG:104:PRO:HA	82:CG:105:GLU:CD	2.20	0.60
59:CZ:55:ALA:HA	82:CG:32:PHE:CE2	2.37	0.60
82:CG:71:TYR:CD1	82:CG:72:LYS:HG2	2.36	0.60
80:CH:108:ASN:O	80:CH:110:SER:HA	2.02	0.60
80:CH:129:ARG:HD2	80:CH:153:LEU:HD22	1.84	0.60
47:CI:76:MET:CB	47:CI:85:PHE:CE2	2.85	0.60
42:CL:150:LEU:O	42:CL:151:THR:CG2	2.49	0.60
49:CQ:95:VAL:HG23	49:CQ:116:ALA:CB	2.26	0.60
52:CS:127:MET:HG3	52:CS:128:LYS:CG	2.26	0.60
53:CT:111:GLU:CG	53:CT:115:LYS:HE3	2.31	0.60
55:CU:26:THR:HG22	55:CU:68:SER:HB2	1.84	0.60
43:CV:60:MET:HE1	43:CV:129:TRP:CH2	2.36	0.60
58:CW:87:LEU:CG	58:CW:90:ILE:HD12	2.27	0.60
59:CZ:76:ASN:CG	59:CZ:78:ASN:HB2	2.20	0.60
85:A5:1303:A:H2'	85:A5:1304:C:H5'	1.83	0.60
85:A5:3767:C:H6	85:A5:3767:C:O5'	1.84	0.60
85:A5:4665:A:H5''	85:A5:4666:G:OP2	2.01	0.60
15:AB:188:LEU:CD2	15:AB:212:VAL:HG21	2.31	0.60
15:AB:49:VAL:HG12	15:AB:50:THR:N	2.16	0.60
28:AC:169:TYR:CD2	28:AC:173:LYS:HA	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AC:271:ASP:OD1	28:AC:271:ASP:N	2.33	0.60
23:AD:192:TRP:N	23:AD:192:TRP:CD1	2.67	0.60
23:AD:74:GLN:HE22	23:AD:75:LYS:CE	2.10	0.60
27:AE:184:THR:C	27:AE:189:LEU:CD1	2.70	0.60
29:AG:142:ARG:HE	29:AG:147:LEU:HB3	1.67	0.60
26:AJ:170:PRO:HB3	26:AJ:174:LYS:HE2	1.83	0.60
4:AK:89:ILE:O	4:AK:90:VAL:HG12	2.02	0.60
6:AX:10:ALA:HB1	11:AL:101:ARG:O	1.96	0.60
7:AM:14:VAL:O	7:AM:16:THR:N	2.35	0.60
10:AN:128:TYR:O	10:AN:132:LYS:HG2	2.02	0.60
13:AP:43:ARG:NH1	13:AP:46:ASN:HD22	1.99	0.60
13:AP:7:LYS:O	13:AP:9:LYS:N	2.31	0.60
34:AQ:116:ASP:CG	34:AQ:117:ARG:H	2.04	0.60
3:AU:62:ARG:HH11	3:AU:79:ARG:HD3	1.67	0.60
17:AV:40:ASP:OD2	17:AV:45:ARG:HB2	2.02	0.60
18:AY:12:PHE:HD1	18:AY:23:MET:HB3	1.67	0.60
18:AY:37:LYS:HA	18:AY:40:ILE:CG2	2.32	0.60
18:AY:46:LYS:CD	18:AY:46:LYS:O	2.50	0.60
18:AY:9:THR:HG21	18:AY:48:TYR:HE2	1.67	0.60
19:AZ:103:HIS:HD2	19:AZ:105:ALA:CB	2.14	0.60
19:AZ:103:HIS:HD2	19:AZ:105:ALA:HB3	1.58	0.60
36:B2:834:C:C2	36:B2:841:G:N2	2.69	0.60
36:B2:896:U:H2'	36:B2:897:U:H5'	1.84	0.60
51:CA:67:TYR:CD1	82:CG:46:GLN:HB2	2.36	0.60
63:CB:327:THR:HG23	63:CB:328:ASN:OD1	2.01	0.60
48:CD:210:TYR:CD2	48:CD:211:LEU:HD23	2.36	0.60
81:CE:203:ILE:HG12	81:CE:205:ASN:O	2.02	0.60
81:CE:54:ILE:C	81:CE:63:TYR:H	2.05	0.60
81:CE:84:LYS:O	81:CE:85:LYS:C	2.40	0.60
53:CT:132:PRO:CD	64:CF:126:ASN:HD21	2.15	0.60
47:CI:109:ASP:H	47:CI:112:GLN:HE21	1.48	0.60
79:CJ:95:ARG:O	79:CJ:98:ASN:HB2	2.01	0.60
79:CJ:99:PHE:CD1	79:CJ:105:PHE:CB	2.84	0.60
42:CL:167:ARG:NH2	42:CL:170:THR:OG1	2.35	0.60
41:CO:22:ILE:CD1	41:CO:120:VAL:CG1	2.80	0.60
54:CP:27:LYS:HD3	54:CP:63:TYR:HB3	1.83	0.60
52:CS:137:CYS:SG	52:CS:143:LYS:CA	2.90	0.60
52:CS:22:CYS:H	52:CS:23:HIS:CD2	2.17	0.60
53:CT:65:TYR:HD1	53:CT:65:TYR:O	1.84	0.60
58:CW:109:ILE:O	58:CW:113:LYS:CG	2.46	0.60
57:CY:44:VAL:HG11	57:CY:122:LYS:HD2	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AC:123:ARG:NH2	28:AC:143:CYS:SG	2.75	0.59
27:AE:100:ARG:HG2	27:AE:102:ILE:HD12	1.84	0.59
30:AF:166:ILE:N	30:AF:166:ILE:HD12	2.16	0.59
31:AH:15:LYS:CB	31:AH:16:PRO:CD	2.54	0.59
31:AH:64:VAL:HG22	31:AH:72:PHE:HE2	1.65	0.59
31:AH:50:GLU:OE2	31:AH:90:LYS:HE2	2.02	0.59
26:AJ:12:THR:C	26:AJ:48:PHE:CE2	2.76	0.59
4:AK:40:VAL:HG23	4:AK:41:PRO:CD	2.29	0.59
34:AQ:45:ARG:NH1	36:B2:1593:C:H4'	2.16	0.59
3:AU:57:PRO:O	3:AU:57:PRO:HD2	2.01	0.59
18:AY:20:ARG:C	18:AY:21:LYS:HD3	2.22	0.59
18:AY:48:TYR:C	18:AY:50:THR:HG23	2.22	0.59
36:B2:1291:A:H2'	36:B2:1302:G:C8	2.37	0.59
36:B2:1601:A:N6	36:B2:1636:G:C2	2.70	0.59
33:AI:144:LYS:NZ	36:B2:192:C:C5	2.67	0.59
63:CB:142:GLY:O	63:CB:147:GLU:HB2	2.01	0.59
74:CC:303:ARG:CG	74:CC:303:ARG:NH1	2.57	0.59
74:CC:47:ASN:O	74:CC:112:HIS:CE1	2.55	0.59
48:CD:188:LYS:O	48:CD:189:GLU:HG3	2.01	0.59
48:CD:42:ASN:ND2	53:CT:68:THR:HA	2.17	0.59
80:CH:92:MET:SD	80:CH:161:ILE:HG21	2.42	0.59
80:CH:23:ARG:HH22	80:CH:42:ASN:HA	1.67	0.59
47:CI:68:ALA:HB2	47:CI:159:PHE:CZ	2.36	0.59
40:CK:123:ARG:CZ	40:CK:129:ILE:CD1	2.80	0.59
44:CM:66:HIS:CD2	52:CS:148:SER:OG	2.55	0.59
41:CO:27:VAL:CG1	41:CO:98:ALA:CA	2.80	0.59
49:CQ:187:LYS:CE	49:CQ:188:ASN:ND2	2.57	0.59
50:CR:65:LYS:HA	50:CR:68:LEU:HD21	1.82	0.59
53:CT:146:LYS:C	53:CT:147:GLU:OE2	2.40	0.59
56:CX:81:LEU:CD2	56:CX:129:ARG:HH11	2.14	0.59
57:CY:86:GLN:CB	57:CY:95:VAL:C	2.70	0.59
85:A5:3971:G:C8	85:A5:3971:G:H3'	2.37	0.59
16:AA:122:LEU:CD1	16:AA:137:ALA:HB2	2.32	0.59
16:AA:74:VAL:HG22	16:AA:121:LEU:HB3	1.84	0.59
28:AC:127:PHE:HD2	28:AC:141:VAL:HG22	1.58	0.59
28:AC:163:VAL:HB	28:AC:164:PRO:HD3	1.83	0.59
23:AD:216:GLU:O	23:AD:217:ILE:CD1	2.49	0.59
27:AE:256:LEU:HD12	27:AE:257:ALA:N	2.16	0.59
27:AE:74:GLY:C	27:AE:75:LYS:CG	2.69	0.59
31:AH:23:ILE:HD13	31:AH:23:ILE:O	2.01	0.59
33:AI:105:ASP:O	33:AI:106:SER:HB2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AI:141:ARG:O	33:AI:142:SER:CB	2.50	0.59
26:AJ:46:VAL:HG12	26:AJ:102:ILE:HD12	1.82	0.59
26:AJ:79:ARG:O	26:AJ:83:ARG:CG	2.47	0.59
5:AO:31:CYS:HB2	5:AO:95:ILE:CG1	2.27	0.59
13:AP:75:VAL:CG1	13:AP:76:VAL:N	2.64	0.59
3:AU:56:MET:HE1	3:AU:88:LEU:HD23	1.84	0.59
3:AU:69:PRO:HG2	3:AU:69:PRO:O	2.02	0.59
32:AW:90:GLN:N	32:AW:102:ILE:HD11	2.17	0.59
36:B2:1291:A:H2'	36:B2:1302:G:N7	2.17	0.59
36:B2:127:C:H42	36:B2:181:A:P	2.26	0.59
27:AE:108:ARG:NH2	36:B2:846:G:OP2	2.28	0.59
51:CA:147:ARG:HG3	51:CA:157:VAL:CG2	2.31	0.59
51:CA:209:HIS:ND1	51:CA:211:PHE:CB	2.65	0.59
63:CB:198:ARG:HA	63:CB:201:LEU:CD1	2.32	0.59
63:CB:223:THR:CG2	63:CB:275:HIS:N	2.41	0.59
63:CB:235:TRP:O	63:CB:236:HIS:O	2.19	0.59
74:CC:171:LEU:HD21	74:CC:209:ILE:HD11	1.83	0.59
74:CC:254:GLU:C	74:CC:256:ALA:N	2.56	0.59
74:CC:266:THR:HA	74:CC:279:LEU:HD11	1.85	0.59
81:CE:27:VAL:HA	81:CE:28:LYS:HG3	1.84	0.59
64:CF:101:VAL:HG13	64:CF:106:ARG:CD	2.28	0.59
82:CG:161:VAL:CG1	82:CG:164:ILE:HA	2.32	0.59
82:CG:162:ASP:HB2	82:CG:163:PRO:CD	2.06	0.59
82:CG:265:LEU:C	82:CG:266:GLY:O	2.37	0.59
47:CI:109:ASP:O	47:CI:110:ARG:CD	2.50	0.59
47:CI:38:ARG:HD2	47:CI:83:ASP:HB2	1.84	0.59
79:CJ:134:LEU:C	79:CJ:157:ILE:HD13	2.18	0.59
40:CK:124:GLU:CB	40:CK:128:THR:CG2	2.75	0.59
40:CK:85:LEU:CD1	40:CK:109:ILE:HG22	2.32	0.59
49:CQ:144:LYS:CE	49:CQ:149:TYR:CZ	2.85	0.59
50:CR:142:ILE:O	50:CR:145:LEU:HG	2.00	0.59
50:CR:171:LYS:O	50:CR:175:GLU:N	2.31	0.59
53:CT:23:GLY:O	53:CT:24:VAL:HG22	2.03	0.59
43:CV:107:ASN:HD21	43:CV:111:GLU:HB2	1.66	0.59
43:CV:89:ARG:CB	43:CV:95:PHE:CZ	2.84	0.59
58:CW:27:LYS:CE	58:CW:29:PHE:CE1	2.84	0.59
56:CX:142:PRO:CD	56:CX:143:ASP:N	2.65	0.59
59:CZ:33:THR:HG1	59:CZ:36:ARG:H	1.42	0.59
50:CR:16:ARG:HH12	85:A5:2699:C:H5''	1.65	0.59
16:AA:14:ASP:O	16:AA:18:PHE:CD2	2.55	0.59
16:AA:180:ARG:NH1	16:AA:184:ARG:NH2	2.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:119:THR:HB	15:AB:143:THR:HG23	1.84	0.59
15:AB:145:LYS:HA	15:AB:149:GLN:OE1	2.02	0.59
16:AA:118:GLU:HB2	28:AC:65:LYS:HZ3	1.62	0.59
29:AG:13:GLN:O	29:AG:14:LYS:HG2	2.02	0.59
31:AH:190:PRO:HG2	31:AH:192:PHE:CZ	2.38	0.59
7:AM:12:MET:CE	7:AM:17:ALA:C	2.41	0.59
5:AO:46:ASP:O	5:AO:49:GLY:N	2.33	0.59
34:AQ:76:GLY:O	34:AQ:80:GLN:HG2	2.00	0.59
12:AR:24:LEU:HB2	12:AR:58:MET:HE3	1.83	0.59
8:AS:90:VAL:HG12	8:AS:91:LYS:HG2	1.82	0.59
14:AT:29:LYS:C	14:AT:30:VAL:CG1	2.70	0.59
17:AV:53:TYR:CG	17:AV:72:LEU:HD13	2.36	0.59
36:B2:1822:A:H3'	36:B2:1823:A:H2'	1.84	0.59
63:CB:143:LYS:HG2	63:CB:143:LYS:O	2.02	0.59
63:CB:189:THR:HG21	63:CB:192:GLU:CD	2.20	0.59
63:CB:197:ALA:O	63:CB:201:LEU:HD12	2.01	0.59
63:CB:203:GLN:HG3	63:CB:204:GLN:N	2.17	0.59
74:CC:296:PRO:CD	74:CC:297:GLU:N	2.30	0.59
48:CD:196:ARG:NH2	48:CD:237:GLU:OE2	2.34	0.59
48:CD:57:ASN:N	48:CD:58:ARG:HD3	2.11	0.59
81:CE:162:VAL:O	81:CE:163:VAL:HG13	2.02	0.59
81:CE:266:GLN:O	81:CE:268:GLN:N	2.35	0.59
82:CG:71:TYR:C	82:CG:73:ARG:N	2.56	0.59
82:CG:70:LEU:C	82:CG:73:ARG:HB2	2.23	0.59
47:CI:10:ARG:CZ	47:CI:58:GLU:OE1	2.50	0.59
40:CK:5:PHE:CE1	40:CK:37:LEU:HD21	2.37	0.59
44:CM:113:MET:HE1	44:CM:117:LYS:CG	2.30	0.59
49:CQ:161:SER:OG	49:CQ:162:HIS:CE1	2.54	0.59
49:CQ:28:LEU:HD13	49:CQ:51:LEU:CD1	2.31	0.59
50:CR:101:ILE:CG1	50:CR:104:ARG:HH11	2.09	0.59
52:CS:111:ARG:NH2	52:CS:111:ARG:CG	2.37	0.59
52:CS:141:ALA:O	52:CS:144:GLN:NE2	2.35	0.59
52:CS:161:ARG:O	52:CS:162:GLN:HB2	2.01	0.59
52:CS:174:THR:HG23	52:CS:175:PHE:H	1.65	0.59
52:CS:83:ARG:HG2	52:CS:92:ASN:ND2	2.09	0.59
58:CW:76:VAL:O	58:CW:77:LYS:HE2	2.02	0.59
58:CW:8:PHE:CE1	58:CW:46:PRO:HG3	2.36	0.59
59:CZ:5:MET:SD	59:CZ:25:ILE:HD12	2.41	0.59
85:A5:1996:C:H42	85:A5:2000:G:H22	1.51	0.59
16:AA:119:PRO:HG3	16:AA:122:LEU:HD21	1.84	0.59
16:AA:5:LEU:C	16:AA:5:LEU:CD2	2.61	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:5:ILE:O	23:AD:6:SER:N	2.33	0.59
30:AF:44:LYS:C	30:AF:45:TYR:HD1	2.05	0.59
26:AJ:84:ILE:O	26:AJ:108:ARG:CD	2.50	0.59
26:AJ:131:ARG:NH1	26:AJ:143:ASN:HD21	2.01	0.59
4:AK:12:TYR:CZ	4:AK:52:LEU:HD21	2.37	0.59
11:AL:118:ARG:HG2	11:AL:119:ASP:H	1.67	0.59
7:AM:33:ARG:HH11	7:AM:33:ARG:CG	2.15	0.59
13:AP:69:PRO:CD	13:AP:70:MET:H	2.12	0.59
14:AT:38:LYS:HD2	14:AT:46:ALA:N	2.17	0.59
18:AY:114:MET:HE2	18:AY:124:ASN:HB2	1.84	0.59
18:AY:88:LYS:HE3	18:AY:97:TYR:OH	2.03	0.59
19:AZ:52:LYS:O	19:AZ:54:THR:N	2.35	0.59
36:B2:1411:G:H3'	36:B2:1412:C:C5'	2.32	0.59
63:CB:153:MET:CE	63:CB:194:LEU:HB2	2.32	0.59
63:CB:39:LYS:O	63:CB:40:PRO:C	2.40	0.59
74:CC:193:LYS:HG3	74:CC:196:MET:HE3	1.83	0.59
74:CC:253:THR:O	74:CC:256:ALA:CA	2.50	0.59
74:CC:299:GLN:HA	74:CC:302:LEU:HD12	1.83	0.59
81:CE:83:LYS:NZ	81:CE:87:LYS:N	2.48	0.59
81:CE:94:LYS:H	81:CE:95:PRO:CD	2.13	0.59
82:CG:259:LYS:HA	82:CG:259:LYS:HZ3	1.66	0.59
80:CH:25:VAL:HG21	80:CH:80:MET:CE	2.30	0.59
80:CH:5:LEU:HD23	80:CH:60:TRP:CZ3	2.36	0.59
79:CJ:134:LEU:CD1	79:CJ:162:ALA:HB1	2.33	0.59
40:CK:114:ARG:NH1	40:CK:130:LYS:HB3	2.17	0.59
41:CO:82:ARG:HH11	41:CO:85:ARG:NH1	2.00	0.59
54:CP:57:CYS:SG	54:CP:83:TRP:NE1	2.75	0.59
52:CS:45:TRP:HE1	52:CS:61:ILE:CD1	2.14	0.59
43:CV:61:VAL:HG12	43:CV:62:MET:N	2.17	0.59
58:CW:80:ARG:CG	58:CW:80:ARG:NH2	2.46	0.59
58:CW:88:ALA:O	58:CW:91:MET:N	2.36	0.59
57:CY:79:VAL:HG12	57:CY:80:ILE:N	2.18	0.59
16:AA:21:ALA:HB2	16:AA:173:LEU:HD11	0.61	0.59
15:AB:129:THR:OG1	15:AB:133:TYR:HB2	2.03	0.59
28:AC:108:LYS:HE3	28:AC:110:MET:CB	2.30	0.59
23:AD:32:ASP:OD1	23:AD:57:ASN:HB2	2.03	0.59
30:AF:176:GLU:CD	30:AF:187:SER:OG	2.40	0.59
10:AN:23:PRO:O	10:AN:24:THR:HB	2.02	0.59
10:AN:84:LEU:HD11	10:AN:89:TYR:HB2	1.83	0.59
8:AS:118:ARG:NH1	13:AP:108:LYS:HZ2	2.01	0.59
34:AQ:58:LEU:HD21	34:AQ:111:ILE:HB	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AT:77:LYS:HG2	14:AT:92:PHE:HZ	1.65	0.59
51:CA:138:SER:OG	51:CA:147:ARG:HB2	2.02	0.59
63:CB:32:PHE:HB2	63:CB:33:PRO:HD2	1.84	0.59
48:CD:199:ILE:CG2	48:CD:200:MET:HE3	2.32	0.59
81:CE:242:ILE:HB	85:A5:4939:C:O2	2.02	0.59
47:CI:112:GLN:O	47:CI:113:THR:CB	2.49	0.59
47:CI:77:VAL:HG11	47:CI:82:ARG:HG3	1.84	0.59
47:CI:99:ILE:HD13	47:CI:123:GLN:NE2	2.14	0.59
79:CJ:112:HIS:CE1	79:CJ:126:TYR:H	2.20	0.59
79:CJ:159:LYS:O	79:CJ:163:MET:HG2	2.03	0.59
40:CK:10:ILE:HB	40:CK:66:ASN:C	2.22	0.59
41:CO:120:VAL:HG22	52:CS:166:ARG:O	2.03	0.59
54:CP:78:TRP:HA	54:CP:78:TRP:CE3	2.37	0.59
50:CR:170:ARG:O	50:CR:174:GLU:N	2.34	0.59
52:CS:81:TRP:O	52:CS:127:MET:HB3	2.02	0.59
52:CS:142:VAL:O	52:CS:145:PHE:HB2	2.02	0.59
41:CO:122:ALA:CB	52:CS:161:ARG:CG	2.80	0.59
52:CS:61:ILE:HG21	52:CS:64:CYS:SG	2.43	0.59
55:CU:125:GLU:OE2	55:CU:126:ASP:O	2.20	0.59
85:A5:2253:A:H62	85:A5:2254:G:H21	1.49	0.59
85:A5:2506:G:H4'	85:A5:2507:A:OP1	2.02	0.59
85:A5:4302:U:H5	85:A5:4303:C:C5	2.20	0.59
85:A5:979:C:H42	85:A5:1275:G:H1	1.50	0.59
15:AB:113:MET:CE	15:AB:209:ASP:CB	2.79	0.59
15:AB:42:ARG:NH2	15:AB:232:HIS:HA	2.17	0.59
28:AC:70:VAL:HA	28:AC:97:PHE:CZ	2.34	0.59
23:AD:97:CYS:O	23:AD:100:ALA:N	2.36	0.59
27:AE:174:LYS:NZ	27:AE:176:ASP:OD2	2.33	0.59
27:AE:49:ARG:NH2	27:AE:50:ASN:ND2	2.51	0.59
31:AH:154:ILE:CG2	31:AH:154:ILE:O	2.51	0.59
33:AI:145:ILE:HA	33:AI:148:LYS:CD	2.33	0.59
26:AJ:35:TYR:C	26:AJ:37:LEU:N	2.42	0.59
10:AN:142:GLU:OE2	10:AN:144:SER:OG	2.18	0.59
10:AN:18:TYR:O	10:AN:19:ARG:C	2.39	0.59
13:AP:74:GLU:O	13:AP:75:VAL:CB	2.50	0.59
14:AT:39:LEU:HD11	14:AT:56:ARG:HH21	1.68	0.59
32:AW:42:MET:HE1	32:AW:50:PHE:CE2	2.34	0.59
18:AY:36:PRO:HD3	18:AY:39:GLU:OE1	1.98	0.59
18:AY:9:THR:HG21	18:AY:48:TYR:CE2	2.38	0.59
18:AY:51:THR:CB	18:AY:52:PRO:HD3	2.17	0.59
33:AI:21:TYR:OH	36:B2:432:G:O3'	2.20	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:140:GLU:CD	63:CB:144:LYS:CE	2.71	0.59
48:CD:181:PRO:HG3	48:CD:198:HIS:CG	2.38	0.59
81:CE:162:VAL:HG13	81:CE:177:GLY:HA2	1.83	0.59
81:CE:181:LEU:CD1	81:CE:268:GLN:HA	2.32	0.59
81:CE:27:VAL:HA	81:CE:28:LYS:CG	2.33	0.59
64:CF:24:ASN:C	64:CF:26:ALA:N	2.56	0.59
82:CG:106:THR:O	82:CG:108:GLN:N	2.36	0.59
82:CG:153:GLN:O	82:CG:180:PRO:HG2	2.02	0.59
82:CG:87:LEU:O	82:CG:92:ALA:HB2	2.03	0.59
47:CI:12:CYS:HB3	47:CI:57:TYR:CE2	2.36	0.59
47:CI:26:VAL:HG21	47:CI:96:VAL:HG21	1.85	0.59
44:CM:14:TYR:OH	44:CM:22:GLY:HA2	2.03	0.59
44:CM:5:ARG:CZ	44:CM:59:ASP:OD1	2.51	0.59
46:CN:56:LYS:CG	46:CN:59:TYR:CD2	2.85	0.59
43:CV:91:LYS:HZ3	63:CB:67:VAL:CG2	2.16	0.59
43:CV:9:SER:HG	43:CV:128:LEU:HD12	1.65	0.59
59:CZ:92:ASP:HB3	59:CZ:117:LYS:HZ3	1.66	0.59
59:CZ:12:LEU:HD21	59:CZ:22:LYS:CE	2.28	0.59
16:AA:61:ALA:HB2	16:AA:161:ILE:HD11	1.83	0.59
15:AB:108:ASP:OD1	15:AB:109:LYS:N	2.36	0.59
28:AC:277:HIS:CG	28:AC:278:THR:N	2.63	0.59
27:AE:1:MET:SD	36:B2:432:G:OP2	2.61	0.59
27:AE:159:THR:HG21	27:AE:227:VAL:O	2.02	0.59
27:AE:86:PHE:CD2	27:AE:87:MET:HG2	2.38	0.59
30:AF:128:ILE:O	30:AF:134:VAL:HG13	2.02	0.59
30:AF:28:VAL:HG13	30:AF:110:GLN:NE2	2.16	0.59
30:AF:46:ALA:O	30:AF:47:LYS:CD	2.39	0.59
30:AF:61:PHE:O	30:AF:63:LYS:N	2.35	0.59
29:AG:36:VAL:CG1	29:AG:37:ALA:H	2.13	0.59
29:AG:67:VAL:O	29:AG:68:LEU:CB	2.50	0.59
31:AH:83:LEU:C	31:AH:83:LEU:HD12	2.23	0.59
26:AJ:84:ILE:CG1	26:AJ:86:VAL:HG23	2.32	0.59
8:AS:80:PRO:HG3	8:AS:82:TRP:CE2	2.38	0.59
3:AU:67:LYS:CE	3:AU:78:ASP:OD2	2.49	0.59
18:AY:76:TYR:CB	18:AY:82:ALA:HB2	2.33	0.59
19:AZ:51:ASP:O	19:AZ:52:LYS:CB	2.49	0.59
51:CA:227:ARG:CG	51:CA:227:ARG:NH1	2.46	0.59
51:CA:253:GLN:CD	51:CA:255:LYS:HD2	2.22	0.59
51:CA:32:VAL:CG2	51:CA:163:ARG:CZ	2.38	0.59
63:CB:147:GLU:OE1	63:CB:147:GLU:N	2.34	0.59
81:CE:240:TYR:CE1	81:CE:243:THR:HG21	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:284:HIS:CE1	81:CE:285:LYS:CD	2.84	0.59
64:CF:185:ILE:O	64:CF:185:ILE:CG2	2.49	0.59
82:CG:99:ALA:O	82:CG:136:LEU:HD11	2.02	0.59
82:CG:157:ILE:HG23	82:CG:167:VAL:CG1	2.33	0.59
82:CG:34:LYS:HG2	82:CG:34:LYS:O	2.02	0.59
44:CM:5:ARG:O	44:CM:6:PHE:CB	2.46	0.59
46:CN:44:ARG:CD	46:CN:119:TYR:HE1	1.96	0.59
46:CN:41:ARG:C	46:CN:61:ILE:CD1	2.70	0.59
53:CT:39:ILE:CD1	53:CT:102:ARG:HD3	2.05	0.59
58:CW:14:TYR:CB	58:CW:15:PRO:CD	2.80	0.59
56:CX:133:GLU:N	56:CX:133:GLU:OE1	2.36	0.59
57:CY:67:ILE:O	57:CY:67:ILE:CG2	2.35	0.59
85:A5:1445:U:H2'	85:A5:1446:C:H5''	1.83	0.59
15:AB:144:LYS:O	15:AB:144:LYS:HG3	2.03	0.59
28:AC:170:TRP:CE2	32:AW:97:ARG:HD2	2.37	0.59
16:AA:111:GLN:OE1	28:AC:63:VAL:HB	2.02	0.59
23:AD:170:THR:HG22	23:AD:171:ALA:N	2.18	0.59
23:AD:158:ILE:HD12	23:AD:189:MET:HE2	1.68	0.59
30:AF:14:THR:HG23	30:AF:15:PRO:HD2	1.85	0.59
29:AG:27:PHE:HZ	29:AG:41:LEU:HD13	1.68	0.59
29:AG:59:GLN:H	36:B2:157:U:H4'	1.67	0.59
31:AH:83:LEU:HD13	31:AH:92:VAL:HG21	0.62	0.59
4:AK:40:VAL:CG2	4:AK:41:PRO:N	2.29	0.59
11:AL:118:ARG:CD	11:AL:119:ASP:N	2.66	0.59
34:AQ:90:LYS:HD3	34:AQ:120:LEU:CA	2.33	0.59
34:AQ:85:ARG:O	34:AQ:88:ILE:CG1	2.50	0.59
14:AT:87:VAL:HG13	14:AT:88:MET:N	2.18	0.59
14:AT:94:ARG:CG	14:AT:94:ARG:HH11	2.14	0.59
18:AY:103:SER:O	18:AY:104:ARG:HB3	2.02	0.59
63:CB:163:ILE:O	63:CB:163:ILE:HG23	2.01	0.59
74:CC:189:MET:CE	74:CC:200:ARG:NE	2.44	0.59
74:CC:212:ASN:O	74:CC:213:GLU:OE1	2.21	0.59
81:CE:126:LEU:O	81:CE:127:SER:CB	2.46	0.59
81:CE:264:ILE:HG21	81:CE:267:LEU:CB	2.32	0.59
80:CH:26:ILE:HG13	80:CH:26:ILE:O	2.01	0.59
47:CI:21:ARG:C	47:CI:21:ARG:HD3	2.23	0.59
42:CL:154:VAL:O	42:CL:154:VAL:HG22	2.03	0.59
42:CL:58:ILE:CG2	42:CL:70:VAL:HG13	2.33	0.59
44:CM:127:VAL:HG13	44:CM:128:LYS:N	4.07	0.59
46:CN:4:TYR:CG	46:CN:46:ASP:OD1	2.55	0.59
54:CP:105:LYS:CD	54:CP:105:LYS:H	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CP:47:TYR:HE1	54:CP:56:GLN:OE1	1.84	0.59
52:CS:174:THR:HG23	52:CS:176:PHE:H	1.67	0.59
53:CT:80:VAL:CG1	53:CT:81:LYS:N	2.66	0.59
58:CW:35:LYS:HE2	58:CW:51:TRP:NE1	2.17	0.59
58:CW:94:ARG:O	58:CW:95:ASN:O	2.20	0.59
56:CX:131:ASP:OD1	56:CX:133:GLU:OE1	2.21	0.59
59:CZ:24:VAL:HG12	59:CZ:25:ILE:O	2.02	0.59
59:CZ:32:GLY:C	59:CZ:33:THR:HG23	2.22	0.59
85:A5:2287:G:H2'	85:A5:2288:G:O4'	2.03	0.59
85:A5:2464:C:H2'	85:A5:2465:C:H6	1.66	0.59
28:AC:132:ASP:CG	28:AC:134:ASN:H	2.05	0.59
28:AC:179:THR:HG23	28:AC:180:VAL:N	2.18	0.59
31:AH:6:ALA:HB3	31:AH:15:LYS:HE2	1.84	0.59
26:AJ:10:ARG:CG	26:AJ:10:ARG:HH11	2.15	0.59
5:AO:47:LEU:CA	15:AB:67:PHE:HE1	2.16	0.59
34:AQ:16:LYS:HE3	34:AQ:17:LYS:HD2	1.83	0.59
17:AV:20:SER:HA	32:AW:23:ARG:HH22	1.68	0.59
17:AV:40:ASP:HB2	17:AV:47:ASN:HD21	1.61	0.59
6:AX:7:LEU:O	11:AL:101:ARG:CB	2.43	0.59
18:AY:5:VAL:O	18:AY:6:THR:OG1	2.19	0.59
34:AQ:126:ARG:O	36:B2:1648:G:H5'	2.03	0.59
51:CA:145:LYS:HB3	51:CA:157:VAL:CG1	2.33	0.59
63:CB:133:TYR:CE1	63:CB:136:LYS:CD	2.85	0.59
63:CB:49:TYR:CD2	63:CB:171:LEU:HD12	2.38	0.59
63:CB:234:ARG:NH1	63:CB:271:GLN:O	2.34	0.59
63:CB:305:THR:HG23	63:CB:308:ASP:H	1.67	0.59
74:CC:217:ILE:HG13	74:CC:221:PHE:CE1	2.37	0.59
81:CE:85:LYS:CA	81:CE:92:VAL:HG13	2.32	0.59
47:CI:10:ARG:NH2	47:CI:56:GLU:CD	2.52	0.59
47:CI:38:ARG:HH11	47:CI:83:ASP:HB3	1.68	0.59
40:CK:81:ILE:HD11	40:CK:113:ALA:CB	2.31	0.59
40:CK:81:ILE:O	40:CK:85:LEU:HG	2.03	0.59
40:CK:97:ASN:N	40:CK:98:ILE:CG1	2.65	0.59
44:CM:5:ARG:CB	44:CM:11:ARG:NH2	2.61	0.59
44:CM:119:ARG:HG2	44:CM:120:ASN:N	2.17	0.59
44:CM:77:TRP:C	44:CM:82:ILE:CD1	2.65	0.59
44:CM:88:ALA:O	44:CM:93:LYS:HE3	2.02	0.59
46:CN:96:ARG:HG2	46:CN:100:SER:CB	2.33	0.59
54:CP:10:ASN:O	54:CP:12:THR:CG2	2.37	0.59
49:CQ:146:ARG:HG3	49:CQ:146:ARG:HH11	1.67	0.59
49:CQ:161:SER:OG	49:CQ:162:HIS:CG	2.56	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:187:LYS:HZ1	49:CQ:188:ASN:HD22	1.47	0.59
49:CQ:39:THR:HG23	49:CQ:40:ASN:N	2.17	0.59
52:CS:82:LEU:HD21	52:CS:124:ILE:HD13	1.85	0.59
53:CT:141:VAL:HG12	64:CF:81:PHE:H	1.66	0.59
53:CT:158:PHE:CG	53:CT:159:MET:N	2.70	0.59
53:CT:68:THR:HG1	53:CT:71:ALA:CB	1.94	0.59
55:CU:60:VAL:O	55:CU:74:SER:HA	2.03	0.59
59:CZ:68:ILE:CG2	59:CZ:119:GLU:HG3	2.30	0.59
85:A5:2902:G:H22	85:A5:3597:G:H1	1.51	0.59
86:A7:49:A:O2'	86:A7:50:A:H8	1.85	0.59
28:AC:251:LEU:HD23	28:AC:252:THR:N	2.17	0.59
27:AE:98:ASN:HD21	27:AE:119:ALA:HA	1.68	0.59
29:AG:177:GLN:O	29:AG:178:ARG:HB2	2.03	0.59
26:AJ:162:ARG:O	26:AJ:163:SER:C	2.41	0.59
4:AK:89:ILE:HD13	4:AK:89:ILE:O	2.03	0.59
11:AL:17:PHE:HZ	11:AL:19:ASN:OD1	1.86	0.59
7:AM:13:ASP:C	7:AM:16:THR:CB	2.49	0.59
7:AM:45:ARG:H	7:AM:45:ARG:NE	2.00	0.59
7:AM:76:LEU:HD22	7:AM:77:ILE:H	1.67	0.59
13:AP:56:LEU:CD1	13:AP:80:LEU:CD1	2.79	0.59
34:AQ:118:THR:O	34:AQ:120:LEU:N	2.36	0.59
12:AR:93:GLN:O	12:AR:94:GLU:C	2.40	0.59
17:AV:55:ILE:CG2	17:AV:60:ARG:HG3	2.32	0.59
17:AV:55:ILE:CG2	17:AV:60:ARG:CG	2.80	0.59
32:AW:41:MET:HG2	32:AW:129:PHE:CD2	2.36	0.59
51:CA:242:ARG:HH22	51:CA:247:ARG:CZ	2.09	0.59
51:CA:43:GLY:HA3	51:CA:63:PHE:CE1	2.37	0.59
63:CB:141:ASP:CG	63:CB:142:GLY:N	2.55	0.59
63:CB:282:LYS:C	63:CB:333:LEU:HD11	2.23	0.59
74:CC:341:LEU:HD11	81:CE:52:ARG:HH22	0.77	0.59
48:CD:49:TYR:HA	48:CD:66:TYR:HB3	1.84	0.59
81:CE:53:GLY:HA2	81:CE:63:TYR:CD2	2.38	0.59
82:CG:146:LEU:CD1	82:CG:147:VAL:N	2.57	0.59
80:CH:51:LYS:O	80:CH:52:LYS:HD2	2.03	0.59
42:CL:40:GLN:O	42:CL:44:ARG:HG3	2.02	0.59
44:CM:25:VAL:HG12	44:CM:26:ALA:N	2.17	0.59
44:CM:63:LYS:CE	44:CM:64:PHE:HA	2.30	0.59
41:CO:108:ILE:HG22	41:CO:160:ARG:CD	2.31	0.59
54:CP:24:VAL:HG12	54:CP:90:PHE:HE2	1.56	0.59
49:CQ:24:TYR:CB	74:CC:283:LYS:CG	2.81	0.59
53:CT:11:THR:HG21	53:CT:15:PHE:CE2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CT:25:VAL:HG12	53:CT:26:PRO:HD2	1.84	0.59
55:CU:54:GLY:O	55:CU:55:ASN:CB	2.48	0.59
56:CX:38:LYS:HG2	56:CX:39:LYS:O	2.02	0.59
57:CY:22:PRO:HG3	57:CY:25:ILE:HD12	1.82	0.59
57:CY:42:TYR:CE1	57:CY:119:LEU:HD22	2.36	0.59
59:CZ:16:GLY:O	59:CZ:18:TYR:N	2.35	0.59
85:A5:1275:G:H2'	85:A5:1276:C:C6	2.38	0.58
85:A5:1755:C:C3'	85:A5:1756:U:H5''	2.33	0.58
16:AA:143:PRO:CG	17:AV:34:MET:SD	2.91	0.58
16:AA:2:SER:OG	16:AA:5:LEU:O	2.16	0.58
16:AA:60:LEU:CD1	16:AA:60:LEU:C	2.71	0.58
15:AB:133:TYR:CZ	15:AB:181:LEU:HD12	2.38	0.58
28:AC:113:GLN:HB3	28:AC:122:THR:HA	1.85	0.58
23:AD:98:ALA:N	23:AD:188:ILE:HD12	2.17	0.58
27:AE:86:PHE:HE1	27:AE:182:MET:SD	2.26	0.58
30:AF:32:ASP:HB2	30:AF:117:ILE:CG2	2.33	0.58
30:AF:56:TYR:CE1	30:AF:66:CYS:HB2	2.38	0.58
29:AG:188:LYS:HA	29:AG:191:ARG:CG	2.33	0.58
29:AG:19:ASP:O	29:AG:20:ASP:CG	2.42	0.58
31:AH:43:LEU:HD21	31:AH:71:SER:OG	2.03	0.58
33:AI:76:THR:CG2	33:AI:105:ASP:HB2	2.33	0.58
11:AL:22:ARG:HG3	33:AI:154:LYS:O	2.03	0.58
26:AJ:50:LEU:CD1	26:AJ:102:ILE:CD1	2.72	0.58
4:AK:1:MET:HE3	36:B2:1274:G:N2	2.17	0.58
11:AL:86:ILE:HG13	11:AL:111:VAL:HG13	1.84	0.58
7:AM:42:LEU:CD2	7:AM:110:VAL:HG21	2.32	0.58
7:AM:79:VAL:CG1	7:AM:80:ASP:N	2.66	0.58
10:AN:12:SER:C	10:AN:13:GLN:CG	2.65	0.58
5:AO:90:ILE:HG22	5:AO:124:MET:HE2	1.84	0.58
13:AP:32:GLN:HA	13:AP:35:GLN:CD	2.23	0.58
13:AP:49:LEU:N	13:AP:51:ARG:HG3	2.18	0.58
13:AP:5:GLU:HG2	13:AP:9:LYS:HE2	1.85	0.58
34:AQ:63:PHE:CD1	34:AQ:68:ILE:HD11	2.38	0.58
12:AR:14:ARG:O	12:AR:18:GLU:HG3	2.03	0.58
14:AT:40:ALA:N	14:AT:43:LYS:HG3	2.18	0.58
31:AH:143:ARG:NE	32:AW:53:ILE:CG2	2.62	0.58
14:AT:87:VAL:CG2	36:B2:1665:G:C2	2.86	0.58
51:CA:202:VAL:CG1	51:CA:217:GLN:HB3	2.32	0.58
51:CA:222:PRO:HG2	85:A5:3705:G:H1'	1.83	0.58
63:CB:119:TYR:CZ	63:CB:125:SER:CB	2.86	0.58
63:CB:24:ARG:O	63:CB:25:HIS:C	2.40	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:285:TYR:HE1	63:CB:363:ILE:HD12	1.50	0.58
63:CB:356:LYS:C	63:CB:359:ALA:O	2.42	0.58
63:CB:91:GLY:HA3	63:CB:153:MET:HG3	1.84	0.58
74:CC:305:PRO:HB2	74:CC:307:LYS:HA	1.85	0.58
48:CD:246:ALA:CB	48:CD:249:GLU:OE2	2.51	0.58
81:CE:153:LEU:O	81:CE:158:ARG:CD	2.51	0.58
40:CK:81:ILE:HD12	40:CK:116:MET:HE1	1.85	0.58
42:CL:80:GLU:HG3	42:CL:104:ASN:ND2	2.15	0.58
41:CO:195:VAL:HG11	44:CM:119:ARG:N	2.17	0.58
44:CM:34:ASN:C	44:CM:35:ARG:HG2	2.23	0.58
46:CN:65:ARG:HG2	46:CN:129:PHE:HD1	1.66	0.58
41:CO:16:LEU:HD11	41:CO:43:ILE:CD1	2.29	0.58
54:CP:88:ALA:HA	54:CP:91:LEU:CD2	2.33	0.58
49:CQ:151:HIS:CE1	49:CQ:164:LYS:CE	2.86	0.58
52:CS:73:LEU:C	52:CS:75:VAL:H	2.06	0.58
53:CT:134:PRO:HB3	53:CT:135:PRO:HD3	1.83	0.58
85:A5:2551:A:O2'	85:A5:2552:G:OP1	2.15	0.58
81:CE:242:ILE:HD12	85:A5:4939:C:C1'	2.33	0.58
87:A8:108:A:C2	87:A8:112:G:C5	2.90	0.58
16:AA:139:TYR:C	16:AA:140:VAL:HG23	2.24	0.58
16:AA:186:ARG:C	16:AA:186:ARG:HH11	1.99	0.58
28:AC:169:TYR:OH	28:AC:176:LYS:C	2.40	0.58
28:AC:200:ARG:HA	28:AC:221:ASP:OD2	2.02	0.58
30:AF:44:LYS:HB3	30:AF:45:TYR:CD1	2.32	0.58
30:AF:51:HIS:CD2	30:AF:86:LYS:HD3	2.38	0.58
29:AG:137:ARG:HG3	29:AG:140:ARG:HB3	1.84	0.58
29:AG:227:GLN:HA	29:AG:230:LYS:CD	2.34	0.58
29:AG:63:MET:CE	29:AG:106:LEU:HD21	2.32	0.58
31:AH:168:HIS:CE1	31:AH:169:LYS:HG2	2.37	0.58
31:AH:190:PRO:CB	31:AH:191:GLU:HG2	2.33	0.58
31:AH:80:VAL:O	31:AH:83:LEU:HG	2.03	0.58
7:AM:124:ILE:C	7:AM:127:TYR:CD2	2.77	0.58
10:AN:67:THR:O	10:AN:69:ASN:N	2.36	0.58
13:AP:111:MET:C	13:AP:114:HIS:HD2	2.06	0.58
13:AP:59:ARG:HD3	13:AP:76:VAL:CG1	2.27	0.58
32:AW:82:GLN:O	32:AW:83:LEU:HB3	2.02	0.58
32:AW:96:SER:OG	32:AW:99:PHE:CE2	2.56	0.58
51:CA:114:CYS:SG	51:CA:168:VAL:HA	2.43	0.58
51:CA:253:GLN:OE1	51:CA:255:LYS:HB2	2.02	0.58
63:CB:260:ALA:C	63:CB:261:ARG:CG	2.72	0.58
63:CB:39:LYS:O	63:CB:40:PRO:O	2.20	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:81:THR:HG22	63:CB:81:THR:O	2.03	0.58
74:CC:105:THR:C	74:CC:106:LYS:HD3	2.24	0.58
74:CC:109:ARG:HH11	74:CC:109:ARG:CB	2.14	0.58
74:CC:39:PHE:CD1	74:CC:39:PHE:O	2.55	0.58
48:CD:66:TYR:OH	48:CD:68:ARG:NH2	2.35	0.58
81:CE:139:LYS:HD3	81:CE:140:LEU:N	2.18	0.58
80:CH:43:VAL:CG1	80:CH:73:ILE:CD1	2.81	0.58
79:CJ:12:MET:O	79:CJ:14:GLU:HG2	2.03	0.58
40:CK:31:LYS:O	40:CK:34:PRO:HD2	1.93	0.58
40:CK:95:GLN:C	40:CK:97:ASN:H	2.05	0.58
44:CM:25:VAL:HG22	44:CM:40:GLY:HA3	1.85	0.58
44:CM:86:TRP:CE3	44:CM:89:THR:HG21	2.37	0.58
41:CO:54:TYR:HE2	41:CO:145:VAL:HG11	0.81	0.58
41:CO:77:SER:HB2	41:CO:104:VAL:HG12	1.85	0.58
49:CQ:161:SER:HB2	49:CQ:162:HIS:HB3	1.84	0.58
49:CQ:6:ARG:HH22	64:CF:113:ARG:C	2.06	0.58
49:CQ:70:MET:CE	49:CQ:98:LEU:HD21	2.32	0.58
55:CU:21:PHE:CE1	55:CU:80:LYS:CD	2.81	0.58
27:AE:166:THR:HB	27:AE:168:LYS:NZ	2.17	0.58
27:AE:62:LYS:CD	27:AE:80:ILE:CG1	2.81	0.58
27:AE:62:LYS:HD2	27:AE:80:ILE:HG13	1.83	0.58
30:AF:167:LYS:CD	30:AF:171:GLU:HG2	2.20	0.58
29:AG:176:ILE:HG21	29:AG:179:LEU:CG	2.32	0.58
26:AJ:120:ALA:HA	26:AJ:125:HIS:HD2	1.69	0.58
26:AJ:177:ASN:C	26:AJ:180:LYS:HB3	2.23	0.58
11:AL:55:TYR:CD1	11:AL:115:PRO:HG2	2.38	0.58
13:AP:49:LEU:HD13	13:AP:51:ARG:CZ	2.32	0.58
13:AP:53:GLN:HG2	13:AP:56:LEU:HD12	1.85	0.58
14:AT:31:PRO:HG2	14:AT:102:ARG:CG	2.33	0.58
17:AV:11:LEU:HD11	17:AV:12:TYR:HE2	1.62	0.58
17:AV:53:TYR:OH	17:AV:76:ASP:OD2	2.20	0.58
17:AV:9:VAL:HG11	28:AC:176:LYS:HD3	1.85	0.58
32:AW:37:PHE:CE1	32:AW:103:VAL:HG11	2.37	0.58
6:AX:95:GLU:OE1	6:AX:140:ARG:NH2	2.35	0.58
18:AY:98:GLU:O	18:AY:99:LYS:HB3	2.03	0.58
74:CC:346:ASN:HB3	74:CC:350:ARG:HH11	1.68	0.58
81:CE:54:ILE:N	81:CE:63:TYR:HD2	2.02	0.58
82:CG:194:VAL:HG12	82:CG:194:VAL:O	2.01	0.58
82:CG:34:LYS:CD	82:CG:34:LYS:O	2.52	0.58
40:CK:88:PRO:HB2	40:CK:89:PRO:HB3	1.85	0.58
46:CN:185:GLY:HA3	46:CN:194:ARG:NH1	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CR:10:LEU:CB	50:CR:41:ILE:HD11	2.31	0.58
50:CR:17:CYS:SG	50:CR:52:ARG:CZ	2.91	0.58
53:CT:18:PRO:O	53:CT:21:LYS:CB	2.39	0.58
58:CW:106:GLU:HG3	58:CW:110:ARG:HH12	0.81	0.58
58:CW:74:ARG:O	58:CW:75:ALA:HB3	2.03	0.58
56:CX:81:LEU:CD1	56:CX:99:ILE:HG13	2.33	0.58
85:A5:1242:G:C2'	85:A5:1242:G:N9	2.61	0.58
85:A5:1756:U:O4	85:A5:1775:A:C6	2.57	0.58
28:AC:180:VAL:CG1	28:AC:181:PRO:N	2.66	0.58
17:AV:50:PHE:HZ	28:AC:267:GLN:HE22	1.49	0.58
4:AK:95:ARG:HG3	23:AD:67:ARG:NH1	2.17	0.58
30:AF:158:ALA:HA	30:AF:172:CYS:SG	2.43	0.58
29:AG:176:ILE:CG2	29:AG:179:LEU:HB2	2.32	0.58
29:AG:179:LEU:C	29:AG:180:VAL:HG23	2.24	0.58
31:AH:144:ILE:O	32:AW:51:GLU:CA	2.47	0.58
26:AJ:65:GLU:O	26:AJ:66:LYS:CB	2.51	0.58
11:AL:78:THR:HG23	11:AL:79:LYS:N	2.17	0.58
34:AQ:47:LEU:CB	34:AQ:81:ILE:HD13	2.34	0.58
34:AQ:92:LEU:O	34:AQ:96:TYR:CD2	2.56	0.58
8:AS:15:VAL:CG1	8:AS:68:ILE:HD11	2.34	0.58
6:AX:128:VAL:CG1	6:AX:133:LEU:HD21	2.32	0.58
6:AX:22:TRP:O	6:AX:23:HIS:O	2.20	0.58
18:AY:56:PHE:CG	18:AY:86:GLU:OE2	2.56	0.58
4:AK:27:VAL:HG11	36:B2:1274:G:N7	2.18	0.58
14:AT:125:PRO:HB3	36:B2:1416:C:H5''	1.85	0.58
26:AJ:174:LYS:CG	36:B2:560:A:H5'	2.34	0.58
36:B2:589:G:N3	36:B2:591:U:C5	2.71	0.58
51:CA:126:LEU:CD1	51:CA:150:LEU:HD21	2.26	0.58
51:CA:23:ARG:HA	51:CA:52:PRO:HD3	1.85	0.58
63:CB:115:LYS:CE	63:CB:129:ALA:CB	2.81	0.58
63:CB:50:LYS:HE2	63:CB:52:GLY:N	2.19	0.58
63:CB:58:ARG:HD3	63:CB:363:ILE:HG21	1.84	0.58
81:CE:208:ILE:O	81:CE:209:PRO:C	2.41	0.58
81:CE:215:ALA:C	81:CE:218:LYS:HE2	2.24	0.58
81:CE:232:ILE:O	81:CE:234:ASP:N	2.37	0.58
44:CM:33:GLN:NE2	80:CH:61:TRP:NE1	2.51	0.58
79:CJ:110:GLN:C	79:CJ:111:GLU:CG	2.72	0.58
79:CJ:13:ARG:HD3	79:CJ:136:ARG:NH1	2.18	0.58
79:CJ:164:ARG:O	79:CJ:168:GLN:HG3	2.03	0.58
41:CO:54:TYR:OH	41:CO:74:ARG:HD2	2.03	0.58
54:CP:4:TYR:OH	54:CP:18:ARG:HB3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CR:119:MET:HE1	50:CR:119:MET:HA	1.83	0.58
43:CV:89:ARG:HD2	43:CV:95:PHE:CZ	2.38	0.58
56:CX:89:LYS:CE	56:CX:137:TYR:HD1	2.14	0.58
56:CX:57:GLN:O	56:CX:58:PRO:CB	2.44	0.58
57:CY:5:PRO:HD2	57:CY:6:PHE:N	2.19	0.58
85:A5:1359:G:N9	85:A5:1359:G:O4'	2.34	0.58
85:A5:1471:U:H3	85:A5:1493:G:H22	1.51	0.58
81:CE:279:ASN:OD1	85:A5:4753:U:OP1	2.20	0.58
87:A8:114:G:H1	87:A8:136:U:H3	1.50	0.58
16:AA:125:THR:O	16:AA:147:LEU:HB2	1.99	0.58
16:AA:183:LEU:CB	16:AA:189:ILE:CD1	2.81	0.58
5:AO:128:ARG:NH1	15:AB:70:SER:HB3	2.19	0.58
23:AD:108:LYS:CA	23:AD:113:LEU:HD22	2.33	0.58
30:AF:25:THR:CG2	30:AF:41:VAL:HG22	2.32	0.58
26:AJ:134:HIS:CE1	26:AJ:163:SER:HB3	2.34	0.58
5:AO:98:ARG:HG3	5:AO:133:THR:HG22	1.85	0.58
13:AP:39:ALA:CA	13:AP:42:ARG:NE	2.57	0.58
34:AQ:42:ILE:CG1	34:AQ:51:LEU:CD2	2.79	0.58
3:AU:108:PRO:HD2	3:AU:108:PRO:O	2.00	0.58
3:AU:18:HIS:HE1	3:AU:98:VAL:HG22	1.63	0.58
19:AZ:94:LYS:CE	19:AZ:95:GLY:H	2.16	0.58
36:B2:556:U:H2'	36:B2:557:U:H5''	1.85	0.58
51:CA:209:HIS:CE1	51:CA:211:PHE:CD1	2.87	0.58
63:CB:77:THR:OG1	63:CB:78:ILE:N	2.29	0.58
63:CB:80:GLU:CD	63:CB:323:TYR:OH	2.42	0.58
74:CC:150:LEU:HA	74:CC:151:PRO:C	2.23	0.58
74:CC:228:THR:CG2	74:CC:248:ARG:HH22	2.17	0.58
74:CC:6:PRO:C	74:CC:24:LEU:HD21	2.24	0.58
42:CL:26:PHE:CE1	74:CC:51:PRO:HG3	2.39	0.58
48:CD:186:GLU:CD	48:CD:186:GLU:O	2.42	0.58
81:CE:68:MET:HA	81:CE:71:ARG:CD	2.19	0.58
64:CF:159:TYR:CE2	64:CF:168:ALA:HB2	2.38	0.58
82:CG:230:TYR:CZ	82:CG:231:ASP:OD1	2.56	0.58
82:CG:63:LEU:HB3	82:CG:67:ARG:NH1	2.16	0.58
80:CH:183:GLU:CD	80:CH:184:LYS:N	2.57	0.58
80:CH:90:TYR:HE1	80:CH:184:LYS:HE2	1.68	0.58
40:CK:75:PRO:O	40:CK:75:PRO:HD2	2.03	0.58
41:CO:118:MET:CE	52:CS:169:THR:HA	2.33	0.58
41:CO:188:LYS:CA	41:CO:188:LYS:CE	2.30	0.58
54:CP:41:ILE:HD11	54:CP:150:LEU:HD22	1.85	0.58
49:CQ:15:ARG:HG2	49:CQ:15:ARG:O	1.89	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:179:GLY:HA2	49:CQ:186:TYR:CD1	2.38	0.58
49:CQ:34:PHE:HB3	74:CC:293:LEU:HD21	1.86	0.58
41:CO:118:MET:CB	52:CS:167:PHE:HB2	2.31	0.58
52:CS:15:ARG:NH2	52:CS:25:PRO:HD2	2.18	0.58
52:CS:45:TRP:CH2	52:CS:55:LYS:O	2.57	0.58
52:CS:95:ARG:HD3	52:CS:97:TYR:HE1	1.68	0.58
58:CW:110:ARG:HH11	58:CW:110:ARG:HG2	1.68	0.58
58:CW:23:ARG:HH12	58:CW:29:PHE:HE2	0.69	0.58
57:CY:21:ALA:HB3	57:CY:26:ARG:HG2	1.85	0.58
59:CZ:42:LEU:HD21	59:CZ:96:VAL:HG12	1.65	0.58
85:A5:2263:A:C8	85:A5:2265:G:C8	2.92	0.58
85:A5:5025:C:H6	85:A5:5026:U:C5'	2.12	0.58
16:AA:106:GLY:HA3	16:AA:113:GLN:HE22	1.67	0.58
16:AA:127:PRO:HG2	16:AA:153:PRO:CD	2.27	0.58
16:AA:159:ILE:O	16:AA:159:ILE:HG23	2.04	0.58
15:AB:160:GLN:HE22	15:AB:205:TYR:HE1	1.49	0.58
28:AC:108:LYS:HE3	28:AC:110:MET:HG2	1.86	0.58
28:AC:180:VAL:HG12	28:AC:181:PRO:CD	2.31	0.58
28:AC:258:GLU:O	28:AC:259:THR:CB	2.48	0.58
28:AC:70:VAL:CB	28:AC:97:PHE:CZ	2.85	0.58
29:AG:1:MET:SD	29:AG:106:LEU:O	2.60	0.58
29:AG:185:LEU:HB3	29:AG:189:ARG:HH12	1.68	0.58
29:AG:3:LEU:CD1	29:AG:41:LEU:HD11	2.33	0.58
29:AG:64:LYS:HG3	29:AG:67:VAL:HG11	1.84	0.58
31:AH:15:LYS:HB3	31:AH:16:PRO:HD3	1.82	0.58
33:AI:142:SER:HB3	33:AI:143:LYS:CE	2.34	0.58
26:AJ:110:LEU:HB3	26:AJ:130:ILE:CD1	2.33	0.58
4:AK:51:SER:HB2	36:B2:1277:C:H5'	1.86	0.58
4:AK:5:LYS:O	4:AK:5:LYS:CG	2.31	0.58
13:AP:127:LYS:HE3	13:AP:128:HIS:CA	2.34	0.58
12:AR:98:VAL:O	12:AR:100:PRO:HD2	2.04	0.58
6:AX:95:GLU:CB	6:AX:140:ARG:HH22	2.14	0.58
18:AY:119:GLY:O	18:AY:120:THR:C	2.42	0.58
18:AY:50:THR:OG1	18:AY:55:ILE:HD11	2.03	0.58
36:B2:1462:U:H2'	36:B2:1464:C:C4	2.39	0.58
37:BC:38:C:O5'	37:BC:38:C:H6	1.87	0.58
51:CA:209:HIS:ND1	51:CA:211:PHE:HB2	2.18	0.58
51:CA:250:LYS:C	51:CA:250:LYS:CD	2.69	0.58
63:CB:116:ARG:CD	63:CB:122:TRP:HB2	2.30	0.58
74:CC:158:VAL:O	74:CC:217:ILE:HG12	2.03	0.58
15:AB:52:THR:CB	82:CG:264:LYS:HZ2	1.98	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:CH:129:ARG:CG	80:CH:130:PRO:HD3	2.33	0.58
40:CK:94:LYS:HA	40:CK:95:GLN:O	2.03	0.58
46:CN:46:ASP:C	46:CN:50:ARG:CZ	2.70	0.58
54:CP:92:LEU:O	54:CP:92:LEU:HD12	2.04	0.58
49:CQ:161:SER:HB2	49:CQ:162:HIS:CB	2.33	0.58
50:CR:132:PHE:HD1	50:CR:137:ILE:HD13	1.68	0.58
52:CS:83:ARG:HH11	52:CS:125:GLN:NE2	2.01	0.58
52:CS:26:PRO:O	52:CS:27:LEU:C	2.41	0.58
53:CT:29:THR:OG1	53:CT:30:TYR:CD2	2.48	0.58
57:CY:117:LYS:HG3	57:CY:121:ARG:NH2	2.18	0.58
85:A5:463:A:C2	85:A5:692:A:C2	2.92	0.58
16:AA:157:VAL:O	17:AV:66:ASP:CG	2.41	0.58
27:AE:36:HIS:C	27:AE:41:CYS:SG	2.82	0.58
31:AH:166:VAL:CG2	31:AH:173:PHE:HE2	2.13	0.58
31:AH:193:GLN:CD	31:AH:193:GLN:N	2.57	0.58
33:AI:149:TYR:HA	33:AI:152:ARG:NH1	2.19	0.58
26:AJ:80:ARG:HA	26:AJ:83:ARG:HD3	1.86	0.58
4:AK:42:ASN:O	4:AK:43:LEU:HD23	2.03	0.58
10:AN:119:GLU:O	10:AN:123:HIS:CD2	2.55	0.58
5:AO:75:MET:CE	5:AO:118:ALA:HB2	2.33	0.58
16:AA:138:SER:O	17:AV:30:ALA:HB2	2.01	0.58
17:AV:4:ASP:HA	28:AC:173:LYS:HZ3	1.68	0.58
6:AX:107:ARG:O	6:AX:108:LYS:HB2	2.03	0.58
6:AX:52:LEU:HD12	6:AX:53:GLU:HB3	1.86	0.58
6:AX:90:CYS:O	6:AX:91:LEU:O	2.22	0.58
36:B2:184:G:H2'	36:B2:185:G:C8	2.39	0.58
33:AI:144:LYS:HG3	36:B2:190:G:H5'	1.86	0.58
36:B2:532:C:H2'	36:B2:533:A:H8	1.68	0.58
36:B2:839:C:H2'	36:B2:841:G:C5'	2.33	0.58
42:CL:18:TRP:CH2	74:CC:108:TRP:HZ2	2.20	0.58
48:CD:41:LYS:HE3	53:CT:93:ILE:HD12	1.78	0.58
81:CE:258:LEU:HB2	81:CE:259:PRO:CD	2.34	0.58
82:CG:261:LEU:HG	82:CG:265:LEU:CD2	2.33	0.58
80:CH:7:ASN:CA	80:CH:58:ASP:OD1	2.46	0.58
41:CO:190:ASP:HA	41:CO:192:TYR:N	2.19	0.58
54:CP:115:GLU:OE1	54:CP:151:THR:CB	2.51	0.58
49:CQ:187:LYS:C	49:CQ:188:ASN:O	2.39	0.58
53:CT:25:VAL:HG12	53:CT:26:PRO:CD	2.33	0.58
55:CU:107:LYS:HE2	55:CU:107:LYS:N	2.17	0.58
58:CW:21:TYR:HE2	58:CW:23:ARG:CB	2.17	0.58
56:CX:141:ALA:HB1	56:CX:142:PRO:CD	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:137:LEU:HD23	15:AB:215:VAL:HA	1.84	0.58
15:AB:93:GLY:C	15:AB:94:LYS:HD3	2.23	0.58
23:AD:218:LEU:C	23:AD:220:THR:HG23	2.24	0.58
29:AG:220:ALA:O	29:AG:224:ARG:HG2	2.04	0.58
29:AG:32:MET:HA	29:AG:52:ILE:HG23	1.86	0.58
29:AG:32:MET:SD	29:AG:100:CYS:SG	3.01	0.58
31:AH:117:PRO:HD2	31:AH:120:ARG:HB2	1.84	0.58
33:AI:141:ARG:HD3	33:AI:144:LYS:CG	2.33	0.58
33:AI:155:ASN:C	33:AI:157:LYS:N	2.56	0.58
11:AL:71:ARG:HD2	11:AL:73:LEU:HD11	1.84	0.58
10:AN:114:ARG:HD3	10:AN:117:LEU:HD12	1.85	0.58
13:AP:107:ILE:O	13:AP:107:ILE:HG13	2.03	0.58
13:AP:53:GLN:NE2	13:AP:80:LEU:HD22	2.16	0.58
34:AQ:138:ARG:HH12	36:B2:1646:C:H3'	1.68	0.58
3:AU:47:ASN:H	3:AU:47:ASN:HD22	1.50	0.58
3:AU:50:VAL:HG22	3:AU:51:LYS:N	2.19	0.58
17:AV:40:ASP:HB3	17:AV:47:ASN:HD21	1.60	0.58
32:AW:77:PRO:HD2	32:AW:79:PHE:CZ	2.39	0.58
6:AX:8:ARG:O	11:AL:102:PHE:O	2.22	0.58
36:B2:79:A:O2'	36:B2:80:G:H8	1.85	0.58
51:CA:155:LYS:O	51:CA:155:LYS:CD	2.50	0.58
51:CA:3:ARG:HD2	51:CA:208:GLU:OE2	2.04	0.58
63:CB:179:HIS:NE2	63:CB:344:VAL:HG21	2.18	0.58
74:CC:146:GLU:O	74:CC:175:LYS:CE	2.51	0.58
74:CC:22:VAL:HG11	74:CC:257:PHE:CD2	2.37	0.58
64:CF:157:ARG:O	64:CF:159:TYR:HD1	1.86	0.58
64:CF:64:MET:O	64:CF:67:THR:HG22	2.03	0.58
82:CG:58:PRO:HG2	82:CG:61:ILE:HD12	1.85	0.58
52:CS:141:ALA:CB	80:CH:1:MET:SD	2.80	0.58
47:CI:16:PRO:CG	47:CI:128:ARG:HH11	1.92	0.58
47:CI:66:GLU:OE1	47:CI:66:GLU:HA	2.03	0.58
40:CK:117:ARG:NE	40:CK:117:ARG:N	2.37	0.58
40:CK:125:LEU:HD13	40:CK:163:PRO:CB	2.21	0.58
40:CK:65:GLN:O	40:CK:66:ASN:OD1	2.22	0.58
42:CL:24:THR:HB	42:CL:26:PHE:CE2	2.39	0.58
46:CN:56:LYS:HG3	46:CN:59:TYR:CD2	2.39	0.58
41:CO:50:ASN:HD22	41:CO:136:ALA:HB3	1.69	0.58
54:CP:29:THR:HG22	54:CP:87:SER:CB	2.34	0.58
49:CQ:38:ARG:HG3	74:CC:302:LEU:HD22	1.85	0.58
49:CQ:39:THR:HG23	49:CQ:41:SER:N	2.19	0.58
58:CW:77:LYS:C	58:CW:78:PHE:CG	2.77	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:CY:66:GLN:NE2	57:CY:66:GLN:CA	2.30	0.58
16:AA:2:SER:OG	16:AA:3:GLY:N	2.36	0.58
15:AB:92:GLN:O	15:AB:95:ASN:HB2	2.02	0.58
27:AE:36:HIS:HB3	27:AE:41:CYS:SG	2.42	0.58
30:AF:116:ILE:CD1	30:AF:116:ILE:H	2.00	0.58
30:AF:15:PRO:HD3	34:AQ:56:LEU:CB	2.34	0.58
30:AF:65:GLN:NE2	30:AF:65:GLN:HA	2.16	0.58
29:AG:135:PRO:CG	29:AG:144:LEU:HD23	2.33	0.58
31:AH:145:ARG:NH1	31:AH:155:LYS:HZ2	1.95	0.58
33:AI:128:LYS:O	33:AI:131:PRO:HD2	2.02	0.58
4:AK:95:ARG:NE	4:AK:95:ARG:HA	2.17	0.58
11:AL:130:GLU:HG2	11:AL:131:CYS:N	2.19	0.58
7:AM:61:TYR:OH	7:AM:108:CYS:SG	2.61	0.58
7:AM:42:LEU:CD1	7:AM:69:LEU:HD23	2.33	0.58
5:AO:51:GLU:OE2	15:AB:28:LYS:NZ	2.36	0.58
34:AQ:28:GLY:HA3	34:AQ:67:ASP:CG	2.24	0.58
8:AS:40:TYR:HA	8:AS:83:PHE:HZ	1.68	0.58
14:AT:4:VAL:HG11	14:AT:139:ALA:HB2	1.84	0.58
3:AU:103:SER:C	3:AU:104:ILE:O	2.38	0.58
19:AZ:90:GLU:O	19:AZ:93:SER:OG	2.17	0.58
36:B2:1240:A:C2	36:B2:1268:C:H5'	2.39	0.58
63:CB:10:ARG:HH12	63:CB:265:SER:HB2	1.68	0.58
74:CC:144:ILE:HD11	74:CC:249:PHE:CD2	2.36	0.58
74:CC:235:LEU:HD21	74:CC:252:TRP:CH2	2.39	0.58
74:CC:28:PHE:O	74:CC:129:ALA:CB	2.52	0.58
74:CC:325:MET:O	74:CC:328:LEU:O	2.22	0.58
74:CC:342:ARG:CZ	74:CC:346:ASN:HD21	2.17	0.58
48:CD:223:PHE:CB	86:A7:49:A:OP1	2.51	0.58
48:CD:253:TYR:CD1	48:CD:254:GLU:N	2.65	0.58
64:CF:243:LEU:HD22	64:CF:247:MET:SD	2.44	0.58
64:CF:28:LEU:O	64:CF:30:ILE:N	2.37	0.58
64:CF:51:TYR:CE2	81:CE:58:SER:CA	2.87	0.58
79:CJ:136:ARG:HH11	79:CJ:155:HIS:HA	1.69	0.58
46:CN:43:THR:OG1	46:CN:131:GLU:OE2	2.22	0.58
46:CN:89:VAL:HG12	46:CN:90:ASN:N	2.19	0.58
41:CO:188:LYS:HE2	41:CO:188:LYS:HA	0.63	0.58
49:CQ:110:ARG:NH2	49:CQ:120:ILE:CD1	2.55	0.58
49:CQ:99:LYS:HZ3	49:CQ:119:LYS:HD2	1.51	0.58
49:CQ:11:ARG:HB2	49:CQ:12:LYS:O	2.03	0.58
50:CR:112:SER:O	50:CR:113:LYS:CB	2.38	0.58
44:CM:66:HIS:NE2	52:CS:148:SER:OG	2.35	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:CM:47:ARG:NH2	52:CS:73:LEU:HD11	2.19	0.58
53:CT:122:LYS:HE3	53:CT:124:THR:OG1	2.04	0.58
53:CT:13:TYR:H	53:CT:13:TYR:HD2	1.52	0.58
56:CX:52:LEU:CD1	56:CX:53:ARG:C	2.71	0.58
85:A5:1051:G:H2'	85:A5:1052:G:H5''	1.85	0.58
85:A5:1282:G:N3	85:A5:1282:G:H2'	2.19	0.58
81:CE:221:LYS:HG2	85:A5:4939:C:H41	1.68	0.58
15:AB:105:LEU:O	15:AB:106:THR:CB	2.52	0.58
29:AG:142:ARG:NE	29:AG:147:LEU:HB3	2.18	0.58
29:AG:76:LEU:HD21	29:AG:92:ARG:CG	2.19	0.58
31:AH:154:ILE:HG22	31:AH:185:VAL:CG2	2.34	0.58
31:AH:46:THR:HG23	31:AH:47:ALA:N	2.17	0.58
4:AK:13:GLU:HG3	4:AK:14:LEU:N	2.19	0.58
4:AK:53:LYS:CA	4:AK:58:VAL:HG13	2.34	0.58
7:AM:69:LEU:CD1	7:AM:76:LEU:CD2	2.79	0.58
34:AQ:112:LEU:CD2	34:AQ:119:LEU:CD1	2.71	0.58
8:AS:10:GLN:CB	8:AS:13:LEU:HD21	2.32	0.58
14:AT:65:TYR:CE2	14:AT:128:GLN:HG3	2.39	0.58
14:AT:28:LEU:CD2	14:AT:28:LEU:O	2.44	0.58
14:AT:23:LYS:CD	14:AT:54:TYR:CG	2.62	0.58
18:AY:117:VAL:HB	18:AY:124:ASN:HD21	1.69	0.58
18:AY:55:ILE:HA	18:AY:74:MET:O	2.04	0.58
32:AW:20:ARG:NH2	36:B2:1139:C:H1'	2.18	0.58
36:B2:79:A:HO2'	36:B2:80:G:H8	1.47	0.58
51:CA:145:LYS:HD3	51:CA:157:VAL:CG1	2.34	0.58
63:CB:233:SER:HB2	63:CB:249:ARG:HH22	1.68	0.58
63:CB:58:ARG:CD	63:CB:363:ILE:HG23	2.33	0.58
74:CC:101:MET:HE3	74:CC:104:PRO:CA	2.34	0.58
74:CC:128:LEU:CD2	74:CC:235:LEU:CD1	2.80	0.58
74:CC:312:ARG:HG2	74:CC:312:ARG:O	2.03	0.58
48:CD:118:ILE:CG2	48:CD:135:ILE:HD12	2.34	0.58
48:CD:261:VAL:CG2	48:CD:262:LYS:HB2	2.30	0.58
48:CD:262:LYS:O	48:CD:266:TRP:HD1	1.87	0.58
82:CG:243:GLY:CA	82:CG:244:PRO:CD	2.82	0.58
82:CG:71:TYR:CE2	82:CG:76:VAL:HG21	2.39	0.58
82:CG:91:THR:O	82:CG:92:ALA:C	2.42	0.58
47:CI:92:HIS:CG	47:CI:94:PHE:CE2	2.92	0.58
42:CL:129:ARG:O	42:CL:130:LYS:CG	2.52	0.58
42:CL:167:ARG:NH1	42:CL:170:THR:OG1	2.37	0.58
46:CN:56:LYS:NZ	46:CN:145:ASN:ND2	2.51	0.58
41:CO:152:VAL:O	41:CO:155:THR:OG1	2.20	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:CO:57:PHE:HZ	41:CO:82:ARG:NH2	1.96	0.58
54:CP:105:LYS:H	54:CP:105:LYS:HD3	1.69	0.58
41:CO:9:LEU:CD1	52:CS:167:PHE:CE1	2.82	0.58
55:CU:59:GLY:O	55:CU:61:VAL:CG1	2.52	0.58
58:CW:96:GLN:O	58:CW:97:LYS:HD3	2.03	0.58
59:CZ:5:MET:SD	59:CZ:25:ILE:HD11	2.43	0.58
85:A5:4943:A:O5'	85:A5:4944:C:O5'	2.22	0.57
16:AA:195:TRP:CE2	16:AA:197:VAL:HB	2.39	0.57
5:AO:53:ILE:HG22	15:AB:25:PHE:CE1	2.37	0.57
28:AC:176:LYS:CD	28:AC:177:PRO:HD2	2.35	0.57
23:AD:116:ARG:O	23:AD:120:TYR:HB2	2.04	0.57
27:AE:229:GLY:HA3	27:AE:235:TRP:CD1	2.39	0.57
30:AF:134:VAL:HG11	30:AF:136:ARG:NH2	2.12	0.57
30:AF:194:ASP:O	30:AF:194:ASP:OD1	2.21	0.57
33:AI:129:LEU:O	33:AI:134:GLU:HB2	2.03	0.57
33:AI:155:ASN:CG	33:AI:156:ALA:N	2.57	0.57
26:AJ:134:HIS:HE2	36:B2:562:U:P	2.27	0.57
26:AJ:170:PRO:CB	26:AJ:174:LYS:NZ	2.67	0.57
11:AL:6:THR:HG23	11:AL:7:GLU:N	2.19	0.57
7:AM:13:ASP:C	7:AM:16:THR:HB	2.13	0.57
7:AM:71:GLU:C	7:AM:72:HIS:O	2.42	0.57
34:AQ:93:VAL:HG11	34:AQ:105:LYS:HE2	0.58	0.57
8:AS:55:ARG:CG	19:AZ:48:VAL:HG11	2.33	0.57
8:AS:73:ASN:HB3	8:AS:76:GLN:OE1	2.04	0.57
6:AX:126:ALA:O	6:AX:128:VAL:N	2.37	0.57
6:AX:87:ASN:HB2	6:AX:90:CYS:SG	2.43	0.57
18:AY:55:ILE:HD11	18:AY:75:ILE:HD13	1.86	0.57
51:CA:5:ILE:HG12	51:CA:208:GLU:O	2.04	0.57
74:CC:124:ILE:HG23	74:CC:240:LEU:HD12	1.85	0.57
48:CD:137:GLY:C	48:CD:138:GLN:HG2	2.15	0.57
82:CG:28:VAL:O	82:CG:31:LEU:HD23	2.04	0.57
82:CG:51:LEU:N	82:CG:51:LEU:CD2	2.66	0.57
47:CI:57:TYR:O	47:CI:57:TYR:CD2	2.57	0.57
79:CJ:13:ARG:NH1	79:CJ:136:ARG:NH1	2.52	0.57
42:CL:127:PHE:HE2	42:CL:144:LEU:HD23	1.68	0.57
42:CL:87:HIS:CE1	42:CL:90:VAL:HG23	2.39	0.57
46:CN:138:PHE:CB	46:CN:143:ARG:HH21	2.15	0.57
49:CQ:32:TYR:OH	49:CQ:47:VAL:HG21	2.04	0.57
49:CQ:77:ASN:CA	49:CQ:78:LYS:HE2	2.34	0.57
52:CS:2:LYS:NZ	52:CS:34:ALA:HB2	2.19	0.57
57:CY:65:GLN:HA	57:CY:67:ILE:HG13	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:130:THR:CG2	15:AB:179:ASN:N	2.67	0.57
15:AB:226:GLY:O	15:AB:230:GLU:HG3	2.04	0.57
28:AC:182:CYS:SG	28:AC:250:TYR:CZ	2.93	0.57
23:AD:126:ILE:HD12	23:AD:134:CYS:HB2	1.87	0.57
23:AD:132:LYS:N	23:AD:191:PRO:HG2	2.17	0.57
23:AD:218:LEU:CG	23:AD:218:LEU:O	2.53	0.57
27:AE:156:VAL:O	27:AE:157:ASN:HB2	2.03	0.57
29:AG:174:PRO:O	29:AG:175:LYS:HB2	2.02	0.57
29:AG:73:VAL:HG12	29:AG:74:ARG:N	2.20	0.57
31:AH:15:LYS:HB3	31:AH:16:PRO:HD2	1.61	0.57
33:AI:9:HIS:O	33:AI:10:LYS:CG	2.52	0.57
33:AI:142:SER:HB3	33:AI:143:LYS:CD	2.34	0.57
33:AI:29:LEU:HD21	33:AI:31:ARG:HH12	1.69	0.57
33:AI:62:VAL:HG23	33:AI:75:LYS:CE	2.32	0.57
11:AL:109:MET:SD	11:AL:140:PHE:CE1	2.97	0.57
7:AM:13:ASP:HB2	7:AM:16:THR:OG1	2.04	0.57
10:AN:142:GLU:HG2	10:AN:145:THR:HG23	1.86	0.57
5:AO:17:LEU:CG	5:AO:18:GLY:N	2.68	0.57
34:AQ:18:THR:O	34:AQ:75:GLY:HA3	2.04	0.57
8:AS:30:ILE:CD1	8:AS:45:LEU:HD21	2.29	0.57
8:AS:46:ARG:NE	14:AT:50:GLU:CD	2.58	0.57
18:AY:66:GLY:HA3	36:B2:582:U:OP1	2.04	0.57
36:B2:889:U:H2'	36:B2:890:U:H5''	1.86	0.57
74:CC:202:ILE:HG22	74:CC:203:GLN:N	2.18	0.57
74:CC:218:ILE:HG12	74:CC:229:LEU:HD12	0.83	0.57
74:CC:23:THR:O	74:CC:24:LEU:O	2.22	0.57
74:CC:91:ALA:HB1	74:CC:92:PHE:HE2	0.83	0.57
48:CD:111:ASN:OD1	48:CD:116:ASP:OD2	2.21	0.57
81:CE:282:TYR:HD2	81:CE:282:TYR:N	2.02	0.57
81:CE:65:ARG:HB3	81:CE:69:TYR:HE2	1.68	0.57
64:CF:196:THR:O	64:CF:197:VAL:HB	2.04	0.57
64:CF:224:THR:C	64:CF:225:THR:O	2.42	0.57
64:CF:89:LEU:HD13	64:CF:90:ALA:N	2.19	0.57
80:CH:140:GLN:CB	80:CH:143:GLU:OE1	2.52	0.57
80:CH:25:VAL:HG13	80:CH:38:PHE:CD2	2.39	0.57
40:CK:110:VAL:O	40:CK:110:VAL:HG12	2.04	0.57
40:CK:142:ASN:ND2	40:CK:151:ILE:CD1	2.67	0.57
54:CP:27:LYS:HG2	54:CP:63:TYR:HB3	1.79	0.57
52:CS:117:HIS:O	52:CS:118:ARG:HB2	2.04	0.57
56:CX:76:ILE:CD1	56:CX:104:ALA:HB1	2.28	0.57
85:A5:1341:U:H3	85:A5:1515:A:H61	1.52	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:3965:A:H61	85:A5:4045:G:H21	1.51	0.57
15:AB:47:THR:CG2	15:AB:67:PHE:CZ	2.82	0.57
15:AB:76:ASN:O	15:AB:76:ASN:CG	2.39	0.57
23:AD:149:SER:O	23:AD:150:MET:SD	2.63	0.57
30:AF:119:SER:O	30:AF:121:PRO:HD3	2.04	0.57
30:AF:136:ARG:O	30:AF:203:ASN:CB	2.45	0.57
31:AH:109:ARG:O	31:AH:110:THR:HB	2.04	0.57
31:AH:188:GLU:HG2	31:AH:189:PHE:H	1.69	0.57
31:AH:60:ILE:HG21	31:AH:92:VAL:HG22	1.87	0.57
26:AJ:168:GLY:O	26:AJ:169:ARG:C	2.43	0.57
5:AO:20:GLN:HG2	5:AO:21:VAL:C	2.25	0.57
34:AQ:111:ILE:C	34:AQ:114:GLN:HG2	2.25	0.57
8:AS:80:PRO:CG	8:AS:82:TRP:NE1	2.67	0.57
8:AS:89:ASP:HB2	8:AS:94:LYS:HB2	1.85	0.57
18:AY:101:LYS:C	18:AY:102:THR:HG1	2.06	0.57
19:AZ:92:LEU:CD1	19:AZ:109:TYR:CE1	2.84	0.57
36:B2:281:C:H5''	36:B2:281:C:H6	1.69	0.57
29:AG:170:ARG:HG2	36:B2:71:G:O6	2.05	0.57
51:CA:51:ASP:OD2	51:CA:54:ARG:NE	2.37	0.57
63:CB:40:PRO:C	63:CB:187:GLY:HA2	2.24	0.57
63:CB:327:THR:CG2	63:CB:328:ASN:HD21	2.17	0.57
81:CE:54:ILE:N	81:CE:63:TYR:CD2	2.72	0.57
64:CF:153:LEU:HD23	64:CF:248:ASN:HD22	1.68	0.57
40:CK:114:ARG:HE	40:CK:130:LYS:HE2	1.69	0.57
40:CK:94:LYS:H	40:CK:95:GLN:HB2	1.69	0.57
42:CL:143:GLU:OE1	42:CL:146:LEU:HG	2.05	0.57
41:CO:10:ASP:CB	41:CO:117:ARG:HG3	2.19	0.57
54:CP:54:GLN:O	54:CP:72:GLN:NE2	2.34	0.57
50:CR:133:LYS:HG2	50:CR:137:ILE:HD12	1.86	0.57
50:CR:133:LYS:HG3	50:CR:134:ASN:H	1.70	0.57
52:CS:16:CYS:C	52:CS:17:LEU:O	2.34	0.57
55:CU:63:ILE:HD11	55:CU:72:VAL:HG13	1.84	0.57
43:CV:82:ILE:HG21	43:CV:121:VAL:CG1	2.33	0.57
43:CV:42:VAL:O	43:CV:45:ILE:HD12	2.04	0.57
29:AG:130:PRO:C	58:CW:81:ALA:HB3	2.24	0.57
56:CX:101:ASP:CG	56:CX:103:LYS:HB2	2.25	0.57
57:CY:34:LEU:CG	57:CY:38:LEU:HB3	2.20	0.57
81:CE:219:LYS:HD3	85:A5:4939:C:H6	1.68	0.57
12:AR:123:THR:HG22	16:AA:44:ASP:HA	0.58	0.57
28:AC:169:TYR:CZ	28:AC:176:LYS:CA	2.86	0.57
23:AD:123:LEU:HD11	23:AD:154:ASP:CB	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:214:LYS:HE2	23:AD:214:LYS:O	2.04	0.57
30:AF:134:VAL:HG12	30:AF:136:ARG:NH2	2.19	0.57
29:AG:50:VAL:HG11	29:AG:111:LEU:CB	2.35	0.57
31:AH:100:ILE:HG13	31:AH:125:VAL:HG21	1.87	0.57
33:AI:136:ILE:O	33:AI:139:LYS:CD	2.52	0.57
26:AJ:84:ILE:O	26:AJ:108:ARG:HD3	2.03	0.57
13:AP:127:LYS:HE3	13:AP:128:HIS:HA	1.86	0.57
34:AQ:105:LYS:NZ	34:AQ:109:LYS:CB	2.66	0.57
14:AT:30:VAL:O	14:AT:30:VAL:CG2	2.29	0.57
14:AT:76:THR:CG2	14:AT:95:GLY:O	2.52	0.57
6:AX:125:VAL:C	6:AX:127:ASN:N	2.54	0.57
6:AX:126:ALA:O	6:AX:128:VAL:CG2	2.52	0.57
6:AX:91:LEU:O	6:AX:94:ILE:N	2.31	0.57
18:AY:98:GLU:O	18:AY:98:GLU:CD	2.41	0.57
36:B2:1301:A:H2'	36:B2:1302:G:H5''	1.87	0.57
51:CA:247:ARG:HH11	51:CA:247:ARG:HG2	1.69	0.57
63:CB:218:ASP:CG	63:CB:280:ILE:HG22	2.24	0.57
74:CC:133:LEU:HG	74:CC:133:LEU:O	2.04	0.57
64:CF:95:ILE:HG13	64:CF:139:TYR:O	2.04	0.57
82:CG:217:LYS:CA	82:CG:217:LYS:CE	2.32	0.57
82:CG:243:GLY:CA	82:CG:244:PRO:N	2.66	0.57
82:CG:76:VAL:HG12	82:CG:81:ASN:OD1	2.03	0.57
79:CJ:174:ILE:CG2	79:CJ:175:LEU:N	2.66	0.57
40:CK:118:HIS:O	40:CK:120:SER:N	2.37	0.57
40:CK:94:LYS:HA	40:CK:96:LYS:N	2.18	0.57
42:CL:116:ARG:HH11	42:CL:155:MET:CB	2.17	0.57
46:CN:138:PHE:CA	46:CN:143:ARG:CZ	2.72	0.57
41:CO:119:VAL:O	52:CS:167:PHE:CB	2.53	0.57
49:CQ:85:THR:CG2	49:CQ:104:ARG:HB2	2.16	0.57
49:CQ:152:PHE:O	49:CQ:154:LYS:HG2	2.05	0.57
49:CQ:18:PRO:O	49:CQ:20:SER:N	2.37	0.57
52:CS:82:LEU:HD13	52:CS:124:ILE:CG2	2.26	0.57
58:CW:25:ASP:N	58:CW:25:ASP:OD1	2.28	0.57
56:CX:48:ARG:HH21	85:A5:11:G:H4'	1.69	0.57
57:CY:74:TYR:CD1	57:CY:81:TYR:CE2	2.92	0.57
57:CY:82:ILE:HD12	57:CY:99:ILE:CD1	2.34	0.57
59:CZ:55:ALA:HA	82:CG:32:PHE:HE2	1.69	0.57
85:A5:2017:A:C8	85:A5:2018:C:C5	2.93	0.57
85:A5:2553:A:H3'	85:A5:2554:U:H5'	1.87	0.57
16:AA:45:GLY:C	16:AA:46:ILE:HG12	2.22	0.57
28:AC:78:LEU:CD1	28:AC:82:TYR:OH	2.47	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AF:104:THR:HG22	30:AF:104:THR:O	2.03	0.57
30:AF:193:LYS:HE2	30:AF:197:GLU:CD	2.25	0.57
26:AJ:15:THR:HB	26:AJ:44:TRP:CH2	2.39	0.57
26:AJ:72:PHE:CE1	27:AE:248:ILE:CA	2.86	0.57
11:AL:46:THR:HG23	11:AL:46:THR:O	2.04	0.57
4:AK:84:HIS:CD2	7:AM:27:ILE:HG13	2.32	0.57
10:AN:58:HIS:CD2	10:AN:59:GLY:H	2.23	0.57
5:AO:47:LEU:CA	15:AB:67:PHE:CE1	2.87	0.57
13:AP:8:LYS:C	13:AP:11:THR:HG22	2.24	0.57
13:AP:44:ARG:CD	13:AP:82:ASP:O	2.52	0.57
8:AS:33:ILE:CB	8:AS:36:VAL:CG1	2.80	0.57
14:AT:111:LYS:O	14:AT:124:THR:CG2	2.51	0.57
14:AT:64:LEU:H	14:AT:64:LEU:HD23	1.70	0.57
18:AY:10:ARG:CD	18:AY:24:VAL:HG11	2.33	0.57
19:AZ:92:LEU:CD2	19:AZ:109:TYR:CE1	2.84	0.57
51:CA:67:TYR:CD1	82:CG:46:GLN:HB3	2.39	0.57
63:CB:108:GLU:HG3	63:CB:137:TRP:CE2	2.38	0.57
74:CC:300:ARG:HD2	74:CC:300:ARG:C	2.25	0.57
81:CE:198:SER:O	81:CE:199:THR:C	2.43	0.57
82:CG:44:ASP:O	82:CG:45:ILE:C	2.42	0.57
80:CH:16:VAL:HG13	80:CH:28:LYS:O	2.05	0.57
47:CI:26:VAL:HG11	47:CI:96:VAL:HG22	1.85	0.57
79:CJ:20:LEU:CD1	79:CJ:83:LEU:HD23	2.33	0.57
42:CL:55:ILE:CD1	42:CL:120:TYR:CD2	2.87	0.57
42:CL:127:PHE:CZ	42:CL:144:LEU:HD22	2.40	0.57
46:CN:76:PRO:O	46:CN:77:LYS:HB3	2.04	0.57
49:CQ:2:GLY:HA2	49:CQ:3:VAL:HG23	1.87	0.57
50:CR:65:LYS:C	50:CR:68:LEU:HG	2.25	0.57
52:CS:141:ALA:C	52:CS:144:GLN:HE21	2.06	0.57
58:CW:24:THR:OG1	58:CW:25:ASP:CA	2.52	0.57
58:CW:70:LYS:O	58:CW:71:ARG:HG2	2.05	0.57
58:CW:76:VAL:C	58:CW:77:LYS:HD3	2.24	0.57
59:CZ:48:ARG:NH2	85:A5:2575:U:C5	2.72	0.57
85:A5:2621:A:H61	85:A5:2635:U:H3	1.50	0.57
15:AB:53:GLN:HG2	15:AB:56:LYS:HB2	1.86	0.57
28:AC:207:ALA:HB3	28:AC:210:PRO:CD	2.35	0.57
23:AD:48:ILE:HG23	23:AD:48:ILE:O	2.04	0.57
23:AD:59:LEU:CG	23:AD:60:GLY:H	2.16	0.57
23:AD:70:THR:HA	23:AD:86:LEU:HD11	1.87	0.57
33:AI:142:SER:HB3	33:AI:143:LYS:HB2	0.62	0.57
4:AK:64:TRP:O	4:AK:65:ARG:HG3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:97:ARG:HG2	11:AL:98:LYS:CA	2.34	0.57
34:AQ:18:THR:HB	34:AQ:75:GLY:H	1.70	0.57
8:AS:120:HIS:CD2	8:AS:124:ARG:HG3	2.39	0.57
17:AV:29:HIS:HE1	28:AC:85:SER:C	2.07	0.57
17:AV:80:SER:HB2	17:AV:81:LYS:CE	2.34	0.57
18:AY:10:ARG:HG2	18:AY:24:VAL:CB	2.20	0.57
36:B2:1242:U:C5	36:B2:1520:G:C8	2.92	0.57
36:B2:320:G:H2'	36:B2:321:C:O5'	2.05	0.57
51:CA:118:GLU:HG3	51:CA:119:LYS:H	1.65	0.57
51:CA:77:ILE:HD11	51:CA:128:ARG:NH1	2.17	0.57
63:CB:285:TYR:CZ	63:CB:334:LYS:HG3	2.39	0.57
74:CC:146:GLU:CG	74:CC:175:LYS:HE3	2.34	0.57
49:CQ:22:ASP:OD2	74:CC:33:ARG:NE	2.36	0.57
74:CC:85:HIS:N	74:CC:87:SER:N	2.53	0.57
81:CE:45:SER:HB2	81:CE:51:VAL:O	2.04	0.57
81:CE:55:GLY:O	81:CE:65:ARG:NH1	2.38	0.57
81:CE:83:LYS:CB	81:CE:84:LYS:HA	2.24	0.57
82:CG:207:VAL:CG2	82:CG:215:LEU:CD1	2.82	0.57
82:CG:30:PRO:HB2	82:CG:31:LEU:HD13	1.85	0.57
82:CG:32:PHE:O	82:CG:33:GLU:CD	2.43	0.57
40:CK:49:ALA:N	40:CK:52:ASP:OD2	2.38	0.57
40:CK:80:LEU:HD23	40:CK:83:LYS:CD	2.34	0.57
40:CK:97:ASN:N	40:CK:98:ILE:HA	2.19	0.57
40:CK:97:ASN:N	40:CK:98:ILE:HG12	2.20	0.57
41:CO:195:VAL:CG1	44:CM:115:ALA:O	2.53	0.57
49:CQ:151:HIS:ND1	49:CQ:164:LYS:C	2.52	0.57
49:CQ:157:GLY:C	49:CQ:159:PRO:HD2	2.25	0.57
49:CQ:5:ILE:HG21	49:CQ:7:HIS:O	2.04	0.57
44:CM:6:PHE:HA	52:CS:152:PHE:O	2.04	0.57
58:CW:23:ARG:NH1	58:CW:29:PHE:CD2	2.68	0.57
59:CZ:123:LYS:O	59:CZ:124:THR:OG1	2.19	0.57
85:A5:1218:G:H3'	85:A5:1219:G:H5''	1.87	0.57
85:A5:939:G:H2'	85:A5:940:C:C6	2.38	0.57
87:A8:103:A:C8	87:A8:104:A:C8	2.93	0.57
15:AB:110:MET:CE	15:AB:213:ARG:HD2	2.35	0.57
15:AB:44:ILE:HD11	15:AB:86:LEU:HD13	1.86	0.57
23:AD:74:GLN:NE2	23:AD:75:LYS:CD	2.67	0.57
23:AD:93:THR:HG23	23:AD:93:THR:O	2.05	0.57
30:AF:42:LYS:HB2	30:AF:46:ALA:N	2.19	0.57
29:AG:155:GLN:C	29:AG:156:TYR:CD1	2.78	0.57
29:AG:185:LEU:HA	29:AG:188:LYS:HE3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AG:192:ILE:HG13	29:AG:193:ALA:N	2.18	0.57
31:AH:117:PRO:HD2	31:AH:120:ARG:CD	2.35	0.57
26:AJ:87:LEU:HD12	26:AJ:91:LYS:HD3	1.87	0.57
13:AP:70:MET:SD	79:CJ:93:GLU:OE2	2.63	0.57
3:AU:67:LYS:CE	3:AU:78:ASP:CG	2.69	0.57
6:AX:105:PHE:HB3	6:AX:112:VAL:HG21	1.86	0.57
36:B2:64:A:H2	36:B2:66:G:C8	2.22	0.57
74:CC:110:ARG:HD2	74:CC:113:ARG:NE	2.17	0.57
74:CC:32:ILE:HD12	74:CC:130:ALA:HB2	1.86	0.57
74:CC:307:LYS:O	74:CC:310:HIS:HE1	1.87	0.57
81:CE:65:ARG:CG	81:CE:65:ARG:NH1	2.43	0.57
82:CG:190:LEU:CB	82:CG:199:CYS:HB2	2.33	0.57
82:CG:76:VAL:HG12	82:CG:81:ASN:CG	2.24	0.57
47:CI:56:GLU:OE1	47:CI:161:GLY:HA3	2.04	0.57
79:CJ:85:LYS:HD2	79:CJ:115:LEU:HD13	1.86	0.57
40:CK:130:LYS:NZ	40:CK:158:GLY:HA3	2.20	0.57
41:CO:193:THR:O	41:CO:196:LEU:N	2.38	0.57
54:CP:10:ASN:HD22	54:CP:10:ASN:C	2.06	0.57
49:CQ:58:ARG:N	49:CQ:59:PRO:CD	2.67	0.57
50:CR:133:LYS:CG	50:CR:137:ILE:HD13	2.34	0.57
36:B2:910:G:OP1	50:CR:173:ARG:HB2	2.03	0.57
50:CR:94:THR:CA	50:CR:97:ARG:CD	2.77	0.57
52:CS:149:LYS:O	52:CS:150:ILE:HB	2.04	0.57
52:CS:32:ILE:HG21	52:CS:43:ARG:HB2	1.87	0.57
55:CU:33:ILE:CG1	55:CU:96:LEU:CD2	2.83	0.57
55:CU:66:SER:C	55:CU:67:LYS:CG	2.62	0.57
58:CW:14:TYR:CE1	63:CB:367:PHE:CZ	2.92	0.57
59:CZ:4:PHE:C	59:CZ:6:LYS:HG2	2.24	0.57
86:A7:28:C:H1'	86:A7:54:A:H61	1.70	0.57
16:AA:30:LEU:CD1	16:AA:38:ILE:HD12	2.24	0.57
16:AA:76:VAL:HG12	16:AA:87:VAL:HG12	1.86	0.57
15:AB:120:MET:HB2	15:AB:142:PHE:HE1	1.70	0.57
15:AB:225:LEU:HB3	15:AB:229:MET:CE	2.34	0.57
15:AB:87:ILE:CD1	15:AB:220:LYS:HZ3	2.17	0.57
28:AC:108:LYS:HE2	28:AC:233:LEU:HD21	1.84	0.57
23:AD:55:THR:HA	23:AD:58:VAL:CG2	2.35	0.57
30:AF:36:GLN:HG2	30:AF:37:ASP:CG	2.24	0.57
29:AG:120:ASP:N	29:AG:120:ASP:OD1	2.38	0.57
29:AG:131:ARG:HD3	58:CW:80:ARG:HB3	1.86	0.57
4:AK:1:MET:N	4:AK:2:LEU:O	2.33	0.57
8:AS:120:HIS:CE1	13:AP:123:TYR:CD2	2.55	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:22:LEU:HA	13:AP:25:LEU:HD12	1.87	0.57
13:AP:49:LEU:CA	13:AP:51:ARG:CD	2.83	0.57
34:AQ:19:ALA:CB	34:AQ:75:GLY:HA3	2.33	0.57
34:AQ:50:LYS:CA	34:AQ:53:GLU:HG3	2.34	0.57
34:AQ:92:LEU:O	34:AQ:96:TYR:HD2	1.87	0.57
8:AS:58:GLU:CB	8:AS:59:LEU:HD13	2.34	0.57
8:AS:85:ASN:ND2	8:AS:98:VAL:H	2.03	0.57
17:AV:18:SER:O	17:AV:72:LEU:HD21	2.05	0.57
17:AV:49:GLN:O	17:AV:50:PHE:O	2.23	0.57
32:AW:128:PHE:CZ	32:AW:130:PHE:HE2	2.22	0.57
6:AX:5:ARG:HA	11:AL:101:ARG:NH1	2.17	0.57
18:AY:63:HIS:CG	18:AY:64:PHE:CD1	2.88	0.57
74:CC:156:ASP:OD1	74:CC:255:SER:HB3	2.05	0.57
74:CC:354:ALA:O	74:CC:357:ALA:CB	2.46	0.57
48:CD:268:ARG:CG	48:CD:268:ARG:NH1	2.30	0.57
82:CG:104:PRO:O	82:CG:105:GLU:CG	2.39	0.57
82:CG:121:LYS:HB2	82:CG:129:PRO:CG	2.35	0.57
82:CG:152:ALA:CA	82:CG:205:THR:CG2	2.79	0.57
15:AB:58:ALA:N	82:CG:264:LYS:HE3	2.20	0.57
82:CG:35:ARG:HA	82:CG:36:PRO:CD	2.35	0.57
80:CH:34:LEU:CD2	80:CH:150:ASP:OD2	2.51	0.57
47:CI:38:ARG:HG2	47:CI:83:ASP:CB	2.34	0.57
40:CK:78:SER:O	40:CK:81:ILE:HG12	2.05	0.57
42:CL:142:GLU:O	42:CL:143:GLU:O	2.23	0.57
44:CM:25:VAL:CB	44:CM:38:VAL:CG1	2.82	0.57
54:CP:49:LYS:CE	54:CP:92:LEU:HD21	2.35	0.57
54:CP:64:ASN:O	54:CP:80:GLN:OE1	2.23	0.57
49:CQ:151:HIS:HB2	49:CQ:166:TYR:CE2	2.40	0.57
49:CQ:25:LEU:HD12	49:CQ:28:LEU:HD11	1.86	0.57
55:CU:121:GLU:O	55:CU:122:GLU:CB	2.53	0.57
55:CU:48:LYS:CE	55:CU:52:LYS:CG	2.79	0.57
55:CU:59:GLY:O	55:CU:61:VAL:HG13	2.04	0.57
56:CX:57:GLN:H	56:CX:58:PRO:HD2	1.60	0.57
57:CY:110:LYS:CG	57:CY:115:ARG:NH1	2.62	0.57
57:CY:74:TYR:HB2	57:CY:81:TYR:CE2	2.39	0.57
59:CZ:52:LYS:O	59:CZ:52:LYS:CG	2.47	0.57
85:A5:228:C:H2'	85:A5:229:G:C8	2.40	0.57
10:AN:53:ILE:HD12	15:AB:52:THR:CG2	83.72	0.57
28:AC:241:PHE:O	28:AC:244:ILE:HG12	2.05	0.57
30:AF:122:ARG:C	30:AF:141:VAL:HG13	2.18	0.57
30:AF:59:LYS:HD3	30:AF:62:ARG:CD	2.23	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AG:159:ARG:HH22	29:AG:161:PRO:CA	2.18	0.57
31:AH:99:ARG:O	31:AH:100:ILE:O	2.23	0.57
31:AH:6:ALA:HB2	31:AH:10:LYS:HZ2	1.69	0.57
11:AL:22:ARG:CD	33:AI:154:LYS:O	2.53	0.57
33:AI:48:VAL:HG11	33:AI:54:LYS:HE3	1.87	0.57
26:AJ:78:LEU:HD23	26:AJ:97:ILE:HD11	1.86	0.57
26:AJ:81:LEU:CD1	26:AJ:97:ILE:CD1	2.82	0.57
7:AM:28:HIS:O	7:AM:29:ASP:CB	2.52	0.57
10:AN:53:ILE:HD11	15:AB:52:THR:HG22	81.93	0.57
5:AO:75:MET:SD	5:AO:114:SER:O	2.63	0.57
13:AP:41:GLN:NE2	13:AP:45:LEU:CD1	2.67	0.57
13:AP:56:LEU:HD22	13:AP:78:THR:CG2	2.34	0.57
14:AT:40:ALA:O	14:AT:43:LYS:HB2	2.05	0.57
14:AT:85:ASN:CB	14:AT:88:MET:HB2	2.35	0.57
17:AV:55:ILE:HG22	17:AV:60:ARG:HG3	1.87	0.57
16:AA:57:LYS:HE2	17:AV:70:LEU:HD21	1.85	0.57
36:B2:530:U:C5	36:B2:531:A:C4	2.93	0.57
63:CB:189:THR:HG23	63:CB:192:GLU:CG	2.34	0.57
74:CC:5:ARG:HG2	74:CC:24:LEU:HB2	1.83	0.57
82:CG:207:VAL:C	82:CG:208:ASN:O	2.41	0.57
82:CG:227:ASN:O	82:CG:230:TYR:HB3	2.03	0.57
82:CG:91:THR:O	82:CG:94:GLN:N	2.38	0.57
47:CI:176:PHE:HD1	47:CI:176:PHE:N	1.95	0.57
47:CI:91:LEU:HD12	47:CI:135:ILE:CG2	2.33	0.57
79:CJ:110:GLN:O	79:CJ:111:GLU:CG	2.52	0.57
79:CJ:26:VAL:HB	79:CJ:33:LEU:HD22	1.83	0.57
40:CK:114:ARG:CB	40:CK:129:ILE:HG22	2.35	0.57
40:CK:22:VAL:HG21	40:CK:48:LYS:HE3	1.86	0.57
40:CK:2:PRO:HD3	40:CK:6:ASP:CB	2.33	0.57
40:CK:39:PRO:HG2	40:CK:43:GLY:H	1.70	0.57
40:CK:62:LEU:CD1	40:CK:64:ILE:HD11	2.34	0.57
40:CK:92:ARG:CA	40:CK:95:GLN:OE1	2.32	0.57
44:CM:120:ASN:HA	44:CM:123:ILE:CG2	2.35	0.57
46:CN:104:GLU:CG	46:CN:161:MET:SD	2.92	0.57
41:CO:122:ALA:HA	52:CS:161:ARG:CB	2.35	0.57
54:CP:30:ARG:NH1	54:CP:62:ARG:NH2	2.53	0.57
52:CS:120:ARG:O	52:CS:122:HIS:N	2.38	0.57
53:CT:144:ASN:O	53:CT:144:ASN:ND2	2.33	0.57
43:CV:96:LEU:HD23	43:CV:96:LEU:H	1.70	0.57
58:CW:109:ILE:C	58:CW:110:ARG:HD3	2.25	0.57
59:CZ:87:VAL:HG13	59:CZ:127:ASN:ND2	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CZ:95:VAL:HG13	59:CZ:110:ALA:HA	1.86	0.57
63:CB:246:ARG:NH1	85:A5:4523:A:O3'	2.38	0.57
79:CJ:85:LYS:HZ3	87:A8:86:U:H3	183.67	0.57
16:AA:24:HIS:HB2	16:AA:49:ILE:O	2.04	0.57
28:AC:78:LEU:HB3	28:AC:82:TYR:CE2	2.40	0.57
23:AD:141:LYS:HE3	23:AD:179:GLN:NE2	2.20	0.57
30:AF:21:GLY:C	30:AF:22:LYS:HG3	2.25	0.57
29:AG:19:ASP:O	29:AG:20:ASP:HB2	2.05	0.57
31:AH:9:VAL:CA	31:AH:11:PRO:HD3	2.35	0.57
33:AI:140:LYS:C	33:AI:141:ARG:CG	2.73	0.57
11:AL:22:ARG:NE	33:AI:157:LYS:HB2	2.19	0.57
33:AI:22:HIS:CD2	33:AI:25:ARG:HH11	2.22	0.57
26:AJ:65:GLU:HA	26:AJ:70:ARG:HD3	1.87	0.57
26:AJ:91:LYS:C	26:AJ:93:LYS:H	2.08	0.57
4:AK:43:LEU:H	4:AK:46:MET:CB	2.18	0.57
4:AK:61:GLN:O	4:AK:67:PHE:HA	2.04	0.57
4:AK:64:TRP:C	4:AK:65:ARG:HG2	2.24	0.57
11:AL:8:ARG:HD2	33:AI:85:ALA:HB1	1.85	0.57
13:AP:67:ALA:HB2	13:AP:73:PRO:CB	2.35	0.57
30:AF:47:LYS:CB	34:AQ:117:ARG:HH22	2.16	0.57
8:AS:42:HIS:HD2	14:AT:45:LEU:CG	1.91	0.57
8:AS:89:ASP:O	8:AS:90:VAL:HG23	2.05	0.57
14:AT:5:THR:CG2	14:AT:7:LYS:HB2	2.35	0.57
17:AV:42:VAL:O	17:AV:43:THR:CB	2.52	0.57
17:AV:19:ALA:CB	17:AV:59:ILE:CD1	2.76	0.57
19:AZ:105:ALA:O	19:AZ:106:GLN:HG3	2.05	0.57
36:B2:1412:C:C2'	36:B2:1413:G:C8	2.85	0.57
31:AH:106:ARG:CZ	36:B2:861:A:C2	2.88	0.57
36:B2:896:U:C2'	36:B2:897:U:H5'	2.34	0.57
51:CA:254:GLU:CB	51:CA:255:LYS:HB3	2.33	0.57
63:CB:301:ASN:O	63:CB:301:ASN:OD1	2.22	0.57
63:CB:40:PRO:O	63:CB:41:VAL:CG2	2.49	0.57
57:CY:3:PHE:CZ	74:CC:222:ARG:HD3	2.33	0.57
74:CC:39:PHE:CE1	74:CC:115:VAL:HG13	2.39	0.57
48:CD:253:TYR:CG	48:CD:254:GLU:N	2.72	0.57
82:CG:163:PRO:HB2	82:CG:166:LEU:HG	1.86	0.57
82:CG:253:LEU:HD23	82:CG:253:LEU:O	2.04	0.57
80:CH:25:VAL:HG22	80:CH:38:PHE:CE2	2.39	0.57
40:CK:1:MET:H2	40:CK:6:ASP:HB2	1.69	0.57
42:CL:84:ALA:HB2	42:CL:117:LEU:CD1	2.35	0.57
42:CL:50:PRO:CD	42:CL:51:ALA:HB1	2.31	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:58:GLY:N	46:CN:139:HIS:NE2	2.53	0.57
46:CN:66:VAL:HG12	46:CN:67:ARG:N	2.19	0.57
46:CN:79:ALA:O	46:CN:87:HIS:CD2	2.58	0.57
49:CQ:61:LEU:HD23	49:CQ:141:GLY:CA	2.35	0.57
49:CQ:143:ARG:C	49:CQ:145:GLY:H	2.04	0.57
49:CQ:34:PHE:CG	74:CC:293:LEU:CD2	2.81	0.57
52:CS:78:PHE:CZ	52:CS:102:THR:CG2	2.88	0.57
53:CT:65:TYR:HB3	53:CT:75:VAL:HG23	1.86	0.57
43:CV:113:LYS:HG3	43:CV:114:GLY:N	2.19	0.57
43:CV:83:ARG:NH2	43:CV:100:ASP:OD1	2.38	0.57
58:CW:23:ARG:NH2	58:CW:29:PHE:CE2	2.72	0.57
56:CX:67:ARG:HG2	56:CX:70:LYS:HE2	1.86	0.57
57:CY:22:PRO:CG	57:CY:25:ILE:CG1	2.83	0.57
57:CY:60:GLY:O	57:CY:63:LYS:HB2	2.05	0.57
57:CY:82:ILE:HG22	57:CY:83:GLU:N	2.19	0.57
85:A5:1577:G:N3	85:A5:1577:G:H3'	2.19	0.56
85:A5:450:G:H1	85:A5:1297:U:H3	1.53	0.56
16:AA:115:ALA:O	16:AA:117:ARG:HG2	2.05	0.56
15:AB:104:ASP:CG	15:AB:105:LEU:H	2.07	0.56
15:AB:87:ILE:HD12	15:AB:220:LYS:HZ3	1.69	0.56
28:AC:192:LEU:HD12	28:AC:192:LEU:C	2.25	0.56
28:AC:65:LYS:HB2	28:AC:273:LEU:CB	2.34	0.56
4:AK:64:TRP:HE1	23:AD:23:GLU:CG	2.18	0.56
23:AD:47:GLU:CG	23:AD:85:GLU:CG	2.71	0.56
30:AF:59:LYS:CD	30:AF:62:ARG:HD3	2.23	0.56
29:AG:227:GLN:HA	29:AG:230:LYS:HD2	1.87	0.56
33:AI:48:VAL:HG11	33:AI:54:LYS:HB2	1.86	0.56
33:AI:76:THR:CG2	33:AI:77:ARG:H	2.17	0.56
26:AJ:89:GLU:O	26:AJ:91:LYS:O	2.23	0.56
11:AL:17:PHE:CD1	11:AL:18:GLN:CB	2.87	0.56
10:AN:11:LEU:O	10:AN:11:LEU:HD12	2.05	0.56
8:AS:22:GLY:O	8:AS:57:GLY:N	2.35	0.56
14:AT:76:THR:CA	14:AT:95:GLY:O	2.53	0.56
18:AY:54:VAL:CG2	18:AY:79:LEU:HD21	2.35	0.56
19:AZ:92:LEU:CD2	19:AZ:97:ILE:HG13	2.29	0.56
36:B2:68:A:H61	36:B2:81:U:H3	1.53	0.56
51:CA:47:ASP:OD1	51:CA:60:LYS:HB2	2.03	0.56
74:CC:260:LEU:O	74:CC:264:TYR:HB2	2.04	0.56
48:CD:123:VAL:HA	48:CD:248:ARG:NH1	2.20	0.56
48:CD:66:TYR:HD2	48:CD:66:TYR:N	1.96	0.56
82:CG:87:LEU:O	82:CG:88:ASP:C	2.43	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CJ:111:GLU:CB	79:CJ:113:ILE:HD11	2.34	0.56
79:CJ:32:ARG:CG	79:CJ:35:ARG:HH22	2.18	0.56
46:CN:119:TYR:CZ	46:CN:131:GLU:OE1	2.57	0.56
49:CQ:165:PRO:O	49:CQ:167:VAL:N	2.36	0.56
53:CT:154:ILE:HD12	53:CT:154:ILE:H	1.69	0.56
58:CW:88:ALA:C	58:CW:90:ILE:N	2.57	0.56
57:CY:42:TYR:C	57:CY:43:ASN:O	2.41	0.56
85:A5:2601:A:N9	85:A5:2601:A:O4'	2.36	0.56
85:A5:4941:G:O2'	85:A5:4942:C:O4'	2.19	0.56
87:A8:102:G:C6	87:A8:104:A:C6	2.94	0.56
16:AA:133:PRO:CD	16:AA:134:LEU:N	2.51	0.56
28:AC:84:PHE:CZ	28:AC:262:THR:HG21	2.40	0.56
27:AE:129:ILE:CG2	27:AE:139:LEU:HD23	2.35	0.56
27:AE:204:SER:O	27:AE:205:PHE:CB	2.51	0.56
27:AE:72:ILE:CD1	27:AE:82:TYR:CE2	2.88	0.56
30:AF:44:LYS:CA	30:AF:45:TYR:CD1	2.88	0.56
31:AH:109:ARG:CZ	31:AH:111:LYS:HD2	2.35	0.56
31:AH:31:GLU:CD	31:AH:41:ARG:HD3	2.25	0.56
31:AH:37:LYS:HZ3	31:AH:41:ARG:HG3	1.70	0.56
33:AI:154:LYS:O	33:AI:154:LYS:CE	2.53	0.56
33:AI:165:GLN:HE21	33:AI:171:LEU:HD22	1.70	0.56
10:AN:139:TRP:HZ3	10:AN:141:TYR:N	2.03	0.56
10:AN:4:MET:CE	10:AN:124:ARG:NH2	2.68	0.56
5:AO:38:ASN:O	5:AO:68:GLU:HB3	2.04	0.56
5:AO:39:ASP:N	5:AO:69:SER:HB3	2.20	0.56
13:AP:49:LEU:HD12	13:AP:50:ARG:N	2.20	0.56
12:AR:98:VAL:HG22	16:AA:19:LEU:CD1	2.35	0.56
6:AX:67:ARG:CG	6:AX:115:ILE:HG12	2.32	0.56
63:CB:165:HIS:CG	63:CB:180:LEU:HD11	2.39	0.56
63:CB:314:ILE:HD11	63:CB:330:PHE:CZ	2.40	0.56
74:CC:144:ILE:HG12	74:CC:249:PHE:CE1	2.40	0.56
74:CC:235:LEU:HD21	74:CC:252:TRP:HH2	1.69	0.56
49:CQ:132:LYS:NZ	74:CC:301:ALA:HB1	2.19	0.56
74:CC:69:THR:HG22	74:CC:70:GLY:N	4.31	0.56
48:CD:208:MET:HE2	48:CD:233:PRO:HA	1.87	0.56
82:CG:98:LEU:C	82:CG:98:LEU:HD12	2.25	0.56
80:CH:137:SER:OG	80:CH:143:GLU:HB2	2.06	0.56
42:CL:139:SER:OG	42:CL:142:GLU:CG	2.50	0.56
42:CL:58:ILE:CG1	42:CL:157:VAL:HG12	2.35	0.56
46:CN:68:ARG:HD3	46:CN:125:SER:O	2.01	0.56
46:CN:178:HIS:CA	46:CN:181:HIS:CD2	2.80	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CP:131:ARG:HB2	54:CP:135:ARG:O	2.05	0.56
49:CQ:144:LYS:HA	49:CQ:144:LYS:CE	2.35	0.56
50:CR:133:LYS:CD	50:CR:137:ILE:HD12	2.34	0.56
52:CS:23:HIS:HA	52:CS:24:THR:HG1	1.66	0.56
56:CX:71:LEU:HD12	56:CX:108:GLN:HE22	1.70	0.56
56:CX:73:HIS:O	56:CX:116:LEU:HD11	2.06	0.56
59:CZ:33:THR:CG2	59:CZ:36:ARG:HG3	2.35	0.56
59:CZ:51:ARG:HB3	59:CZ:65:ARG:HD2	1.86	0.56
15:AB:113:MET:SD	15:AB:211:PHE:HE2	2.05	0.56
15:AB:48:LEU:N	15:AB:48:LEU:HD12	1.98	0.56
27:AE:43:PRO:HG2	27:AE:46:ILE:CD1	2.34	0.56
26:AJ:67:ASP:O	26:AJ:70:ARG:N	2.38	0.56
13:AP:67:ALA:HB2	13:AP:73:PRO:HB3	1.87	0.56
12:AR:77:GLU:HG3	12:AR:80:ARG:NH2	2.20	0.56
3:AU:83:ARG:HB3	3:AU:85:HIS:HE1	1.68	0.56
32:AW:30:CYS:CA	32:AW:34:ILE:HD12	2.35	0.56
6:AX:105:PHE:HE2	6:AX:118:VAL:O	1.77	0.56
6:AX:91:LEU:O	6:AX:92:ASN:C	2.43	0.56
63:CB:305:THR:HG23	63:CB:307:TYR:N	2.21	0.56
74:CC:174:LEU:C	74:CC:175:LYS:HD2	2.26	0.56
74:CC:30:ALA:HB1	74:CC:31:PRO:CD	2.36	0.56
48:CD:130:TYR:O	48:CD:130:TYR:CD2	2.58	0.56
81:CE:203:ILE:CG1	81:CE:205:ASN:O	2.53	0.56
64:CF:182:TYR:CG	64:CF:200:ARG:HD2	2.41	0.56
82:CG:121:LYS:HB2	82:CG:129:PRO:HG2	1.87	0.56
47:CI:77:VAL:HG11	47:CI:82:ARG:HB3	4.12	0.56
79:CJ:85:LYS:CG	79:CJ:85:LYS:O	4.48	0.56
79:CJ:87:LEU:HD21	79:CJ:166:PHE:CE1	2.40	0.56
42:CL:136:LYS:HD3	42:CL:138:ASP:O	2.05	0.56
42:CL:58:ILE:HG21	42:CL:70:VAL:CG1	2.35	0.56
46:CN:172:ARG:CZ	46:CN:174:LEU:HD11	2.24	0.56
46:CN:56:LYS:CG	46:CN:59:TYR:CE2	2.89	0.56
41:CO:108:ILE:CG2	41:CO:160:ARG:HD3	2.31	0.56
54:CP:75:GLN:O	54:CP:76:TRP:HE3	1.86	0.56
49:CQ:159:PRO:O	49:CQ:160:HIS:HB2	2.04	0.56
50:CR:56:THR:C	50:CR:57:VAL:CG1	2.72	0.56
55:CU:40:GLU:HG3	55:CU:70:ILE:CD1	2.34	0.56
56:CX:79:PHE:HE2	56:CX:99:ILE:CG2	2.17	0.56
57:CY:86:GLN:HB3	57:CY:95:VAL:C	2.26	0.56
59:CZ:5:MET:H	59:CZ:6:LYS:HD3	1.56	0.56
59:CZ:76:ASN:HD21	59:CZ:78:ASN:HB2	1.62	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CJ:75:ARG:HH21	86:A7:40:U:H3	1.53	0.56
16:AA:189:ILE:O	16:AA:190:SER:OG	2.22	0.56
16:AA:30:LEU:HD21	16:AA:35:GLU:HG2	1.77	0.56
16:AA:77:ILE:HG12	16:AA:99:ILE:HB	1.87	0.56
28:AC:116:THR:HG22	28:AC:118:ALA:O	1.93	0.56
28:AC:58:LYS:O	28:AC:59:GLU:OE1	2.22	0.56
23:AD:168:VAL:CG1	23:AD:189:MET:SD	2.94	0.56
27:AE:149:TYR:CE1	29:AG:206:ALA:HA	2.40	0.56
27:AE:151:ASP:CG	29:AG:212:LEU:HD22	2.26	0.56
31:AH:192:PHE:O	31:AH:193:GLN:O	2.23	0.56
31:AH:37:LYS:HZ3	31:AH:38:ALA:HA	1.68	0.56
11:AL:8:ARG:NH1	33:AI:85:ALA:C	2.59	0.56
7:AM:85:LEU:O	7:AM:89:VAL:HG23	2.05	0.56
13:AP:89:MET:O	13:AP:107:ILE:HD11	2.05	0.56
34:AQ:8:GLN:CG	34:AQ:99:TYR:CD1	2.47	0.56
12:AR:61:ILE:HG23	12:AR:74:GLN:NE2	2.19	0.56
14:AT:16:ARG:NH1	14:AT:16:ARG:CG	2.65	0.56
18:AY:20:ARG:HD3	18:AY:76:TYR:CE2	2.40	0.56
36:B2:1131:G:H8	36:B2:1131:G:H5'	1.70	0.56
36:B2:1558:C:O2'	36:B2:1559:C:H5'	2.05	0.56
36:B2:40:A:H61	36:B2:514:U:H3	1.53	0.56
36:B2:537:C:H6	36:B2:537:C:O5'	1.88	0.56
26:AJ:174:LYS:HG3	36:B2:560:A:C5'	2.35	0.56
63:CB:11:HIS:CE1	63:CB:237:THR:HA	2.41	0.56
63:CB:139:ASP:C	63:CB:141:ASP:N	2.58	0.56
63:CB:397:ILE:HG22	63:CB:398:ALA:O	2.05	0.56
48:CD:156:GLY:N	48:CD:179:ARG:O	2.38	0.56
81:CE:140:LEU:HA	81:CE:191:GLN:HE22	1.71	0.56
81:CE:83:LYS:HZ2	81:CE:86:GLU:HA	1.71	0.56
64:CF:29:LYS:HG3	64:CF:30:ILE:CD1	2.20	0.56
82:CG:143:VAL:HG13	82:CG:146:LEU:HD11	1.84	0.56
42:CL:125:ILE:C	42:CL:138:ASP:OD2	2.42	0.56
41:CO:4:VAL:CG1	41:CO:4:VAL:O	2.29	0.56
49:CQ:21:GLN:NE2	49:CQ:21:GLN:HA	2.20	0.56
49:CQ:5:ILE:HG22	49:CQ:7:HIS:N	2.19	0.56
49:CQ:65:ARG:O	49:CQ:69:LYS:HD3	2.06	0.56
49:CQ:75:ARG:O	49:CQ:78:LYS:CB	2.48	0.56
53:CT:144:ASN:C	53:CT:146:LYS:N	2.58	0.56
53:CT:14:MET:HE1	53:CT:55:LYS:HB2	1.87	0.56
55:CU:40:GLU:OE2	55:CU:70:ILE:CB	2.53	0.56
43:CV:98:PHE:CZ	43:CV:122:ALA:HB2	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:CY:110:LYS:O	57:CY:115:ARG:CZ	2.54	0.56
59:CZ:41:ALA:N	59:CZ:77:TYR:HE1	2.03	0.56
85:A5:4398:C:H42	85:A5:4446:U:H3	1.52	0.56
85:A5:4941:G:O2'	85:A5:4942:C:H5'	2.05	0.56
87:A8:94:G:H1'	87:A8:95:A:P	2.45	0.56
16:AA:102:ARG:O	16:AA:104:THR:N	2.38	0.56
16:AA:106:GLY:HA3	16:AA:110:ASN:HD22	1.71	0.56
16:AA:4:ALA:O	16:AA:8:LEU:HD22	2.05	0.56
28:AC:210:PRO:HD3	28:AC:236:PHE:CE2	2.41	0.56
28:AC:198:ALA:HB2	28:AC:223:TYR:CD2	2.40	0.56
23:AD:199:GLY:O	23:AD:201:LYS:N	2.37	0.56
12:AR:19:LYS:CE	23:AD:212:GLU:HG2	2.34	0.56
23:AD:38:GLU:OE1	23:AD:40:ARG:NH2	2.29	0.56
4:AK:66:HIS:NE2	23:AD:76:ARG:CZ	2.69	0.56
30:AF:122:ARG:HB2	30:AF:123:GLU:OE1	2.06	0.56
30:AF:18:LYS:NZ	30:AF:18:LYS:HB3	2.18	0.56
29:AG:159:ARG:HA	29:AG:172:LYS:O	2.04	0.56
31:AH:143:ARG:CD	32:AW:53:ILE:CG1	2.50	0.56
31:AH:50:GLU:OE2	31:AH:58:LYS:CD	2.44	0.56
33:AI:31:ARG:NH1	33:AI:31:ARG:HG3	2.20	0.56
26:AJ:61:LEU:CD1	26:AJ:94:LEU:HD11	2.33	0.56
5:AO:30:VAL:HG23	5:AO:32:HIS:HD2	1.68	0.56
34:AQ:126:ARG:C	36:B2:1648:G:H8	2.08	0.56
34:AQ:15:ARG:NH1	34:AQ:20:THR:HG21	2.19	0.56
30:AF:15:PRO:HD3	34:AQ:56:LEU:CA	2.35	0.56
12:AR:42:PRO:CD	12:AR:43:SER:N	2.67	0.56
12:AR:98:VAL:CG1	12:AR:99:ASP:N	2.68	0.56
14:AT:40:ALA:CA	14:AT:43:LYS:HG2	2.35	0.56
36:B2:1528:G:N2	36:B2:1665:G:H21	2.03	0.56
36:B2:338:G:C5	36:B2:339:A:N7	2.73	0.56
36:B2:787:G:C3'	36:B2:788:G:H5''	2.34	0.56
51:CA:30:ARG:O	51:CA:31:ALA:C	2.43	0.56
63:CB:14:LEU:N	63:CB:14:LEU:HD12	2.19	0.56
63:CB:154:LYS:HE2	63:CB:155:LYS:HA	1.87	0.56
74:CC:286:ASN:O	74:CC:287:THR:CG2	2.53	0.56
74:CC:46:LYS:CB	74:CC:49:ARG:NH1	2.50	0.56
74:CC:91:ALA:CB	74:CC:92:PHE:HD2	1.98	0.56
48:CD:163:LEU:HD12	48:CD:173:ILE:HG21	1.83	0.56
48:CD:256:LYS:O	48:CD:256:LYS:CG	2.53	0.56
82:CG:206:GLN:O	82:CG:207:VAL:HB	2.05	0.56
79:CJ:22:LEU:CD2	79:CJ:130:PHE:CG	2.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CK:53:TRP:C	40:CK:54:LYS:O	2.43	0.56
44:CM:12:VAL:O	44:CM:58:THR:OG1	2.17	0.56
44:CM:38:VAL:HG21	44:CM:50:MET:HE2	1.88	0.56
46:CN:170:LYS:HG2	46:CN:171:SER:N	2.20	0.56
46:CN:80:THR:OG1	46:CN:87:HIS:HA	2.06	0.56
49:CQ:110:ARG:HG2	49:CQ:114:LEU:CD1	2.35	0.56
41:CO:131:PRO:HG3	52:CS:156:HIS:CE1	2.27	0.56
53:CT:132:PRO:O	53:CT:132:PRO:CD	2.50	0.56
53:CT:23:GLY:C	53:CT:24:VAL:CG2	2.74	0.56
58:CW:62:GLY:O	58:CW:63:GLN:HB3	2.06	0.56
57:CY:52:ASP:OD1	57:CY:69:LYS:CG	2.53	0.56
85:A5:1051:G:H2'	85:A5:1052:G:C5'	2.36	0.56
85:A5:4626:A:N6	85:A5:4669:A:OP2	2.39	0.56
16:AA:108:PHE:CE2	16:AA:122:LEU:HD11	2.41	0.56
15:AB:125:VAL:CG2	15:AB:169:MET:HG3	2.35	0.56
15:AB:179:ASN:HB3	15:AB:183:GLU:HB2	1.88	0.56
28:AC:64:THR:HG23	28:AC:90:GLU:CG	2.36	0.56
29:AG:135:PRO:CG	29:AG:144:LEU:HD22	2.36	0.56
29:AG:35:GLU:O	29:AG:36:VAL:HG22	2.05	0.56
26:AJ:177:ASN:CA	26:AJ:180:LYS:HB3	2.35	0.56
4:AK:47:LYS:HD3	4:AK:50:GLN:CD	2.26	0.56
11:AL:148:ALA:O	11:AL:150:GLY:O	2.23	0.56
3:AU:101:ILE:O	3:AU:105:SER:OG	2.23	0.56
17:AV:9:VAL:CG1	28:AC:176:LYS:HD3	2.35	0.56
18:AY:55:ILE:CD1	18:AY:75:ILE:HD13	2.35	0.56
19:AZ:94:LYS:HE2	19:AZ:94:LYS:HA	1.88	0.56
34:AQ:45:ARG:HH11	36:B2:1593:C:H4'	1.71	0.56
74:CC:197:ARG:O	74:CC:198:ASN:HB2	2.06	0.56
81:CE:160:LYS:CE	81:CE:184:VAL:HG23	2.32	0.56
82:CG:36:PRO:O	82:CG:37:LYS:HB2	2.05	0.56
40:CK:147:HIS:CB	40:CK:148:PRO:CD	2.82	0.56
40:CK:61:LYS:CD	40:CK:72:GLU:CA	2.84	0.56
44:CM:7:VAL:H	52:CS:152:PHE:N	1.97	0.56
46:CN:115:VAL:CB	46:CN:134:LEU:CD2	2.84	0.56
46:CN:75:VAL:CB	46:CN:76:PRO:CD	2.83	0.56
49:CQ:124:ASP:OD1	49:CQ:125:GLN:N	2.38	0.56
49:CQ:32:TYR:OH	49:CQ:47:VAL:CG2	2.53	0.56
50:CR:24:LEU:HD21	50:CR:32:ILE:HG13	1.86	0.56
56:CX:99:ILE:HD11	56:CX:129:ARG:HH12	1.67	0.56
85:A5:1342:A:H61	85:A5:1514:U:H3	1.53	0.56
85:A5:4566:U:H2'	85:A5:4567:G:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:4896:G:H21	85:A5:4926:C:N4	2.03	0.56
28:AC:112:VAL:HB	36:B2:11:A:O2'	2.06	0.56
30:AF:18:LYS:CB	30:AF:18:LYS:NZ	2.68	0.56
33:AI:5:ARG:NH1	33:AI:5:ARG:CG	2.65	0.56
4:AK:8:ARG:O	4:AK:12:TYR:HD1	1.87	0.56
11:AL:56:ILE:CG2	11:AL:57:ASP:N	2.68	0.56
7:AM:99:ASN:N	7:AM:100:PRO:CD	2.68	0.56
12:AR:111:PHE:CE1	16:AA:12:GLU:CA	2.87	0.56
12:AR:1:MET:O	12:AR:2:GLY:C	2.40	0.56
8:AS:120:HIS:CD2	8:AS:124:ARG:CD	2.89	0.56
32:AW:42:MET:HE2	32:AW:48:GLY:O	2.06	0.56
6:AX:41:PHE:HZ	6:AX:102:VAL:CG1	2.19	0.56
36:B2:1274:G:H5'	36:B2:1274:G:N3	2.20	0.56
63:CB:83:PRO:O	63:CB:167:GLN:HG3	2.05	0.56
74:CC:263:LEU:C	74:CC:264:TYR:CG	2.79	0.56
48:CD:211:LEU:HD23	48:CD:211:LEU:N	2.18	0.56
48:CD:37:VAL:HG22	48:CD:50:ARG:CZ	2.35	0.56
81:CE:138:ARG:NH2	81:CE:171:GLY:CA	2.68	0.56
82:CG:183:ILE:HB	82:CG:226:TYR:HE1	1.69	0.56
82:CG:98:LEU:CG	82:CG:215:LEU:HD23	2.34	0.56
47:CI:109:ASP:O	47:CI:110:ARG:HD2	2.06	0.56
40:CK:113:ALA:CA	40:CK:116:MET:SD	2.94	0.56
40:CK:59:THR:HA	40:CK:80:LEU:HD13	1.87	0.56
44:CM:60:PHE:CZ	44:CM:85:LYS:CD	2.87	0.56
46:CN:186:GLY:HA3	46:CN:191:ALA:CB	2.36	0.56
41:CO:177:LEU:HD22	44:CM:130:LEU:CD1	2.33	0.56
41:CO:66:PRO:CD	41:CO:67:SER:N	2.63	0.56
56:CX:120:ASP:O	56:CX:140:LEU:HD23	2.06	0.56
57:CY:32:SER:HB3	57:CY:49:ILE:CD1	2.31	0.56
59:CZ:83:THR:OG1	59:CZ:84:ARG:N	2.37	0.56
51:CA:222:PRO:HG3	85:A5:3748:A:H2	1.71	0.56
16:AA:59:LEU:HD23	16:AA:181:GLU:CG	2.33	0.56
23:AD:153:VAL:HG12	23:AD:154:ASP:N	2.21	0.56
23:AD:162:ASP:HB3	23:AD:163:PRO:HD3	1.86	0.56
23:AD:58:VAL:HG23	23:AD:59:LEU:N	2.21	0.56
27:AE:181:CYS:SG	27:AE:225:ILE:HG23	2.46	0.56
27:AE:38:LEU:HD12	27:AE:39:ARG:N	2.15	0.56
30:AF:81:ARG:HE	30:AF:82:ASN:HD21	1.52	0.56
4:AK:43:LEU:O	4:AK:45:VAL:CA	2.52	0.56
7:AM:100:PRO:O	7:AM:101:ARG:NH1	2.39	0.56
34:AQ:47:LEU:O	34:AQ:49:TYR:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AQ:50:LYS:HA	34:AQ:53:GLU:HG3	1.87	0.56
12:AR:39:ALA:N	23:AD:211:VAL:CG2	2.69	0.56
8:AS:121:ARG:CG	8:AS:131:VAL:CG1	2.83	0.56
19:AZ:48:VAL:HG22	19:AZ:80:ARG:HD2	1.79	0.56
63:CB:27:GLY:HA2	63:CB:276:HIS:HD2	1.71	0.56
63:CB:282:LYS:HB3	63:CB:333:LEU:CD2	2.36	0.56
58:CW:12:LYS:HE2	63:CB:388:PHE:HD2	1.71	0.56
74:CC:101:MET:CE	74:CC:105:THR:H	2.14	0.56
74:CC:311:ARG:NH1	74:CC:311:ARG:CB	2.57	0.56
48:CD:146:LEU:HD11	48:CD:163:LEU:HD13	1.86	0.56
81:CE:94:LYS:N	81:CE:95:PRO:CD	2.68	0.56
64:CF:101:VAL:CG1	64:CF:106:ARG:HG3	2.34	0.56
64:CF:23:ARG:CB	64:CF:24:ASN:N	2.69	0.56
82:CG:117:ARG:HD2	82:CG:130:THR:CG2	2.35	0.56
82:CG:150:LYS:CB	82:CG:177:MET:HE3	2.30	0.56
47:CI:76:MET:SD	47:CI:151:ALA:CB	2.93	0.56
42:CL:48:PRO:HA	42:CL:49:ARG:C	2.24	0.56
44:CM:23:LYS:HD2	44:CM:45:VAL:HG23	1.87	0.56
46:CN:53:TYR:CE1	46:CN:59:TYR:CB	2.84	0.56
41:CO:119:VAL:O	52:CS:167:PHE:HB3	2.06	0.56
41:CO:119:VAL:CG1	41:CO:120:VAL:N	2.69	0.56
54:CP:16:LYS:HE2	54:CP:149:ILE:CG2	2.36	0.56
43:CV:72:LEU:CA	43:CV:75:LYS:NZ	2.69	0.56
57:CY:28:LYS:HD2	57:CY:28:LYS:N	2.19	0.56
57:CY:62:TYR:CZ	57:CY:85:VAL:HG13	2.39	0.56
85:A5:1828:C:H2'	85:A5:1829:G:C8	2.41	0.56
85:A5:2639:U:O2	85:A5:2694:G:C6	2.58	0.56
85:A5:693:C:H2'	85:A5:694:C:H5'	1.88	0.56
87:A8:65:A:N3	87:A8:95:A:C2	2.74	0.56
16:AA:139:TYR:O	16:AA:140:VAL:CG2	2.54	0.56
16:AA:119:PRO:O	16:AA:142:LEU:HD22	2.04	0.56
28:AC:275:LYS:HD2	28:AC:276:THR:H	1.68	0.56
23:AD:194:PRO:O	23:AD:197:LYS:O	2.23	0.56
31:AH:145:ARG:CG	32:AW:51:GLU:HG2	2.34	0.56
33:AI:148:LYS:HE2	33:AI:152:ARG:NH2	2.20	0.56
33:AI:63:GLY:O	33:AI:75:LYS:HG2	2.06	0.56
10:AN:131:THR:O	11:AL:153:LYS:HA	2.06	0.56
7:AM:52:GLN:CG	7:AM:53:ALA:H	2.09	0.56
34:AQ:34:VAL:HG21	34:AQ:39:LEU:HD23	1.76	0.56
32:AW:128:PHE:CD1	32:AW:128:PHE:C	2.78	0.56
18:AY:7:ILE:HD11	18:AY:43:LYS:HD3	1.78	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:287:THR:O	74:CC:287:THR:CG2	2.52	0.56
74:CC:289:LEU:HD23	74:CC:289:LEU:N	2.14	0.56
74:CC:46:LYS:CG	74:CC:49:ARG:HH11	2.19	0.56
74:CC:5:ARG:CG	74:CC:24:LEU:HB2	2.34	0.56
48:CD:146:LEU:CD1	48:CD:163:LEU:HD13	2.36	0.56
48:CD:181:PRO:CG	48:CD:198:HIS:CD2	2.89	0.56
81:CE:256:GLN:NE2	81:CE:256:GLN:H	2.04	0.56
81:CE:56:ARG:HG2	81:CE:57:TYR:N	2.21	0.56
64:CF:20:LYS:HE2	64:CF:21:LYS:HD2	1.88	0.56
82:CG:104:PRO:C	82:CG:105:GLU:OE2	2.44	0.56
82:CG:140:VAL:O	82:CG:144:THR:HG23	2.06	0.56
80:CH:138:GLN:O	80:CH:139:ALA:CB	2.51	0.56
47:CI:101:LYS:CG	47:CI:102:MET:H	2.19	0.56
40:CK:142:ASN:ND2	40:CK:151:ILE:HD12	2.21	0.56
40:CK:131:GLU:HB3	40:CK:152:ILE:CG2	2.36	0.56
40:CK:61:LYS:HD3	40:CK:72:GLU:C	2.25	0.56
42:CL:130:LYS:CG	42:CL:131:PRO:HD2	2.36	0.56
42:CL:194:ILE:O	42:CL:198:ARG:HD3	2.05	0.56
41:CO:108:ILE:HG23	41:CO:160:ARG:HD2	1.88	0.56
41:CO:130:LYS:CE	41:CO:133:ARG:NH2	2.69	0.56
41:CO:76:PRO:HB3	41:CO:138:LEU:HG	1.88	0.56
41:CO:12:ARG:CB	41:CO:37:ARG:CD	2.83	0.56
49:CQ:120:ILE:HG13	49:CQ:120:ILE:O	2.06	0.56
50:CR:101:ILE:CA	50:CR:104:ARG:CD	2.73	0.56
52:CS:102:THR:O	52:CS:106:VAL:HG23	2.06	0.56
41:CO:122:ALA:CB	52:CS:162:GLN:OE1	2.50	0.56
58:CW:4:GLU:CG	58:CW:30:GLN:OE1	2.52	0.56
56:CX:79:PHE:CD2	56:CX:79:PHE:N	2.73	0.56
57:CY:55:VAL:HG11	57:CY:104:VAL:CG1	1.85	0.56
16:AA:193:HIS:CB	16:AA:194:PRO:CD	2.84	0.56
15:AB:57:ILE:CG1	15:AB:60:ASP:OD1	2.52	0.56
28:AC:75:ILE:O	28:AC:97:PHE:HZ	1.86	0.56
31:AH:147:LYS:CE	31:AH:153:LEU:HD11	2.36	0.56
33:AI:55:TYR:CD2	33:AI:55:TYR:N	2.68	0.56
26:AJ:16:PRO:C	26:AJ:18:ARG:H	2.09	0.56
26:AJ:16:PRO:C	26:AJ:18:ARG:N	2.52	0.56
4:AK:27:VAL:CB	4:AK:43:LEU:CD2	2.82	0.56
11:AL:149:ALA:O	11:AL:150:GLY:O	2.24	0.56
11:AL:80:MET:CG	11:AL:86:ILE:HG22	2.36	0.56
7:AM:12:MET:HE1	7:AM:17:ALA:C	1.90	0.56
10:AN:92:ILE:HG22	10:AN:150:VAL:HG23	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:9:LYS:O	13:AP:10:ARG:CZ	2.54	0.56
34:AQ:85:ARG:HD3	34:AQ:119:LEU:HD21	1.81	0.56
12:AR:21:TYR:HD2	12:AR:73:LEU:HD12	1.68	0.56
14:AT:39:LEU:HD11	14:AT:56:ARG:CZ	2.36	0.56
14:AT:85:ASN:HB3	14:AT:88:MET:SD	2.46	0.56
3:AU:111:GLU:HG2	23:AD:10:LYS:NZ	2.21	0.56
6:AX:105:PHE:HB3	6:AX:112:VAL:CG2	2.36	0.56
18:AY:54:VAL:HG13	18:AY:76:TYR:N	2.18	0.56
51:CA:196:TRP:CE3	51:CA:197:PRO:HD3	2.41	0.56
63:CB:316:PRO:HD2	63:CB:320:PHE:CE2	2.41	0.56
74:CC:210:ILE:HD12	74:CC:252:TRP:CH2	2.39	0.56
48:CD:178:LYS:CG	48:CD:183:TYR:CE2	2.86	0.56
48:CD:223:PHE:O	48:CD:224:SER:OG	2.11	0.56
48:CD:33:ARG:NE	53:CT:27:LEU:CD1	2.69	0.56
81:CE:194:VAL:HG12	81:CE:195:ILE:N	2.21	0.56
81:CE:98:GLY:HA2	81:CE:99:ASP:OD2	2.06	0.56
82:CG:207:VAL:CG1	82:CG:215:LEU:CD1	2.81	0.56
47:CI:47:PRO:CB	47:CI:171:TRP:CZ3	2.78	0.56
47:CI:99:ILE:CD1	47:CI:123:GLN:HE22	2.16	0.56
40:CK:50:THR:OG1	40:CK:61:LYS:NZ	2.39	0.56
42:CL:110:LEU:O	42:CL:114:VAL:HG23	2.06	0.56
42:CL:176:PHE:HE1	42:CL:178:ALA:HA	1.70	0.56
49:CQ:17:GLU:OE2	49:CQ:18:PRO:CD	2.53	0.56
49:CQ:38:ARG:NH1	74:CC:304:ALA:O	2.39	0.56
49:CQ:41:SER:C	49:CQ:43:PHE:N	2.55	0.56
49:CQ:16:LYS:O	49:CQ:52:PHE:CE2	2.58	0.56
50:CR:16:ARG:NH1	85:A5:2699:C:H5"	2.21	0.56
41:CO:124:LEU:HD23	52:CS:172:PRO:HD3	1.88	0.56
53:CT:97:LYS:HD2	53:CT:98:HIS:O	2.06	0.56
58:CW:33:ASN:O	58:CW:37:GLU:CD	2.43	0.56
57:CY:86:GLN:HB3	57:CY:96:HIS:CA	2.33	0.56
85:A5:449:C:C4	85:A5:450:G:C6	2.94	0.56
85:A5:4565:C:H2'	85:A5:4566:U:C6	2.40	0.56
16:AA:145:ILE:HG23	16:AA:159:ILE:CG2	2.36	0.56
15:AB:205:TYR:CG	15:AB:206:PRO:CD	2.82	0.56
28:AC:156:ILE:CG2	28:AC:157:LEU:N	2.69	0.56
31:AH:158:LEU:HD23	31:AH:158:LEU:N	2.18	0.56
31:AH:158:LEU:HG	31:AH:187:PHE:HD1	1.71	0.56
33:AI:25:ARG:HB3	33:AI:27:TYR:CE2	2.41	0.56
33:AI:54:LYS:CG	33:AI:181:GLN:O	2.54	0.56
5:AO:30:VAL:CB	5:AO:32:HIS:NE2	2.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AQ:10:VAL:HG12	34:AQ:11:GLN:N	2.21	0.56
12:AR:62:GLN:O	12:AR:62:GLN:HG3	2.06	0.56
8:AS:135:HIS:CD2	36:B2:1519:U:H1'	2.41	0.56
14:AT:124:THR:CG2	14:AT:126:GLN:HB3	2.35	0.56
6:AX:52:LEU:HD12	6:AX:53:GLU:CG	2.35	0.56
18:AY:103:SER:O	18:AY:104:ARG:CB	2.53	0.56
19:AZ:73:VAL:CG1	19:AZ:79:ILE:HG21	2.23	0.56
30:AF:57:ALA:O	36:B2:1679:A:N1	2.39	0.56
36:B2:1721:U:H3'	36:B2:1722:G:H5'	1.86	0.56
36:B2:24:C:C2'	36:B2:25:A:C8	2.86	0.56
36:B2:684:G:H1	36:B2:918:U:H3	1.53	0.56
37:BC:36:A:N1	37:BC:37:A:N6	2.54	0.56
63:CB:114:CYS:HG	63:CB:118:PHE:HE2	1.54	0.56
63:CB:146:LEU:O	63:CB:150:PHE:CD1	2.59	0.56
63:CB:315:ASN:HD21	63:CB:319:GLY:HA2	1.70	0.56
63:CB:77:THR:O	63:CB:332:MET:HA	2.06	0.56
63:CB:89:ILE:HD12	63:CB:89:ILE:O	2.06	0.56
74:CC:54:VAL:CG2	74:CC:101:MET:CE	2.83	0.56
48:CD:76:CYS:SG	48:CD:109:LEU:HB2	2.45	0.56
81:CE:176:THR:HA	81:CE:186:LEU:HA	1.87	0.56
81:CE:83:LYS:CD	81:CE:86:GLU:CA	2.84	0.56
64:CF:89:LEU:C	64:CF:89:LEU:HD13	2.26	0.56
80:CH:110:SER:CB	80:CH:111:LEU:HA	2.35	0.56
80:CH:163:GLN:O	80:CH:166:THR:HG23	2.06	0.56
80:CH:50:LYS:H	80:CH:50:LYS:HZ2	1.46	0.56
80:CH:4:ILE:CG2	80:CH:5:LEU:H	2.07	0.56
80:CH:86:LEU:CD2	80:CH:189:GLN:CG	2.84	0.56
47:CI:74:LYS:C	47:CI:74:LYS:CD	3.68	0.56
44:CM:7:VAL:HG12	44:CM:27:ILE:CD1	2.35	0.56
41:CO:12:ARG:HB2	41:CO:37:ARG:CD	2.35	0.56
49:CQ:73:PRO:O	49:CQ:75:ARG:CZ	2.53	0.56
50:CR:123:LEU:HD11	50:CR:138:LEU:HD21	0.78	0.56
57:CY:50:ARG:HD2	57:CY:115:ARG:HH21	1.61	0.56
59:CZ:118:PHE:HZ	59:CZ:130:PHE:CZ	2.13	0.56
85:A5:1762:C:H42	85:A5:1770:A:H61	1.53	0.55
15:AB:120:MET:HE3	15:AB:142:PHE:CZ	2.37	0.55
15:AB:138:PHE:N	15:AB:138:PHE:CD2	2.74	0.55
28:AC:213:LEU:O	28:AC:213:LEU:HD23	2.06	0.55
11:AL:147:LYS:HE2	11:AL:156:GLN:HE22	1.70	0.55
6:AX:14:ARG:CA	11:AL:99:TYR:HH	1.83	0.55
7:AM:77:ILE:HD12	7:AM:79:VAL:HG23	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AQ:124:PRO:CG	34:AQ:125:ARG:N	2.69	0.55
8:AS:55:ARG:HG3	19:AZ:48:VAL:CG1	2.34	0.55
14:AT:4:VAL:CB	14:AT:8:ASP:HB2	2.36	0.55
16:AA:57:LYS:HZ3	17:AV:70:LEU:HG	1.71	0.55
32:AW:128:PHE:CE1	32:AW:130:PHE:HE2	2.16	0.55
6:AX:125:VAL:O	6:AX:128:VAL:CA	2.54	0.55
36:B2:1365:G:H2'	36:B2:1366:G:H8	1.72	0.55
36:B2:1462:U:H2'	36:B2:1464:C:C5	2.40	0.55
63:CB:116:ARG:CD	63:CB:122:TRP:CB	2.82	0.55
63:CB:163:ILE:HG22	63:CB:163:ILE:O	2.06	0.55
74:CC:173:LYS:CA	74:CC:173:LYS:CE	2.32	0.55
74:CC:5:ARG:HG2	74:CC:24:LEU:HG	0.56	0.55
48:CD:11:ALA:O	48:CD:15:ARG:HG3	2.06	0.55
81:CE:242:ILE:HG12	81:CE:246:ARG:HH11	1.69	0.55
81:CE:74:SER:CB	81:CE:74:SER:HA	2.19	0.55
82:CG:139:GLY:O	82:CG:140:VAL:C	2.42	0.55
47:CI:36:LEU:HD11	47:CI:69:ARG:CD	2.36	0.55
41:CO:133:ARG:CD	41:CO:133:ARG:N	2.69	0.55
41:CO:54:TYR:CE2	41:CO:145:VAL:HG21	2.40	0.55
41:CO:81:TRP:CH2	41:CO:85:ARG:NE	2.62	0.55
49:CQ:146:ARG:NH1	49:CQ:146:ARG:HG3	2.19	0.55
49:CQ:88:ASP:CB	49:CQ:108:ARG:CB	2.77	0.55
49:CQ:93:GLN:N	49:CQ:93:GLN:HE21	2.04	0.55
52:CS:150:ILE:HD12	52:CS:151:LYS:N	2.20	0.55
52:CS:160:ARG:HH22	85:A5:1920:C:C5'	2.19	0.55
53:CT:146:LYS:O	53:CT:147:GLU:CD	2.44	0.55
53:CT:25:VAL:CG1	53:CT:26:PRO:HD3	2.36	0.55
85:A5:1359:G:O6	85:A5:1378:C:N4	2.36	0.55
85:A5:2606:G:H21	85:A5:2667:C:H42	1.54	0.55
87:A8:110:U:C2'	87:A8:111:U:H5'	2.36	0.55
28:AC:180:VAL:HG12	28:AC:181:PRO:HD2	1.85	0.55
23:AD:192:TRP:HE3	23:AD:196:GLY:CA	2.15	0.55
23:AD:35:SER:HA	23:AD:99:ILE:HD11	0.73	0.55
27:AE:136:ILE:CD1	27:AE:136:ILE:N	2.70	0.55
29:AG:129:VAL:CA	58:CW:80:ARG:NH1	2.52	0.55
31:AH:106:ARG:NE	36:B2:861:A:C4	2.73	0.55
31:AH:169:LYS:CB	31:AH:173:PHE:CZ	2.90	0.55
26:AJ:136:ARG:HG3	26:AJ:160:SER:CB	2.36	0.55
11:AL:17:PHE:HE1	11:AL:18:GLN:HB2	1.68	0.55
12:AR:61:ILE:HG23	12:AR:74:GLN:HE22	1.70	0.55
8:AS:18:THR:OG1	8:AS:33:ILE:HG12	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AT:65:TYR:HE2	14:AT:128:GLN:HG3	1.72	0.55
14:AT:23:LYS:HE2	14:AT:54:TYR:CE2	2.41	0.55
31:AH:144:ILE:HG13	32:AW:52:ILE:HG23	1.83	0.55
6:AX:27:TYR:CD1	6:AX:31:HIS:CD2	2.94	0.55
18:AY:46:LYS:O	18:AY:46:LYS:CG	2.55	0.55
51:CA:254:GLU:CA	51:CA:255:LYS:CB	2.85	0.55
74:CC:253:THR:O	74:CC:257:PHE:N	2.39	0.55
48:CD:293:ARG:N	48:CD:293:ARG:HD3	2.22	0.55
48:CD:33:ARG:NH1	48:CD:50:ARG:HH22	2.03	0.55
81:CE:106:VAL:HG23	81:CE:107:VAL:HG22	1.88	0.55
81:CE:155:GLY:N	81:CE:158:ARG:HB3	2.21	0.55
82:CG:39:PHE:CE2	82:CG:47:PRO:CG	2.67	0.55
47:CI:115:MET:CE	47:CI:118:ALA:CB	2.84	0.55
47:CI:77:VAL:CG1	47:CI:82:ARG:HG3	2.35	0.55
40:CK:121:LEU:HB2	40:CK:123:ARG:HD3	1.88	0.55
42:CL:126:LEU:HD23	42:CL:136:LYS:CB	2.35	0.55
44:CM:107:PHE:CD1	81:CE:270:TYR:CE2	2.94	0.55
49:CQ:33:ARG:HG2	49:CQ:48:LEU:CD1	2.34	0.55
50:CR:10:LEU:CD2	50:CR:41:ILE:CD1	2.83	0.55
50:CR:96:MET:HE1	85:A5:2667:C:OP1	2.06	0.55
59:CZ:100:VAL:HA	59:CZ:106:LEU:CG	2.36	0.55
85:A5:1377:G:H3'	85:A5:1378:C:H5'	1.88	0.55
48:CD:52:ILE:HD13	86:A7:6:C:H4'	1.89	0.55
15:AB:105:LEU:HG	15:AB:213:ARG:O	2.07	0.55
28:AC:213:LEU:HD13	28:AC:240:THR:CG2	2.36	0.55
23:AD:141:LYS:CE	23:AD:179:GLN:NE2	2.69	0.55
27:AE:230:LYS:O	27:AE:233:LYS:N	2.36	0.55
30:AF:143:PRO:HA	30:AF:146:ARG:HG3	1.88	0.55
31:AH:60:ILE:HG23	31:AH:60:ILE:O	2.06	0.55
10:AN:124:ARG:O	10:AN:127:ARG:HG2	2.06	0.55
13:AP:12:PHE:CZ	79:CJ:88:LYS:CG	2.89	0.55
13:AP:49:LEU:HD11	13:AP:51:ARG:HH21	1.70	0.55
12:AR:20:TYR:CE2	12:AR:38:ILE:CB	2.73	0.55
6:AX:52:LEU:CD1	6:AX:71:ARG:HB2	2.36	0.55
19:AZ:99:LEU:CD1	19:AZ:102:LYS:HD3	2.35	0.55
4:AK:1:MET:CE	36:B2:1274:G:N2	2.70	0.55
36:B2:501:C:H2'	36:B2:501:C:O2	2.06	0.55
51:CA:122:ASP:O	51:CA:123:ARG:CB	2.53	0.55
51:CA:22:HIS:O	51:CA:52:PRO:HG3	2.07	0.55
51:CA:96:LEU:HD11	51:CA:108:PRO:HD2	1.88	0.55
63:CB:119:TYR:CE1	63:CB:125:SER:CB	2.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:292:LEU:CA	63:CB:298:LEU:HB2	2.37	0.55
63:CB:314:ILE:HG22	63:CB:314:ILE:O	2.05	0.55
48:CD:21:ARG:CZ	48:CD:25:GLU:OE2	2.55	0.55
81:CE:212:LEU:CG	81:CE:216:TYR:CG	2.86	0.55
82:CG:175:ARG:HG3	82:CG:230:TYR:CE1	2.41	0.55
82:CG:70:LEU:O	82:CG:73:ARG:HB2	2.06	0.55
80:CH:65:LYS:O	80:CH:69:THR:HG23	2.05	0.55
47:CI:68:ALA:HB3	47:CI:159:PHE:CZ	2.40	0.55
40:CK:18:THR:HA	40:CK:58:ILE:HG23	1.88	0.55
40:CK:15:LEU:HD11	40:CK:60:VAL:HG12	1.86	0.55
44:CM:41:PRO:O	44:CM:42:CYS:O	2.24	0.55
41:CO:48:TYR:OH	46:CN:91:GLN:HB2	106.32	0.55
41:CO:28:LEU:HD21	41:CO:88:LEU:HD22	1.89	0.55
52:CS:9:GLU:HG2	52:CS:33:PHE:CD2	2.42	0.55
53:CT:150:LEU:O	53:CT:151:LEU:CA	2.54	0.55
43:CV:60:MET:CE	43:CV:129:TRP:CH2	2.89	0.55
58:CW:67:ILE:HG22	58:CW:67:ILE:O	2.04	0.55
85:A5:1440:U:H3	85:A5:2104:G:H1	1.52	0.55
85:A5:1819:G:H2'	85:A5:1820:C:C6	2.41	0.55
85:A5:275:C:H5''	85:A5:276:C:C2	2.42	0.55
85:A5:4935:C:O2	85:A5:4935:C:H2'	2.06	0.55
85:A5:975:C:N4	85:A5:1279:A:H2	2.04	0.55
16:AA:180:ARG:O	16:AA:184:ARG:HG3	2.06	0.55
16:AA:94:THR:CG2	16:AA:182:VAL:CG2	2.84	0.55
28:AC:94:ILE:CD1	28:AC:162:ILE:HD11	2.27	0.55
30:AF:138:ALA:CB	30:AF:200:ALA:O	2.55	0.55
29:AG:141:ILE:HG21	29:AG:153:VAL:HG13	1.87	0.55
27:AE:149:TYR:OH	29:AG:206:ALA:HB2	2.07	0.55
26:AJ:170:PRO:HD2	26:AJ:175:ARG:HD2	1.88	0.55
4:AK:1:MET:HB3	4:AK:47:LYS:HB3	1.87	0.55
4:AK:41:PRO:CD	4:AK:43:LEU:HG	2.36	0.55
4:AK:53:LYS:HA	4:AK:58:VAL:CG1	2.36	0.55
4:AK:53:LYS:HA	4:AK:58:VAL:HG13	1.88	0.55
11:AL:83:GLN:O	11:AL:83:GLN:HG2	2.06	0.55
7:AM:59:PRO:HB2	7:AM:62:VAL:HG22	1.89	0.55
10:AN:125:LEU:CD1	10:AN:129:TYR:CZ	2.89	0.55
10:AN:2:GLY:O	10:AN:3:ARG:CB	2.55	0.55
13:AP:41:GLN:HA	13:AP:84:ILE:HD13	1.88	0.55
34:AQ:109:LYS:NZ	34:AQ:113:ILE:CD1	2.69	0.55
14:AT:23:LYS:CE	14:AT:54:TYR:CE2	2.85	0.55
3:AU:18:HIS:CE1	3:AU:98:VAL:HG22	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AV:39:VAL:O	17:AV:41:LYS:N	2.34	0.55
36:B2:870:A:HI'	36:B2:916:A:C2	2.41	0.55
51:CA:31:ALA:N	51:CA:123:ARG:NH2	2.54	0.55
63:CB:282:LYS:HB3	63:CB:333:LEU:HD11	1.87	0.55
63:CB:352:LEU:HD23	63:CB:352:LEU:C	2.26	0.55
74:CC:154:VAL:CG2	74:CC:174:LEU:CD1	2.82	0.55
74:CC:204:ARG:CA	74:CC:204:ARG:NE	2.68	0.55
74:CC:128:LEU:CD2	74:CC:240:LEU:HD11	2.34	0.55
74:CC:266:THR:CG2	74:CC:268:ARG:N	2.69	0.55
48:CD:243:ALA:O	48:CD:247:ILE:HG13	2.06	0.55
81:CE:162:VAL:HG11	81:CE:175:VAL:CG1	2.36	0.55
64:CF:200:ARG:O	64:CF:203:GLU:N	2.39	0.55
80:CH:113:GLU:CG	80:CH:123:ILE:HD11	2.35	0.55
80:CH:78:GLN:HB3	80:CH:82:LYS:HE2	1.88	0.55
79:CJ:55:TYR:HE1	79:CJ:57:VAL:CG2	2.19	0.55
40:CK:81:ILE:HD13	40:CK:116:MET:HE2	1.87	0.55
40:CK:56:LEU:HB2	40:CK:91:ASP:OD2	2.04	0.55
42:CL:77:SER:HG	42:CL:80:GLU:HG3	1.70	0.55
46:CN:115:VAL:CB	46:CN:134:LEU:HD21	2.36	0.55
46:CN:59:TYR:CD1	46:CN:135:ILE:HG12	2.41	0.55
41:CO:82:ARG:HD3	41:CO:85:ARG:NH1	2.21	0.55
49:CQ:25:LEU:O	49:CQ:28:LEU:CG	2.47	0.55
41:CO:124:LEU:CD2	52:CS:172:PRO:CG	2.80	0.55
52:CS:45:TRP:CE2	52:CS:61:ILE:HD11	2.41	0.55
52:CS:59:GLY:O	52:CS:60:GLU:CB	2.51	0.55
58:CW:79:GLN:CD	58:CW:94:ARG:NH2	2.58	0.55
56:CX:81:LEU:CD2	56:CX:99:ILE:HD12	2.27	0.55
57:CY:74:TYR:HB2	57:CY:81:TYR:HE2	1.72	0.55
85:A5:4751:G:C8	85:A5:4950:U:C6	2.94	0.55
15:AB:153:THR:O	15:AB:154:SER:CB	2.54	0.55
28:AC:116:THR:CG2	28:AC:118:ALA:C	2.68	0.55
23:AD:53:THR:HG22	23:AD:91:VAL:CB	2.35	0.55
27:AE:100:ARG:CG	27:AE:102:ILE:CD1	2.85	0.55
30:AF:130:ARG:HH11	30:AF:135:ARG:HG3	1.72	0.55
26:AJ:50:LEU:HD12	26:AJ:102:ILE:CG1	2.35	0.55
4:AK:64:TRP:HE1	23:AD:23:GLU:CB	2.20	0.55
4:AK:85:LEU:HD13	4:AK:89:ILE:CG1	2.37	0.55
11:AL:35:ARG:HH21	11:AL:63:THR:CG2	2.10	0.55
5:AO:74:ALA:HB3	5:AO:114:SER:OG	2.07	0.55
5:AO:143:LYS:CG	5:AO:144:GLY:N	2.64	0.55
12:AR:100:PRO:CA	12:AR:103:LYS:HB2	2.09	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AZ:77:LEU:O	19:AZ:78:LYS:CD	2.53	0.55
13:AP:100:LYS:HG2	36:B2:1240:A:C6	2.40	0.55
36:B2:1500:G:H2'	36:B2:1501:C:C6	2.42	0.55
8:AS:142:ARG:HA	36:B2:1523:C:OP1	2.06	0.55
36:B2:151:C:H2'	36:B2:152:U:C6	2.42	0.55
51:CA:114:CYS:O	51:CA:116:LEU:N	2.40	0.55
63:CB:133:TYR:CD1	63:CB:136:LYS:CE	2.90	0.55
63:CB:92:TYR:HB3	63:CB:99:LEU:HD11	1.87	0.55
74:CC:260:LEU:HD22	74:CC:264:TYR:CE2	2.41	0.55
81:CE:175:VAL:O	81:CE:186:LEU:O	2.23	0.55
81:CE:31:ASN:H	81:CE:32:LEU:CD2	2.20	0.55
64:CF:223:LYS:O	64:CF:232:ASP:HB2	2.06	0.55
64:CF:28:LEU:O	64:CF:29:LYS:C	2.44	0.55
82:CG:98:LEU:CD1	82:CG:98:LEU:C	2.75	0.55
47:CI:26:VAL:HG22	47:CI:122:PRO:CG	2.36	0.55
40:CK:28:LEU:HD13	40:CK:29:ALA:H	1.69	0.55
42:CL:18:TRP:HH2	74:CC:108:TRP:CZ2	2.24	0.55
53:CT:132:PRO:O	53:CT:132:PRO:HD2	2.05	0.55
55:CU:125:GLU:C	55:CU:125:GLU:OE1	2.45	0.55
81:CE:219:LYS:HE2	85:A5:1291:G:OP1	2.07	0.55
85:A5:445:U:C5	85:A5:446:C:C5	2.95	0.55
16:AA:186:ARG:O	16:AA:186:ARG:NH1	2.39	0.55
15:AB:113:MET:CE	15:AB:209:ASP:HB3	2.36	0.55
28:AC:265:PRO:HA	28:AC:268:GLU:HG2	1.87	0.55
23:AD:28:GLU:HA	23:AD:28:GLU:OE1	2.07	0.55
23:AD:59:LEU:CG	23:AD:60:GLY:N	2.69	0.55
30:AF:182:LYS:CB	30:AF:182:LYS:NZ	2.69	0.55
30:AF:68:ILE:HG13	30:AF:69:VAL:N	2.21	0.55
30:AF:78:MET:HB2	30:AF:159:ARG:NH2	2.22	0.55
10:AN:27:LYS:C	10:AN:27:LYS:HD2	2.25	0.55
5:AO:44:VAL:HG22	5:AO:93:LEU:HD13	1.85	0.55
13:AP:49:LEU:HD12	13:AP:50:ARG:H	1.71	0.55
13:AP:53:GLN:CG	13:AP:56:LEU:HD12	2.37	0.55
12:AR:16:ILE:O	12:AR:20:TYR:HB2	2.07	0.55
14:AT:64:LEU:CD2	14:AT:64:LEU:N	2.63	0.55
18:AY:37:LYS:CA	18:AY:40:ILE:HG22	2.36	0.55
51:CA:254:GLU:HB3	51:CA:255:LYS:C	2.27	0.55
63:CB:108:GLU:CG	63:CB:137:TRP:CE2	2.90	0.55
63:CB:150:PHE:C	63:CB:152:SER:N	2.54	0.55
63:CB:223:THR:CG2	63:CB:274:TYR:N	2.69	0.55
48:CD:213:GLU:HG2	48:CD:214:GLU:HG3	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:141:ARG:NH2	81:CE:191:GLN:O	2.40	0.55
81:CE:215:ALA:O	81:CE:218:LYS:HG3	2.07	0.55
64:CF:175:ILE:O	64:CF:179:LEU:HB2	2.07	0.55
64:CF:70:ARG:HH12	64:CF:73:ARG:HD2	1.71	0.55
64:CF:95:ILE:HD11	64:CF:96:ARG:CG	2.36	0.55
82:CG:27:VAL:O	82:CG:31:LEU:CG	2.54	0.55
47:CI:101:LYS:HG3	47:CI:102:MET:H	1.71	0.55
79:CJ:146:ARG:NH2	79:CJ:147:ARG:CZ	2.69	0.55
79:CJ:26:VAL:CG2	79:CJ:33:LEU:CD2	2.83	0.55
40:CK:62:LEU:HD12	40:CK:73:VAL:HB	1.84	0.55
40:CK:85:LEU:HD22	40:CK:109:ILE:HG21	1.87	0.55
44:CM:120:ASN:CA	44:CM:123:ILE:HG22	2.35	0.55
44:CM:34:ASN:C	44:CM:35:ARG:CG	2.74	0.55
44:CM:47:ARG:HG2	44:CM:47:ARG:O	2.05	0.55
44:CM:47:ARG:NH1	44:CM:70:GLN:HG3	2.21	0.55
46:CN:44:ARG:HG3	46:CN:119:TYR:OH	2.07	0.55
41:CO:19:LEU:O	41:CO:23:VAL:HG23	2.07	0.55
49:CQ:64:SER:CB	49:CQ:92:VAL:HG23	2.29	0.55
49:CQ:93:GLN:H	49:CQ:93:GLN:HE21	1.54	0.55
50:CR:142:ILE:HA	50:CR:145:LEU:HG	1.87	0.55
50:CR:75:HIS:O	50:CR:76:MET:CE	2.54	0.55
29:AG:131:ARG:O	58:CW:83:THR:N	2.40	0.55
56:CX:89:LYS:CG	56:CX:95:THR:OG1	2.55	0.55
46:CN:138:PHE:CD1	85:A5:18:C:H4'	2.41	0.55
28:AC:255:LEU:N	28:AC:255:LEU:HD12	2.21	0.55
28:AC:83:LEU:HD22	28:AC:262:THR:HG21	1.87	0.55
23:AD:175:VAL:HG13	23:AD:175:VAL:O	2.05	0.55
27:AE:143:ASP:OD2	27:AE:145:ARG:CD	2.55	0.55
27:AE:46:ILE:O	27:AE:50:ASN:HB2	2.06	0.55
29:AG:159:ARG:HH22	29:AG:161:PRO:N	2.05	0.55
33:AI:66:SER:HA	33:AI:73:THR:HA	1.89	0.55
11:AL:111:VAL:HG23	11:AL:140:PHE:C	2.27	0.55
13:AP:127:LYS:O	13:AP:127:LYS:CG	2.55	0.55
13:AP:84:ILE:HG22	13:AP:86:LEU:CD2	2.36	0.55
12:AR:83:ASN:C	16:AA:201:LEU:CD1	2.68	0.55
8:AS:26:ILE:CG1	8:AS:59:LEU:HD21	2.36	0.55
8:AS:81:ASP:OD2	8:AS:95:TYR:HD2	1.89	0.55
14:AT:111:LYS:CG	14:AT:126:GLN:HE22	2.20	0.55
17:AV:3:ASN:HB3	17:AV:9:VAL:HG23	1.89	0.55
18:AY:54:VAL:CG1	18:AY:76:TYR:CA	2.84	0.55
14:AT:82:ARG:HH11	36:B2:1590:C:H5''	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:231:VAL:HG13	63:CB:232:THR:N	2.22	0.55
63:CB:301:ASN:O	63:CB:304:SER:OG	2.23	0.55
63:CB:326:VAL:O	63:CB:326:VAL:HG13	2.06	0.55
63:CB:32:PHE:H	63:CB:32:PHE:HD2	1.50	0.55
74:CC:138:MET:CE	74:CC:145:GLU:OE2	2.55	0.55
48:CD:187:SER:OG	48:CD:189:GLU:OE1	2.24	0.55
81:CE:224:LYS:HG2	81:CE:226:ARG:HH12	1.62	0.55
81:CE:224:LYS:O	81:CE:226:ARG:NH1	2.40	0.55
81:CE:53:GLY:C	81:CE:63:TYR:CB	2.65	0.55
47:CI:104:SER:CB	47:CI:112:GLN:CG	2.79	0.55
47:CI:57:TYR:CD1	47:CI:130:HIS:CE1	2.94	0.55
40:CK:59:THR:O	40:CK:60:VAL:CG2	2.54	0.55
52:CS:16:CYS:N	52:CS:59:GLY:HA3	2.19	0.55
52:CS:82:LEU:CD2	52:CS:124:ILE:HD13	2.36	0.55
53:CT:11:THR:CB	53:CT:15:PHE:HD2	2.06	0.55
56:CX:41:ARG:NH1	56:CX:46:PHE:HE1	2.01	0.55
57:CY:2:LYS:HE2	57:CY:7:VAL:C	2.27	0.55
57:CY:58:VAL:O	57:CY:63:LYS:HG3	2.06	0.55
57:CY:82:ILE:O	57:CY:83:GLU:C	2.43	0.55
16:AA:122:LEU:HD12	16:AA:137:ALA:HB2	1.88	0.55
15:AB:105:LEU:HD11	15:AB:110:MET:HE1	1.84	0.55
15:AB:110:MET:HE3	15:AB:213:ARG:HD2	1.89	0.55
28:AC:178:HIS:O	28:AC:220:ASP:HB2	2.06	0.55
28:AC:227:ARG:NH1	28:AC:228:GLY:HA3	2.19	0.55
4:AK:66:HIS:ND1	23:AD:76:ARG:CD	2.67	0.55
31:AH:50:GLU:OE2	31:AH:90:LYS:CE	2.55	0.55
31:AH:6:ALA:CB	31:AH:10:LYS:HZ2	2.19	0.55
31:AH:8:ILE:CG2	31:AH:9:VAL:H	2.19	0.55
26:AJ:34:GLU:CB	26:AJ:35:TYR:CD2	2.89	0.55
4:AK:12:TYR:OH	4:AK:52:LEU:HD21	2.06	0.55
10:AN:16:LEU:CD1	10:AN:62:GLN:HE22	2.03	0.55
10:AN:76:LYS:CD	10:AN:76:LYS:C	2.75	0.55
13:AP:39:ALA:HA	13:AP:42:ARG:CG	2.37	0.55
12:AR:42:PRO:HD3	12:AR:46:LEU:HD23	1.89	0.55
14:AT:14:PHE:CZ	14:AT:131:LEU:HD12	2.42	0.55
14:AT:38:LYS:HD2	14:AT:46:ALA:CA	2.37	0.55
18:AY:44:LEU:HG	18:AY:75:ILE:HD11	1.88	0.55
18:AY:51:THR:CB	18:AY:52:PRO:CD	2.82	0.55
18:AY:54:VAL:HG13	18:AY:76:TYR:H	1.71	0.55
36:B2:526:A:C2	36:B2:560:A:C2	2.95	0.55
51:CA:209:HIS:CE1	51:CA:211:PHE:CE2	2.92	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:108:GLU:HG3	63:CB:137:TRP:CD2	2.36	0.55
63:CB:11:HIS:ND1	63:CB:237:THR:HA	2.22	0.55
74:CC:134:PRO:CD	74:CC:135:ALA:H	2.12	0.55
74:CC:143:ARG:CG	74:CC:143:ARG:NH1	2.67	0.55
74:CC:193:LYS:HG3	74:CC:196:MET:HE1	1.87	0.55
74:CC:307:LYS:O	74:CC:310:HIS:CE1	2.59	0.55
74:CC:62:THR:HG22	74:CC:63:SER:N	2.22	0.55
48:CD:21:ARG:NH1	48:CD:25:GLU:OE2	2.39	0.55
81:CE:85:LYS:O	81:CE:86:GLU:CB	2.53	0.55
64:CF:101:VAL:CG1	64:CF:106:ARG:CD	2.80	0.55
82:CG:77:PRO:C	82:CG:81:ASN:ND2	2.61	0.55
80:CH:110:SER:HB3	80:CH:128:MET:HG3	1.72	0.55
80:CH:41:ILE:CG2	80:CH:42:ASN:H	1.97	0.55
47:CI:28:ASP:CB	47:CI:32:ARG:NH2	2.56	0.55
79:CJ:113:ILE:HD12	79:CJ:125:ILE:HG12	1.88	0.55
79:CJ:146:ARG:HG2	79:CJ:147:ARG:HG3	1.87	0.55
79:CJ:174:ILE:O	79:CJ:175:LEU:HD23	2.07	0.55
79:CJ:37:ALA:HB2	79:CJ:50:PHE:CE1	2.42	0.55
42:CL:128:PRO:O	42:CL:130:LYS:N	2.40	0.55
42:CL:167:ARG:HH21	42:CL:170:THR:CG2	1.90	0.55
42:CL:74:ARG:HD3	42:CL:74:ARG:C	2.26	0.55
46:CN:72:LYS:NZ	46:CN:90:ASN:ND2	2.55	0.55
49:CQ:154:LYS:HD3	49:CQ:155:ALA:O	2.06	0.55
50:CR:10:LEU:CD2	50:CR:41:ILE:HD11	2.37	0.55
52:CS:22:CYS:SG	52:CS:22:CYS:O	2.65	0.55
52:CS:38:VAL:HG13	52:CS:39:VAL:N	2.21	0.55
58:CW:76:VAL:O	58:CW:77:LYS:HB2	2.07	0.55
56:CX:120:ASP:O	56:CX:140:LEU:CD2	2.55	0.55
57:CY:74:TYR:HD1	57:CY:81:TYR:CE2	2.24	0.55
57:CY:81:TYR:HD1	57:CY:96:HIS:HB2	1.72	0.55
85:A5:1358:G:H2'	85:A5:1359:G:C8	2.42	0.55
85:A5:1367:C:C6	85:A5:1367:C:C3'	2.90	0.55
85:A5:1445:U:C2'	85:A5:1446:C:H5''	2.37	0.55
16:AA:164:ASN:C	16:AA:166:LYS:H	2.07	0.55
16:AA:193:HIS:CG	16:AA:194:PRO:HD2	2.42	0.55
15:AB:31:TYR:CE1	15:AB:94:LYS:CA	2.90	0.55
27:AE:129:ILE:HG23	27:AE:139:LEU:HD23	1.88	0.55
27:AE:21:ASP:OD1	27:AE:24:THR:CG2	2.53	0.55
27:AE:205:PHE:CE1	27:AE:221:ARG:CZ	2.90	0.55
27:AE:71:LYS:HG2	27:AE:76:VAL:H	1.72	0.55
30:AF:166:ILE:H	30:AF:166:ILE:CD1	2.19	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AG:164:LYS:O	29:AG:164:LYS:HG3	2.07	0.55
31:AH:11:PRO:HG2	31:AH:12:ASN:H	1.71	0.55
31:AH:135:PHE:HB3	31:AH:136:PRO:HD3	1.87	0.55
33:AI:142:SER:HB2	33:AI:143:LYS:HZ2	1.64	0.55
26:AJ:81:LEU:HD12	26:AJ:97:ILE:CD1	2.37	0.55
4:AK:83:LEU:HD12	4:AK:85:LEU:CD2	2.23	0.55
11:AL:40:ILE:HG13	11:AL:68:ILE:HG13	1.88	0.55
13:AP:128:HIS:HD2	36:B2:1522:A:O5'	1.90	0.55
8:AS:90:VAL:HG23	13:AP:18:ARG:CZ	2.37	0.55
14:AT:4:VAL:CG2	14:AT:136:GLY:HA2	2.35	0.55
17:AV:15:ARG:NE	28:AC:83:LEU:O	2.39	0.55
17:AV:80:SER:CB	17:AV:81:LYS:CE	2.84	0.55
32:AW:10:ALA:O	32:AW:13:SER:OG	2.22	0.55
36:B2:532:C:H2'	36:B2:533:A:C8	2.42	0.55
51:CA:248:GLY:O	51:CA:250:LYS:CB	2.54	0.55
63:CB:89:ILE:HD13	63:CB:153:MET:SD	2.46	0.55
74:CC:341:LEU:C	74:CC:343:GLN:N	2.59	0.55
74:CC:41:HIS:NE2	74:CC:238:LEU:CD2	2.70	0.55
81:CE:162:VAL:HG12	81:CE:163:VAL:N	2.21	0.55
81:CE:197:THR:HG22	81:CE:198:SER:N	2.22	0.55
81:CE:78:SER:HB2	81:CE:79:LYS:HA	1.88	0.55
79:CJ:62:ILE:HD12	79:CJ:68:ILE:CD1	2.37	0.55
79:CJ:53:ALA:CB	79:CJ:68:ILE:HD12	2.35	0.55
44:CM:106:ASP:OD2	81:CE:161:ARG:NH2	2.39	0.55
44:CM:8:GLU:OE1	44:CM:9:VAL:O	2.24	0.55
46:CN:65:ARG:CG	46:CN:129:PHE:CE1	2.90	0.55
41:CO:181:ALA:O	41:CO:183:LYS:N	2.39	0.55
41:CO:178:ARG:HG3	41:CO:182:GLU:OE2	2.07	0.55
50:CR:44:LEU:CD2	50:CR:49:LEU:HB2	2.36	0.55
52:CS:113:MET:HG3	52:CS:124:ILE:HD13	1.87	0.55
52:CS:12:VAL:HB	52:CS:44:PHE:HD1	1.69	0.55
44:CM:57:LEU:HD12	52:CS:154:LEU:HB2	1.87	0.55
52:CS:74:ARG:O	52:CS:75:VAL:HG12	2.07	0.55
58:CW:50:ASN:HA	58:CW:55:TYR:CG	2.42	0.55
57:CY:69:LYS:O	57:CY:69:LYS:HG2	2.06	0.55
59:CZ:46:ILE:HG22	59:CZ:118:PHE:CE2	2.41	0.55
59:CZ:16:GLY:O	59:CZ:19:SER:HB3	2.06	0.55
59:CZ:30:ASP:O	59:CZ:39:SER:CB	2.55	0.55
85:A5:1928:C:O4'	85:A5:1928:C:N1	2.37	0.55
85:A5:4472:G:H2'	85:A5:4473:A:H5''	1.89	0.55
85:A5:4421:C:H42	85:A5:4475:G:H22	1.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:4966:A:H61	85:A5:5067:U:H3	1.54	0.55
27:AE:100:ARG:CD	27:AE:102:ILE:HD12	2.30	0.55
27:AE:123:LEU:CD1	27:AE:161:GLN:HA	2.37	0.55
27:AE:205:PHE:CD1	27:AE:221:ARG:CZ	2.89	0.55
30:AF:15:PRO:HD3	34:AQ:56:LEU:HA	1.88	0.55
29:AG:135:PRO:CD	29:AG:144:LEU:CD2	2.85	0.55
11:AL:5:GLN:OE1	11:AL:10:TYR:HA	2.06	0.55
34:AQ:144:SER:O	34:AQ:145:TYR:CB	2.55	0.55
34:AQ:43:GLU:HG2	34:AQ:45:ARG:CB	2.37	0.55
34:AQ:53:GLU:O	34:AQ:57:LEU:HG	2.07	0.55
14:AT:11:GLN:CD	14:AT:62:ARG:CZ	2.70	0.55
17:AV:35:ASN:OD1	17:AV:52:THR:HB	2.07	0.55
32:AW:101:PHE:CD2	32:AW:129:PHE:HE1	2.25	0.55
32:AW:93:LEU:O	32:AW:93:LEU:CG	2.54	0.55
19:AZ:103:HIS:CD2	19:AZ:105:ALA:CA	2.90	0.55
51:CA:94:ALA:HB3	51:CA:102:LEU:HD23	1.83	0.55
63:CB:299:ILE:N	63:CB:300:LYS:HG2	2.20	0.55
74:CC:138:MET:HE2	74:CC:145:GLU:OE2	2.06	0.55
74:CC:236:ASN:OD1	74:CC:237:ILE:N	2.40	0.55
64:CF:89:LEU:HD21	64:CF:122:PHE:HB3	1.88	0.55
64:CF:197:VAL:CG1	64:CF:198:GLY:N	2.56	0.55
64:CF:213:LEU:HD11	64:CF:244:ILE:CD1	2.37	0.55
56:CX:43:SER:CA	82:CG:51:LEU:CD1	2.83	0.55
79:CJ:13:ARG:HD3	79:CJ:136:ARG:HH11	1.71	0.55
40:CK:107:ASP:CG	40:CK:143:VAL:HG11	2.27	0.55
42:CL:48:PRO:CB	42:CL:144:LEU:HD21	2.37	0.55
42:CL:75:GLY:HA3	42:CL:99:ASP:HB2	1.88	0.55
44:CM:77:TRP:CA	44:CM:82:ILE:CG1	2.85	0.55
54:CP:101:ASN:O	54:CP:105:LYS:CE	2.55	0.55
43:CV:57:VAL:CG2	43:CV:84:GLN:HG2	2.37	0.55
58:CW:110:ARG:NE	58:CW:113:LYS:NZ	2.54	0.55
85:A5:3762:U:H2'	85:A5:3763:A:O4'	2.07	0.54
85:A5:4751:G:N9	85:A5:4950:U:C5	2.75	0.54
16:AA:71:PRO:HB2	16:AA:95:GLY:HA3	1.88	0.54
28:AC:179:THR:HG23	28:AC:180:VAL:H	1.72	0.54
28:AC:70:VAL:HG22	28:AC:97:PHE:CZ	2.42	0.54
27:AE:117:GLU:HG3	27:AE:118:GLU:N	2.18	0.54
30:AF:152:TRP:O	30:AF:153:LEU:C	2.46	0.54
31:AH:37:LYS:O	31:AH:38:ALA:HB3	2.08	0.54
26:AJ:110:LEU:HD11	26:AJ:135:ILE:CD1	2.38	0.54
4:AK:14:LEU:CG	4:AK:35:LEU:HD21	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AN:4:MET:CE	10:AN:124:ARG:HH22	2.19	0.54
10:AN:71:ILE:O	10:AN:75:LEU:HD13	2.06	0.54
5:AO:52:THR:CG2	36:B2:953:C:C4'	2.82	0.54
13:AP:90:VAL:HG11	13:AP:109:PRO:HG3	1.88	0.54
34:AQ:115:TYR:HE2	34:AQ:119:LEU:HD11	1.72	0.54
34:AQ:18:THR:C	34:AQ:75:GLY:CA	2.75	0.54
34:AQ:7:LEU:HD22	34:AQ:27:ARG:HD2	1.88	0.54
8:AS:37:GLY:H	36:B2:1630:A:H5''	1.71	0.54
32:AW:88:LYS:NZ	36:B2:420:G:H5'	2.21	0.54
18:AY:114:MET:HE3	18:AY:125:VAL:CG2	2.36	0.54
18:AY:56:PHE:CD2	18:AY:86:GLU:CD	2.76	0.54
19:AZ:61:GLU:HB3	19:AZ:65:TYR:OH	2.07	0.54
36:B2:338:G:C4	36:B2:339:A:C8	2.95	0.54
36:B2:338:G:C6	36:B2:339:A:C6	2.94	0.54
36:B2:791:C:H2'	36:B2:792:C:C6	2.42	0.54
51:CA:144:LYS:C	51:CA:145:LYS:HG3	2.17	0.54
63:CB:305:THR:HG23	63:CB:307:TYR:H	1.73	0.54
58:CW:12:LYS:NZ	63:CB:388:PHE:HB2	2.20	0.54
74:CC:228:THR:C	74:CC:229:LEU:HD23	2.28	0.54
48:CD:205:ALA:CB	48:CD:236:MET:SD	2.96	0.54
48:CD:273:LEU:HD12	48:CD:274:ALA:N	2.21	0.54
81:CE:153:LEU:CD1	81:CE:193:PHE:O	2.55	0.54
81:CE:212:LEU:HD12	81:CE:216:TYR:CB	1.97	0.54
81:CE:255:SER:O	81:CE:259:PRO:HD2	2.08	0.54
82:CG:160:ASP:OD2	82:CG:187:LYS:HG2	2.04	0.54
82:CG:208:ASN:ND2	82:CG:210:GLU:CD	2.60	0.54
80:CH:183:GLU:OE1	80:CH:184:LYS:C	2.46	0.54
47:CI:69:ARG:HH11	47:CI:70:ILE:CG1	2.13	0.54
44:CM:81:ASP:HB3	44:CM:84:THR:CG2	2.36	0.54
41:CO:192:TYR:CB	44:CM:122:ILE:CD1	2.70	0.54
50:CR:42:ARG:C	50:CR:45:ILE:HG22	2.27	0.54
50:CR:66:ASN:O	50:CR:70:ARG:HD2	2.05	0.54
52:CS:159:LEU:O	52:CS:159:LEU:HD23	2.03	0.54
55:CU:39:PHE:CE2	55:CU:70:ILE:HD13	2.36	0.54
58:CW:14:TYR:HD1	63:CB:367:PHE:CZ	2.25	0.54
56:CX:89:LYS:CE	56:CX:137:TYR:CD1	2.88	0.54
85:A5:2786:C:H5''	85:A5:2787:A:OP1	2.07	0.54
16:AA:149:ASN:N	16:AA:165:ASN:ND2	2.56	0.54
28:AC:251:LEU:C	28:AC:251:LEU:HD23	2.28	0.54
23:AD:120:TYR:OH	28:AC:146:GLU:CG	2.51	0.54
23:AD:214:LYS:HG3	23:AD:214:LYS:O	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:34:TYR:OH	23:AD:37:VAL:HG13	2.07	0.54
29:AG:122:PRO:HD2	29:AG:123:GLY:N	2.22	0.54
33:AI:191:GLU:CG	33:AI:192:GLY:N	2.70	0.54
26:AJ:37:LEU:HG	26:AJ:38:ARG:H	1.72	0.54
10:AN:64:ARG:O	10:AN:67:THR:O	2.25	0.54
5:AO:35:ALA:HB2	5:AO:112:ALA:CB	2.23	0.54
5:AO:31:CYS:SG	5:AO:95:ILE:HG12	2.47	0.54
14:AT:38:LYS:O	14:AT:39:LEU:HB3	2.08	0.54
6:AX:27:TYR:CD2	6:AX:31:HIS:CD2	2.95	0.54
18:AY:46:LYS:O	18:AY:47:MET:HG2	2.07	0.54
18:AY:92:ALA:N	18:AY:97:TYR:CB	2.52	0.54
36:B2:1288:U:H3	36:B2:1311:C:H42	1.55	0.54
36:B2:1823:A:C4'	36:B2:1824:A:H1'	2.37	0.54
51:CA:118:GLU:OE1	51:CA:119:LYS:CD	2.54	0.54
51:CA:120:PRO:HG3	51:CA:162:ASN:N	2.22	0.54
51:CA:77:ILE:HD11	51:CA:128:ARG:HH22	1.66	0.54
48:CD:122:GLN:NE2	48:CD:125:VAL:CA	2.68	0.54
48:CD:197:LYS:HB3	48:CD:202:GLN:HB3	1.88	0.54
81:CE:176:THR:OG1	81:CE:186:LEU:HG	2.07	0.54
81:CE:179:LEU:HD13	81:CE:179:LEU:C	2.27	0.54
80:CH:187:VAL:CG1	80:CH:187:VAL:O	2.55	0.54
47:CI:64:ALA:C	47:CI:159:PHE:HE1	2.10	0.54
79:CJ:166:PHE:CD1	79:CJ:170:TYR:CD2	2.96	0.54
40:CK:102:GLY:O	40:CK:140:GLY:CA	2.56	0.54
41:CO:177:LEU:C	44:CM:130:LEU:CD2	2.75	0.54
44:CM:95:ILE:CD1	44:CM:124:LYS:CG	31.62	0.54
46:CN:44:ARG:HH11	46:CN:44:ARG:CB	2.15	0.54
46:CN:65:ARG:HG2	46:CN:129:PHE:CE1	2.42	0.54
50:CR:132:PHE:HD1	50:CR:137:ILE:CD1	2.19	0.54
50:CR:134:ASN:OD1	50:CR:135:LYS:N	2.39	0.54
53:CT:91:VAL:CG1	53:CT:92:ARG:H	2.19	0.54
56:CX:107:HIS:CE1	85:A5:2777:G:H5''	2.41	0.54
16:AA:132:GLN:N	16:AA:133:PRO:HD3	2.22	0.54
16:AA:32:PHE:HA	16:AA:35:GLU:OE1	2.08	0.54
23:AD:214:LYS:O	23:AD:215:ASP:CG	2.46	0.54
23:AD:77:PHE:O	23:AD:79:PHE:N	2.40	0.54
27:AE:71:LYS:HG2	27:AE:76:VAL:N	2.21	0.54
29:AG:210:ALA:HA	29:AG:213:LEU:HD23	1.85	0.54
29:AG:64:LYS:CD	29:AG:65:GLN:O	2.56	0.54
33:AI:148:LYS:CE	33:AI:152:ARG:NH2	2.71	0.54
7:AM:77:ILE:CG2	7:AM:78:LYS:N	2.68	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AN:116:ILE:CA	10:AN:119:GLU:HG3	2.37	0.54
10:AN:38:TYR:CE1	10:AN:78:LYS:NZ	2.76	0.54
34:AQ:129:SER:O	34:AQ:131:LYS:NZ	2.28	0.54
34:AQ:44:PRO:O	34:AQ:45:ARG:CG	2.55	0.54
12:AR:90:ALA:C	12:AR:91:LEU:HD12	2.26	0.54
14:AT:77:LYS:CD	14:AT:92:PHE:HE2	2.11	0.54
19:AZ:99:LEU:HD21	19:AZ:102:LYS:HD3	1.79	0.54
36:B2:1063:C:C6	36:B2:1064:C:C5	2.95	0.54
34:AQ:138:ARG:HG2	36:B2:1649:U:H4'	1.87	0.54
36:B2:616:A:H61	36:B2:629:A:H61	1.56	0.54
36:B2:887:U:C5	36:B2:888:U:C5	2.96	0.54
63:CB:311:ASP:OD1	63:CB:312:LYS:N	2.40	0.54
74:CC:158:VAL:CA	74:CC:161:TYR:CE2	2.72	0.54
74:CC:146:GLU:O	74:CC:175:LYS:HE2	2.07	0.54
74:CC:232:VAL:HG12	74:CC:263:LEU:HD12	1.90	0.54
48:CD:113:PHE:CE1	48:CD:142:PHE:CE1	2.94	0.54
48:CD:123:VAL:HA	48:CD:248:ARG:HH12	1.72	0.54
48:CD:271:MET:CE	48:CD:275:GLN:CG	2.85	0.54
81:CE:152:ILE:HG23	81:CE:152:ILE:O	2.07	0.54
81:CE:175:VAL:O	81:CE:186:LEU:CA	2.55	0.54
47:CI:206:LEU:HA	47:CI:209:TRP:HB2	1.90	0.54
47:CI:92:HIS:CB	47:CI:94:PHE:CZ	2.89	0.54
40:CK:113:ALA:HA	40:CK:116:MET:CG	2.37	0.54
44:CM:86:TRP:O	44:CM:89:THR:OG1	2.16	0.54
41:CO:195:VAL:HG11	44:CM:119:ARG:H	1.72	0.54
49:CQ:92:VAL:O	49:CQ:112:ARG:NH2	2.41	0.54
59:CZ:41:ALA:N	59:CZ:77:TYR:CE1	2.75	0.54
15:AB:175:GLU:HG2	15:AB:193:ILE:HD12	1.86	0.54
15:AB:87:ILE:HD12	15:AB:220:LYS:NZ	2.22	0.54
28:AC:189:GLY:O	28:AC:190:SER:CB	2.55	0.54
27:AE:130:PHE:HB3	27:AE:138:HIS:ND1	2.23	0.54
30:AF:44:LYS:HD2	30:AF:44:LYS:C	2.10	0.54
29:AG:170:ARG:HD2	29:AG:172:LYS:HG2	1.88	0.54
29:AG:3:LEU:CD2	29:AG:109:LEU:HB2	2.38	0.54
29:AG:76:LEU:HD13	29:AG:92:ARG:HD2	1.89	0.54
31:AH:120:ARG:HH12	36:B2:913:A:H2'	1.72	0.54
33:AI:98:LYS:HD3	33:AI:178:ARG:NE	2.21	0.54
5:AO:133:THR:O	15:AB:107:ARG:NH1	2.40	0.54
5:AO:28:PHE:HB3	5:AO:47:LEU:HD11	1.89	0.54
5:AO:31:CYS:SG	5:AO:95:ILE:CG1	2.95	0.54
8:AS:34:LYS:N	8:AS:34:LYS:HD3	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AT:9:VAL:CG1	14:AT:13:GLU:HG3	2.37	0.54
32:AW:111:MET:HE3	32:AW:116:ALA:HA	1.90	0.54
6:AX:128:VAL:O	6:AX:129:SER:OG	2.24	0.54
18:AY:35:VAL:CG1	18:AY:36:PRO:HD2	2.28	0.54
19:AZ:92:LEU:CD1	19:AZ:109:TYR:HE1	2.19	0.54
36:B2:1748:G:H1	36:B2:1786:U:H3	1.55	0.54
36:B2:685:A:C2	36:B2:918:U:C2	2.96	0.54
63:CB:60:VAL:HG21	63:CB:72:VAL:HG11	1.89	0.54
63:CB:49:TYR:C	63:CB:79:VAL:HG13	2.28	0.54
74:CC:28:PHE:CZ	74:CC:128:LEU:O	2.60	0.54
74:CC:156:ASP:O	74:CC:157:LYS:C	2.46	0.54
74:CC:310:HIS:CG	74:CC:311:ARG:CD	2.71	0.54
74:CC:322:LEU:CD2	74:CC:336:ARG:NH2	2.70	0.54
74:CC:79:VAL:C	74:CC:81:GLY:N	2.60	0.54
48:CD:225:GLN:HE22	86:A7:49:A:H5''	1.72	0.54
81:CE:137:VAL:HG12	81:CE:138:ARG:N	2.20	0.54
81:CE:31:ASN:HA	81:CE:32:LEU:CD2	2.33	0.54
64:CF:216:PRO:HD3	64:CF:247:MET:HG2	1.88	0.54
82:CG:39:PHE:CE1	82:CG:47:PRO:CD	2.75	0.54
82:CG:51:LEU:O	82:CG:52:THR:C	2.45	0.54
47:CI:20:SER:H	47:CI:23:CYS:HB2	1.72	0.54
47:CI:5:PRO:O	47:CI:6:ALA:C	2.44	0.54
47:CI:76:MET:CE	47:CI:151:ALA:CB	2.85	0.54
44:CM:39:ASP:OD2	44:CM:47:ARG:HB2	2.07	0.54
49:CQ:17:GLU:HA	49:CQ:33:ARG:HH22	1.72	0.54
50:CR:170:ARG:HG2	50:CR:173:ARG:NH2	2.22	0.54
53:CT:122:LYS:CB	53:CT:124:THR:OG1	2.44	0.54
43:CV:43:LYS:HB2	43:CV:60:MET:O	2.07	0.54
58:CW:87:LEU:CD2	58:CW:90:ILE:HD13	2.14	0.54
56:CX:76:ILE:C	56:CX:76:ILE:CD1	2.76	0.54
57:CY:27:ARG:HH22	57:CY:28:LYS:HZ1	1.53	0.54
85:A5:1435:G:H1	85:A5:1449:C:H42	1.56	0.54
50:CR:96:MET:HE2	85:A5:2667:C:O4'	2.07	0.54
85:A5:2666:U:C4	85:A5:2669:C:N3	2.76	0.54
54:CP:71:ALA:HB2	85:A5:4982:A:OP1	2.07	0.54
42:CL:103:ARG:HD2	85:A5:75:G:O6	2.07	0.54
16:AA:14:ASP:HB3	16:AA:18:PHE:CE2	2.34	0.54
23:AD:222:PRO:C	23:AD:223:ILE:CD1	2.74	0.54
27:AE:229:GLY:HA2	27:AE:235:TRP:HD1	1.66	0.54
30:AF:192:LYS:O	30:AF:192:LYS:HD2	2.08	0.54
33:AI:21:TYR:O	33:AI:22:HIS:O	2.25	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AJ:164:PRO:HB2	26:AJ:165:TYR:CD1	2.43	0.54
11:AL:96:ILE:HD13	11:AL:102:PHE:HA	1.89	0.54
13:AP:30:TYR:O	13:AP:34:MET:CG	2.54	0.54
13:AP:70:MET:HG3	13:AP:71:GLU:OE2	2.07	0.54
12:AR:87:GLU:O	12:AR:88:VAL:CB	2.56	0.54
14:AT:18:LEU:HB2	14:AT:134:ILE:HD12	1.87	0.54
14:AT:31:PRO:CD	14:AT:102:ARG:HG3	2.38	0.54
3:AU:54:VAL:O	3:AU:56:MET:SD	2.66	0.54
17:AV:18:SER:HG	17:AV:72:LEU:HD11	1.72	0.54
36:B2:555:A:C6	36:B2:556:U:C4	2.95	0.54
51:CA:248:GLY:O	51:CA:250:LYS:CA	2.55	0.54
63:CB:239:LYS:NZ	85:A5:3844:U:H3'	2.22	0.54
63:CB:282:LYS:CG	63:CB:333:LEU:HD21	2.37	0.54
63:CB:352:LEU:HD23	63:CB:353:VAL:CA	2.38	0.54
74:CC:110:ARG:CD	74:CC:113:ARG:HH21	2.12	0.54
74:CC:286:ASN:C	74:CC:287:THR:CG2	2.75	0.54
81:CE:56:ARG:CG	81:CE:57:TYR:HA	2.38	0.54
82:CG:183:ILE:CG2	82:CG:184:ILE:O	2.56	0.54
80:CH:5:LEU:HD12	80:CH:5:LEU:O	2.08	0.54
47:CI:76:MET:SD	47:CI:138:ILE:HD13	2.48	0.54
79:CJ:90:ARG:HH22	79:CJ:108:GLY:H	0.56	0.54
42:CL:83:VAL:HG11	42:CL:114:VAL:HG21	1.89	0.54
46:CN:104:GLU:HG2	46:CN:161:MET:SD	2.48	0.54
41:CO:120:VAL:C	41:CO:124:LEU:CD1	2.76	0.54
49:CQ:178:ARG:CD	49:CQ:185:GLY:HA3	2.23	0.54
49:CQ:55:ARG:CD	49:CQ:58:ARG:HH22	2.16	0.54
50:CR:47:ASP:OD2	50:CR:49:LEU:HD12	2.07	0.54
41:CO:128:ARG:HE	52:CS:161:ARG:NE	2.06	0.54
53:CT:45:MET:O	53:CT:95:HIS:CE1	2.58	0.54
58:CW:20:ARG:HH11	58:CW:28:VAL:HG11	0.72	0.54
58:CW:86:SER:O	58:CW:90:ILE:CD1	2.52	0.54
58:CW:97:LYS:HG3	58:CW:98:PRO:CD	2.37	0.54
56:CX:52:LEU:HD11	56:CX:53:ARG:C	2.27	0.54
59:CZ:53:VAL:CG2	59:CZ:54:THR:H	2.18	0.54
85:A5:512:U:H2'	85:A5:513:U:H5'	1.89	0.54
23:AD:79:PHE:CE1	23:AD:83:SER:HB3	2.42	0.54
30:AF:110:GLN:C	30:AF:113:VAL:HG12	2.28	0.54
30:AF:76:MET:HE1	30:AF:169:ILE:CG2	2.22	0.54
11:AL:8:ARG:HA	33:AI:201:LYS:NZ	2.23	0.54
5:AO:34:PHE:CE1	5:AO:99:ALA:C	2.81	0.54
3:AU:86:LYS:C	3:AU:87:ARG:HG2	2.28	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AX:28:LYS:CE	6:AX:32:LEU:HD11	2.37	0.54
18:AY:63:HIS:HB2	18:AY:68:LYS:HD3	1.88	0.54
36:B2:1528:G:H22	36:B2:1665:G:N2	2.05	0.54
51:CA:254:GLU:HB3	51:CA:256:GLU:N	2.23	0.54
63:CB:112:ASP:O	63:CB:114:CYS:C	2.46	0.54
63:CB:44:THR:HG23	63:CB:184:GLN:O	2.08	0.54
63:CB:245:HIS:CE1	85:A5:1593:A:OP1	2.61	0.54
74:CC:156:ASP:OD1	74:CC:255:SER:CB	2.56	0.54
74:CC:335:MET:O	74:CC:338:ASN:O	2.25	0.54
82:CG:255:LYS:CE	82:CG:259:LYS:HE2	2.37	0.54
82:CG:31:LEU:H	82:CG:31:LEU:HD13	1.72	0.54
80:CH:129:ARG:HD3	80:CH:130:PRO:CD	2.35	0.54
47:CI:101:LYS:CG	47:CI:102:MET:N	2.70	0.54
47:CI:12:CYS:HB3	47:CI:57:TYR:CZ	2.42	0.54
40:CK:58:ILE:CG2	40:CK:59:THR:N	2.70	0.54
41:CO:198:THR:CG2	44:CM:115:ALA:CB	2.86	0.54
46:CN:46:ASP:O	46:CN:50:ARG:NH2	2.40	0.54
54:CP:27:LYS:CD	54:CP:63:TYR:HB3	2.36	0.54
49:CQ:144:LYS:NZ	49:CQ:149:TYR:CZ	2.74	0.54
43:CV:88:TYR:CD1	43:CV:89:ARG:N	2.76	0.54
58:CW:21:TYR:CE2	58:CW:23:ARG:CB	2.91	0.54
85:A5:4751:G:C4	85:A5:4950:U:H5	2.25	0.54
16:AA:169:HIS:CD2	16:AA:203:PHE:CE2	2.95	0.54
16:AA:58:LEU:HD21	16:AA:178:LEU:CG	2.28	0.54
15:AB:98:THR:O	15:AB:232:HIS:HE1	1.91	0.54
15:AB:26:SER:C	15:AB:27:LYS:HG3	2.22	0.54
15:AB:58:ALA:H	82:CG:264:LYS:NZ	2.04	0.54
28:AC:75:ILE:C	28:AC:97:PHE:HE1	2.09	0.54
31:AH:12:ASN:ND2	31:AH:46:THR:CB	2.67	0.54
26:AJ:164:PRO:C	26:AJ:165:TYR:HD1	2.10	0.54
4:AK:4:PRO:CG	4:AK:7:ASN:HB2	2.25	0.54
30:AF:53:ALA:C	34:AQ:125:ARG:HH22	2.08	0.54
8:AS:120:HIS:C	8:AS:120:HIS:CD2	2.81	0.54
8:AS:30:ILE:HG22	8:AS:36:VAL:HG21	1.88	0.54
17:AV:55:ILE:HG21	17:AV:60:ARG:HG2	1.90	0.54
32:AW:128:PHE:HD1	32:AW:129:PHE:CA	2.20	0.54
18:AY:17:LEU:HA	27:AE:69:PHE:CZ	2.43	0.54
36:B2:1551:U:C5	36:B2:1577:G:C2	2.95	0.54
51:CA:32:VAL:CG2	51:CA:121:GLY:HA2	2.38	0.54
63:CB:54:THR:CG2	63:CB:76:VAL:HG21	2.36	0.54
74:CC:28:PHE:C	74:CC:29:LYS:HD2	2.24	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:CF:51:TYR:CD2	81:CE:58:SER:HB2	2.37	0.54
80:CH:171:ASP:CG	80:CH:173:ARG:HD3	2.26	0.54
47:CI:41:ALA:HB3	47:CI:139:ARG:HH22	1.67	0.54
79:CJ:53:ALA:CB	79:CJ:68:ILE:CD1	2.76	0.54
40:CK:121:LEU:HB2	40:CK:129:ILE:CD1	2.37	0.54
40:CK:83:LYS:O	40:CK:86:LYS:HB2	2.08	0.54
42:CL:190:ARG:CG	42:CL:190:ARG:HH11	2.19	0.54
46:CN:96:ARG:NH2	46:CN:104:GLU:OE2	2.41	0.54
46:CN:186:GLY:HA3	46:CN:191:ALA:H	1.73	0.54
41:CO:132:THR:OG1	41:CO:133:ARG:HD3	2.08	0.54
41:CO:184:ASN:O	41:CO:188:LYS:CB	2.55	0.54
41:CO:85:ARG:HG2	41:CO:86:GLY:N	2.22	0.54
50:CR:32:ILE:HD12	50:CR:44:LEU:HD11	1.65	0.54
50:CR:45:ILE:HG23	50:CR:46:LYS:N	2.23	0.54
52:CS:134:ALA:C	52:CS:136:LYS:H	2.09	0.54
56:CX:77:ILE:HD13	56:CX:113:VAL:HG22	1.88	0.54
57:CY:86:GLN:HB2	57:CY:95:VAL:C	2.27	0.54
57:CY:79:VAL:HG11	57:CY:98:GLY:CA	2.37	0.54
85:A5:173:C:O2'	85:A5:174:C:H5'	2.08	0.54
41:CO:68:ARG:HH21	85:A5:4565:C:P	2.31	0.54
86:A7:40:U:C5	86:A7:42:A:N6	2.76	0.54
16:AA:173:LEU:O	16:AA:177:MET:HG2	2.07	0.54
12:AR:105:MET:HE2	16:AA:48:ILE:HG22	1.90	0.54
16:AA:118:GLU:CD	28:AC:65:LYS:NZ	2.61	0.54
27:AE:49:ARG:CD	27:AE:49:ARG:O	2.42	0.54
29:AG:64:LYS:HE3	29:AG:65:GLN:O	2.08	0.54
33:AI:174:CYS:HB2	33:AI:190:LEU:HD21	1.90	0.54
11:AL:59:LYS:CE	11:AL:134:LEU:HD21	2.37	0.54
5:AO:56:VAL:HG13	5:AO:81:VAL:HG23	1.78	0.54
13:AP:77:LYS:O	13:AP:78:THR:HG22	2.06	0.54
8:AS:124:ARG:HB2	8:AS:131:VAL:HG22	1.90	0.54
8:AS:11:HIS:O	8:AS:12:ILE:HB	2.08	0.54
14:AT:83:GLN:NE2	14:AT:85:ASN:N	2.56	0.54
3:AU:67:LYS:O	3:AU:68:THR:C	2.33	0.54
36:B2:1028:A:H5''	36:B2:1029:G:OP2	2.07	0.54
36:B2:1240:A:H2'	36:B2:1241:A:H5'	1.88	0.54
36:B2:24:C:HO2'	36:B2:25:A:H5'	1.71	0.54
36:B2:693:A:C2	36:B2:737:G:O6	2.60	0.54
36:B2:688:U:H1'	36:B2:742:U:O4	2.07	0.54
36:B2:852:G:C3'	36:B2:853:C:C5'	2.85	0.54
36:B2:852:G:C5'	36:B2:853:C:OP2	2.51	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CA:139:HIS:CE1	51:CA:146:THR:HG21	2.41	0.54
63:CB:117:ARG:NE	63:CB:177:LYS:HG2	2.22	0.54
63:CB:17:LEU:CD2	63:CB:19:ARG:HD3	2.37	0.54
63:CB:258:HIS:HA	63:CB:259:PRO:C	2.28	0.54
63:CB:60:VAL:HG12	63:CB:61:ASP:N	2.23	0.54
48:CD:246:ALA:O	48:CD:249:GLU:HG3	2.00	0.54
48:CD:265:ARG:HG3	48:CD:266:TRP:CD1	2.43	0.54
81:CE:174:LEU:CD2	81:CE:208:ILE:HD13	2.38	0.54
64:CF:193:GLU:HG2	64:CF:200:ARG:HB3	1.89	0.54
64:CF:193:GLU:OE1	64:CF:193:GLU:HA	2.08	0.54
82:CG:184:ILE:O	82:CG:185:LYS:HB2	2.07	0.54
13:AP:70:MET:CE	79:CJ:93:GLU:OE1	2.55	0.54
40:CK:15:LEU:HD11	40:CK:60:VAL:HG13	1.88	0.54
40:CK:12:VAL:HG12	40:CK:65:GLN:OE1	2.05	0.54
42:CL:116:ARG:NH1	42:CL:155:MET:CB	2.67	0.54
41:CO:196:LEU:HD13	44:CM:119:ARG:NH2	2.22	0.54
41:CO:82:ARG:CA	41:CO:85:ARG:HD2	2.23	0.54
54:CP:105:LYS:CB	54:CP:107:LEU:CD2	2.86	0.54
54:CP:39:MET:HE3	54:CP:43:LYS:HB3	1.90	0.54
54:CP:51:VAL:HA	54:CP:56:GLN:O	2.08	0.54
54:CP:78:TRP:HA	54:CP:78:TRP:HE3	1.72	0.54
49:CQ:105:VAL:HG13	49:CQ:109:ALA:HB3	1.89	0.54
49:CQ:144:LYS:HE2	49:CQ:149:TYR:CE1	2.42	0.54
50:CR:103:ARG:NH1	50:CR:124:TYR:CE2	2.76	0.54
55:CU:23:LEU:HD22	55:CU:110:TYR:O	2.06	0.54
59:CZ:11:VAL:HA	59:CZ:83:THR:HG22	1.88	0.54
59:CZ:95:VAL:HG21	59:CZ:117:LYS:NZ	2.23	0.54
85:A5:1215:C:H2'	85:A5:1216:C:H5'	1.90	0.54
87:A8:126:C:C1'	87:A8:127:U:OP1	2.55	0.54
16:AA:179:ALA:HA	16:AA:182:VAL:HG22	1.90	0.54
16:AA:5:LEU:HB2	17:AV:41:LYS:NZ	2.22	0.54
28:AC:233:LEU:HD12	28:AC:234:GLY:CA	2.36	0.54
23:AD:113:LEU:N	23:AD:113:LEU:HD12	2.16	0.54
33:AI:155:ASN:ND2	33:AI:156:ALA:CA	2.70	0.54
33:AI:19:LYS:HE2	33:AI:20:PRO:HD3	1.83	0.54
11:AL:31:GLU:HG2	11:AL:32:LYS:N	2.23	0.54
13:AP:17:TYR:H	13:AP:25:LEU:HD11	1.71	0.54
13:AP:56:LEU:HD12	13:AP:80:LEU:HD12	1.88	0.54
13:AP:97:TYR:OH	13:AP:100:LYS:HA	2.08	0.54
34:AQ:54:PRO:CG	34:AQ:88:ILE:HD11	2.26	0.54
36:B2:1063:C:C5	36:B2:1064:C:C5	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:1601:A:H5'	36:B2:1602:U:C6	2.42	0.54
36:B2:1834:A:C2	36:B2:1837:G:N1	2.76	0.54
36:B2:748:C:H5''	36:B2:749:U:C6	2.43	0.54
36:B2:834:C:C2	36:B2:841:G:C2	2.95	0.54
51:CA:109:GLU:HG2	51:CA:137:ILE:HA	1.90	0.54
51:CA:61:VAL:HB	51:CA:76:PHE:HE2	1.73	0.54
63:CB:142:GLY:C	63:CB:147:GLU:HB2	2.28	0.54
63:CB:107:ALA:HB1	63:CB:202:GLU:HG3	1.90	0.54
63:CB:394:LYS:N	63:CB:394:LYS:HD2	2.23	0.54
74:CC:134:PRO:CD	74:CC:135:ALA:N	2.71	0.54
81:CE:152:ILE:CG2	81:CE:160:LYS:H	2.21	0.54
81:CE:179:LEU:HG	81:CE:247:LYS:HZ1	1.73	0.54
81:CE:73:TYR:C	81:CE:74:SER:HB2	2.28	0.54
81:CE:76:ALA:O	81:CE:77:LYS:CG	2.56	0.54
81:CE:85:LYS:CB	81:CE:92:VAL:CG1	2.84	0.54
64:CF:20:LYS:HE2	64:CF:21:LYS:HE3	1.88	0.54
79:CJ:95:ARG:HH11	79:CJ:95:ARG:HB2	1.72	0.54
40:CK:46:ILE:CG2	40:CK:72:GLU:OE2	2.56	0.54
40:CK:81:ILE:HG13	40:CK:82:ILE:N	2.23	0.54
40:CK:85:LEU:HD11	40:CK:109:ILE:HG22	1.90	0.54
41:CO:72:HIS:O	41:CO:74:ARG:NH1	2.41	0.54
54:CP:15:CYS:SG	54:CP:105:LYS:HG2	2.47	0.54
49:CQ:154:LYS:HE3	49:CQ:163:THR:HG23	1.73	0.54
49:CQ:25:LEU:HB2	74:CC:283:LYS:HE3	1.89	0.54
55:CU:60:VAL:HG21	55:CU:76:VAL:HB	1.90	0.54
43:CV:97:TYR:CE1	58:CW:21:TYR:CD1	2.93	0.54
59:CZ:54:THR:OG1	59:CZ:55:ALA:N	2.30	0.54
85:A5:2473:A:C2	85:A5:2506:G:H8	2.25	0.54
85:A5:4561:C:H2'	85:A5:4562:C:C6	2.43	0.54
81:CE:158:ARG:NH2	85:A5:4948:C:C2	2.74	0.54
85:A5:4947:U:H2'	85:A5:4948:C:H5	1.73	0.54
16:AA:141:ASN:HD21	17:AV:29:HIS:HA	1.72	0.54
28:AC:114:LYS:HD2	28:AC:115:GLN:H	1.72	0.54
28:AC:277:HIS:ND1	28:AC:278:THR:N	2.54	0.54
28:AC:57:ASP:O	28:AC:58:LYS:CD	2.29	0.54
29:AG:25:ARG:O	29:AG:26:THR:C	2.45	0.54
33:AI:5:ARG:HH11	36:B2:384:U:H3	1.56	0.54
26:AJ:138:ARG:HD3	26:AJ:156:HIS:ND1	2.22	0.54
34:AQ:124:PRO:CD	34:AQ:125:ARG:H	2.21	0.54
3:AU:53:PRO:HD2	3:AU:53:PRO:O	2.08	0.54
17:AV:32:ILE:HD12	17:AV:60:ARG:HD2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:AW:128:PHE:CD1	32:AW:129:PHE:HA	2.43	0.54
36:B2:281:C:H5''	36:B2:281:C:C6	2.42	0.54
51:CA:179:ILE:HD11	51:CA:188:LYS:NZ	2.23	0.54
63:CB:43:LEU:N	63:CB:43:LEU:HD12	2.23	0.54
74:CC:9:SER:HB3	74:CC:21:ASN:OD1	2.08	0.54
81:CE:115:TYR:HB2	81:CE:117:PRO:HD3	1.90	0.54
81:CE:187:ARG:HG2	81:CE:189:THR:HG23	1.89	0.54
81:CE:83:LYS:HD2	81:CE:86:GLU:HA	1.88	0.54
82:CG:63:LEU:HD23	82:CG:63:LEU:N	2.23	0.54
80:CH:45:LEU:HD21	80:CH:57:VAL:HG11	1.89	0.54
47:CI:192:PRO:O	47:CI:192:PRO:HD2	2.08	0.54
47:CI:72:ALA:O	47:CI:76:MET:HG2	2.06	0.54
79:CJ:32:ARG:CG	79:CJ:35:ARG:NH2	2.71	0.54
40:CK:102:GLY:C	40:CK:140:GLY:CA	2.76	0.54
40:CK:32:ILE:C	40:CK:34:PRO:CD	2.74	0.54
40:CK:10:ILE:CG2	40:CK:65:GLN:O	2.33	0.54
44:CM:32:ASP:HA	52:CS:145:PHE:CE2	2.37	0.54
41:CO:149:TYR:CD2	63:CB:96:PRO:O	2.61	0.54
53:CT:68:THR:HG1	53:CT:71:ALA:C	2.11	0.54
43:CV:106:VAL:HG12	43:CV:107:ASN:N	2.23	0.54
59:CZ:91:LEU:O	59:CZ:117:LYS:HE2	2.07	0.54
85:A5:2465:C:N4	85:A5:2466:G:C6	2.76	0.53
85:A5:4754:G:O2'	85:A5:4755:G:H5'	2.08	0.53
15:AB:178:THR:O	15:AB:179:ASN:CB	2.56	0.53
23:AD:39:VAL:HG13	23:AD:39:VAL:O	2.07	0.53
23:AD:46:THR:CB	23:AD:79:PHE:CZ	2.89	0.53
27:AE:150:PRO:C	27:AE:151:ASP:OD2	2.46	0.53
27:AE:206:ASP:O	27:AE:222:LEU:N	2.42	0.53
30:AF:32:ASP:OD2	30:AF:117:ILE:HG23	2.08	0.53
29:AG:153:VAL:HG12	29:AG:154:ARG:N	2.23	0.53
29:AG:184:VAL:HG12	29:AG:188:LYS:HE3	1.70	0.53
29:AG:67:VAL:CG2	29:AG:100:CYS:H	2.20	0.53
31:AH:157:HIS:O	31:AH:158:LEU:CD2	2.55	0.53
33:AI:117:TYR:HE1	33:AI:155:ASN:ND2	2.05	0.53
26:AJ:17:ARG:HG3	26:AJ:18:ARG:HG2	1.77	0.53
7:AM:27:ILE:HG23	7:AM:28:HIS:N	2.22	0.53
10:AN:139:TRP:CE3	10:AN:140:LYS:C	2.81	0.53
8:AS:137:LYS:O	8:AS:141:ARG:CZ	2.57	0.53
14:AT:77:LYS:O	14:AT:92:PHE:CZ	2.61	0.53
18:AY:99:LYS:O	18:AY:100:LYS:O	2.25	0.53
36:B2:1274:G:C5'	36:B2:1274:G:N3	2.70	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CA:96:LEU:CD2	51:CA:166:VAL:HG21	2.38	0.53
63:CB:212:GLY:HA2	63:CB:287:ILE:CD1	2.38	0.53
63:CB:248:LEU:HD12	63:CB:248:LEU:C	2.28	0.53
63:CB:293:ILE:H	63:CB:298:LEU:HG	1.73	0.53
63:CB:341:LYS:O	63:CB:342:LYS:CB	2.45	0.53
74:CC:154:VAL:HG11	74:CC:158:VAL:CG2	2.25	0.53
74:CC:219:LYS:NZ	74:CC:222:ARG:CZ	2.44	0.53
74:CC:8:ILE:CD1	74:CC:151:PRO:HG2	2.38	0.53
81:CE:106:VAL:CB	81:CE:108:LYS:N	2.45	0.53
81:CE:188:ARG:HH12	85:A5:4940:C:H1'	1.73	0.53
81:CE:187:ARG:HG2	81:CE:189:THR:HG22	1.89	0.53
81:CE:51:VAL:HA	81:CE:54:ILE:CD1	2.34	0.53
81:CE:84:LYS:O	81:CE:86:GLU:N	2.41	0.53
82:CG:157:ILE:CD1	82:CG:170:LEU:HB3	2.38	0.53
82:CG:217:LYS:HZ1	82:CG:220:GLU:HB2	1.73	0.53
82:CG:98:LEU:HG	82:CG:215:LEU:HD23	1.86	0.53
80:CH:120:GLU:CG	80:CH:124:ARG:HH22	2.19	0.53
47:CI:156:LYS:HG3	47:CI:163:GLN:CG	2.34	0.53
47:CI:76:MET:HB3	47:CI:85:PHE:CE2	2.43	0.53
47:CI:80:CYS:SG	47:CI:147:HIS:CB	2.96	0.53
79:CJ:155:HIS:O	79:CJ:156:ARG:CB	2.56	0.53
40:CK:123:ARG:HG3	40:CK:128:THR:OG1	2.07	0.53
40:CK:162:CYS:H	40:CK:163:PRO:HD3	1.68	0.53
40:CK:61:LYS:HZ1	40:CK:72:GLU:HB3	1.73	0.53
41:CO:184:ASN:O	41:CO:188:LYS:CG	2.56	0.53
41:CO:20:ALA:C	41:CO:87:MET:CE	2.75	0.53
41:CO:26:GLN:HE21	52:CS:166:ARG:CB	2.22	0.53
49:CQ:36:ALA:CB	49:CQ:45:GLN:HE21	2.13	0.53
52:CS:15:ARG:O	52:CS:16:CYS:CB	2.41	0.53
56:CX:40:ILE:HG12	56:CX:41:ARG:CA	2.35	0.53
57:CY:50:ARG:NE	57:CY:51:LYS:H	2.04	0.53
59:CZ:37:PRO:HD2	59:CZ:38:TYR:CD2	2.43	0.53
85:A5:1266:G:N2	85:A5:2111:G:C2	2.76	0.53
85:A5:2908:U:H3	85:A5:3586:G:H1	1.56	0.53
85:A5:3967:G:O6	85:A5:4054:C:N4	2.41	0.53
85:A5:4764:A:H61	85:A5:4870:G:H1	1.55	0.53
16:AA:5:LEU:HD13	16:AA:5:LEU:C	2.27	0.53
15:AB:131:ASP:OD1	15:AB:131:ASP:N	2.38	0.53
15:AB:125:VAL:CG1	15:AB:173:THR:HG22	2.28	0.53
15:AB:232:HIS:O	15:AB:233:GLY:O	2.27	0.53
23:AD:178:ARG:O	36:B2:1500:G:H4'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:29:LEU:O	23:AD:32:ASP:HB2	2.08	0.53
23:AD:4:GLN:O	23:AD:5:ILE:HG13	2.07	0.53
3:AU:82:MET:HE1	23:AD:50:ILE:HG22	21.89	0.53
27:AE:153:LEU:CD1	27:AE:172:PHE:CE1	2.72	0.53
27:AE:166:THR:OG1	27:AE:168:LYS:HG2	2.07	0.53
27:AE:97:GLU:HB2	27:AE:99:PHE:CE2	2.42	0.53
29:AG:55:GLY:HA2	29:AG:110:ASN:ND2	2.23	0.53
29:AG:177:GLN:CG	29:AG:178:ARG:H	2.21	0.53
31:AH:50:GLU:CD	31:AH:58:LYS:HD3	2.29	0.53
33:AI:83:TYR:HB3	33:AI:101:ILE:HB	1.89	0.53
26:AJ:147:PHE:O	26:AJ:148:ILE:CB	2.55	0.53
7:AM:101:ARG:O	7:AM:103:VAL:HG23	2.08	0.53
7:AM:44:LYS:C	7:AM:46:GLN:H	2.11	0.53
34:AQ:109:LYS:HZ2	34:AQ:113:ILE:HD11	1.74	0.53
14:AT:39:LEU:HD21	14:AT:56:ARG:HH21	1.72	0.53
14:AT:75:MET:HA	14:AT:78:ILE:HG22	1.89	0.53
14:AT:83:GLN:NE2	14:AT:85:ASN:CA	2.72	0.53
6:AX:95:GLU:HG3	6:AX:140:ARG:NH2	2.20	0.53
18:AY:120:THR:C	18:AY:122:LYS:CD	2.76	0.53
19:AZ:107:VAL:HB	19:AZ:109:TYR:CE2	2.44	0.53
51:CA:5:ILE:CG2	51:CA:6:ARG:N	2.71	0.53
51:CA:66:PRO:CB	51:CA:67:TYR:CD2	2.78	0.53
51:CA:67:TYR:HD1	82:CG:46:GLN:HB3	1.72	0.53
74:CC:228:THR:HG21	74:CC:248:ARG:HH22	1.74	0.53
48:CD:119:TYR:CE1	48:CD:135:ILE:CD1	2.92	0.53
48:CD:119:TYR:HE1	48:CD:135:ILE:HG13	1.70	0.53
81:CE:162:VAL:HG11	81:CE:175:VAL:HG12	1.89	0.53
82:CG:180:PRO:HD2	82:CG:180:PRO:O	2.08	0.53
47:CI:150:GLU:O	47:CI:154:ARG:HG3	2.07	0.53
47:CI:47:PRO:HB3	47:CI:171:TRP:CE3	2.41	0.53
79:CJ:90:ARG:HH12	79:CJ:107:PHE:HA	1.73	0.53
40:CK:21:GLU:OE1	40:CK:48:LYS:CG	2.55	0.53
40:CK:9:GLU:CG	40:CK:10:ILE:N	2.04	0.53
42:CL:42:LYS:HD3	42:CL:52:SER:O	2.08	0.53
42:CL:59:VAL:HG12	42:CL:60:ARG:N	2.23	0.53
44:CM:119:ARG:HG2	44:CM:120:ASN:H	1.72	0.53
46:CN:156:HIS:O	46:CN:159:ARG:HG3	2.08	0.53
41:CO:169:ARG:HH11	41:CO:173:GLN:HG3	1.73	0.53
54:CP:4:TYR:CZ	54:CP:17:SER:O	2.61	0.53
50:CR:71:ARG:NH2	50:CR:71:ARG:H	6.14	0.53
52:CS:23:HIS:HD2	52:CS:23:HIS:O	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CT:7:LYS:CE	53:CT:54:HIS:HD2	1.74	0.53
53:CT:91:VAL:CG1	53:CT:92:ARG:N	2.71	0.53
55:CU:20:LYS:HE2	55:CU:22:THR:CG2	2.38	0.53
43:CV:65:VAL:HG23	43:CV:77:HIS:NE2	2.24	0.53
56:CX:60:TYR:C	56:CX:60:TYR:CD1	2.82	0.53
56:CX:89:LYS:HD2	56:CX:95:THR:CB	2.38	0.53
56:CX:89:LYS:HE3	56:CX:97:VAL:HG23	1.90	0.53
57:CY:117:LYS:CG	57:CY:121:ARG:NH2	2.71	0.53
59:CZ:47:ASP:OD2	59:CZ:69:LYS:CE	2.56	0.53
85:A5:1211:G:H2'	85:A5:1212:G:C8	2.43	0.53
85:A5:1266:G:N2	85:A5:2111:G:H21	2.05	0.53
85:A5:957:G:O6	85:A5:1284:G:H3'	2.08	0.53
86:A7:49:A:H2'	86:A7:50:A:OP2	2.08	0.53
16:AA:7:VAL:HG22	16:AA:8:LEU:HD12	1.88	0.53
15:AB:77:ASP:O	15:AB:79:VAL:CG2	2.27	0.53
28:AC:74:LYS:HD2	28:AC:269:PHE:HE1	1.73	0.53
23:AD:162:ASP:OD1	23:AD:162:ASP:O	2.27	0.53
27:AE:143:ASP:O	27:AE:144:ALA:HB3	2.09	0.53
30:AF:79:HIS:O	30:AF:82:ASN:N	2.41	0.53
29:AG:64:LYS:HD2	29:AG:67:VAL:HG13	1.87	0.53
31:AH:118:ARG:C	31:AH:120:ARG:H	2.11	0.53
4:AK:14:LEU:HD22	4:AK:35:LEU:CD1	2.36	0.53
11:AL:149:ALA:C	11:AL:150:GLY:O	2.44	0.53
7:AM:51:VAL:CG1	7:AM:109:VAL:HG23	2.39	0.53
13:AP:53:GLN:HG3	13:AP:80:LEU:HD11	1.84	0.53
30:AF:14:THR:OG1	34:AQ:56:LEU:HD13	2.07	0.53
14:AT:77:LYS:O	14:AT:92:PHE:HZ	1.91	0.53
17:AV:24:ILE:CD1	17:AV:25:GLY:CA	2.85	0.53
18:AY:50:THR:CG2	18:AY:75:ILE:HG21	2.36	0.53
18:AY:82:ALA:O	18:AY:86:GLU:HB2	2.09	0.53
36:B2:305:U:H5'	36:B2:306:C:C6	2.43	0.53
36:B2:845:G:H3'	36:B2:846:G:H8	1.72	0.53
51:CA:118:GLU:CD	51:CA:119:LYS:HG2	2.28	0.53
51:CA:133:TYR:HB3	51:CA:168:VAL:HG12	1.89	0.53
51:CA:192:LYS:O	51:CA:193:ARG:HG3	2.08	0.53
63:CB:264:PHE:HD2	63:CB:265:SER:CA	2.18	0.53
63:CB:383:GLU:CD	63:CB:384:GLU:N	2.62	0.53
74:CC:253:THR:C	74:CC:256:ALA:HB3	2.24	0.53
74:CC:7:LEU:HD11	74:CC:21:ASN:C	2.28	0.53
48:CD:197:LYS:HB3	48:CD:202:GLN:CB	2.39	0.53
48:CD:66:TYR:O	48:CD:66:TYR:CD2	2.61	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:CG:105:GLU:CB	82:CG:109:GLU:OE1	2.56	0.53
47:CI:97:ILE:CD1	47:CI:126:VAL:HG21	2.29	0.53
40:CK:2:PRO:CD	40:CK:6:ASP:OD2	2.56	0.53
42:CL:21:ARG:O	46:CN:197:THR:CG2	2.54	0.53
41:CO:108:ILE:HG22	41:CO:160:ARG:HD3	1.90	0.53
49:CQ:88:ASP:OD2	49:CQ:108:ARG:CB	2.56	0.53
52:CS:75:VAL:O	52:CS:76:LYS:CB	2.55	0.53
55:CU:27:HIS:CD2	55:CU:114:TYR:CB	2.83	0.53
43:CV:49:LEU:O	43:CV:50:ASN:HB2	2.07	0.53
43:CV:69:LYS:HB2	43:CV:72:LEU:HD12	1.89	0.53
43:CV:99:GLU:OE1	58:CW:24:THR:HG23	2.08	0.53
58:CW:47:ARG:HG2	58:CW:54:LEU:HD21	1.89	0.53
58:CW:87:LEU:C	58:CW:91:MET:CE	2.77	0.53
16:AA:145:ILE:HA	16:AA:159:ILE:HG21	1.78	0.53
16:AA:80:ARG:NH1	16:AA:165:ASN:O	2.32	0.53
16:AA:202:TYR:C	16:AA:203:PHE:CD1	2.81	0.53
15:AB:19:LYS:O	15:AB:21:VAL:HG11	2.06	0.53
15:AB:214:LYS:HG2	15:AB:215:VAL:N	2.23	0.53
27:AE:53:LYS:HD2	27:AE:53:LYS:N	4.47	0.53
19:AZ:103:HIS:CB	30:AF:95:HIS:NE2	2.71	0.53
31:AH:73:GLN:NE2	31:AH:135:PHE:CE1	2.77	0.53
31:AH:31:GLU:O	31:AH:37:LYS:HB2	2.08	0.53
26:AJ:172:ARG:CZ	36:B2:562:U:C5	2.91	0.53
26:AJ:17:ARG:CD	26:AJ:18:ARG:HD3	2.35	0.53
26:AJ:50:LEU:HD12	26:AJ:102:ILE:HD11	1.85	0.53
4:AK:60:GLU:HG3	4:AK:69:TRP:NE1	2.24	0.53
11:AL:17:PHE:CZ	11:AL:19:ASN:OD1	2.61	0.53
11:AL:86:ILE:CG2	11:AL:113:LEU:HD12	2.38	0.53
34:AQ:98:LYS:CE	34:AQ:99:TYR:CE2	2.91	0.53
8:AS:90:VAL:CG1	8:AS:91:LYS:CE	2.87	0.53
14:AT:62:ARG:HG3	14:AT:63:HIS:N	2.24	0.53
3:AU:104:ILE:O	3:AU:106:ILE:HG22	2.08	0.53
3:AU:50:VAL:HG22	3:AU:51:LYS:CA	2.35	0.53
6:AX:54:LYS:CD	6:AX:91:LEU:HD12	2.38	0.53
18:AY:55:ILE:O	18:AY:55:ILE:CG2	2.51	0.53
36:B2:1569:A:C5	36:B2:1570:G:H1'	2.43	0.53
51:CA:6:ARG:NH2	51:CA:198:ARG:HG2	2.15	0.53
51:CA:30:ARG:NH1	51:CA:33:ASP:OD2	2.40	0.53
63:CB:109:HIS:N	63:CB:202:GLU:OE2	2.41	0.53
63:CB:348:ARG:HG2	63:CB:349:LYS:O	2.08	0.53
63:CB:356:LYS:O	63:CB:357:ARG:C	2.45	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:381:THR:HG21	63:CB:383:GLU:OE2	2.08	0.53
63:CB:95:THR:HG22	85:A5:4910:G:H4'	1.88	0.53
74:CC:109:ARG:CG	74:CC:111:TRP:CZ2	2.75	0.53
74:CC:307:LYS:HB2	74:CC:310:HIS:HE1	1.73	0.53
48:CD:58:ARG:NH1	48:CD:93:THR:OG1	2.17	0.53
81:CE:228:GLN:HE21	81:CE:228:GLN:CA	2.21	0.53
81:CE:264:ILE:CG2	81:CE:267:LEU:N	2.66	0.53
81:CE:53:GLY:CA	81:CE:63:TYR:CB	2.86	0.53
81:CE:55:GLY:HA3	81:CE:62:MET:N	2.22	0.53
81:CE:85:LYS:HA	81:CE:93:THR:OG1	2.08	0.53
64:CF:83:VAL:O	64:CF:83:VAL:HG23	2.08	0.53
47:CI:55:ASP:HB3	47:CI:162:ARG:O	2.09	0.53
42:CL:144:LEU:HD11	42:CL:150:LEU:HG	1.89	0.53
42:CL:63:THR:O	42:CL:67:HIS:CD2	2.62	0.53
41:CO:181:ALA:CA	44:CM:126:GLU:CG	2.82	0.53
41:CO:203:VAL:HG12	44:CM:97:ALA:HB1	1.89	0.53
50:CR:64:ARG:CA	50:CR:67:THR:OG1	2.50	0.53
52:CS:120:ARG:O	52:CS:123:SER:N	2.34	0.53
52:CS:2:LYS:CE	52:CS:34:ALA:HB2	2.38	0.53
56:CX:114:LYS:HG3	56:CX:120:ASP:HA	1.88	0.53
56:CX:89:LYS:HD2	56:CX:95:THR:OG1	2.08	0.53
57:CY:50:ARG:HH11	57:CY:115:ARG:HH22	1.56	0.53
59:CZ:97:ASN:HB2	59:CZ:100:VAL:HG23	1.90	0.53
85:A5:2647:A:N7	85:A5:2686:G:C8	2.75	0.53
87:A8:65:A:C4	87:A8:95:A:C2	2.97	0.53
16:AA:105:PRO:HA	16:AA:136:GLU:OE2	2.08	0.53
16:AA:106:GLY:O	16:AA:110:ASN:HB2	2.07	0.53
16:AA:159:ILE:HD12	16:AA:160:ALA:N	2.24	0.53
15:AB:103:MET:HE3	15:AB:212:VAL:O	2.09	0.53
27:AE:143:ASP:OD2	27:AE:145:ARG:HD2	2.08	0.53
33:AI:144:LYS:CD	33:AI:144:LYS:H	2.22	0.53
33:AI:48:VAL:HG22	33:AI:52:ASN:C	2.25	0.53
4:AK:3:MET:SD	4:AK:8:ARG:CZ	2.91	0.53
11:AL:147:LYS:HG3	11:AL:148:ALA:HB2	1.90	0.53
10:AN:4:MET:SD	10:AN:124:ARG:NH1	2.82	0.53
8:AS:141:ARG:CD	36:B2:1523:C:C5	2.91	0.53
8:AS:36:VAL:HA	8:AS:40:TYR:CD2	2.43	0.53
14:AT:123:LEU:CD2	14:AT:123:LEU:H	2.22	0.53
14:AT:14:PHE:HZ	14:AT:131:LEU:CD1	2.21	0.53
18:AY:120:THR:HG22	18:AY:122:LYS:HE2	1.88	0.53
10:AN:17:PRO:HG2	36:B2:1016:U:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:1413:G:C6	36:B2:1414:A:C5	2.96	0.53
36:B2:305:U:H5''	36:B2:306:C:C5	2.43	0.53
63:CB:293:ILE:O	63:CB:294:LYS:HG3	2.09	0.53
63:CB:32:PHE:CB	63:CB:33:PRO:CD	2.86	0.53
63:CB:356:LYS:C	63:CB:358:ARG:H	2.12	0.53
74:CC:186:SER:CB	74:CC:204:ARG:HG2	2.39	0.53
74:CC:79:VAL:C	74:CC:81:GLY:H	2.11	0.53
48:CD:90:VAL:CG2	48:CD:226:TYR:CZ	2.90	0.53
81:CE:224:LYS:C	81:CE:226:ARG:HH11	2.11	0.53
82:CG:138:ALA:O	82:CG:139:GLY:C	2.46	0.53
82:CG:41:ILE:HG23	82:CG:41:ILE:O	2.05	0.53
82:CG:46:GLN:HE21	82:CG:47:PRO:CG	2.19	0.53
47:CI:102:MET:N	47:CI:103:LEU:HD22	2.23	0.53
79:CJ:20:LEU:HD22	79:CJ:83:LEU:HG	1.91	0.53
40:CK:142:ASN:HD22	40:CK:151:ILE:HD12	1.74	0.53
42:CL:100:PRO:CD	42:CL:101:ARG:N	2.71	0.53
46:CN:150:TRP:CH2	46:CN:151:ILE:HG12	2.43	0.53
46:CN:28:TRP:CZ2	82:CG:66:GLN:OE1	2.61	0.53
54:CP:15:CYS:SG	54:CP:102:ALA:CA	2.86	0.53
50:CR:101:ILE:HG12	50:CR:104:ARG:HH12	1.69	0.53
52:CS:161:ARG:N	52:CS:163:HIS:HB3	2.23	0.53
52:CS:61:ILE:HD12	52:CS:61:ILE:N	2.23	0.53
55:CU:86:LEU:O	55:CU:89:LYS:HB3	2.08	0.53
57:CY:22:PRO:CD	57:CY:25:ILE:HB	2.35	0.53
57:CY:65:GLN:C	57:CY:67:ILE:HG13	2.29	0.53
12:AR:84:TYR:C	16:AA:201:LEU:CD1	2.74	0.53
15:AB:120:MET:HB2	15:AB:142:PHE:CE1	2.44	0.53
5:AO:48:SER:HB3	15:AB:67:PHE:CZ	2.43	0.53
28:AC:117:ARG:CB	28:AC:117:ARG:HH21	2.14	0.53
28:AC:65:LYS:HA	28:AC:68:ARG:HD2	1.91	0.53
27:AE:126:VAL:CG2	27:AE:129:ILE:CD1	2.83	0.53
27:AE:154:ILE:CG2	27:AE:160:ILE:HD11	2.39	0.53
30:AF:113:VAL:CG1	30:AF:114:ASN:N	2.72	0.53
29:AG:176:ILE:HG21	29:AG:179:LEU:CB	2.28	0.53
29:AG:24:LEU:O	29:AG:25:ARG:C	2.45	0.53
29:AG:35:GLU:C	29:AG:36:VAL:CG2	2.77	0.53
31:AH:149:ASP:C	31:AH:151:SER:N	2.61	0.53
31:AH:29:GLU:OE2	31:AH:86:LYS:HE2	2.07	0.53
33:AI:117:TYR:H	33:AI:117:TYR:HD2	1.57	0.53
33:AI:37:LYS:H	33:AI:59:ARG:H	1.57	0.53
7:AM:12:MET:CG	7:AM:17:ALA:N	2.71	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AM:93:LYS:O	7:AM:95:ASP:OD1	2.27	0.53
5:AO:28:PHE:CE1	5:AO:92:ALA:HB1	2.43	0.53
34:AQ:45:ARG:CG	34:AQ:46:THR:N	2.71	0.53
34:AQ:63:PHE:CD1	34:AQ:68:ILE:CD1	2.91	0.53
12:AR:90:ALA:C	12:AR:91:LEU:HG	2.29	0.53
14:AT:16:ARG:HG2	14:AT:16:ARG:NH1	2.23	0.53
6:AX:67:ARG:HE	6:AX:67:ARG:HA	1.74	0.53
18:AY:91:LEU:C	18:AY:97:TYR:CB	2.77	0.53
36:B2:1542:C:N4	36:B2:1591:C:H42	2.07	0.53
36:B2:1601:A:H4'	36:B2:1602:U:C6	2.44	0.53
63:CB:50:LYS:HG3	63:CB:50:LYS:O	2.03	0.53
74:CC:133:LEU:HD21	74:CC:136:LEU:HD11	1.63	0.53
74:CC:308:LYS:O	74:CC:309:ILE:HG22	2.09	0.53
81:CE:212:LEU:HD21	81:CE:216:TYR:CD2	2.44	0.53
81:CE:55:GLY:O	81:CE:56:ARG:HB3	2.07	0.53
49:CQ:6:ARG:HE	64:CF:110:GLN:HA	1.74	0.53
80:CH:109:GLY:HA2	80:CH:110:SER:CB	2.13	0.53
80:CH:140:GLN:HB3	80:CH:143:GLU:CD	2.29	0.53
47:CI:186:ALA:O	47:CI:187:LYS:CD	2.55	0.53
79:CJ:166:PHE:CE1	79:CJ:170:TYR:CD2	2.96	0.53
40:CK:161:GLU:C	40:CK:163:PRO:CD	2.76	0.53
46:CN:80:THR:HG1	46:CN:87:HIS:CD2	2.20	0.53
41:CO:185:VAL:HG13	44:CM:122:ILE:CG2	2.36	0.53
41:CO:192:TYR:HD2	44:CM:122:ILE:HG12	1.74	0.53
41:CO:57:PHE:O	41:CO:72:HIS:CE1	2.61	0.53
54:CP:131:ARG:NE	54:CP:137:ASN:HD22	2.05	0.53
49:CQ:99:LYS:HZ3	49:CQ:119:LYS:HD3	1.41	0.53
50:CR:132:PHE:HD1	50:CR:137:ILE:HG21	1.72	0.53
50:CR:170:ARG:O	50:CR:174:GLU:HB2	2.07	0.53
52:CS:120:ARG:O	52:CS:121:ALA:C	2.46	0.53
53:CT:147:GLU:CB	53:CT:148:PRO:HD2	2.39	0.53
55:CU:105:ASN:ND2	55:CU:111:GLU:CD	2.62	0.53
55:CU:27:HIS:HD2	55:CU:114:TYR:H	1.54	0.53
43:CV:82:ILE:CG2	43:CV:121:VAL:CG2	2.84	0.53
43:CV:36:ASN:ND2	43:CV:67:LYS:HG3	2.23	0.53
41:CO:114:LYS:O	85:A5:4757:C:O4'	2.26	0.53
16:AA:125:THR:HA	16:AA:147:LEU:CB	2.35	0.53
16:AA:14:ASP:CG	16:AA:180:ARG:HH22	2.11	0.53
28:AC:73:MET:HE1	28:AC:96:PHE:CZ	2.44	0.53
31:AH:37:LYS:CE	31:AH:41:ARG:HH11	2.04	0.53
31:AH:40:LEU:HD11	31:AH:75:ILE:HD13	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:61:ILE:HG12	31:AH:95:ILE:HD12	1.91	0.53
11:AL:22:ARG:NE	33:AI:157:LYS:CB	2.71	0.53
33:AI:48:VAL:CG1	33:AI:54:LYS:HE3	2.38	0.53
4:AK:85:LEU:HD13	4:AK:89:ILE:HD11	1.90	0.53
11:AL:80:MET:HE1	11:AL:120:VAL:O	1.92	0.53
7:AM:77:ILE:HD12	7:AM:78:LYS:O	2.09	0.53
10:AN:135:LEU:HD22	10:AN:139:TRP:CD1	2.43	0.53
10:AN:134:VAL:HG22	10:AN:135:LEU:HG	1.91	0.53
10:AN:7:PRO:HD2	10:AN:8:GLY:N	2.23	0.53
13:AP:15:PHE:HD2	13:AP:110:GLU:OE2	1.91	0.53
8:AS:108:ARG:NH2	79:CJ:119:TYR:CD2	2.68	0.53
8:AS:124:ARG:HG2	13:AP:123:TYR:HH	1.74	0.53
14:AT:76:THR:OG1	14:AT:94:ARG:HD2	2.08	0.53
17:AV:19:ALA:O	32:AW:23:ARG:CZ	2.57	0.53
32:AW:20:ARG:HH22	36:B2:1139:C:C1'	2.20	0.53
32:AW:17:ALA:HB2	32:AW:25:VAL:HG11	1.89	0.53
18:AY:5:VAL:O	18:AY:6:THR:CB	2.56	0.53
19:AZ:66:LYS:O	19:AZ:110:THR:HA	2.08	0.53
19:AZ:99:LEU:CD2	19:AZ:109:TYR:CZ	2.89	0.53
36:B2:127:C:C2	36:B2:180:G:H2'	2.44	0.53
30:AF:159:ARG:NE	36:B2:1535:U:O4	2.38	0.53
51:CA:32:VAL:HG21	51:CA:121:GLY:HA2	1.90	0.53
51:CA:254:GLU:CB	51:CA:255:LYS:CB	2.86	0.53
63:CB:133:TYR:CE1	63:CB:136:LYS:NZ	2.77	0.53
63:CB:179:HIS:CE1	63:CB:344:VAL:HG21	2.43	0.53
63:CB:80:GLU:HG2	63:CB:82:PRO:HD3	1.89	0.53
74:CC:29:LYS:O	74:CC:30:ALA:C	2.47	0.53
64:CF:200:ARG:NH1	64:CF:203:GLU:OE1	2.23	0.53
64:CF:31:LYS:HD3	85:A5:2098:G:H4'	1.90	0.53
82:CG:208:ASN:HD21	82:CG:210:GLU:CB	2.20	0.53
80:CH:49:GLY:N	80:CH:50:LYS:HZ1	2.05	0.53
40:CK:114:ARG:HD2	40:CK:130:LYS:CA	2.38	0.53
40:CK:85:LEU:CD2	40:CK:109:ILE:HG21	2.38	0.53
41:CO:37:ARG:HG3	41:CO:39:GLU:OE2	2.08	0.53
41:CO:73:PHE:HB3	41:CO:78:ARG:HB3	1.91	0.53
50:CR:106:LEU:HB3	50:CR:120:TYR:CE1	2.44	0.53
52:CS:168:THR:CG2	52:CS:170:LYS:O	2.57	0.53
58:CW:32:LEU:N	58:CW:36:CYS:SG	2.81	0.53
58:CW:70:LYS:O	58:CW:71:ARG:HB3	2.05	0.53
85:A5:2776:G:O2'	85:A5:2777:G:H5'	2.08	0.53
15:AB:37:ALA:O	15:AB:38:MET:C	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AC:116:THR:HG23	28:AC:118:ALA:C	2.29	0.53
23:AD:47:GLU:HG3	23:AD:85:GLU:OE2	1.99	0.53
27:AE:124:CYS:HB2	27:AE:162:ILE:CD1	2.39	0.53
27:AE:129:ILE:CD1	27:AE:139:LEU:HD22	2.32	0.53
27:AE:259:LYS:CG	27:AE:260:GLN:OE1	2.56	0.53
30:AF:167:LYS:HE3	30:AF:171:GLU:HG3	1.89	0.53
33:AI:138:ASN:O	33:AI:139:LYS:C	2.47	0.53
26:AJ:83:ARG:NH2	26:AJ:150:ARG:NH2	2.57	0.53
11:AL:71:ARG:HD2	11:AL:73:LEU:HD21	1.77	0.53
11:AL:97:ARG:O	11:AL:99:TYR:C	2.47	0.53
13:AP:90:VAL:HA	13:AP:107:ILE:HG13	1.90	0.53
14:AT:29:LYS:C	14:AT:30:VAL:HG13	2.29	0.53
6:AX:105:PHE:CD2	6:AX:119:ARG:C	2.82	0.53
18:AY:120:THR:O	18:AY:122:LYS:N	2.37	0.53
18:AY:37:LYS:HA	18:AY:40:ILE:HG22	1.90	0.53
19:AZ:46:ASN:HB3	19:AZ:80:ARG:HA	1.90	0.53
51:CA:144:LYS:HE3	51:CA:160:SER:CB	2.38	0.53
51:CA:188:LYS:CG	51:CA:189:TYR:CD2	2.91	0.53
51:CA:219:ILE:CG2	51:CA:220:GLY:H	1.83	0.53
51:CA:66:PRO:HB2	51:CA:67:TYR:HD2	1.62	0.53
63:CB:119:TYR:CE1	63:CB:125:SER:HB3	2.43	0.53
63:CB:239:LYS:CE	85:A5:3844:U:H3'	2.39	0.53
63:CB:352:LEU:HD21	63:CB:353:VAL:O	2.08	0.53
63:CB:61:ASP:CG	63:CB:361:GLU:CD	2.62	0.53
74:CC:54:VAL:HB	74:CC:101:MET:HE2	1.90	0.53
74:CC:31:PRO:HG3	74:CC:280:PRO:HB2	1.91	0.53
48:CD:205:ALA:HA	48:CD:236:MET:SD	2.49	0.53
48:CD:66:TYR:CD2	48:CD:66:TYR:N	2.70	0.53
53:CT:137:GLU:O	64:CF:85:ALA:CA	2.56	0.53
80:CH:109:GLY:O	80:CH:128:MET:C	2.42	0.53
80:CH:78:GLN:HB3	80:CH:82:LYS:HE3	1.91	0.53
47:CI:104:SER:O	47:CI:105:CYS:CB	2.48	0.53
79:CJ:20:LEU:HD22	79:CJ:83:LEU:CD2	2.38	0.53
40:CK:123:ARG:NE	40:CK:129:ILE:CD1	2.64	0.53
40:CK:94:LYS:HG2	40:CK:96:LYS:HG3	1.76	0.53
46:CN:194:ARG:HG2	46:CN:194:ARG:HH21	1.73	0.53
46:CN:76:PRO:O	46:CN:77:LYS:HG3	2.09	0.53
49:CQ:24:TYR:C	74:CC:283:LYS:HD3	2.30	0.53
52:CS:124:ILE:CG2	52:CS:125:GLN:N	2.72	0.53
53:CT:144:ASN:CA	53:CT:146:LYS:H	2.22	0.53
53:CT:17:ARG:HG3	53:CT:17:ARG:HH21	1.70	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:CX:117:TYR:CA	56:CX:119:ILE:HG22	2.38	0.53
56:CX:89:LYS:CE	56:CX:97:VAL:HG23	2.35	0.53
85:A5:2809:G:C6	85:A5:2810:U:C4	2.97	0.53
85:A5:4242:U:N3	85:A5:4281:A:C2	2.76	0.53
16:AA:16:LEU:CB	16:AA:17:LYS:HE2	2.39	0.53
16:AA:18:PHE:CZ	16:AA:55:TRP:CZ3	2.96	0.53
15:AB:19:LYS:HB2	15:AB:19:LYS:HZ2	1.63	0.53
15:AB:81:PHE:O	15:AB:82:ARG:CB	2.57	0.53
28:AC:108:LYS:HE3	28:AC:110:MET:CG	2.39	0.53
28:AC:169:TYR:CE1	28:AC:177:PRO:CD	2.92	0.53
23:AD:177:LEU:HD22	23:AD:182:LEU:CD2	2.25	0.53
27:AE:100:ARG:NH2	27:AE:122:LYS:HA	2.24	0.53
30:AF:36:GLN:C	30:AF:37:ASP:CG	2.63	0.53
30:AF:93:VAL:C	30:AF:97:PHE:CE1	2.82	0.53
29:AG:135:PRO:CD	29:AG:144:LEU:HD23	2.38	0.53
29:AG:143:LYS:CE	29:AG:143:LYS:HA	2.39	0.53
33:AI:6:ASP:OD2	33:AI:8:TRP:CG	2.62	0.53
26:AJ:32:ILE:O	26:AJ:35:TYR:C	2.48	0.53
11:AL:25:LEU:O	11:AL:27:GLU:HA	2.09	0.53
7:AM:94:ILE:H	7:AM:101:ARG:HD3	1.73	0.53
13:AP:93:MET:SD	13:AP:106:GLU:CA	2.96	0.53
34:AQ:130:LYS:HE3	36:B2:1669:G:H5''	1.91	0.53
34:AQ:143:LYS:HG2	34:AQ:145:TYR:H	1.74	0.53
34:AQ:24:HIS:NE2	34:AQ:69:ARG:CB	2.68	0.53
12:AR:19:LYS:HZ3	23:AD:212:GLU:HG2	1.73	0.53
14:AT:129:ARG:HB2	36:B2:1417:C:H4'	1.91	0.53
3:AU:64:THR:HG22	3:AU:79:ARG:CD	2.39	0.53
18:AY:50:THR:O	18:AY:51:THR:HG23	2.09	0.53
28:AC:118:ALA:HB3	36:B2:1486:A:H1'	1.91	0.53
36:B2:465:A:H1'	36:B2:466:G:OP2	2.09	0.53
36:B2:530:U:H5	36:B2:531:A:C5	2.26	0.53
63:CB:195:ASP:HA	63:CB:198:ARG:CG	2.38	0.53
58:CW:1:MET:SD	63:CB:367:PHE:CB	2.97	0.53
74:CC:154:VAL:HG22	74:CC:174:LEU:CD1	2.30	0.53
74:CC:306:ARG:C	74:CC:307:LYS:HG2	2.29	0.53
48:CD:271:MET:C	48:CD:272:SER:O	2.46	0.53
48:CD:60:ILE:HB	48:CD:80:ALA:HB2	1.91	0.53
46:CN:32:GLN:CB	82:CG:67:ARG:HH22	2.21	0.53
47:CI:39:LYS:HA	47:CI:86:HIS:NE2	2.24	0.53
40:CK:114:ARG:HE	40:CK:130:LYS:CE	2.22	0.53
40:CK:88:PRO:O	40:CK:88:PRO:HD2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CL:80:GLU:CG	42:CL:104:ASN:HD21	2.17	0.53
46:CN:47:LYS:CA	46:CN:49:ARG:O	2.57	0.53
41:CO:185:VAL:C	41:CO:188:LYS:HB2	2.28	0.53
52:CS:150:ILE:CD1	52:CS:151:LYS:H	2.19	0.53
48:CD:33:ARG:HE	53:CT:27:LEU:CD1	2.22	0.53
53:CT:65:TYR:CD2	53:CT:73:GLY:O	2.62	0.53
56:CX:93:ASN:O	56:CX:95:THR:HG23	2.08	0.53
85:A5:135:G:H2'	85:A5:136:C:C6	2.44	0.53
15:AB:140:VAL:O	15:AB:210:VAL:HA	2.08	0.53
26:AJ:179:LYS:HA	26:AJ:182:GLN:CD	2.29	0.53
13:AP:49:LEU:O	13:AP:50:ARG:CB	2.54	0.53
8:AS:71:MET:HG3	8:AS:99:LEU:HD13	1.91	0.53
3:AU:50:VAL:CG1	3:AU:51:LYS:N	2.45	0.53
3:AU:79:ARG:HH12	36:B2:1669:G:H4'	1.73	0.53
32:AW:81:VAL:HG22	32:AW:89:TRP:NE1	2.24	0.53
6:AX:62:PRO:HD2	6:AX:63:ASN:N	2.23	0.53
36:B2:1434:C:H3'	36:B2:1435:C:O4'	2.08	0.53
36:B2:1552:G:N7	36:B2:1578:U:C4	2.77	0.53
51:CA:209:HIS:CE1	51:CA:211:PHE:HB2	2.44	0.53
63:CB:141:ASP:O	63:CB:145:GLN:N	2.42	0.53
63:CB:245:HIS:CG	63:CB:246:ARG:N	2.77	0.53
63:CB:303:ALA:HB3	63:CB:313:SER:O	2.09	0.53
48:CD:210:TYR:CD2	48:CD:211:LEU:CD2	2.92	0.53
81:CE:145:THR:HG22	81:CE:148:THR:CB	2.32	0.53
53:CT:135:PRO:HG3	64:CF:88:LYS:CE	2.39	0.53
82:CG:102:TYR:CB	82:CG:204:PHE:HE1	2.22	0.53
80:CH:96:TYR:CE1	80:CH:100:PRO:HA	2.44	0.53
47:CI:23:CYS:O	47:CI:24:ARG:C	2.47	0.53
47:CI:80:CYS:SG	47:CI:147:HIS:CE1	3.02	0.53
79:CJ:13:ARG:NH1	79:CJ:136:ARG:HH12	2.07	0.53
44:CM:51:PRO:CD	44:CM:51:PRO:O	2.55	0.53
46:CN:150:TRP:CZ2	46:CN:151:ILE:CD1	2.91	0.53
54:CP:21:ASN:OD1	54:CP:123:PRO:HD2	2.09	0.53
54:CP:4:TYR:O	54:CP:5:SER:CB	2.55	0.53
49:CQ:33:ARG:CG	49:CQ:48:LEU:CD1	2.86	0.53
52:CS:82:LEU:HG	52:CS:83:ARG:N	2.24	0.53
55:CU:83:LEU:HD23	55:CU:110:TYR:CD2	2.43	0.53
59:CZ:105:ALA:CA	59:CZ:108:ARG:CG	2.86	0.53
85:A5:1444:G:H2'	85:A5:1445:U:C6	2.44	0.52
85:A5:2021:G:H2'	85:A5:2022:C:C6	2.44	0.52
12:AR:121:GLN:N	16:AA:44:ASP:OD2	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:136:ARG:CD	15:AB:138:PHE:CZ	2.92	0.52
23:AD:208:VAL:O	23:AD:208:VAL:HG12	2.08	0.52
23:AD:45:ARG:CA	23:AD:83:SER:OG	2.56	0.52
27:AE:98:ASN:ND2	27:AE:114:ILE:CG1	2.72	0.52
30:AF:133:THR:O	30:AF:135:ARG:HG2	2.08	0.52
30:AF:138:ALA:CB	30:AF:204:ARG:HB3	2.39	0.52
29:AG:184:VAL:C	29:AG:188:LYS:HE3	2.29	0.52
29:AG:58:LYS:O	29:AG:59:GLN:CB	2.57	0.52
31:AH:142:LYS:C	31:AH:143:ARG:HG2	2.30	0.52
31:AH:23:ILE:O	31:AH:27:LEU:HD23	2.09	0.52
33:AI:141:ARG:HB3	33:AI:144:LYS:HG2	1.90	0.52
26:AJ:21:GLU:O	26:AJ:24:ARG:N	2.42	0.52
5:AO:33:ILE:HG12	5:AO:42:VAL:HG22	1.91	0.52
13:AP:4:VAL:HG22	13:AP:10:ARG:HD2	1.91	0.52
13:AP:12:PHE:HZ	79:CJ:88:LYS:HE3	1.72	0.52
34:AQ:111:ILE:O	34:AQ:114:GLN:CG	2.55	0.52
8:AS:54:LYS:HB3	8:AS:55:ARG:H	1.73	0.52
14:AT:102:ARG:CD	14:AT:105:GLN:OE1	2.57	0.52
18:AY:117:VAL:HB	18:AY:124:ASN:ND2	2.24	0.52
18:AY:30:PRO:O	18:AY:67:GLY:HA3	2.09	0.52
36:B2:1757:G:H1	36:B2:1775:U:H3	1.56	0.52
29:AG:170:ARG:HG2	36:B2:71:G:C6	2.44	0.52
63:CB:21:ARG:HG3	63:CB:22:SER:N	2.24	0.52
63:CB:87:VAL:CG2	63:CB:163:ILE:O	2.57	0.52
74:CC:101:MET:CE	74:CC:104:PRO:HA	2.39	0.52
74:CC:317:ASN:HD21	74:CC:319:LEU:HD12	1.74	0.52
48:CD:47:PRO:HG2	48:CD:49:TYR:CE2	2.44	0.52
48:CD:33:ARG:HH11	48:CD:50:ARG:HH12	1.57	0.52
81:CE:112:MET:CG	81:CE:113:PRO:N	2.72	0.52
81:CE:215:ALA:O	81:CE:218:LYS:HE2	2.09	0.52
81:CE:85:LYS:HB2	81:CE:92:VAL:HG13	1.87	0.52
82:CG:113:ARG:CG	82:CG:113:ARG:NH2	2.37	0.52
82:CG:40:GLY:O	82:CG:43:GLN:CG	2.46	0.52
47:CI:201:PRO:C	47:CI:202:SER:OG	2.44	0.52
79:CJ:83:LEU:HD22	79:CJ:132:VAL:CG2	2.18	0.52
42:CL:46:ILE:O	42:CL:48:PRO:C	2.48	0.52
46:CN:56:LYS:HG3	46:CN:59:TYR:HD2	1.74	0.52
41:CO:118:MET:CB	52:CS:167:PHE:CB	2.86	0.52
41:CO:58:LEU:O	41:CO:61:ARG:NE	2.42	0.52
54:CP:36:ILE:HG23	54:CP:44:ALA:HB1	1.90	0.52
49:CQ:61:LEU:CD1	49:CQ:139:LEU:CB	2.85	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:172:ARG:HA	49:CQ:176:ARG:HD2	1.89	0.52
49:CQ:27:LEU:HD22	74:CC:289:LEU:CD2	2.38	0.52
50:CR:84:THR:HG22	50:CR:85:ALA:N	2.23	0.52
52:CS:7:LEU:HD21	52:CS:107:THR:HG1	1.67	0.52
48:CD:44:TYR:OH	53:CT:34:TYR:O	2.27	0.52
55:CU:23:LEU:HD21	55:CU:110:TYR:HB2	1.91	0.52
43:CV:87:SER:HA	43:CV:97:TYR:HB3	1.92	0.52
58:CW:31:PHE:HE1	58:CW:40:PHE:CG	2.27	0.52
56:CX:76:ILE:CG2	56:CX:112:ALA:HB1	2.37	0.52
85:A5:1719:A:H8	85:A5:1834:U:H3	1.57	0.52
85:A5:2551:A:OP1	85:A5:2553:A:N6	2.42	0.52
85:A5:2809:G:C5	85:A5:2810:U:C4	2.97	0.52
85:A5:4127:A:O2'	85:A5:4128:A:H5''	2.09	0.52
5:AO:88:LEU:HD21	15:AB:25:PHE:HD2	1.66	0.52
28:AC:104:ASP:HB3	28:AC:130:ILE:CG1	2.38	0.52
28:AC:202:THR:OG1	28:AC:221:ASP:HB3	2.09	0.52
28:AC:65:LYS:HG3	28:AC:273:LEU:HD13	1.89	0.52
23:AD:177:LEU:HD12	23:AD:178:ARG:HH21	1.73	0.52
23:AD:46:THR:O	23:AD:85:GLU:N	2.39	0.52
33:AI:3:ILE:O	33:AI:3:ILE:HG23	1.98	0.52
26:AJ:147:PHE:CE2	26:AJ:149:VAL:HA	2.44	0.52
11:AL:59:LYS:CD	11:AL:112:HIS:NE2	2.72	0.52
12:AR:82:ASP:O	16:AA:89:LYS:HE3	2.09	0.52
8:AS:23:ARG:HD3	19:AZ:48:VAL:CB	2.34	0.52
3:AU:25:THR:HG22	3:AU:86:LYS:CG	2.35	0.52
18:AY:54:VAL:O	18:AY:54:VAL:CG1	2.57	0.52
36:B2:1069:U:H4'	51:CA:248:GLY:CA	2.34	0.52
26:AJ:124:HIS:NE2	36:B2:526:A:H5''	2.23	0.52
36:B2:689:U:H2'	36:B2:690:G:O4'	2.09	0.52
36:B2:8:U:O2	36:B2:1196:A:OP2	2.26	0.52
74:CC:190:ARG:HA	74:CC:202:ILE:HD12	1.89	0.52
74:CC:41:HIS:NE2	74:CC:238:LEU:HD23	2.25	0.52
81:CE:125:LEU:HB3	81:CE:126:LEU:O	2.10	0.52
81:CE:127:SER:HA	81:CE:128:HIS:C	2.27	0.52
81:CE:98:GLY:CA	81:CE:99:ASP:CB	2.86	0.52
64:CF:89:LEU:HD22	64:CF:90:ALA:N	2.25	0.52
47:CI:72:ALA:HB3	47:CI:87:MET:HE1	1.91	0.52
40:CK:125:LEU:HD13	40:CK:163:PRO:N	2.21	0.52
44:CM:32:ASP:CG	44:CM:35:ARG:HD2	2.28	0.52
52:CS:159:LEU:HD23	52:CS:160:ARG:CA	2.34	0.52
52:CS:80:ILE:HD11	52:CS:126:ILE:HD12	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:CY:89:LYS:C	57:CY:89:LYS:HD3	2.27	0.52
59:CZ:3:LYS:C	59:CZ:6:LYS:CE	2.72	0.52
85:A5:3974:G:H2'	85:A5:3975:C:C6	2.43	0.52
28:AC:170:TRP:H	28:AC:178:HIS:CE1	2.27	0.52
28:AC:62:PRO:HA	28:AC:90:GLU:OE2	2.10	0.52
27:AE:139:LEU:HD13	27:AE:154:ILE:CG2	2.33	0.52
27:AE:45:ILE:HG23	27:AE:46:ILE:N	2.24	0.52
31:AH:158:LEU:O	31:AH:190:PRO:HD3	2.10	0.52
31:AH:35:ASP:C	31:AH:37:LYS:H	2.10	0.52
4:AK:43:LEU:H	4:AK:46:MET:HB3	1.73	0.52
4:AK:47:LYS:CD	4:AK:50:GLN:NE2	2.72	0.52
4:AK:49:MET:HB2	4:AK:69:TRP:CZ2	2.44	0.52
4:AK:50:GLN:HG3	4:AK:51:SER:N	2.25	0.52
11:AL:147:LYS:CE	11:AL:156:GLN:HE22	2.22	0.52
7:AM:95:ASP:O	7:AM:96:ARG:HG2	2.09	0.52
8:AS:88:LYS:CD	13:AP:37:TYR:HA	2.40	0.52
13:AP:41:GLN:NE2	13:AP:41:GLN:O	2.42	0.52
30:AF:53:ALA:C	34:AQ:125:ARG:NH2	2.61	0.52
34:AQ:84:ILE:HG13	34:AQ:85:ARG:N	2.24	0.52
8:AS:93:GLY:HA3	13:AP:18:ARG:C	2.30	0.52
14:AT:123:LEU:N	14:AT:123:LEU:HD23	2.24	0.52
14:AT:39:LEU:HG	14:AT:39:LEU:O	2.09	0.52
14:AT:46:ALA:CB	14:AT:47:PRO:CD	2.43	0.52
14:AT:72:VAL:O	14:AT:76:THR:HG23	2.09	0.52
14:AT:85:ASN:ND2	14:AT:91:HIS:HD2	2.06	0.52
51:CA:15:VAL:O	51:CA:15:VAL:CG1	2.56	0.52
63:CB:109:HIS:CB	63:CB:202:GLU:OE2	2.57	0.52
63:CB:212:GLY:CA	63:CB:287:ILE:HD11	2.39	0.52
63:CB:312:LYS:CG	63:CB:313:SER:N	2.03	0.52
63:CB:89:ILE:C	63:CB:89:ILE:HD12	2.29	0.52
63:CB:92:TYR:CB	63:CB:99:LEU:HD21	2.36	0.52
81:CE:248:ILE:HG23	81:CE:249:ASP:N	2.24	0.52
53:CT:132:PRO:HD2	64:CF:126:ASN:HD21	1.74	0.52
64:CF:93:ILE:HD11	64:CF:244:ILE:HD13	1.91	0.52
82:CG:208:ASN:ND2	82:CG:210:GLU:CB	2.72	0.52
82:CG:27:VAL:HA	82:CG:30:PRO:HG2	1.91	0.52
82:CG:83:PHE:O	82:CG:84:THR:OG1	2.28	0.52
80:CH:18:ILE:CG1	80:CH:55:LEU:CD1	2.87	0.52
47:CI:115:MET:HE1	47:CI:118:ALA:CB	2.39	0.52
47:CI:97:ILE:CD1	47:CI:126:VAL:CG2	2.87	0.52
79:CJ:146:ARG:NH2	79:CJ:147:ARG:HE	2.06	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:79:ALA:O	46:CN:80:THR:HG23	2.10	0.52
41:CO:143:HIS:CB	41:CO:150:GLN:OE1	2.55	0.52
41:CO:32:LYS:HG2	41:CO:101:ARG:HB3	1.92	0.52
54:CP:65:GLY:O	54:CP:67:VAL:HG23	2.09	0.52
49:CQ:110:ARG:NH1	74:CC:281:MET:HE1	2.20	0.52
49:CQ:187:LYS:HZ3	49:CQ:188:ASN:HD22	1.46	0.52
50:CR:95:TRP:HH2	50:CR:130:ASN:CB	2.16	0.52
53:CT:5:LYS:O	53:CT:9:ARG:HD3	2.09	0.52
55:CU:48:LYS:HA	55:CU:52:LYS:C	2.28	0.52
43:CV:83:ARG:O	43:CV:101:ASN:HA	2.08	0.52
58:CW:23:ARG:CB	58:CW:23:ARG:CZ	2.85	0.52
56:CX:87:MET:SD	56:CX:155:ILE:HD11	2.49	0.52
57:CY:65:GLN:O	57:CY:66:GLN:HB2	2.09	0.52
85:A5:1246:G:C6	85:A5:1247:U:C4	2.97	0.52
85:A5:52:G:H4'	85:A5:1529:G:H4'	1.92	0.52
85:A5:2666:U:O4	85:A5:2669:C:C4	2.63	0.52
85:A5:3892:U:H2'	85:A5:3893:C:C6	2.45	0.52
85:A5:4083:U:O2	85:A5:4085:A:H4'	2.10	0.52
86:A7:47:G:H2'	86:A7:48:G:H5'	1.92	0.52
87:A8:128:C:C6	87:A8:129:C:C5	2.97	0.52
28:AC:251:LEU:C	28:AC:251:LEU:CD2	2.78	0.52
17:AV:29:HIS:HE1	28:AC:86:LEU:O	1.83	0.52
28:AC:88:ILE:O	28:AC:88:ILE:HG23	2.08	0.52
27:AE:165:GLU:HA	27:AE:165:GLU:OE2	2.05	0.52
26:AJ:72:PHE:CZ	27:AE:248:ILE:CG1	2.89	0.52
30:AF:134:VAL:HG12	30:AF:136:ARG:CZ	2.39	0.52
29:AG:162:LEU:HD21	29:AG:170:ARG:HB2	1.87	0.52
29:AG:185:LEU:CA	29:AG:188:LYS:HE3	2.40	0.52
31:AH:64:VAL:CG1	31:AH:65:PRO:HD2	2.39	0.52
26:AJ:177:ASN:C	26:AJ:180:LYS:HG2	2.19	0.52
26:AJ:79:ARG:NH1	26:AJ:83:ARG:HD2	2.25	0.52
4:AK:14:LEU:CD1	4:AK:35:LEU:HD11	2.38	0.52
7:AM:76:LEU:C	7:AM:128:PHE:CZ	2.83	0.52
13:AP:56:LEU:HD11	13:AP:80:LEU:CD1	2.39	0.52
12:AR:13:ALA:HB1	12:AR:57:LEU:HD12	1.92	0.52
14:AT:23:LYS:HD3	14:AT:54:TYR:CD1	2.33	0.52
8:AS:46:ARG:NH1	14:AT:50:GLU:CB	2.71	0.52
6:AX:126:ALA:O	6:AX:128:VAL:HG23	2.08	0.52
18:AY:23:MET:HE3	18:AY:44:LEU:HD21	1.91	0.52
19:AZ:65:TYR:HD2	19:AZ:68:ILE:CD1	2.22	0.52
36:B2:1418:C:H42	36:B2:1421:A:H62	1.55	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AA:85:ARG:N	36:B2:1866:A:H61	44.60	0.52
33:AI:182:CYS:SG	36:B2:305:U:O4	2.66	0.52
51:CA:114:CYS:O	51:CA:115:CYS:C	2.48	0.52
51:CA:245:ARG:HD3	51:CA:245:ARG:C	2.13	0.52
74:CC:11:TYR:O	74:CC:155:GLU:HB2	2.09	0.52
74:CC:158:VAL:CA	74:CC:161:TYR:HE2	2.16	0.52
49:CQ:110:ARG:HH11	74:CC:281:MET:HE3	1.67	0.52
48:CD:57:ASN:HA	48:CD:58:ARG:NE	2.20	0.52
81:CE:233:PHE:CB	81:CE:235:THR:OG1	2.44	0.52
81:CE:54:ILE:O	81:CE:62:MET:C	2.48	0.52
81:CE:79:LYS:C	81:CE:80:VAL:HG23	2.29	0.52
64:CF:134:ARG:HA	64:CF:137:GLU:HG3	1.90	0.52
82:CG:156:VAL:HG11	82:CG:190:LEU:CD1	2.39	0.52
80:CH:86:LEU:HD23	80:CH:189:GLN:CB	2.35	0.52
47:CI:100:ASN:C	47:CI:101:LYS:O	2.46	0.52
44:CM:25:VAL:CG1	44:CM:39:ASP:CA	2.87	0.52
44:CM:77:TRP:CG	44:CM:82:ILE:HD11	2.40	0.52
44:CM:82:ILE:O	44:CM:83:ASN:CB	2.57	0.52
46:CN:42:PRO:HD3	46:CN:61:ILE:HD13	1.92	0.52
52:CS:82:LEU:HD12	52:CS:125:GLN:O	2.10	0.52
53:CT:146:LYS:O	53:CT:147:GLU:HG3	2.10	0.52
53:CT:40:VAL:CB	53:CT:96:ILE:CG2	2.84	0.52
58:CW:14:TYR:CZ	63:CB:380:GLN:HG2	2.45	0.52
58:CW:21:TYR:CE2	58:CW:23:ARG:CA	2.92	0.52
29:AG:130:PRO:CB	58:CW:83:THR:HG22	2.38	0.52
56:CX:77:ILE:HD11	56:CX:113:VAL:CG2	2.38	0.52
57:CY:118:ILE:CG2	57:CY:122:LYS:HE2	2.39	0.52
85:A5:1212:G:H2'	85:A5:1213:G:C8	2.45	0.52
85:A5:1330:A:C2	85:A5:2357:G:C5	2.97	0.52
85:A5:723:A:C2	85:A5:943:A:N1	2.77	0.52
15:AB:137:LEU:HD12	15:AB:176:VAL:HG21	1.91	0.52
28:AC:209:VAL:N	28:AC:210:PRO:HD2	2.25	0.52
30:AF:42:LYS:O	30:AF:42:LYS:CD	2.48	0.52
29:AG:28:TYR:C	29:AG:30:LYS:H	2.13	0.52
31:AH:12:ASN:HB3	31:AH:46:THR:HG1	1.74	0.52
26:AJ:58:ARG:O	26:AJ:62:THR:HG23	2.10	0.52
4:AK:27:VAL:O	4:AK:28:HIS:CG	2.63	0.52
5:AO:20:GLN:HG2	5:AO:21:VAL:CA	2.38	0.52
13:AP:98:ASN:CG	13:AP:120:SER:HB2	2.29	0.52
13:AP:127:LYS:HE3	13:AP:128:HIS:N	2.24	0.52
12:AR:44:LYS:CD	12:AR:47:ARG:NH2	2.70	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AR:61:ILE:CG2	12:AR:74:GLN:NE2	2.72	0.52
12:AR:17:ILE:CG2	12:AR:71:ILE:HD11	2.40	0.52
8:AS:141:ARG:CD	36:B2:1523:C:H5	2.23	0.52
8:AS:88:LYS:N	8:AS:95:TYR:CD1	2.72	0.52
14:AT:11:GLN:OE1	14:AT:62:ARG:HD3	2.09	0.52
14:AT:5:THR:HG23	14:AT:7:LYS:HB2	1.91	0.52
14:AT:85:ASN:ND2	14:AT:90:SER:HA	2.24	0.52
28:AC:256:TRP:CG	32:AW:68:ARG:NH1	2.73	0.52
18:AY:12:PHE:CD1	18:AY:23:MET:HB3	2.45	0.52
18:AY:58:PHE:HE1	18:AY:72:PHE:CE2	2.28	0.52
36:B2:1501:C:O2'	36:B2:1502:C:H5'	2.10	0.52
36:B2:1761:U:H3	36:B2:1771:G:H1	1.57	0.52
36:B2:414:A:H61	36:B2:423:U:H3	1.58	0.52
63:CB:156:TYR:O	63:CB:157:CYS:HB3	2.09	0.52
63:CB:153:MET:O	63:CB:157:CYS:HB3	2.09	0.52
74:CC:214:ASP:OD1	74:CC:217:ILE:HG22	2.10	0.52
74:CC:34:PRO:O	74:CC:35:ASP:C	2.48	0.52
48:CD:118:ILE:CG2	48:CD:135:ILE:HD13	2.28	0.52
81:CE:138:ARG:HH21	81:CE:170:SER:C	2.13	0.52
81:CE:93:THR:O	81:CE:94:LYS:HD2	2.10	0.52
82:CG:103:ARG:CA	82:CG:104:PRO:CD	2.88	0.52
80:CH:116:ASN:O	80:CH:119:GLY:N	2.39	0.52
80:CH:117:PHE:CE1	80:CH:165:THR:HB	2.45	0.52
80:CH:110:SER:HB2	80:CH:128:MET:HG2	1.82	0.52
80:CH:12:ILE:CG2	80:CH:52:LYS:HE2	2.40	0.52
47:CI:163:GLN:N	47:CI:163:GLN:CD	2.63	0.52
47:CI:175:LYS:C	47:CI:176:PHE:CD1	2.76	0.52
40:CK:116:MET:CB	40:CK:117:ARG:NH2	2.68	0.52
41:CO:60:LYS:HE3	85:A5:2046:G:C4	2.44	0.52
54:CP:107:LEU:HD23	54:CP:107:LEU:H	1.64	0.52
49:CQ:158:THR:HG21	49:CQ:187:LYS:O	2.09	0.52
49:CQ:24:TYR:HB3	74:CC:283:LYS:HG3	1.90	0.52
49:CQ:53:MET:HB2	49:CQ:58:ARG:HG3	1.91	0.52
52:CS:158:VAL:CG2	52:CS:161:ARG:HH12	2.22	0.52
52:CS:60:GLU:OE2	53:CT:136:ARG:CZ	2.57	0.52
53:CT:51:GLY:O	53:CT:52:MET:HG2	2.10	0.52
55:CU:125:GLU:O	55:CU:126:ASP:CB	2.57	0.52
57:CY:42:TYR:HB3	57:CY:119:LEU:CD1	2.30	0.52
63:CB:259:PRO:HG3	85:A5:2044:U:C6	2.45	0.52
85:A5:4883:C:H3'	85:A5:4884:G:H5''	1.91	0.52
16:AA:184:ARG:N	16:AA:189:ILE:HD12	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AA:76:VAL:HG12	16:AA:87:VAL:HB	1.90	0.52
28:AC:149:THR:HG23	28:AC:150:ALA:N	2.24	0.52
28:AC:157:LEU:O	28:AC:160:LEU:HG	2.10	0.52
28:AC:192:LEU:HD23	28:AC:227:ARG:HG3	1.86	0.52
23:AD:217:ILE:HG23	23:AD:218:LEU:N	2.24	0.52
27:AE:122:LYS:CG	27:AE:164:LEU:CD2	2.80	0.52
27:AE:159:THR:C	27:AE:160:ILE:HG13	2.30	0.52
30:AF:115:ALA:HB2	30:AF:177:LEU:HD22	1.92	0.52
30:AF:43:GLU:O	30:AF:44:LYS:HB2	2.10	0.52
11:AL:19:ASN:OD1	33:AI:69:SER:HB3	2.09	0.52
4:AK:1:MET:HB3	4:AK:47:LYS:CB	2.39	0.52
11:AL:117:PHE:CD2	11:AL:145:VAL:HG23	2.44	0.52
13:AP:44:ARG:HG3	36:B2:1620:A:OP1	2.10	0.52
8:AS:23:ARG:O	8:AS:55:ARG:HD2	2.10	0.52
8:AS:26:ILE:CD1	8:AS:59:LEU:CD2	2.81	0.52
14:AT:123:LEU:HD23	14:AT:123:LEU:H	1.74	0.52
14:AT:45:LEU:HD23	14:AT:48:TYR:HE1	1.73	0.52
32:AW:93:LEU:CD2	32:AW:128:PHE:HD2	2.10	0.52
6:AX:5:ARG:NH2	6:AX:5:ARG:CG	2.72	0.52
18:AY:20:ARG:HD3	18:AY:76:TYR:CE1	2.44	0.52
18:AY:10:ARG:CD	18:AY:24:VAL:CG1	2.87	0.52
18:AY:92:ALA:C	18:AY:97:TYR:O	2.47	0.52
36:B2:25:A:O2'	36:B2:26:U:C6	2.63	0.52
36:B2:64:A:C2	36:B2:66:G:C8	2.98	0.52
36:B2:845:G:C3'	36:B2:846:G:H8	2.23	0.52
51:CA:205:ASN:CB	51:CA:206:PRO:CD	2.87	0.52
63:CB:145:GLN:HA	63:CB:145:GLN:OE1	2.06	0.52
63:CB:234:ARG:HH11	63:CB:270:GLY:C	2.13	0.52
43:CV:89:ARG:NH1	63:CB:73:VAL:HG23	2.24	0.52
74:CC:40:VAL:CG2	74:CC:115:VAL:HG11	2.33	0.52
74:CC:295:SER:CB	74:CC:296:PRO:CD	2.86	0.52
74:CC:60:HIS:CD2	74:CC:60:HIS:N	2.71	0.52
81:CE:280:GLY:CA	81:CE:282:TYR:HE2	2.23	0.52
64:CF:186:CYS:SG	64:CF:189:ASP:OD1	2.68	0.52
64:CF:20:LYS:HA	64:CF:21:LYS:HE3	1.91	0.52
80:CH:137:SER:HB3	80:CH:145:ILE:CD1	2.39	0.52
80:CH:183:GLU:OE1	80:CH:184:LYS:CA	2.57	0.52
47:CI:28:ASP:CB	47:CI:32:ARG:HH22	2.20	0.52
79:CJ:156:ARG:HG2	79:CJ:157:ILE:N	2.25	0.52
40:CK:50:THR:CG2	40:CK:72:GLU:O	2.57	0.52
42:CL:35:ARG:CD	85:A5:1361:G:H5''	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:CM:35:ARG:C	44:CM:52:PHE:CE2	2.83	0.52
44:CM:89:THR:CB	44:CM:92:ALA:H	2.23	0.52
46:CN:178:HIS:CB	46:CN:181:HIS:NE2	2.71	0.52
46:CN:183:THR:O	46:CN:184:ILE:CB	2.54	0.52
46:CN:50:ARG:NH2	46:CN:50:ARG:CG	2.67	0.52
41:CO:16:LEU:CD2	41:CO:41:ILE:HD11	2.03	0.52
54:CP:26:PHE:CB	54:CP:144:CYS:SG	2.97	0.52
49:CQ:50:ARG:HB3	49:CQ:83:VAL:CG1	2.35	0.52
50:CR:24:LEU:HD22	50:CR:32:ILE:HG13	1.91	0.52
55:CU:40:GLU:OE2	55:CU:70:ILE:CA	2.55	0.52
85:A5:1827:C:O2	85:A5:1827:C:H2'	2.10	0.52
85:A5:3868:G:H22	85:A5:3900:G:H1'	1.74	0.52
54:CP:74:LYS:NZ	85:A5:4982:A:OP1	2.35	0.52
42:CL:59:VAL:HG11	85:A5:74:G:H5''	1.92	0.52
16:AA:122:LEU:HD12	16:AA:137:ALA:CB	2.40	0.52
16:AA:66:VAL:HG11	17:AV:46:PHE:HB3	1.90	0.52
23:AD:192:TRP:HD1	23:AD:192:TRP:N	2.07	0.52
27:AE:260:GLN:O	27:AE:261:SER:CB	2.57	0.52
27:AE:72:ILE:HD12	27:AE:82:TYR:CD2	2.45	0.52
29:AG:58:LYS:HG2	29:AG:105:ASN:O	2.09	0.52
26:AJ:125:HIS:NE2	26:AJ:129:LEU:HD21	2.25	0.52
10:AN:125:LEU:HD22	10:AN:129:TYR:CE2	2.45	0.52
5:AO:62:VAL:CG2	5:AO:72:TYR:CZ	2.91	0.52
8:AS:54:LYS:HB3	8:AS:55:ARG:N	2.25	0.52
3:AU:16:ALA:O	3:AU:94:PRO:HG3	2.10	0.52
32:AW:15:ASN:CG	32:AW:19:LYS:HE3	2.29	0.52
6:AX:126:ALA:HB1	6:AX:128:VAL:HB	1.83	0.52
18:AY:114:MET:C	18:AY:124:ASN:HD22	2.06	0.52
18:AY:99:LYS:NZ	18:AY:99:LYS:C	2.63	0.52
36:B2:1362:U:H5''	36:B2:1363:C:H5	1.75	0.52
36:B2:742:U:C6	36:B2:743:U:C6	2.98	0.52
36:B2:787:G:H3'	36:B2:788:G:H5''	1.91	0.52
36:B2:1069:U:H5''	51:CA:248:GLY:CA	2.39	0.52
63:CB:283:LYS:O	63:CB:333:LEU:HD12	2.09	0.52
74:CC:12:SER:HB2	74:CC:13:GLU:OE1	2.10	0.52
81:CE:281:ILE:CG2	81:CE:281:ILE:O	2.58	0.52
64:CF:67:THR:HG1	64:CF:71:MET:CE	2.22	0.52
82:CG:183:ILE:HG23	82:CG:184:ILE:O	2.08	0.52
82:CG:230:TYR:CG	82:CG:231:ASP:N	2.78	0.52
82:CG:255:LYS:HE2	82:CG:259:LYS:HD2	1.85	0.52
82:CG:50:ASP:C	82:CG:51:LEU:HD23	2.29	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CI:109:ASP:O	47:CI:110:ARG:CB	2.58	0.52
47:CI:41:ALA:CB	47:CI:139:ARG:NH2	2.67	0.52
47:CI:39:LYS:O	47:CI:195:CYS:SG	2.62	0.52
40:CK:104:ILE:O	40:CK:106:PHE:CD2	2.63	0.52
40:CK:64:ILE:O	40:CK:70:GLN:HA	2.10	0.52
42:CL:144:LEU:HA	42:CL:148:THR:OG1	2.10	0.52
44:CM:63:LYS:HD2	44:CM:63:LYS:C	2.27	0.52
46:CN:194:ARG:HG2	46:CN:194:ARG:NH2	2.25	0.52
41:CO:16:LEU:HD21	41:CO:41:ILE:CG2	2.33	0.52
50:CR:134:ASN:CG	50:CR:135:LYS:N	2.62	0.52
50:CR:96:MET:CE	85:A5:2667:C:OP1	2.57	0.52
52:CS:140:PRO:HG2	52:CS:141:ALA:H	1.69	0.52
52:CS:17:LEU:CD2	52:CS:58:SER:C	2.70	0.52
59:CZ:26:VAL:CB	59:CZ:89:ILE:CD1	2.77	0.52
59:CZ:33:THR:OG1	59:CZ:36:ARG:HG3	2.09	0.52
59:CZ:81:MET:O	59:CZ:81:MET:HG3	2.10	0.52
85:A5:2325:C:O2	85:A5:2325:C:H2'	2.09	0.52
85:A5:2640:G:O6	85:A5:2693:G:H2'	2.09	0.52
85:A5:2551:A:H61	85:A5:2766:A:H2'	1.72	0.52
85:A5:4524:G:H2'	85:A5:4524:G:N3	2.25	0.52
85:A5:4950:U:H4'	85:A5:4951:G:OP2	2.09	0.52
85:A5:4981:G:N3	85:A5:4981:G:C5'	2.72	0.52
86:A7:118:C:C2	86:A7:119:U:C5	2.98	0.52
16:AA:190:SER:O	16:AA:191:ARG:CB	2.58	0.52
16:AA:24:HIS:HB3	16:AA:51:LEU:CD2	2.40	0.52
15:AB:19:LYS:HG3	15:AB:19:LYS:O	2.09	0.52
27:AE:100:ARG:HG2	27:AE:102:ILE:CD1	2.39	0.52
27:AE:122:LYS:HG2	27:AE:164:LEU:CD2	2.39	0.52
29:AG:155:GLN:HG2	36:B2:76:U:H4'	1.92	0.52
29:AG:57:ASP:CG	29:AG:98:ARG:HG3	2.29	0.52
31:AH:149:ASP:C	31:AH:151:SER:H	2.13	0.52
33:AI:149:TYR:HD1	33:AI:152:ARG:NH1	2.05	0.52
26:AJ:61:LEU:HD23	26:AJ:98:LEU:CD1	2.35	0.52
11:AL:17:PHE:CD2	11:AL:18:GLN:O	2.63	0.52
11:AL:86:ILE:CG1	11:AL:111:VAL:HG13	2.39	0.52
7:AM:103:VAL:HG12	7:AM:103:VAL:O	2.09	0.52
10:AN:87:ASP:CG	10:AN:129:TYR:OH	2.45	0.52
10:AN:22:VAL:CG2	10:AN:23:PRO:HA	2.40	0.52
5:AO:30:VAL:HG21	5:AO:32:HIS:NE2	2.23	0.52
5:AO:44:VAL:HG21	5:AO:93:LEU:HD11	1.85	0.52
13:AP:107:ILE:CA	13:AP:111:MET:HE3	2.34	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AQ:50:LYS:NZ	34:AQ:117:ARG:CD	2.48	0.52
8:AS:15:VAL:HG12	8:AS:16:LEU:N	2.20	0.52
8:AS:39:ARG:HH22	14:AT:38:LYS:CG	2.22	0.52
8:AS:51:ASP:CG	8:AS:53:THR:HG1	2.13	0.52
17:AV:43:THR:O	17:AV:44:GLY:C	2.48	0.52
6:AX:94:ILE:CD1	6:AX:125:VAL:HG21	2.40	0.52
18:AY:114:MET:HE3	18:AY:125:VAL:HG23	1.92	0.52
4:AK:2:LEU:HD23	36:B2:1315:U:H4'	1.91	0.52
31:AH:99:ARG:HB2	36:B2:913:A:H8	1.75	0.52
63:CB:155:LYS:CE	63:CB:155:LYS:HA	2.38	0.52
63:CB:39:LYS:CD	63:CB:40:PRO:HD2	2.39	0.52
63:CB:40:PRO:HB3	63:CB:42:HIS:CD2	2.17	0.52
81:CE:145:THR:O	81:CE:164:PHE:HD2	1.93	0.52
82:CG:115:LEU:HD22	82:CG:119:GLU:OE1	2.10	0.52
82:CG:98:LEU:HG	82:CG:215:LEU:HD21	1.82	0.52
80:CH:26:ILE:HG22	80:CH:35:ARG:HE	1.74	0.52
47:CI:105:CYS:C	47:CI:108:ALA:HB3	2.25	0.52
79:CJ:26:VAL:CB	79:CJ:33:LEU:HD21	2.16	0.52
42:CL:86:ILE:HD11	42:CL:121:ARG:CD	2.40	0.52
46:CN:56:LYS:HZ1	46:CN:145:ASN:HD22	1.58	0.52
54:CP:124:LYS:HE2	54:CP:142:SER:CB	2.37	0.52
50:CR:102:LEU:HD13	50:CR:127:VAL:HG13	1.91	0.52
50:CR:45:ILE:CA	50:CR:50:ILE:CG2	2.83	0.52
52:CS:113:MET:CG	52:CS:124:ILE:HD11	2.39	0.52
52:CS:47:PHE:CE1	52:CS:125:GLN:HG2	2.37	0.52
55:CU:60:VAL:O	55:CU:61:VAL:HG13	2.10	0.52
58:CW:99:GLU:O	58:CW:100:VAL:C	2.48	0.52
56:CX:87:MET:O	56:CX:91:GLU:HG2	2.09	0.52
85:A5:1273:G:H3'	85:A5:1274:A:C5'	2.40	0.52
63:CB:246:ARG:CD	85:A5:4524:G:OP2	2.55	0.52
15:AB:66:VAL:CB	15:AB:87:ILE:HG22	2.25	0.52
27:AE:230:LYS:O	27:AE:231:GLY:C	2.48	0.52
30:AF:18:LYS:O	30:AF:46:ALA:HB1	2.08	0.52
30:AF:20:PHE:CD2	30:AF:23:TRP:HD1	2.27	0.52
33:AI:141:ARG:HB3	33:AI:144:LYS:CG	2.40	0.52
26:AJ:50:LEU:HB2	26:AJ:102:ILE:CD1	2.40	0.52
4:AK:83:LEU:HB3	4:AK:85:LEU:CG	2.31	0.52
11:AL:157:LYS:O	11:AL:158:PHE:CG	2.61	0.52
10:AN:141:TYR:CD2	10:AN:141:TYR:O	2.63	0.52
10:AN:26:LEU:HD21	10:AN:66:VAL:HG22	1.91	0.52
10:AN:38:TYR:CG	10:AN:78:LYS:HD2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AQ:50:LYS:HZ3	34:AQ:117:ARG:HD2	1.65	0.52
14:AT:124:THR:HG23	14:AT:127:GLY:H	1.74	0.52
32:AW:120:HIS:CG	32:AW:120:HIS:O	2.63	0.52
6:AX:55:VAL:HG12	6:AX:57:VAL:HG23	1.92	0.52
18:AY:20:ARG:CD	18:AY:76:TYR:CZ	2.84	0.52
18:AY:88:LYS:HG3	18:AY:97:TYR:CZ	2.45	0.52
19:AZ:105:ALA:C	19:AZ:106:GLN:HG3	2.30	0.52
36:B2:1495:G:C2	36:B2:1496:U:H1'	2.44	0.52
51:CA:30:ARG:HH12	51:CA:33:ASP:CG	2.13	0.52
42:CL:65:ARG:NH1	51:CA:69:PHE:CD1	104.91	0.52
63:CB:297:LYS:CE	63:CB:297:LYS:H	2.23	0.52
74:CC:110:ARG:HD2	74:CC:113:ARG:CZ	2.39	0.52
81:CE:111:LYS:CB	81:CE:113:PRO:HG3	2.32	0.52
82:CG:229:ARG:O	82:CG:229:ARG:HG2	2.10	0.52
80:CH:26:ILE:CG2	80:CH:35:ARG:HG2	2.33	0.52
47:CI:91:LEU:CD2	47:CI:133:GLN:HE21	2.23	0.52
40:CK:117:ARG:HG2	40:CK:133:LEU:HD11	0.57	0.52
42:CL:167:ARG:O	42:CL:170:THR:OG1	2.18	0.52
42:CL:59:VAL:HG12	42:CL:60:ARG:O	2.09	0.52
46:CN:4:TYR:O	46:CN:46:ASP:OD2	2.27	0.52
41:CO:27:VAL:HG11	41:CO:98:ALA:C	2.30	0.52
49:CQ:61:LEU:CD2	49:CQ:141:GLY:N	2.71	0.52
49:CQ:70:MET:HE2	49:CQ:98:LEU:HG	1.90	0.52
49:CQ:99:LYS:HZ1	49:CQ:119:LYS:CG	2.16	0.52
52:CS:162:GLN:NE2	52:CS:166:ARG:HE	2.08	0.52
53:CT:7:LYS:NZ	53:CT:54:HIS:HA	2.25	0.52
43:CV:98:PHE:CE2	43:CV:122:ALA:HB2	2.44	0.52
43:CV:99:GLU:OE1	58:CW:24:THR:HG22	2.09	0.52
56:CX:89:LYS:HG2	56:CX:95:THR:OG1	2.10	0.52
85:A5:100:C:H2'	85:A5:101:A:O4'	2.10	0.52
85:A5:1890:G:N2	85:A5:1939:A:H61	2.08	0.52
85:A5:2628:U:O5'	85:A5:2628:U:H6	1.93	0.52
85:A5:2640:G:H2'	85:A5:2641:A:C8	2.45	0.52
87:A8:127:U:O2'	87:A8:128:C:O4'	2.28	0.52
16:AA:54:THR:HG1	16:AA:162:PRO:HG2	1.74	0.52
16:AA:45:GLY:O	16:AA:46:ILE:HD13	2.10	0.52
16:AA:98:PRO:O	16:AA:98:PRO:HG2	2.10	0.52
26:AJ:54:ARG:NH2	28:AC:200:ARG:O	2.43	0.52
23:AD:167:TYR:CE2	23:AD:204:LEU:CD2	2.92	0.52
23:AD:221:THR:CB	23:AD:222:PRO:CD	2.77	0.52
27:AE:153:LEU:CD2	29:AG:216:ARG:CZ	2.81	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:51:ILE:HD11	31:AH:176:VAL:HG22	1.91	0.52
4:AK:62:PHE:CD1	4:AK:67:PHE:CD2	2.96	0.52
4:AK:16:PHE:CE2	4:AK:80:ARG:N	2.78	0.52
34:AQ:137:ALA:HB3	36:B2:1649:U:H5''	1.92	0.52
6:AX:105:PHE:HE2	6:AX:118:VAL:C	2.13	0.52
36:B2:1659:U:H3	36:B2:1664:A:H2	1.58	0.52
51:CA:230:PRO:O	51:CA:231:ALA:C	2.49	0.52
51:CA:8:GLN:HE21	51:CA:232:GLY:H	1.56	0.52
63:CB:257:TRP:CD1	63:CB:257:TRP:C	2.81	0.52
63:CB:370:THR:HG22	63:CB:370:THR:O	2.10	0.52
74:CC:39:PHE:CD1	74:CC:40:VAL:N	2.74	0.52
81:CE:158:ARG:HG2	81:CE:158:ARG:O	2.10	0.52
64:CF:193:GLU:OE2	64:CF:200:ARG:CB	2.58	0.52
80:CH:49:GLY:C	80:CH:50:LYS:NZ	2.63	0.52
47:CI:175:LYS:O	47:CI:176:PHE:CB	2.29	0.52
47:CI:185:VAL:C	47:CI:187:LYS:H	2.12	0.52
40:CK:86:LYS:C	40:CK:104:ILE:HG12	2.30	0.52
40:CK:131:GLU:O	40:CK:135:THR:CG2	2.38	0.52
40:CK:1:MET:H3	40:CK:2:PRO:CD	2.19	0.52
40:CK:28:LEU:CD1	40:CK:29:ALA:H	2.22	0.52
40:CK:61:LYS:CD	40:CK:73:VAL:O	2.57	0.52
41:CO:13:GLY:HA3	52:CS:171:ARG:HH21	1.74	0.52
41:CO:74:ARG:CG	41:CO:145:VAL:O	2.57	0.52
50:CR:129:GLY:C	50:CR:130:ASN:CG	2.66	0.52
52:CS:9:GLU:CG	52:CS:33:PHE:CE2	2.93	0.52
53:CT:146:LYS:O	53:CT:147:GLU:CG	2.58	0.52
43:CV:92:ASP:C	63:CB:73:VAL:HG22	2.31	0.52
58:CW:116:LYS:O	58:CW:120:GLN:HG3	2.10	0.52
58:CW:22:ALA:C	58:CW:23:ARG:O	2.38	0.52
56:CX:79:PHE:CD2	56:CX:99:ILE:HB	2.45	0.52
56:CX:89:LYS:HZ2	56:CX:97:VAL:HG23	1.73	0.52
85:A5:1361:G:H2'	85:A5:1362:G:C8	2.45	0.51
85:A5:1621:A:H5'	85:A5:2450:G:H4'	1.91	0.51
87:A8:128:C:H2'	87:A8:129:C:H5'	1.92	0.51
16:AA:119:PRO:O	16:AA:142:LEU:HD21	2.10	0.51
28:AC:124:PHE:CD2	28:AC:147:VAL:CG2	2.93	0.51
28:AC:83:LEU:CD2	28:AC:262:THR:HG21	2.40	0.51
23:AD:79:PHE:O	23:AD:80:PRO:C	2.48	0.51
27:AE:29:PRO:O	27:AE:30:ARG:HB3	2.10	0.51
27:AE:71:LYS:O	27:AE:90:ILE:HA	2.09	0.51
30:AF:124:ASP:CG	30:AF:125:SER:H	2.13	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AF:130:ARG:HB3	30:AF:135:ARG:H	1.74	0.51
30:AF:39:ILE:HG21	30:AF:113:VAL:HG23	1.92	0.51
31:AH:135:PHE:CB	31:AH:136:PRO:CD	2.88	0.51
31:AH:64:VAL:HG21	31:AH:72:PHE:CD2	2.45	0.51
33:AI:140:LYS:C	33:AI:141:ARG:HG3	2.29	0.51
33:AI:191:GLU:CG	33:AI:192:GLY:H	2.23	0.51
33:AI:73:THR:O	33:AI:74:ARG:HD2	2.09	0.51
11:AL:1:MET:O	11:AL:2:ALA:CB	2.51	0.51
10:AN:38:TYR:HE1	10:AN:78:LYS:HZ3	1.54	0.51
5:AO:27:VAL:N	5:AO:91:THR:OG1	2.43	0.51
34:AQ:130:LYS:HG2	36:B2:1669:G:H5'	1.92	0.51
12:AR:105:MET:CE	16:AA:48:ILE:HG22	2.39	0.51
18:AY:54:VAL:O	18:AY:76:TYR:N	2.42	0.51
19:AZ:44:LEU:HD13	19:AZ:45:ASN:CA	2.40	0.51
19:AZ:94:LYS:HZ3	19:AZ:95:GLY:H	1.56	0.51
36:B2:1220:A:C2	36:B2:1646:C:N4	2.77	0.51
27:AE:127:ARG:HH22	36:B2:344:U:H5''	1.75	0.51
51:CA:254:GLU:HA	51:CA:255:LYS:CB	2.40	0.51
63:CB:306:ASP:C	63:CB:306:ASP:OD1	2.48	0.51
74:CC:5:ARG:HH22	74:CC:26:ALA:CA	2.23	0.51
82:CG:73:ARG:HH22	82:CG:243:GLY:H	1.56	0.51
82:CG:62:ARG:HG2	82:CG:63:LEU:HD23	1.92	0.51
80:CH:4:ILE:O	80:CH:4:ILE:HG23	3.93	0.51
79:CJ:134:LEU:HD12	79:CJ:162:ALA:HB1	1.91	0.51
79:CJ:97:ASN:HD22	79:CJ:98:ASN:N	2.08	0.51
40:CK:123:ARG:NH1	40:CK:129:ILE:HD13	2.03	0.51
40:CK:1:MET:CA	40:CK:2:PRO:HB3	2.40	0.51
44:CM:68:ALA:CA	44:CM:69:HIS:O	2.57	0.51
46:CN:192:TRP:C	46:CN:195:ARG:HG2	2.31	0.51
41:CO:192:TYR:N	41:CO:192:TYR:CD1	2.77	0.51
54:CP:88:ALA:HA	54:CP:91:LEU:HD21	1.91	0.51
52:CS:2:LYS:HZ1	52:CS:43:ARG:HG2	1.64	0.51
53:CT:12:ARG:CG	53:CT:13:TYR:CD2	2.80	0.51
55:CU:40:GLU:HG2	55:CU:70:ILE:HG23	1.91	0.51
85:A5:1290:G:N3	85:A5:4942:C:C5	2.78	0.51
64:CF:41:MET:CE	85:A5:2121:C:C4'	2.88	0.51
74:CC:346:ASN:HB2	85:A5:723:A:H4'	1.93	0.51
85:A5:723:A:N1	85:A5:943:A:N1	2.59	0.51
16:AA:39:TYR:CD2	16:AA:40:LYS:HB2	2.46	0.51
15:AB:113:MET:HE3	15:AB:209:ASP:CG	2.15	0.51
15:AB:36:PRO:CB	15:AB:231:LEU:CD2	2.71	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:212:GLU:CD	23:AD:212:GLU:N	2.48	0.51
27:AE:99:PHE:CZ	27:AE:113:ARG:CG	2.93	0.51
31:AH:135:PHE:CD2	31:AH:136:PRO:N	2.78	0.51
31:AH:37:LYS:NZ	31:AH:38:ALA:HA	2.24	0.51
11:AL:112:HIS:CG	11:AL:134:LEU:HD11	2.45	0.51
8:AS:123:LEU:CD1	13:AP:121:ILE:CG2	2.64	0.51
13:AP:127:LYS:CE	13:AP:128:HIS:N	2.73	0.51
13:AP:49:LEU:C	13:AP:50:ARG:CG	2.75	0.51
34:AQ:55:VAL:HG22	34:AQ:63:PHE:CE2	2.45	0.51
14:AT:75:MET:HE2	14:AT:79:TYR:HE2	1.67	0.51
32:AW:38:LEU:HA	32:AW:41:MET:HE3	1.90	0.51
6:AX:17:ARG:HH22	36:B2:659:G:H21	1.58	0.51
6:AX:6:GLY:O	11:AL:101:ARG:HD2	2.10	0.51
18:AY:100:LYS:O	18:AY:100:LYS:CG	2.55	0.51
18:AY:23:MET:CE	18:AY:44:LEU:HD21	2.40	0.51
18:AY:55:ILE:HG12	18:AY:75:ILE:HD11	1.81	0.51
18:AY:29:HIS:CE1	18:AY:68:LYS:H	1.83	0.51
18:AY:87:PRO:CG	18:AY:90:ARG:HB2	2.39	0.51
36:B2:1823:A:H1'	36:B2:1824:A:O5'	2.10	0.51
31:AH:99:ARG:HB2	36:B2:913:A:C8	2.44	0.51
63:CB:338:VAL:HG22	63:CB:339:GLY:N	2.26	0.51
63:CB:40:PRO:O	63:CB:41:VAL:CG1	2.56	0.51
48:CD:119:TYR:CE1	48:CD:135:ILE:CG1	2.93	0.51
48:CD:143:THR:HG22	48:CD:172:SER:HB3	1.92	0.51
81:CE:239:LYS:HG3	85:A5:4939:C:C6	2.45	0.51
82:CG:134:PRO:O	82:CG:134:PRO:HG2	2.09	0.51
82:CG:160:ASP:O	82:CG:161:VAL:CG1	2.44	0.51
82:CG:240:ASN:C	82:CG:241:VAL:HG12	2.30	0.51
82:CG:58:PRO:CG	82:CG:61:ILE:HD12	2.40	0.51
46:CN:18:VAL:CG2	82:CG:79:ALA:HB3	2.41	0.51
80:CH:106:GLN:CG	80:CH:107:GLU:CA	2.84	0.51
80:CH:118:LEU:HD21	80:CH:177:ASP:HB2	1.91	0.51
80:CH:90:TYR:CE1	80:CH:184:LYS:HE2	2.44	0.51
40:CK:104:ILE:HD12	40:CK:140:GLY:HA3	1.92	0.51
42:CL:87:HIS:CE1	42:CL:90:VAL:CG2	2.92	0.51
41:CO:41:ILE:HD13	41:CO:138:LEU:CD2	2.40	0.51
49:CQ:25:LEU:O	49:CQ:29:VAL:HG23	2.09	0.51
50:CR:106:LEU:N	50:CR:106:LEU:HD13	2.25	0.51
50:CR:4:LEU:N	50:CR:4:LEU:HD23	2.25	0.51
52:CS:145:PHE:O	52:CS:147:ASP:O	2.27	0.51
56:CX:146:ALA:C	56:CX:149:VAL:HG12	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:CY:62:TYR:CG	57:CY:66:GLN:HG3	2.45	0.51
59:CZ:90:PRO:CD	59:CZ:91:LEU:N	2.74	0.51
85:A5:1371:A:N6	87:A8:28:C:O2'	2.43	0.51
85:A5:2670:C:O2'	85:A5:2671:C:H5'	2.11	0.51
85:A5:4548:A:OP2	85:A5:4549:G:H5''	2.10	0.51
85:A5:723:A:C2	85:A5:943:A:C2	2.98	0.51
16:AA:30:LEU:O	16:AA:31:ASP:HB2	2.11	0.51
15:AB:36:PRO:HA	15:AB:231:LEU:HD23	1.92	0.51
28:AC:76:LYS:HA	28:AC:97:PHE:CE1	2.43	0.51
31:AH:14:GLU:CD	31:AH:16:PRO:CB	2.76	0.51
31:AH:65:PRO:HG2	31:AH:68:GLN:NE2	2.25	0.51
33:AI:101:ILE:HD12	33:AI:190:LEU:HD11	1.92	0.51
33:AI:62:VAL:CG2	33:AI:75:LYS:HZ1	2.22	0.51
26:AJ:83:ARG:CZ	26:AJ:150:ARG:HH21	2.22	0.51
11:AL:44:PHE:CD2	11:AL:143:LEU:HD23	2.45	0.51
11:AL:156:GLN:OE1	11:AL:158:PHE:CZ	2.58	0.51
10:AN:84:LEU:HB2	10:AN:88:LEU:HD23	1.91	0.51
13:AP:29:SER:OG	13:AP:31:GLU:HB2	2.10	0.51
13:AP:41:GLN:OE1	13:AP:41:GLN:C	2.48	0.51
13:AP:51:ARG:O	13:AP:52:LYS:HB2	2.07	0.51
8:AS:46:ARG:CD	14:AT:50:GLU:HG2	2.40	0.51
36:B2:380:G:H8	36:B2:382:C:OP2	1.90	0.51
51:CA:118:GLU:N	51:CA:122:ASP:OD2	2.43	0.51
63:CB:115:LYS:CE	63:CB:118:PHE:HB2	2.41	0.51
63:CB:168:MET:HE3	63:CB:168:MET:CA	2.39	0.51
43:CV:93:GLY:HA2	63:CB:73:VAL:CG2	2.38	0.51
74:CC:54:VAL:CG2	74:CC:101:MET:HE1	2.40	0.51
74:CC:232:VAL:HG11	74:CC:260:LEU:HD23	1.91	0.51
74:CC:274:LYS:O	74:CC:275:SER:O	2.28	0.51
48:CD:64:ILE:HD11	48:CD:105:LEU:CD1	2.37	0.51
48:CD:232:THR:CB	48:CD:233:PRO:CD	2.89	0.51
48:CD:271:MET:O	48:CD:272:SER:C	2.47	0.51
82:CG:80:ILE:O	82:CG:81:ASN:HB2	2.09	0.51
47:CI:192:PRO:O	47:CI:193:ASP:OD1	2.28	0.51
47:CI:206:LEU:HD13	47:CI:209:TRP:HE3	1.74	0.51
47:CI:72:ALA:HB1	47:CI:87:MET:HE3	1.92	0.51
46:CN:146:PRO:HA	46:CN:149:GLN:CG	2.41	0.51
54:CP:27:LYS:C	54:CP:27:LYS:CE	6.06	0.51
49:CQ:154:LYS:CA	49:CQ:155:ALA:CB	2.81	0.51
50:CR:148:ASP:O	50:CR:152:LYS:HG2	2.10	0.51
50:CR:171:LYS:HA	50:CR:174:GLU:HB3	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CR:15:LEU:HD21	50:CR:52:ARG:HD2	1.92	0.51
50:CR:52:ARG:O	50:CR:53:LYS:CB	2.54	0.51
52:CS:15:ARG:HG3	52:CS:27:LEU:HD12	1.92	0.51
53:CT:158:PHE:CD1	53:CT:159:MET:N	2.78	0.51
57:CY:15:ARG:CG	57:CY:15:ARG:HH11	2.21	0.51
59:CZ:55:ALA:HB3	85:A5:4129:G:P	2.50	0.51
85:A5:4936:G:C2	85:A5:4938:A:N6	2.79	0.51
81:CE:74:SER:HA	85:A5:981:C:H2'	1.91	0.51
28:AC:63:VAL:HG23	28:AC:90:GLU:OE2	2.11	0.51
27:AE:130:PHE:O	27:AE:137:PRO:HA	2.10	0.51
27:AE:163:ASP:HB3	27:AE:167:GLY:O	2.09	0.51
27:AE:192:ILE:HD13	27:AE:238:LEU:HD22	1.91	0.51
30:AF:151:ILE:O	30:AF:154:LEU:HG	2.10	0.51
29:AG:157:VAL:HG11	29:AG:159:ARG:N	2.09	0.51
33:AI:79:ILE:HG23	33:AI:80:ASP:N	2.25	0.51
5:AO:43:HIS:NE2	5:AO:45:THR:CG2	2.73	0.51
34:AQ:85:ARG:CD	34:AQ:119:LEU:CD2	2.72	0.51
12:AR:95:ILE:N	12:AR:114:LEU:HD13	2.23	0.51
8:AS:64:VAL:HG23	8:AS:65:GLU:N	2.26	0.51
14:AT:75:MET:O	14:AT:79:TYR:HD2	1.93	0.51
6:AX:138:LYS:N	6:AX:139:GLU:OE2	2.44	0.51
36:B2:1568:C:N4	36:B2:1569:A:C6	2.78	0.51
36:B2:1601:A:C5'	36:B2:1602:U:C6	2.94	0.51
36:B2:1204:A:H61	36:B2:1694:U:H3	1.58	0.51
63:CB:154:LYS:HE2	63:CB:155:LYS:HE3	1.91	0.51
63:CB:92:TYR:HB3	63:CB:99:LEU:CD1	2.40	0.51
74:CC:288:ASP:N	74:CC:288:ASP:OD1	2.43	0.51
48:CD:190:PHE:CE1	48:CD:195:HIS:HB2	2.44	0.51
81:CE:54:ILE:CG2	81:CE:55:GLY:N	2.51	0.51
64:CF:20:LYS:CE	64:CF:21:LYS:HD2	2.39	0.51
82:CG:163:PRO:HB2	82:CG:166:LEU:CG	2.40	0.51
80:CH:29:GLY:N	80:CH:84:VAL:HG21	2.25	0.51
79:CJ:169:LYS:CD	79:CJ:170:TYR:CE2	2.88	0.51
13:AP:12:PHE:CE1	79:CJ:88:LYS:HE2	2.46	0.51
42:CL:77:SER:OG	42:CL:104:ASN:ND2	2.43	0.51
41:CO:185:VAL:N	44:CM:126:GLU:OE2	2.42	0.51
49:CQ:110:ARG:HG2	49:CQ:114:LEU:HD11	1.92	0.51
49:CQ:151:HIS:HE1	49:CQ:164:LYS:HD2	1.74	0.51
49:CQ:33:ARG:HG3	49:CQ:48:LEU:HD11	1.90	0.51
49:CQ:77:ASN:HB2	49:CQ:78:LYS:CE	2.40	0.51
52:CS:83:ARG:HD3	53:CT:155:PRO:C	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CT:33:ILE:C	53:CT:34:TYR:CD2	2.84	0.51
55:CU:49:VAL:N	55:CU:52:LYS:O	2.44	0.51
85:A5:4050:A:OP2	85:A5:4051:C:C5	2.64	0.51
16:AA:145:ILE:HG23	16:AA:159:ILE:HG21	1.92	0.51
16:AA:149:ASN:H	16:AA:165:ASN:HD21	1.57	0.51
15:AB:195:LYS:HE2	15:AB:195:LYS:CA	2.37	0.51
15:AB:90:ASP:CG	15:AB:91:VAL:N	2.62	0.51
28:AC:139:LEU:HD13	28:AC:139:LEU:C	2.31	0.51
28:AC:169:TYR:CZ	28:AC:176:LYS:C	2.84	0.51
28:AC:64:THR:HG23	28:AC:90:GLU:HG3	1.91	0.51
23:AD:176:LEU:C	23:AD:177:LEU:HD13	2.30	0.51
23:AD:51:LEU:HD12	23:AD:89:GLU:O	2.11	0.51
27:AE:181:CYS:SG	27:AE:225:ILE:CG2	2.99	0.51
26:AJ:72:PHE:CE1	27:AE:248:ILE:HD12	2.46	0.51
29:AG:211:LYS:O	29:AG:215:LYS:HG2	2.11	0.51
31:AH:32:MET:O	31:AH:33:ASN:HB2	2.09	0.51
33:AI:140:LYS:O	33:AI:141:ARG:CB	2.56	0.51
4:AK:1:MET:H2	4:AK:2:LEU:C	2.12	0.51
4:AK:53:LYS:CB	4:AK:58:VAL:HG13	2.41	0.51
11:AL:147:LYS:HZ3	11:AL:149:ALA:H	1.56	0.51
11:AL:40:ILE:HG23	11:AL:41:GLY:N	2.25	0.51
7:AM:124:ILE:O	7:AM:127:TYR:CE2	2.63	0.51
7:AM:52:GLN:CG	7:AM:53:ALA:N	2.62	0.51
10:AN:38:TYR:CZ	10:AN:78:LYS:HG3	2.45	0.51
5:AO:90:ILE:HG22	5:AO:124:MET:CE	2.41	0.51
5:AO:63:LYS:O	5:AO:64:ALA:CB	2.57	0.51
13:AP:39:ALA:O	13:AP:42:ARG:CG	2.56	0.51
34:AQ:45:ARG:O	34:AQ:46:THR:C	2.49	0.51
14:AT:76:THR:HA	14:AT:95:GLY:O	2.10	0.51
14:AT:77:LYS:HG3	14:AT:92:PHE:HE2	0.72	0.51
17:AV:29:HIS:NE2	28:AC:87:PRO:HA	2.24	0.51
6:AX:105:PHE:HE2	6:AX:119:ARG:N	2.06	0.51
6:AX:52:LEU:CG	6:AX:71:ARG:CB	2.88	0.51
18:AY:29:HIS:CE1	18:AY:67:GLY:HA2	2.30	0.51
36:B2:1410:C:H2'	36:B2:1411:G:C8	2.46	0.51
36:B2:1496:U:H2'	36:B2:1498:A:H8	1.74	0.51
33:AI:5:ARG:NH1	36:B2:384:U:H3	2.08	0.51
51:CA:32:VAL:HG21	51:CA:163:ARG:NH1	2.07	0.51
63:CB:81:THR:CB	63:CB:330:PHE:HA	2.40	0.51
74:CC:154:VAL:HG23	74:CC:251:ILE:HG23	1.92	0.51
74:CC:260:LEU:HD22	74:CC:264:TYR:CD2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:46:LYS:CG	74:CC:49:ARG:NH1	2.74	0.51
74:CC:54:VAL:HG13	74:CC:55:SER:H	1.54	0.51
48:CD:271:MET:HE3	48:CD:275:GLN:CG	2.40	0.51
81:CE:176:THR:HG21	81:CE:254:ASP:OD1	2.10	0.51
81:CE:219:LYS:HD3	81:CE:239:LYS:HE2	1.93	0.51
81:CE:95:PRO:HB2	81:CE:104:THR:HB	1.92	0.51
82:CG:31:LEU:H	82:CG:31:LEU:CD2	2.07	0.51
82:CG:80:ILE:O	82:CG:82:GLN:N	2.38	0.51
80:CH:89:ARG:HB2	80:CH:187:VAL:HG22	1.93	0.51
47:CI:102:MET:O	47:CI:103:LEU:O	2.29	0.51
47:CI:106:ALA:O	47:CI:108:ALA:HA	2.11	0.51
40:CK:111:ASN:HA	40:CK:114:ARG:CD	2.40	0.51
42:CL:136:LYS:CD	42:CL:138:ASP:O	2.59	0.51
41:CO:177:LEU:CB	44:CM:130:LEU:HD21	2.27	0.51
46:CN:53:TYR:CD1	46:CN:59:TYR:HB3	2.45	0.51
54:CP:124:LYS:HD2	54:CP:140:MET:HE2	1.92	0.51
49:CQ:93:GLN:O	49:CQ:94:GLU:OE2	2.29	0.51
52:CS:19:THR:O	52:CS:21:LYS:CG	2.59	0.51
53:CT:33:ILE:C	53:CT:34:TYR:HD2	2.13	0.51
55:CU:125:GLU:C	55:CU:125:GLU:CD	2.67	0.51
59:CZ:87:VAL:HG22	59:CZ:127:ASN:HD21	1.71	0.51
85:A5:676:C:H2'	85:A5:677:G:H5'	1.92	0.51
16:AA:139:TYR:O	16:AA:140:VAL:HG23	2.11	0.51
5:AO:88:LEU:HD13	15:AB:25:PHE:CD1	2.45	0.51
28:AC:207:ALA:N	28:AC:210:PRO:HG2	2.25	0.51
28:AC:84:PHE:CE1	28:AC:264:SER:CA	2.94	0.51
28:AC:265:PRO:O	28:AC:269:PHE:HD2	1.93	0.51
23:AD:24:PHE:HD2	23:AD:25:LEU:HD22	1.76	0.51
27:AE:123:LEU:HD21	27:AE:235:TRP:HB2	1.92	0.51
27:AE:207:VAL:CG1	27:AE:219:ALA:HB1	2.41	0.51
30:AF:175:ASP:OD1	30:AF:175:ASP:C	2.47	0.51
29:AG:161:PRO:CD	29:AG:161:PRO:O	2.57	0.51
27:AE:153:LEU:CD2	29:AG:216:ARG:HH12	2.20	0.51
29:AG:35:GLU:O	29:AG:36:VAL:CG2	2.58	0.51
33:AI:148:LYS:HE2	33:AI:152:ARG:HH22	1.76	0.51
7:AM:72:HIS:O	7:AM:73:GLN:HB3	2.09	0.51
7:AM:52:GLN:O	7:AM:85:LEU:HD12	2.10	0.51
34:AQ:124:PRO:HD2	34:AQ:125:ARG:H	1.75	0.51
34:AQ:50:LYS:HZ1	34:AQ:117:ARG:CG	2.23	0.51
34:AQ:6:PRO:HD2	34:AQ:6:PRO:O	2.09	0.51
12:AR:31:ASN:ND2	12:AR:55:THR:CG2	2.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AS:117:ILE:C	8:AS:118:ARG:CG	2.66	0.51
8:AS:40:TYR:O	8:AS:44:VAL:HG23	2.11	0.51
17:AV:11:LEU:HD12	17:AV:12:TYR:CG	2.38	0.51
6:AX:105:PHE:CB	6:AX:112:VAL:CG2	2.89	0.51
18:AY:20:ARG:CG	18:AY:74:MET:HE2	2.11	0.51
36:B2:1414:A:C5	36:B2:1415:C:C5	2.99	0.51
36:B2:1462:U:H3'	36:B2:1463:U:C5'	2.39	0.51
36:B2:1473:G:H2'	36:B2:1474:A:H5''	1.93	0.51
36:B2:1593:C:H2'	36:B2:1594:A:C8	2.46	0.51
36:B2:1601:A:C5'	36:B2:1602:U:C5	2.94	0.51
63:CB:311:ASP:OD1	63:CB:311:ASP:C	2.46	0.51
74:CC:253:THR:O	74:CC:256:ALA:N	2.43	0.51
74:CC:267:TRP:O	74:CC:269:LYS:N	2.44	0.51
74:CC:340:ILE:O	74:CC:343:GLN:HB2	2.10	0.51
74:CC:7:LEU:O	74:CC:8:ILE:CG1	2.58	0.51
48:CD:19:LYS:HB2	48:CD:23:ARG:HG2	1.92	0.51
48:CD:40:ASP:OD1	48:CD:41:LYS:N	2.44	0.51
64:CF:209:TRP:CD1	64:CF:210:PRO:CD	2.91	0.51
82:CG:31:LEU:HD22	82:CG:31:LEU:N	2.15	0.51
47:CI:115:MET:HE1	47:CI:118:ALA:HB1	1.92	0.51
40:CK:103:ASN:CA	40:CK:140:GLY:HA2	2.40	0.51
40:CK:16:ARG:HH12	40:CK:28:LEU:C	2.13	0.51
40:CK:46:ILE:CG2	40:CK:72:GLU:OE1	2.50	0.51
46:CN:155:VAL:O	46:CN:155:VAL:CG1	2.59	0.51
41:CO:34:VAL:HG22	41:CO:103:LYS:HB2	1.92	0.51
41:CO:63:ASN:OD1	41:CO:63:ASN:O	2.29	0.51
54:CP:33:ALA:HB1	54:CP:117:ILE:HG12	1.92	0.51
54:CP:4:TYR:OH	54:CP:18:ARG:CB	2.58	0.51
54:CP:60:PHE:CE2	54:CP:82:ARG:CB	2.71	0.51
50:CR:70:ARG:HH21	50:CR:80:LYS:HZ3	1.57	0.51
52:CS:17:LEU:O	52:CS:18:PRO:O	2.29	0.51
52:CS:2:LYS:HZ1	52:CS:43:ARG:CB	2.23	0.51
52:CS:67:VAL:O	52:CS:67:VAL:HG13	2.11	0.51
52:CS:83:ARG:NH1	52:CS:125:GLN:NE2	2.58	0.51
43:CV:110:GLY:HA3	43:CV:129:TRP:CE3	2.39	0.51
58:CW:87:LEU:C	58:CW:91:MET:SD	2.89	0.51
85:A5:2557:G:H1	85:A5:2570:U:H3	1.58	0.51
85:A5:4943:A:OP2	85:A5:4944:C:H5''	2.08	0.51
87:A8:103:A:OP2	87:A8:104:A:H2'	2.10	0.51
28:AC:70:VAL:CG1	28:AC:97:PHE:HE2	1.77	0.51
31:AH:114:GLN:O	31:AH:115:LYS:C	2.49	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AI:142:SER:CA	33:AI:143:LYS:CB	2.71	0.51
11:AL:22:ARG:NH2	33:AI:158:ILE:O	2.43	0.51
26:AJ:125:HIS:HD2	26:AJ:129:LEU:HD11	1.64	0.51
26:AJ:155:LYS:HE3	26:AJ:156:HIS:NE2	2.26	0.51
11:AL:147:LYS:NZ	11:AL:156:GLN:NE2	2.59	0.51
11:AL:1:MET:O	11:AL:2:ALA:O	2.29	0.51
11:AL:59:LYS:HB2	11:AL:112:HIS:CE1	2.46	0.51
7:AM:124:ILE:HB	7:AM:127:TYR:HE2	1.75	0.51
10:AN:116:ILE:HA	10:AN:119:GLU:HG3	1.92	0.51
10:AN:132:LYS:HD2	10:AN:132:LYS:N	2.20	0.51
5:AO:30:VAL:O	5:AO:44:VAL:HA	2.10	0.51
13:AP:83:MET:HB3	13:AP:116:LEU:HD12	1.91	0.51
34:AQ:52:LEU:C	34:AQ:54:PRO:HD2	2.29	0.51
12:AR:20:TYR:CE2	12:AR:38:ILE:CD1	2.92	0.51
8:AS:90:VAL:HG12	8:AS:91:LYS:N	2.25	0.51
14:AT:87:VAL:CG1	14:AT:88:MET:HG3	2.37	0.51
17:AV:43:THR:O	17:AV:44:GLY:O	2.29	0.51
17:AV:76:ASP:C	17:AV:77:GLY:O	2.48	0.51
6:AX:122:VAL:CG1	6:AX:130:LEU:HD11	2.40	0.51
6:AX:69:CYS:HB3	6:AX:83:ALA:O	2.11	0.51
6:AX:77:ASN:O	6:AX:79:LYS:N	2.44	0.51
18:AY:53:ASP:O	18:AY:79:LEU:CD2	2.59	0.51
51:CA:141:PRO:O	51:CA:144:LYS:HG2	2.11	0.51
51:CA:158:ILE:HG22	51:CA:159:SER:H	1.67	0.51
63:CB:331:VAL:O	63:CB:331:VAL:HG23	2.09	0.51
74:CC:11:TYR:O	74:CC:155:GLU:CB	2.58	0.51
74:CC:22:VAL:CG1	74:CC:257:PHE:CD2	2.94	0.51
48:CD:178:LYS:CG	48:CD:183:TYR:CZ	2.93	0.51
81:CE:235:THR:HG22	81:CE:236:GLU:HG2	1.91	0.51
79:CJ:15:LEU:HD23	79:CJ:165:TRP:CG	2.45	0.51
40:CK:5:PHE:CZ	40:CK:37:LEU:HD21	2.45	0.51
44:CM:89:THR:O	44:CM:93:LYS:HG3	2.10	0.51
46:CN:184:ILE:N	46:CN:186:GLY:O	2.27	0.51
49:CQ:187:LYS:HE2	49:CQ:188:ASN:CA	2.40	0.51
49:CQ:33:ARG:CZ	49:CQ:52:PHE:CZ	2.94	0.51
50:CR:39:GLN:HG2	50:CR:40:GLN:N	2.24	0.51
52:CS:71:SER:O	52:CS:76:LYS:NZ	2.37	0.51
53:CT:141:VAL:O	64:CF:80:ASN:HA	2.10	0.51
53:CT:24:VAL:HG13	53:CT:25:VAL:H	1.58	0.51
58:CW:34:ALA:CA	58:CW:37:GLU:CG	2.65	0.51
58:CW:80:ARG:HD3	58:CW:81:ALA:N	2.14	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:CX:39:LYS:CG	56:CX:40:ILE:N	2.71	0.51
57:CY:22:PRO:HD2	57:CY:25:ILE:CG1	2.41	0.51
85:A5:1237:C:H2'	85:A5:1238:A:C8	2.46	0.51
81:CE:130:LYS:HD2	85:A5:1280:C:H41	1.76	0.51
85:A5:2471:G:C2	85:A5:2473:A:C1'	2.94	0.51
85:A5:2741:U:H4'	85:A5:2742:G:C4	2.45	0.51
63:CB:239:LYS:HZ3	85:A5:3844:U:H3'	1.75	0.51
85:A5:4092:G:H2'	85:A5:4093:G:H5''	1.91	0.51
86:A7:38:U:C2	86:A7:40:U:OP2	2.64	0.51
27:AE:136:ILE:HG13	27:AE:149:TYR:CZ	2.46	0.51
30:AF:42:LYS:HB3	30:AF:46:ALA:N	2.25	0.51
30:AF:45:TYR:O	30:AF:47:LYS:HD2	1.96	0.51
29:AG:137:ARG:HG3	29:AG:140:ARG:CB	2.41	0.51
31:AH:15:LYS:O	31:AH:16:PRO:HB2	2.10	0.51
33:AI:148:LYS:HB2	33:AI:152:ARG:NH2	2.26	0.51
36:B2:71:G:H3'	36:B2:72:C:C5'	2.41	0.51
63:CB:115:LYS:HE3	63:CB:129:ALA:HB2	1.92	0.51
74:CC:32:ILE:CD1	74:CC:129:ALA:HB3	2.40	0.51
74:CC:296:PRO:CG	74:CC:297:GLU:OE1	2.57	0.51
48:CD:270:LYS:O	48:CD:271:MET:HB2	2.11	0.51
48:CD:41:LYS:CG	53:CT:93:ILE:CD1	2.79	0.51
81:CE:166:LYS:HG2	81:CE:167:GLN:H	1.76	0.51
64:CF:236:ARG:O	64:CF:237:GLU:HB2	2.11	0.51
64:CF:213:LEU:HB3	64:CF:247:MET:HB3	1.91	0.51
82:CG:113:ARG:CD	82:CG:113:ARG:O	2.44	0.51
82:CG:253:LEU:HD23	82:CG:253:LEU:C	2.31	0.51
80:CH:105:ILE:CG2	80:CH:112:VAL:N	2.70	0.51
47:CI:26:VAL:CG1	47:CI:27:PRO:CD	2.86	0.51
47:CI:36:LEU:HD11	47:CI:69:ARG:HD2	1.92	0.51
48:CD:27:LYS:CE	79:CJ:147:ARG:CZ	2.82	0.51
46:CN:65:ARG:HD3	46:CN:129:PHE:CE1	2.40	0.51
54:CP:30:ARG:CZ	54:CP:62:ARG:HH21	2.22	0.51
50:CR:101:ILE:HA	50:CR:104:ARG:HH11	1.75	0.51
53:CT:40:VAL:HG13	53:CT:97:LYS:C	2.31	0.51
57:CY:79:VAL:CG1	57:CY:80:ILE:N	2.73	0.51
85:A5:4941:G:H2'	85:A5:4942:C:O2	2.10	0.51
85:A5:656:C:H2'	85:A5:657:C:H6	1.75	0.51
16:AA:16:LEU:CB	16:AA:17:LYS:CE	2.89	0.51
15:AB:113:MET:HE3	15:AB:209:ASP:CB	2.40	0.51
28:AC:183:LYS:HE3	32:AW:95:PRO:CA	2.38	0.51
28:AC:70:VAL:HG11	28:AC:97:PHE:CD2	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:77:PHE:O	23:AD:78:GLY:C	2.50	0.51
27:AE:255:ARG:HH21	36:B2:844:U:H2'	1.75	0.51
27:AE:43:PRO:HD2	27:AE:46:ILE:HB	1.92	0.51
29:AG:147:LEU:HD21	29:AG:156:TYR:CD2	2.46	0.51
29:AG:63:MET:HE3	29:AG:106:LEU:HD22	1.92	0.51
29:AG:98:ARG:CD	29:AG:98:ARG:C	2.75	0.51
31:AH:57:ARG:HD2	31:AH:89:GLY:C	2.29	0.51
33:AI:157:LYS:O	33:AI:158:ILE:C	2.47	0.51
11:AL:8:ARG:HH11	33:AI:85:ALA:C	2.14	0.51
26:AJ:63:LEU:O	26:AJ:70:ARG:NH1	2.44	0.51
7:AM:15:ASN:OD1	7:AM:15:ASN:C	2.50	0.51
14:AT:38:LYS:O	14:AT:39:LEU:CB	2.58	0.51
18:AY:119:GLY:CA	36:B2:85:A:H5'	2.41	0.51
19:AZ:94:LYS:CD	19:AZ:95:GLY:N	2.73	0.51
36:B2:1601:A:C4'	36:B2:1602:U:C5	2.94	0.51
36:B2:1747:C:H2'	36:B2:1748:G:O4'	2.11	0.51
63:CB:199:GLU:CD	63:CB:199:GLU:O	2.49	0.51
63:CB:292:LEU:HD22	63:CB:293:ILE:HG13	1.93	0.51
63:CB:297:LYS:C	63:CB:298:LEU:CA	2.68	0.51
63:CB:334:LYS:HD3	63:CB:334:LYS:C	2.31	0.51
48:CD:111:ASN:HA	48:CD:116:ASP:HB2	1.92	0.51
48:CD:41:LYS:NZ	53:CT:30:TYR:O	2.43	0.51
81:CE:46:ARG:CZ	81:CE:47:ASN:CA	2.87	0.51
80:CH:1:MET:HG2	80:CH:1:MET:O	2.10	0.51
40:CK:2:PRO:HD2	40:CK:2:PRO:CA	2.33	0.51
42:CL:125:ILE:O	42:CL:127:PHE:CE1	2.64	0.51
46:CN:149:GLN:HE21	46:CN:150:TRP:N	2.08	0.51
41:CO:80:PHE:O	41:CO:84:VAL:HG23	2.10	0.51
41:CO:20:ALA:C	41:CO:87:MET:HE1	2.31	0.51
54:CP:4:TYR:CD1	54:CP:147:GLU:OE1	2.64	0.51
49:CQ:24:TYR:OH	74:CC:32:ILE:N	2.32	0.51
50:CR:36:ASN:O	50:CR:37:SER:CB	3.70	0.51
52:CS:98:ARG:NE	52:CS:145:PHE:HB3	2.23	0.51
52:CS:161:ARG:N	52:CS:161:ARG:CD	2.74	0.51
59:CZ:74:VAL:O	59:CZ:75:TYR:CD1	2.64	0.51
23:AD:123:LEU:O	23:AD:123:LEU:HD23	2.10	0.51
23:AD:212:GLU:CB	23:AD:213:PRO:CD	2.76	0.51
30:AF:38:TYR:CD2	30:AF:38:TYR:N	2.75	0.51
29:AG:64:LYS:C	29:AG:64:LYS:HD2	2.18	0.51
31:AH:135:PHE:CD2	31:AH:136:PRO:CD	2.91	0.51
33:AI:148:LYS:HE3	33:AI:152:ARG:HH21	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AI:43:ILE:HD12	36:B2:306:C:N4	2.26	0.51
26:AJ:90:GLY:O	26:AJ:91:LYS:O	2.29	0.51
26:AJ:78:LEU:HD11	26:AJ:93:LYS:HA	1.92	0.51
4:AK:41:PRO:O	4:AK:43:LEU:O	2.28	0.51
11:AL:17:PHE:CG	11:AL:18:GLN:N	2.79	0.51
7:AM:86:GLY:C	7:AM:91:LEU:HD11	2.31	0.51
10:AN:22:VAL:CB	10:AN:23:PRO:CA	2.63	0.51
34:AQ:12:VAL:HG21	34:AQ:91:ALA:HA	1.92	0.51
34:AQ:57:LEU:O	34:AQ:111:ILE:HG21	2.11	0.51
12:AR:44:LYS:HG3	12:AR:47:ARG:NE	2.19	0.51
3:AU:67:LYS:CG	3:AU:78:ASP:CG	2.78	0.51
18:AY:36:PRO:CG	18:AY:39:GLU:HB2	2.36	0.51
36:B2:1552:G:C6	36:B2:1578:U:C2	2.99	0.51
36:B2:304:C:H4'	36:B2:305:U:OP1	2.11	0.51
63:CB:113:GLU:HG2	63:CB:176:LYS:O	2.11	0.51
63:CB:189:THR:HG21	63:CB:192:GLU:CG	2.41	0.51
63:CB:77:THR:C	63:CB:78:ILE:CG2	2.78	0.51
74:CC:300:ARG:HD2	74:CC:301:ALA:N	2.25	0.51
48:CD:252:VAL:O	48:CD:253:TYR:C	2.34	0.51
64:CF:236:ARG:HB2	64:CF:239:GLN:HB2	1.93	0.51
80:CH:43:VAL:HG21	80:CH:73:ILE:HD13	1.93	0.51
79:CJ:57:VAL:HG12	79:CJ:60:PHE:HD2	1.76	0.51
42:CL:140:SER:C	42:CL:146:LEU:HD12	2.24	0.51
42:CL:84:ALA:HB2	42:CL:117:LEU:HD13	1.93	0.51
44:CM:8:GLU:O	44:CM:9:VAL:C	2.48	0.51
46:CN:149:GLN:O	46:CN:151:ILE:N	2.44	0.51
46:CN:151:ILE:O	46:CN:151:ILE:CG2	2.59	0.51
46:CN:169:ARG:CZ	46:CN:169:ARG:HB3	2.40	0.51
54:CP:39:MET:HE1	54:CP:43:LYS:HB3	1.93	0.51
49:CQ:69:LYS:HD2	49:CQ:69:LYS:N	2.20	0.51
52:CS:140:PRO:O	52:CS:142:VAL:N	2.44	0.51
53:CT:65:TYR:CD1	53:CT:65:TYR:C	2.84	0.51
55:CU:33:ILE:HD11	55:CU:96:LEU:CD2	2.41	0.51
56:CX:149:VAL:O	56:CX:153:ILE:HG23	2.11	0.51
85:A5:3799:A:C6	85:A5:3800:A:N1	2.79	0.50
85:A5:4751:G:C5	85:A5:4950:U:C5	2.98	0.50
16:AA:52:LYS:CB	16:AA:52:LYS:NZ	2.61	0.50
16:AA:57:LYS:CE	17:AV:70:LEU:CD2	2.88	0.50
23:AD:59:LEU:HD12	23:AD:59:LEU:C	2.25	0.50
27:AE:121:TYR:HA	27:AE:163:ASP:O	2.11	0.50
27:AE:153:LEU:HD12	27:AE:172:PHE:CZ	2.36	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AG:134:GLY:HA2	58:CW:82:ILE:CG2	2.41	0.50
29:AG:43:GLU:O	29:AG:44:GLU:C	2.46	0.50
29:AG:64:LYS:HD3	29:AG:65:GLN:O	2.10	0.50
29:AG:93:LYS:HG2	29:AG:95:LYS:HG3	1.92	0.50
26:AJ:42:GLU:OE1	26:AJ:42:GLU:HA	2.11	0.50
7:AM:98:GLY:C	7:AM:100:PRO:CD	2.74	0.50
5:AO:16:SER:CA	5:AO:87:GLU:O	2.56	0.50
34:AQ:42:ILE:HD11	34:AQ:51:LEU:HD13	1.91	0.50
14:AT:4:VAL:HG21	14:AT:135:ALA:O	2.11	0.50
17:AV:41:LYS:O	17:AV:42:VAL:C	2.50	0.50
17:AV:5:ALA:O	17:AV:7:GLU:N	2.44	0.50
51:CA:245:ARG:HH12	51:CA:247:ARG:HG3	1.74	0.50
74:CC:147:VAL:CG2	74:CC:175:LYS:CB	2.59	0.50
74:CC:231:ASN:OD1	74:CC:233:SER:N	2.41	0.50
74:CC:38:ASN:O	74:CC:42:THR:HG23	2.11	0.50
48:CD:167:VAL:HG22	48:CD:173:ILE:HB	1.92	0.50
81:CE:27:VAL:HB	81:CE:28:LYS:HG3	1.92	0.50
64:CF:137:GLU:CB	64:CF:138:PRO:HD3	2.40	0.50
47:CI:175:LYS:N	47:CI:176:PHE:CG	2.79	0.50
79:CJ:144:LYS:O	79:CJ:148:THR:CG2	2.53	0.50
40:CK:124:GLU:CB	40:CK:128:THR:HG21	2.41	0.50
40:CK:14:TYR:HE1	40:CK:16:ARG:HB3	1.75	0.50
44:CM:33:GLN:CD	80:CH:61:TRP:CD1	2.84	0.50
46:CN:115:VAL:O	46:CN:159:ARG:CZ	2.49	0.50
46:CN:79:ALA:C	46:CN:87:HIS:CD2	2.84	0.50
41:CO:49:ARG:CG	41:CO:49:ARG:HH11	2.24	0.50
49:CQ:132:LYS:NZ	74:CC:301:ALA:CB	2.74	0.50
49:CQ:172:ARG:HA	49:CQ:176:ARG:CD	2.41	0.50
49:CQ:25:LEU:HD12	49:CQ:28:LEU:CG	2.39	0.50
50:CR:106:LEU:N	50:CR:106:LEU:CD1	2.74	0.50
52:CS:82:LEU:HD21	52:CS:124:ILE:HG12	1.93	0.50
53:CT:126:VAL:HG12	53:CT:127:GLN:N	2.19	0.50
53:CT:34:TYR:N	53:CT:34:TYR:CD2	2.78	0.50
55:CU:97:ARG:C	55:CU:99:TRP:H	2.15	0.50
43:CV:109:LYS:HD3	43:CV:111:GLU:OE1	2.12	0.50
57:CY:39:ARG:NH1	57:CY:45:ARG:NH2	2.59	0.50
59:CZ:90:PRO:CD	59:CZ:91:LEU:H	2.19	0.50
85:A5:2620:G:H1	85:A5:2636:U:H3	1.59	0.50
85:A5:4881:U:H3'	85:A5:4882:U:H5''	1.93	0.50
85:A5:463:A:H61	85:A5:692:A:N6	2.09	0.50
16:AA:154:LEU:O	16:AA:154:LEU:CD1	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AA:157:VAL:HG23	16:AA:157:VAL:O	2.12	0.50
15:AB:225:LEU:HB3	15:AB:229:MET:HE1	1.93	0.50
23:AD:3:VAL:O	23:AD:4:GLN:O	2.29	0.50
27:AE:67:GLN:O	27:AE:68:ARG:CB	2.59	0.50
30:AF:72:LEU:HD23	30:AF:72:LEU:O	2.10	0.50
29:AG:188:LYS:O	29:AG:191:ARG:HG2	2.10	0.50
31:AH:164:ASN:HA	31:AH:167:GLU:CG	2.39	0.50
31:AH:61:ILE:HD13	31:AH:176:VAL:HG11	1.92	0.50
11:AL:12:LYS:CE	33:AI:194:GLU:CG	2.88	0.50
26:AJ:180:LYS:CG	26:AJ:181:GLY:N	2.56	0.50
4:AK:71:LEU:HG	4:AK:76:ILE:CD1	2.41	0.50
7:AM:51:VAL:HG13	7:AM:109:VAL:HG22	1.93	0.50
12:AR:13:ALA:HA	12:AR:54:VAL:HG21	1.89	0.50
18:AY:17:LEU:HD13	27:AE:64:ILE:CG1	2.41	0.50
34:AQ:17:LYS:CE	36:B2:1648:G:C6	2.93	0.50
36:B2:184:G:H2'	36:B2:185:G:O4'	2.10	0.50
36:B2:433:A:N1	36:B2:434:G:C6	2.79	0.50
51:CA:148:VAL:CG1	51:CA:149:LYS:N	2.74	0.50
51:CA:248:GLY:O	51:CA:250:LYS:HB3	2.11	0.50
51:CA:51:ASP:OD1	51:CA:52:PRO:HD3	2.11	0.50
63:CB:115:LYS:HE3	63:CB:129:ALA:CB	2.41	0.50
63:CB:355:THR:O	63:CB:355:THR:HG22	2.10	0.50
48:CD:44:TYR:OH	53:CT:67:VAL:CG2	2.30	0.50
81:CE:174:LEU:HD11	81:CE:186:LEU:HD22	1.92	0.50
81:CE:208:ILE:O	81:CE:210:LYS:N	2.44	0.50
81:CE:38:LYS:HZ1	81:CE:39:LYS:HZ1	1.59	0.50
82:CG:218:LEU:O	82:CG:222:ILE:HG13	2.11	0.50
82:CG:75:LYS:NZ	82:CG:240:ASN:CG	2.58	0.50
80:CH:171:ASP:CG	80:CH:173:ARG:HH11	2.14	0.50
79:CJ:110:GLN:O	79:CJ:111:GLU:O	2.29	0.50
40:CK:34:PRO:CD	40:CK:35:LEU:N	2.74	0.50
42:CL:179:PHE:CE2	42:CL:183:ARG:CG	2.94	0.50
42:CL:55:ILE:HD11	42:CL:120:TYR:CD2	2.46	0.50
44:CM:77:TRP:HA	44:CM:82:ILE:HD11	0.53	0.50
46:CN:91:GLN:HA	46:CN:91:GLN:NE2	2.25	0.50
41:CO:36:VAL:HG11	41:CO:108:ILE:HB	1.92	0.50
41:CO:22:ILE:HD13	41:CO:120:VAL:CG1	2.41	0.50
54:CP:27:LYS:CG	54:CP:63:TYR:CB	2.78	0.50
50:CR:44:LEU:HD21	50:CR:49:LEU:HD13	1.93	0.50
53:CT:152:GLU:OE1	53:CT:152:GLU:O	2.30	0.50
58:CW:109:ILE:CG2	58:CW:113:LYS:HE3	2.36	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:CW:21:TYR:CE2	58:CW:23:ARG:HB2	2.46	0.50
56:CX:69:ASN:O	56:CX:69:ASN:OD1	2.30	0.50
56:CX:76:ILE:O	56:CX:100:VAL:HG22	2.10	0.50
59:CZ:26:VAL:HG21	59:CZ:96:VAL:CG1	2.41	0.50
85:A5:2471:G:C2	85:A5:2473:A:H1'	2.46	0.50
16:AA:70:ASN:HB2	16:AA:73:ASP:OD2	2.10	0.50
15:AB:175:GLU:HG2	15:AB:193:ILE:HD11	1.91	0.50
15:AB:57:ILE:C	15:AB:59:SER:N	2.63	0.50
15:AB:93:GLY:CA	15:AB:94:LYS:HD3	2.41	0.50
28:AC:268:GLU:HG3	28:AC:269:PHE:CE2	2.46	0.50
23:AD:1:MET:O	23:AD:2:ALA:O	2.30	0.50
27:AE:212:ASP:OD2	27:AE:214:ASN:HB2	2.12	0.50
27:AE:180:LEU:CD1	27:AE:228:ILE:HG13	2.39	0.50
30:AF:162:ALA:CB	30:AF:169:ILE:HD13	2.40	0.50
29:AG:176:ILE:HG21	29:AG:179:LEU:HB2	1.94	0.50
31:AH:154:ILE:CG2	31:AH:185:VAL:CG2	2.89	0.50
33:AI:152:ARG:O	33:AI:153:LYS:CB	2.59	0.50
4:AK:3:MET:SD	4:AK:8:ARG:NE	2.84	0.50
11:AL:118:ARG:HD2	11:AL:119:ASP:N	2.20	0.50
13:AP:79:HIS:ND1	13:AP:102:PHE:CZ	2.74	0.50
8:AS:28:PHE:CZ	36:B2:1603:G:C5	2.98	0.50
16:AA:154:LEU:CD1	17:AV:63:GLY:CA	2.85	0.50
51:CA:142:GLU:O	51:CA:143:THR:C	2.50	0.50
51:CA:141:PRO:C	51:CA:143:THR:N	2.64	0.50
51:CA:22:HIS:O	51:CA:24:LYS:CE	2.59	0.50
63:CB:291:TYR:HD1	63:CB:292:LEU:CA	2.25	0.50
63:CB:292:LEU:HA	63:CB:298:LEU:HB2	1.94	0.50
63:CB:303:ALA:C	63:CB:312:LYS:NZ	2.64	0.50
58:CW:14:TYR:CE2	63:CB:380:GLN:NE2	2.78	0.50
63:CB:46:PHE:CE2	63:CB:207:VAL:HG13	2.47	0.50
48:CD:205:ALA:CA	48:CD:236:MET:SD	2.99	0.50
48:CD:58:ARG:NH1	48:CD:93:THR:CG2	2.73	0.50
79:CJ:110:GLN:O	79:CJ:111:GLU:HG2	2.10	0.50
79:CJ:87:LEU:HD21	79:CJ:166:PHE:HZ	1.56	0.50
44:CM:73:VAL:HG13	44:CM:74:ARG:N	2.27	0.50
46:CN:56:LYS:HZ2	46:CN:145:ASN:HD22	1.60	0.50
46:CN:169:ARG:CB	46:CN:169:ARG:NH2	2.71	0.50
46:CN:180:PHE:C	46:CN:184:ILE:CD1	2.79	0.50
46:CN:36:LEU:HD23	46:CN:109:HIS:CG	2.46	0.50
46:CN:44:ARG:HG3	46:CN:119:TYR:HE1	1.52	0.50
46:CN:11:TRP:CZ2	46:CN:44:ARG:NH2	2.72	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CP:118:GLN:HG2	54:CP:147:GLU:HG2	1.92	0.50
49:CQ:154:LYS:HB3	49:CQ:163:THR:CG2	2.40	0.50
49:CQ:67:ILE:HG23	49:CQ:96:PRO:HD3	1.94	0.50
50:CR:101:ILE:CA	50:CR:104:ARG:HD3	2.38	0.50
50:CR:2:SER:OG	74:CC:287:THR:C	112.05	0.50
50:CR:68:LEU:HD12	50:CR:69:ALA:H	1.66	0.50
50:CR:94:THR:CA	50:CR:97:ARG:HD2	2.41	0.50
52:CS:127:MET:O	52:CS:128:LYS:CG	2.58	0.50
59:CZ:136:PHE:CD2	59:CZ:136:PHE:N	2.78	0.50
85:A5:1370:G:H1'	85:A5:1372:A:H1'	1.94	0.50
85:A5:227:A:H2'	85:A5:228:C:O5'	2.11	0.50
85:A5:3965:A:H61	85:A5:4045:G:N2	2.10	0.50
85:A5:655:C:C3'	85:A5:656:C:H5''	2.41	0.50
82:CG:64:GLN:HE22	87:A8:149:G:H21	1.58	0.50
16:AA:111:GLN:NE2	16:AA:116:PHE:CZ	2.79	0.50
16:AA:149:ASN:N	16:AA:165:ASN:HD21	2.09	0.50
12:AR:96:ILE:HG21	16:AA:19:LEU:HD13	1.93	0.50
16:AA:44:ASP:OD1	16:AA:44:ASP:N	2.43	0.50
15:AB:72:ALA:N	15:AB:79:VAL:CG2	2.75	0.50
23:AD:162:ASP:OD1	23:AD:166:TYR:CE2	2.65	0.50
27:AE:126:VAL:HG21	27:AE:156:VAL:HA	1.91	0.50
27:AE:259:LYS:O	27:AE:260:GLN:OE1	2.30	0.50
30:AF:162:ALA:HB1	30:AF:169:ILE:HD13	1.92	0.50
29:AG:79:LYS:O	29:AG:81:HIS:CD2	2.64	0.50
31:AH:6:ALA:HA	31:AH:10:LYS:CG	2.34	0.50
11:AL:10:TYR:HE1	33:AI:193:LYS:HG3	1.77	0.50
11:AL:152:LYS:O	11:AL:154:GLN:N	2.44	0.50
7:AM:12:MET:HG3	7:AM:17:ALA:N	2.25	0.50
5:AO:44:VAL:HG11	5:AO:93:LEU:CD2	2.41	0.50
5:AO:66:ARG:HG2	5:AO:67:ASP:N	2.27	0.50
30:AF:91:ARG:CD	34:AQ:46:THR:CG2	2.89	0.50
8:AS:88:LYS:HB3	13:AP:18:ARG:NH1	2.26	0.50
14:AT:84:ARG:O	14:AT:86:GLY:N	2.45	0.50
6:AX:102:VAL:HG13	6:AX:120:PHE:HB3	1.91	0.50
6:AX:51:VAL:HG21	6:AX:94:ILE:CG2	2.41	0.50
36:B2:1330:G:HO2'	36:B2:1492:U:H5	1.60	0.50
36:B2:224:A:C2	36:B2:297:A:N6	2.79	0.50
36:B2:845:G:C2'	36:B2:846:G:C8	2.94	0.50
51:CA:120:PRO:CG	51:CA:159:SER:OG	2.59	0.50
51:CA:32:VAL:CG1	51:CA:163:ARG:HH12	2.24	0.50
63:CB:142:GLY:CA	63:CB:147:GLU:CB	2.86	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:383:GLU:CD	63:CB:383:GLU:C	2.70	0.50
74:CC:12:SER:HA	74:CC:13:GLU:OE1	2.12	0.50
74:CC:5:ARG:NH2	74:CC:26:ALA:HA	2.26	0.50
74:CC:283:LYS:HZ3	74:CC:283:LYS:HB3	1.77	0.50
48:CD:42:ASN:O	48:CD:43:LYS:HD3	2.11	0.50
81:CE:111:LYS:HB2	81:CE:113:PRO:CG	2.40	0.50
81:CE:140:LEU:CD2	81:CE:167:GLN:OE1	2.59	0.50
81:CE:38:LYS:NZ	81:CE:39:LYS:NZ	2.60	0.50
82:CG:157:ILE:CD1	82:CG:170:LEU:CB	2.89	0.50
82:CG:77:PRO:CD	82:CG:237:TRP:HZ3	2.17	0.50
82:CG:41:ILE:O	82:CG:43:GLN:OE1	2.29	0.50
80:CH:106:GLN:CG	80:CH:107:GLU:N	2.73	0.50
47:CI:104:SER:HB2	47:CI:112:GLN:HG3	1.89	0.50
40:CK:62:LEU:H	40:CK:75:PRO:HG3	1.75	0.50
42:CL:76:PHE:CE1	42:CL:117:LEU:HD21	2.46	0.50
44:CM:86:TRP:HH2	44:CM:91:TRP:CD2	2.29	0.50
46:CN:180:PHE:O	46:CN:184:ILE:HD12	2.11	0.50
46:CN:192:TRP:CA	46:CN:195:ARG:HD2	2.25	0.50
46:CN:97:SER:O	46:CN:100:SER:OG	2.17	0.50
50:CR:180:LYS:HA	50:CR:183:GLU:HB2	1.93	0.50
52:CS:146:HIS:O	52:CS:147:ASP:OD1	2.28	0.50
52:CS:159:LEU:CG	52:CS:160:ARG:N	2.74	0.50
43:CV:82:ILE:CG2	43:CV:121:VAL:CB	2.88	0.50
58:CW:15:PRO:HG2	63:CB:367:PHE:CD2	2.47	0.50
58:CW:64:SER:O	58:CW:68:GLN:HG3	2.12	0.50
56:CX:76:ILE:HD11	56:CX:104:ALA:HB3	1.87	0.50
59:CZ:76:ASN:ND2	59:CZ:78:ASN:HD22	2.10	0.50
49:CQ:55:ARG:NH1	85:A5:1350:C:C5	2.80	0.50
85:A5:4940:C:P	85:A5:4941:G:OP1	2.70	0.50
27:AE:133:THR:O	27:AE:133:THR:OG1	2.30	0.50
27:AE:192:ILE:HD11	27:AE:238:LEU:HD22	1.93	0.50
26:AJ:83:ARG:NH2	26:AJ:150:ARG:HH21	2.09	0.50
26:AJ:91:LYS:HA	26:AJ:96:TYR:CD2	2.45	0.50
6:AX:11:ARG:NE	11:AL:103:GLU:OE1	2.45	0.50
11:AL:92:TYR:CE2	11:AL:105:ARG:HB2	2.46	0.50
11:AL:20:LYS:O	11:AL:21:LYS:CB	2.45	0.50
7:AM:46:GLN:HB3	7:AM:112:LYS:HG2	1.93	0.50
13:AP:93:MET:SD	13:AP:106:GLU:HA	2.52	0.50
3:AU:47:ASN:ND2	3:AU:47:ASN:N	2.59	0.50
17:AV:42:VAL:O	17:AV:43:THR:OG1	2.30	0.50
32:AW:105:THR:O	32:AW:105:THR:HG23	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AX:102:VAL:HG11	6:AX:120:PHE:HB3	1.91	0.50
63:CB:27:GLY:HA2	63:CB:276:HIS:CD2	2.46	0.50
48:CD:119:TYR:CE1	48:CD:135:ILE:HD12	2.47	0.50
48:CD:163:LEU:O	48:CD:167:VAL:HG23	2.10	0.50
48:CD:99:TYR:CD2	48:CD:199:ILE:HG23	2.46	0.50
82:CG:206:GLN:O	82:CG:207:VAL:CB	2.59	0.50
47:CI:106:ALA:O	47:CI:107:GLY:O	2.30	0.50
47:CI:163:GLN:H	47:CI:163:GLN:CD	2.15	0.50
46:CN:66:VAL:CG1	46:CN:67:ARG:N	2.75	0.50
41:CO:191:LYS:HB3	41:CO:192:TYR:HD1	1.76	0.50
54:CP:78:TRP:HD1	54:CP:80:GLN:O	1.94	0.50
49:CQ:151:HIS:CE1	49:CQ:164:LYS:CD	2.94	0.50
49:CQ:76:GLU:O	49:CQ:77:ASN:CB	2.59	0.50
52:CS:12:VAL:HG12	52:CS:13:VAL:N	2.26	0.50
52:CS:30:MET:HE1	52:CS:47:PHE:HB2	1.89	0.50
58:CW:23:ARG:NH2	58:CW:29:PHE:HE2	2.09	0.50
58:CW:77:LYS:O	58:CW:78:PHE:CD2	2.63	0.50
57:CY:32:SER:OG	57:CY:106:ILE:CD1	2.60	0.50
74:CC:43:ASN:HD21	85:A5:1508:A:H4'	1.76	0.50
16:AA:125:THR:C	16:AA:147:LEU:HB2	2.32	0.50
28:AC:124:PHE:CD2	28:AC:147:VAL:HG22	2.47	0.50
16:AA:118:GLU:CD	28:AC:65:LYS:HE2	2.29	0.50
23:AD:46:THR:HB	23:AD:84:VAL:HG23	1.93	0.50
29:AG:102:VAL:HG11	29:AG:109:LEU:HD11	1.94	0.50
29:AG:148:SER:C	29:AG:150:GLU:H	2.14	0.50
31:AH:73:GLN:HE21	31:AH:135:PHE:HE1	1.59	0.50
11:AL:80:MET:HG3	11:AL:86:ILE:CG2	2.39	0.50
5:AO:92:ALA:HB2	5:AO:125:LYS:HB2	1.94	0.50
12:AR:122:PRO:HB3	12:AR:123:THR:HG23	1.57	0.50
8:AS:124:ARG:CD	8:AS:130:ARG:O	2.43	0.50
8:AS:139:THR:O	8:AS:140:GLY:C	2.49	0.50
8:AS:52:LEU:HD12	8:AS:52:LEU:C	2.31	0.50
14:AT:130:ASP:OD2	14:AT:131:LEU:HD23	2.11	0.50
6:AX:5:ARG:HH22	36:B2:1159:G:P	2.35	0.50
18:AY:78:SER:O	18:AY:79:LEU:C	2.48	0.50
51:CA:188:LYS:CG	51:CA:189:TYR:N	2.74	0.50
51:CA:64:ARG:O	51:CA:66:PRO:HD3	2.11	0.50
51:CA:8:GLN:NE2	51:CA:232:GLY:H	2.10	0.50
63:CB:115:LYS:CE	63:CB:129:ALA:HB3	2.40	0.50
63:CB:2:SER:O	63:CB:3:HIS:HB3	2.12	0.50
74:CC:148:PRO:HG2	74:CC:149:GLU:H	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:31:PRO:CD	74:CC:31:PRO:O	2.59	0.50
74:CC:336:ARG:HA	74:CC:339:THR:OG1	2.11	0.50
74:CC:33:ARG:NH1	74:CC:36:ILE:HD11	2.25	0.50
48:CD:164:LYS:NZ	48:CD:168:ASP:OD1	2.37	0.50
48:CD:95:TYR:C	48:CD:95:TYR:CD2	2.84	0.50
81:CE:53:GLY:CA	81:CE:63:TYR:CG	2.84	0.50
82:CG:174:CYS:HB3	82:CG:179:VAL:CG1	2.37	0.50
47:CI:169:LYS:HD3	47:CI:169:LYS:N	2.25	0.50
79:CJ:14:GLU:O	79:CJ:15:LEU:CB	2.58	0.50
40:CK:97:ASN:OD1	40:CK:98:ILE:CG1	2.55	0.50
44:CM:95:ILE:HD12	44:CM:124:LYS:HA	31.74	0.50
44:CM:25:VAL:HG11	44:CM:39:ASP:N	2.27	0.50
46:CN:64:ILE:HD12	46:CN:102:ALA:HA	1.79	0.50
46:CN:114:ARG:C	46:CN:134:LEU:HD22	2.31	0.50
46:CN:41:ARG:CA	46:CN:61:ILE:CD1	2.90	0.50
41:CO:120:VAL:C	41:CO:124:LEU:HD13	2.32	0.50
41:CO:158:GLU:O	41:CO:158:GLU:OE1	2.30	0.50
54:CP:67:VAL:CG1	54:CP:68:GLY:N	2.73	0.50
54:CP:75:GLN:HB3	54:CP:76:TRP:CE3	2.46	0.50
52:CS:17:LEU:CB	52:CS:18:PRO:HD2	2.41	0.50
52:CS:26:PRO:O	52:CS:27:LEU:O	2.30	0.50
52:CS:83:ARG:NH2	53:CT:156:TYR:HB2	2.27	0.50
43:CV:60:MET:HE3	43:CV:129:TRP:CZ2	2.46	0.50
58:CW:99:GLU:O	58:CW:101:ARG:N	2.44	0.50
58:CW:101:ARG:O	58:CW:105:ARG:HG3	2.11	0.50
58:CW:119:LYS:C	58:CW:122:SER:OG	2.46	0.50
58:CW:17:HIS:O	58:CW:18:GLY:O	2.30	0.50
43:CV:87:SER:HB3	58:CW:19:ARG:HH11	1.76	0.50
56:CX:132:GLY:C	56:CX:133:GLU:OE1	2.50	0.50
85:A5:315:G:OP2	85:A5:4355:G:P	2.69	0.50
16:AA:179:ALA:O	16:AA:183:LEU:HG	2.12	0.50
28:AC:114:LYS:NZ	28:AC:115:GLN:O	2.38	0.50
28:AC:144:SER:HB2	28:AC:149:THR:HG23	1.92	0.50
23:AD:70:THR:N	23:AD:86:LEU:HD22	2.27	0.50
23:AD:74:GLN:NE2	23:AD:75:LYS:HD3	2.22	0.50
27:AE:51:ARG:HG2	27:AE:111:VAL:CG2	2.42	0.50
31:AH:9:VAL:O	31:AH:45:ILE:HG13	2.12	0.50
33:AI:31:ARG:HH11	33:AI:31:ARG:HG3	1.76	0.50
26:AJ:110:LEU:CD1	26:AJ:135:ILE:HD12	2.42	0.50
11:AL:59:LYS:CD	11:AL:112:HIS:CD2	2.90	0.50
11:AL:136:LYS:HG2	11:AL:137:THR:N	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:17:PHE:CD1	11:AL:18:GLN:CA	2.94	0.50
11:AL:49:GLU:HA	11:AL:49:GLU:OE1	2.11	0.50
5:AO:19:PRO:HB3	15:AB:30:TRP:CE3	2.46	0.50
12:AR:123:THR:CG2	16:AA:44:ASP:N	2.73	0.50
12:AR:32:LYS:CE	12:AR:33:ARG:HE	2.19	0.50
8:AS:90:VAL:CG1	8:AS:91:LYS:HE3	2.41	0.50
14:AT:101:ARG:CG	14:AT:105:GLN:NE2	2.75	0.50
6:AX:3:LYS:O	6:AX:4:CYS:C	2.50	0.50
18:AY:98:GLU:OE1	18:AY:98:GLU:O	2.30	0.50
8:AS:136:THR:CB	36:B2:1521:C:OP2	2.59	0.50
36:B2:420:G:C5	36:B2:421:G:HI'	2.46	0.50
51:CA:241:ARG:HG3	51:CA:242:ARG:H	1.76	0.50
63:CB:383:GLU:O	63:CB:383:GLU:OE1	2.29	0.50
74:CC:28:PHE:CE1	74:CC:129:ALA:C	2.85	0.50
74:CC:158:VAL:O	74:CC:161:TYR:HD2	1.94	0.50
48:CD:99:TYR:HE1	48:CD:164:LYS:HG3	1.77	0.50
48:CD:186:GLU:O	48:CD:186:GLU:OE1	2.29	0.50
81:CE:151:ILE:C	81:CE:194:VAL:HG13	2.31	0.50
47:CI:170:LYS:HD3	47:CI:170:LYS:N	2.27	0.50
47:CI:175:LYS:O	47:CI:176:PHE:O	2.29	0.50
41:CO:124:LEU:CD2	52:CS:172:PRO:CD	2.90	0.50
41:CO:63:ASN:CG	41:CO:63:ASN:O	2.49	0.50
41:CO:74:ARG:O	41:CO:147:TRP:HB2	2.12	0.50
49:CQ:67:ILE:CD1	49:CQ:96:PRO:CD	2.89	0.50
50:CR:175:GLU:OE2	50:CR:179:ALA:CB	2.58	0.50
50:CR:81:ARG:CG	50:CR:88:ARG:CZ	2.89	0.50
52:CS:98:ARG:HH11	52:CS:145:PHE:CB	2.13	0.50
53:CT:138:ALA:C	53:CT:139:HIS:CG	2.85	0.50
55:CU:83:LEU:O	55:CU:87:THR:HG23	2.11	0.50
58:CW:106:GLU:CG	58:CW:110:ARG:HH11	1.78	0.50
58:CW:76:VAL:O	58:CW:77:LYS:CB	2.60	0.50
85:A5:150:U:O5'	85:A5:150:U:H6	1.95	0.50
40:CK:2:PRO:HG2	85:A5:2642:A:C2	182.05	0.50
16:AA:125:THR:O	16:AA:147:LEU:CD1	2.59	0.50
16:AA:98:PRO:O	16:AA:99:ILE:CG1	2.60	0.50
15:AB:120:MET:CE	15:AB:142:PHE:HZ	2.20	0.50
15:AB:99:ASN:HD22	15:AB:228:LEU:HD23	1.76	0.50
15:AB:53:GLN:CG	15:AB:56:LYS:HB2	2.41	0.50
28:AC:199:PRO:O	28:AC:202:THR:HG23	2.11	0.50
28:AC:70:VAL:HG13	28:AC:97:PHE:CD2	2.22	0.50
23:AD:164:VAL:HG13	23:AD:165:ASN:N	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:207:HIS:O	23:AD:208:VAL:CG2	2.60	0.50
23:AD:21:LEU:HD22	23:AD:25:LEU:CD2	2.42	0.50
27:AE:241:GLY:O	27:AE:244:ILE:CG1	2.58	0.50
30:AF:53:ALA:HB1	34:AQ:125:ARG:NH2	2.25	0.50
29:AG:142:ARG:NH2	29:AG:152:ASP:N	2.54	0.50
29:AG:163:ASN:O	29:AG:164:LYS:CB	2.59	0.50
31:AH:122:LEU:HD13	31:AH:123:THR:HA	1.87	0.50
11:AL:8:ARG:HA	33:AI:201:LYS:CE	2.42	0.50
26:AJ:168:GLY:O	26:AJ:169:ARG:O	2.30	0.50
4:AK:60:GLU:HG2	4:AK:69:TRP:CD1	2.46	0.50
11:AL:113:LEU:HD12	11:AL:120:VAL:HG11	1.93	0.50
7:AM:36:ARG:HD3	36:B2:1312:G:O6	2.12	0.50
7:AM:83:LYS:HG3	7:AM:103:VAL:HG12	1.94	0.50
5:AO:55:ARG:O	5:AO:81:VAL:HG22	2.12	0.50
34:AQ:7:LEU:CD2	34:AQ:8:GLN:H	2.17	0.50
12:AR:17:ILE:O	12:AR:71:ILE:HD11	2.11	0.50
8:AS:16:LEU:C	8:AS:17:ASN:OD1	2.50	0.50
8:AS:39:ARG:HH21	14:AT:38:LYS:HZ2	0.55	0.50
32:AW:86:LEU:HD11	32:AW:113:HIS:HB2	1.93	0.50
6:AX:129:SER:HG	6:AX:132:ALA:HB3	1.76	0.50
18:AY:106:GLN:O	18:AY:110:ARG:HG3	2.12	0.50
18:AY:114:MET:HG2	18:AY:124:ASN:CB	2.37	0.50
18:AY:44:LEU:CD1	18:AY:48:TYR:HD2	2.18	0.50
19:AZ:44:LEU:HD11	19:AZ:46:ASN:CG	2.32	0.50
51:CA:104:VAL:O	51:CA:107:MET:HG2	2.11	0.50
63:CB:102:PHE:O	63:CB:103:LYS:HD2	2.12	0.50
63:CB:168:MET:HE1	63:CB:171:LEU:HB2	1.91	0.50
63:CB:36:ASP:O	63:CB:37:PRO:C	3.02	0.50
74:CC:109:ARG:HE	74:CC:111:TRP:HH2	1.56	0.50
49:CQ:31:LEU:HD23	74:CC:293:LEU:HD21	1.92	0.50
74:CC:342:ARG:NE	74:CC:346:ASN:HD21	2.10	0.50
48:CD:271:MET:HA	48:CD:275:GLN:OE1	2.12	0.50
74:CC:337:ARG:HE	81:CE:51:VAL:HG22	1.77	0.50
82:CG:82:GLN:CD	82:CG:233:ILE:HG21	2.31	0.50
80:CH:111:LEU:HD23	80:CH:127:ARG:CA	2.27	0.50
80:CH:36:ARG:HD3	80:CH:38:PHE:CE1	2.47	0.50
80:CH:50:LYS:HZ2	80:CH:50:LYS:N	2.02	0.50
40:CK:14:TYR:CE2	40:CK:63:THR:CB	2.93	0.50
42:CL:62:PRO:HD2	42:CL:71:ARG:NH2	2.26	0.50
49:CQ:158:THR:HB	49:CQ:188:ASN:OXT	2.05	0.50
49:CQ:78:LYS:HB3	49:CQ:137:VAL:HG23	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CR:86:ASN:O	50:CR:86:ASN:OD1	2.30	0.50
58:CW:63:GLN:O	58:CW:64:SER:CB	2.59	0.50
56:CX:114:LYS:CD	56:CX:120:ASP:OD1	2.60	0.50
57:CY:86:GLN:O	57:CY:86:GLN:OE1	2.30	0.50
59:CZ:25:ILE:HG21	59:CZ:28:ASN:OD1	2.12	0.50
59:CZ:3:LYS:C	59:CZ:6:LYS:HE3	2.19	0.50
59:CZ:76:ASN:HD21	59:CZ:78:ASN:CG	2.15	0.50
85:A5:957:G:C6	85:A5:1284:G:H3'	2.46	0.50
85:A5:1337:A:C2	85:A5:2349:A:C2	2.99	0.50
85:A5:4691:A:H2'	85:A5:4692:A:O4'	2.12	0.50
85:A5:667:A:C2	85:A5:668:C:C5	3.00	0.50
15:AB:145:LYS:HG3	15:AB:149:GLN:HB3	1.92	0.50
28:AC:130:ILE:HD11	28:AC:155:ILE:CG2	2.30	0.50
28:AC:208:PRO:O	28:AC:211:LYS:HG3	2.12	0.50
28:AC:69:LEU:N	28:AC:273:LEU:HD22	2.27	0.50
23:AD:110:LEU:O	23:AD:110:LEU:HD23	2.12	0.50
27:AE:43:PRO:O	27:AE:43:PRO:CD	2.60	0.50
30:AF:42:LYS:O	30:AF:44:LYS:C	2.50	0.50
29:AG:188:LYS:O	29:AG:191:ARG:CG	2.60	0.50
26:AJ:93:LYS:N	26:AJ:93:LYS:HE3	2.26	0.50
4:AK:27:VAL:HA	4:AK:43:LEU:CD2	2.42	0.50
7:AM:26:LEU:HD11	7:AM:89:VAL:O	2.11	0.50
13:AP:90:VAL:HA	13:AP:107:ILE:CD1	2.42	0.50
13:AP:71:GLU:HB3	13:AP:72:LYS:HG3	1.93	0.50
34:AQ:58:LEU:CD1	34:AQ:108:ILE:CG2	2.77	0.50
14:AT:11:GLN:NE2	36:B2:1542:C:H5''	2.27	0.50
32:AW:90:GLN:CA	32:AW:102:ILE:HD12	2.40	0.50
18:AY:18:LEU:CB	18:AY:20:ARG:CZ	2.79	0.50
18:AY:22:GLN:HA	18:AY:74:MET:SD	2.52	0.50
18:AY:33:ALA:HB2	36:B2:581:U:HO2'	1.75	0.50
18:AY:61:ARG:CG	18:AY:61:ARG:NH2	2.38	0.50
18:AY:55:ILE:CD1	18:AY:75:ILE:HD11	2.41	0.50
34:AQ:128:GLU:HG3	36:B2:1648:G:H5'	1.93	0.50
36:B2:373:G:O2'	36:B2:374:G:H5'	2.11	0.50
51:CA:145:LYS:HD3	51:CA:157:VAL:HG11	1.92	0.50
74:CC:338:ASN:O	74:CC:339:THR:HG23	2.12	0.50
74:CC:345:ARG:NH1	74:CC:345:ARG:CG	2.59	0.50
48:CD:260:GLU:HG3	48:CD:261:VAL:HG23	1.94	0.50
48:CD:27:LYS:HE2	79:CJ:147:ARG:NH2	2.26	0.50
81:CE:261:ILE:CA	81:CE:267:LEU:HD23	2.40	0.50
81:CE:93:THR:C	81:CE:94:LYS:HD2	2.32	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:CF:244:ILE:HG23	64:CF:245:ARG:N	2.26	0.50
82:CG:160:ASP:OD1	82:CG:187:LYS:CE	2.59	0.50
82:CG:223:ARG:HG2	82:CG:227:ASN:HD22	1.77	0.50
40:CK:111:ASN:O	40:CK:114:ARG:HG2	2.12	0.50
40:CK:78:SER:N	40:CK:117:ARG:NH1	2.57	0.50
40:CK:126:SER:HB2	40:CK:130:LYS:CE	2.42	0.50
40:CK:114:ARG:HB3	40:CK:129:ILE:HG22	1.93	0.50
40:CK:14:TYR:CE1	40:CK:16:ARG:HB3	2.47	0.50
40:CK:1:MET:H2	40:CK:2:PRO:HD3	1.76	0.50
42:CL:143:GLU:OE1	42:CL:146:LEU:CD1	2.60	0.50
46:CN:8:GLN:HG2	46:CN:50:ARG:CZ	2.42	0.50
46:CN:77:LYS:CD	46:CN:77:LYS:C	2.64	0.50
41:CO:149:TYR:CG	63:CB:96:PRO:O	2.65	0.50
49:CQ:25:LEU:C	49:CQ:28:LEU:HG	2.30	0.50
52:CS:158:VAL:CG2	52:CS:159:LEU:N	2.75	0.50
53:CT:150:LEU:O	53:CT:151:LEU:HA	2.12	0.50
53:CT:25:VAL:HG13	53:CT:26:PRO:CD	2.39	0.50
53:CT:72:VAL:N	53:CT:91:VAL:O	2.36	0.50
55:CU:107:LYS:H	55:CU:107:LYS:CE	2.25	0.50
55:CU:38:ASN:O	55:CU:41:GLN:HB3	2.12	0.50
43:CV:60:MET:HE1	43:CV:129:TRP:HH2	1.77	0.50
56:CX:77:ILE:CD1	56:CX:113:VAL:CG2	2.90	0.50
57:CY:110:LYS:HB3	57:CY:115:ARG:HH12	0.33	0.50
59:CZ:4:PHE:C	59:CZ:6:LYS:CD	2.78	0.50
85:A5:1359:G:C6	85:A5:1360:G:C6	2.99	0.49
85:A5:3952:A:H61	85:A5:4060:U:H3	1.59	0.49
81:CE:219:LYS:CE	85:A5:4940:C:OP2	2.60	0.49
86:A7:62:U:O2'	86:A7:64:G:C8	2.64	0.49
16:AA:149:ASN:HB2	16:AA:165:ASN:OD1	2.12	0.49
16:AA:18:PHE:CZ	16:AA:55:TRP:CE3	3.00	0.49
15:AB:68:GLU:CD	15:AB:83:LYS:HE2	2.32	0.49
17:AV:16:LYS:NZ	28:AC:258:GLU:HA	2.27	0.49
28:AC:274:VAL:O	28:AC:275:LYS:O	2.30	0.49
23:AD:141:LYS:HE3	23:AD:179:GLN:HE21	1.76	0.49
23:AD:21:LEU:HD22	23:AD:25:LEU:HD21	1.94	0.49
23:AD:35:SER:C	23:AD:99:ILE:HD11	2.29	0.49
33:AI:154:LYS:HD3	33:AI:155:ASN:HA	1.94	0.49
11:AL:40:ILE:CG1	11:AL:68:ILE:HG13	2.41	0.49
10:AN:38:TYR:CD1	10:AN:78:LYS:CG	2.95	0.49
10:AN:38:TYR:CE2	10:AN:78:LYS:HG3	2.47	0.49
13:AP:4:VAL:N	13:AP:10:ARG:CD	2.51	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AS:72:GLN:HG2	8:AS:72:GLN:O	2.11	0.49
8:AS:89:ASP:O	8:AS:90:VAL:CG2	2.61	0.49
3:AU:108:PRO:O	3:AU:110:VAL:CG2	2.53	0.49
32:AW:17:ALA:HB2	32:AW:25:VAL:HG12	1.92	0.49
32:AW:27:ILE:HG13	32:AW:61:ILE:HB	1.93	0.49
6:AX:105:PHE:CE2	6:AX:118:VAL:C	2.86	0.49
19:AZ:102:LYS:HA	19:AZ:107:VAL:CA	2.40	0.49
36:B2:1417:C:C6	36:B2:1417:C:H3'	2.47	0.49
36:B2:1518:C:P	36:B2:1519:U:H2'	2.52	0.49
34:AQ:140:ARG:CB	36:B2:1644:C:H4'	2.42	0.49
36:B2:689:U:C6	36:B2:742:U:N3	2.79	0.49
74:CC:211:TYR:HE2	74:CC:229:LEU:HB2	1.77	0.49
74:CC:296:PRO:HD3	74:CC:297:GLU:OE1	2.06	0.49
81:CE:174:LEU:HD11	81:CE:186:LEU:CD2	2.42	0.49
81:CE:264:ILE:CG2	81:CE:265:PRO:CD	2.89	0.49
46:CN:28:TRP:HZ2	82:CG:66:GLN:OE1	1.95	0.49
80:CH:15:ASN:HB3	80:CH:30:PRO:HD3	1.94	0.49
47:CI:60:LEU:C	47:CI:126:VAL:HG13	2.33	0.49
79:CJ:141:ILE:HD11	86:A7:55:A:N3	2.27	0.49
40:CK:33:GLY:N	40:CK:34:PRO:HD3	2.26	0.49
42:CL:130:LYS:HB2	42:CL:131:PRO:CD	2.39	0.49
42:CL:59:VAL:HG11	85:A5:74:G:C5'	2.42	0.49
46:CN:146:PRO:O	46:CN:147:ASP:C	2.49	0.49
41:CO:66:PRO:HG2	85:A5:4587:G:H5'	1.94	0.49
49:CQ:99:LYS:CE	49:CQ:121:LEU:HD11	2.40	0.49
49:CQ:146:ARG:NH1	49:CQ:149:TYR:CD2	2.80	0.49
49:CQ:159:PRO:O	49:CQ:160:HIS:CB	2.60	0.49
49:CQ:187:LYS:HZ1	49:CQ:188:ASN:ND2	2.07	0.49
49:CQ:93:GLN:O	49:CQ:94:GLU:OE1	2.29	0.49
52:CS:164:LYS:HZ2	52:CS:164:LYS:HA	1.76	0.49
55:CU:24:ASP:CB	55:CU:111:GLU:HG2	2.41	0.49
43:CV:88:TYR:O	43:CV:95:PHE:HA	2.11	0.49
85:A5:1079:C:H42	85:A5:1221:G:H1	1.57	0.49
85:A5:418:A:H4'	85:A5:2311:C:H5'	1.94	0.49
87:A8:110:U:O2'	87:A8:112:G:H5'	2.12	0.49
16:AA:125:THR:C	16:AA:147:LEU:CB	2.79	0.49
16:AA:29:ASN:O	16:AA:151:ASP:HB3	2.12	0.49
16:AA:208:GLU:HG2	16:AA:209:GLU:N	2.27	0.49
16:AA:39:TYR:HB2	16:AA:50:ASN:HD22	1.72	0.49
12:AR:102:THR:HG22	16:AA:48:ILE:HG12	1.93	0.49
15:AB:71:LEU:CB	15:AB:84:PHE:HE2	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:18:LYS:C	23:AD:18:LYS:CD	2.78	0.49
27:AE:11:ARG:CZ	27:AE:20:LEU:HB3	2.42	0.49
29:AG:64:LYS:CD	29:AG:65:GLN:C	2.80	0.49
31:AH:83:LEU:HD21	31:AH:92:VAL:CG1	2.38	0.49
4:AK:46:MET:HA	4:AK:69:TRP:HH2	1.74	0.49
7:AM:51:VAL:HG13	7:AM:109:VAL:HG23	1.94	0.49
10:AN:114:ARG:CD	10:AN:117:LEU:HD12	2.42	0.49
10:AN:22:VAL:HB	10:AN:23:PRO:C	2.32	0.49
17:AV:12:TYR:CE1	17:AV:14:PRO:HG3	2.46	0.49
18:AY:76:TYR:CD1	18:AY:82:ALA:HA	2.47	0.49
36:B2:126:G:O2'	36:B2:127:C:H5	1.95	0.49
8:AS:82:TRP:HB3	36:B2:1567:G:C6	2.47	0.49
51:CA:221:LYS:O	51:CA:222:PRO:O	2.30	0.49
63:CB:165:HIS:HB3	63:CB:180:LEU:HG	1.94	0.49
63:CB:49:TYR:CD2	63:CB:171:LEU:CD1	2.94	0.49
74:CC:128:LEU:CD2	74:CC:240:LEU:HD13	2.42	0.49
74:CC:147:VAL:HG12	74:CC:152:LEU:HD13	1.93	0.49
74:CC:190:ARG:HA	74:CC:202:ILE:CD1	2.42	0.49
74:CC:25:PRO:O	74:CC:27:VAL:N	2.40	0.49
74:CC:29:LYS:O	74:CC:30:ALA:O	2.30	0.49
74:CC:56:GLU:OE1	74:CC:56:GLU:O	2.30	0.49
48:CD:188:LYS:O	48:CD:189:GLU:HB2	2.09	0.49
48:CD:268:ARG:NE	48:CD:268:ARG:HA	2.14	0.49
81:CE:188:ARG:NH1	85:A5:4940:C:O2'	2.45	0.49
81:CE:245:GLN:O	81:CE:245:GLN:OE1	2.30	0.49
81:CE:46:ARG:NH1	81:CE:47:ASN:CA	2.75	0.49
64:CF:228:VAL:HG23	64:CF:229:GLU:N	2.27	0.49
64:CF:56:HIS:NE2	64:CF:60:GLU:OE2	2.44	0.49
82:CG:175:ARG:HH12	82:CG:176:LYS:HA	1.64	0.49
40:CK:50:THR:CB	40:CK:72:GLU:O	2.61	0.49
40:CK:64:ILE:HB	40:CK:71:ILE:HB	1.94	0.49
46:CN:182:HIS:O	46:CN:183:THR:OG1	2.30	0.49
46:CN:31:ARG:HH11	46:CN:31:ARG:CB	2.24	0.49
41:CO:36:VAL:HG12	41:CO:37:ARG:N	2.25	0.49
41:CO:62:MET:H	41:CO:69:GLY:HA3	1.77	0.49
49:CQ:85:THR:CG2	49:CQ:104:ARG:CB	2.83	0.49
49:CQ:57:ASN:C	49:CQ:59:PRO:HD3	2.31	0.49
49:CQ:91:ARG:O	49:CQ:93:GLN:NE2	2.46	0.49
49:CQ:97:LYS:O	49:CQ:98:LEU:O	2.30	0.49
52:CS:153:PRO:O	52:CS:155:PRO:CG	2.58	0.49
55:CU:34:MET:CE	55:CU:39:PHE:CD2	2.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:CV:89:ARG:CD	43:CV:95:PHE:CZ	2.94	0.49
85:A5:1755:C:OP1	85:A5:1756:U:C5	2.66	0.49
85:A5:3783:A:C2	85:A5:3792:G:C4	3.00	0.49
15:AB:119:THR:HB	15:AB:143:THR:CG2	2.42	0.49
15:AB:82:ARG:NH1	15:AB:191:ASP:OD1	2.45	0.49
15:AB:228:LEU:CD1	15:AB:232:HIS:CD2	2.94	0.49
28:AC:114:LYS:C	28:AC:114:LYS:HD2	2.29	0.49
30:AF:182:LYS:HZ3	30:AF:182:LYS:CB	2.24	0.49
29:AG:163:ASN:O	29:AG:163:ASN:OD1	2.30	0.49
31:AH:146:VAL:CG2	32:AW:50:PHE:CD1	2.89	0.49
31:AH:45:ILE:O	31:AH:45:ILE:HG13	2.11	0.49
31:AH:66:VAL:HG21	31:AH:97:GLN:O	2.12	0.49
33:AI:117:TYR:HE1	33:AI:155:ASN:HD21	1.60	0.49
26:AJ:143:ASN:O	26:AJ:143:ASN:CG	2.49	0.49
7:AM:92:CYS:CB	7:AM:101:ARG:HG3	2.37	0.49
10:AN:26:LEU:CD2	10:AN:66:VAL:HG22	2.42	0.49
34:AQ:116:ASP:CG	34:AQ:117:ARG:N	2.65	0.49
8:AS:90:VAL:HG12	8:AS:91:LYS:CE	2.42	0.49
14:AT:31:PRO:HG3	14:AT:102:ARG:CG	2.41	0.49
14:AT:59:SER:O	14:AT:62:ARG:HG2	2.11	0.49
3:AU:62:ARG:HD2	3:AU:79:ARG:HD3	1.94	0.49
32:AW:27:ILE:HD11	32:AW:61:ILE:HD12	1.93	0.49
32:AW:38:LEU:HD23	32:AW:41:MET:HE1	1.94	0.49
36:B2:1354:G:H8	36:B2:1354:G:H5''	1.78	0.49
63:CB:20:LYS:HG3	63:CB:21:ARG:N	2.26	0.49
63:CB:321:VAL:HG23	63:CB:373:LYS:HB2	1.94	0.49
63:CB:60:VAL:HG21	63:CB:72:VAL:CG1	2.42	0.49
41:CO:149:TYR:CE2	63:CB:96:PRO:O	2.65	0.49
74:CC:54:VAL:CG2	74:CC:101:MET:HE2	2.43	0.49
74:CC:317:ASN:O	74:CC:318:PRO:O	2.30	0.49
48:CD:282:GLN:HA	48:CD:285:ALA:HB3	1.94	0.49
81:CE:223:ARG:CB	81:CE:233:PHE:HE1	2.21	0.49
81:CE:70:LYS:CG	81:CE:70:LYS:O	2.58	0.49
64:CF:240:ILE:HG23	64:CF:241:ASN:N	2.26	0.49
82:CG:100:HIS:HE1	82:CG:103:ARG:HD2	1.77	0.49
82:CG:117:ARG:CD	82:CG:130:THR:HG21	2.42	0.49
82:CG:82:GLN:OE1	82:CG:233:ILE:HB	2.12	0.49
47:CI:103:LEU:O	47:CI:104:SER:OG	2.29	0.49
40:CK:143:VAL:O	40:CK:145:GLY:N	2.45	0.49
40:CK:53:TRP:O	40:CK:54:LYS:HB2	2.11	0.49
44:CM:120:ASN:HA	44:CM:123:ILE:HG22	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:53:MET:HE2	49:CQ:57:ASN:O	2.12	0.49
55:CU:107:LYS:O	55:CU:108:GLU:HB2	2.12	0.49
55:CU:33:ILE:CG1	55:CU:96:LEU:HD21	2.42	0.49
85:A5:1359:G:C8	85:A5:1359:G:O4'	2.65	0.49
80:CH:71:ARG:CG	85:A5:4691:A:H4'	2.41	0.49
16:AA:158:ASP:OD2	17:AV:34:MET:HG3	2.12	0.49
16:AA:32:PHE:CE1	16:AA:33:GLN:CD	2.85	0.49
15:AB:87:ILE:HG23	15:AB:101:HIS:HB2	1.94	0.49
23:AD:178:ARG:H	23:AD:178:ARG:HE	1.59	0.49
27:AE:153:LEU:CD1	27:AE:172:PHE:HZ	1.94	0.49
27:AE:188:ASN:ND2	27:AE:218:PHE:CD1	2.80	0.49
30:AF:103:LEU:CD2	30:AF:103:LEU:C	4.22	0.49
29:AG:170:ARG:HD2	29:AG:171:THR:O	2.13	0.49
29:AG:221:LYS:HA	29:AG:224:ARG:HG3	1.92	0.49
33:AI:139:LYS:CD	33:AI:145:ILE:HD12	2.43	0.49
26:AJ:82:VAL:HG13	26:AJ:92:MET:HE3	1.93	0.49
4:AK:37:ASP:C	4:AK:38:LYS:HD3	2.33	0.49
11:AL:118:ARG:NH1	11:AL:119:ASP:OD2	2.43	0.49
7:AM:82:ASN:HD22	7:AM:107:SER:HA	1.77	0.49
7:AM:79:VAL:CG1	7:AM:80:ASP:H	2.25	0.49
10:AN:19:ARG:HB3	31:AH:138:GLU:CD	2.22	0.49
10:AN:37:ILE:HD11	10:AN:63:VAL:HG11	1.95	0.49
10:AN:47:PRO:HG3	10:AN:75:LEU:HD22	1.93	0.49
5:AO:130:GLU:CD	15:AB:83:LYS:HZ1	2.15	0.49
5:AO:47:LEU:C	15:AB:67:PHE:HD1	2.10	0.49
34:AQ:112:LEU:CB	34:AQ:120:LEU:HD21	2.42	0.49
17:AV:31:SER:CB	17:AV:31:SER:C	2.76	0.49
36:B2:1334:G:C5	36:B2:1498:A:C2	2.99	0.49
36:B2:1496:U:O2'	36:B2:1498:A:O5'	2.25	0.49
51:CA:179:ILE:HD11	51:CA:188:LYS:HZ1	1.77	0.49
51:CA:189:TYR:CE1	51:CA:195:CYS:SG	3.04	0.49
74:CC:5:ARG:NH2	74:CC:26:ALA:HB2	2.27	0.49
48:CD:105:LEU:HD12	48:CD:105:LEU:C	3.23	0.49
81:CE:106:VAL:CG2	81:CE:108:LYS:N	2.76	0.49
81:CE:219:LYS:CD	81:CE:239:LYS:HE2	2.42	0.49
81:CE:55:GLY:HA2	81:CE:62:MET:CG	2.42	0.49
81:CE:55:GLY:HA2	81:CE:62:MET:SD	2.53	0.49
64:CF:93:ILE:HD11	64:CF:244:ILE:CD1	2.42	0.49
80:CH:183:GLU:OE2	80:CH:184:LYS:C	2.50	0.49
47:CI:191:ILE:CG2	47:CI:192:PRO:HD2	2.38	0.49
47:CI:30:LYS:CA	47:CI:30:LYS:CE	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CK:103:ASN:HA	40:CK:140:GLY:HA2	1.94	0.49
40:CK:114:ARG:CZ	40:CK:130:LYS:HB3	2.43	0.49
42:CL:46:ILE:HG21	42:CL:51:ALA:HB3	1.95	0.49
42:CL:51:ALA:O	42:CL:52:SER:O	2.29	0.49
44:CM:25:VAL:HB	44:CM:38:VAL:CG1	2.43	0.49
46:CN:99:GLN:CD	46:CN:130:PHE:CE1	2.86	0.49
41:CO:130:LYS:O	41:CO:133:ARG:HG2	2.12	0.49
50:CR:105:LEU:HD21	50:CR:109:TYR:CZ	2.47	0.49
50:CR:44:LEU:CD2	50:CR:49:LEU:CB	2.86	0.49
52:CS:83:ARG:CD	52:CS:92:ASN:HD21	2.22	0.49
58:CW:109:ILE:O	58:CW:113:LYS:CE	2.57	0.49
58:CW:59:HIS:HB3	58:CW:61:LYS:HE2	1.95	0.49
56:CX:41:ARG:CZ	56:CX:46:PHE:CE1	2.94	0.49
57:CY:80:ILE:HG12	57:CY:99:ILE:O	2.12	0.49
85:A5:3798:U:H2'	85:A5:3800:A:OP2	2.12	0.49
86:A7:47:G:C2'	86:A7:48:G:H5'	2.43	0.49
16:AA:180:ARG:NH1	16:AA:184:ARG:HH22	2.10	0.49
28:AC:198:ALA:CB	28:AC:223:TYR:CE2	2.94	0.49
28:AC:198:ALA:HB2	28:AC:223:TYR:CE2	2.47	0.49
23:AD:135:GLU:HG2	23:AD:187:LYS:HB3	1.94	0.49
29:AG:162:LEU:O	29:AG:162:LEU:CD1	2.49	0.49
33:AI:144:LYS:HD3	33:AI:144:LYS:H	1.78	0.49
33:AI:150:ASP:C	33:AI:150:ASP:OD2	2.50	0.49
4:AK:16:PHE:CE2	4:AK:79:LEU:CA	2.88	0.49
11:AL:69:ARG:O	11:AL:130:GLU:HB3	2.13	0.49
10:AN:26:LEU:CD2	10:AN:66:VAL:CG2	2.89	0.49
13:AP:10:ARG:O	13:AP:11:THR:O	2.30	0.49
8:AS:124:ARG:CG	13:AP:123:TYR:OH	2.57	0.49
13:AP:49:LEU:H	13:AP:51:ARG:HG3	1.76	0.49
34:AQ:112:LEU:HD12	34:AQ:120:LEU:HD21	1.94	0.49
12:AR:95:ILE:HA	12:AR:114:LEU:HB3	1.95	0.49
12:AR:34:VAL:HG12	12:AR:38:ILE:HG12	1.94	0.49
8:AS:8:LYS:CA	8:AS:9:PHE:CD1	2.95	0.49
17:AV:57:GLY:O	17:AV:61:ARG:HG3	2.13	0.49
18:AY:101:LYS:O	18:AY:102:THR:OG1	2.29	0.49
18:AY:19:GLN:CD	18:AY:85:ASN:HD21	2.13	0.49
19:AZ:94:LYS:NZ	19:AZ:95:GLY:N	2.56	0.49
36:B2:1409:A:C2	36:B2:1410:C:C4	3.00	0.49
36:B2:1746:U:O2'	36:B2:1747:C:C5'	2.58	0.49
36:B2:464:A:C4'	36:B2:465:A:OP2	2.57	0.49
51:CA:104:VAL:CA	51:CA:107:MET:HE2	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CA:230:PRO:O	51:CA:231:ALA:O	2.30	0.49
51:CA:242:ARG:HG2	51:CA:243:THR:N	2.21	0.49
63:CB:92:TYR:CE2	63:CB:101:THR:HB	2.47	0.49
63:CB:113:GLU:O	63:CB:178:ALA:HB2	2.09	0.49
63:CB:115:LYS:HZ1	63:CB:119:TYR:HD2	1.61	0.49
63:CB:39:LYS:O	63:CB:187:GLY:HA2	2.12	0.49
74:CC:214:ASP:OD2	74:CC:214:ASP:O	2.30	0.49
74:CC:122:TYR:CE1	74:CC:280:PRO:HG2	2.42	0.49
74:CC:345:ARG:N	74:CC:345:ARG:HD3	2.27	0.49
48:CD:261:VAL:HG12	48:CD:263:LYS:HB2	1.94	0.49
48:CD:83:LEU:HB3	48:CD:88:VAL:HB	1.94	0.49
64:CF:232:ASP:O	64:CF:233:ALA:HB3	2.12	0.49
64:CF:87:PRO:HG3	64:CF:144:TYR:CE2	2.47	0.49
82:CG:236:HIS:CD2	82:CG:237:TRP:O	2.65	0.49
80:CH:18:ILE:CG1	80:CH:55:LEU:HD11	2.41	0.49
47:CI:184:MET:O	47:CI:189:CYS:HB2	2.13	0.49
79:CJ:26:VAL:HB	79:CJ:68:ILE:O	2.13	0.49
44:CM:42:CYS:C	44:CM:44:GLN:H	2.15	0.49
46:CN:150:TRP:CZ2	46:CN:151:ILE:CG1	2.96	0.49
41:CO:68:ARG:HH22	85:A5:4564:A:H5''	1.76	0.49
52:CS:33:PHE:CE1	52:CS:126:ILE:HG21	2.48	0.49
52:CS:98:ARG:CD	52:CS:145:PHE:CD1	2.96	0.49
57:CY:39:ARG:NH1	57:CY:45:ARG:HH21	2.10	0.49
59:CZ:18:TYR:O	59:CZ:21:ARG:HB2	2.12	0.49
85:A5:2347:A:C2	85:A5:2348:G:N2	2.80	0.49
85:A5:2849:A:H61	85:A5:2857:A:H61	1.61	0.49
85:A5:4881:U:O2'	85:A5:4882:U:OP1	2.31	0.49
85:A5:4942:C:H5''	85:A5:4943:A:P	2.52	0.49
87:A8:19:C:H2'	87:A8:20:A:O4'	2.13	0.49
15:AB:146:ARG:NH1	15:AB:146:ARG:CG	2.72	0.49
15:AB:53:GLN:C	15:AB:55:THR:N	2.63	0.49
23:AD:220:THR:O	23:AD:221:THR:O	2.30	0.49
27:AE:129:ILE:HG23	27:AE:139:LEU:CD2	2.43	0.49
29:AG:154:ARG:HG2	29:AG:155:GLN:N	2.28	0.49
31:AH:149:ASP:O	31:AH:149:ASP:OD1	2.31	0.49
33:AI:140:LYS:CD	33:AI:141:ARG:N	2.72	0.49
33:AI:144:LYS:CD	33:AI:144:LYS:N	2.75	0.49
33:AI:7:ASN:C	33:AI:9:HIS:N	2.59	0.49
26:AJ:89:GLU:C	26:AJ:91:LYS:O	2.50	0.49
7:AM:33:ARG:NH1	7:AM:33:ARG:HG3	2.21	0.49
5:AO:71:PRO:HB3	5:AO:114:SER:HB3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AO:34:PHE:HE1	5:AO:99:ALA:C	2.15	0.49
12:AR:98:VAL:HG11	12:AR:103:LYS:N	2.27	0.49
8:AS:141:ARG:HB3	36:B2:1523:C:OP2	2.13	0.49
14:AT:78:ILE:HG23	14:AT:79:TYR:N	2.27	0.49
3:AU:73:GLY:C	3:AU:74:SER:O	2.50	0.49
32:AW:101:PHE:HD2	32:AW:129:PHE:CE1	2.28	0.49
36:B2:1231:C:H2'	36:B2:1232:U:C6	2.47	0.49
33:AI:25:ARG:CZ	36:B2:433:A:OP1	2.57	0.49
63:CB:159:VAL:HG11	63:CB:184:GLN:NE2	2.26	0.49
74:CC:128:LEU:HD23	74:CC:240:LEU:CD2	2.42	0.49
74:CC:218:ILE:O	74:CC:229:LEU:HD11	2.12	0.49
74:CC:5:ARG:CA	74:CC:24:LEU:CD1	2.79	0.49
74:CC:32:ILE:HD11	74:CC:129:ALA:CB	2.43	0.49
48:CD:131:ASN:O	48:CD:133:GLU:OE2	2.31	0.49
82:CG:106:THR:C	82:CG:107:LYS:HE2	2.32	0.49
82:CG:157:ILE:HD13	82:CG:170:LEU:CB	2.42	0.49
47:CI:112:GLN:O	47:CI:113:THR:OG1	2.30	0.49
79:CJ:64:ARG:O	79:CJ:65:ASN:HB2	2.13	0.49
13:AP:10:ARG:O	79:CJ:91:GLU:CG	2.61	0.49
42:CL:140:SER:CA	42:CL:143:GLU:HG3	2.31	0.49
42:CL:164:GLU:O	42:CL:165:LYS:C	2.44	0.49
42:CL:8:MET:SD	49:CQ:168:ARG:HB2	2.52	0.49
44:CM:66:HIS:CD2	52:CS:148:SER:HG	2.30	0.49
42:CL:21:ARG:C	46:CN:197:THR:HG22	2.32	0.49
52:CS:132:ILE:CG2	52:CS:136:LYS:HB2	2.43	0.49
43:CV:61:VAL:CG1	43:CV:62:MET:N	2.75	0.49
58:CW:4:GLU:HA	58:CW:4:GLU:OE2	2.12	0.49
56:CX:52:LEU:HD13	56:CX:53:ARG:C	2.32	0.49
56:CX:52:LEU:HD13	56:CX:53:ARG:CA	2.42	0.49
56:CX:81:LEU:HB2	56:CX:97:VAL:CG1	2.42	0.49
85:A5:3798:U:C2	85:A5:3801:U:C5	3.01	0.49
85:A5:5056:A:H2'	85:A5:5057:C:C6	2.47	0.49
85:A5:417:G:N2	87:A8:16:G:C5	2.81	0.49
28:AC:211:LYS:HG3	28:AC:212:LYS:N	2.28	0.49
28:AC:69:LEU:CD2	28:AC:269:PHE:CB	2.88	0.49
27:AE:45:ILE:HG13	27:AE:61:VAL:HG21	1.94	0.49
29:AG:162:LEU:CD2	29:AG:170:ARG:HG3	2.43	0.49
31:AH:122:LEU:CD1	31:AH:123:THR:CA	2.71	0.49
31:AH:126:HIS:NE2	31:AH:181:THR:HG22	2.28	0.49
31:AH:190:PRO:HG2	31:AH:192:PHE:CE1	2.47	0.49
26:AJ:84:ILE:HG13	26:AJ:86:VAL:CG2	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AJ:87:LEU:HD12	26:AJ:88:ASP:H	1.77	0.49
7:AM:76:LEU:C	7:AM:128:PHE:HZ	2.15	0.49
7:AM:93:LYS:N	7:AM:101:ARG:HD3	2.28	0.49
5:AO:72:TYR:HB3	30:AF:135:ARG:NH2	2.04	0.49
13:AP:14:LYS:HB2	13:AP:15:PHE:H	1.33	0.49
34:AQ:124:PRO:HG2	34:AQ:125:ARG:N	2.28	0.49
34:AQ:50:LYS:CE	34:AQ:85:ARG:NH2	2.72	0.49
12:AR:22:THR:CG2	12:AR:73:LEU:CD1	2.72	0.49
8:AS:80:PRO:CB	8:AS:82:TRP:NE1	2.75	0.49
17:AV:9:VAL:HG12	17:AV:10:ASP:HA	1.95	0.49
6:AX:52:LEU:CD1	6:AX:53:GLU:CB	2.88	0.49
6:AX:5:ARG:O	32:AW:77:PRO:CD	2.54	0.49
6:AX:70:VAL:HG12	6:AX:71:ARG:N	2.27	0.49
6:AX:96:GLU:O	6:AX:97:ASN:HB2	2.12	0.49
36:B2:1602:U:O2'	36:B2:1603:G:H5'	2.13	0.49
51:CA:104:VAL:CA	51:CA:107:MET:CE	2.82	0.49
63:CB:17:LEU:HD22	63:CB:19:ARG:HG2	1.90	0.49
74:CC:54:VAL:HG21	74:CC:101:MET:CE	2.42	0.49
74:CC:217:ILE:CD1	74:CC:221:PHE:CE1	2.95	0.49
74:CC:40:VAL:O	74:CC:44:LEU:CG	2.59	0.49
48:CD:47:PRO:CB	48:CD:66:TYR:HD1	2.09	0.49
47:CI:205:PRO:C	47:CI:206:LEU:CA	2.79	0.49
47:CI:44:ASP:HA	47:CI:171:TRP:HZ2	1.78	0.49
79:CJ:105:PHE:HE2	79:CJ:134:LEU:HD11	1.78	0.49
79:CJ:53:ALA:CB	79:CJ:68:ILE:HD11	2.33	0.49
40:CK:103:ASN:N	40:CK:140:GLY:HA2	2.28	0.49
40:CK:56:LEU:HB2	40:CK:91:ASP:CG	2.31	0.49
44:CM:123:ILE:HG23	44:CM:124:LYS:N	2.28	0.49
44:CM:31:ILE:HG22	44:CM:35:ARG:CD	2.37	0.49
44:CM:39:ASP:CG	44:CM:47:ARG:CB	2.77	0.49
46:CN:116:LEU:HA	46:CN:159:ARG:HH22	1.76	0.49
46:CN:76:PRO:O	46:CN:77:LYS:CG	2.61	0.49
41:CO:37:ARG:HA	41:CO:39:GLU:OE1	2.13	0.49
49:CQ:143:ARG:C	49:CQ:144:LYS:HE3	2.32	0.49
49:CQ:17:GLU:OE2	49:CQ:18:PRO:O	2.31	0.49
49:CQ:22:ASP:OD1	74:CC:33:ARG:CZ	2.51	0.49
50:CR:134:ASN:HD22	85:A5:2896:G:H5''	1.76	0.49
52:CS:82:LEU:HD21	52:CS:124:ILE:CG1	2.43	0.49
55:CU:28:PRO:HB3	55:CU:100:LEU:HD21	1.94	0.49
55:CU:34:MET:CE	55:CU:39:PHE:CG	2.96	0.49
55:CU:94:ASN:O	55:CU:95:ASN:CB	2.59	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:CV:94:VAL:HG22	43:CV:94:VAL:O	2.11	0.49
58:CW:87:LEU:HA	58:CW:90:ILE:HD12	0.93	0.49
56:CX:100:VAL:HG13	56:CX:101:ASP:N	2.28	0.49
59:CZ:26:VAL:HG12	59:CZ:89:ILE:CD1	2.43	0.49
42:CL:35:ARG:HD3	85:A5:1361:G:H5''	1.93	0.49
87:A8:127:U:H2'	87:A8:128:C:O4'	2.13	0.49
15:AB:48:LEU:N	15:AB:48:LEU:CD1	2.71	0.49
28:AC:74:LYS:HA	28:AC:74:LYS:HD3	1.39	0.49
23:AD:123:LEU:CG	23:AD:154:ASP:HB3	2.42	0.49
23:AD:168:VAL:HG13	23:AD:189:MET:SD	2.53	0.49
23:AD:79:PHE:HE1	23:AD:83:SER:HB3	1.78	0.49
27:AE:53:LYS:HD3	27:AE:53:LYS:C	3.60	0.49
30:AF:184:SER:O	30:AF:185:SER:HB2	2.13	0.49
29:AG:147:LEU:CD2	29:AG:156:TYR:HE2	2.24	0.49
29:AG:33:ALA:N	29:AG:52:ILE:CG2	2.74	0.49
31:AH:100:ILE:HG12	31:AH:125:VAL:CG2	2.37	0.49
31:AH:28:LEU:O	31:AH:31:GLU:HB2	2.13	0.49
31:AH:79:LEU:HD23	31:AH:79:LEU:O	2.12	0.49
33:AI:141:ARG:CB	33:AI:144:LYS:CG	2.87	0.49
26:AJ:136:ARG:HG2	26:AJ:141:VAL:HA	1.94	0.49
26:AJ:164:PRO:HB3	26:AJ:170:PRO:O	2.12	0.49
7:AM:12:MET:CE	7:AM:120:ALA:HB1	2.32	0.49
7:AM:31:LEU:HD11	7:AM:109:VAL:CB	2.38	0.49
7:AM:58:GLU:O	7:AM:58:GLU:HG3	2.12	0.49
7:AM:93:LYS:H	7:AM:101:ARG:CD	2.26	0.49
10:AN:125:LEU:HD11	10:AN:129:TYR:CZ	2.48	0.49
8:AS:88:LYS:N	8:AS:95:TYR:HD1	2.10	0.49
14:AT:14:PHE:HZ	14:AT:131:LEU:HD12	1.75	0.49
14:AT:45:LEU:HG	14:AT:46:ALA:H	1.76	0.49
18:AY:54:VAL:HG13	18:AY:76:TYR:C	2.33	0.49
18:AY:97:TYR:HD1	18:AY:98:GLU:H	1.58	0.49
36:B2:322:C:H2'	36:B2:323:C:C6	2.47	0.49
51:CA:226:ARG:H	51:CA:226:ARG:HG3	1.43	0.49
51:CA:30:ARG:O	51:CA:31:ALA:O	2.30	0.49
63:CB:352:LEU:CD2	63:CB:353:VAL:N	2.66	0.49
74:CC:336:ARG:O	74:CC:340:ILE:HB	2.13	0.49
74:CC:80:ARG:O	74:CC:80:ARG:HG3	2.13	0.49
48:CD:184:ASP:OD1	48:CD:186:GLU:CD	2.50	0.49
64:CF:20:LYS:HA	64:CF:21:LYS:CE	2.43	0.49
80:CH:5:LEU:CD2	80:CH:60:TRP:CH2	2.96	0.49
79:CJ:57:VAL:HG11	79:CJ:60:PHE:HD2	1.67	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CK:123:ARG:CD	40:CK:129:ILE:HG13	2.37	0.49
54:CP:8:PRO:CG	54:CP:9:GLU:N	2.62	0.49
50:CR:161:ALA:HA	50:CR:164:SER:OG	2.12	0.49
50:CR:28:GLU:O	50:CR:30:ASN:O	4.73	0.49
50:CR:76:MET:O	50:CR:81:ARG:NH1	2.45	0.49
52:CS:9:GLU:CD	52:CS:33:PHE:CD2	2.85	0.49
53:CT:108:ARG:NH1	53:CT:112:ASN:HD21	2.11	0.49
55:CU:42:PHE:O	55:CU:46:ARG:HB2	2.13	0.49
55:CU:60:VAL:CG2	55:CU:76:VAL:HB	2.43	0.49
43:CV:26:ILE:HG22	43:CV:101:ASN:HB2	1.95	0.49
43:CV:84:GLN:NE2	43:CV:86:LYS:O	2.45	0.49
57:CY:50:ARG:HG3	57:CY:115:ARG:HH21	1.78	0.49
85:A5:1078:A:C2	85:A5:1233:G:O6	2.66	0.49
85:A5:1641:G:O4'	85:A5:1641:G:N9	2.38	0.49
48:CD:43:LYS:HD2	85:A5:1817:U:H4'	1.95	0.49
48:CD:113:PHE:HZ	85:A5:1819:G:C4	2.30	0.49
85:A5:2574:G:N2	85:A5:2764:A:H61	2.10	0.49
81:CE:188:ARG:NH1	85:A5:4940:C:H4'	2.27	0.49
16:AA:161:ILE:CG2	16:AA:174:MET:CE	2.91	0.49
16:AA:39:TYR:HB3	16:AA:48:ILE:O	2.12	0.49
16:AA:66:VAL:O	16:AA:67:ALA:CB	2.60	0.49
28:AC:184:VAL:HG11	28:AC:247:THR:HG22	1.94	0.49
23:AD:123:LEU:CD2	23:AD:154:ASP:OD2	2.61	0.49
27:AE:100:ARG:CG	27:AE:102:ILE:HD12	2.42	0.49
30:AF:71:ARG:CG	30:AF:71:ARG:NH2	2.48	0.49
29:AG:162:LEU:CD2	29:AG:172:LYS:HE2	2.32	0.49
31:AH:169:LYS:O	31:AH:172:THR:HG22	2.12	0.49
31:AH:158:LEU:HG	31:AH:187:PHE:CD1	2.46	0.49
33:AI:31:ARG:HH11	33:AI:31:ARG:CG	2.26	0.49
26:AJ:127:ARG:HH11	26:AJ:145:PRO:HB3	1.76	0.49
26:AJ:37:LEU:HG	26:AJ:38:ARG:N	2.28	0.49
11:AL:40:ILE:HD13	11:AL:40:ILE:C	2.33	0.49
7:AM:50:CYS:N	7:AM:75:ASN:HD22	2.10	0.49
7:AM:85:LEU:HA	7:AM:88:TRP:CZ3	2.39	0.49
10:AN:142:GLU:HG3	10:AN:144:SER:OG	2.07	0.49
5:AO:128:ARG:HH11	15:AB:70:SER:HB3	1.77	0.49
34:AQ:51:LEU:HD12	34:AQ:52:LEU:N	2.26	0.49
34:AQ:78:VAL:HG13	34:AQ:82:TYR:CE2	2.43	0.49
14:AT:99:VAL:CG2	14:AT:100:ALA:N	2.76	0.49
14:AT:77:LYS:HE3	14:AT:92:PHE:CE2	2.48	0.49
3:AU:68:THR:CG2	3:AU:70:CYS:O	2.61	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AY:118:ARG:O	18:AY:119:GLY:C	2.51	0.49
3:AU:87:ARG:NH1	36:B2:1447:G:OP1	2.37	0.49
10:AN:73:ARG:NH1	36:B2:916:A:C4	2.81	0.49
63:CB:108:GLU:CG	63:CB:137:TRP:CD2	2.92	0.49
63:CB:290:GLY:HA3	63:CB:328:ASN:HA	1.95	0.49
74:CC:170:LEU:C	74:CC:170:LEU:HD12	2.33	0.49
48:CD:273:LEU:C	48:CD:273:LEU:HD12	2.33	0.49
64:CF:142:TRP:CZ2	64:CF:235:ASN:HB2	2.48	0.49
64:CF:42:LEU:HD23	64:CF:42:LEU:C	2.32	0.49
82:CG:108:GLN:HA	82:CG:111:LYS:HE3	1.93	0.49
82:CG:174:CYS:CB	82:CG:179:VAL:HG12	2.39	0.49
82:CG:263:THR:HG23	82:CG:264:LYS:N	2.28	0.49
47:CI:104:SER:C	47:CI:105:CYS:O	2.45	0.49
47:CI:164:LYS:HZ1	47:CI:166:HIS:CE1	2.25	0.49
42:CL:94:ILE:HG22	42:CL:120:TYR:CE2	2.44	0.49
42:CL:76:PHE:CE2	42:CL:96:ILE:HG23	2.48	0.49
41:CO:203:VAL:C	44:CM:100:ARG:HG2	2.19	0.49
44:CM:6:PHE:O	44:CM:11:ARG:NH1	2.46	0.49
46:CN:150:TRP:CH2	46:CN:151:ILE:CG1	2.96	0.49
46:CN:160:GLU:OE1	46:CN:160:GLU:N	2.36	0.49
41:CO:23:VAL:O	41:CO:27:VAL:HG23	2.13	0.49
49:CQ:25:LEU:HA	49:CQ:28:LEU:HD21	1.94	0.49
50:CR:74:ARG:O	50:CR:75:HIS:HB2	2.13	0.49
43:CV:85:ARG:CG	43:CV:99:GLU:O	2.60	0.49
59:CZ:95:VAL:CG2	59:CZ:117:LYS:NZ	2.75	0.49
85:A5:3946:G:H1	85:A5:4067:U:H3	1.61	0.49
85:A5:463:A:N1	85:A5:692:A:C2	2.81	0.49
85:A5:2369:U:C5	85:A5:4656:A:C2	3.01	0.49
87:A8:141:C:H2'	87:A8:142:U:C6	2.48	0.49
16:AA:30:LEU:HD13	16:AA:38:ILE:HD11	0.49	0.49
16:AA:52:LYS:HZ2	16:AA:52:LYS:HB3	1.76	0.49
15:AB:72:ALA:O	15:AB:76:ASN:HA	2.13	0.49
28:AC:157:LEU:O	28:AC:160:LEU:CG	2.61	0.49
23:AD:201:LYS:C	23:AD:203:PRO:HD2	2.12	0.49
23:AD:219:PRO:O	23:AD:220:THR:C	2.50	0.49
27:AE:178:GLY:H	27:AE:195:ILE:HB	1.78	0.49
31:AH:154:ILE:HG22	31:AH:185:VAL:HG23	1.95	0.49
11:AL:72:ILE:HD12	11:AL:72:ILE:N	2.26	0.49
10:AN:54:LEU:C	10:AN:60:VAL:HG22	2.33	0.49
12:AR:17:ILE:HD11	12:AR:54:VAL:HG13	1.93	0.49
12:AR:21:TYR:CE2	12:AR:73:LEU:HD12	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AS:139:THR:HB	8:AS:140:GLY:H	1.23	0.49
8:AS:80:PRO:HG3	8:AS:82:TRP:NE1	2.28	0.49
32:AW:107:SER:HB3	36:B2:860:G:H21	1.78	0.49
51:CA:133:TYR:HE1	51:CA:135:THR:CG2	2.26	0.49
63:CB:212:GLY:C	63:CB:287:ILE:HD11	2.33	0.49
74:CC:128:LEU:HD23	74:CC:240:LEU:HD22	1.94	0.49
74:CC:28:PHE:HE1	74:CC:131:SER:N	2.11	0.49
74:CC:202:ILE:CG2	74:CC:203:GLN:N	2.75	0.49
74:CC:171:LEU:HD21	74:CC:209:ILE:CD1	2.42	0.49
74:CC:210:ILE:HD13	74:CC:235:LEU:HD21	1.95	0.49
74:CC:311:ARG:O	74:CC:312:ARG:CB	2.61	0.49
48:CD:76:CYS:SG	48:CD:109:LEU:HA	2.52	0.49
64:CF:50:ILE:HD11	64:CF:172:ASN:HD22	1.77	0.49
82:CG:100:HIS:O	82:CG:100:HIS:ND1	2.45	0.49
82:CG:29:ASN:N	82:CG:30:PRO:CD	2.76	0.49
82:CG:77:PRO:O	82:CG:81:ASN:ND2	2.45	0.49
80:CH:123:ILE:HG23	80:CH:123:ILE:O	2.13	0.49
47:CI:5:PRO:C	47:CI:7:ARG:H	2.13	0.49
40:CK:102:GLY:HA3	40:CK:139:VAL:HA	1.91	0.49
42:CL:50:PRO:HD2	42:CL:51:ALA:HB1	1.90	0.49
41:CO:191:LYS:HB3	41:CO:192:TYR:H	1.48	0.49
54:CP:20:SER:HA	54:CP:145:HIS:ND1	2.27	0.49
50:CR:142:ILE:HA	50:CR:145:LEU:CD2	2.43	0.49
58:CW:123:LYS:C	58:CW:124:LYS:O	2.48	0.49
59:CZ:22:LYS:CD	59:CZ:129:TRP:CH2	2.88	0.49
85:A5:975:C:H42	85:A5:1279:A:H2	1.59	0.48
85:A5:1820:C:H6	85:A5:1820:C:O5'	1.96	0.48
85:A5:2345:G:O2'	85:A5:2346:C:H5'	2.13	0.48
85:A5:4072:C:H2'	85:A5:4073:A:C5'	2.43	0.48
85:A5:4950:U:H3'	85:A5:4951:G:H5''	1.94	0.48
16:AA:140:VAL:HG13	28:AC:87:PRO:HG3	1.94	0.48
15:AB:137:LEU:HD23	15:AB:215:VAL:CB	2.39	0.48
15:AB:175:GLU:CG	15:AB:193:ILE:CD1	2.84	0.48
27:AE:136:ILE:HD12	27:AE:136:ILE:N	2.26	0.48
30:AF:136:ARG:HD2	30:AF:136:ARG:N	2.28	0.48
31:AH:170:VAL:HA	31:AH:173:PHE:CD2	2.48	0.48
33:AI:113:TYR:O	33:AI:117:TYR:HD2	1.96	0.48
33:AI:29:LEU:CG	33:AI:30:GLY:H	2.22	0.48
33:AI:6:ASP:OD2	33:AI:8:TRP:N	2.46	0.48
11:AL:5:GLN:NE2	11:AL:10:TYR:HD1	2.09	0.48
7:AM:111:VAL:HG11	7:AM:114:TYR:HB3	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AM:76:LEU:CA	7:AM:128:PHE:HZ	2.25	0.48
7:AM:19:GLN:NE2	7:AM:88:TRP:CD1	2.81	0.48
5:AO:72:TYR:CD1	5:AO:72:TYR:C	2.86	0.48
34:AQ:16:LYS:HD2	34:AQ:17:LYS:H	1.74	0.48
34:AQ:50:LYS:HG3	34:AQ:85:ARG:NH2	2.26	0.48
14:AT:11:GLN:O	14:AT:15:VAL:HG13	2.12	0.48
3:AU:57:PRO:HA	36:B2:1446:A:H5''	1.95	0.48
6:AX:27:TYR:CD2	6:AX:31:HIS:HD2	2.31	0.48
36:B2:1463:U:H5'	36:B2:1464:C:C6	2.48	0.48
36:B2:1551:U:C4	36:B2:1552:G:O6	2.66	0.48
36:B2:1646:C:C2	36:B2:1678:A:C6	3.01	0.48
36:B2:878:G:H1	36:B2:908:A:H2	1.61	0.48
63:CB:173:LEU:HD22	63:CB:173:LEU:H	1.77	0.48
74:CC:294:LYS:O	74:CC:299:GLN:HG3	2.13	0.48
74:CC:5:ARG:HA	74:CC:24:LEU:CD1	2.35	0.48
48:CD:40:ASP:C	48:CD:40:ASP:OD1	2.51	0.48
82:CG:60:TYR:CE2	82:CG:61:ILE:HG13	2.48	0.48
80:CH:29:GLY:HA3	80:CH:84:VAL:HG22	1.95	0.48
47:CI:79:SER:HG	47:CI:147:HIS:CE1	2.31	0.48
79:CJ:90:ARG:HH11	79:CJ:107:PHE:CB	1.89	0.48
40:CK:85:LEU:CB	40:CK:106:PHE:CD2	2.96	0.48
40:CK:117:ARG:HG3	40:CK:133:LEU:HD21	1.94	0.48
40:CK:34:PRO:CD	40:CK:35:LEU:H	2.26	0.48
40:CK:40:LYS:CD	40:CK:40:LYS:N	2.74	0.48
42:CL:191:LEU:HA	42:CL:194:ILE:HD12	1.95	0.48
42:CL:58:ILE:HG21	42:CL:70:VAL:HG11	1.94	0.48
50:CR:106:LEU:CD2	50:CR:127:VAL:HG21	2.38	0.48
52:CS:132:ILE:HG23	52:CS:136:LYS:HB2	1.94	0.48
52:CS:174:THR:HG23	52:CS:176:PHE:N	2.28	0.48
52:CS:45:TRP:NE1	52:CS:56:LYS:HG3	2.28	0.48
53:CT:54:HIS:CD2	85:A5:4301:U:H5'	2.48	0.48
56:CX:117:TYR:CB	56:CX:119:ILE:HG21	2.20	0.48
57:CY:62:TYR:HB3	57:CY:66:GLN:CG	2.42	0.48
85:A5:1378:C:H3'	85:A5:1379:C:H5'	1.96	0.48
56:CX:107:HIS:CE1	85:A5:2777:G:OP1	2.66	0.48
85:A5:4300:U:C2	85:A5:4311:A:C2	3.01	0.48
16:AA:158:ASP:CB	17:AV:65:SER:OG	2.58	0.48
28:AC:144:SER:CB	28:AC:149:THR:HG23	2.43	0.48
23:AD:157:MET:SD	23:AD:187:LYS:HD3	2.50	0.48
29:AG:67:VAL:CG2	29:AG:99:GLY:HA2	2.32	0.48
31:AH:116:ARG:HA	31:AH:117:PRO:HD3	1.50	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AI:38:ILE:HD11	33:AI:96:LEU:HD21	1.95	0.48
7:AM:50:CYS:HB3	7:AM:69:LEU:HD11	1.95	0.48
13:AP:21:ASP:O	13:AP:25:LEU:HG	2.12	0.48
13:AP:8:LYS:O	13:AP:9:LYS:C	2.50	0.48
34:AQ:37:ARG:HB2	34:AQ:38:PRO:HD2	1.95	0.48
34:AQ:42:ILE:CG2	34:AQ:51:LEU:HD23	2.30	0.48
12:AR:16:ILE:O	12:AR:20:TYR:N	2.46	0.48
14:AT:31:PRO:HB2	14:AT:33:TRP:NE1	2.28	0.48
14:AT:31:PRO:O	14:AT:33:TRP:CA	2.54	0.48
14:AT:33:TRP:CD1	14:AT:37:VAL:HG21	2.48	0.48
14:AT:42:HIS:NE2	14:AT:83:GLN:HB3	2.28	0.48
18:AY:55:ILE:CG1	18:AY:75:ILE:HD13	2.41	0.48
19:AZ:71:ALA:O	19:AZ:74:SER:OG	2.24	0.48
36:B2:1518:C:H5''	36:B2:1519:U:H5''	1.96	0.48
33:AI:41:ARG:NH2	36:B2:305:U:OP2	2.46	0.48
51:CA:139:HIS:ND1	51:CA:146:THR:CG2	2.72	0.48
51:CA:113:VAL:HB	51:CA:164:ALA:HB1	1.95	0.48
63:CB:101:THR:HG23	63:CB:101:THR:O	2.11	0.48
63:CB:84:MET:HG2	63:CB:164:ALA:HB1	1.95	0.48
63:CB:315:ASN:OD1	63:CB:319:GLY:HA2	2.13	0.48
63:CB:46:PHE:CD2	63:CB:207:VAL:CG1	2.96	0.48
63:CB:81:THR:HB	63:CB:329:ASP:C	2.32	0.48
81:CE:137:VAL:C	81:CE:138:ARG:HG3	2.33	0.48
81:CE:137:VAL:O	81:CE:138:ARG:O	2.30	0.48
81:CE:149:ILE:N	81:CE:163:VAL:CG1	2.76	0.48
64:CF:102:SER:O	64:CF:106:ARG:HB2	2.12	0.48
64:CF:67:THR:HG23	64:CF:68:GLU:N	2.26	0.48
82:CG:230:TYR:CD2	82:CG:231:ASP:N	2.81	0.48
82:CG:94:GLN:OE1	82:CG:94:GLN:O	2.31	0.48
80:CH:96:TYR:CZ	80:CH:100:PRO:HA	2.48	0.48
47:CI:60:LEU:O	47:CI:126:VAL:HG13	2.13	0.48
40:CK:71:ILE:CG2	40:CK:73:VAL:HG23	2.44	0.48
42:CL:83:VAL:HG21	42:CL:110:LEU:HD21	1.96	0.48
46:CN:47:LYS:HA	46:CN:50:ARG:HB3	1.95	0.48
54:CP:110:ASP:O	54:CP:111:SER:C	2.46	0.48
49:CQ:187:LYS:HE2	49:CQ:188:ASN:HD22	1.67	0.48
50:CR:109:TYR:OH	50:CR:139:MET:CE	2.61	0.48
52:CS:81:TRP:C	52:CS:127:MET:HB3	2.33	0.48
52:CS:2:LYS:NZ	52:CS:43:ARG:CB	2.74	0.48
57:CY:110:LYS:HD3	57:CY:115:ARG:NH1	2.27	0.48
51:CA:15:VAL:HG13	85:A5:1539:G:H1'	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:4884:G:N2	85:A5:4935:C:C2	2.81	0.48
16:AA:180:ARG:HH11	16:AA:184:ARG:NH2	2.09	0.48
15:AB:87:ILE:CD1	15:AB:101:HIS:CD2	2.62	0.48
15:AB:113:MET:HE3	15:AB:209:ASP:HB3	1.94	0.48
28:AC:139:LEU:N	28:AC:241:PHE:CZ	2.81	0.48
23:AD:22:ASN:OD1	23:AD:34:TYR:OH	2.30	0.48
4:AK:27:VAL:HG11	4:AK:43:LEU:HD22	1.67	0.48
34:AQ:112:LEU:HD12	34:AQ:120:LEU:CD2	2.43	0.48
34:AQ:50:LYS:HZ2	34:AQ:53:GLU:CD	2.17	0.48
12:AR:17:ILE:HG22	12:AR:71:ILE:HD11	1.94	0.48
12:AR:24:LEU:HD12	12:AR:58:MET:CE	2.43	0.48
12:AR:91:LEU:HD13	12:AR:92:ASP:CB	2.43	0.48
8:AS:81:ASP:C	8:AS:87:GLN:HE22	2.15	0.48
14:AT:14:PHE:CZ	14:AT:131:LEU:CD1	2.95	0.48
14:AT:76:THR:HG22	14:AT:95:GLY:O	2.13	0.48
32:AW:102:ILE:N	32:AW:113:HIS:ND1	2.57	0.48
32:AW:115:GLU:HG2	32:AW:119:LYS:HE3	1.95	0.48
18:AY:68:LYS:O	18:AY:69:THR:CG2	2.61	0.48
18:AY:54:VAL:HG13	18:AY:76:TYR:HB2	1.95	0.48
19:AZ:58:LEU:CD2	19:AZ:77:LEU:CD1	2.91	0.48
36:B2:1472:C:H2'	36:B2:1473:G:O4'	2.13	0.48
36:B2:1601:A:H1'	36:B2:1604:G:C6	2.47	0.48
36:B2:825:A:H2'	36:B2:826:A:C8	2.48	0.48
63:CB:312:LYS:HG2	63:CB:313:SER:H	0.43	0.48
63:CB:40:PRO:O	63:CB:41:VAL:CB	2.60	0.48
74:CC:158:VAL:CA	74:CC:161:TYR:HD2	2.18	0.48
74:CC:345:ARG:NH1	74:CC:345:ARG:HG2	2.05	0.48
82:CG:104:PRO:CA	82:CG:105:GLU:CD	2.81	0.48
82:CG:152:ALA:CA	82:CG:205:THR:HG23	2.23	0.48
79:CJ:166:PHE:CD1	79:CJ:170:TYR:HD2	2.30	0.48
40:CK:123:ARG:CB	40:CK:129:ILE:HG13	2.43	0.48
40:CK:104:ILE:HD12	40:CK:140:GLY:CA	2.44	0.48
41:CO:130:LYS:HE3	41:CO:133:ARG:HE	1.79	0.48
54:CP:27:LYS:CG	54:CP:63:TYR:HB3	2.42	0.48
50:CR:142:ILE:HA	50:CR:145:LEU:HD21	1.96	0.48
50:CR:160:GLU:O	50:CR:164:SER:OG	2.30	0.48
52:CS:133:ALA:O	52:CS:134:ALA:HB2	2.13	0.48
52:CS:74:ARG:O	52:CS:75:VAL:C	2.52	0.48
53:CT:80:VAL:H	53:CT:83:LYS:H	1.60	0.48
56:CX:78:LYS:CE	56:CX:101:ASP:HA	2.37	0.48
57:CY:110:LYS:CD	57:CY:115:ARG:NH1	2.76	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:CY:22:PRO:O	57:CY:25:ILE:N	2.46	0.48
85:A5:975:C:N4	85:A5:1279:A:C2	2.82	0.48
85:A5:2638:G:N2	85:A5:2697:A:H62	2.11	0.48
63:CB:12:GLY:N	85:A5:4622:A:H5''	2.28	0.48
85:A5:4770:U:H2'	85:A5:4771:C:C5	2.48	0.48
85:A5:4910:G:HO2'	85:A5:4911:A:H8	1.60	0.48
16:AA:91:ALA:HA	16:AA:96:ALA:HB3	1.96	0.48
15:AB:183:GLU:O	15:AB:187:LYS:HB2	2.14	0.48
15:AB:19:LYS:CB	15:AB:19:LYS:HZ3	2.06	0.48
15:AB:33:VAL:HG12	15:AB:44:ILE:CD1	2.36	0.48
15:AB:49:VAL:HG22	15:AB:65:ARG:HH12	1.71	0.48
28:AC:169:TYR:OH	28:AC:177:PRO:N	2.45	0.48
28:AC:69:LEU:HD22	28:AC:269:PHE:CB	2.44	0.48
23:AD:197:LYS:N	23:AD:198:ILE:HG13	2.27	0.48
23:AD:202:LYS:HB3	23:AD:203:PRO:HD3	1.95	0.48
27:AE:129:ILE:CG2	27:AE:139:LEU:HD21	2.42	0.48
27:AE:180:LEU:CD1	27:AE:228:ILE:CD1	2.91	0.48
4:AK:27:VAL:HA	4:AK:43:LEU:HD23	1.96	0.48
6:AX:14:ARG:CG	11:AL:99:TYR:OH	2.61	0.48
10:AN:11:LEU:C	10:AN:11:LEU:HD12	2.33	0.48
12:AR:101:ASP:HA	12:AR:104:GLU:HB2	1.95	0.48
12:AR:102:THR:N	16:AA:48:ILE:HD13	2.28	0.48
8:AS:26:ILE:HD11	8:AS:59:LEU:CG	2.42	0.48
3:AU:48:LEU:C	3:AU:49:LYS:CG	2.74	0.48
17:AV:24:ILE:HD12	17:AV:25:GLY:N	2.20	0.48
17:AV:53:TYR:CD2	17:AV:72:LEU:HB3	2.48	0.48
8:AS:7:GLU:O	19:AZ:50:PHE:O	2.31	0.48
13:AP:79:HIS:CD2	36:B2:1298:G:H1'	2.48	0.48
8:AS:136:THR:OG1	36:B2:1520:G:H5''	2.13	0.48
36:B2:835:C:C4	36:B2:837:A:OP2	2.67	0.48
74:CC:233:SER:O	74:CC:263:LEU:HD13	2.11	0.48
74:CC:210:ILE:HD12	74:CC:252:TRP:CZ2	2.48	0.48
74:CC:266:THR:CA	74:CC:279:LEU:HD11	2.43	0.48
74:CC:348:LYS:N	74:CC:349:LEU:N	2.61	0.48
48:CD:37:VAL:CG2	48:CD:50:ARG:CZ	2.90	0.48
82:CG:86:ALA:CB	82:CG:183:ILE:HD13	2.43	0.48
47:CI:38:ARG:CG	47:CI:83:ASP:CA	2.92	0.48
47:CI:86:HIS:HB3	47:CI:139:ARG:CG	2.43	0.48
79:CJ:109:ILE:HD12	79:CJ:111:GLU:O	2.13	0.48
79:CJ:145:LYS:HE3	86:A7:44:C:H5''	1.96	0.48
40:CK:86:LYS:HA	40:CK:104:ILE:CD1	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CL:86:ILE:HD11	42:CL:121:ARG:HD3	1.95	0.48
42:CL:141:ALA:O	42:CL:147:ALA:CB	2.61	0.48
44:CM:5:ARG:C	44:CM:11:ARG:NH1	2.67	0.48
41:CO:16:LEU:HD21	41:CO:41:ILE:CG1	2.40	0.48
50:CR:99:MET:O	50:CR:103:ARG:HB2	2.13	0.48
50:CR:184:ILE:O	50:CR:184:ILE:CG2	2.62	0.48
55:CU:18:VAL:HG12	55:CU:19:LEU:N	2.27	0.48
43:CV:16:ILE:CD1	43:CV:57:VAL:HB	2.42	0.48
58:CW:97:LYS:CG	58:CW:98:PRO:HD3	2.44	0.48
56:CX:100:VAL:HG11	56:CX:109:ILE:HG12	1.95	0.48
57:CY:38:LEU:HD11	57:CY:107:THR:C	2.33	0.48
74:CC:324:ILE:CG1	85:A5:1282:G:H5''	2.43	0.48
63:CB:247:GLY:HA2	85:A5:2838:G:H5'	1.94	0.48
85:A5:723:A:H2	85:A5:943:A:C2	2.32	0.48
16:AA:97:THR:HG22	16:AA:98:PRO:N	2.27	0.48
15:AB:105:LEU:HD11	15:AB:213:ARG:HG3	1.93	0.48
23:AD:108:LYS:CA	23:AD:113:LEU:CD2	2.91	0.48
4:AK:66:HIS:ND1	23:AD:76:ARG:CG	2.77	0.48
27:AE:108:ARG:O	27:AE:109:PHE:C	2.49	0.48
27:AE:151:ASP:HB3	27:AE:152:PRO:CD	2.43	0.48
27:AE:47:PHE:CE2	27:AE:52:LEU:HD12	2.42	0.48
27:AE:70:ILE:HG13	27:AE:92:ILE:HD12	1.86	0.48
29:AG:121:ILE:CG2	29:AG:122:PRO:HD2	2.26	0.48
27:AE:149:TYR:HD2	29:AG:205:GLU:OE1	1.97	0.48
29:AG:41:LEU:HD21	29:AG:45:TRP:CH2	2.36	0.48
31:AH:121:THR:HG22	31:AH:124:ALA:CB	2.43	0.48
33:AI:8:TRP:CE3	33:AI:8:TRP:O	2.66	0.48
26:AJ:121:LYS:O	26:AJ:122:SER:HB2	2.14	0.48
26:AJ:125:HIS:CE1	26:AJ:129:LEU:HD21	2.48	0.48
4:AK:47:LYS:HD2	4:AK:50:GLN:NE2	2.29	0.48
13:AP:75:VAL:HG21	13:AP:104:GLN:NE2	2.27	0.48
34:AQ:145:TYR:HB3	34:AQ:146:ARG:H	1.53	0.48
34:AQ:45:ARG:HG2	34:AQ:46:THR:H	1.78	0.48
8:AS:111:LEU:HD22	8:AS:125:HIS:CG	2.48	0.48
8:AS:28:PHE:CZ	36:B2:1603:G:C4	3.01	0.48
14:AT:102:ARG:HA	14:AT:102:ARG:HD2	1.70	0.48
3:AU:43:ALA:O	3:AU:48:LEU:HG	2.14	0.48
6:AX:8:ARG:O	6:AX:10:ALA:N	2.42	0.48
18:AY:33:ALA:O	18:AY:34:THR:OG1	2.29	0.48
36:B2:1407:U:H2'	36:B2:1408:U:C6	2.48	0.48
63:CB:80:GLU:CD	63:CB:171:LEU:CG	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:231:ASN:OD1	74:CC:233:SER:OG	2.22	0.48
74:CC:285:ILE:O	74:CC:286:ASN:CG	2.51	0.48
48:CD:122:GLN:NE2	48:CD:126:THR:H	2.11	0.48
48:CD:223:PHE:CA	86:A7:49:A:OP1	2.62	0.48
81:CE:181:LEU:HD11	81:CE:268:GLN:HA	1.95	0.48
81:CE:264:ILE:HB	81:CE:267:LEU:HB3	1.96	0.48
82:CG:208:ASN:HD21	82:CG:210:GLU:HB2	1.77	0.48
82:CG:73:ARG:HH22	82:CG:243:GLY:N	2.12	0.48
82:CG:89:ARG:H	82:CG:89:ARG:CD	2.25	0.48
80:CH:126:VAL:HG21	80:CH:161:ILE:HA	1.96	0.48
80:CH:86:LEU:CD2	80:CH:189:GLN:OE1	2.62	0.48
47:CI:186:ALA:O	47:CI:187:LYS:HE2	2.13	0.48
79:CJ:173:ILE:HG23	79:CJ:174:ILE:O	2.11	0.48
40:CK:108:GLU:O	40:CK:111:ASN:HB2	2.13	0.48
40:CK:21:GLU:OE1	40:CK:48:LYS:HG3	2.13	0.48
42:CL:100:PRO:CD	42:CL:101:ARG:H	2.18	0.48
42:CL:179:PHE:C	42:CL:179:PHE:CD2	2.86	0.48
46:CN:28:TRP:CE3	82:CG:67:ARG:CD	2.93	0.48
41:CO:130:LYS:HE2	41:CO:133:ARG:HH21	1.75	0.48
41:CO:184:ASN:O	41:CO:188:LYS:CD	2.61	0.48
54:CP:29:THR:HG22	54:CP:87:SER:OG	2.13	0.48
49:CQ:25:LEU:HD12	49:CQ:28:LEU:CD1	2.44	0.48
52:CS:82:LEU:HD23	52:CS:113:MET:HE1	1.95	0.48
53:CT:125:TRP:CD1	53:CT:126:VAL:CA	2.96	0.48
53:CT:30:TYR:CE1	53:CT:94:GLU:OE2	2.67	0.48
48:CD:69:ILE:HG22	53:CT:31:MET:HB2	1.94	0.48
58:CW:14:TYR:HB2	58:CW:17:HIS:CD2	2.49	0.48
58:CW:95:ASN:O	58:CW:96:GLN:HB2	2.14	0.48
57:CY:32:SER:OG	57:CY:106:ILE:HD11	2.13	0.48
59:CZ:16:GLY:N	59:CZ:19:SER:HB3	2.27	0.48
85:A5:3778:U:O4	85:A5:3816:A:C8	2.66	0.48
16:AA:55:TRP:NE1	16:AA:59:LEU:HD11	2.29	0.48
16:AA:76:VAL:HG13	16:AA:175:TRP:CZ2	2.37	0.48
15:AB:71:LEU:HD13	15:AB:84:PHE:CZ	2.26	0.48
15:AB:87:ILE:HG23	15:AB:101:HIS:CB	2.43	0.48
23:AD:140:GLY:HA2	36:B2:1334:G:H5'	1.96	0.48
23:AD:196:GLY:O	23:AD:199:GLY:HA2	2.12	0.48
27:AE:256:LEU:C	27:AE:256:LEU:HD12	2.34	0.48
29:AG:80:GLY:O	29:AG:81:HIS:ND1	2.47	0.48
33:AI:110:ARG:NH2	33:AI:124:LYS:NZ	2.60	0.48
33:AI:118:ALA:CB	33:AI:149:TYR:CE1	2.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AK:40:VAL:CG2	4:AK:44:HIS:N	2.77	0.48
11:AL:59:LYS:HD2	11:AL:112:HIS:NE2	2.29	0.48
11:AL:22:ARG:NH2	33:AI:158:ILE:C	2.66	0.48
13:AP:127:LYS:O	13:AP:127:LYS:CD	2.61	0.48
13:AP:65:LYS:HG3	13:AP:66:GLU:H	1.79	0.48
13:AP:77:LYS:C	13:AP:78:THR:CG2	2.81	0.48
34:AQ:72:VAL:HG12	34:AQ:80:GLN:NE2	2.29	0.48
12:AR:122:PRO:CA	12:AR:123:THR:OG1	2.61	0.48
14:AT:40:ALA:O	14:AT:43:LYS:CB	2.62	0.48
14:AT:77:LYS:HD2	14:AT:94:ARG:HH11	1.78	0.48
14:AT:85:ASN:HD21	14:AT:91:HIS:HD2	1.56	0.48
14:AT:4:VAL:HB	14:AT:8:ASP:HB2	1.94	0.48
18:AY:17:LEU:C	18:AY:17:LEU:HD12	2.34	0.48
36:B2:536:A:H2'	36:B2:537:C:H5'	1.96	0.48
36:B2:990:A:C2	36:B2:992:A:C6	3.01	0.48
51:CA:222:PRO:HG3	85:A5:3748:A:C2	2.48	0.48
63:CB:315:ASN:ND2	63:CB:319:GLY:HA2	2.28	0.48
63:CB:357:ARG:CA	63:CB:359:ALA:O	2.62	0.48
63:CB:90:VAL:HG22	63:CB:101:THR:OG1	2.13	0.48
48:CD:223:PHE:HA	86:A7:49:A:OP1	2.14	0.48
81:CE:115:TYR:HB2	81:CE:117:PRO:HG3	1.96	0.48
81:CE:258:LEU:O	81:CE:261:ILE:HG12	2.13	0.48
81:CE:55:GLY:HA2	81:CE:62:MET:HG3	1.96	0.48
64:CF:200:ARG:O	64:CF:202:LYS:N	2.47	0.48
51:CA:39:GLY:CA	82:CG:41:ILE:HD11	2.39	0.48
80:CH:92:MET:HB3	80:CH:92:MET:HE3	1.55	0.48
79:CJ:111:GLU:HB2	79:CJ:113:ILE:HD11	1.95	0.48
40:CK:107:ASP:OD2	40:CK:143:VAL:CG1	2.60	0.48
41:CO:202:LEU:CB	44:CM:104:MET:HE2	2.41	0.48
44:CM:5:ARG:CB	44:CM:11:ARG:CZ	2.92	0.48
41:CO:36:VAL:HG11	41:CO:108:ILE:CB	2.43	0.48
41:CO:47:PHE:CZ	41:CO:141:LEU:HA	2.48	0.48
54:CP:101:ASN:O	54:CP:105:LYS:HE3	2.14	0.48
54:CP:40:HIS:CG	54:CP:43:LYS:HD3	2.48	0.48
49:CQ:31:LEU:O	49:CQ:31:LEU:CD2	2.61	0.48
49:CQ:53:MET:CE	49:CQ:57:ASN:O	2.62	0.48
50:CR:39:GLN:HG2	50:CR:40:GLN:H	1.78	0.48
50:CR:32:ILE:HD11	50:CR:44:LEU:HD22	1.95	0.48
50:CR:63:CYS:O	50:CR:64:ARG:C	2.52	0.48
41:CO:122:ALA:CB	52:CS:161:ARG:HG3	2.42	0.48
52:CS:170:LYS:O	52:CS:172:PRO:HB3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:CW:73:ARG:O	58:CW:74:ARG:HB2	2.13	0.48
29:AG:11:GLY:CA	58:CW:80:ARG:CZ	2.75	0.48
56:CX:100:VAL:CG1	56:CX:101:ASP:N	2.74	0.48
56:CX:40:ILE:HG23	56:CX:40:ILE:O	2.13	0.48
57:CY:30:MET:SD	57:CY:80:ILE:CG2	3.02	0.48
57:CY:44:VAL:CG1	57:CY:122:LYS:CD	2.79	0.48
59:CZ:118:PHE:CE1	59:CZ:130:PHE:CE2	3.02	0.48
81:CE:129:GLY:O	85:A5:1282:G:N2	2.47	0.48
85:A5:1300:G:H3'	85:A5:1301:C:C5'	2.44	0.48
46:CN:87:HIS:CE1	85:A5:3927:U:H1'	2.49	0.48
87:A8:111:U:O2'	87:A8:112:G:OP2	2.30	0.48
16:AA:127:PRO:HG2	16:AA:152:SER:HB3	1.94	0.48
16:AA:14:ASP:OD2	16:AA:55:TRP:HH2	1.96	0.48
16:AA:85:ARG:NE	16:AA:201:LEU:O	2.47	0.48
15:AB:120:MET:CE	15:AB:142:PHE:CZ	2.96	0.48
15:AB:146:ARG:HH21	36:B2:1123:C:H5'	1.78	0.48
15:AB:49:VAL:HG23	15:AB:65:ARG:HH12	1.76	0.48
28:AC:259:THR:CG2	28:AC:261:PHE:CG	2.94	0.48
30:AF:185:SER:HA	30:AF:190:ILE:HD12	1.96	0.48
30:AF:192:LYS:CD	30:AF:192:LYS:O	2.61	0.48
30:AF:63:LYS:CE	30:AF:71:ARG:HH12	2.26	0.48
29:AG:157:VAL:HG11	29:AG:159:ARG:CA	2.43	0.48
29:AG:212:LEU:HA	29:AG:215:LYS:CE	2.44	0.48
29:AG:35:GLU:C	29:AG:36:VAL:HG23	2.33	0.48
31:AH:29:GLU:HA	31:AH:32:MET:SD	2.54	0.48
26:AJ:164:PRO:HB2	26:AJ:165:TYR:CE1	2.48	0.48
26:AJ:28:GLU:OE1	26:AJ:40:LYS:CE	2.61	0.48
4:AK:39:ASN:C	4:AK:40:VAL:HG12	2.28	0.48
11:AL:113:LEU:HD11	11:AL:120:VAL:HG11	1.94	0.48
11:AL:71:ARG:CD	11:AL:73:LEU:CG	2.91	0.48
5:AO:62:VAL:HG12	5:AO:63:LYS:N	2.28	0.48
13:AP:127:LYS:HG3	13:AP:127:LYS:O	2.12	0.48
12:AR:85:VAL:HG21	16:AA:201:LEU:CD2	2.44	0.48
14:AT:4:VAL:CA	14:AT:8:ASP:OD2	2.54	0.48
17:AV:53:TYR:HB3	17:AV:72:LEU:HD13	1.95	0.48
18:AY:33:ALA:C	18:AY:34:THR:HG1	2.16	0.48
18:AY:98:GLU:OE2	18:AY:99:LYS:CA	2.61	0.48
19:AZ:103:HIS:HB3	30:AF:95:HIS:NE2	2.28	0.48
36:B2:1159:G:H2'	36:B2:1160:U:O4'	2.13	0.48
36:B2:1859:A:O2'	36:B2:1860:A:H5'	2.13	0.48
36:B2:86:C:H1'	36:B2:170:A:N1	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CA:54:ARG:HH22	85:A5:3680:U:H5''	1.78	0.48
63:CB:111:SER:O	63:CB:112:ASP:O	2.32	0.48
63:CB:112:ASP:C	63:CB:114:CYS:H	2.14	0.48
63:CB:199:GLU:OE1	63:CB:199:GLU:O	2.32	0.48
63:CB:264:PHE:CD2	63:CB:265:SER:CA	2.96	0.48
74:CC:5:ARG:CB	74:CC:24:LEU:CG	2.62	0.48
48:CD:33:ARG:HE	53:CT:27:LEU:HD11	1.79	0.48
81:CE:144:ILE:HG22	81:CE:145:THR:N	2.26	0.48
81:CE:283:PRO:CA	81:CE:286:LEU:CD1	2.75	0.48
64:CF:94:ARG:HH12	64:CF:98:ILE:HB	1.78	0.48
82:CG:166:LEU:O	82:CG:167:VAL:HG22	2.12	0.48
82:CG:166:LEU:C	82:CG:167:VAL:CG2	2.82	0.48
82:CG:46:GLN:CG	82:CG:47:PRO:HD2	2.42	0.48
46:CN:21:PHE:CZ	82:CG:80:ILE:HD13	2.41	0.48
80:CH:1:MET:O	80:CH:1:MET:CG	2.61	0.48
47:CI:10:ARG:O	47:CI:10:ARG:HG3	2.13	0.48
40:CK:123:ARG:HG2	40:CK:125:LEU:N	2.27	0.48
40:CK:163:PRO:O	40:CK:163:PRO:HD2	2.14	0.48
40:CK:50:THR:OG1	40:CK:72:GLU:CB	2.61	0.48
44:CM:57:LEU:CD1	52:CS:154:LEU:CB	2.86	0.48
54:CP:91:LEU:HD12	54:CP:92:LEU:CA	2.43	0.48
53:CT:12:ARG:C	53:CT:13:TYR:CD2	2.87	0.48
55:CU:90:TYR:CD2	55:CU:94:ASN:ND2	2.81	0.48
43:CV:25:VAL:HG23	43:CV:25:VAL:O	2.14	0.48
59:CZ:91:LEU:C	59:CZ:117:LYS:CE	2.82	0.48
59:CZ:73:LYS:HG3	59:CZ:74:VAL:O	2.13	0.48
85:A5:4051:C:H2'	85:A5:4052:C:C5	2.49	0.48
85:A5:432:U:C5	85:A5:3887:C:N3	2.82	0.48
85:A5:457:G:C6	85:A5:700:G:C6	3.02	0.48
81:CE:172:LEU:CD1	85:A5:4940:C:HO2'	2.24	0.48
16:AA:124:VAL:HG21	16:AA:134:LEU:CD2	2.44	0.48
16:AA:89:LYS:HB3	16:AA:202:TYR:CE2	2.48	0.48
15:AB:137:LEU:HD21	15:AB:215:VAL:HG11	1.78	0.48
15:AB:25:PHE:HA	15:AB:28:LYS:HD2	1.96	0.48
28:AC:127:PHE:CE2	28:AC:141:VAL:CG2	2.96	0.48
27:AE:72:ILE:HD13	27:AE:82:TYR:CD2	2.49	0.48
30:AF:36:GLN:HG2	30:AF:36:GLN:O	2.14	0.48
33:AI:144:LYS:HG3	36:B2:190:G:C5'	2.43	0.48
33:AI:21:TYR:CZ	36:B2:433:A:H5'	2.49	0.48
33:AI:70:GLU:O	33:AI:71:CYS:HB3	2.14	0.48
33:AI:9:HIS:O	33:AI:10:LYS:CB	2.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AJ:102:ILE:HG22	26:AJ:106:LEU:CD1	2.35	0.48
4:AK:59:LYS:C	4:AK:59:LYS:HD2	2.34	0.48
11:AL:134:LEU:C	11:AL:134:LEU:HD23	2.33	0.48
7:AM:102:LYS:O	7:AM:103:VAL:C	2.52	0.48
7:AM:50:CYS:CB	7:AM:69:LEU:HD11	2.44	0.48
34:AQ:111:ILE:HA	34:AQ:114:GLN:CD	2.33	0.48
8:AS:88:LYS:HD3	13:AP:37:TYR:CA	2.44	0.48
3:AU:68:THR:HB	3:AU:70:CYS:O	2.14	0.48
32:AW:2:VAL:HG23	32:AW:3:ARG:N	2.29	0.48
6:AX:51:VAL:HG22	6:AX:70:VAL:HG11	1.95	0.48
18:AY:58:PHE:CD1	18:AY:72:PHE:HD2	2.31	0.48
19:AZ:54:THR:O	19:AZ:58:LEU:HG	2.14	0.48
19:AZ:62:VAL:HG13	19:AZ:68:ILE:HD11	1.83	0.48
19:AZ:65:TYR:CD2	19:AZ:68:ILE:CD1	2.96	0.48
36:B2:327:G:H2'	58:CW:117:LYS:HE3	1.95	0.48
51:CA:6:ARG:NH2	51:CA:198:ARG:HG3	2.29	0.48
63:CB:110:ILE:C	63:CB:111:SER:OG	2.53	0.48
63:CB:88:GLY:H	63:CB:163:ILE:HG22	1.76	0.48
63:CB:85:VAL:HG13	63:CB:165:HIS:CD2	2.49	0.48
63:CB:67:VAL:O	63:CB:70:LYS:HB2	2.13	0.48
43:CV:93:GLY:HA2	63:CB:73:VAL:HG21	1.89	0.48
74:CC:123:ALA:O	74:CC:126:SER:OG	2.23	0.48
74:CC:15:GLY:O	74:CC:16:GLU:CG	2.61	0.48
74:CC:274:LYS:O	74:CC:275:SER:C	2.50	0.48
74:CC:31:PRO:HG2	74:CC:122:TYR:CE1	2.47	0.48
48:CD:111:ASN:C	48:CD:113:PHE:H	2.16	0.48
48:CD:211:LEU:O	48:CD:212:MET:C	2.49	0.48
82:CG:174:CYS:HB3	82:CG:179:VAL:O	2.14	0.48
82:CG:41:ILE:O	82:CG:43:GLN:CD	2.52	0.48
56:CX:46:PHE:CD2	82:CG:58:PRO:CG	2.97	0.48
82:CG:96:LEU:HD11	82:CG:189:ARG:HH21	1.58	0.48
82:CG:99:ALA:CA	82:CG:204:PHE:CZ	2.79	0.48
42:CL:62:PRO:CD	42:CL:71:ARG:HH22	2.26	0.48
42:CL:76:PHE:CE2	42:CL:117:LEU:HD21	2.49	0.48
46:CN:140:LYS:HD3	46:CN:140:LYS:HA	1.55	0.48
46:CN:85:VAL:HG21	85:A5:44:A:OP2	2.14	0.48
41:CO:182:GLU:C	41:CO:186:GLU:H	2.17	0.48
54:CP:26:PHE:N	54:CP:144:CYS:SG	2.87	0.48
49:CQ:151:HIS:CE1	49:CQ:164:LYS:CB	2.69	0.48
52:CS:141:ALA:HB2	80:CH:1:MET:CE	2.43	0.48
43:CV:113:LYS:CG	43:CV:114:GLY:N	2.75	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:CV:127:ASP:OD2	63:CB:66:LYS:CE	2.62	0.48
58:CW:90:ILE:O	58:CW:94:ARG:HG3	2.14	0.48
57:CY:59:ARG:HG3	57:CY:103:LYS:HD2	1.95	0.48
59:CZ:101:PHE:HA	59:CZ:107:LYS:CE	2.44	0.48
85:A5:2273:G:H2'	85:A5:2274:C:C6	2.49	0.48
81:CE:172:LEU:HD22	85:A5:4941:G:C8	2.49	0.48
85:A5:4744:A:C2	85:A5:4956:A:N1	2.82	0.48
16:AA:127:PRO:CG	16:AA:153:PRO:HD2	2.30	0.48
16:AA:184:ARG:HD3	16:AA:192:GLU:HG2	1.96	0.48
16:AA:76:VAL:HG12	16:AA:87:VAL:CB	2.44	0.48
15:AB:53:GLN:O	15:AB:55:THR:N	2.47	0.48
28:AC:109:ILE:O	28:AC:109:ILE:HG22	2.13	0.48
28:AC:125:LYS:CE	28:AC:141:VAL:CG1	2.82	0.48
28:AC:270:THR:CG2	28:AC:271:ASP:N	2.76	0.48
28:AC:63:VAL:CG2	28:AC:90:GLU:OE2	2.61	0.48
28:AC:70:VAL:CA	28:AC:97:PHE:CZ	2.96	0.48
23:AD:29:LEU:HB3	23:AD:34:TYR:HB2	1.94	0.48
27:AE:125:LYS:CB	27:AE:226:PHE:CE1	2.96	0.48
29:AG:122:PRO:HD2	29:AG:123:GLY:H	1.78	0.48
29:AG:187:HIS:O	29:AG:191:ARG:HG2	2.14	0.48
29:AG:226:GLU:O	29:AG:230:LYS:HG2	2.14	0.48
33:AI:123:ARG:HD3	33:AI:123:ARG:O	2.14	0.48
26:AJ:98:LEU:O	28:AC:200:ARG:HB3	2.14	0.48
4:AK:2:LEU:CD1	4:AK:3:MET:N	2.21	0.48
11:AL:130:GLU:HG2	11:AL:131:CYS:H	1.78	0.48
10:AN:125:LEU:HD22	10:AN:129:TYR:CZ	2.49	0.48
34:AQ:116:ASP:CG	34:AQ:118:THR:H	2.17	0.48
34:AQ:51:LEU:HD12	34:AQ:51:LEU:C	2.33	0.48
8:AS:126:PHE:HD2	8:AS:127:TRP:CD1	2.32	0.48
8:AS:81:ASP:HA	8:AS:84:LEU:HD12	1.95	0.48
8:AS:85:ASN:HD21	8:AS:98:VAL:N	2.09	0.48
14:AT:65:TYR:CD2	14:AT:123:LEU:CD1	2.96	0.48
14:AT:42:HIS:CD2	14:AT:81:GLY:O	2.67	0.48
6:AX:58:GLU:O	6:AX:58:GLU:CG	2.62	0.48
19:AZ:99:LEU:HD13	19:AZ:102:LYS:HE2	0.55	0.48
36:B2:338:G:C5	36:B2:339:A:C5	3.02	0.48
36:B2:839:C:H2'	36:B2:841:G:O4'	2.13	0.48
51:CA:255:LYS:C	51:CA:256:GLU:O	2.43	0.48
63:CB:133:TYR:CE1	63:CB:136:LYS:HD2	2.46	0.48
63:CB:203:GLN:HA	63:CB:203:GLN:NE2	2.29	0.48
74:CC:109:ARG:HG3	74:CC:111:TRP:CZ3	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:211:TYR:CG	74:CC:214:ASP:OD1	2.64	0.48
74:CC:311:ARG:O	74:CC:312:ARG:CD	2.62	0.48
48:CD:130:TYR:HD2	48:CD:131:ASN:C	2.05	0.48
48:CD:118:ILE:HG22	48:CD:135:ILE:HD12	1.95	0.48
82:CG:191:GLY:N	82:CG:199:CYS:CB	2.76	0.48
82:CG:35:ARG:CA	82:CG:36:PRO:CD	2.92	0.48
80:CH:161:ILE:HG23	80:CH:162:GLN:N	2.29	0.48
80:CH:183:GLU:OE2	80:CH:184:LYS:O	2.31	0.48
79:CJ:128:LEU:HD12	79:CJ:128:LEU:O	2.13	0.48
42:CL:141:ALA:O	42:CL:147:ALA:HB2	2.13	0.48
46:CN:56:LYS:HG2	46:CN:59:TYR:CD2	2.49	0.48
54:CP:64:ASN:OD1	54:CP:64:ASN:O	2.30	0.48
49:CQ:64:SER:HB2	49:CQ:92:VAL:CG2	2.44	0.48
52:CS:3:ALA:O	85:A5:2062:C:H5''	2.14	0.48
55:CU:48:LYS:HG2	55:CU:52:LYS:N	2.27	0.48
43:CV:16:ILE:HD11	43:CV:57:VAL:H	1.78	0.48
58:CW:87:LEU:N	58:CW:90:ILE:HG13	2.29	0.48
56:CX:42:THR:HA	82:CG:51:LEU:CG	2.28	0.48
56:CX:52:LEU:HD11	56:CX:54:LEU:HD23	1.87	0.48
85:A5:4767:C:H2'	85:A5:4768:G:C8	2.49	0.48
16:AA:58:LEU:HD23	16:AA:58:LEU:O	2.13	0.48
15:AB:49:VAL:CG1	15:AB:50:THR:N	2.77	0.48
27:AE:185:GLY:CA	27:AE:189:LEU:HD13	2.43	0.48
29:AG:16:ILE:HD12	29:AG:45:TRP:CZ2	2.42	0.48
31:AH:37:LYS:O	31:AH:38:ALA:CB	2.61	0.48
33:AI:138:ASN:C	33:AI:139:LYS:O	2.53	0.48
7:AM:104:VAL:HG22	7:AM:105:GLY:N	2.28	0.48
7:AM:124:ILE:CB	7:AM:127:TYR:HE2	2.26	0.48
10:AN:116:ILE:O	10:AN:119:GLU:HG3	2.12	0.48
5:AO:136:PRO:HB3	36:B2:944:A:H1'	1.95	0.48
5:AO:44:VAL:HG13	5:AO:93:LEU:HD22	1.96	0.48
13:AP:33:LEU:HD21	13:AP:87:PRO:CD	1.90	0.48
13:AP:62:LYS:HA	13:AP:65:LYS:HE2	1.96	0.48
13:AP:68:PRO:HB2	13:AP:69:PRO:HD3	1.70	0.48
34:AQ:130:LYS:HA	34:AQ:137:ALA:HA	1.95	0.48
12:AR:1:MET:HA	12:AR:1:MET:CG	2.38	0.48
12:AR:21:TYR:HB2	12:AR:71:ILE:HD13	0.64	0.48
8:AS:88:LYS:HD3	13:AP:37:TYR:CB	2.44	0.48
14:AT:33:TRP:CD1	14:AT:34:VAL:N	2.82	0.48
32:AW:102:ILE:N	32:AW:113:HIS:HD1	2.12	0.48
63:CB:297:LYS:C	63:CB:300:LYS:CE	2.68	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:397:ILE:CG2	63:CB:398:ALA:H	2.06	0.48
63:CB:77:THR:CG2	63:CB:335:GLY:O	2.62	0.48
74:CC:47:ASN:O	74:CC:112:HIS:HE1	1.96	0.48
48:CD:61:ILE:HG12	48:CD:79:TYR:HE1	1.77	0.48
81:CE:100:LYS:O	81:CE:101:ASN:CB	2.60	0.48
81:CE:153:LEU:O	81:CE:158:ARG:HD2	2.13	0.48
82:CG:143:VAL:C	82:CG:146:LEU:CD1	2.70	0.48
82:CG:146:LEU:HD12	82:CG:147:VAL:CG2	2.41	0.48
82:CG:229:ARG:O	82:CG:229:ARG:CG	2.62	0.48
82:CG:35:ARG:C	82:CG:36:PRO:CD	2.74	0.48
80:CH:129:ARG:CD	80:CH:153:LEU:HD22	2.44	0.48
80:CH:5:LEU:C	80:CH:5:LEU:HD12	2.35	0.48
80:CH:59:LYS:HD2	80:CH:62:GLY:HA3	1.96	0.48
47:CI:91:LEU:CD1	47:CI:135:ILE:CG1	2.83	0.48
79:CJ:35:ARG:CD	79:CJ:123:ILE:O	2.54	0.48
40:CK:39:PRO:HA	40:CK:40:LYS:CE	2.44	0.48
44:CM:4:ARG:C	44:CM:5:ARG:HG2	2.34	0.48
46:CN:198:LEU:HA	46:CN:198:LEU:HD22	1.48	0.48
54:CP:71:ALA:HB1	54:CP:74:LYS:NZ	2.29	0.48
54:CP:91:LEU:HD12	54:CP:91:LEU:C	2.34	0.48
49:CQ:152:PHE:O	49:CQ:153:GLY:C	2.53	0.48
49:CQ:67:ILE:HD12	49:CQ:96:PRO:CD	2.43	0.48
50:CR:75:HIS:CG	50:CR:80:LYS:HZ2	2.31	0.48
52:CS:98:ARG:CD	52:CS:145:PHE:CB	2.60	0.48
53:CT:36:LYS:HD2	53:CT:36:LYS:C	2.34	0.48
57:CY:32:SER:OG	57:CY:106:ILE:CG1	2.60	0.48
57:CY:63:LYS:O	57:CY:63:LYS:CG	2.53	0.48
59:CZ:6:LYS:CB	59:CZ:7:PRO:CD	2.92	0.48
59:CZ:88:ASP:OD2	59:CZ:90:PRO:HG3	2.13	0.48
85:A5:1071:C:H4'	85:A5:1072:C:OP2	2.14	0.47
85:A5:1794:A:H5''	85:A5:4214:A:H61	1.79	0.47
85:A5:4467:A:H61	85:A5:4490:C:H42	1.62	0.47
16:AA:106:GLY:HA3	16:AA:113:GLN:NE2	2.29	0.47
16:AA:12:GLU:O	16:AA:16:LEU:HG	2.14	0.47
28:AC:163:VAL:CB	28:AC:164:PRO:HD3	2.43	0.47
3:AU:107:GLU:OE2	23:AD:40:ARG:CD	2.62	0.47
33:AI:191:GLU:O	33:AI:195:LEU:CB	2.62	0.47
4:AK:40:VAL:HG22	4:AK:41:PRO:C	2.30	0.47
10:AN:116:ILE:C	10:AN:119:GLU:HG3	2.34	0.47
5:AO:17:LEU:CD2	5:AO:18:GLY:H	2.27	0.47
5:AO:41:PHE:CD1	5:AO:57:THR:HG21	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:44:ARG:CZ	13:AP:82:ASP:O	2.62	0.47
8:AS:103:LEU:HD12	8:AS:103:LEU:C	2.33	0.47
8:AS:141:ARG:HD2	36:B2:1523:C:C5	2.49	0.47
17:AV:11:LEU:HD12	17:AV:12:TYR:N	2.29	0.47
17:AV:42:VAL:C	17:AV:43:THR:OG1	2.51	0.47
17:AV:68:SER:O	17:AV:72:LEU:HG	2.13	0.47
32:AW:104:LEU:C	32:AW:104:LEU:HD12	2.34	0.47
34:AQ:16:LYS:CE	36:B2:1648:G:O6	2.62	0.47
36:B2:1650:A:C2	36:B2:1651:A:H1'	2.49	0.47
51:CA:118:GLU:OE1	51:CA:119:LYS:HG3	2.12	0.47
63:CB:116:ARG:HD3	63:CB:122:TRP:CD2	2.48	0.47
63:CB:17:LEU:HB3	63:CB:18:PRO:CA	2.39	0.47
74:CC:156:ASP:CG	74:CC:255:SER:HB3	2.34	0.47
48:CD:197:LYS:O	48:CD:202:GLN:HB2	2.14	0.47
64:CF:93:ILE:HD13	64:CF:247:MET:SD	2.54	0.47
82:CG:121:LYS:HD3	82:CG:121:LYS:O	2.13	0.47
82:CG:138:ALA:O	82:CG:143:VAL:CG2	2.58	0.47
82:CG:77:PRO:C	82:CG:81:ASN:HD22	2.16	0.47
80:CH:28:LYS:HA	80:CH:33:THR:HG22	1.95	0.47
47:CI:175:LYS:CA	47:CI:176:PHE:CG	2.96	0.47
40:CK:116:MET:HG3	40:CK:117:ARG:NH2	2.29	0.47
40:CK:80:LEU:HD23	40:CK:83:LYS:NZ	2.29	0.47
42:CL:136:LYS:HD2	42:CL:137:GLY:C	2.34	0.47
42:CL:17:ASP:O	42:CL:21:ARG:NH2	2.47	0.47
46:CN:19:MET:O	46:CN:23:LEU:HG	2.14	0.47
41:CO:195:VAL:HG13	44:CM:115:ALA:O	2.14	0.47
41:CO:12:ARG:HB3	41:CO:37:ARG:CD	2.44	0.47
49:CQ:27:LEU:HD22	74:CC:289:LEU:CG	2.43	0.47
50:CR:123:LEU:CD1	50:CR:138:LEU:CD2	2.57	0.47
50:CR:75:HIS:CG	50:CR:80:LYS:NZ	2.82	0.47
52:CS:78:PHE:CD1	52:CS:130:GLU:C	2.87	0.47
52:CS:84:TYR:CD2	52:CS:85:ASP:N	2.82	0.47
53:CT:126:VAL:HG12	53:CT:128:LEU:CD2	2.44	0.47
56:CX:76:ILE:O	56:CX:100:VAL:HG13	2.14	0.47
57:CY:81:TYR:CD1	57:CY:96:HIS:HB2	2.49	0.47
85:A5:126:C:N4	85:A5:127:G:C6	2.82	0.47
85:A5:1719:A:H2'	85:A5:1720:C:H5''	1.96	0.47
85:A5:1921:C:H4'	85:A5:1922:G:OP2	2.14	0.47
86:A7:120:U:H3'	86:A7:121:U:H5'	1.96	0.47
15:AB:29:ASP:OD1	15:AB:29:ASP:C	2.49	0.47
5:AO:130:GLU:OE2	15:AB:83:LYS:NZ	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AC:259:THR:HG22	28:AC:261:PHE:CB	2.45	0.47
28:AC:69:LEU:N	28:AC:273:LEU:CD2	2.77	0.47
23:AD:137:VAL:HG22	23:AD:151:LYS:HG3	1.95	0.47
23:AD:58:VAL:HG21	23:AD:88:ALA:CB	2.44	0.47
27:AE:124:CYS:HB3	27:AE:141:THR:CB	2.36	0.47
27:AE:11:ARG:C	27:AE:12:VAL:HG23	2.35	0.47
31:AH:34:SER:O	31:AH:35:ASP:OD1	2.32	0.47
26:AJ:110:LEU:CB	26:AJ:130:ILE:HD13	2.43	0.47
26:AJ:94:LEU:HD12	26:AJ:94:LEU:C	2.34	0.47
6:AX:10:ALA:HB2	11:AL:101:ARG:HB2	1.95	0.47
10:AN:84:LEU:C	10:AN:84:LEU:HD12	2.34	0.47
10:AN:84:LEU:O	10:AN:84:LEU:HD12	2.14	0.47
5:AO:44:VAL:HG11	5:AO:93:LEU:HD21	1.94	0.47
34:AQ:42:ILE:CB	34:AQ:51:LEU:HD21	2.44	0.47
12:AR:5:ARG:HB2	12:AR:10:LYS:CE	2.35	0.47
8:AS:52:LEU:O	8:AS:54:LYS:N	2.46	0.47
3:AU:88:LEU:C	3:AU:88:LEU:HD12	2.35	0.47
17:AV:12:TYR:HE1	17:AV:14:PRO:HG3	1.79	0.47
6:AX:41:PHE:CZ	6:AX:120:PHE:CD1	3.02	0.47
18:AY:104:ARG:HA	18:AY:107:ARG:NH2	2.29	0.47
18:AY:44:LEU:HD12	18:AY:48:TYR:CD2	2.49	0.47
19:AZ:44:LEU:HD11	19:AZ:46:ASN:ND2	2.29	0.47
36:B2:1351:G:H2'	36:B2:1352:G:H8	1.79	0.47
51:CA:109:GLU:CD	51:CA:110:GLY:N	2.68	0.47
51:CA:30:ARG:NH2	51:CA:41:ILE:HG21	2.29	0.47
63:CB:298:LEU:O	63:CB:300:LYS:HE2	2.14	0.47
63:CB:305:THR:HG22	63:CB:308:ASP:H	1.78	0.47
74:CC:6:PRO:CA	74:CC:24:LEU:CD2	2.92	0.47
48:CD:58:ARG:HH11	48:CD:93:THR:HB	1.75	0.47
81:CE:228:GLN:C	81:CE:230:GLY:N	2.46	0.47
81:CE:222:LEU:CD2	81:CE:238:GLU:OE1	2.47	0.47
46:CN:187:SER:O	46:CN:188:ARG:CB	2.55	0.47
41:CO:38:CYS:O	41:CO:41:ILE:CG2	2.55	0.47
54:CP:10:ASN:HA	54:CP:11:PRO:HD2	1.56	0.47
54:CP:16:LYS:HE2	54:CP:149:ILE:HG23	1.95	0.47
49:CQ:28:LEU:C	49:CQ:28:LEU:HD12	2.34	0.47
49:CQ:58:ARG:N	49:CQ:59:PRO:HD3	2.30	0.47
50:CR:130:ASN:HD22	50:CR:131:VAL:H	1.62	0.47
53:CT:144:ASN:C	53:CT:146:LYS:H	2.15	0.47
55:CU:48:LYS:HE2	55:CU:51:GLY:O	2.13	0.47
43:CV:19:GLY:C	43:CV:20:LEU:HD23	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:CW:77:LYS:C	58:CW:78:PHE:CD2	2.87	0.47
56:CX:39:LYS:CD	56:CX:40:ILE:O	2.59	0.47
59:CZ:113:GLU:O	59:CZ:117:LYS:HG3	2.14	0.47
85:A5:2464:C:O2'	85:A5:2465:C:H5'	2.13	0.47
85:A5:4350:C:C6	85:A5:4350:C:OP2	2.67	0.47
16:AA:75:SER:HA	16:AA:97:THR:O	2.14	0.47
15:AB:36:PRO:HA	15:AB:231:LEU:CD2	2.43	0.47
28:AC:256:TRP:HH2	32:AW:44:HIS:O	1.98	0.47
23:AD:197:LYS:C	23:AD:198:ILE:HG23	2.34	0.47
27:AE:195:ILE:O	27:AE:196:THR:CB	2.62	0.47
27:AE:48:LEU:CD2	27:AE:70:ILE:CD1	2.81	0.47
30:AF:45:TYR:CA	30:AF:47:LYS:HE2	2.44	0.47
30:AF:59:LYS:HD2	30:AF:62:ARG:HH21	0.66	0.47
29:AG:44:GLU:H	29:AG:44:GLU:HG3	1.51	0.47
31:AH:169:LYS:HD2	31:AH:173:PHE:CZ	2.47	0.47
31:AH:64:VAL:CG2	31:AH:72:PHE:CE2	2.97	0.47
11:AL:22:ARG:CG	33:AI:154:LYS:O	2.61	0.47
26:AJ:180:LYS:HD3	26:AJ:180:LYS:O	2.12	0.47
11:AL:112:HIS:CB	11:AL:134:LEU:CD1	2.92	0.47
11:AL:156:GLN:CD	11:AL:158:PHE:HE2	2.12	0.47
10:AN:21:SER:C	10:AN:22:VAL:CG1	2.76	0.47
5:AO:52:THR:C	5:AO:53:ILE:HG23	2.16	0.47
13:AP:22:LEU:HD12	13:AP:22:LEU:C	2.35	0.47
13:AP:75:VAL:HG22	13:AP:93:MET:HB3	1.97	0.47
34:AQ:113:ILE:CG1	34:AQ:120:LEU:CD1	2.92	0.47
3:AU:44:LYS:HA	3:AU:47:ASN:HA	1.95	0.47
17:AV:57:GLY:O	17:AV:61:ARG:CG	2.61	0.47
36:B2:1008:A:O2'	36:B2:1009:A:H5'	2.14	0.47
36:B2:1195:A:O2'	36:B2:1196:A:H5'	2.14	0.47
36:B2:1351:G:H2'	36:B2:1352:G:C8	2.49	0.47
36:B2:1617:G:N1	36:B2:1620:A:OP2	2.48	0.47
36:B2:1721:U:C3'	36:B2:1722:G:H5'	2.44	0.47
36:B2:556:U:C4	36:B2:557:U:C5	3.02	0.47
51:CA:116:LEU:HD11	51:CA:126:LEU:CG	2.44	0.47
51:CA:144:LYS:CE	51:CA:160:SER:HB2	2.44	0.47
51:CA:18:ALA:HA	51:CA:193:ARG:CG	2.40	0.47
63:CB:32:PHE:CB	63:CB:33:PRO:HD2	2.45	0.47
74:CC:159:GLU:HB3	74:CC:214:ASP:HA	1.95	0.47
74:CC:5:ARG:HH22	74:CC:26:ALA:HA	1.79	0.47
74:CC:345:ARG:N	74:CC:345:ARG:CD	2.77	0.47
74:CC:54:VAL:HG23	74:CC:101:MET:HE1	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CD:252:VAL:HG12	48:CD:254:GLU:OE1	2.13	0.47
48:CD:271:MET:HE2	48:CD:275:GLN:HB3	1.82	0.47
64:CF:101:VAL:CG1	64:CF:106:ARG:CG	2.91	0.47
64:CF:98:ILE:HG12	64:CF:98:ILE:O	2.14	0.47
80:CH:26:ILE:CG2	80:CH:35:ARG:HE	2.27	0.47
80:CH:36:ARG:CD	80:CH:38:PHE:CZ	2.94	0.47
47:CI:76:MET:CE	47:CI:148:VAL:CA	2.61	0.47
42:CL:155:MET:H	42:CL:155:MET:HE1	1.73	0.47
41:CO:190:ASP:CA	41:CO:191:LYS:C	2.81	0.47
49:CQ:157:GLY:C	49:CQ:159:PRO:HD3	2.33	0.47
49:CQ:93:GLN:H	49:CQ:93:GLN:NE2	2.12	0.47
50:CR:103:ARG:HD2	50:CR:124:TYR:CZ	2.48	0.47
53:CT:125:TRP:CD1	53:CT:126:VAL:HB	2.36	0.47
55:CU:113:ARG:HG3	55:CU:113:ARG:O	2.14	0.47
56:CX:155:ILE:HD12	56:CX:156:ILE:N	2.28	0.47
56:CX:52:LEU:CD1	56:CX:53:ARG:N	2.71	0.47
56:CX:52:LEU:HD12	56:CX:54:LEU:H	1.69	0.47
57:CY:22:PRO:HG3	57:CY:25:ILE:CD1	2.38	0.47
85:A5:1186:U:H2'	85:A5:1187:G:C8	2.50	0.47
85:A5:1719:A:H2'	85:A5:1720:C:C5'	2.43	0.47
52:CS:160:ARG:NH2	85:A5:1920:C:H5'	2.27	0.47
85:A5:4072:C:C2'	85:A5:4073:A:H5''	2.42	0.47
16:AA:59:LEU:CD2	16:AA:181:GLU:CG	2.93	0.47
16:AA:18:PHE:CE2	16:AA:55:TRP:CZ3	3.02	0.47
16:AA:26:GLY:N	16:AA:47:TYR:O	2.46	0.47
15:AB:182:LYS:HD3	15:AB:182:LYS:HA	1.62	0.47
28:AC:190:SER:O	28:AC:228:GLY:HA3	2.14	0.47
28:AC:74:LYS:HD2	28:AC:269:PHE:CE1	2.48	0.47
23:AD:188:ILE:HG22	23:AD:190:LEU:CD2	2.42	0.47
12:AR:19:LYS:CG	23:AD:212:GLU:HB3	2.43	0.47
27:AE:132:GLY:N	27:AE:136:ILE:O	2.47	0.47
27:AE:164:LEU:HD22	27:AE:164:LEU:HA	1.76	0.47
18:AY:18:LEU:HD21	27:AE:64:ILE:CG1	2.44	0.47
29:AG:64:LYS:HD2	29:AG:100:CYS:SG	2.53	0.47
29:AG:77:LEU:HD13	29:AG:84:TYR:HB2	1.96	0.47
31:AH:190:PRO:HB2	31:AH:191:GLU:HG3	1.96	0.47
31:AH:44:ASN:HB3	31:AH:68:GLN:NE2	2.29	0.47
31:AH:87:PHE:CE2	31:AH:90:LYS:NZ	2.73	0.47
26:AJ:122:SER:HG	26:AJ:124:HIS:HB2	1.75	0.47
26:AJ:180:LYS:HG3	26:AJ:181:GLY:H	1.78	0.47
11:AL:14:PRO:HB2	11:AL:15:THR:HG23	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:78:THR:CG2	11:AL:79:LYS:N	2.77	0.47
11:AL:99:TYR:CD2	11:AL:99:TYR:N	2.80	0.47
7:AM:46:GLN:HB3	7:AM:112:LYS:CD	2.44	0.47
10:AN:13:GLN:C	10:AN:14:SER:O	2.47	0.47
13:AP:126:VAL:HG12	13:AP:127:LYS:CA	2.32	0.47
13:AP:17:TYR:CE1	13:AP:18:ARG:HB2	2.49	0.47
12:AR:15:VAL:CG1	23:AD:210:ILE:HD11	2.29	0.47
32:AW:23:ARG:HG2	32:AW:23:ARG:NH1	2.29	0.47
63:CB:224:LYS:HE2	63:CB:224:LYS:HB2	1.62	0.47
74:CC:162:LYS:HB3	74:CC:162:LYS:HE2	1.76	0.47
74:CC:174:LEU:O	74:CC:175:LYS:CG	2.62	0.47
74:CC:209:ILE:HG21	74:CC:221:PHE:CZ	2.49	0.47
74:CC:140:LYS:HD3	74:CC:245:HIS:C	2.34	0.47
48:CD:155:THR:HA	48:CD:179:ARG:HD3	1.95	0.47
48:CD:20:PHE:CE2	48:CD:30:TYR:CZ	2.98	0.47
81:CE:109:LEU:HD12	81:CE:110:ARG:H	1.79	0.47
81:CE:181:LEU:CD2	81:CE:272:ARG:NH2	2.77	0.47
64:CF:150:VAL:O	64:CF:154:ILE:HG12	2.14	0.47
82:CG:250:ILE:HG23	82:CG:251:ALA:N	2.28	0.47
80:CH:183:GLU:OE1	80:CH:185:GLY:N	2.47	0.47
79:CJ:22:LEU:HD23	79:CJ:130:PHE:CD2	2.48	0.47
40:CK:31:LYS:O	40:CK:34:PRO:HG2	2.10	0.47
42:CL:190:ARG:O	42:CL:190:ARG:HD3	2.15	0.47
41:CO:16:LEU:HG	41:CO:42:ASN:O	2.14	0.47
41:CO:77:SER:HB3	41:CO:106:ASP:OD1	2.14	0.47
49:CQ:126:LEU:C	49:CQ:126:LEU:HD13	2.35	0.47
50:CR:101:ILE:O	50:CR:104:ARG:HD3	2.14	0.47
52:CS:21:LYS:HB2	52:CS:22:CYS:C	2.34	0.47
52:CS:34:ALA:HB1	52:CS:39:VAL:HG21	1.85	0.47
53:CT:6:GLY:O	53:CT:9:ARG:HB3	2.14	0.47
58:CW:43:LYS:HE3	58:CW:43:LYS:HB2	1.63	0.47
56:CX:65:ALA:HB1	56:CX:66:PRO:CD	2.44	0.47
57:CY:89:LYS:HE2	57:CY:90:ALA:HB3	1.97	0.47
59:CZ:73:LYS:HG2	59:CZ:75:TYR:CD2	2.44	0.47
85:A5:1429:C:H6	85:A5:1429:C:H5''	1.78	0.47
85:A5:2465:C:C4	85:A5:2466:G:C6	3.02	0.47
63:CB:254:ILE:CD1	85:A5:3897:G:H4'	2.43	0.47
85:A5:4340:U:C5	85:A5:4341:C:C5	3.02	0.47
85:A5:4462:C:H2'	85:A5:4463:U:C6	2.50	0.47
85:A5:942:G:H2'	85:A5:943:A:O4'	2.15	0.47
85:A5:958:G:N9	85:A5:958:G:O4'	2.42	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
87:A8:128:C:C5	87:A8:129:C:C4	3.03	0.47
15:AB:137:LEU:HD23	15:AB:215:VAL:CA	2.44	0.47
15:AB:83:LYS:O	15:AB:103:MET:HA	2.14	0.47
28:AC:57:ASP:OD1	28:AC:58:LYS:N	2.46	0.47
30:AF:47:LYS:HD3	30:AF:47:LYS:N	2.30	0.47
31:AH:43:LEU:HD13	31:AH:72:PHE:HE1	1.72	0.47
33:AI:157:LYS:C	33:AI:158:ILE:O	2.51	0.47
26:AJ:79:ARG:CD	26:AJ:79:ARG:C	2.83	0.47
4:AK:40:VAL:HG21	4:AK:45:VAL:HG23	1.95	0.47
4:AK:4:PRO:CG	4:AK:7:ASN:CG	2.83	0.47
34:AQ:41:MET:O	34:AQ:43:GLU:HG3	2.13	0.47
34:AQ:10:VAL:HG11	34:AQ:94:ALA:HB1	1.96	0.47
6:AX:28:LYS:HE3	6:AX:32:LEU:HD11	1.96	0.47
19:AZ:91:LEU:HB3	19:AZ:97:ILE:HG12	1.95	0.47
36:B2:1131:G:H5'	36:B2:1131:G:C8	2.48	0.47
63:CB:231:VAL:HG23	63:CB:267:ALA:HB1	1.95	0.47
63:CB:241:PRO:O	63:CB:244:THR:HG23	2.14	0.47
63:CB:291:TYR:CD1	63:CB:292:LEU:O	2.66	0.47
74:CC:170:LEU:CD1	74:CC:171:LEU:N	2.71	0.47
74:CC:285:ILE:O	74:CC:286:ASN:HB2	2.15	0.47
48:CD:207:TYR:OH	48:CD:211:LEU:HD11	2.14	0.47
48:CD:270:LYS:C	48:CD:271:MET:HG2	2.30	0.47
81:CE:106:VAL:HG21	81:CE:107:VAL:CG1	2.33	0.47
81:CE:219:LYS:CD	85:A5:4939:C:H6	2.27	0.47
81:CE:285:LYS:O	81:CE:287:VAL:N	2.47	0.47
82:CG:174:CYS:CB	82:CG:181:TYR:CD2	2.97	0.47
82:CG:207:VAL:CG1	82:CG:215:LEU:HD11	2.45	0.47
82:CG:56:LYS:O	82:CG:58:PRO:HD3	2.14	0.47
47:CI:205:PRO:N	47:CI:206:LEU:N	2.62	0.47
79:CJ:146:ARG:HH22	79:CJ:147:ARG:NE	2.12	0.47
40:CK:81:ILE:CD1	40:CK:113:ALA:CB	2.93	0.47
41:CO:27:VAL:HG12	41:CO:98:ALA:CA	2.42	0.47
41:CO:16:LEU:HD21	41:CO:41:ILE:CD1	2.26	0.47
41:CO:54:TYR:CE2	41:CO:145:VAL:CB	2.96	0.47
50:CR:93:VAL:O	50:CR:97:ARG:CD	2.62	0.47
52:CS:88:SER:OG	52:CS:89:GLY:N	2.42	0.47
43:CV:58:GLY:CA	43:CV:125:CYS:SG	3.03	0.47
58:CW:4:GLU:HG2	58:CW:30:GLN:CD	2.33	0.47
29:AG:129:VAL:C	58:CW:80:ARG:HE	2.18	0.47
56:CX:89:LYS:O	56:CX:93:ASN:HB2	2.13	0.47
57:CY:30:MET:SD	57:CY:80:ILE:HG22	2.54	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:2308:A:H4'	85:A5:2334:C:H4'	1.96	0.47
85:A5:3971:G:C3'	85:A5:3971:G:C8	2.95	0.47
85:A5:417:G:H1'	87:A8:16:G:N2	2.29	0.47
85:A5:4299:U:H3	85:A5:4311:A:H61	1.63	0.47
85:A5:4769:G:H1	85:A5:4865:C:H42	1.61	0.47
15:AB:149:GLN:HE21	15:AB:151:ARG:CG	2.19	0.47
28:AC:174:ILE:HG23	28:AC:174:ILE:O	2.15	0.47
28:AC:259:THR:O	28:AC:261:PHE:N	2.47	0.47
23:AD:48:ILE:CG2	23:AD:86:LEU:CG	2.82	0.47
27:AE:48:LEU:HD11	27:AE:70:ILE:HD13	1.94	0.47
29:AG:215:LYS:HA	29:AG:218:LYS:HG3	1.97	0.47
31:AH:120:ARG:NH1	36:B2:913:A:C8	2.82	0.47
31:AH:126:HIS:HA	31:AH:129:ILE:HD12	1.96	0.47
31:AH:37:LYS:HD2	31:AH:41:ARG:HD3	1.97	0.47
31:AH:9:VAL:C	31:AH:11:PRO:HD2	2.32	0.47
31:AH:9:VAL:O	31:AH:45:ILE:O	2.33	0.47
33:AI:155:ASN:CG	33:AI:156:ALA:HA	2.35	0.47
26:AJ:93:LYS:CA	26:AJ:93:LYS:HE3	2.45	0.47
4:AK:84:HIS:CE1	4:AK:85:LEU:CA	2.85	0.47
11:AL:31:GLU:N	11:AL:31:GLU:OE1	2.41	0.47
7:AM:35:ILE:CG1	7:AM:61:TYR:CE2	2.98	0.47
10:AN:16:LEU:HD23	10:AN:17:PRO:CD	2.45	0.47
10:AN:91:LEU:HD21	36:B2:925:G:C5'	2.44	0.47
5:AO:52:THR:HG21	36:B2:953:C:O4'	2.15	0.47
13:AP:18:ARG:HD2	13:AP:37:TYR:CB	2.41	0.47
34:AQ:127:CYS:HA	36:B2:1648:G:C2'	2.40	0.47
34:AQ:88:ILE:HG13	34:AQ:89:SER:H	1.78	0.47
12:AR:91:LEU:H	12:AR:92:ASP:CA	2.15	0.47
8:AS:80:PRO:HG2	8:AS:82:TRP:CE2	2.48	0.47
14:AT:33:TRP:O	14:AT:34:VAL:HB	2.14	0.47
14:AT:40:ALA:O	14:AT:43:LYS:CG	2.62	0.47
18:AY:50:THR:C	18:AY:51:THR:HG23	2.35	0.47
18:AY:56:PHE:HB3	18:AY:58:PHE:CE2	2.48	0.47
18:AY:55:ILE:CA	18:AY:75:ILE:HG12	2.44	0.47
36:B2:1287:A:C8	36:B2:1288:U:C6	3.03	0.47
36:B2:217:A:H61	36:B2:304:C:H42	1.60	0.47
26:AJ:165:TYR:CE1	36:B2:561:A:H5'	2.50	0.47
63:CB:100:ARG:HH12	63:CB:102:PHE:HD1	1.59	0.47
63:CB:290:GLY:O	63:CB:299:ILE:HD11	2.13	0.47
63:CB:57:VAL:HG12	63:CB:366:LYS:CE	2.12	0.47
74:CC:28:PHE:CA	74:CC:129:ALA:HA	2.38	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:182:LYS:O	74:CC:183:VAL:C	2.53	0.47
48:CD:142:PHE:HB3	48:CD:171:LEU:HD23	1.84	0.47
81:CE:145:THR:HB	81:CE:200:LYS:HE2	1.97	0.47
81:CE:265:PRO:O	81:CE:266:GLN:HG2	2.14	0.47
64:CF:86:GLU:OE1	64:CF:86:GLU:HA	2.13	0.47
82:CG:70:LEU:HD13	82:CG:70:LEU:C	2.35	0.47
82:CG:99:ALA:CB	82:CG:204:PHE:CZ	2.98	0.47
80:CH:110:SER:O	80:CH:111:LEU:HG	2.14	0.47
47:CI:115:MET:HE3	47:CI:118:ALA:CB	2.44	0.47
79:CJ:50:PHE:CD1	79:CJ:70:VAL:HB	2.49	0.47
40:CK:95:GLN:C	40:CK:97:ASN:N	2.68	0.47
44:CM:13:ALA:CB	44:CM:55:MET:CE	2.92	0.47
46:CN:42:PRO:N	46:CN:61:ILE:CD1	2.76	0.47
41:CO:26:GLN:HE22	52:CS:166:ARG:HB3	1.79	0.47
54:CP:82:ARG:O	54:CP:84:PRO:HD3	2.14	0.47
49:CQ:121:LEU:HD22	49:CQ:125:GLN:CD	2.31	0.47
50:CR:37:SER:OG	50:CR:40:GLN:HB2	2.15	0.47
50:CR:4:LEU:CD1	50:CR:33:ALA:N	2.77	0.47
53:CT:68:THR:OG1	53:CT:71:ALA:O	2.32	0.47
55:CU:119:GLN:O	55:CU:120:ASP:HB2	2.15	0.47
58:CW:57:ARG:NH1	58:CW:57:ARG:CG	2.64	0.47
29:AG:131:ARG:N	58:CW:81:ALA:CB	2.77	0.47
56:CX:89:LYS:CD	56:CX:95:THR:OG1	2.63	0.47
57:CY:106:ILE:HG21	57:CY:109:LEU:HG	1.97	0.47
85:A5:15:A:H2'	85:A5:16:G:O4'	2.14	0.47
51:CA:199:VAL:HG21	85:A5:1631:A:C8	2.49	0.47
85:A5:2771:G:H2'	85:A5:2772:C:H5'	1.96	0.47
85:A5:363:A:H61	85:A5:376:A:H5''	1.80	0.47
81:CE:219:LYS:CG	85:A5:4939:C:H2'	2.44	0.47
63:CB:21:ARG:HH12	85:A5:4978:G:H5'	1.80	0.47
85:A5:4991:U:H2'	85:A5:4992:G:C8	2.49	0.47
86:A7:1:G:H2'	86:A7:2:U:C6	2.49	0.47
16:AA:14:ASP:OD1	16:AA:180:ARG:NH2	2.48	0.47
15:AB:137:LEU:HD23	15:AB:215:VAL:CG1	2.18	0.47
23:AD:223:ILE:HG22	23:AD:224:SER:N	2.28	0.47
4:AK:64:TRP:HE1	23:AD:23:GLU:HB3	1.79	0.47
30:AF:149:GLN:O	30:AF:153:LEU:HG	2.14	0.47
33:AI:142:SER:CB	33:AI:143:LYS:CE	2.92	0.47
11:AL:96:ILE:HD12	11:AL:96:ILE:N	2.30	0.47
5:AO:72:TYR:CE1	5:AO:76:LEU:CD1	2.98	0.47
12:AR:95:ILE:CG2	12:AR:115:SER:O	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AS:30:ILE:O	8:AS:32:ALA:N	2.47	0.47
8:AS:55:ARG:HH12	19:AZ:82:SER:CB	2.27	0.47
8:AS:80:PRO:HG3	8:AS:82:TRP:CZ2	2.50	0.47
14:AT:111:LYS:HB3	14:AT:126:GLN:HE21	1.69	0.47
14:AT:36:THR:HG23	14:AT:37:VAL:N	2.29	0.47
16:AA:4:ALA:CB	17:AV:39:VAL:HG21	2.39	0.47
17:AV:69:ILE:O	17:AV:73:ALA:N	2.45	0.47
18:AY:111:LYS:HG3	18:AY:112:ASN:N	2.29	0.47
18:AY:119:GLY:HA2	36:B2:85:A:C5'	2.45	0.47
36:B2:1202:U:H3	36:B2:1697:A:H61	1.62	0.47
36:B2:353:C:H2'	36:B2:354:U:C6	2.49	0.47
36:B2:530:U:O4	36:B2:555:A:C2	2.68	0.47
36:B2:529:A:N1	36:B2:555:A:N1	2.63	0.47
51:CA:28:ARG:CD	51:CA:123:ARG:HG2	2.41	0.47
63:CB:40:PRO:O	63:CB:187:GLY:HA2	2.13	0.47
63:CB:282:LYS:HB3	63:CB:333:LEU:CD1	2.45	0.47
63:CB:311:ASP:CG	63:CB:312:LYS:H	2.17	0.47
63:CB:355:THR:O	63:CB:356:LYS:NZ	2.46	0.47
63:CB:36:ASP:OD1	63:CB:36:ASP:O	2.32	0.47
74:CC:283:LYS:HB3	74:CC:283:LYS:NZ	2.27	0.47
48:CD:118:ILE:O	48:CD:119:TYR:HB2	2.13	0.47
81:CE:232:ILE:C	81:CE:234:ASP:N	2.67	0.47
81:CE:239:LYS:O	81:CE:242:ILE:HG22	2.14	0.47
64:CF:133:LEU:O	64:CF:136:VAL:HG22	2.14	0.47
64:CF:209:TRP:CG	64:CF:210:PRO:HD2	2.49	0.47
64:CF:226:HIS:CB	64:CF:229:GLU:HG2	2.44	0.47
82:CG:128:VAL:H	82:CG:129:PRO:HD3	1.77	0.47
82:CG:152:ALA:N	82:CG:205:THR:CG2	2.78	0.47
82:CG:76:VAL:HA	82:CG:77:PRO:HD3	1.79	0.47
47:CI:85:PHE:CB	47:CI:140:THR:HG22	2.44	0.47
79:CJ:154:LYS:O	79:CJ:155:HIS:CB	2.62	0.47
79:CJ:57:VAL:CG1	79:CJ:60:PHE:CD2	2.88	0.47
40:CK:110:VAL:HG12	40:CK:114:ARG:NH1	2.29	0.47
42:CL:136:LYS:HD2	42:CL:137:GLY:HA2	1.97	0.47
44:CM:77:TRP:CD1	44:CM:82:ILE:CD1	2.91	0.47
49:CQ:93:GLN:O	49:CQ:94:GLU:CD	2.52	0.47
44:CM:6:PHE:HB3	52:CS:151:LYS:HB3	1.96	0.47
53:CT:14:MET:CE	53:CT:55:LYS:CB	2.93	0.47
53:CT:40:VAL:HG12	53:CT:41:ASP:N	2.29	0.47
85:A5:1266:G:H8	85:A5:1266:G:OP2	1.98	0.47
85:A5:1918:U:H3	85:A5:2064:G:H1	1.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:2551:A:C2'	85:A5:2552:G:H5'	2.44	0.47
85:A5:65:A:N6	85:A5:75:G:H1'	2.30	0.47
16:AA:132:GLN:N	16:AA:133:PRO:CD	2.78	0.47
16:AA:138:SER:O	17:AV:30:ALA:HA	2.15	0.47
15:AB:189:ILE:HB	15:AB:190:PRO:HD3	1.97	0.47
15:AB:55:THR:C	15:AB:56:LYS:HD2	2.31	0.47
23:AD:132:LYS:HB3	23:AD:189:MET:HG3	1.96	0.47
27:AE:12:VAL:HG21	36:B2:616:A:N3	61.50	0.47
27:AE:2:ALA:O	27:AE:3:ARG:CG	2.62	0.47
30:AF:42:LYS:C	30:AF:45:TYR:H	2.16	0.47
29:AG:127:THR:C	29:AG:128:THR:OG1	2.52	0.47
29:AG:213:LEU:C	29:AG:213:LEU:HD12	2.34	0.47
29:AG:71:GLY:O	29:AG:98:ARG:NE	2.48	0.47
31:AH:37:LYS:HG3	31:AH:38:ALA:N	2.29	0.47
11:AL:22:ARG:HD2	33:AI:154:LYS:O	2.14	0.47
34:AQ:34:VAL:HG22	34:AQ:39:LEU:HD21	1.93	0.47
3:AU:108:PRO:HG2	3:AU:110:VAL:HG23	1.96	0.47
3:AU:16:ALA:O	3:AU:17:ILE:HG13	2.14	0.47
17:AV:55:ILE:HG22	17:AV:60:ARG:CG	2.44	0.47
31:AH:144:ILE:N	32:AW:52:ILE:O	2.48	0.47
18:AY:87:PRO:O	18:AY:87:PRO:CD	2.60	0.47
14:AT:11:GLN:CD	36:B2:1542:C:H5''	2.35	0.47
36:B2:162:C:H2'	36:B2:163:U:O4'	2.13	0.47
51:CA:193:ARG:HH22	85:A5:3685:C:C5'	2.27	0.47
51:CA:5:ILE:CG2	51:CA:6:ARG:H	2.27	0.47
63:CB:338:VAL:O	63:CB:345:LEU:CD1	2.62	0.47
63:CB:83:PRO:O	63:CB:167:GLN:CD	2.52	0.47
74:CC:8:ILE:HD11	74:CC:151:PRO:CD	2.45	0.47
74:CC:287:THR:C	74:CC:288:ASP:OD1	2.53	0.47
48:CD:104:LEU:HG	48:CD:247:ILE:HD13	1.97	0.47
48:CD:271:MET:HE1	48:CD:275:GLN:CG	2.44	0.47
81:CE:107:VAL:O	81:CE:108:LYS:NZ	2.37	0.47
81:CE:115:TYR:HA	81:CE:117:PRO:HD3	1.95	0.47
81:CE:138:ARG:NH2	81:CE:168:LEU:O	2.32	0.47
81:CE:222:LEU:HD13	81:CE:238:GLU:OE2	2.15	0.47
82:CG:27:VAL:O	82:CG:31:LEU:HD13	2.11	0.47
44:CM:32:ASP:CB	44:CM:35:ARG:CG	2.82	0.47
44:CM:82:ILE:HG22	44:CM:83:ASN:OD1	2.15	0.47
46:CN:195:ARG:HE	46:CN:195:ARG:HB3	1.50	0.47
46:CN:29:GLN:HE21	82:CG:67:ARG:HG3	1.79	0.47
46:CN:76:PRO:HG2	46:CN:78:GLY:H	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:152:PHE:O	49:CQ:154:LYS:N	2.47	0.47
49:CQ:7:HIS:C	49:CQ:9:LYS:H	2.17	0.47
50:CR:102:LEU:CD1	50:CR:127:VAL:HG13	2.45	0.47
52:CS:84:TYR:CD2	52:CS:85:ASP:O	2.68	0.47
55:CU:84:LYS:NZ	55:CU:102:VAL:O	2.39	0.47
59:CZ:95:VAL:CG1	59:CZ:110:ALA:HA	2.44	0.47
85:A5:2021:G:H2'	85:A5:2022:C:H6	1.79	0.47
16:AA:149:ASN:H	16:AA:165:ASN:ND2	2.13	0.47
16:AA:30:LEU:HD13	16:AA:38:ILE:HD13	1.68	0.47
15:AB:136:ARG:CG	15:AB:138:PHE:CZ	2.98	0.47
15:AB:131:ASP:OD1	15:AB:180:ASP:HA	2.15	0.47
28:AC:256:TRP:CZ2	32:AW:68:ARG:HD2	2.49	0.47
23:AD:141:LYS:HZ3	36:B2:1332:A:C2'	2.27	0.47
27:AE:191:ARG:NE	27:AE:245:ARG:CD	2.76	0.47
27:AE:259:LYS:O	27:AE:260:GLN:HG2	2.14	0.47
30:AF:141:VAL:HG22	30:AF:146:ARG:HD3	1.97	0.47
30:AF:138:ALA:HB3	30:AF:204:ARG:HB3	1.96	0.47
30:AF:42:LYS:CB	30:AF:45:TYR:CA	2.81	0.47
29:AG:6:SER:OG	29:AG:112:VAL:HG22	2.15	0.47
29:AG:162:LEU:C	29:AG:162:LEU:HD12	2.34	0.47
27:AE:149:TYR:HD2	29:AG:205:GLU:CB	2.11	0.47
4:AK:2:LEU:O	4:AK:3:MET:CE	2.62	0.47
11:AL:57:ASP:OD1	11:AL:59:LYS:HB2	2.14	0.47
5:AO:119:LEU:HD11	5:AO:126:ILE:HD11	1.97	0.47
5:AO:43:HIS:CD2	5:AO:43:HIS:O	2.68	0.47
5:AO:44:VAL:CG1	5:AO:93:LEU:HD22	2.44	0.47
34:AQ:114:GLN:CG	34:AQ:115:TYR:N	2.60	0.47
34:AQ:115:TYR:CD2	34:AQ:115:TYR:C	2.88	0.47
34:AQ:25:CYS:HG	34:AQ:91:ALA:CB	2.22	0.47
34:AQ:19:ALA:HB1	34:AQ:74:GLY:O	2.12	0.47
12:AR:95:ILE:CA	12:AR:114:LEU:HD13	2.42	0.47
12:AR:87:GLU:O	12:AR:88:VAL:CG1	2.62	0.47
18:AY:118:ARG:CZ	29:AG:85:ARG:CZ	2.92	0.47
36:B2:529:A:N1	36:B2:555:A:C2	2.83	0.47
18:AY:66:GLY:CA	36:B2:582:U:OP1	2.62	0.47
51:CA:120:PRO:CD	51:CA:159:SER:OG	2.62	0.47
63:CB:198:ARG:HA	63:CB:201:LEU:HD13	1.97	0.47
63:CB:359:ALA:O	63:CB:360:LEU:HB2	2.15	0.47
48:CD:155:THR:O	48:CD:155:THR:HG23	2.14	0.47
81:CE:232:ILE:C	81:CE:234:ASP:H	2.18	0.47
81:CE:85:LYS:CB	81:CE:92:VAL:HG13	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:CG:82:GLN:CG	82:CG:233:ILE:CG2	2.89	0.47
47:CI:102:MET:CA	47:CI:103:LEU:HD22	2.45	0.47
47:CI:52:MET:HE1	47:CI:155:ALA:HB3	1.97	0.47
42:CL:169:ILE:HG13	42:CL:170:THR:N	2.29	0.47
42:CL:24:THR:HB	42:CL:26:PHE:HE2	1.80	0.47
46:CN:192:TRP:O	46:CN:195:ARG:HG3	2.15	0.47
46:CN:4:TYR:HD1	46:CN:46:ASP:HA	1.80	0.47
41:CO:127:VAL:O	41:CO:127:VAL:CG1	2.61	0.47
41:CO:185:VAL:HA	41:CO:188:LYS:HB2	1.97	0.47
41:CO:73:PHE:CD1	41:CO:78:ARG:HG2	2.50	0.47
54:CP:41:ILE:CD1	54:CP:150:LEU:HD13	2.35	0.47
54:CP:76:TRP:CE3	54:CP:76:TRP:HA	2.50	0.47
54:CP:76:TRP:CE3	54:CP:76:TRP:N	2.82	0.47
52:CS:2:LYS:HE2	52:CS:34:ALA:HB2	1.95	0.47
52:CS:48:VAL:HG13	52:CS:49:SER:N	2.30	0.47
53:CT:150:LEU:C	53:CT:151:LEU:HA	2.35	0.47
55:CU:35:ASP:O	55:CU:35:ASP:CG	2.53	0.47
55:CU:40:GLU:CG	55:CU:70:ILE:CD1	2.92	0.47
55:CU:60:VAL:C	55:CU:61:VAL:HG13	2.34	0.47
55:CU:91:LEU:CD2	55:CU:96:LEU:HB3	2.44	0.47
58:CW:27:LYS:CG	58:CW:28:VAL:H	1.90	0.47
57:CY:74:TYR:CB	57:CY:81:TYR:HE2	2.27	0.47
85:A5:1363:C:O4'	85:A5:1363:C:C6	2.67	0.47
85:A5:2636:U:H2'	85:A5:2637:U:O4'	2.14	0.47
85:A5:306:A:H61	85:A5:328:A:H61	1.63	0.47
85:A5:3770:U:H2'	85:A5:3771:C:C6	2.50	0.47
85:A5:4748:U:H3	85:A5:4952:G:H1	1.63	0.47
16:AA:158:ASP:CG	16:AA:158:ASP:O	2.54	0.47
16:AA:30:LEU:CD2	16:AA:35:GLU:HG2	2.41	0.47
15:AB:146:ARG:NH1	15:AB:146:ARG:HG2	2.30	0.47
15:AB:144:LYS:HB3	15:AB:208:HIS:HB3	1.97	0.47
23:AD:10:LYS:HE3	23:AD:14:ASP:OD2	2.14	0.47
23:AD:4:GLN:C	23:AD:5:ILE:HG13	2.35	0.47
27:AE:200:ARG:HG2	27:AE:206:ASP:OD2	2.14	0.47
29:AG:51:ARG:HH11	29:AG:51:ARG:HG2	1.79	0.47
31:AH:139:ILE:N	31:AH:139:ILE:HD12	2.30	0.47
31:AH:154:ILE:CG2	31:AH:185:VAL:HG23	2.45	0.47
31:AH:169:LYS:HB2	31:AH:173:PHE:CZ	2.47	0.47
31:AH:29:GLU:OE1	31:AH:86:LYS:HE3	2.15	0.47
31:AH:40:LEU:HD23	31:AH:43:LEU:HG	1.96	0.47
4:AK:43:LEU:N	4:AK:46:MET:H	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AK:25:LYS:HD2	4:AK:62:PHE:CE1	2.45	0.47
11:AL:76:VAL:HG23	11:AL:76:VAL:O	2.15	0.47
18:AY:88:LYS:HE2	18:AY:99:LYS:HG3	1.97	0.47
19:AZ:99:LEU:CG	19:AZ:102:LYS:HD3	2.42	0.47
36:B2:845:G:C3'	36:B2:846:G:C8	2.98	0.47
51:CA:196:TRP:CE2	51:CA:197:PRO:HG3	2.50	0.47
51:CA:97:ASN:O	51:CA:98:ILE:C	2.51	0.47
63:CB:116:ARG:HD3	63:CB:122:TRP:CE3	2.50	0.47
63:CB:150:PHE:N	63:CB:150:PHE:HD1	2.05	0.47
74:CC:231:ASN:CG	74:CC:233:SER:HG	2.14	0.47
48:CD:99:TYR:CE1	48:CD:164:LYS:HG3	2.50	0.47
48:CD:184:ASP:OD2	48:CD:187:SER:OG	2.28	0.47
81:CE:157:HIS:HB3	81:CE:160:LYS:HD3	1.96	0.47
81:CE:34:ALA:O	81:CE:36:LYS:CD	2.63	0.47
64:CF:101:VAL:O	64:CF:101:VAL:HG13	2.14	0.47
47:CI:125:THR:O	47:CI:126:VAL:HG23	2.15	0.47
47:CI:206:LEU:O	47:CI:207:ASP:O	2.32	0.47
47:CI:48:LEU:HD13	47:CI:49:GLY:CA	2.44	0.47
47:CI:30:LYS:HB2	47:CI:62:SER:OG	2.15	0.47
40:CK:117:ARG:HE	40:CK:117:ARG:HA	1.45	0.47
40:CK:7:PRO:CG	40:CK:8:ASN:N	2.78	0.47
42:CL:133:ALA:HA	42:CL:134:PRO:HD3	1.55	0.47
42:CL:200:LYS:HA	42:CL:200:LYS:HD3	1.45	0.47
46:CN:11:TRP:CZ3	46:CN:19:MET:HE1	2.49	0.47
46:CN:4:TYR:CB	46:CN:46:ASP:OD1	2.63	0.47
41:CO:193:THR:O	41:CO:194:GLU:C	2.53	0.47
54:CP:117:ILE:O	54:CP:117:ILE:HG23	2.15	0.47
49:CQ:178:ARG:HD3	49:CQ:185:GLY:CA	2.24	0.47
50:CR:28:GLU:O	50:CR:30:ASN:CA	3.84	0.47
50:CR:96:MET:HE3	50:CR:96:MET:HA	4.36	0.47
52:CS:148:SER:O	52:CS:149:LYS:CB	2.51	0.47
52:CS:154:LEU:HD12	52:CS:157:ARG:NH1	2.26	0.47
52:CS:78:PHE:CE2	52:CS:102:THR:HG22	2.50	0.47
52:CS:29:ARG:CB	53:CT:150:LEU:HB2	2.43	0.47
53:CT:17:ARG:NE	53:CT:47:THR:OG1	2.44	0.47
57:CY:124:LYS:HA	57:CY:127:GLN:CD	2.35	0.47
85:A5:1360:G:C6	85:A5:1361:G:C6	3.02	0.47
85:A5:3639:U:H3	85:A5:3649:A:H61	1.63	0.47
85:A5:750:U:H3	85:A5:912:G:H1	1.60	0.47
15:AB:24:PRO:O	15:AB:28:LYS:HG3	2.15	0.47
28:AC:69:LEU:H	28:AC:273:LEU:HD22	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AD:178:ARG:H	23:AD:178:ARG:NE	2.13	0.47
23:AD:222:PRO:O	23:AD:223:ILE:CD1	2.63	0.47
23:AD:68:GLU:O	23:AD:72:VAL:HG23	2.14	0.47
27:AE:146:THR:C	27:AE:147:ILE:HD13	2.35	0.47
27:AE:148:ARG:NH2	29:AG:202:ASN:CG	2.68	0.47
27:AE:213:ALA:O	27:AE:214:ASN:OD1	2.33	0.47
29:AG:142:ARG:NH1	29:AG:142:ARG:HG2	2.30	0.47
29:AG:143:LYS:HE3	29:AG:143:LYS:HA	1.97	0.47
29:AG:154:ARG:HH21	36:B2:77:A:N6	2.13	0.47
29:AG:33:ALA:H	29:AG:52:ILE:CG2	2.14	0.47
29:AG:73:VAL:CG1	29:AG:74:ARG:N	2.77	0.47
29:AG:79:LYS:HD2	29:AG:80:GLY:N	2.30	0.47
31:AH:50:GLU:OE1	31:AH:58:LYS:HE2	2.15	0.47
26:AJ:179:LYS:CA	26:AJ:182:GLN:OE1	2.61	0.47
5:AO:82:ALA:O	5:AO:86:LYS:HG2	2.16	0.47
13:AP:10:ARG:CD	13:AP:11:THR:H	2.24	0.47
13:AP:94:VAL:HG12	13:AP:96:VAL:HG23	1.97	0.47
14:AT:28:LEU:HD23	14:AT:28:LEU:HA	1.58	0.47
18:AY:79:LEU:O	18:AY:83:LYS:HG3	2.15	0.47
36:B2:1670:C:H2'	36:B2:1671:G:C8	2.50	0.47
51:CA:254:GLU:CA	51:CA:255:LYS:HB2	2.40	0.47
51:CA:22:HIS:C	51:CA:52:PRO:HG3	2.35	0.47
51:CA:66:PRO:C	51:CA:67:TYR:CG	2.89	0.47
63:CB:108:GLU:HA	63:CB:137:TRP:CD1	2.50	0.47
63:CB:81:THR:CG2	63:CB:207:VAL:CG1	2.93	0.47
74:CC:164:THR:HA	74:CC:220:ALA:O	2.15	0.47
48:CD:188:LYS:O	48:CD:189:GLU:CD	2.54	0.47
48:CD:45:ASN:OD1	53:CT:33:ILE:HG21	2.14	0.47
81:CE:247:LYS:HD2	81:CE:247:LYS:HA	1.61	0.47
81:CE:70:LYS:O	81:CE:70:LYS:HD3	2.15	0.47
49:CQ:6:ARG:NH2	64:CF:113:ARG:CA	2.63	0.47
82:CG:143:VAL:C	82:CG:146:LEU:HD11	2.31	0.47
82:CG:157:ILE:HG21	82:CG:167:VAL:CG1	2.44	0.47
47:CI:16:PRO:HD3	47:CI:128:ARG:NH1	2.14	0.47
47:CI:181:PHE:O	47:CI:185:VAL:HG23	2.15	0.47
47:CI:48:LEU:HD23	47:CI:142:LEU:CD2	2.45	0.47
40:CK:123:ARG:CG	40:CK:125:LEU:N	2.78	0.47
40:CK:36:GLY:O	40:CK:37:LEU:HB2	2.15	0.47
40:CK:58:ILE:C	40:CK:59:THR:HG23	2.36	0.47
40:CK:56:LEU:HB2	40:CK:91:ASP:OD1	2.06	0.47
42:CL:94:ILE:HG22	42:CL:120:TYR:OH	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CL:190:ARG:NH1	42:CL:190:ARG:CG	2.77	0.47
42:CL:66:TYR:O	42:CL:68:THR:N	2.48	0.47
44:CM:107:PHE:CD1	81:CE:270:TYR:CZ	3.03	0.47
46:CN:112:ALA:HB1	46:CN:138:PHE:CE2	2.50	0.47
46:CN:46:ASP:HB3	46:CN:50:ARG:CZ	2.33	0.47
46:CN:79:ALA:C	46:CN:80:THR:OG1	2.53	0.47
46:CN:84:PRO:CD	46:CN:85:VAL:N	2.77	0.47
54:CP:41:ILE:CD1	54:CP:150:LEU:HB3	2.40	0.47
54:CP:36:ILE:HG22	54:CP:114:ILE:HD13	1.97	0.47
54:CP:76:TRP:CE3	54:CP:76:TRP:CA	2.97	0.47
49:CQ:133:GLY:O	49:CQ:136:THR:HG23	2.15	0.47
49:CQ:53:MET:HE3	49:CQ:143:ARG:HH21	1.77	0.47
49:CQ:154:LYS:HD2	49:CQ:163:THR:HG21	1.88	0.47
49:CQ:67:ILE:HD12	49:CQ:96:PRO:HD2	1.96	0.47
50:CR:72:LYS:O	50:CR:74:ARG:NH1	2.39	0.47
52:CS:169:THR:CG2	52:CS:170:LYS:HZ1	2.28	0.47
58:CW:109:ILE:O	58:CW:113:LYS:CD	2.63	0.47
58:CW:76:VAL:HG12	58:CW:77:LYS:CA	2.43	0.47
56:CX:119:ILE:HD13	56:CX:120:ASP:H	1.78	0.47
56:CX:123:LYS:HZ2	56:CX:139:ARG:CD	2.28	0.47
59:CZ:100:VAL:HA	59:CZ:106:LEU:HG	1.97	0.47
59:CZ:92:ASP:CB	59:CZ:117:LYS:NZ	2.67	0.47
85:A5:1242:G:C2'	85:A5:1242:G:C8	2.98	0.46
85:A5:1757:U:H2'	85:A5:1758:G:C1'	2.45	0.46
85:A5:4886:C:H42	85:A5:4933:C:N4	2.13	0.46
54:CP:71:ALA:HB2	85:A5:4981:G:O3'	2.15	0.46
15:AB:209:ASP:C	15:AB:210:VAL:HG23	2.34	0.46
23:AD:197:LYS:CA	23:AD:198:ILE:HG23	2.41	0.46
23:AD:218:LEU:CA	23:AD:220:THR:HG23	2.45	0.46
27:AE:22:LYS:HB2	27:AE:22:LYS:HE3	1.66	0.46
30:AF:14:THR:OG1	34:AQ:56:LEU:CG	2.56	0.46
30:AF:201:LYS:O	30:AF:202:SER:O	2.32	0.46
30:AF:88:MET:O	30:AF:92:ILE:HG13	2.16	0.46
31:AH:160:LYS:CB	31:AH:192:PHE:HZ	2.27	0.46
33:AI:114:GLU:O	33:AI:118:ALA:HA	2.15	0.46
10:AN:82:PRO:O	10:AN:83:ASP:C	2.53	0.46
5:AO:37:PHE:CE1	5:AO:110:PRO:HD3	2.50	0.46
13:AP:15:PHE:CD2	13:AP:110:GLU:OE2	2.69	0.46
13:AP:5:GLU:O	13:AP:6:GLN:HG2	2.14	0.46
13:AP:65:LYS:HG3	13:AP:66:GLU:HG3	1.96	0.46
34:AQ:10:VAL:CG1	34:AQ:11:GLN:N	2.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AU:40:ILE:CD1	3:AU:53:PRO:CD	2.88	0.46
36:B2:1085:C:N3	36:B2:1861:G:O6	2.48	0.46
36:B2:1236:G:H2'	36:B2:1237:C:C6	2.50	0.46
34:AQ:128:GLU:HG3	36:B2:1648:G:C5'	2.45	0.46
51:CA:101:VAL:HB	51:CA:165:VAL:HG12	1.97	0.46
63:CB:394:LYS:HB3	63:CB:396:ARG:HH11	1.80	0.46
48:CD:10:LYS:O	48:CD:14:LYS:HG3	2.15	0.46
81:CE:162:VAL:CG1	81:CE:175:VAL:CG1	2.92	0.46
81:CE:186:LEU:HB3	81:CE:187:ARG:H	1.56	0.46
64:CF:200:ARG:HH11	64:CF:203:GLU:CG	2.17	0.46
82:CG:189:ARG:CG	82:CG:190:LEU:N	2.78	0.46
56:CX:41:ARG:HG3	82:CG:52:THR:HG22	1.97	0.46
79:CJ:10:ASN:H	79:CJ:11:PRO:HD3	1.80	0.46
40:CK:85:LEU:HB2	40:CK:106:PHE:CD2	2.50	0.46
40:CK:95:GLN:O	40:CK:97:ASN:N	2.48	0.46
42:CL:33:ILE:O	42:CL:37:LYS:HG2	2.15	0.46
42:CL:87:HIS:O	42:CL:89:LYS:N	2.48	0.46
44:CM:25:VAL:CG1	44:CM:26:ALA:N	2.78	0.46
46:CN:120:TRP:CZ2	46:CN:122:GLY:HA2	2.49	0.46
41:CO:60:LYS:O	41:CO:61:ARG:CG	2.63	0.46
54:CP:119:VAL:CG2	54:CP:146:ILE:HG12	2.35	0.46
50:CR:103:ARG:NH1	50:CR:124:TYR:CZ	2.83	0.46
50:CR:3:MET:HG3	50:CR:3:MET:O	2.10	0.46
52:CS:80:ILE:HG21	52:CS:95:ARG:HG3	1.90	0.46
55:CU:33:ILE:HG12	55:CU:96:LEU:HD21	1.94	0.46
59:CZ:73:LYS:HE3	59:CZ:74:VAL:O	2.15	0.46
85:A5:2402:G:H5''	85:A5:2786:C:H42	1.80	0.46
63:CB:322:HIS:HE1	85:A5:5049:G:H1'	1.80	0.46
16:AA:161:ILE:HG22	16:AA:174:MET:HE2	1.97	0.46
16:AA:6:ASP:O	16:AA:7:VAL:C	2.53	0.46
15:AB:228:LEU:CD2	15:AB:232:HIS:CD2	2.98	0.46
28:AC:78:LEU:CB	28:AC:82:TYR:CE2	2.98	0.46
3:AU:61:LEU:HD13	23:AD:34:TYR:CD2	25.41	0.46
23:AD:38:GLU:CG	23:AD:49:ILE:HB	2.45	0.46
27:AE:57:THR:HB	27:AE:59:ASP:H	1.80	0.46
29:AG:139:SER:O	29:AG:143:LYS:HD2	2.14	0.46
29:AG:162:LEU:HD21	29:AG:170:ARG:HG3	1.97	0.46
29:AG:196:LYS:O	29:AG:199:THR:OG1	2.18	0.46
31:AH:35:ASP:C	31:AH:35:ASP:OD1	2.50	0.46
26:AJ:87:LEU:HD11	26:AJ:92:MET:H	1.81	0.46
4:AK:53:LYS:CA	4:AK:58:VAL:CG1	2.94	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AL:12:LYS:O	11:AL:56:ILE:HD11	2.15	0.46
11:AL:149:ALA:CA	11:AL:156:GLN:NE2	2.58	0.46
11:AL:152:LYS:C	11:AL:154:GLN:N	2.66	0.46
7:AM:50:CYS:HB3	7:AM:69:LEU:CD1	2.45	0.46
10:AN:141:TYR:CD2	10:AN:141:TYR:C	2.88	0.46
13:AP:108:LYS:N	13:AP:111:MET:CE	2.73	0.46
13:AP:94:VAL:HG12	13:AP:96:VAL:CG2	2.44	0.46
12:AR:102:THR:N	16:AA:48:ILE:CD1	2.78	0.46
12:AR:22:THR:HG22	12:AR:73:LEU:HD12	1.93	0.46
12:AR:5:ARG:O	12:AR:10:LYS:NZ	2.46	0.46
12:AR:88:VAL:HG22	16:AA:200:ASP:OD2	2.15	0.46
8:AS:8:LYS:CE	8:AS:9:PHE:HE1	2.06	0.46
14:AT:66:LEU:HB2	14:AT:67:ARG:HE	1.79	0.46
32:AW:15:ASN:ND2	32:AW:19:LYS:CE	2.77	0.46
6:AX:51:VAL:CG1	6:AX:70:VAL:HG13	2.31	0.46
36:B2:1038:U:H2'	36:B2:1039:C:H5'	1.97	0.46
32:AW:20:ARG:NH2	36:B2:1139:C:C6	2.82	0.46
36:B2:1405:A:H61	36:B2:1441:U:H3	1.62	0.46
36:B2:1463:U:H4'	36:B2:1464:C:O5'	2.15	0.46
36:B2:1567:G:C6	36:B2:1568:C:C4	3.03	0.46
36:B2:141:A:N6	36:B2:177:G:H21	2.10	0.46
29:AG:191:ARG:NH2	36:B2:312:G:C8	2.81	0.46
36:B2:852:G:H3'	36:B2:853:C:O4'	2.15	0.46
51:CA:211:PHE:CE2	51:CA:235:VAL:HG12	2.50	0.46
63:CB:133:TYR:O	63:CB:136:LYS:CG	2.59	0.46
63:CB:153:MET:HE1	63:CB:160:ILE:CG1	2.22	0.46
74:CC:234:LYS:O	74:CC:235:LEU:CB	2.51	0.46
74:CC:275:SER:HB3	74:CC:276:ASN:H	1.54	0.46
48:CD:111:ASN:O	48:CD:113:PHE:N	2.48	0.46
48:CD:273:LEU:CD1	48:CD:277:LYS:HZ1	2.28	0.46
81:CE:144:ILE:CD1	81:CE:196:ALA:HB1	2.45	0.46
81:CE:219:LYS:HG2	85:A5:4939:C:H2'	1.97	0.46
81:CE:242:ILE:CD1	85:A5:4939:C:O4'	2.62	0.46
81:CE:41:LYS:HB2	81:CE:42:PRO:HD2	1.96	0.46
64:CF:225:THR:HG23	64:CF:226:HIS:O	2.15	0.46
82:CG:31:LEU:CD1	82:CG:31:LEU:N	2.71	0.46
80:CH:111:LEU:CD2	80:CH:127:ARG:CA	2.88	0.46
80:CH:140:GLN:HB3	80:CH:143:GLU:OE1	2.15	0.46
80:CH:86:LEU:HD22	80:CH:189:GLN:H	1.80	0.46
47:CI:69:ARG:NH1	47:CI:70:ILE:HG12	2.28	0.46
79:CJ:22:LEU:HD22	79:CJ:128:LEU:HD13	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CK:111:ASN:CA	40:CK:114:ARG:HG2	2.45	0.46
42:CL:126:LEU:C	42:CL:127:PHE:CD1	2.81	0.46
44:CM:104:MET:CE	44:CM:112:VAL:CG2	2.67	0.46
46:CN:185:GLY:HA3	46:CN:194:ARG:HH12	1.79	0.46
41:CO:202:LEU:HB2	44:CM:112:VAL:HG22	1.98	0.46
54:CP:39:MET:SD	54:CP:43:LYS:CE	3.03	0.46
54:CP:62:ARG:HG2	54:CP:63:TYR:CD2	2.50	0.46
50:CR:109:TYR:OH	50:CR:139:MET:HE3	2.15	0.46
52:CS:141:ALA:CA	52:CS:144:GLN:HE21	2.29	0.46
53:CT:118:GLU:OE2	53:CT:122:LYS:HD3	2.15	0.46
55:CU:48:LYS:CD	55:CU:51:GLY:O	2.63	0.46
55:CU:60:VAL:C	55:CU:74:SER:HA	2.35	0.46
57:CY:35:SER:HA	57:CY:105:VAL:CG2	2.45	0.46
57:CY:74:TYR:CD2	57:CY:77:LYS:HB2	2.49	0.46
59:CZ:101:PHE:HA	59:CZ:107:LYS:HE2	1.98	0.46
59:CZ:89:ILE:O	59:CZ:89:ILE:HG12	2.15	0.46
42:CL:39:ARG:NH2	85:A5:1361:G:H4'	2.30	0.46
56:CX:58:PRO:HA	85:A5:16:G:OP1	2.15	0.46
85:A5:712:C:N4	85:A5:956:A:C6	2.83	0.46
86:A7:62:U:O2'	86:A7:64:G:H8	1.98	0.46
23:AD:142:LEU:O	23:AD:144:GLY:N	2.48	0.46
23:AD:182:LEU:N	23:AD:182:LEU:HD22	2.30	0.46
4:AK:64:TRP:NE1	23:AD:23:GLU:HG2	2.28	0.46
27:AE:153:LEU:HG	27:AE:153:LEU:H	1.42	0.46
27:AE:94:LYS:C	27:AE:95:THR:CG2	2.83	0.46
30:AF:91:ARG:HD2	34:AQ:46:THR:CG2	2.40	0.46
30:AF:94:LYS:HD3	30:AF:94:LYS:HA	2.55	0.46
29:AG:13:GLN:O	29:AG:14:LYS:CG	2.63	0.46
29:AG:68:LEU:N	29:AG:68:LEU:HD22	2.31	0.46
31:AH:118:ARG:O	31:AH:121:THR:HG22	2.15	0.46
31:AH:73:GLN:NE2	31:AH:135:PHE:HE1	2.14	0.46
31:AH:146:VAL:HG11	32:AW:50:PHE:CE2	2.50	0.46
31:AH:160:LYS:HB2	31:AH:192:PHE:CZ	2.47	0.46
33:AI:130:THR:N	33:AI:131:PRO:CD	2.78	0.46
26:AJ:41:ARG:HA	26:AJ:44:TRP:HB2	1.98	0.46
4:AK:16:PHE:HE2	4:AK:79:LEU:HB2	0.74	0.46
4:AK:83:LEU:O	4:AK:84:HIS:HB3	2.14	0.46
11:AL:22:ARG:HD2	33:AI:155:ASN:HA	1.97	0.46
5:AO:31:CYS:SG	5:AO:95:ILE:HG13	2.55	0.46
5:AO:98:ARG:HD2	5:AO:132:VAL:HG23	1.97	0.46
13:AP:5:GLU:O	13:AP:6:GLN:HG3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:41:GLN:CA	13:AP:84:ILE:HG12	2.43	0.46
13:AP:88:GLU:HG3	13:AP:89:MET:N	2.27	0.46
8:AS:118:ARG:NH2	13:AP:106:GLU:O	2.49	0.46
14:AT:21:PHE:HD1	14:AT:22:LEU:HD23	1.78	0.46
14:AT:45:LEU:HD23	14:AT:48:TYR:CE1	2.49	0.46
14:AT:55:THR:HG23	14:AT:56:ARG:N	2.30	0.46
3:AU:59:LYS:HD2	3:AU:84:ILE:HG21	1.97	0.46
18:AY:54:VAL:HG13	18:AY:76:TYR:CB	2.45	0.46
19:AZ:107:VAL:HG23	19:AZ:108:ILE:H	1.80	0.46
36:B2:1552:G:C8	36:B2:1578:U:C4	3.03	0.46
36:B2:494:C:N4	36:B2:509:G:H21	2.14	0.46
36:B2:579:C:H2'	36:B2:580:U:O4'	2.16	0.46
51:CA:159:SER:OG	51:CA:162:ASN:ND2	2.48	0.46
63:CB:80:GLU:CD	63:CB:171:LEU:CD1	2.75	0.46
63:CB:297:LYS:C	63:CB:297:LYS:HD2	2.33	0.46
63:CB:59:GLU:OE1	63:CB:69:LYS:CA	2.64	0.46
74:CC:110:ARG:CG	74:CC:110:ARG:O	2.63	0.46
48:CD:122:GLN:HE21	48:CD:125:VAL:H	1.63	0.46
48:CD:164:LYS:CE	48:CD:168:ASP:CG	2.78	0.46
53:CT:138:ALA:O	64:CF:83:VAL:O	2.34	0.46
82:CG:217:LYS:HZ1	82:CG:220:GLU:CB	2.28	0.46
79:CJ:128:LEU:HD12	79:CJ:128:LEU:C	2.36	0.46
42:CL:59:VAL:CG1	42:CL:60:ARG:N	2.79	0.46
49:CQ:156:PRO:CB	49:CQ:157:GLY:HA2	2.42	0.46
53:CT:26:PRO:O	53:CT:26:PRO:CD	2.63	0.46
57:CY:65:GLN:CA	57:CY:67:ILE:HG13	2.45	0.46
59:CZ:100:VAL:C	59:CZ:106:LEU:HD23	2.36	0.46
59:CZ:48:ARG:HB3	59:CZ:69:LYS:HB3	1.97	0.46
59:CZ:73:LYS:HG3	59:CZ:75:TYR:CG	2.50	0.46
59:CZ:76:ASN:HD21	59:CZ:78:ASN:CB	2.19	0.46
85:A5:1345:A:N6	85:A5:1511:U:H3	2.06	0.46
85:A5:962:C:N3	85:A5:2264:C:C5	2.83	0.46
85:A5:307:A:H2'	85:A5:308:G:N3	2.31	0.46
85:A5:4937:C:H4'	85:A5:4938:A:OP2	2.15	0.46
15:AB:105:LEU:O	15:AB:106:THR:OG1	2.30	0.46
15:AB:77:ASP:C	15:AB:79:VAL:HG22	2.34	0.46
15:AB:71:LEU:CB	15:AB:84:PHE:CE2	2.98	0.46
28:AC:242:ASP:O	28:AC:246:LYS:HG3	2.15	0.46
23:AD:217:ILE:HG22	23:AD:218:LEU:N	2.30	0.46
23:AD:21:LEU:HA	23:AD:21:LEU:HD23	1.77	0.46
30:AF:20:PHE:HZ	30:AF:50:PRO:HG3	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AG:132:ARG:HA	58:CW:83:THR:HG23	1.97	0.46
29:AG:25:ARG:C	29:AG:27:PHE:N	2.69	0.46
29:AG:84:TYR:CE2	29:AG:86:PRO:CG	2.88	0.46
33:AI:76:THR:HG22	33:AI:77:ARG:O	2.15	0.46
26:AJ:139:LYS:HA	26:AJ:139:LYS:HD2	1.52	0.46
26:AJ:179:LYS:HA	26:AJ:182:GLN:CG	2.46	0.46
11:AL:12:LYS:C	11:AL:56:ILE:HD11	2.36	0.46
11:AL:40:ILE:CD1	11:AL:68:ILE:HB	2.21	0.46
7:AM:33:ARG:NH1	7:AM:33:ARG:CG	2.74	0.46
10:AN:94:LYS:CG	10:AN:118:ILE:HD13	2.43	0.46
10:AN:131:THR:O	10:AN:132:LYS:HD2	2.16	0.46
10:AN:134:VAL:HG22	10:AN:135:LEU:N	2.30	0.46
5:AO:105:THR:O	5:AO:106:LYS:CB	2.64	0.46
13:AP:49:LEU:HD12	13:AP:51:ARG:CD	2.38	0.46
8:AS:103:LEU:CD1	8:AS:104:ASP:N	2.72	0.46
8:AS:90:VAL:HG12	8:AS:91:LYS:CG	2.43	0.46
14:AT:38:LYS:HD2	14:AT:46:ALA:HA	1.97	0.46
16:AA:7:VAL:CG2	17:AV:43:THR:HG21	2.44	0.46
32:AW:38:LEU:CA	32:AW:41:MET:HE2	2.42	0.46
19:AZ:51:ASP:O	19:AZ:52:LYS:C	2.53	0.46
36:B2:1750:C:H2'	36:B2:1751:C:H5'	1.97	0.46
36:B2:183:G:H2'	36:B2:184:G:C8	2.50	0.46
26:AJ:124:HIS:CD2	36:B2:526:A:H5''	2.51	0.46
36:B2:96:C:H2'	36:B2:97:U:C6	2.50	0.46
51:CA:116:LEU:HD12	51:CA:116:LEU:C	2.35	0.46
51:CA:207:VAL:HG23	51:CA:208:GLU:HG2	1.98	0.46
63:CB:118:PHE:CZ	63:CB:130:PHE:HE2	2.33	0.46
63:CB:36:ASP:O	63:CB:37:PRO:O	3.76	0.46
74:CC:205:ARG:HA	74:CC:205:ARG:HD3	1.57	0.46
74:CC:5:ARG:HB3	74:CC:24:LEU:HG	1.87	0.46
74:CC:31:PRO:HG2	74:CC:122:TYR:CZ	2.50	0.46
48:CD:15:ARG:NH1	53:CT:19:PHE:HE1	2.14	0.46
48:CD:86:TYR:OH	48:CD:252:VAL:HG22	2.15	0.46
81:CE:138:ARG:O	81:CE:139:LYS:CB	2.62	0.46
82:CG:82:GLN:OE1	82:CG:233:ILE:CB	2.62	0.46
80:CH:106:GLN:N	80:CH:107:GLU:OE1	2.47	0.46
80:CH:36:ARG:CD	80:CH:38:PHE:CE1	2.99	0.46
47:CI:212:LEU:O	47:CI:214:SER:N	2.48	0.46
40:CK:114:ARG:NE	40:CK:130:LYS:CE	2.78	0.46
40:CK:94:LYS:HE2	40:CK:96:LYS:HG3	1.97	0.46
42:CL:58:ILE:HG23	42:CL:70:VAL:CG1	2.43	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CL:91:ALA:HA	42:CL:94:ILE:HD12	1.98	0.46
44:CM:116:LYS:O	44:CM:120:ASN:OD1	2.33	0.46
44:CM:32:ASP:CB	44:CM:35:ARG:HG3	2.40	0.46
44:CM:57:LEU:HD12	52:CS:154:LEU:CB	2.43	0.46
44:CM:86:TRP:CZ3	44:CM:89:THR:HG21	2.51	0.46
46:CN:71:ARG:CZ	46:CN:73:ARG:HA	2.45	0.46
41:CO:7:LEU:HD13	52:CS:167:PHE:CZ	2.28	0.46
49:CQ:105:VAL:CG1	49:CQ:110:ARG:N	2.78	0.46
49:CQ:19:LYS:O	49:CQ:19:LYS:HE3	2.13	0.46
49:CQ:71:LYS:HD3	49:CQ:71:LYS:HA	1.50	0.46
52:CS:169:THR:C	52:CS:170:LYS:HG2	2.35	0.46
52:CS:170:LYS:C	52:CS:172:PRO:CA	2.56	0.46
55:CU:40:GLU:CD	55:CU:64:GLU:O	2.53	0.46
58:CW:9:SER:HB2	58:CW:51:TRP:CZ3	2.51	0.46
56:CX:127:LEU:C	56:CX:127:LEU:HD12	2.35	0.46
56:CX:52:LEU:HD22	56:CX:52:LEU:C	2.35	0.46
56:CX:79:PHE:CE2	56:CX:99:ILE:CG2	2.96	0.46
59:CZ:99:ASP:O	59:CZ:106:LEU:CD2	2.64	0.46
59:CZ:5:MET:O	59:CZ:9:LYS:HB2	2.16	0.46
86:A7:38:U:C2	86:A7:40:U:H5''	2.49	0.46
86:A7:48:G:HO2'	86:A7:49:A:C1'	2.15	0.46
16:AA:8:LEU:HD12	16:AA:192:GLU:OE1	2.15	0.46
28:AC:182:CYS:SG	28:AC:250:TYR:CE1	3.04	0.46
23:AD:146:ARG:HA	23:AD:146:ARG:HD3	1.63	0.46
23:AD:217:ILE:HG22	23:AD:218:LEU:HB3	1.98	0.46
30:AF:163:PHE:CD2	30:AF:164:ARG:HG2	2.50	0.46
30:AF:91:ARG:NH1	30:AF:94:LYS:HG3	2.10	0.46
29:AG:143:LYS:HE3	29:AG:143:LYS:N	2.30	0.46
29:AG:145:PHE:C	29:AG:147:LEU:HD12	2.36	0.46
31:AH:153:LEU:CD2	31:AH:184:ASP:HB2	2.46	0.46
26:AJ:101:LYS:HD2	26:AJ:101:LYS:N	2.31	0.46
26:AJ:110:LEU:HB3	26:AJ:111:GLN:H	1.48	0.46
26:AJ:87:LEU:HG	26:AJ:88:ASP:N	2.30	0.46
4:AK:30:PRO:HA	4:AK:41:PRO:HB3	1.97	0.46
11:AL:5:GLN:CG	33:AI:197:PHE:CD2	2.98	0.46
10:AN:5:HIS:HD2	10:AN:121:ARG:NE	2.09	0.46
5:AO:37:PHE:CD1	5:AO:110:PRO:HD3	2.50	0.46
13:AP:43:ARG:HD3	13:AP:43:ARG:HA	1.38	0.46
13:AP:56:LEU:CD2	13:AP:78:THR:HG22	2.44	0.46
34:AQ:41:MET:O	34:AQ:43:GLU:N	2.48	0.46
8:AS:138:THR:CA	8:AS:141:ARG:CZ	2.65	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AS:55:ARG:HB2	8:AS:58:GLU:HG3	1.96	0.46
14:AT:31:PRO:HG3	14:AT:102:ARG:HG3	1.91	0.46
3:AU:27:ARG:CZ	3:AU:82:MET:CG	2.94	0.46
16:AA:158:ASP:CB	17:AV:65:SER:HB2	2.43	0.46
6:AX:94:ILE:CD1	6:AX:122:VAL:HG11	2.37	0.46
6:AX:125:VAL:O	6:AX:128:VAL:CB	2.64	0.46
18:AY:12:PHE:CZ	18:AY:21:LYS:HB2	2.44	0.46
18:AY:19:GLN:CB	18:AY:81:TYR:HB3	2.46	0.46
26:AJ:165:TYR:CZ	36:B2:561:A:H5'	2.51	0.46
36:B2:572:U:O5'	36:B2:572:U:H6	1.98	0.46
29:AG:168:LYS:HD2	36:B2:72:C:C5	2.50	0.46
51:CA:179:ILE:O	51:CA:180:LEU:HB3	2.15	0.46
51:CA:234:LYS:HG2	51:CA:238:ILE:HD12	1.98	0.46
51:CA:44:ILE:HG22	51:CA:87:PHE:HD1	1.76	0.46
63:CB:199:GLU:HA	63:CB:199:GLU:OE2	2.16	0.46
63:CB:303:ALA:C	63:CB:312:LYS:HZ1	2.18	0.46
74:CC:156:ASP:C	74:CC:158:VAL:N	2.68	0.46
74:CC:66:SER:HA	74:CC:77:PRO:HA	1.97	0.46
48:CD:233:PRO:HA	48:CD:236:MET:HE3	1.95	0.46
48:CD:68:ARG:HB2	48:CD:71:GLY:O	2.16	0.46
81:CE:224:LYS:HG2	81:CE:226:ARG:NH1	2.24	0.46
81:CE:246:ARG:O	81:CE:250:GLN:HG3	2.15	0.46
64:CF:41:MET:HE1	85:A5:2121:C:O4'	2.16	0.46
47:CI:90:ARG:C	47:CI:91:LEU:HG	2.36	0.46
79:CJ:113:ILE:CD1	79:CJ:113:ILE:H	2.09	0.46
46:CN:44:ARG:HH11	46:CN:47:LYS:HB2	1.80	0.46
50:CR:66:ASN:O	50:CR:70:ARG:CD	2.64	0.46
52:CS:164:LYS:CD	52:CS:165:PRO:HD2	2.45	0.46
52:CS:173:ASN:ND2	52:CS:174:THR:HG22	2.29	0.46
52:CS:17:LEU:HG	52:CS:58:SER:C	2.36	0.46
53:CT:79:GLN:O	53:CT:80:VAL:HG23	2.15	0.46
43:CV:32:THR:HG22	43:CV:113:LYS:CG	2.41	0.46
43:CV:83:ARG:HH11	43:CV:120:PRO:HD2	1.79	0.46
56:CX:153:ILE:HG12	56:CX:155:ILE:HG22	1.97	0.46
57:CY:54:GLU:C	57:CY:55:VAL:CG2	2.83	0.46
57:CY:61:HIS:ND1	57:CY:61:HIS:N	2.61	0.46
59:CZ:16:GLY:O	59:CZ:19:SER:CA	2.60	0.46
59:CZ:92:ASP:HB3	59:CZ:117:LYS:NZ	2.31	0.46
85:A5:2672:C:H2'	85:A5:2673:G:H21	1.80	0.46
16:AA:58:LEU:HA	16:AA:161:ILE:HG12	1.98	0.46
16:AA:70:ASN:O	16:AA:73:ASP:OD1	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:93:GLY:O	15:AB:94:LYS:HG2	2.15	0.46
28:AC:133:TYR:O	28:AC:218:GLY:HA3	2.15	0.46
23:AD:145:GLN:CG	23:AD:146:ARG:N	2.77	0.46
3:AU:107:GLU:OE2	23:AD:40:ARG:NE	2.49	0.46
30:AF:112:LEU:HA	30:AF:177:LEU:HD13	1.96	0.46
30:AF:44:LYS:CD	30:AF:44:LYS:C	2.79	0.46
30:AF:98:GLU:O	30:AF:102:LEU:HG	2.15	0.46
29:AG:172:LYS:HD3	29:AG:172:LYS:O	6.03	0.46
31:AH:14:GLU:CG	31:AH:15:LYS:O	2.64	0.46
26:AJ:124:HIS:O	26:AJ:127:ARG:N	2.49	0.46
4:AK:11:ILE:CD1	4:AK:45:VAL:HG22	2.45	0.46
4:AK:64:TRP:O	4:AK:65:ARG:CG	2.63	0.46
11:AL:42:LEU:HB2	11:AL:44:PHE:CE2	2.50	0.46
7:AM:34:GLY:HA3	36:B2:1286:G:O6	2.15	0.46
13:AP:9:LYS:O	13:AP:10:ARG:NE	2.49	0.46
13:AP:17:TYR:CE2	13:AP:25:LEU:CD2	2.98	0.46
34:AQ:126:ARG:C	36:B2:1648:G:C8	2.89	0.46
34:AQ:45:ARG:O	34:AQ:48:GLN:HB3	2.15	0.46
12:AR:87:GLU:O	12:AR:88:VAL:HB	2.15	0.46
8:AS:88:LYS:N	8:AS:95:TYR:CE1	2.77	0.46
14:AT:42:HIS:HE1	14:AT:93:SER:HB3	1.73	0.46
3:AU:26:SER:OG	3:AU:27:ARG:N	2.49	0.46
36:B2:163:U:O2'	36:B2:164:A:H5'	2.15	0.46
51:CA:145:LYS:HD3	51:CA:157:VAL:HG12	1.97	0.46
51:CA:219:ILE:CG2	51:CA:220:GLY:N	2.52	0.46
63:CB:107:ALA:HA	63:CB:201:LEU:CD2	2.25	0.46
63:CB:116:ARG:HD2	63:CB:122:TRP:CG	2.40	0.46
63:CB:159:VAL:HG13	63:CB:184:GLN:HE22	1.72	0.46
63:CB:235:TRP:CG	63:CB:267:ALA:HB1	2.49	0.46
49:CQ:31:LEU:HD23	74:CC:293:LEU:CD2	2.45	0.46
74:CC:72:ALA:O	74:CC:73:VAL:HG23	2.16	0.46
48:CD:142:PHE:CD2	48:CD:171:LEU:CD2	2.99	0.46
81:CE:190:HIS:HB2	85:A5:4941:G:H1'	1.98	0.46
81:CE:208:ILE:HG22	81:CE:209:PRO:N	2.30	0.46
81:CE:287:VAL:HG23	81:CE:288:PHE:H	1.80	0.46
64:CF:87:PRO:HG2	64:CF:144:TYR:CZ	2.50	0.46
80:CH:105:ILE:CG2	80:CH:111:LEU:C	2.72	0.46
80:CH:188:GLN:O	80:CH:191:ASP:O	2.33	0.46
80:CH:25:VAL:HG23	80:CH:36:ARG:H	1.80	0.46
47:CI:104:SER:HA	47:CI:112:GLN:CD	2.34	0.46
47:CI:187:LYS:HA	47:CI:187:LYS:HD3	1.58	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CJ:13:ARG:HD2	79:CJ:13:ARG:O	2.16	0.46
13:AP:12:PHE:HE2	79:CJ:88:LYS:HD2	1.72	0.46
42:CL:83:VAL:CG2	42:CL:110:LEU:HD11	2.46	0.46
44:CM:13:ALA:HB2	44:CM:55:MET:CE	2.45	0.46
49:CQ:34:PHE:O	49:CQ:38:ARG:HG2	2.16	0.46
41:CO:12:ARG:HG2	52:CS:171:ARG:NH2	2.30	0.46
52:CS:19:THR:O	52:CS:21:LYS:N	2.48	0.46
58:CW:2:LYS:CB	58:CW:2:LYS:HZ2	2.23	0.46
58:CW:88:ALA:N	58:CW:91:MET:SD	2.88	0.46
57:CY:51:LYS:HG3	57:CY:71:VAL:O	2.16	0.46
57:CY:5:PRO:HD2	57:CY:6:PHE:H	1.81	0.46
59:CZ:73:LYS:CG	59:CZ:75:TYR:CG	2.99	0.46
85:A5:173:C:O5'	85:A5:173:C:H6	1.99	0.46
85:A5:1831:G:H2'	85:A5:1832:C:C6	2.51	0.46
16:AA:191:ARG:CD	16:AA:193:HIS:HB2	2.45	0.46
16:AA:66:VAL:HA	16:AA:186:ARG:HD2	1.98	0.46
16:AA:76:VAL:CG1	16:AA:87:VAL:CG1	2.88	0.46
15:AB:53:GLN:C	15:AB:55:THR:H	2.19	0.46
28:AC:206:SER:OG	28:AC:224:THR:HG21	2.15	0.46
12:AR:40:ILE:N	23:AD:209:SER:O	2.45	0.46
12:AR:19:LYS:NZ	23:AD:212:GLU:CG	2.78	0.46
27:AE:46:ILE:HA	27:AE:50:ASN:HB2	1.97	0.46
27:AE:89:VAL:O	27:AE:90:ILE:HB	2.16	0.46
30:AF:28:VAL:HG22	30:AF:110:GLN:CG	2.38	0.46
31:AH:188:GLU:HG2	31:AH:189:PHE:N	2.30	0.46
31:AH:191:GLU:CD	31:AH:193:GLN:OE1	2.53	0.46
31:AH:84:GLU:O	31:AH:88:SER:HA	2.16	0.46
26:AJ:113:GLN:OE1	26:AJ:116:LYS:HD3	2.15	0.46
26:AJ:40:LYS:O	26:AJ:41:ARG:C	2.53	0.46
26:AJ:67:ASP:O	26:AJ:68:PRO:C	2.53	0.46
4:AK:40:VAL:HA	4:AK:41:PRO:HD3	1.65	0.46
4:AK:94:LEU:O	4:AK:95:ARG:HB2	2.15	0.46
11:AL:125:ILE:HB	11:AL:146:THR:HG22	1.92	0.46
11:AL:59:LYS:HD3	11:AL:134:LEU:HD21	1.97	0.46
34:AQ:51:LEU:O	34:AQ:54:PRO:HD2	2.16	0.46
8:AS:50:ILE:O	8:AS:52:LEU:N	2.49	0.46
8:AS:90:VAL:HG12	8:AS:91:LYS:CD	2.44	0.46
14:AT:83:GLN:HE22	14:AT:85:ASN:CA	2.26	0.46
17:AV:38:GLU:OE1	17:AV:49:GLN:HB3	2.15	0.46
36:B2:1443:C:C5	36:B2:1444:U:C5	3.04	0.46
51:CA:137:ILE:CD1	51:CA:149:LYS:HE2	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:229:LYS:HA	63:CB:229:LYS:HD2	1.34	0.46
63:CB:257:TRP:CD1	63:CB:257:TRP:O	2.63	0.46
74:CC:31:PRO:CG	74:CC:280:PRO:HB2	2.46	0.46
74:CC:90:GLY:CA	74:CC:96:CYS:HB3	2.42	0.46
81:CE:38:LYS:HZ1	81:CE:39:LYS:NZ	2.14	0.46
82:CG:156:VAL:CG1	82:CG:156:VAL:O	2.51	0.46
82:CG:102:TYR:OH	82:CG:207:VAL:HG13	2.16	0.46
80:CH:92:MET:CE	80:CH:161:ILE:CG2	2.93	0.46
42:CL:58:ILE:HG12	42:CL:157:VAL:CG1	2.45	0.46
49:CQ:160:HIS:O	49:CQ:161:SER:OG	2.33	0.46
50:CR:75:HIS:C	50:CR:76:MET:SD	2.94	0.46
52:CS:13:VAL:HB	52:CS:29:ARG:HG2	1.96	0.46
52:CS:19:THR:O	52:CS:21:LYS:CB	2.64	0.46
52:CS:82:LEU:HD23	52:CS:113:MET:CE	2.45	0.46
53:CT:132:PRO:C	53:CT:134:PRO:HD3	2.36	0.46
53:CT:14:MET:HE3	53:CT:55:LYS:HB2	1.98	0.46
55:CU:24:ASP:HB3	55:CU:111:GLU:OE2	2.15	0.46
57:CY:79:VAL:HG13	57:CY:99:ILE:O	2.16	0.46
59:CZ:109:LYS:HE3	59:CZ:109:LYS:HB2	1.55	0.46
85:A5:1494:U:O2	85:A5:1494:U:H2'	2.14	0.46
74:CC:94:ASN:HD21	85:A5:1520:C:H4'	1.80	0.46
85:A5:1861:U:H3	85:A5:1873:A:H61	1.62	0.46
85:A5:4321:U:H3	85:A5:4326:G:H1	1.64	0.46
85:A5:4229:U:C2	85:A5:4336:A:C2	3.04	0.46
81:CE:239:LYS:HA	85:A5:4939:C:C4	2.51	0.46
28:AC:176:LYS:HA	28:AC:177:PRO:HD3	1.56	0.46
23:AD:108:LYS:HA	23:AD:113:LEU:HD21	1.97	0.46
3:AU:111:GLU:HG2	23:AD:10:LYS:HZ3	1.81	0.46
27:AE:128:LYS:HB3	27:AE:128:LYS:HE2	1.65	0.46
30:AF:103:LEU:CG	30:AF:103:LEU:O	2.64	0.46
30:AF:55:ARG:HG3	30:AF:55:ARG:O	2.15	0.46
31:AH:40:LEU:O	31:AH:41:ARG:C	2.54	0.46
33:AI:119:LEU:N	33:AI:120:PRO:CD	2.78	0.46
26:AJ:169:ARG:HB3	26:AJ:175:ARG:NH1	2.26	0.46
4:AK:85:LEU:HD13	4:AK:89:ILE:HG13	1.98	0.46
7:AM:12:MET:CG	7:AM:16:THR:HG22	2.40	0.46
10:AN:27:LYS:CD	10:AN:28:LEU:H	2.28	0.46
5:AO:30:VAL:HG23	5:AO:45:THR:OG1	2.16	0.46
13:AP:4:VAL:CG1	13:AP:4:VAL:O	2.49	0.46
30:AF:15:PRO:CD	34:AQ:56:LEU:HB3	2.41	0.46
34:AQ:81:ILE:O	34:AQ:84:ILE:HG12	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AR:100:PRO:CB	12:AR:119:VAL:HG22	2.37	0.46
8:AS:39:ARG:NE	14:AT:38:LYS:HE2	2.17	0.46
8:AS:40:TYR:CD1	8:AS:44:VAL:CG2	2.99	0.46
8:AS:85:ASN:HD21	8:AS:98:VAL:CB	2.29	0.46
17:AV:55:ILE:HD11	17:AV:68:SER:HG	1.66	0.46
6:AX:105:PHE:CB	6:AX:112:VAL:HG21	2.46	0.46
6:AX:21:LYS:HD2	6:AX:27:TYR:CG	2.51	0.46
18:AY:29:HIS:CD2	18:AY:34:THR:N	2.78	0.46
18:AY:44:LEU:HD12	18:AY:48:TYR:HD2	1.81	0.46
18:AY:19:GLN:CG	18:AY:81:TYR:CD1	2.71	0.46
36:B2:1069:U:H2'	36:B2:1070:A:C8	2.51	0.46
36:B2:1085:C:C2	36:B2:1087:A:O4'	2.69	0.46
36:B2:1408:U:H2'	36:B2:1409:A:O4'	2.16	0.46
36:B2:1220:A:H2	36:B2:1646:C:H42	1.62	0.46
51:CA:118:GLU:CG	51:CA:119:LYS:N	2.67	0.46
51:CA:242:ARG:CG	51:CA:243:THR:H	2.24	0.46
63:CB:394:LYS:O	63:CB:396:ARG:HD3	2.16	0.46
74:CC:22:VAL:CG1	74:CC:257:PHE:CE2	2.99	0.46
48:CD:64:ILE:HD13	48:CD:109:LEU:HD13	1.97	0.46
48:CD:273:LEU:HD11	48:CD:277:LYS:NZ	2.31	0.46
81:CE:109:LEU:CD1	81:CE:110:ARG:H	2.29	0.46
81:CE:126:LEU:HG	81:CE:133:PHE:CE2	2.50	0.46
82:CG:124:GLY:O	82:CG:125:LYS:HD2	2.16	0.46
82:CG:57:TRP:CD2	82:CG:65:ARG:NH1	2.84	0.46
80:CH:189:GLN:O	80:CH:191:ASP:N	2.48	0.46
47:CI:76:MET:HE3	47:CI:151:ALA:HB3	1.98	0.46
47:CI:98:ARG:HH11	85:A5:1865:G:P	2.39	0.46
79:CJ:90:ARG:NE	79:CJ:108:GLY:O	2.49	0.46
40:CK:102:GLY:O	40:CK:140:GLY:C	2.53	0.46
40:CK:116:MET:CG	40:CK:117:ARG:NH2	2.79	0.46
40:CK:80:LEU:CA	40:CK:83:LYS:HD2	2.41	0.46
40:CK:86:LYS:HA	40:CK:104:ILE:HD13	1.98	0.46
42:CL:159:ASN:O	42:CL:160:VAL:O	2.34	0.46
42:CL:18:TRP:CE3	42:CL:22:VAL:CG2	2.99	0.46
46:CN:169:ARG:HH21	46:CN:169:ARG:HB3	1.77	0.46
41:CO:16:LEU:HD23	41:CO:41:ILE:HG12	1.81	0.46
41:CO:178:ARG:HG2	41:CO:182:GLU:OE2	2.14	0.46
41:CO:185:VAL:CA	41:CO:188:LYS:HB2	2.46	0.46
54:CP:109:VAL:HG12	54:CP:110:ASP:CA	2.45	0.46
49:CQ:66:MET:O	49:CQ:70:MET:HG2	2.15	0.46
50:CR:76:MET:O	50:CR:81:ARG:HD2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:CO:118:MET:HE1	52:CS:169:THR:HA	1.98	0.46
53:CT:107:LYS:HA	53:CT:107:LYS:HD2	1.32	0.46
55:CU:40:GLU:OE1	55:CU:65:ARG:CG	2.64	0.46
43:CV:16:ILE:HD11	43:CV:57:VAL:N	2.31	0.46
58:CW:34:ALA:CB	58:CW:37:GLU:OE1	2.63	0.46
56:CX:153:ILE:HG12	56:CX:155:ILE:CG2	2.45	0.46
57:CY:89:LYS:CE	57:CY:90:ALA:HB3	2.45	0.46
85:A5:1437:C:H42	85:A5:1447:C:N4	2.14	0.46
85:A5:4900:C:H4'	85:A5:4901:G:OP2	2.16	0.46
85:A5:5028:G:H2'	85:A5:5029:C:C6	2.51	0.46
12:AR:92:ASP:OD2	16:AA:20:ALA:HB1	2.16	0.46
15:AB:19:LYS:HE2	15:AB:19:LYS:HB3	1.46	0.46
15:AB:228:LEU:HD21	15:AB:232:HIS:NE2	2.31	0.46
15:AB:53:GLN:O	15:AB:56:LYS:N	2.49	0.46
28:AC:209:VAL:N	28:AC:210:PRO:CD	2.79	0.46
23:AD:132:LYS:HB3	23:AD:189:MET:O	2.15	0.46
23:AD:158:ILE:O	23:AD:158:ILE:HG12	2.15	0.46
33:AI:129:LEU:O	33:AI:134:GLU:CB	2.64	0.46
26:AJ:100:LEU:HD12	26:AJ:101:LYS:H	1.80	0.46
26:AJ:114:VAL:O	26:AJ:120:ALA:HB3	2.15	0.46
26:AJ:169:ARG:HG2	26:AJ:175:ARG:NH1	2.31	0.46
4:AK:80:ARG:HA	4:AK:85:LEU:HD11	1.98	0.46
7:AM:85:LEU:HD23	7:AM:85:LEU:O	2.15	0.46
5:AO:137:SER:CB	36:B2:942:G:H21	2.28	0.46
12:AR:6:THR:O	12:AR:10:LYS:HG2	2.15	0.46
8:AS:73:ASN:O	8:AS:76:GLN:OE1	2.34	0.46
3:AU:77:TRP:CZ2	36:B2:1668:U:H5'	2.50	0.46
17:AV:41:LYS:C	17:AV:43:THR:H	2.17	0.46
8:AS:23:ARG:HD3	19:AZ:48:VAL:CG2	2.46	0.46
36:B2:218:U:O2'	36:B2:305:U:N3	2.49	0.46
36:B2:327:G:H1'	36:B2:328:U:C6	2.51	0.46
63:CB:84:MET:SD	63:CB:164:ALA:HB1	2.54	0.46
63:CB:349:LYS:HB3	63:CB:349:LYS:HE3	1.36	0.46
63:CB:4:ARG:O	63:CB:5:LYS:CB	2.63	0.46
74:CC:12:SER:OG	74:CC:16:GLU:HG3	2.15	0.46
74:CC:340:ILE:HD13	74:CC:340:ILE:HA	1.72	0.46
74:CC:57:LEU:O	74:CC:58:ALA:CB	2.58	0.46
48:CD:186:GLU:HG3	48:CD:186:GLU:H	1.38	0.46
48:CD:209:ARG:O	48:CD:213:GLU:OE1	2.32	0.46
48:CD:33:ARG:HH12	48:CD:50:ARG:HH22	1.62	0.46
48:CD:52:ILE:O	48:CD:62:CYS:HA	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:168:LEU:CD1	81:CE:188:ARG:HH21	2.29	0.46
81:CE:172:LEU:HD21	85:A5:4941:G:N7	2.30	0.46
81:CE:43:HIS:C	81:CE:44:CYS:SG	2.94	0.46
82:CG:104:PRO:C	82:CG:105:GLU:CD	2.74	0.46
82:CG:105:GLU:HB2	82:CG:109:GLU:OE1	2.16	0.46
47:CI:125:THR:C	47:CI:126:VAL:HG23	2.37	0.46
40:CK:142:ASN:ND2	40:CK:151:ILE:HD13	2.31	0.46
40:CK:39:PRO:CA	40:CK:40:LYS:HE2	2.46	0.46
40:CK:52:ASP:CB	40:CK:53:TRP:CD1	2.98	0.46
40:CK:12:VAL:HG11	40:CK:65:GLN:OE1	2.10	0.46
42:CL:152:GLY:O	42:CL:153:PRO:O	2.33	0.46
42:CL:51:ALA:C	42:CL:53:GLY:N	2.67	0.46
42:CL:84:ALA:HB2	42:CL:117:LEU:HD12	1.98	0.46
44:CM:8:GLU:CD	44:CM:9:VAL:O	2.55	0.46
46:CN:4:TYR:HA	46:CN:46:ASP:OD2	2.16	0.46
41:CO:190:ASP:CA	41:CO:191:LYS:CB	2.94	0.46
49:CQ:151:HIS:CE1	49:CQ:164:LYS:HD2	2.49	0.46
49:CQ:41:SER:OG	49:CQ:44:ASN:HB2	2.16	0.46
49:CQ:78:LYS:CE	49:CQ:78:LYS:N	2.79	0.46
49:CQ:67:ILE:CG1	49:CQ:92:VAL:HG11	2.32	0.46
50:CR:6:LEU:HA	50:CR:6:LEU:HD23	1.79	0.46
43:CV:43:LYS:HA	43:CV:43:LYS:HD3	1.48	0.46
43:CV:89:ARG:CD	43:CV:95:PHE:CE2	2.99	0.46
58:CW:27:LYS:HE2	58:CW:29:PHE:CE2	2.46	0.46
59:CZ:91:LEU:C	59:CZ:117:LYS:HE2	2.36	0.46
85:A5:4082:G:H4'	85:A5:4083:U:OP1	2.16	0.46
85:A5:4940:C:OP1	85:A5:4941:G:OP1	2.34	0.46
16:AA:120:ARG:HH11	16:AA:120:ARG:HG2	1.80	0.46
16:AA:149:ASN:CB	16:AA:165:ASN:ND2	2.69	0.46
15:AB:103:MET:O	15:AB:214:LYS:HA	2.15	0.46
15:AB:23:ASP:HA	15:AB:24:PRO:HD3	1.44	0.46
15:AB:44:ILE:HG23	15:AB:69:VAL:HG21	1.97	0.46
28:AC:84:PHE:CE1	28:AC:262:THR:CG2	2.99	0.46
31:AH:103:LYS:CD	36:B2:688:U:H2'	2.46	0.46
31:AH:119:SER:O	31:AH:120:ARG:CZ	2.64	0.46
33:AI:97:VAL:O	33:AI:100:CYS:HB2	2.15	0.46
33:AI:191:GLU:O	33:AI:195:LEU:N	2.42	0.46
7:AM:69:LEU:O	7:AM:74:ILE:HD12	2.16	0.46
10:AN:38:TYR:CE1	10:AN:78:LYS:HG3	2.50	0.46
8:AS:88:LYS:O	8:AS:89:ASP:C	2.46	0.46
14:AT:16:ARG:HH11	14:AT:16:ARG:HG3	1.77	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AT:21:PHE:HD1	14:AT:22:LEU:N	2.14	0.46
14:AT:84:ARG:C	14:AT:86:GLY:N	2.67	0.46
17:AV:24:ILE:CD1	17:AV:25:GLY:C	2.84	0.46
17:AV:40:ASP:O	17:AV:40:ASP:OD1	2.34	0.46
17:AV:39:VAL:C	17:AV:41:LYS:H	2.18	0.46
32:AW:104:LEU:HD13	32:AW:106:THR:CG2	2.42	0.46
32:AW:15:ASN:HD21	32:AW:19:LYS:HE3	1.77	0.46
32:AW:30:CYS:SG	32:AW:31:SER:N	2.89	0.46
18:AY:29:HIS:HE1	18:AY:67:GLY:CA	2.06	0.46
18:AY:29:HIS:CE1	18:AY:67:GLY:N	2.82	0.46
18:AY:93:ARG:C	18:AY:93:ARG:CD	2.85	0.46
51:CA:8:GLN:NE2	51:CA:231:ALA:CB	2.77	0.46
63:CB:333:LEU:HD23	63:CB:337:VAL:HG11	1.98	0.46
63:CB:33:PRO:HG3	63:CB:351:LEU:HA	1.98	0.46
63:CB:361:GLU:CD	63:CB:362:LYS:H	2.10	0.46
63:CB:285:TYR:CD1	63:CB:363:ILE:HD12	2.49	0.46
74:CC:25:PRO:O	74:CC:26:ALA:HB3	2.16	0.46
74:CC:292:ILE:O	74:CC:295:SER:HB3	2.16	0.46
74:CC:40:VAL:HA	74:CC:115:VAL:HG11	1.97	0.46
48:CD:219:TYR:O	48:CD:221:LYS:N	2.48	0.46
48:CD:232:THR:HB	48:CD:233:PRO:CD	2.42	0.46
48:CD:24:ARG:NH1	86:A7:13:A:O2'	2.48	0.46
48:CD:92:LEU:HD12	48:CD:92:LEU:C	2.35	0.46
81:CE:165:LEU:HD13	81:CE:174:LEU:HD21	1.95	0.46
81:CE:237:LYS:O	81:CE:240:TYR:HB3	2.15	0.46
81:CE:253:VAL:HA	81:CE:256:GLN:OE1	2.16	0.46
81:CE:281:ILE:C	81:CE:281:ILE:CD1	2.84	0.46
81:CE:93:THR:O	81:CE:94:LYS:HG3	2.16	0.46
82:CG:187:LYS:HB2	82:CG:187:LYS:HE3	1.61	0.46
80:CH:189:GLN:C	80:CH:191:ASP:N	2.69	0.46
47:CI:199:TYR:C	47:CI:201:PRO:N	2.70	0.46
47:CI:203:HIS:CE1	86:A7:106:G:OP2	2.68	0.46
40:CK:131:GLU:CB	40:CK:152:ILE:CG2	2.94	0.46
40:CK:142:ASN:HD21	40:CK:151:ILE:HG21	1.81	0.46
42:CL:125:ILE:C	42:CL:127:PHE:HE1	2.19	0.46
42:CL:135:LYS:HG3	42:CL:136:LYS:N	2.31	0.46
42:CL:207:VAL:HG12	42:CL:211:LYS:HE3	1.96	0.46
42:CL:37:LYS:N	42:CL:37:LYS:CD	2.79	0.46
44:CM:70:GLN:N	44:CM:70:GLN:CD	2.69	0.46
41:CO:118:MET:HB3	52:CS:167:PHE:HB3	1.95	0.46
41:CO:54:TYR:CD2	41:CO:145:VAL:CG2	2.85	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:CO:63:ASN:OD1	41:CO:63:ASN:C	2.54	0.46
49:CQ:144:LYS:HE2	49:CQ:144:LYS:HA	1.96	0.46
49:CQ:92:VAL:O	49:CQ:112:ARG:NH1	2.47	0.46
50:CR:122:SER:O	50:CR:126:LYS:HG3	2.16	0.46
50:CR:178:GLN:CA	50:CR:181:LYS:HD3	2.40	0.46
50:CR:45:ILE:HA	50:CR:50:ILE:HG23	1.94	0.46
52:CS:153:PRO:HG2	52:CS:155:PRO:HG3	1.98	0.46
52:CS:173:ASN:O	52:CS:174:THR:O	2.34	0.46
52:CS:21:LYS:HD3	52:CS:21:LYS:HA	1.76	0.46
52:CS:82:LEU:CD1	52:CS:124:ILE:HG21	2.33	0.46
53:CT:157:GLU:O	53:CT:158:PHE:HB2	2.14	0.46
55:CU:125:GLU:HG3	55:CU:126:ASP:H	1.75	0.46
85:A5:119:G:OP2	85:A5:119:G:C4	2.69	0.45
55:CU:80:LYS:HD2	85:A5:2620:G:OP1	2.16	0.45
85:A5:2670:C:H2'	85:A5:2671:C:C6	2.52	0.45
85:A5:4883:C:H3'	85:A5:4884:G:C5'	2.47	0.45
85:A5:980:U:C4	85:A5:981:C:C4	3.04	0.45
85:A5:982:U:C2	85:A5:983:C:C5	3.04	0.45
15:AB:228:LEU:HD22	15:AB:232:HIS:CD2	2.51	0.45
23:AD:138:VAL:O	23:AD:149:SER:HA	2.16	0.45
30:AF:18:LYS:HZ3	30:AF:18:LYS:HB3	1.80	0.45
30:AF:32:ASP:OD2	30:AF:35:LEU:HD12	2.16	0.45
30:AF:42:LYS:HD3	30:AF:42:LYS:C	2.09	0.45
27:AE:149:TYR:CG	29:AG:205:GLU:HB3	2.46	0.45
31:AH:168:HIS:CE1	31:AH:169:LYS:HE2	2.52	0.45
26:AJ:86:VAL:HG11	26:AJ:105:PHE:CE1	2.51	0.45
11:AL:147:LYS:NZ	11:AL:156:GLN:HE22	2.14	0.45
7:AM:51:VAL:CG1	7:AM:109:VAL:CG2	2.94	0.45
10:AN:93:LYS:CG	10:AN:150:VAL:HG11	2.46	0.45
10:AN:50:ILE:HG23	10:AN:54:LEU:HD11	1.99	0.45
10:AN:56:ASP:OD1	15:AB:52:THR:OG1	86.34	0.45
10:AN:38:TYR:CZ	10:AN:74:ILE:HG23	2.51	0.45
13:AP:17:TYR:CD2	13:AP:25:LEU:HD21	2.51	0.45
34:AQ:16:LYS:CD	34:AQ:17:LYS:N	2.68	0.45
34:AQ:47:LEU:O	34:AQ:48:GLN:C	2.54	0.45
34:AQ:63:PHE:HD1	34:AQ:68:ILE:CD1	2.27	0.45
34:AQ:8:GLN:HB3	34:AQ:99:TYR:CD1	2.48	0.45
12:AR:86:PRO:HB2	12:AR:87:GLU:H	1.63	0.45
3:AU:116:ILE:O	3:AU:117:ALA:HB2	2.16	0.45
32:AW:42:MET:HE3	32:AW:50:PHE:CE2	2.44	0.45
6:AX:105:PHE:CD2	6:AX:112:VAL:HG23	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AX:124:LYS:HB3	6:AX:124:LYS:HE2	1.65	0.45
29:AG:168:LYS:HD2	36:B2:72:C:C4	2.51	0.45
36:B2:796:G:C3'	36:B2:797:C:H5'	2.47	0.45
51:CA:42:LYS:HE3	51:CA:87:PHE:CD1	2.50	0.45
63:CB:115:LYS:HA	63:CB:115:LYS:HD2	1.50	0.45
63:CB:141:ASP:C	63:CB:143:LYS:H	2.18	0.45
63:CB:32:PHE:HB2	63:CB:33:PRO:CD	2.46	0.45
63:CB:365:LEU:CD2	63:CB:365:LEU:H	2.25	0.45
63:CB:381:THR:HG23	63:CB:383:GLU:CG	2.38	0.45
74:CC:11:TYR:OH	74:CC:148:PRO:HB3	2.16	0.45
81:CE:127:SER:CB	81:CE:128:HIS:C	2.85	0.45
81:CE:172:LEU:HD11	85:A5:4940:C:HO2'	1.80	0.45
81:CE:205:ASN:H	81:CE:205:ASN:ND2	2.00	0.45
81:CE:56:ARG:CB	81:CE:65:ARG:HG2	2.41	0.45
82:CG:83:PHE:CZ	82:CG:159:HIS:CA	2.80	0.45
42:CL:55:ILE:CD1	42:CL:120:TYR:CE2	2.99	0.45
41:CO:129:LEU:HD12	41:CO:129:LEU:HA	1.81	0.45
54:CP:147:GLU:O	54:CP:147:GLU:HG3	2.16	0.45
52:CS:107:THR:O	52:CS:111:ARG:HD3	2.17	0.45
55:CU:37:ALA:HA	55:CU:65:ARG:HH11	1.69	0.45
58:CW:109:ILE:C	58:CW:110:ARG:CD	2.84	0.45
58:CW:90:ILE:CG2	58:CW:94:ARG:CZ	2.94	0.45
85:A5:2389:A:H2'	85:A5:2390:G:C8	2.51	0.45
50:CR:96:MET:HE1	85:A5:2667:C:H5'	1.98	0.45
85:A5:4302:U:C5	85:A5:4303:C:C4	3.04	0.45
85:A5:4559:A:O2'	85:A5:4560:C:H2'	2.17	0.45
80:CH:40:HIS:CE1	85:A5:4702:G:H4'	2.51	0.45
87:A8:32:C:H2'	87:A8:33:G:C8	2.52	0.45
87:A8:59:A:C2	87:A8:61:A:C2	3.04	0.45
16:AA:139:TYR:C	16:AA:140:VAL:CG2	2.85	0.45
15:AB:36:PRO:CA	15:AB:231:LEU:CD2	2.93	0.45
28:AC:136:HIS:O	28:AC:137:VAL:HG13	2.16	0.45
27:AE:98:ASN:HD22	27:AE:114:ILE:HG13	1.79	0.45
29:AG:62:PRO:HB2	29:AG:83:CYS:SG	2.56	0.45
31:AH:16:PRO:CA	31:AH:17:ASP:HB2	2.29	0.45
33:AI:141:ARG:O	33:AI:143:LYS:NZ	2.49	0.45
33:AI:143:LYS:O	33:AI:144:LYS:C	2.55	0.45
33:AI:47:ARG:NH2	33:AI:51:GLY:HA2	2.32	0.45
26:AJ:169:ARG:HB3	26:AJ:170:PRO:HD3	1.85	0.45
4:AK:41:PRO:HD2	4:AK:43:LEU:HG	1.97	0.45
7:AM:44:LYS:HA	7:AM:45:ARG:HH21	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AM:56:CYS:HG	7:AM:57:ASP:H	1.62	0.45
8:AS:82:TRP:CD1	36:B2:1567:G:C5	3.04	0.45
14:AT:141:ALA:O	14:AT:142:ASN:HB3	2.15	0.45
32:AW:20:ARG:HH12	36:B2:1139:C:C1'	2.23	0.45
32:AW:25:VAL:O	32:AW:62:VAL:HA	2.17	0.45
6:AX:67:ARG:NH2	6:AX:114:ASP:OD2	2.49	0.45
6:AX:60:LYS:CD	6:AX:116:PRO:HG3	2.44	0.45
6:AX:27:TYR:CZ	6:AX:31:HIS:CE1	2.99	0.45
19:AZ:77:LEU:O	19:AZ:78:LYS:HD3	2.16	0.45
36:B2:1363:C:H6	36:B2:1363:C:O5'	1.99	0.45
33:AI:55:TYR:OH	36:B2:305:U:H1'	2.16	0.45
36:B2:375:U:H3	36:B2:389:A:H61	1.64	0.45
32:AW:88:LYS:HZ2	36:B2:420:G:H5'	1.81	0.45
51:CA:47:ASP:OD1	51:CA:47:ASP:N	2.48	0.45
63:CB:112:ASP:HA	63:CB:115:LYS:CB	2.42	0.45
63:CB:80:GLU:HG2	63:CB:171:LEU:CD2	2.47	0.45
74:CC:144:ILE:O	74:CC:144:ILE:CG2	2.56	0.45
74:CC:147:VAL:CA	74:CC:175:LYS:CB	2.92	0.45
74:CC:128:LEU:CD1	74:CC:235:LEU:CD1	2.94	0.45
74:CC:288:ASP:CG	74:CC:291:ARG:HB3	2.32	0.45
74:CC:84:THR:O	74:CC:86:ARG:N	2.48	0.45
81:CE:44:CYS:CB	81:CE:54:ILE:HD11	2.43	0.45
82:CG:108:GLN:HA	82:CG:111:LYS:CG	2.46	0.45
80:CH:123:ILE:HG21	80:CH:125:ARG:NH2	2.31	0.45
80:CH:20:LEU:CD2	80:CH:45:LEU:HD13	2.26	0.45
47:CI:85:PHE:CE1	47:CI:87:MET:HG3	2.51	0.45
40:CK:8:ASN:O	40:CK:9:GLU:HB3	2.15	0.45
44:CM:20:HIS:HB3	44:CM:45:VAL:CG2	2.46	0.45
46:CN:47:LYS:NZ	46:CN:51:LEU:HD21	2.31	0.45
41:CO:22:ILE:HD12	41:CO:120:VAL:CG1	2.39	0.45
49:CQ:144:LYS:HE2	49:CQ:149:TYR:CE2	2.51	0.45
49:CQ:93:GLN:H	49:CQ:93:GLN:HG2	1.34	0.45
50:CR:50:ILE:O	50:CR:50:ILE:HG23	2.15	0.45
52:CS:2:LYS:HD2	52:CS:43:ARG:CG	2.46	0.45
53:CT:23:GLY:O	53:CT:24:VAL:CG2	2.64	0.45
53:CT:34:TYR:HD2	53:CT:34:TYR:N	2.15	0.45
57:CY:74:TYR:HD2	57:CY:77:LYS:H	1.65	0.45
59:CZ:95:VAL:HG21	59:CZ:117:LYS:HZ2	1.79	0.45
59:CZ:11:VAL:HA	59:CZ:83:THR:CG2	2.46	0.45
59:CZ:13:VAL:HG22	59:CZ:80:LEU:CD2	2.43	0.45
81:CE:129:GLY:C	85:A5:1282:G:H22	2.20	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:2807:A:H61	85:A5:2819:U:H3	1.64	0.45
12:AR:101:ASP:HB3	16:AA:48:ILE:CD1	2.47	0.45
16:AA:18:PHE:CZ	16:AA:55:TRP:HZ3	2.34	0.45
15:AB:151:ARG:HD2	15:AB:154:SER:H	1.82	0.45
28:AC:108:LYS:CE	28:AC:233:LEU:HD23	2.44	0.45
28:AC:157:LEU:O	28:AC:160:LEU:HD21	2.11	0.45
28:AC:88:ILE:HD11	28:AC:93:ILE:CB	2.37	0.45
23:AD:27:ARG:NH1	23:AD:27:ARG:HB3	5.00	0.45
27:AE:255:ARG:HH21	36:B2:844:U:C2'	2.29	0.45
31:AH:158:LEU:HD21	31:AH:187:PHE:CD1	2.47	0.45
31:AH:163:GLN:O	31:AH:165:ASN:N	2.49	0.45
31:AH:16:PRO:O	31:AH:20:GLU:OE1	2.34	0.45
26:AJ:91:LYS:CA	26:AJ:96:TYR:CD2	2.99	0.45
10:AN:18:TYR:C	10:AN:19:ARG:O	2.48	0.45
5:AO:83:GLN:NE2	5:AO:87:GLU:OE2	2.50	0.45
5:AO:98:ARG:NH1	5:AO:98:ARG:HG2	2.31	0.45
12:AR:17:ILE:CG1	12:AR:54:VAL:HG13	2.46	0.45
8:AS:81:ASP:HA	8:AS:84:LEU:CD1	2.47	0.45
14:AT:117:GLN:O	14:AT:118:ASP:CB	2.57	0.45
14:AT:38:LYS:HE2	14:AT:45:LEU:HA	1.99	0.45
17:AV:11:LEU:HD12	17:AV:11:LEU:C	2.36	0.45
32:AW:65:LEU:HD12	32:AW:65:LEU:C	2.35	0.45
6:AX:51:VAL:CG2	6:AX:70:VAL:HG11	2.46	0.45
18:AY:122:LYS:CD	18:AY:123:ALA:N	2.62	0.45
18:AY:20:ARG:C	18:AY:21:LYS:CD	2.82	0.45
18:AY:56:PHE:CE1	18:AY:94:HIS:HE1	2.34	0.45
19:AZ:104:ARG:NH1	19:AZ:104:ARG:C	2.69	0.45
10:AN:91:LEU:HD21	36:B2:925:G:H5''	1.97	0.45
63:CB:110:ILE:HG23	63:CB:110:ILE:O	2.16	0.45
63:CB:285:TYR:HB3	63:CB:332:MET:CE	2.46	0.45
63:CB:291:TYR:HD1	63:CB:292:LEU:N	2.15	0.45
63:CB:293:ILE:CG2	63:CB:294:LYS:N	2.80	0.45
63:CB:363:ILE:HG22	63:CB:364:ASP:N	2.30	0.45
63:CB:67:VAL:HG12	63:CB:67:VAL:O	2.15	0.45
74:CC:130:ALA:HB3	74:CC:246:VAL:CG1	2.17	0.45
74:CC:22:VAL:HG21	74:CC:258:ARG:HE	1.28	0.45
74:CC:307:LYS:C	74:CC:310:HIS:HE1	2.18	0.45
48:CD:63:GLN:HE22	86:A7:5:A:H1'	1.80	0.45
81:CE:45:SER:CA	81:CE:49:VAL:HB	2.45	0.45
80:CH:34:LEU:CD1	80:CH:150:ASP:CG	2.81	0.45
47:CI:38:ARG:HG3	47:CI:83:ASP:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CJ:99:PHE:HD1	79:CJ:105:PHE:HB3	1.76	0.45
79:CJ:22:LEU:HD23	79:CJ:130:PHE:CG	2.51	0.45
42:CL:107:THR:O	42:CL:111:GLN:HG2	2.17	0.45
42:CL:155:MET:HA	42:CL:156:PRO:HD3	1.74	0.45
42:CL:24:THR:HB	42:CL:26:PHE:CD2	2.51	0.45
42:CL:66:TYR:O	42:CL:67:HIS:C	2.55	0.45
46:CN:4:TYR:HA	46:CN:46:ASP:CG	2.37	0.45
49:CQ:105:VAL:HG11	49:CQ:110:ARG:N	2.31	0.45
49:CQ:154:LYS:CG	49:CQ:163:THR:CG2	2.94	0.45
52:CS:113:MET:HB3	52:CS:124:ILE:HD11	1.98	0.45
52:CS:160:ARG:HB3	52:CS:163:HIS:CB	2.46	0.45
52:CS:80:ILE:HG23	52:CS:95:ARG:HG2	1.96	0.45
55:CU:24:ASP:CB	55:CU:111:GLU:OE2	2.64	0.45
43:CV:99:GLU:CB	58:CW:24:THR:HG22	2.46	0.45
57:CY:44:VAL:HG13	57:CY:122:LYS:HB3	1.99	0.45
57:CY:86:GLN:N	57:CY:86:GLN:CD	2.69	0.45
85:A5:1380:G:C2	85:A5:1382:G:C4	3.05	0.45
16:AA:36:GLN:NE2	16:AA:53:ARG:HH12	2.15	0.45
16:AA:98:PRO:C	16:AA:99:ILE:HG13	2.36	0.45
15:AB:116:LYS:O	15:AB:117:TRP:HB2	2.16	0.45
15:AB:36:PRO:CA	15:AB:231:LEU:HD21	2.42	0.45
28:AC:66:LEU:HD23	28:AC:75:ILE:CD1	2.46	0.45
23:AD:217:ILE:O	23:AD:218:LEU:HB3	2.15	0.45
23:AD:86:LEU:HD12	23:AD:86:LEU:N	2.32	0.45
27:AE:153:LEU:HD23	29:AG:216:ARG:HH22	1.79	0.45
30:AF:128:ILE:O	30:AF:129:GLY:C	2.55	0.45
29:AG:185:LEU:O	29:AG:189:ARG:HG3	2.16	0.45
31:AH:163:GLN:O	31:AH:164:ASN:C	2.54	0.45
26:AJ:84:ILE:O	26:AJ:108:ARG:HD2	2.16	0.45
4:AK:16:PHE:HE2	4:AK:79:LEU:C	2.16	0.45
4:AK:40:VAL:HG23	4:AK:41:PRO:HD3	1.94	0.45
4:AK:55:ARG:NH1	36:B2:1277:C:H5"	2.31	0.45
4:AK:60:GLU:CG	4:AK:69:TRP:NE1	2.79	0.45
11:AL:126:VAL:CG2	11:AL:142:VAL:HG13	2.46	0.45
11:AL:2:ALA:O	11:AL:3:ASP:C	2.54	0.45
7:AM:102:LYS:HG3	7:AM:103:VAL:H	1.81	0.45
7:AM:99:ASN:N	7:AM:100:PRO:HD3	2.29	0.45
5:AO:16:SER:O	5:AO:17:LEU:CB	2.61	0.45
12:AR:105:MET:HE2	16:AA:39:TYR:HB3	1.15	0.45
12:AR:103:LYS:HG3	12:AR:107:LYS:HE3	1.97	0.45
8:AS:12:ILE:HA	8:AS:12:ILE:HD12	1.78	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AS:141:ARG:HD3	36:B2:1523:C:H5	1.82	0.45
3:AU:47:ASN:H	3:AU:47:ASN:ND2	2.14	0.45
32:AW:7:LEU:HD21	32:AW:33:VAL:HG12	1.99	0.45
6:AX:45:SER:OG	6:AX:46:HIS:HD2	2.00	0.45
6:AX:52:LEU:HG	6:AX:71:ARG:C	2.37	0.45
18:AY:78:SER:HB2	18:AY:81:TYR:HE2	1.75	0.45
36:B2:752:G:N2	36:B2:753:C:H41	2.14	0.45
51:CA:95:GLN:O	51:CA:102:LEU:HD11	2.17	0.45
63:CB:137:TRP:CE3	63:CB:146:LEU:CD1	3.00	0.45
63:CB:93:VAL:HG22	63:CB:94:GLU:N	2.31	0.45
74:CC:156:ASP:OD2	74:CC:255:SER:HB3	2.16	0.45
81:CE:154:THR:HG23	81:CE:155:GLY:N	2.31	0.45
81:CE:194:VAL:CG1	81:CE:195:ILE:N	2.80	0.45
81:CE:44:CYS:O	81:CE:45:SER:OG	2.34	0.45
81:CE:46:ARG:HH21	81:CE:50:LEU:N	2.14	0.45
81:CE:87:LYS:O	81:CE:92:VAL:CG2	2.64	0.45
64:CF:105:VAL:HG22	64:CF:135:ILE:HD12	1.97	0.45
82:CG:106:THR:CA	82:CG:107:LYS:HE2	2.46	0.45
80:CH:26:ILE:HG22	80:CH:35:ARG:NE	2.32	0.45
47:CI:87:MET:HG2	47:CI:138:ILE:CG1	2.44	0.45
42:CL:84:ALA:CB	42:CL:117:LEU:HD13	2.46	0.45
42:CL:142:GLU:O	42:CL:143:GLU:C	2.55	0.45
49:CQ:33:ARG:NE	49:CQ:52:PHE:CZ	2.79	0.45
52:CS:25:PRO:HA	52:CS:26:PRO:HD3	1.72	0.45
58:CW:61:LYS:HD3	58:CW:61:LYS:N	2.32	0.45
16:AA:123:VAL:CG1	16:AA:175:TRP:CH2	3.00	0.45
16:AA:57:LYS:HZ3	17:AV:70:LEU:CD2	2.29	0.45
15:AB:148:ASN:ND2	15:AB:148:ASN:N	2.61	0.45
28:AC:160:LEU:HG	28:AC:161:SER:N	2.31	0.45
28:AC:257:LYS:HB2	28:AC:257:LYS:HE2	1.72	0.45
23:AD:151:LYS:HE2	23:AD:151:LYS:HB2	1.60	0.45
23:AD:37:VAL:HG12	23:AD:50:ILE:HD13	1.98	0.45
23:AD:97:CYS:C	23:AD:99:ILE:H	2.12	0.45
27:AE:128:LYS:CD	27:AE:130:PHE:HD1	2.26	0.45
27:AE:128:LYS:CG	27:AE:130:PHE:HD1	2.27	0.45
31:AH:154:ILE:HG22	31:AH:185:VAL:HG22	1.98	0.45
31:AH:46:THR:CG2	31:AH:63:PHE:CB	2.95	0.45
31:AH:64:VAL:CG2	31:AH:72:PHE:HE2	2.30	0.45
33:AI:21:TYR:CZ	33:AI:22:HIS:HD2	2.32	0.45
33:AI:38:ILE:HD11	33:AI:81:VAL:HG23	1.97	0.45
33:AI:67:TRP:CD2	33:AI:70:GLU:HG2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AM:102:LYS:HG3	7:AM:103:VAL:N	2.32	0.45
13:AP:17:TYR:CD2	13:AP:25:LEU:CD2	2.99	0.45
8:AS:88:LYS:O	8:AS:89:ASP:O	2.35	0.45
17:AV:55:ILE:CD1	17:AV:65:SER:O	2.65	0.45
32:AW:49:GLU:OE1	32:AW:64:ASN:ND2	2.50	0.45
6:AX:107:ARG:HB3	6:AX:110:HIS:O	2.17	0.45
6:AX:75:ILE:HA	6:AX:75:ILE:HD13	1.73	0.45
18:AY:101:LYS:HB3	18:AY:102:THR:H	1.66	0.45
19:AZ:62:VAL:HA	19:AZ:65:TYR:CD2	2.52	0.45
36:B2:1415:C:C3'	36:B2:1416:C:H5'	2.46	0.45
34:AQ:138:ARG:O	36:B2:1645:C:H4'	2.16	0.45
51:CA:113:VAL:HG12	51:CA:166:VAL:HA	1.98	0.45
63:CB:89:ILE:CG2	63:CB:197:ALA:CB	2.93	0.45
74:CC:167:ALA:HA	74:CC:170:LEU:CD2	2.46	0.45
74:CC:213:GLU:OE1	74:CC:213:GLU:O	2.34	0.45
74:CC:40:VAL:CG1	74:CC:44:LEU:CD1	2.79	0.45
48:CD:104:LEU:CD2	48:CD:247:ILE:CB	2.95	0.45
48:CD:200:MET:HE1	48:CD:244:HIS:HE1	1.82	0.45
48:CD:262:LYS:N	48:CD:263:LYS:HB2	2.32	0.45
48:CD:42:ASN:HD21	53:CT:68:THR:HA	1.77	0.45
48:CD:48:LYS:O	48:CD:66:TYR:CB	2.63	0.45
81:CE:195:ILE:HG21	81:CE:288:PHE:HZ	1.77	0.45
64:CF:213:LEU:CD1	64:CF:244:ILE:CD1	2.94	0.45
82:CG:125:LYS:HB3	82:CG:126:GLY:H	1.52	0.45
82:CG:99:ALA:CB	82:CG:204:PHE:HZ	2.28	0.45
82:CG:243:GLY:HA3	82:CG:244:PRO:CD	2.46	0.45
82:CG:254:GLU:OE1	82:CG:257:LYS:HD3	2.17	0.45
82:CG:98:LEU:CD1	82:CG:102:TYR:HE2	2.29	0.45
80:CH:105:ILE:CD1	80:CH:105:ILE:N	2.65	0.45
80:CH:106:GLN:C	80:CH:107:GLU:CG	2.85	0.45
40:CK:1:MET:H3	40:CK:2:PRO:CG	2.28	0.45
42:CL:21:ARG:HB2	42:CL:21:ARG:CZ	2.46	0.45
44:CM:7:VAL:HG11	44:CM:57:LEU:HD21	1.99	0.45
46:CN:17:ASP:HB3	82:CG:237:TRP:CH2	2.38	0.45
46:CN:41:ARG:HA	46:CN:61:ILE:CD1	2.46	0.45
46:CN:42:PRO:HD3	46:CN:61:ILE:CD1	2.47	0.45
46:CN:47:LYS:NZ	46:CN:51:LEU:HD11	2.31	0.45
50:CR:184:ILE:O	50:CR:188:LEU:CD1	2.62	0.45
52:CS:24:THR:HG23	52:CS:25:PRO:CD	2.47	0.45
53:CT:125:TRP:C	53:CT:126:VAL:O	2.48	0.45
53:CT:144:ASN:ND2	53:CT:144:ASN:N	2.61	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CU:40:GLU:HG3	55:CU:70:ILE:HG12	1.94	0.45
58:CW:47:ARG:HG2	58:CW:54:LEU:CD2	2.46	0.45
29:AG:134:GLY:HA2	58:CW:82:ILE:HG23	1.98	0.45
59:CZ:114:ALA:HA	59:CZ:117:LYS:HD2	1.97	0.45
59:CZ:83:THR:OG1	59:CZ:85:TYR:N	2.49	0.45
85:A5:150:U:C6	85:A5:150:U:O5'	2.69	0.45
81:CE:137:VAL:HG11	85:A5:711:A:H4'	1.98	0.45
16:AA:28:THR:CG2	16:AA:46:ILE:HD13	2.45	0.45
16:AA:81:ASN:HA	16:AA:84:GLN:OE1	2.15	0.45
15:AB:136:ARG:HG2	15:AB:138:PHE:CZ	2.48	0.45
15:AB:91:VAL:HG22	15:AB:96:CYS:SG	2.57	0.45
28:AC:125:LYS:HA	28:AC:143:CYS:HA	1.98	0.45
28:AC:80:GLU:O	28:AC:84:PHE:HD2	1.99	0.45
27:AE:21:ASP:OD2	27:AE:24:THR:HG22	2.01	0.45
31:AH:59:ALA:HB2	31:AH:172:THR:OG1	2.17	0.45
31:AH:50:GLU:CD	31:AH:58:LYS:HE2	2.36	0.45
33:AI:123:ARG:O	33:AI:124:LYS:O	2.35	0.45
11:AL:22:ARG:HG3	33:AI:154:LYS:HZ3	1.82	0.45
26:AJ:148:ILE:O	26:AJ:148:ILE:HG22	2.17	0.45
26:AJ:18:ARG:HA	26:AJ:19:PRO:HD3	1.48	0.45
26:AJ:67:ASP:O	26:AJ:69:ARG:N	2.50	0.45
10:AN:125:LEU:CD2	10:AN:129:TYR:CE2	3.00	0.45
10:AN:137:PRO:O	10:AN:138:ASN:CB	2.65	0.45
10:AN:26:LEU:HA	10:AN:27:LYS:HE3	1.99	0.45
34:AQ:28:GLY:H	34:AQ:66:VAL:HA	1.82	0.45
34:AQ:8:GLN:CA	34:AQ:99:TYR:CZ	2.99	0.45
8:AS:40:TYR:CD1	8:AS:97:GLN:NE2	2.84	0.45
8:AS:40:TYR:CE1	8:AS:44:VAL:HG21	2.50	0.45
14:AT:21:PHE:CD1	14:AT:22:LEU:N	2.85	0.45
17:AV:58:ALA:HA	17:AV:61:ARG:CD	2.47	0.45
6:AX:67:ARG:HA	6:AX:67:ARG:NE	2.30	0.45
19:AZ:103:HIS:C	19:AZ:103:HIS:CD2	2.89	0.45
19:AZ:48:VAL:HG22	19:AZ:80:ARG:HB2	1.99	0.45
36:B2:126:G:N2	36:B2:181:A:OP1	2.48	0.45
36:B2:846:G:C8	36:B2:846:G:O5'	2.70	0.45
51:CA:66:PRO:C	51:CA:67:TYR:CD2	2.90	0.45
51:CA:83:HIS:NE2	51:CA:86:GLN:OE1	2.50	0.45
74:CC:133:LEU:HD23	74:CC:136:LEU:HD12	0.47	0.45
74:CC:171:LEU:CD2	74:CC:209:ILE:HD11	2.47	0.45
48:CD:107:ARG:NH2	48:CD:120:GLU:HA	2.32	0.45
48:CD:269:PRO:CD	48:CD:269:PRO:O	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CD:58:ARG:NH1	48:CD:93:THR:HG21	2.32	0.45
81:CE:166:LYS:CG	81:CE:167:GLN:N	2.79	0.45
81:CE:181:LEU:HD11	81:CE:268:GLN:CA	2.46	0.45
81:CE:223:ARG:O	81:CE:224:LYS:CB	2.65	0.45
81:CE:149:ILE:CD1	81:CE:271:LEU:HD23	2.46	0.45
81:CE:31:ASN:N	81:CE:32:LEU:CD2	2.77	0.45
64:CF:116:GLN:OE1	64:CF:212:LYS:CE	2.63	0.45
82:CG:42:GLY:N	82:CG:43:GLN:HG2	2.32	0.45
47:CI:85:PHE:HD1	47:CI:87:MET:HG3	1.78	0.45
40:CK:21:GLU:HG3	40:CK:48:LYS:HE2	1.97	0.45
40:CK:22:VAL:HG11	40:CK:45:ASP:CA	2.46	0.45
40:CK:2:PRO:HA	40:CK:2:PRO:O	2.05	0.45
44:CM:77:TRP:NE1	44:CM:82:ILE:CG2	2.67	0.45
52:CS:95:ARG:HB3	52:CS:95:ARG:CZ	2.45	0.45
53:CT:137:GLU:O	64:CF:85:ALA:HB2	2.16	0.45
53:CT:3:ASN:CG	53:CT:4:THR:H	2.19	0.45
55:CU:80:LYS:HG3	55:CU:110:TYR:OH	2.01	0.45
56:CX:119:ILE:CD1	56:CX:140:LEU:CD1	2.93	0.45
57:CY:53:ASP:OD1	57:CY:110:LYS:CB	2.64	0.45
59:CZ:30:ASP:O	59:CZ:39:SER:HB2	2.16	0.45
85:A5:1240:G:O2'	85:A5:1240:G:C1'	2.53	0.45
85:A5:4730:C:H1'	85:A5:4731:G:H2'	1.98	0.45
85:A5:656:C:H2'	85:A5:657:C:C6	2.51	0.45
28:AC:137:VAL:CG1	28:AC:217:ALA:CA	2.93	0.45
23:AD:132:LYS:HD3	23:AD:191:PRO:CG	2.46	0.45
27:AE:188:ASN:HD21	27:AE:218:PHE:HB2	1.82	0.45
30:AF:38:TYR:HD2	30:AF:38:TYR:N	2.14	0.45
30:AF:69:VAL:O	30:AF:73:THR:HG23	2.16	0.45
31:AH:8:ILE:O	31:AH:11:PRO:HD3	2.16	0.45
31:AH:79:LEU:HD22	31:AH:83:LEU:HD23	1.99	0.45
33:AI:144:LYS:C	33:AI:145:ILE:HG12	2.24	0.45
4:AK:2:LEU:HD22	4:AK:2:LEU:HA	1.20	0.45
10:AN:132:LYS:HB3	10:AN:132:LYS:HE2	1.54	0.45
5:AO:116:LEU:HA	5:AO:116:LEU:HD23	1.77	0.45
5:AO:20:GLN:HE21	5:AO:22:ALA:HB2	1.82	0.45
13:AP:10:ARG:O	13:AP:11:THR:C	2.54	0.45
13:AP:59:ARG:NE	13:AP:76:VAL:HG13	2.29	0.45
13:AP:7:LYS:C	13:AP:9:LYS:H	2.19	0.45
34:AQ:9:SER:OG	34:AQ:26:LYS:HE3	2.13	0.45
8:AS:117:ILE:O	8:AS:117:ILE:HG22	2.15	0.45
8:AS:14:ARG:NH1	8:AS:17:ASN:C	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AS:88:LYS:HD2	13:AP:37:TYR:HA	1.99	0.45
8:AS:91:LYS:HD3	13:AP:15:PHE:CE1	2.49	0.45
14:AT:15:VAL:HG23	14:AT:16:ARG:N	2.32	0.45
14:AT:87:VAL:HG12	14:AT:88:MET:HE3	1.98	0.45
17:AV:56:CYS:SG	17:AV:59:ILE:CG1	3.04	0.45
18:AY:120:THR:HB	18:AY:122:LYS:CD	2.42	0.45
18:AY:43:LYS:O	18:AY:46:LYS:HG3	2.16	0.45
19:AZ:74:SER:CA	19:AZ:79:ILE:HG22	2.33	0.45
36:B2:1144:A:C2	36:B2:1199:A:H4'	2.51	0.45
51:CA:135:THR:O	51:CA:148:VAL:HG13	2.17	0.45
51:CA:83:HIS:CE1	51:CA:86:GLN:CB	2.95	0.45
63:CB:17:LEU:HD21	63:CB:235:TRP:CH2	2.51	0.45
63:CB:301:ASN:C	63:CB:304:SER:OG	2.55	0.45
63:CB:33:PRO:HD3	63:CB:351:LEU:CD2	2.47	0.45
74:CC:14:LYS:HD3	74:CC:173:LYS:CG	2.47	0.45
74:CC:128:LEU:CD1	74:CC:235:LEU:HD12	2.36	0.45
74:CC:24:LEU:HA	74:CC:25:PRO:HD3	1.28	0.45
74:CC:310:HIS:CB	74:CC:311:ARG:HG2	2.33	0.45
48:CD:48:LYS:CE	48:CD:145:TYR:CD2	3.00	0.45
48:CD:152:ARG:HG2	48:CD:152:ARG:HH11	1.77	0.45
81:CE:274:VAL:HG12	81:CE:275:PHE:C	2.37	0.45
64:CF:89:LEU:HD11	64:CF:122:PHE:HD1	1.82	0.45
49:CQ:4:ASP:CB	64:CF:98:ILE:HG13	2.46	0.45
82:CG:117:ARG:CD	82:CG:130:THR:CG2	2.94	0.45
82:CG:154:LEU:HD12	82:CG:204:PHE:HB2	1.98	0.45
82:CG:48:LYS:HD3	82:CG:48:LYS:HA	1.29	0.45
47:CI:91:LEU:HD12	47:CI:135:ILE:HA	1.94	0.45
47:CI:85:PHE:HA	47:CI:140:THR:HG22	1.98	0.45
79:CJ:57:VAL:O	79:CJ:58:ARG:C	2.55	0.45
40:CK:39:PRO:C	40:CK:40:LYS:HD2	2.36	0.45
40:CK:85:LEU:HB3	40:CK:106:PHE:CD2	2.52	0.45
42:CL:121:ARG:HH12	42:CL:124:LEU:CD2	2.29	0.45
42:CL:125:ILE:HG23	42:CL:138:ASP:OD2	2.16	0.45
42:CL:148:THR:C	42:CL:149:GLN:CD	2.75	0.45
42:CL:164:GLU:O	42:CL:165:LYS:O	2.35	0.45
42:CL:99:ASP:OD1	42:CL:100:PRO:CD	2.65	0.45
44:CM:128:LYS:HA	44:CM:128:LYS:HD3	3.92	0.45
41:CO:177:LEU:CG	44:CM:130:LEU:HD21	2.37	0.45
41:CO:82:ARG:HD3	41:CO:85:ARG:HD3	1.98	0.45
49:CQ:59:PRO:CG	49:CQ:141:GLY:O	2.65	0.45
50:CR:10:LEU:O	50:CR:14:VAL:HG23	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CS:33:PHE:HE1	52:CS:126:ILE:HG21	1.81	0.45
52:CS:83:ARG:HH21	53:CT:156:TYR:CB	2.27	0.45
58:CW:110:ARG:HA	58:CW:113:LYS:HD2	1.97	0.45
56:CX:46:PHE:HB2	82:CG:56:LYS:O	2.17	0.45
56:CX:90:ILE:HG13	56:CX:90:ILE:H	1.48	0.45
59:CZ:4:PHE:C	59:CZ:6:LYS:CG	2.84	0.45
59:CZ:73:LYS:CB	59:CZ:75:TYR:CZ	2.92	0.45
49:CQ:91:ARG:NH1	85:A5:1502:G:C4	2.85	0.45
85:A5:2017:A:C4	85:A5:2018:C:C6	3.04	0.45
85:A5:3910:C:H2'	85:A5:3911:C:C6	2.52	0.45
16:AA:89:LYS:HA	16:AA:89:LYS:HD2	1.66	0.45
15:AB:144:LYS:CG	15:AB:206:PRO:HB3	2.47	0.45
28:AC:165:VAL:HG23	28:AC:165:VAL:O	2.16	0.45
30:AF:110:GLN:HE21	30:AF:110:GLN:CA	2.29	0.45
30:AF:112:LEU:O	30:AF:116:ILE:HG12	2.16	0.45
30:AF:32:ASP:CB	30:AF:117:ILE:CG2	2.95	0.45
30:AF:141:VAL:HG22	30:AF:146:ARG:HG2	1.99	0.45
30:AF:71:ARG:HH21	30:AF:71:ARG:HG3	1.72	0.45
29:AG:133:LEU:HA	29:AG:133:LEU:HD12	1.80	0.45
29:AG:145:PHE:O	29:AG:147:LEU:HD12	2.16	0.45
29:AG:70:HIS:HB2	29:AG:103:ASP:CG	2.34	0.45
31:AH:75:ILE:CG2	31:AH:76:GLN:H	2.25	0.45
31:AH:36:LEU:HD23	31:AH:78:ARG:HH11	1.82	0.45
33:AI:155:ASN:CG	33:AI:156:ALA:CA	2.85	0.45
33:AI:191:GLU:HG2	33:AI:192:GLY:H	1.82	0.45
33:AI:37:LYS:NZ	33:AI:93:THR:HB	2.31	0.45
7:AM:13:ASP:CB	7:AM:16:THR:OG1	2.64	0.45
13:AP:127:LYS:CA	13:AP:127:LYS:NZ	2.63	0.45
12:AR:112:GLY:O	12:AR:113:SER:OG	2.32	0.45
12:AR:92:ASP:O	12:AR:93:GLN:CD	2.55	0.45
8:AS:111:LEU:CD2	8:AS:125:HIS:ND1	2.75	0.45
17:AV:64:GLU:O	17:AV:65:SER:C	2.52	0.45
6:AX:52:LEU:HD12	6:AX:53:GLU:H	1.70	0.45
6:AX:52:LEU:CD1	6:AX:71:ARG:CB	2.95	0.45
18:AY:17:LEU:CD1	27:AE:64:ILE:CD1	2.95	0.45
19:AZ:103:HIS:C	19:AZ:105:ALA:N	2.69	0.45
19:AZ:92:LEU:HD21	19:AZ:109:TYR:HE1	1.69	0.45
36:B2:1240:A:C2	36:B2:1268:C:C5'	3.00	0.45
36:B2:1408:U:H2'	36:B2:1409:A:C8	2.52	0.45
31:AH:106:ARG:NE	36:B2:861:A:N3	2.65	0.45
63:CB:239:LYS:HE2	85:A5:3845:A:OP2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:51:ALA:CA	63:CB:78:ILE:CD1	2.94	0.45
74:CC:122:TYR:HE1	74:CC:280:PRO:HB2	1.71	0.45
74:CC:209:ILE:CD1	74:CC:221:PHE:CE1	2.99	0.45
48:CD:41:LYS:HA	48:CD:41:LYS:HD3	1.30	0.45
48:CD:51:MET:HE2	48:CD:51:MET:HB2	1.68	0.45
81:CE:31:ASN:HB2	81:CE:32:LEU:HD22	1.99	0.45
82:CG:143:VAL:HG13	82:CG:146:LEU:HD21	1.98	0.45
82:CG:47:PRO:O	82:CG:48:LYS:C	2.54	0.45
80:CH:36:ARG:NH2	80:CH:76:HIS:CE1	2.85	0.45
47:CI:76:MET:CE	47:CI:151:ALA:HB2	2.47	0.45
47:CI:32:ARG:O	47:CI:34:PHE:CE2	2.70	0.45
40:CK:108:GLU:O	40:CK:111:ASN:CB	2.65	0.45
40:CK:142:ASN:CG	40:CK:143:VAL:H	2.13	0.45
40:CK:28:LEU:HD13	40:CK:29:ALA:N	2.32	0.45
42:CL:176:PHE:CD1	42:CL:177:LYS:N	2.85	0.45
42:CL:34:ARG:HB3	42:CL:34:ARG:HH11	1.80	0.45
42:CL:48:PRO:CA	42:CL:49:ARG:O	2.65	0.45
41:CO:41:ILE:O	41:CO:138:LEU:N	2.46	0.45
49:CQ:61:LEU:CD2	49:CQ:141:GLY:CA	2.95	0.45
49:CQ:77:ASN:O	49:CQ:78:LYS:HE2	2.16	0.45
50:CR:142:ILE:CA	50:CR:145:LEU:HG	2.47	0.45
52:CS:16:CYS:O	52:CS:17:LEU:C	2.51	0.45
52:CS:84:TYR:OH	52:CS:86:SER:HA	2.17	0.45
55:CU:27:HIS:HD2	55:CU:114:TYR:N	2.13	0.45
43:CV:88:TYR:CD1	43:CV:88:TYR:C	2.90	0.45
56:CX:89:LYS:HE3	56:CX:97:VAL:CG2	2.40	0.45
59:CZ:10:VAL:C	59:CZ:83:THR:HG21	2.33	0.45
85:A5:1437:C:H2'	85:A5:1438:U:H5'	1.99	0.45
85:A5:1755:C:OP1	85:A5:1756:U:H5	2.00	0.45
85:A5:4748:U:H2'	85:A5:4749:C:H5'	1.99	0.45
85:A5:917:A:C2	85:A5:919:C:C6	3.05	0.45
16:AA:158:ASP:O	16:AA:159:ILE:CB	2.65	0.45
15:AB:144:LYS:HG2	15:AB:206:PRO:HB3	1.99	0.45
15:AB:151:ARG:HG3	15:AB:153:THR:H	1.82	0.45
28:AC:104:ASP:HB3	28:AC:130:ILE:HG12	1.99	0.45
23:AD:153:VAL:CG1	23:AD:154:ASP:N	2.80	0.45
23:AD:51:LEU:HD12	23:AD:51:LEU:HA	1.78	0.45
27:AE:146:THR:HG23	27:AE:146:THR:O	2.17	0.45
29:AG:2:LYS:HG3	29:AG:17:GLU:HG2	1.99	0.45
31:AH:46:THR:CG2	31:AH:63:PHE:HB3	2.47	0.45
7:AM:31:LEU:CD1	7:AM:33:ARG:HB3	2.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AO:147:ARG:HH22	36:B2:1854:U:P	2.40	0.45
8:AS:15:VAL:HG11	8:AS:68:ILE:HG12	1.99	0.45
8:AS:88:LYS:CD	13:AP:37:TYR:CA	2.95	0.45
8:AS:90:VAL:O	13:AP:17:TYR:C	2.55	0.45
14:AT:12:GLN:O	14:AT:16:ARG:HB2	2.16	0.45
6:AX:41:PHE:CE1	6:AX:47:ALA:HB3	2.51	0.45
6:AX:95:GLU:N	6:AX:98:ASP:OD1	2.39	0.45
18:AY:114:MET:CE	18:AY:121:ALA:O	2.65	0.45
18:AY:29:HIS:O	18:AY:31:GLY:N	2.50	0.45
36:B2:1145:A:C5	36:B2:1146:C:H1'	2.51	0.45
36:B2:125:C:C6	36:B2:125:C:H5'	2.47	0.45
36:B2:1624:U:H3'	36:B2:1625:U:H6	1.82	0.45
51:CA:253:GLN:HB3	51:CA:254:GLU:HG2	1.98	0.45
63:CB:167:GLN:HB2	63:CB:170:LEU:CD1	2.47	0.45
74:CC:57:LEU:HD22	74:CC:57:LEU:HA	1.86	0.45
74:CC:7:LEU:CG	74:CC:8:ILE:H	1.95	0.45
48:CD:197:LYS:HA	48:CD:197:LYS:HD3	1.78	0.45
48:CD:255:LYS:HE2	48:CD:255:LYS:HB3	1.57	0.45
81:CE:208:ILE:O	81:CE:211:HIS:N	2.49	0.45
81:CE:256:GLN:HG2	81:CE:257:ILE:N	2.31	0.45
64:CF:55:LYS:O	64:CF:58:HIS:HB3	2.17	0.45
47:CI:106:ALA:C	47:CI:108:ALA:HA	2.33	0.45
47:CI:109:ASP:HB3	47:CI:110:ARG:H	1.57	0.45
79:CJ:146:ARG:HH22	79:CJ:147:ARG:NH2	2.15	0.45
40:CK:14:TYR:CD1	40:CK:15:LEU:N	2.85	0.45
42:CL:61:CYS:HB3	42:CL:66:TYR:HB3	1.89	0.45
46:CN:180:PHE:O	46:CN:184:ILE:CD1	2.65	0.45
46:CN:72:LYS:HA	46:CN:72:LYS:HD3	1.41	0.45
41:CO:16:LEU:CG	41:CO:43:ILE:HG13	2.47	0.45
54:CP:57:CYS:SG	54:CP:72:GLN:HB2	2.57	0.45
49:CQ:146:ARG:O	49:CQ:147:GLU:C	2.55	0.45
49:CQ:151:HIS:CE1	49:CQ:164:LYS:HE3	2.52	0.45
50:CR:105:LEU:CD2	50:CR:109:TYR:CE1	2.96	0.45
50:CR:188:LEU:O	50:CR:189:SER:O	2.35	0.45
50:CR:1:MET:HB3	50:CR:2:SER:H	1.61	0.45
50:CR:96:MET:CE	85:A5:2667:C:C5'	2.94	0.45
52:CS:43:ARG:HD2	52:CS:43:ARG:HA	1.52	0.45
55:CU:107:LYS:H	55:CU:107:LYS:CD	2.29	0.45
43:CV:48:ARG:HG3	43:CV:49:LEU:N	2.32	0.45
58:CW:14:TYR:H	58:CW:17:HIS:CD2	2.35	0.45
56:CX:123:LYS:HZ2	56:CX:139:ARG:CB	2.24	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:CY:50:ARG:CD	57:CY:115:ARG:HH21	2.25	0.45
85:A5:1624:G:C2	85:A5:1643:A:C8	3.05	0.45
85:A5:1699:A:N7	85:A5:2096:G:OP2	2.49	0.45
85:A5:239:C:H2'	85:A5:240:G:C8	2.52	0.45
85:A5:3880:G:C6	85:A5:3881:G:C6	3.04	0.45
86:A7:27:G:H21	86:A7:55:A:N6	2.15	0.45
16:AA:205:ARG:O	16:AA:206:ASP:CB	2.61	0.45
15:AB:189:ILE:HB	15:AB:190:PRO:CD	2.47	0.45
15:AB:29:ASP:OD1	15:AB:29:ASP:O	2.34	0.45
23:AD:222:PRO:O	23:AD:223:ILE:CB	2.65	0.45
23:AD:34:TYR:O	23:AD:99:ILE:HD12	2.17	0.45
27:AE:151:ASP:O	27:AE:153:LEU:N	2.50	0.45
29:AG:67:VAL:HG22	29:AG:100:CYS:SG	2.57	0.45
31:AH:117:PRO:O	31:AH:119:SER:N	2.50	0.45
31:AH:154:ILE:CG2	31:AH:185:VAL:HG22	2.48	0.45
31:AH:172:THR:HG23	31:AH:173:PHE:N	2.32	0.45
31:AH:158:LEU:CG	31:AH:187:PHE:CD1	3.00	0.45
26:AJ:132:GLN:O	26:AJ:133:ARG:HB2	2.16	0.45
26:AJ:160:SER:O	26:AJ:162:ARG:N	2.50	0.45
26:AJ:179:LYS:HA	26:AJ:182:GLN:HB2	1.98	0.45
26:AJ:80:ARG:HH21	36:B2:818:A:H3'	1.82	0.45
4:AK:15:LEU:HD22	4:AK:21:MET:HE1	1.98	0.45
4:AK:62:PHE:CZ	4:AK:65:ARG:HA	2.51	0.45
11:AL:60:CYS:HB3	11:AL:63:THR:OG1	2.17	0.45
10:AN:36:GLN:HG3	10:AN:54:LEU:HD21	1.99	0.45
5:AO:125:LYS:HE3	5:AO:125:LYS:HB3	1.37	0.45
5:AO:139:SER:OG	5:AO:140:THR:N	2.50	0.45
5:AO:147:ARG:HH21	5:AO:150:ARG:NH2	2.15	0.45
13:AP:100:LYS:CD	13:AP:101:THR:HG23	2.46	0.45
13:AP:127:LYS:CE	13:AP:128:HIS:CA	2.95	0.45
13:AP:44:ARG:HH21	13:AP:84:ILE:CA	2.28	0.45
34:AQ:47:LEU:HD23	34:AQ:81:ILE:HD12	1.62	0.45
16:AA:158:ASP:CB	17:AV:65:SER:CB	2.92	0.45
32:AW:106:THR:HG21	32:AW:111:MET:HE2	1.99	0.45
18:AY:50:THR:O	18:AY:51:THR:CB	2.63	0.45
19:AZ:96:LEU:C	19:AZ:112:ASN:HD22	2.20	0.45
19:AZ:99:LEU:HD21	19:AZ:109:TYR:CZ	2.49	0.45
51:CA:232:GLY:O	51:CA:234:LYS:CB	2.64	0.45
63:CB:89:ILE:HG21	63:CB:197:ALA:HB1	1.99	0.45
63:CB:213:GLN:O	63:CB:214:ASP:HB2	2.17	0.45
63:CB:245:HIS:CG	63:CB:246:ARG:H	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:254:ILE:CG2	63:CB:262:VAL:HG23	2.47	0.45
74:CC:335:MET:O	74:CC:339:THR:HG23	2.17	0.45
48:CD:107:ARG:HG3	48:CD:248:ARG:HA	1.99	0.45
48:CD:57:ASN:CA	48:CD:58:ARG:CG	2.87	0.45
81:CE:212:LEU:CD2	81:CE:216:TYR:CG	2.99	0.45
81:CE:239:LYS:CD	85:A5:4939:C:C6	3.00	0.45
64:CF:22:ARG:N	64:CF:22:ARG:CD	4.69	0.45
64:CF:244:ILE:CG2	64:CF:245:ARG:N	2.80	0.45
82:CG:95:LEU:HD23	82:CG:218:LEU:HD22	0.56	0.45
47:CI:54:SER:HB3	47:CI:135:ILE:HD11	1.99	0.45
40:CK:38:SER:OG	40:CK:39:PRO:N	2.50	0.45
42:CL:126:LEU:CD2	42:CL:136:LYS:C	2.86	0.45
44:CM:90:ARG:O	44:CM:94:LYS:CG	2.64	0.45
41:CO:47:PHE:HE1	41:CO:141:LEU:N	2.15	0.45
41:CO:149:TYR:CD1	63:CB:96:PRO:O	2.70	0.45
49:CQ:19:LYS:HE3	49:CQ:20:SER:CB	2.46	0.45
52:CS:98:ARG:HD3	52:CS:145:PHE:CD1	2.52	0.45
43:CV:9:SER:CB	43:CV:128:LEU:HG	2.40	0.45
43:CV:52:LEU:O	43:CV:53:PRO:C	2.54	0.45
57:CY:117:LYS:HE3	57:CY:121:ARG:NH2	1.89	0.45
59:CZ:29:ILE:HD12	59:CZ:40:HIS:O	2.16	0.45
85:A5:1723:A:N6	85:A5:1838:A:H61	2.16	0.44
85:A5:1890:G:H22	85:A5:1939:A:H61	1.64	0.44
85:A5:2101:C:C6	85:A5:2101:C:O4'	2.70	0.44
85:A5:2110:C:OP1	85:A5:2110:C:C6	2.70	0.44
50:CR:121:HIS:CD2	85:A5:2663:G:H3'	2.52	0.44
54:CP:66:GLY:HA2	85:A5:3893:C:H5''	1.99	0.44
85:A5:4881:U:H3'	85:A5:4882:U:C5'	2.46	0.44
85:A5:4885:U:O2	85:A5:4934:A:C2	2.70	0.44
48:CD:22:ARG:NH2	86:A7:6:C:H3'	2.29	0.44
16:AA:130:ASP:HB3	16:AA:133:PRO:HG2	1.98	0.44
16:AA:207:PRO:HB2	16:AA:208:GLU:H	1.33	0.44
16:AA:85:ARG:O	16:AA:85:ARG:CG	3.35	0.44
15:AB:146:ARG:HH11	15:AB:146:ARG:HB3	1.83	0.44
15:AB:181:LEU:HD23	15:AB:181:LEU:HA	1.83	0.44
15:AB:90:ASP:OD2	15:AB:91:VAL:N	2.48	0.44
28:AC:195:LEU:O	28:AC:196:ILE:HD13	2.18	0.44
23:AD:166:TYR:CE1	23:AD:200:PRO:HB2	2.41	0.44
23:AD:225:GLU:HG3	23:AD:227:LYS:HE2	1.98	0.44
27:AE:90:ILE:HD11	27:AE:101:LEU:HD11	2.00	0.44
29:AG:13:GLN:HA	29:AG:124:LEU:HD11	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AG:27:PHE:HE2	29:AG:41:LEU:CD1	2.12	0.44
31:AH:109:ARG:HB3	31:AH:110:THR:H	1.14	0.44
33:AI:191:GLU:O	33:AI:195:LEU:HB3	2.16	0.44
33:AI:81:VAL:HG11	33:AI:91:VAL:HA	1.99	0.44
26:AJ:91:LYS:CA	26:AJ:96:TYR:CB	2.71	0.44
11:AL:59:LYS:CD	11:AL:134:LEU:HD21	2.47	0.44
11:AL:18:GLN:NE2	11:AL:20:LYS:HD2	2.27	0.44
34:AQ:9:SER:HB2	34:AQ:26:LYS:CD	2.37	0.44
8:AS:33:ILE:HB	8:AS:36:VAL:HG13	1.90	0.44
8:AS:72:GLN:O	8:AS:73:ASN:OD1	2.35	0.44
6:AX:41:PHE:CZ	6:AX:102:VAL:HG12	2.48	0.44
6:AX:3:LYS:HE2	6:AX:3:LYS:HB3	1.59	0.44
36:B2:1417:C:C6	36:B2:1417:C:C3'	2.99	0.44
36:B2:530:U:C5	36:B2:531:A:C5	3.05	0.44
36:B2:833:C:H2'	36:B2:834:C:H6	1.82	0.44
51:CA:159:SER:OG	51:CA:162:ASN:OD1	2.35	0.44
51:CA:202:VAL:O	51:CA:202:VAL:CG1	2.65	0.44
63:CB:112:ASP:H	63:CB:115:LYS:HB2	1.81	0.44
63:CB:293:ILE:HG12	63:CB:297:LYS:CA	2.46	0.44
63:CB:81:THR:CB	63:CB:329:ASP:O	2.58	0.44
63:CB:43:LEU:HD12	63:CB:43:LEU:H	1.80	0.44
74:CC:54:VAL:CB	74:CC:101:MET:HE2	2.47	0.44
74:CC:338:ASN:HA	74:CC:341:LEU:HB2	1.99	0.44
48:CD:265:ARG:HD2	48:CD:266:TRP:CE2	2.52	0.44
48:CD:265:ARG:HG3	48:CD:266:TRP:N	2.31	0.44
48:CD:82:GLU:C	48:CD:84:PRO:HD2	2.37	0.44
81:CE:57:TYR:CA	81:CE:60:SER:HB3	2.46	0.44
64:CF:20:LYS:HE2	64:CF:21:LYS:CE	2.48	0.44
80:CH:51:LYS:O	80:CH:52:LYS:CD	2.65	0.44
47:CI:109:ASP:CG	47:CI:112:GLN:HG2	2.38	0.44
47:CI:115:MET:HE3	47:CI:118:ALA:HB2	1.98	0.44
47:CI:21:ARG:NH1	47:CI:22:PHE:CZ	2.84	0.44
47:CI:2:GLY:O	47:CI:3:ARG:O	2.35	0.44
47:CI:77:VAL:O	47:CI:77:VAL:HG12	2.73	0.44
40:CK:146:ARG:HB3	40:CK:151:ILE:HD13	1.99	0.44
40:CK:61:LYS:HG2	40:CK:73:VAL:O	2.16	0.44
46:CN:202:ARG:O	74:CC:112:HIS:CB	2.61	0.44
41:CO:188:LYS:HE2	41:CO:188:LYS:C	2.31	0.44
41:CO:189:ILE:O	41:CO:191:LYS:HB3	2.18	0.44
50:CR:105:LEU:HD12	50:CR:135:LYS:HD2	1.98	0.44
53:CT:126:VAL:CG1	53:CT:128:LEU:HD21	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CT:40:VAL:HG13	53:CT:97:LYS:O	2.18	0.44
55:CU:80:LYS:N	55:CU:80:LYS:HD2	2.20	0.44
43:CV:109:LYS:H	43:CV:109:LYS:HG3	1.62	0.44
58:CW:74:ARG:CD	58:CW:75:ALA:H	2.30	0.44
56:CX:82:THR:CG2	56:CX:155:ILE:HD13	2.47	0.44
56:CX:60:TYR:HD1	56:CX:60:TYR:O	2.00	0.44
82:CG:142:THR:HG23	85:A5:151:G:O6	2.17	0.44
85:A5:2082:G:N2	85:A5:2275:G:C4	2.85	0.44
85:A5:2473:A:N1	85:A5:2506:G:C8	2.85	0.44
85:A5:2544:G:C6	87:A8:126:C:C5	3.05	0.44
85:A5:2823:G:H2'	85:A5:2824:C:H5''	2.00	0.44
63:CB:28:LYS:HZ1	85:A5:4581:G:H5''	1.83	0.44
85:A5:4690:G:O6	85:A5:4697:U:H3'	2.17	0.44
85:A5:4751:G:H2'	85:A5:4752:U:H5'	1.99	0.44
85:A5:4883:C:C3'	85:A5:4884:G:H5''	2.47	0.44
85:A5:5001:U:C3'	85:A5:5002:U:H5''	2.48	0.44
87:A8:110:U:C3'	87:A8:111:U:H5'	2.48	0.44
16:AA:145:ILE:HD12	16:AA:159:ILE:CG2	2.27	0.44
16:AA:88:LEU:HA	16:AA:88:LEU:HD13	1.79	0.44
15:AB:123:ALA:HB3	15:AB:168:MET:SD	2.57	0.44
15:AB:71:LEU:HA	15:AB:74:LEU:HB2	1.97	0.44
27:AE:192:ILE:HG22	27:AE:193:GLY:N	2.32	0.44
18:AY:18:LEU:HD11	27:AE:64:ILE:HD11	1.99	0.44
30:AF:145:ARG:HD2	30:AF:145:ARG:HA	1.40	0.44
30:AF:151:ILE:HA	30:AF:154:LEU:CD2	2.48	0.44
30:AF:175:ASP:OD1	30:AF:175:ASP:O	2.35	0.44
30:AF:174:ALA:O	30:AF:178:ILE:HG13	2.16	0.44
31:AH:154:ILE:O	31:AH:154:ILE:HG22	2.17	0.44
31:AH:160:LYS:CB	31:AH:192:PHE:CZ	3.00	0.44
31:AH:83:LEU:CD1	31:AH:92:VAL:CG1	2.94	0.44
33:AI:54:LYS:HD3	33:AI:181:GLN:OE1	2.17	0.44
33:AI:36:THR:HG23	33:AI:96:LEU:HB2	1.99	0.44
26:AJ:131:ARG:HA	26:AJ:143:ASN:OD1	2.18	0.44
11:AL:10:TYR:HD2	11:AL:12:LYS:CE	2.14	0.44
11:AL:94:HIS:CB	11:AL:105:ARG:CD	2.75	0.44
7:AM:26:LEU:CD1	7:AM:89:VAL:C	2.81	0.44
5:AO:92:ALA:CB	5:AO:125:LYS:HB2	2.47	0.44
5:AO:147:ARG:O	5:AO:147:ARG:HG2	2.17	0.44
34:AQ:145:TYR:HA	34:AQ:145:TYR:HD1	1.42	0.44
12:AR:99:ASP:C	12:AR:119:VAL:HG13	2.19	0.44
8:AS:50:ILE:O	8:AS:51:ASP:C	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AT:4:VAL:CG1	14:AT:139:ALA:HB2	2.46	0.44
3:AU:46:LYS:O	3:AU:46:LYS:HG2	2.18	0.44
3:AU:47:ASN:C	3:AU:48:LEU:HD23	2.34	0.44
18:AY:55:ILE:CG1	18:AY:75:ILE:HD11	2.43	0.44
36:B2:107:A:H61	36:B2:354:U:H3	1.63	0.44
36:B2:1203:G:H2'	36:B2:1204:A:C8	2.52	0.44
36:B2:1412:C:O2'	36:B2:1413:G:O4'	2.27	0.44
36:B2:1495:G:O2'	36:B2:1496:U:H5'	2.17	0.44
36:B2:1551:U:C5	36:B2:1577:G:C6	3.06	0.44
36:B2:1620:A:H4'	36:B2:1621:U:C6	2.52	0.44
33:AI:21:TYR:OH	36:B2:433:A:H5'	2.18	0.44
36:B2:561:A:C6	36:B2:562:U:O4	2.70	0.44
36:B2:845:G:H2'	36:B2:846:G:H8	1.79	0.44
51:CA:45:VAL:CG2	51:CA:61:VAL:HG22	2.30	0.44
63:CB:234:ARG:HD2	63:CB:271:GLN:O	2.17	0.44
63:CB:292:LEU:CG	63:CB:293:ILE:HG13	2.47	0.44
63:CB:32:PHE:HA	63:CB:33:PRO:HD3	1.78	0.44
63:CB:377:GLY:O	63:CB:378:ARG:HD3	2.17	0.44
63:CB:92:TYR:CE2	63:CB:99:LEU:CD1	2.88	0.44
74:CC:18:SER:OG	74:CC:19:GLY:N	2.49	0.44
74:CC:306:ARG:C	74:CC:307:LYS:CG	2.84	0.44
81:CE:279:ASN:HD21	85:A5:4753:U:P	2.41	0.44
64:CF:118:PHE:CE2	64:CF:215:SER:OG	2.61	0.44
82:CG:174:CYS:SG	82:CG:179:VAL:HG11	2.57	0.44
15:AB:58:ALA:N	82:CG:264:LYS:HZ1	2.12	0.44
40:CK:22:VAL:HG11	40:CK:45:ASP:HA	1.99	0.44
41:CO:188:LYS:CE	41:CO:189:ILE:H	2.29	0.44
41:CO:19:LEU:CD2	41:CO:80:PHE:CE1	2.94	0.44
54:CP:71:ALA:O	54:CP:74:LYS:HD2	2.18	0.44
49:CQ:31:LEU:HD22	49:CQ:31:LEU:C	2.37	0.44
50:CR:105:LEU:HD12	50:CR:135:LYS:CD	2.47	0.44
55:CU:115:PHE:C	55:CU:116:GLN:HG3	2.29	0.44
55:CU:38:ASN:OD1	55:CU:41:GLN:HG2	2.16	0.44
43:CV:82:ILE:HD12	43:CV:104:VAL:CG1	2.45	0.44
58:CW:110:ARG:HD2	58:CW:113:LYS:CE	2.47	0.44
56:CX:153:ILE:HD11	56:CX:155:ILE:HG22	1.99	0.44
56:CX:151:ASN:HB3	56:CX:156:ILE:HG12	1.98	0.44
57:CY:45:ARG:HD3	57:CY:45:ARG:C	2.38	0.44
59:CZ:64:LYS:HE2	59:CZ:64:LYS:HB2	1.69	0.44
15:AB:89:GLU:O	15:AB:90:ASP:HB2	2.17	0.44
27:AE:118:GLU:C	27:AE:120:LYS:N	2.70	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AE:49:ARG:CD	27:AE:50:ASN:N	2.72	0.44
29:AG:131:ARG:CG	58:CW:80:ARG:HB3	2.48	0.44
33:AI:205:ARG:O	33:AI:206:LYS:O	2.35	0.44
4:AK:85:LEU:CB	4:AK:86:PRO:HD2	2.47	0.44
7:AM:77:ILE:O	7:AM:78:LYS:HB2	2.17	0.44
34:AQ:40:GLU:HA	34:AQ:40:GLU:OE1	2.17	0.44
34:AQ:93:VAL:HG13	34:AQ:105:LYS:CG	2.42	0.44
8:AS:51:ASP:CG	8:AS:53:THR:OG1	2.55	0.44
8:AS:80:PRO:HB2	8:AS:82:TRP:NE1	2.31	0.44
14:AT:9:VAL:HG12	14:AT:10:ASN:N	2.32	0.44
6:AX:28:LYS:HE2	6:AX:32:LEU:CD1	2.47	0.44
6:AX:71:ARG:NE	6:AX:82:THR:HG23	2.23	0.44
18:AY:120:THR:C	18:AY:122:LYS:H	2.19	0.44
18:AY:47:MET:O	36:B2:837:A:C2	2.70	0.44
19:AZ:105:ALA:O	19:AZ:106:GLN:CG	2.65	0.44
36:B2:1851:A:H3'	36:B2:1852:C:C5'	2.47	0.44
51:CA:247:ARG:O	51:CA:250:LYS:CB	2.64	0.44
51:CA:250:LYS:HD3	51:CA:250:LYS:O	2.18	0.44
63:CB:115:LYS:HA	63:CB:118:PHE:HD2	1.81	0.44
63:CB:378:ARG:NH1	63:CB:378:ARG:CG	2.39	0.44
74:CC:288:ASP:O	74:CC:291:ARG:N	2.51	0.44
74:CC:63:SER:CB	74:CC:80:ARG:HD2	2.38	0.44
48:CD:193:GLU:O	48:CD:197:LYS:HG2	2.17	0.44
81:CE:113:PRO:CD	81:CE:114:ARG:N	2.61	0.44
82:CG:165:GLU:C	82:CG:167:VAL:H	2.20	0.44
82:CG:194:VAL:CG1	82:CG:194:VAL:O	2.66	0.44
80:CH:78:GLN:O	80:CH:82:LYS:CG	2.66	0.44
47:CI:109:ASP:C	47:CI:110:ARG:HG3	2.38	0.44
79:CJ:109:ILE:HG13	79:CJ:109:ILE:O	2.17	0.44
79:CJ:62:ILE:HD12	79:CJ:68:ILE:HD13	1.99	0.44
40:CK:114:ARG:O	40:CK:117:ARG:HB2	2.17	0.44
40:CK:55:GLY:O	40:CK:56:LEU:CD2	2.62	0.44
40:CK:81:ILE:HG13	40:CK:82:ILE:HG13	2.00	0.44
40:CK:89:PRO:C	40:CK:90:ARG:O	2.52	0.44
42:CL:169:ILE:O	42:CL:172:GLU:HB2	2.18	0.44
42:CL:64:VAL:C	42:CL:67:HIS:CD2	2.90	0.44
44:CM:42:CYS:O	44:CM:44:GLN:HG3	2.17	0.44
44:CM:20:HIS:CG	44:CM:45:VAL:HG22	2.52	0.44
46:CN:124:ASP:O	46:CN:127:TYR:N	2.47	0.44
46:CN:169:ARG:HB2	46:CN:169:ARG:CZ	2.47	0.44
46:CN:186:GLY:HA3	46:CN:191:ALA:CA	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:4:TYR:OH	46:CN:49:ARG:NH1	2.50	0.44
41:CO:203:VAL:CG1	44:CM:97:ALA:HB1	2.47	0.44
50:CR:133:LYS:CG	50:CR:137:ILE:HD12	2.45	0.44
53:CT:18:PRO:O	53:CT:21:LYS:N	2.50	0.44
43:CV:88:TYR:HH	43:CV:90:ARG:HG3	1.81	0.44
58:CW:119:LYS:C	58:CW:122:SER:HG	2.08	0.44
58:CW:12:LYS:HE3	63:CB:388:PHE:CG	2.52	0.44
56:CX:68:ARG:HB2	56:CX:68:ARG:HE	1.33	0.44
85:A5:116:G:HO2'	85:A5:117:C:H6	1.56	0.44
81:CE:266:GLN:HE22	85:A5:4929:C:H5''	1.82	0.44
81:CE:242:ILE:HD12	85:A5:4939:C:O4'	2.17	0.44
85:A5:4993:G:N1	85:A5:5058:A:C2	2.84	0.44
87:A8:110:U:HO2'	87:A8:111:U:H5'	1.81	0.44
15:AB:55:THR:O	15:AB:56:LYS:CB	2.66	0.44
28:AC:104:ASP:HB3	28:AC:130:ILE:HG13	2.00	0.44
28:AC:182:CYS:SG	28:AC:183:LYS:N	2.90	0.44
28:AC:213:LEU:HD23	28:AC:213:LEU:C	2.38	0.44
28:AC:84:PHE:CZ	28:AC:264:SER:CA	2.94	0.44
23:AD:192:TRP:O	23:AD:193:ASP:C	2.51	0.44
23:AD:192:TRP:O	23:AD:196:GLY:N	2.36	0.44
23:AD:193:ASP:HB3	23:AD:194:PRO:HD3	1.98	0.44
27:AE:7:LYS:HD2	27:AE:7:LYS:HA	1.38	0.44
30:AF:185:SER:OG	30:AF:190:ILE:HD12	2.17	0.44
30:AF:39:ILE:HG23	30:AF:68:ILE:CG2	2.15	0.44
30:AF:44:LYS:CB	30:AF:45:TYR:CD1	3.00	0.44
29:AG:143:LYS:HE3	29:AG:143:LYS:CA	2.48	0.44
29:AG:162:LEU:CD2	29:AG:172:LYS:CE	2.82	0.44
33:AI:104:ILE:HG13	33:AI:105:ASP:N	2.26	0.44
33:AI:139:LYS:O	33:AI:140:LYS:CB	2.46	0.44
33:AI:73:THR:O	33:AI:74:ARG:CD	2.65	0.44
26:AJ:118:GLY:C	26:AJ:120:ALA:H	2.20	0.44
11:AL:113:LEU:HD11	11:AL:120:VAL:CG1	2.47	0.44
11:AL:114:SER:OG	11:AL:115:PRO:HD2	2.16	0.44
11:AL:149:ALA:HB2	11:AL:156:GLN:CB	2.16	0.44
7:AM:69:LEU:HD12	7:AM:76:LEU:CD2	2.47	0.44
5:AO:119:LEU:C	5:AO:119:LEU:HD12	2.35	0.44
13:AP:97:TYR:CD1	13:AP:102:PHE:CE2	3.04	0.44
11:AL:82:MET:CE	36:B2:373:G:C5'	2.92	0.44
63:CB:60:VAL:CG2	63:CB:72:VAL:CG1	2.95	0.44
74:CC:43:ASN:HB3	74:CC:115:VAL:CG2	2.48	0.44
74:CC:86:ARG:O	74:CC:86:ARG:CD	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CD:246:ALA:CA	48:CD:249:GLU:HG2	2.48	0.44
81:CE:137:VAL:O	81:CE:138:ARG:HG3	2.17	0.44
81:CE:83:LYS:HZ2	81:CE:87:LYS:N	2.11	0.44
81:CE:89:LEU:HD12	81:CE:89:LEU:O	2.16	0.44
64:CF:67:THR:O	64:CF:71:MET:CG	2.53	0.44
82:CG:105:GLU:HB3	82:CG:109:GLU:OE1	2.17	0.44
82:CG:25:LYS:HG2	82:CG:26:LYS:N	2.32	0.44
82:CG:32:PHE:O	82:CG:33:GLU:OE2	2.36	0.44
47:CI:197:VAL:HG22	47:CI:198:LYS:N	2.33	0.44
40:CK:116:MET:C	40:CK:118:HIS:N	2.65	0.44
42:CL:64:VAL:C	42:CL:67:HIS:HD2	2.21	0.44
44:CM:107:PHE:O	44:CM:110:PHE:HB3	2.16	0.44
44:CM:42:CYS:O	44:CM:44:GLN:N	2.50	0.44
46:CN:28:TRP:CZ3	82:CG:67:ARG:NH1	2.85	0.44
41:CO:120:VAL:O	41:CO:124:LEU:HD13	2.15	0.44
54:CP:131:ARG:HD2	54:CP:137:ASN:HD22	0.80	0.44
49:CQ:18:PRO:HG3	49:CQ:29:VAL:HG21	1.99	0.44
50:CR:72:LYS:HE2	50:CR:72:LYS:O	6.43	0.44
58:CW:50:ASN:HA	58:CW:55:TYR:CD2	2.51	0.44
59:CZ:4:PHE:HA	59:CZ:6:LYS:HE3	1.99	0.44
85:A5:1997:U:H3'	85:A5:1998:A:H5''	2.00	0.44
87:A8:90:C:H2'	87:A8:91:A:C8	2.53	0.44
16:AA:102:ARG:HH21	16:AA:105:PRO:HD2	1.82	0.44
16:AA:204:TYR:O	16:AA:204:TYR:HD2	2.00	0.44
15:AB:31:TYR:CD2	15:AB:62:LEU:HD22	2.53	0.44
15:AB:56:LYS:HA	15:AB:56:LYS:CE	2.48	0.44
15:AB:72:ALA:CB	15:AB:79:VAL:HG23	2.46	0.44
28:AC:172:ASN:O	28:AC:174:ILE:N	2.50	0.44
23:AD:59:LEU:HD13	23:AD:60:GLY:O	2.17	0.44
23:AD:84:VAL:HG22	23:AD:85:GLU:N	2.33	0.44
23:AD:85:GLU:C	23:AD:86:LEU:HD12	2.37	0.44
27:AE:151:ASP:CB	27:AE:152:PRO:CD	2.94	0.44
27:AE:171:ASP:CG	27:AE:172:PHE:HD2	2.20	0.44
30:AF:151:ILE:O	30:AF:152:TRP:C	2.53	0.44
30:AF:121:PRO:CA	30:AF:193:LYS:HE3	2.39	0.44
29:AG:161:PRO:HA	29:AG:170:ARG:O	2.17	0.44
29:AG:25:ARG:O	29:AG:28:TYR:N	2.26	0.44
31:AH:116:ARG:HG2	31:AH:117:PRO:N	2.32	0.44
31:AH:65:PRO:HB2	31:AH:67:PRO:HD2	2.00	0.44
26:AJ:117:LEU:O	26:AJ:119:LEU:CD2	2.49	0.44
11:AL:128:VAL:HG12	11:AL:142:VAL:HA	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AM:12:MET:HG2	7:AM:16:THR:HG22	1.98	0.44
7:AM:77:ILE:CD1	7:AM:78:LYS:N	2.80	0.44
5:AO:71:PRO:O	5:AO:74:ALA:HB3	2.17	0.44
34:AQ:18:THR:C	34:AQ:75:GLY:HA3	2.37	0.44
12:AR:124:VAL:CG1	12:AR:125:GLY:N	2.79	0.44
8:AS:42:HIS:CB	14:AT:45:LEU:CD1	2.88	0.44
8:AS:83:PHE:CG	8:AS:83:PHE:O	2.70	0.44
14:AT:56:ARG:CD	14:AT:103:VAL:HG21	2.48	0.44
14:AT:65:TYR:CD2	14:AT:123:LEU:HD12	2.51	0.44
14:AT:23:LYS:HD2	14:AT:54:TYR:CE2	2.45	0.44
14:AT:87:VAL:CG1	14:AT:88:MET:N	2.80	0.44
32:AW:29:PRO:O	32:AW:30:CYS:CB	2.66	0.44
32:AW:7:LEU:CD2	32:AW:34:ILE:HG13	2.46	0.44
18:AY:99:LYS:HZ2	18:AY:99:LYS:C	2.21	0.44
36:B2:102:A:H5'	36:B2:104:A:C4	2.53	0.44
32:AW:20:ARG:CZ	36:B2:1139:C:H1'	2.47	0.44
33:AI:5:ARG:NH1	36:B2:384:U:N3	2.66	0.44
63:CB:133:TYR:CD1	63:CB:136:LYS:HE3	2.52	0.44
63:CB:142:GLY:CA	63:CB:147:GLU:CD	2.41	0.44
74:CC:6:PRO:CB	74:CC:24:LEU:HD22	2.48	0.44
74:CC:51:PRO:HB3	74:CC:111:TRP:HE1	1.78	0.44
74:CC:77:PRO:CD	74:CC:77:PRO:O	2.65	0.44
48:CD:33:ARG:NH1	48:CD:50:ARG:NH1	2.63	0.44
64:CF:94:ARG:NH1	64:CF:98:ILE:HB	2.32	0.44
82:CG:208:ASN:HD21	82:CG:210:GLU:CD	2.21	0.44
46:CN:146:PRO:O	46:CN:149:GLN:HG3	2.18	0.44
46:CN:29:GLN:HG2	82:CG:67:ARG:CD	2.46	0.44
41:CO:181:ALA:HB1	44:CM:126:GLU:CB	2.47	0.44
41:CO:82:ARG:HD3	41:CO:85:ARG:HH11	1.82	0.44
41:CO:81:TRP:CH2	41:CO:85:ARG:NH2	2.85	0.44
54:CP:10:ASN:HD22	54:CP:12:THR:N	2.15	0.44
49:CQ:170:LYS:HE3	49:CQ:170:LYS:HB2	1.27	0.44
49:CQ:31:LEU:O	49:CQ:35:LEU:HG	2.17	0.44
50:CR:142:ILE:C	50:CR:145:LEU:HG	2.37	0.44
58:CW:67:ILE:O	58:CW:67:ILE:CG2	2.65	0.44
29:AG:131:ARG:N	58:CW:81:ALA:C	2.70	0.44
57:CY:40:GLN:C	57:CY:43:ASN:OD1	2.55	0.44
59:CZ:35:ASP:O	59:CZ:37:PRO:CD	2.66	0.44
59:CZ:54:THR:H	59:CZ:54:THR:HG23	1.35	0.44
59:CZ:57:MET:CE	59:CZ:61:LYS:CG	2.92	0.44
59:CZ:57:MET:HE1	59:CZ:61:LYS:CG	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:1214:C:H3'	85:A5:1215:C:H5'	1.99	0.44
85:A5:3968:U:H2'	85:A5:3969:G:C8	2.52	0.44
85:A5:707:C:H4'	85:A5:4944:C:H41	1.81	0.44
85:A5:971:U:C5	85:A5:973:G:O4'	2.71	0.44
28:AC:159:LYS:O	28:AC:162:ILE:HG13	2.18	0.44
28:AC:244:ILE:HG13	28:AC:245:SER:H	1.77	0.44
28:AC:64:THR:HG21	28:AC:90:GLU:HG3	1.98	0.44
27:AE:195:ILE:CG2	27:AE:196:THR:N	2.73	0.44
30:AF:127:ARG:HD2	30:AF:127:ARG:O	2.16	0.44
29:AG:130:PRO:CG	58:CW:83:THR:HG22	2.48	0.44
4:AK:14:LEU:HD11	4:AK:35:LEU:HD11	1.99	0.44
4:AK:27:VAL:HG13	4:AK:43:LEU:HD22	0.45	0.44
4:AK:52:LEU:O	4:AK:55:ARG:HG3	2.18	0.44
7:AM:35:ILE:HG22	36:B2:1286:G:N7	2.32	0.44
7:AM:35:ILE:CB	7:AM:61:TYR:CE2	2.95	0.44
10:AN:54:LEU:O	10:AN:60:VAL:HG22	2.18	0.44
5:AO:47:LEU:O	15:AB:67:PHE:HD1	1.95	0.44
13:AP:44:ARG:CD	36:B2:1620:A:OP1	2.66	0.44
34:AQ:135:PRO:CG	34:AQ:141:TYR:CE1	2.71	0.44
12:AR:41:ILE:HG23	12:AR:42:PRO:HD3	2.00	0.44
14:AT:31:PRO:O	14:AT:33:TRP:CG	2.70	0.44
3:AU:106:ILE:O	3:AU:107:GLU:CB	2.65	0.44
16:AA:141:ASN:ND2	17:AV:29:HIS:CA	2.78	0.44
32:AW:24:GLN:HA	32:AW:63:VAL:O	2.18	0.44
18:AY:86:GLU:O	18:AY:87:PRO:O	2.35	0.44
19:AZ:74:SER:HA	19:AZ:79:ILE:CG2	2.34	0.44
8:AS:55:ARG:NH1	19:AZ:80:ARG:HE	2.03	0.44
36:B2:1049:A:C2	36:B2:1070:A:C4	3.05	0.44
36:B2:1497:G:H4'	36:B2:1498:A:H5'	1.98	0.44
13:AP:128:HIS:HB3	36:B2:1522:A:C4	2.52	0.44
33:AI:2:GLY:N	36:B2:1798:C:HO2'	2.16	0.44
36:B2:1845:A:H2'	36:B2:1846:G:C8	2.52	0.44
36:B2:338:G:O6	36:B2:339:A:C6	2.70	0.44
36:B2:557:U:C4	36:B2:558:G:C5	3.05	0.44
29:AG:168:LYS:HE3	36:B2:71:G:C8	2.52	0.44
29:AG:173:ALA:HB3	36:B2:77:A:H4'	1.99	0.44
36:B2:839:C:C2'	36:B2:841:G:C4'	2.92	0.44
51:CA:29:LEU:O	51:CA:123:ARG:NE	2.47	0.44
63:CB:82:PRO:HB2	63:CB:170:LEU:HD12	2.00	0.44
63:CB:360:LEU:O	63:CB:361:GLU:O	2.35	0.44
63:CB:49:TYR:CE1	63:CB:344:VAL:CG2	2.95	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:80:GLU:CG	63:CB:171:LEU:CD2	2.93	0.44
48:CD:167:VAL:HG11	48:CD:175:HIS:HE1	1.83	0.44
48:CD:200:MET:CE	48:CD:244:HIS:HE1	2.29	0.44
81:CE:44:CYS:C	81:CE:51:VAL:O	2.56	0.44
81:CE:93:THR:O	81:CE:94:LYS:CD	2.66	0.44
82:CG:41:ILE:C	82:CG:43:GLN:CG	2.79	0.44
82:CG:86:ALA:HB3	82:CG:183:ILE:HD13	1.99	0.44
47:CI:181:PHE:CZ	47:CI:185:VAL:HG21	2.53	0.44
40:CK:110:VAL:O	40:CK:114:ARG:CD	2.66	0.44
42:CL:21:ARG:HE	46:CN:196:ASN:CB	2.28	0.44
44:CM:47:ARG:HH12	44:CM:70:GLN:HG3	1.82	0.44
46:CN:163:GLY:O	46:CN:172:ARG:HD3	2.18	0.44
46:CN:47:LYS:N	46:CN:50:ARG:NH1	2.66	0.44
41:CO:177:LEU:O	44:CM:130:LEU:HD23	2.18	0.44
41:CO:36:VAL:CG1	41:CO:37:ARG:N	2.80	0.44
49:CQ:17:GLU:OE2	49:CQ:18:PRO:N	2.50	0.44
50:CR:99:MET:HE1	50:CR:128:LYS:HA	1.88	0.44
50:CR:46:LYS:HE2	50:CR:46:LYS:HB2	1.26	0.44
52:CS:111:ARG:HH21	52:CS:111:ARG:HG3	1.69	0.44
52:CS:98:ARG:HH12	52:CS:145:PHE:C	2.21	0.44
52:CS:171:ARG:N	52:CS:172:PRO:HA	2.19	0.44
52:CS:17:LEU:CG	52:CS:58:SER:CA	2.81	0.44
55:CU:35:ASP:OD2	55:CU:37:ALA:HB3	2.17	0.44
57:CY:90:ALA:O	57:CY:91:ASN:OD1	2.36	0.44
59:CZ:87:VAL:CG2	59:CZ:127:ASN:ND2	2.70	0.44
59:CZ:30:ASP:O	59:CZ:39:SER:CA	2.66	0.44
59:CZ:3:LYS:C	59:CZ:6:LYS:HE2	2.37	0.44
85:A5:116:G:C4	85:A5:117:C:C5	3.05	0.44
85:A5:2325:C:C2'	85:A5:2325:C:O2	2.64	0.44
50:CR:96:MET:HE2	85:A5:2667:C:C5'	2.47	0.44
58:CW:19:ARG:NH2	85:A5:4630:G:H4'	2.32	0.44
15:AB:137:LEU:CB	15:AB:172:MET:CE	2.78	0.44
28:AC:195:LEU:HB3	28:AC:222:CYS:SG	2.58	0.44
23:AD:124:ARG:NH1	23:AD:128:GLU:OE1	2.51	0.44
23:AD:197:LYS:H	23:AD:198:ILE:HG13	1.81	0.44
27:AE:106:LYS:HD2	27:AE:106:LYS:HA	1.55	0.44
27:AE:197:ASN:O	27:AE:209:HIS:N	2.48	0.44
27:AE:258:ALA:HA	27:AE:262:SER:OG	2.18	0.44
27:AE:9:LEU:HD12	27:AE:30:ARG:HA	1.99	0.44
33:AI:118:ALA:CB	33:AI:149:TYR:CD1	3.01	0.44
11:AL:5:GLN:CD	33:AI:197:PHE:CD2	2.91	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AI:98:LYS:O	33:AI:99:ASN:CB	2.66	0.44
26:AJ:12:THR:C	26:AJ:48:PHE:CD2	2.90	0.44
4:AK:43:LEU:O	4:AK:46:MET:N	2.50	0.44
11:AL:148:ALA:O	11:AL:150:GLY:N	2.51	0.44
11:AL:55:TYR:CG	11:AL:115:PRO:HG2	2.53	0.44
12:AR:19:LYS:HD3	23:AD:212:GLU:HB2	1.96	0.44
8:AS:73:ASN:C	8:AS:76:GLN:OE1	2.56	0.44
32:AW:37:PHE:CZ	32:AW:103:VAL:HG11	2.53	0.44
6:AX:107:ARG:O	6:AX:108:LYS:CB	2.66	0.44
6:AX:129:SER:OG	6:AX:132:ALA:CB	2.60	0.44
18:AY:102:THR:HB	18:AY:104:ARG:H	1.78	0.44
18:AY:59:GLY:O	36:B2:572:U:H5''	2.18	0.44
18:AY:63:HIS:C	18:AY:64:PHE:CD1	2.89	0.44
19:AZ:51:ASP:HB2	19:AZ:54:THR:HG23	1.98	0.44
34:AQ:74:GLY:HA2	36:B2:1545:A:H4'	1.99	0.44
19:AZ:104:ARG:CZ	36:B2:1595:U:C5	3.01	0.44
31:AH:106:ARG:CZ	36:B2:861:A:N3	2.81	0.44
58:CW:11:TYR:CG	63:CB:378:ARG:NH2	2.85	0.44
74:CC:142:HIS:HE1	74:CC:248:ARG:C	2.20	0.44
74:CC:161:TYR:CE2	74:CC:170:LEU:HD22	2.53	0.44
74:CC:27:VAL:HG21	74:CC:264:TYR:CG	2.53	0.44
74:CC:39:PHE:HE1	74:CC:115:VAL:HG22	1.83	0.44
48:CD:118:ILE:HG22	48:CD:135:ILE:CD1	2.45	0.44
48:CD:77:ALA:O	48:CD:108:ARG:NH2	2.45	0.44
81:CE:201:ILE:HG23	81:CE:201:ILE:O	2.17	0.44
81:CE:237:LYS:HB2	81:CE:237:LYS:HE3	1.77	0.44
81:CE:53:GLY:CA	81:CE:63:TYR:CD2	3.00	0.44
64:CF:46:ARG:HH12	85:A5:1700:G:H1	1.65	0.44
82:CG:95:LEU:HA	82:CG:218:LEU:HD22	1.98	0.44
40:CK:46:ILE:HG22	40:CK:46:ILE:O	2.17	0.44
40:CK:22:VAL:CG2	40:CK:48:LYS:HE3	2.48	0.44
40:CK:2:PRO:HD2	40:CK:6:ASP:OD2	2.18	0.44
46:CN:43:THR:CB	46:CN:131:GLU:OE2	2.64	0.44
49:CQ:84:GLY:CA	49:CQ:103:LEU:HD12	2.47	0.44
49:CQ:146:ARG:HH22	49:CQ:152:PHE:HE2	1.66	0.44
49:CQ:28:LEU:HA	74:CC:284:MET:CE	2.48	0.44
50:CR:133:LYS:CG	50:CR:137:ILE:CG2	2.90	0.44
50:CR:75:HIS:O	50:CR:76:MET:HE3	2.17	0.44
50:CR:89:MET:HA	50:CR:90:PRO:HD3	1.70	0.44
52:CS:110:TYR:OH	52:CS:126:ILE:HG12	2.17	0.44
52:CS:71:SER:HB2	52:CS:74:ARG:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CS:84:TYR:CE2	52:CS:85:ASP:C	2.90	0.44
52:CS:75:VAL:C	52:CS:99:ASP:O	2.54	0.44
53:CT:143:THR:O	53:CT:146:LYS:CG	2.66	0.44
56:CX:53:ARG:O	56:CX:54:LEU:O	2.36	0.44
56:CX:55:ARG:HD2	56:CX:55:ARG:N	2.33	0.44
85:A5:1271:G:H3'	85:A5:1272:C:C5'	2.48	0.44
85:A5:2597:G:H2'	85:A5:2598:A:C8	2.53	0.44
85:A5:4326:G:H2'	85:A5:4327:C:C6	2.53	0.44
44:CM:4:ARG:HH22	85:A5:4763:U:H5'	1.81	0.44
85:A5:663:G:H3'	85:A5:664:G:H5''	2.00	0.44
16:AA:127:PRO:HD3	16:AA:147:LEU:O	2.18	0.44
16:AA:161:ILE:HG21	16:AA:174:MET:CE	2.48	0.44
15:AB:116:LYS:O	15:AB:117:TRP:CB	2.65	0.44
15:AB:146:ARG:O	15:AB:148:ASN:N	2.51	0.44
15:AB:175:GLU:CG	15:AB:193:ILE:HD11	2.46	0.44
15:AB:99:ASN:ND2	15:AB:228:LEU:HD23	2.32	0.44
28:AC:108:LYS:HG2	28:AC:110:MET:H	1.83	0.44
28:AC:173:LYS:HG3	28:AC:173:LYS:H	1.45	0.44
23:AD:172:VAL:HG11	36:B2:1335:G:H4'	2.00	0.44
23:AD:141:LYS:CD	23:AD:179:GLN:CG	2.87	0.44
23:AD:216:GLU:OE1	23:AD:217:ILE:N	2.51	0.44
23:AD:223:ILE:N	23:AD:223:ILE:HD12	2.31	0.44
27:AE:18:TRP:CD2	27:AE:46:ILE:CD1	3.01	0.44
27:AE:34:GLY:HA3	27:AE:83:PRO:HG2	2.00	0.44
30:AF:133:THR:HG21	30:AF:135:ARG:NH1	2.33	0.44
31:AH:117:PRO:HG2	31:AH:120:ARG:HE	1.81	0.44
31:AH:14:GLU:HG3	31:AH:15:LYS:C	2.38	0.44
31:AH:18:GLU:O	31:AH:21:SER:HB2	2.18	0.44
33:AI:140:LYS:N	33:AI:145:ILE:HD11	2.32	0.44
33:AI:81:VAL:CG1	33:AI:91:VAL:HA	2.48	0.44
26:AJ:124:HIS:C	26:AJ:126:ALA:N	2.66	0.44
26:AJ:143:ASN:C	26:AJ:145:PRO:HD3	2.27	0.44
26:AJ:136:ARG:NE	26:AJ:160:SER:HB2	2.33	0.44
4:AK:18:GLU:O	4:AK:92:ALA:HB1	2.04	0.44
4:AK:90:VAL:HA	4:AK:91:PRO:HD2	1.81	0.44
7:AM:51:VAL:CB	7:AM:77:ILE:HG21	2.46	0.44
10:AN:82:PRO:O	10:AN:84:LEU:N	2.51	0.44
34:AQ:124:PRO:CD	34:AQ:125:ARG:N	2.81	0.44
34:AQ:141:TYR:HB3	34:AQ:142:GLN:H	1.61	0.44
12:AR:5:ARG:H	12:AR:10:LYS:HZ1	1.61	0.44
12:AR:5:ARG:HB2	12:AR:10:LYS:HZ3	0.62	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AS:82:TRP:HA	8:AS:87:GLN:NE2	2.28	0.44
3:AU:103:SER:O	3:AU:106:ILE:HG22	2.10	0.44
3:AU:104:ILE:HD13	3:AU:104:ILE:HG21	1.71	0.44
3:AU:104:ILE:C	3:AU:105:SER:OG	2.56	0.44
3:AU:19:ARG:N	3:AU:19:ARG:HD2	2.32	0.44
3:AU:57:PRO:O	3:AU:57:PRO:CD	2.66	0.44
32:AW:89:TRP:HB3	32:AW:102:ILE:HD13	1.99	0.44
6:AX:126:ALA:CB	6:AX:128:VAL:CG1	2.88	0.44
18:AY:118:ARG:HH21	29:AG:85:ARG:NH1	2.15	0.44
36:B2:991:G:C6	36:B2:1134:G:H4'	2.53	0.44
36:B2:1411:G:C6	36:B2:1412:C:C2	3.06	0.44
36:B2:1451:G:O2'	36:B2:1474:A:N6	2.50	0.44
13:AP:126:VAL:HG13	36:B2:1520:G:H21	1.83	0.44
36:B2:907:G:O6	36:B2:908:A:C6	2.71	0.44
51:CA:96:LEU:CD1	51:CA:108:PRO:HD2	2.48	0.44
51:CA:101:VAL:HG23	51:CA:164:ALA:O	2.18	0.44
63:CB:196:TRP:O	63:CB:200:ARG:HG2	2.17	0.44
63:CB:52:GLY:O	63:CB:78:ILE:CD1	2.62	0.44
63:CB:53:MET:HG2	63:CB:77:THR:HG22	1.99	0.44
74:CC:16:GLU:HB2	74:CC:17:SER:H	1.57	0.44
48:CD:260:GLU:HG3	48:CD:261:VAL:H	1.82	0.44
81:CE:127:SER:CB	81:CE:129:GLY:N	2.81	0.44
81:CE:266:GLN:O	81:CE:267:LEU:C	2.56	0.44
81:CE:56:ARG:N	81:CE:61:ALA:H	2.13	0.44
81:CE:78:SER:HB2	81:CE:79:LYS:CA	2.46	0.44
64:CF:132:MET:CE	64:CF:132:MET:CA	2.95	0.44
80:CH:98:HIS:O	80:CH:100:PRO:HD3	2.18	0.44
80:CH:129:ARG:HH11	80:CH:153:LEU:CD2	2.30	0.44
80:CH:29:GLY:CA	80:CH:84:VAL:HG22	2.47	0.44
47:CI:104:SER:HB2	47:CI:112:GLN:CG	2.45	0.44
47:CI:26:VAL:HG11	47:CI:96:VAL:CG2	2.48	0.44
47:CI:72:ALA:HB3	47:CI:87:MET:CE	2.47	0.44
47:CI:76:MET:CE	47:CI:151:ALA:HB3	2.48	0.44
47:CI:77:VAL:HG11	47:CI:82:ARG:CB	3.73	0.44
42:CL:55:ILE:HD12	42:CL:96:ILE:CG1	2.45	0.44
44:CM:46:ARG:CG	44:CM:47:ARG:N	2.80	0.44
46:CN:116:LEU:CD2	46:CN:135:ILE:HD12	2.26	0.44
46:CN:30:TYR:OH	46:CN:43:THR:HG21	2.16	0.44
41:CO:26:GLN:NE2	52:CS:166:ARG:HB3	2.29	0.44
54:CP:27:LYS:CD	54:CP:63:TYR:CD1	3.00	0.44
54:CP:76:TRP:HE3	54:CP:76:TRP:HA	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:33:ARG:CZ	49:CQ:52:PHE:HZ	2.31	0.44
50:CR:170:ARG:O	50:CR:174:GLU:HB3	2.18	0.44
50:CR:84:THR:HG22	50:CR:85:ALA:H	1.82	0.44
52:CS:71:SER:C	52:CS:73:LEU:N	2.64	0.44
43:CV:106:VAL:CG1	43:CV:110:GLY:C	2.86	0.44
58:CW:31:PHE:CE1	58:CW:40:PHE:CG	3.06	0.44
56:CX:39:LYS:HE3	56:CX:40:ILE:O	2.18	0.44
57:CY:2:LYS:HG2	57:CY:2:LYS:O	2.17	0.44
57:CY:91:ASN:C	57:CY:93:THR:N	2.66	0.44
59:CZ:10:VAL:CG1	59:CZ:83:THR:HG21	2.48	0.44
85:A5:2485:U:H3	85:A5:2493:G:H1	1.65	0.44
85:A5:3779:A:C2	85:A5:3816:A:C4	3.06	0.44
85:A5:513:U:H3'	85:A5:514:U:C5'	2.48	0.44
16:AA:77:ILE:HD11	16:AA:122:LEU:HD22	1.99	0.44
28:AC:178:HIS:H	28:AC:178:HIS:CD2	2.36	0.44
27:AE:126:VAL:HG22	27:AE:157:ASN:N	2.29	0.44
27:AE:212:ASP:OD2	27:AE:214:ASN:N	2.51	0.44
30:AF:112:LEU:O	30:AF:112:LEU:HD23	2.18	0.44
30:AF:190:ILE:HG23	30:AF:191:LYS:N	2.33	0.44
29:AG:188:LYS:HA	29:AG:191:ARG:HG2	1.99	0.44
4:AK:47:LYS:HA	4:AK:50:GLN:HG2	2.00	0.44
11:AL:97:ARG:HG2	11:AL:98:LYS:HA	2.00	0.44
10:AN:38:TYR:CD2	10:AN:78:LYS:HG3	2.53	0.44
12:AR:17:ILE:O	12:AR:71:ILE:CD1	2.66	0.44
8:AS:50:ILE:HG13	8:AS:63:GLU:HG2	1.99	0.44
14:AT:33:TRP:C	14:AT:35:ASP:H	2.21	0.44
14:AT:65:TYR:CD1	14:AT:65:TYR:C	2.91	0.44
32:AW:105:THR:CG2	32:AW:105:THR:O	2.66	0.44
32:AW:18:GLU:HG2	32:AW:65:LEU:CD1	2.47	0.44
32:AW:96:SER:OG	32:AW:99:PHE:CD2	2.69	0.44
36:B2:1620:A:H1'	36:B2:1624:U:OP2	2.17	0.44
36:B2:210:U:C2'	36:B2:211:G:O5'	2.66	0.44
36:B2:72:C:N3	36:B2:73:C:C6	2.86	0.44
36:B2:988:C:C6	36:B2:988:C:O4'	2.70	0.44
51:CA:44:ILE:HG22	51:CA:87:PHE:CE1	2.53	0.44
63:CB:82:PRO:CD	63:CB:171:LEU:HD21	2.48	0.44
63:CB:92:TYR:CD2	63:CB:99:LEU:HD12	2.35	0.44
74:CC:176:ALA:O	74:CC:177:TRP:C	2.56	0.44
74:CC:314:LEU:CD2	74:CC:314:LEU:N	2.34	0.44
48:CD:113:PHE:CZ	85:A5:1819:G:C4	3.05	0.44
48:CD:20:PHE:CD2	48:CD:30:TYR:HE2	2.07	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:143:SER:OG	81:CE:144:ILE:HD13	2.18	0.44
64:CF:87:PRO:CG	64:CF:144:TYR:CE1	3.01	0.44
82:CG:104:PRO:CA	82:CG:105:GLU:CG	2.92	0.44
82:CG:106:THR:HA	82:CG:107:LYS:HE2	2.00	0.44
15:AB:57:ILE:HA	82:CG:264:LYS:HE3	2.00	0.44
82:CG:28:VAL:HG13	82:CG:32:PHE:CE2	2.53	0.44
80:CH:110:SER:CA	80:CH:128:MET:HB2	2.48	0.44
47:CI:3:ARG:HG3	47:CI:123:GLN:CD	2.37	0.44
40:CK:28:LEU:CD2	40:CK:44:ASP:HA	2.48	0.44
42:CL:64:VAL:O	42:CL:67:HIS:HD2	2.01	0.44
46:CN:67:ARG:O	46:CN:68:ARG:CB	2.65	0.44
41:CO:127:VAL:CG1	52:CS:158:VAL:HG21	2.39	0.44
49:CQ:105:VAL:HG11	49:CQ:110:ARG:CA	2.48	0.44
49:CQ:95:VAL:HG23	49:CQ:116:ALA:HB3	1.94	0.44
50:CR:183:GLU:O	50:CR:187:THR:OG1	2.27	0.44
44:CM:31:ILE:O	52:CS:145:PHE:CZ	2.71	0.44
53:CT:125:TRP:HE1	53:CT:126:VAL:HB	1.79	0.44
43:CV:82:ILE:HG22	43:CV:121:VAL:HA	1.99	0.44
58:CW:110:ARG:HG2	58:CW:110:ARG:NH1	2.31	0.44
58:CW:13:ILE:HD11	58:CW:32:LEU:CA	2.48	0.44
57:CY:32:SER:HG	57:CY:106:ILE:HG13	1.82	0.44
85:A5:1245:C:C5	85:A5:1269:G:O6	2.71	0.43
85:A5:1343:A:H61	85:A5:1513:U:H3	1.66	0.43
85:A5:147:A:H2'	85:A5:148:C:C6	2.52	0.43
85:A5:2390:G:O6	85:A5:2825:A:C2	2.71	0.43
85:A5:2574:G:N2	85:A5:2764:A:N6	2.65	0.43
85:A5:2765:A:H3'	85:A5:2766:A:H5''	1.98	0.43
85:A5:4655:A:N6	85:A5:4658:G:C5	2.86	0.43
85:A5:4991:U:H2'	85:A5:4992:G:H8	1.83	0.43
85:A5:5001:U:H2'	85:A5:5002:U:H5''	2.00	0.43
16:AA:138:SER:O	17:AV:30:ALA:CA	2.66	0.43
16:AA:58:LEU:O	16:AA:58:LEU:CD2	2.66	0.43
15:AB:87:ILE:HG23	15:AB:101:HIS:CG	2.52	0.43
15:AB:151:ARG:HG3	15:AB:153:THR:N	2.33	0.43
15:AB:208:HIS:C	15:AB:208:HIS:CD2	2.88	0.43
27:AE:87:MET:CE	27:AE:182:MET:HE1	2.40	0.43
27:AE:98:ASN:HD21	27:AE:114:ILE:HD11	1.81	0.43
30:AF:122:ARG:CB	30:AF:123:GLU:OE1	2.66	0.43
30:AF:103:LEU:HD23	30:AF:178:ILE:HD13	0.53	0.43
33:AI:103:LEU:CD2	33:AI:172:LEU:CD1	2.94	0.43
33:AI:108:PRO:HA	33:AI:111:GLN:HG2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AK:94:LEU:CD2	4:AK:95:ARG:H	2.30	0.43
11:AL:1:MET:C	11:AL:2:ALA:O	2.54	0.43
7:AM:49:LEU:HA	7:AM:75:ASN:HB2	1.99	0.43
10:AN:7:PRO:CD	10:AN:8:GLY:N	2.78	0.43
13:AP:44:ARG:NE	13:AP:82:ASP:O	2.51	0.43
8:AS:120:HIS:NE2	13:AP:123:TYR:OH	2.51	0.43
8:AS:48:ALA:HB2	8:AS:70:ILE:HD12	1.98	0.43
8:AS:15:VAL:CG1	8:AS:68:ILE:CD1	2.91	0.43
17:AV:67:ASP:OD1	17:AV:67:ASP:N	2.51	0.43
16:AA:57:LYS:HZ3	17:AV:70:LEU:HD21	1.83	0.43
32:AW:89:TRP:C	32:AW:102:ILE:HD11	2.38	0.43
32:AW:90:GLN:HB3	32:AW:102:ILE:HD12	2.00	0.43
18:AY:14:THR:HG23	36:B2:841:G:OP2	2.18	0.43
36:B2:1164:G:H3'	36:B2:1165:G:H21	1.83	0.43
34:AQ:138:ARG:NH1	36:B2:1646:C:H5''	2.22	0.43
36:B2:559:G:C5	36:B2:560:A:C8	3.06	0.43
51:CA:104:VAL:HG23	51:CA:162:ASN:O	2.18	0.43
63:CB:115:LYS:HE3	63:CB:118:PHE:HB2	1.99	0.43
63:CB:212:GLY:CA	63:CB:287:ILE:CD1	2.95	0.43
58:CW:14:TYR:CD2	63:CB:380:GLN:NE2	2.85	0.43
63:CB:39:LYS:CG	63:CB:40:PRO:HD2	2.47	0.43
63:CB:60:VAL:CG1	63:CB:61:ASP:N	2.80	0.43
63:CB:79:VAL:HG12	63:CB:80:GLU:O	2.17	0.43
74:CC:183:VAL:HG12	74:CC:184:TYR:N	2.33	0.43
74:CC:209:ILE:HD12	74:CC:227:ILE:CD1	2.33	0.43
74:CC:54:VAL:HG21	74:CC:101:MET:HE2	1.99	0.43
48:CD:220:LYS:O	48:CD:224:SER:HB3	2.18	0.43
81:CE:157:HIS:CG	81:CE:184:VAL:HG22	2.53	0.43
64:CF:224:THR:OG1	64:CF:224:THR:O	2.30	0.43
64:CF:226:HIS:HB3	64:CF:229:GLU:CG	2.46	0.43
80:CH:109:GLY:CA	80:CH:128:MET:CG	2.68	0.43
79:CJ:95:ARG:HH11	79:CJ:95:ARG:CB	2.31	0.43
42:CL:65:ARG:HD3	51:CA:69:PHE:CG	105.46	0.43
46:CN:160:GLU:HG2	46:CN:161:MET:N	2.33	0.43
46:CN:48:ALA:HA	46:CN:133:ILE:HD11	1.99	0.43
41:CO:169:ARG:HH12	41:CO:173:GLN:NE2	2.15	0.43
49:CQ:16:LYS:O	49:CQ:52:PHE:CD2	2.71	0.43
49:CQ:78:LYS:HD3	49:CQ:78:LYS:HA	1.63	0.43
50:CR:173:ARG:HG3	50:CR:174:GLU:N	2.34	0.43
50:CR:71:ARG:HH11	50:CR:71:ARG:CG	2.23	0.43
52:CS:73:LEU:O	52:CS:75:VAL:N	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CS:75:VAL:O	52:CS:76:LYS:CE	2.42	0.43
53:CT:144:ASN:HA	53:CT:146:LYS:H	1.83	0.43
55:CU:96:LEU:O	55:CU:100:LEU:HB2	2.18	0.43
56:CX:39:LYS:CG	56:CX:40:ILE:H	2.30	0.43
57:CY:111:LEU:CA	57:CY:115:ARG:HD2	2.42	0.43
48:CD:113:PHE:CZ	85:A5:1819:G:N3	2.86	0.43
85:A5:4767:C:H4'	85:A5:4873:G:O6	2.18	0.43
87:A8:111:U:H4'	87:A8:112:G:H5'	2.00	0.43
16:AA:57:LYS:HD3	16:AA:159:ILE:HD11	1.99	0.43
15:AB:156:ALA:CB	15:AB:160:GLN:OE1	2.65	0.43
23:AD:134:CYS:O	23:AD:153:VAL:HG13	2.18	0.43
23:AD:162:ASP:OD2	23:AD:166:TYR:CE2	2.72	0.43
29:AG:77:LEU:HD11	29:AG:95:LYS:CB	2.35	0.43
31:AH:107:LYS:HD2	36:B2:798:G:C2	2.54	0.43
31:AH:109:ARG:NH2	31:AH:111:LYS:HD2	2.33	0.43
31:AH:194:LEU:HD12	31:AH:194:LEU:H	1.84	0.43
31:AH:64:VAL:CG1	31:AH:68:GLN:HB2	2.48	0.43
4:AK:55:ARG:H	4:AK:55:ARG:HG2	1.52	0.43
11:AL:117:PHE:HD2	11:AL:145:VAL:HG23	1.84	0.43
8:AS:93:GLY:HA3	13:AP:18:ARG:HB3	2.00	0.43
13:AP:75:VAL:CG1	13:AP:76:VAL:H	2.31	0.43
13:AP:59:ARG:HG2	13:AP:76:VAL:HG22	2.00	0.43
34:AQ:124:PRO:HG2	34:AQ:125:ARG:HG3	2.00	0.43
8:AS:39:ARG:O	8:AS:43:VAL:HG23	2.18	0.43
8:AS:23:ARG:O	8:AS:55:ARG:CD	2.66	0.43
14:AT:84:ARG:C	14:AT:86:GLY:H	2.22	0.43
17:AV:55:ILE:CD1	17:AV:65:SER:CA	2.86	0.43
32:AW:102:ILE:H	32:AW:113:HIS:HD1	1.58	0.43
6:AX:126:ALA:O	6:AX:127:ASN:C	2.54	0.43
6:AX:28:LYS:HG2	6:AX:32:LEU:HD12	2.00	0.43
18:AY:10:ARG:CG	18:AY:24:VAL:CB	2.85	0.43
36:B2:1413:G:H2'	36:B2:1414:A:O4'	2.17	0.43
29:AG:59:GLN:N	36:B2:157:U:H4'	2.32	0.43
36:B2:1714:U:H2'	36:B2:1715:A:C8	2.53	0.43
51:CA:118:GLU:HG2	51:CA:125:LYS:CE	2.45	0.43
63:CB:161:ARG:HG2	63:CB:184:GLN:HA	2.00	0.43
63:CB:117:ARG:HA	63:CB:177:LYS:CG	2.48	0.43
63:CB:213:GLN:HE21	63:CB:286:LYS:HA	1.83	0.43
63:CB:24:ARG:C	63:CB:26:ARG:N	2.72	0.43
63:CB:316:PRO:HD3	63:CB:320:PHE:CZ	2.52	0.43
63:CB:86:VAL:HG13	63:CB:162:VAL:HG11	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:133:LEU:HA	74:CC:134:PRO:HD3	1.59	0.43
74:CC:128:LEU:HD23	74:CC:240:LEU:CD1	2.47	0.43
81:CE:126:LEU:O	81:CE:127:SER:HB2	2.19	0.43
82:CG:86:ALA:CB	82:CG:183:ILE:HG21	2.45	0.43
46:CN:17:ASP:CB	82:CG:237:TRP:HH2	2.25	0.43
82:CG:36:PRO:HB2	82:CG:37:LYS:H	1.64	0.43
80:CH:29:GLY:N	80:CH:84:VAL:CG2	2.81	0.43
40:CK:9:GLU:O	40:CK:10:ILE:HG12	2.17	0.43
40:CK:81:ILE:CD1	40:CK:116:MET:CE	2.95	0.43
40:CK:134:GLY:O	40:CK:137:GLN:HG3	2.17	0.43
41:CO:177:LEU:CG	44:CM:130:LEU:CD2	2.96	0.43
44:CM:81:ASP:HB3	44:CM:84:THR:HG23	1.99	0.43
44:CM:77:TRP:O	44:CM:82:ILE:HD13	2.17	0.43
41:CO:130:LYS:HE3	41:CO:133:ARG:NE	2.33	0.43
41:CO:21:ALA:HA	41:CO:87:MET:SD	2.58	0.43
54:CP:10:ASN:C	54:CP:10:ASN:ND2	2.72	0.43
52:CS:153:PRO:O	52:CS:155:PRO:HG3	2.18	0.43
52:CS:160:ARG:C	52:CS:163:HIS:HB3	2.37	0.43
52:CS:71:SER:HB3	52:CS:74:ARG:N	2.33	0.43
52:CS:85:ASP:OD1	52:CS:89:GLY:O	2.36	0.43
52:CS:9:GLU:O	52:CS:66:GLN:HA	2.18	0.43
85:A5:451:C:C5	85:A5:1294:A:C2	3.05	0.43
85:A5:2098:G:N3	85:A5:2098:G:H2'	2.32	0.43
81:CE:220:LYS:O	85:A5:4939:C:C4	2.72	0.43
87:A8:127:U:C2'	87:A8:128:C:O4'	2.66	0.43
16:AA:103:PHE:O	16:AA:104:THR:HB	2.18	0.43
23:AD:123:LEU:C	23:AD:123:LEU:HD23	2.39	0.43
23:AD:98:ALA:CA	23:AD:188:ILE:HD12	2.48	0.43
23:AD:43:PRO:O	23:AD:44:THR:CB	2.65	0.43
23:AD:74:GLN:HB2	23:AD:84:VAL:HG11	1.98	0.43
29:AG:131:ARG:HD2	36:B2:168:C:H4'	2.01	0.43
29:AG:145:PHE:O	29:AG:146:ASN:O	2.36	0.43
31:AH:121:THR:CG2	31:AH:124:ALA:CB	2.95	0.43
31:AH:126:HIS:CE1	31:AH:181:THR:HG22	2.53	0.43
33:AI:112:TRP:CH2	33:AI:117:TYR:CZ	3.05	0.43
11:AL:12:LYS:CE	33:AI:194:GLU:CD	2.86	0.43
7:AM:19:GLN:CG	7:AM:88:TRP:CD1	2.97	0.43
10:AN:14:SER:O	10:AN:14:SER:OG	2.31	0.43
10:AN:21:SER:OG	10:AN:22:VAL:N	2.50	0.43
5:AO:31:CYS:CB	5:AO:95:ILE:CG1	2.80	0.43
34:AQ:58:LEU:HD21	34:AQ:111:ILE:CD1	2.28	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AR:101:ASP:HB3	16:AA:48:ILE:HD12	2.00	0.43
12:AR:105:MET:HA	16:AA:39:TYR:CE2	2.53	0.43
12:AR:88:VAL:HG21	16:AA:199:PRO:HD2	1.99	0.43
14:AT:74:SER:OG	36:B2:1587:G:N2	2.50	0.43
14:AT:9:VAL:HG13	14:AT:13:GLU:OE2	2.18	0.43
3:AU:50:VAL:CG2	3:AU:51:LYS:N	2.79	0.43
32:AW:27:ILE:HG12	32:AW:61:ILE:HB	1.96	0.43
6:AX:67:ARG:O	6:AX:84:PHE:HE1	2.02	0.43
18:AY:38:THR:O	18:AY:42:GLU:HG3	2.18	0.43
36:B2:1050:A:C5	36:B2:1069:U:C2	3.06	0.43
36:B2:1213:C:C2'	36:B2:1214:A:H5'	2.48	0.43
36:B2:126:G:O2'	36:B2:127:C:C5	2.70	0.43
36:B2:1415:C:H2'	36:B2:1416:C:H5'	1.99	0.43
36:B2:1602:U:C2'	36:B2:1603:G:H5'	2.48	0.43
36:B2:181:A:C4'	36:B2:182:C:H5'	2.40	0.43
36:B2:532:C:H4'	36:B2:533:A:OP1	2.18	0.43
51:CA:253:GLN:CD	51:CA:255:LYS:HZ2	2.21	0.43
51:CA:43:GLY:CA	51:CA:63:PHE:CE1	3.01	0.43
74:CC:239:LYS:HB3	74:CC:248:ARG:NH1	2.33	0.43
48:CD:252:VAL:CG1	48:CD:254:GLU:OE1	2.66	0.43
81:CE:111:LYS:HB2	81:CE:113:PRO:CD	2.46	0.43
81:CE:143:SER:C	81:CE:144:ILE:O	2.52	0.43
49:CQ:4:ASP:HB2	64:CF:98:ILE:HG21	2.00	0.43
82:CG:120:LYS:O	82:CG:121:LYS:C	2.56	0.43
82:CG:265:LEU:CD2	82:CG:265:LEU:N	2.81	0.43
82:CG:97:LYS:HA	82:CG:97:LYS:HD2	1.50	0.43
47:CI:125:THR:O	47:CI:126:VAL:CG2	2.67	0.43
40:CK:102:GLY:HA3	40:CK:139:VAL:CA	2.30	0.43
40:CK:22:VAL:CG1	40:CK:44:ASP:C	2.87	0.43
44:CM:7:VAL:HG12	44:CM:27:ILE:HD12	1.99	0.43
44:CM:34:ASN:O	44:CM:35:ARG:HB3	2.18	0.43
44:CM:82:ILE:O	44:CM:83:ASN:ND2	2.52	0.43
41:CO:182:GLU:HG2	44:CM:123:ILE:CD1	2.49	0.43
41:CO:201:LEU:HD13	41:CO:201:LEU:HA	1.80	0.43
54:CP:124:LYS:HD2	54:CP:140:MET:HE3	1.98	0.43
52:CS:11:LYS:HG3	52:CS:29:ARG:CD	2.41	0.43
58:CW:6:CYS:SG	58:CW:13:ILE:HG13	2.57	0.43
56:CX:79:PHE:HE2	56:CX:99:ILE:HG22	1.82	0.43
59:CZ:11:VAL:HG12	59:CZ:12:LEU:N	2.34	0.43
59:CZ:14:LEU:HB2	59:CZ:79:HIS:O	2.16	0.43
85:A5:1752:G:C6	85:A5:1753:G:C5	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:17:A:H61	87:A8:140:C:H42	1.66	0.43
85:A5:2415:U:H2'	85:A5:2416:G:C8	2.53	0.43
85:A5:4053:A:H2'	85:A5:4054:C:C6	2.53	0.43
44:CM:117:LYS:HE3	85:A5:4928:C:H5'	1.99	0.43
85:A5:4942:C:H5''	85:A5:4943:A:OP1	2.18	0.43
16:AA:9:GLN:CB	16:AA:10:MET:SD	2.91	0.43
15:AB:132:GLY:O	15:AB:133:TYR:C	2.56	0.43
15:AB:53:GLN:O	15:AB:54:GLY:C	2.55	0.43
28:AC:204:ILE:HG21	28:AC:211:LYS:HA	1.99	0.43
23:AD:137:VAL:HB	23:AD:185:LYS:HB2	1.99	0.43
23:AD:141:LYS:NZ	23:AD:179:GLN:NE2	2.67	0.43
23:AD:8:LYS:O	23:AD:12:VAL:HG23	2.18	0.43
30:AF:61:PHE:O	30:AF:62:ARG:C	2.57	0.43
29:AG:147:LEU:O	29:AG:148:SER:CB	2.66	0.43
29:AG:192:ILE:HG13	29:AG:193:ALA:H	1.82	0.43
31:AH:38:ALA:H	31:AH:41:ARG:HG2	1.82	0.43
26:AJ:177:ASN:HA	26:AJ:180:LYS:CB	2.44	0.43
11:AL:82:MET:HE1	11:AL:85:THR:HG21	2.00	0.43
7:AM:71:GLU:OE1	7:AM:71:GLU:N	2.52	0.43
10:AN:139:TRP:CE3	10:AN:139:TRP:C	2.91	0.43
10:AN:140:LYS:HG2	10:AN:141:TYR:N	2.32	0.43
10:AN:23:PRO:O	10:AN:24:THR:CB	2.66	0.43
10:AN:38:TYR:CE1	10:AN:78:LYS:CD	3.01	0.43
5:AO:138:ASP:OD1	5:AO:138:ASP:O	2.36	0.43
34:AQ:106:LYS:HA	34:AQ:106:LYS:HD3	1.90	0.43
12:AR:104:GLU:OE2	12:AR:107:LYS:HD2	2.18	0.43
14:AT:102:ARG:HH21	14:AT:105:GLN:CD	2.09	0.43
14:AT:85:ASN:OD1	14:AT:91:HIS:NE2	2.51	0.43
6:AX:40:PRO:CB	6:AX:81:ILE:CD1	2.87	0.43
63:CB:220:ILE:HG12	63:CB:278:THR:HG23	2.00	0.43
74:CC:217:ILE:HG13	74:CC:221:PHE:CZ	2.53	0.43
74:CC:41:HIS:CD2	74:CC:238:LEU:HD23	2.53	0.43
74:CC:72:ALA:O	74:CC:73:VAL:CG2	2.67	0.43
81:CE:207:LYS:HG2	81:CE:207:LYS:H	1.63	0.43
82:CG:55:VAL:O	82:CG:57:TRP:CD2	2.72	0.43
47:CI:156:LYS:CG	47:CI:163:GLN:CG	2.95	0.43
47:CI:91:LEU:HD11	47:CI:135:ILE:CA	2.47	0.43
42:CL:161:TYR:O	42:CL:162:LYS:HG3	2.17	0.43
44:CM:17:PHE:CE2	85:A5:1921:C:H3'	2.53	0.43
44:CM:82:ILE:O	44:CM:83:ASN:CG	2.56	0.43
46:CN:7:ILE:CG2	46:CN:46:ASP:OD2	2.62	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CP:26:PHE:CZ	54:CP:63:TYR:CE1	3.06	0.43
52:CS:78:PHE:CE1	52:CS:131:GLU:N	2.86	0.43
53:CT:4:THR:HB	53:CT:5:LYS:H	1.20	0.43
43:CV:29:ALA:O	43:CV:118:THR:HG23	2.18	0.43
43:CV:85:ARG:NE	43:CV:99:GLU:O	2.48	0.43
58:CW:35:LYS:HE2	58:CW:51:TRP:CZ2	2.53	0.43
56:CX:68:ARG:C	56:CX:69:ASN:OD1	2.57	0.43
85:A5:4463:U:HO2'	85:A5:4464:A:H2'	1.78	0.43
85:A5:4602:A:C8	85:A5:4603:C:C5	3.06	0.43
85:A5:4881:U:H3'	85:A5:4882:U:O4'	2.18	0.43
85:A5:980:U:H2'	85:A5:981:C:O4'	2.18	0.43
87:A8:128:C:H2'	87:A8:129:C:C5'	2.49	0.43
16:AA:90:PHE:HD1	16:AA:179:ALA:HB2	1.83	0.43
23:AD:99:ILE:HG13	23:AD:100:ALA:N	2.33	0.43
23:AD:196:GLY:C	23:AD:199:GLY:CA	2.87	0.43
23:AD:53:THR:CG2	23:AD:91:VAL:CG2	2.95	0.43
19:AZ:67:LEU:HD23	30:AF:171:GLU:OE2	2.19	0.43
29:AG:157:VAL:CG1	29:AG:159:ARG:HG3	2.35	0.43
29:AG:227:GLN:O	29:AG:230:LYS:HG3	2.18	0.43
31:AH:172:THR:CG2	31:AH:173:PHE:N	2.81	0.43
33:AI:7:ASN:O	33:AI:9:HIS:C	2.51	0.43
26:AJ:136:ARG:HH12	26:AJ:161:LEU:HD12	1.82	0.43
4:AK:1:MET:HG2	4:AK:2:LEU:HB3	2.01	0.43
11:AL:82:MET:SD	11:AL:85:THR:HG23	2.59	0.43
7:AM:31:LEU:HG	7:AM:89:VAL:HG13	2.00	0.43
7:AM:89:VAL:CG1	7:AM:90:GLY:N	2.80	0.43
10:AN:125:LEU:O	10:AN:125:LEU:HD22	2.19	0.43
34:AQ:93:VAL:CG1	34:AQ:105:LYS:CD	2.52	0.43
34:AQ:130:LYS:HG2	36:B2:1669:G:C5'	2.48	0.43
34:AQ:57:LEU:HD13	34:AQ:115:TYR:CD2	2.50	0.43
34:AQ:9:SER:HB2	34:AQ:26:LYS:CG	2.10	0.43
8:AS:85:ASN:OD1	8:AS:86:ARG:N	2.51	0.43
17:AV:18:SER:HG	17:AV:72:LEU:HD21	1.83	0.43
32:AW:80:ASP:OD2	36:B2:803:C:H4'	2.18	0.43
6:AX:1:MET:O	6:AX:3:LYS:N	2.51	0.43
18:AY:97:TYR:CD1	18:AY:98:GLU:N	2.79	0.43
19:AZ:53:ALA:O	19:AZ:57:LYS:HG3	2.18	0.43
13:AP:44:ARG:HD3	36:B2:1620:A:OP1	2.18	0.43
36:B2:795:A:H2'	36:B2:796:G:C8	2.54	0.43
51:CA:143:THR:OG1	51:CA:144:LYS:HG3	2.18	0.43
51:CA:250:LYS:HD3	51:CA:251:THR:N	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:246:ARG:NH2	85:A5:4525:C:OP1	2.52	0.43
63:CB:288:GLY:HA3	63:CB:330:PHE:CD1	2.51	0.43
63:CB:391:PRO:CA	63:CB:392:LEU:HD22	2.43	0.43
74:CC:285:ILE:O	74:CC:286:ASN:ND2	2.50	0.43
74:CC:5:ARG:NH2	74:CC:26:ALA:CA	2.82	0.43
48:CD:273:LEU:HD13	48:CD:277:LYS:HZ1	1.79	0.43
48:CD:32:ALA:O	48:CD:36:LEU:HG	2.18	0.43
81:CE:112:MET:N	81:CE:113:PRO:CD	2.63	0.43
81:CE:236:GLU:CD	81:CE:239:LYS:HD3	2.39	0.43
82:CG:143:VAL:CG1	82:CG:146:LEU:HD21	2.48	0.43
82:CG:211:ASP:O	82:CG:214:ALA:N	2.51	0.43
82:CG:71:TYR:CZ	82:CG:72:LYS:HG2	2.53	0.43
47:CI:185:VAL:HG22	47:CI:190:LEU:CB	2.48	0.43
47:CI:52:MET:HE3	47:CI:152:LEU:HA	2.00	0.43
47:CI:76:MET:HB2	47:CI:85:PHE:CE2	2.44	0.43
47:CI:5:PRO:C	47:CI:7:ARG:N	2.54	0.43
79:CJ:90:ARG:HH22	79:CJ:108:GLY:CA	2.02	0.43
40:CK:123:ARG:CZ	40:CK:129:ILE:HD12	2.46	0.43
42:CL:160:VAL:CG2	42:CL:161:TYR:N	2.80	0.43
46:CN:83:LYS:HB3	46:CN:84:PRO:CD	2.48	0.43
41:CO:122:ALA:HA	52:CS:161:ARG:HG3	2.00	0.43
41:CO:121:PRO:N	41:CO:124:LEU:HD13	2.31	0.43
41:CO:41:ILE:HG23	41:CO:138:LEU:HB2	1.22	0.43
41:CO:181:ALA:C	44:CM:126:GLU:CG	2.85	0.43
54:CP:71:ALA:HB2	85:A5:4982:A:P	2.58	0.43
49:CQ:6:ARG:NH2	64:CF:110:GLN:HA	2.33	0.43
49:CQ:6:ARG:NH2	64:CF:114:LEU:N	2.65	0.43
49:CQ:89:ASP:O	49:CQ:90:VAL:C	2.54	0.43
49:CQ:94:GLU:CA	49:CQ:94:GLU:OE2	2.54	0.43
50:CR:100:ARG:C	50:CR:104:ARG:HD2	2.38	0.43
52:CS:146:HIS:C	52:CS:146:HIS:ND1	2.71	0.43
52:CS:45:TRP:CZ3	52:CS:55:LYS:C	2.91	0.43
53:CT:135:PRO:C	53:CT:136:ARG:CG	2.61	0.43
55:CU:52:LYS:HB3	55:CU:53:ALA:H	1.45	0.43
56:CX:81:LEU:HD11	56:CX:99:ILE:HG13	1.99	0.43
74:CC:103:ALA:CB	85:A5:1339:U:H1'	2.49	0.43
85:A5:1956:A:C2	85:A5:2028:C:C2	3.07	0.43
85:A5:2485:U:H2'	85:A5:2486:G:C8	2.53	0.43
85:A5:415:G:OP1	85:A5:417:G:O6	2.36	0.43
85:A5:1964:A:H1'	85:A5:4694:G:OP1	2.19	0.43
86:A7:44:C:H2'	86:A7:45:U:H5'	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AA:186:ARG:NH1	16:AA:187:GLY:N	2.67	0.43
16:AA:14:ASP:C	16:AA:18:PHE:HD2	2.22	0.43
16:AA:45:GLY:C	16:AA:46:ILE:CG1	2.86	0.43
16:AA:49:ILE:CG2	16:AA:50:ASN:N	2.81	0.43
15:AB:137:LEU:HB3	15:AB:172:MET:HE1	1.95	0.43
15:AB:48:LEU:O	15:AB:48:LEU:HD13	2.18	0.43
23:AD:223:ILE:CG2	23:AD:224:SER:N	2.80	0.43
30:AF:112:LEU:O	30:AF:116:ILE:CG1	2.67	0.43
30:AF:124:ASP:O	30:AF:200:ALA:CB	2.67	0.43
29:AG:64:LYS:HD3	29:AG:65:GLN:N	2.32	0.43
26:AJ:35:TYR:N	26:AJ:35:TYR:CD2	2.85	0.43
4:AK:89:ILE:CG2	4:AK:90:VAL:H	2.30	0.43
7:AM:26:LEU:HD11	7:AM:90:GLY:N	2.33	0.43
7:AM:27:ILE:CG2	7:AM:28:HIS:N	2.81	0.43
10:AN:50:ILE:O	10:AN:54:LEU:CG	2.64	0.43
5:AO:97:LEU:CD1	5:AO:112:ALA:HB1	2.45	0.43
5:AO:147:ARG:HH21	5:AO:150:ARG:HH21	1.65	0.43
13:AP:62:LYS:CA	13:AP:65:LYS:HE2	2.48	0.43
13:AP:65:LYS:CG	13:AP:66:GLU:N	2.79	0.43
34:AQ:126:ARG:CG	34:AQ:127:CYS:N	2.81	0.43
12:AR:85:VAL:HG21	16:AA:201:LEU:HD22	1.99	0.43
8:AS:41:ALA:O	8:AS:45:LEU:HG	2.19	0.43
8:AS:58:GLU:O	8:AS:59:LEU:HB2	2.15	0.43
12:AR:67:ARG:NH2	36:B2:1464:C:H1'	2.33	0.43
36:B2:148:U:C5	36:B2:169:U:C4	3.06	0.43
36:B2:1822:A:C2	36:B2:1823:A:C6	3.06	0.43
36:B2:304:C:HO2'	36:B2:306:C:C4'	2.32	0.43
51:CA:229:ALA:HA	51:CA:230:PRO:HD3	1.49	0.43
51:CA:51:ASP:HB3	51:CA:54:ARG:HD2	1.99	0.43
63:CB:110:ILE:HD11	63:CB:114:CYS:SG	2.59	0.43
63:CB:179:HIS:CE1	63:CB:344:VAL:CG2	3.01	0.43
74:CC:285:ILE:O	74:CC:285:ILE:HG23	2.19	0.43
74:CC:310:HIS:C	74:CC:311:ARG:HG2	2.38	0.43
48:CD:99:TYR:CG	48:CD:199:ILE:HG23	2.54	0.43
48:CD:22:ARG:HG3	48:CD:22:ARG:HH11	1.84	0.43
48:CD:94:ASN:OD1	48:CD:97:ALA:N	2.48	0.43
81:CE:223:ARG:N	81:CE:223:ARG:CD	2.29	0.43
82:CG:128:VAL:CG1	82:CG:128:VAL:O	2.63	0.43
82:CG:234:ARG:O	82:CG:234:ARG:HG3	2.18	0.43
82:CG:27:VAL:CG1	82:CG:31:LEU:HD11	2.49	0.43
82:CG:70:LEU:HD13	82:CG:70:LEU:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:CG:80:ILE:CG2	82:CG:81:ASN:N	2.65	0.43
80:CH:183:GLU:CD	80:CH:184:LYS:C	2.77	0.43
80:CH:25:VAL:CG2	80:CH:36:ARG:HB3	2.49	0.43
47:CI:57:TYR:HD1	47:CI:130:HIS:CE1	2.37	0.43
40:CK:65:GLN:HA	40:CK:69:ALA:O	2.19	0.43
54:CP:115:GLU:CD	54:CP:151:THR:HB	2.39	0.43
49:CQ:23:ILE:HG13	49:CQ:24:TYR:N	2.33	0.43
52:CS:2:LYS:HZ1	52:CS:43:ARG:HB2	1.84	0.43
59:CZ:23:ALA:HB1	59:CZ:43:VAL:HB	2.00	0.43
85:A5:2589:C:H5'	85:A5:2590:G:OP2	2.18	0.43
85:A5:975:C:O4'	85:A5:975:C:C6	2.71	0.43
87:A8:94:G:C1'	87:A8:95:A:P	3.06	0.43
16:AA:169:HIS:N	16:AA:169:HIS:ND1	2.66	0.43
12:AR:105:MET:HE3	16:AA:50:ASN:HA	2.00	0.43
16:AA:7:VAL:HG22	16:AA:8:LEU:N	2.32	0.43
23:AD:192:TRP:C	23:AD:196:GLY:H	1.90	0.43
27:AE:102:ILE:HG23	27:AE:182:MET:SD	2.58	0.43
30:AF:127:ARG:HD3	30:AF:127:ARG:O	2.16	0.43
30:AF:47:LYS:N	30:AF:47:LYS:CD	2.78	0.43
29:AG:46:LYS:HG2	29:AG:118:GLU:OE1	2.19	0.43
29:AG:151:ASP:O	29:AG:152:ASP:HB3	2.18	0.43
31:AH:169:LYS:HB3	31:AH:173:PHE:CZ	2.54	0.43
33:AI:140:LYS:HD3	33:AI:141:ARG:N	2.33	0.43
33:AI:42:ARG:HB3	33:AI:58:LEU:O	2.19	0.43
26:AJ:151:LEU:C	26:AJ:153:SER:H	2.20	0.43
26:AJ:78:LEU:HD13	26:AJ:92:MET:C	2.38	0.43
4:AK:47:LYS:HD3	4:AK:47:LYS:HA	1.92	0.43
4:AK:21:MET:SD	4:AK:49:MET:CE	3.06	0.43
11:AL:12:LYS:HB3	11:AL:12:LYS:HE3	1.80	0.43
11:AL:23:VAL:HG22	11:AL:24:LEU:H	1.84	0.43
11:AL:71:ARG:NH1	36:B2:353:C:C4'	2.82	0.43
10:AN:92:ILE:CG2	10:AN:150:VAL:HG23	2.46	0.43
5:AO:34:PHE:CD2	5:AO:98:ARG:NH1	2.87	0.43
5:AO:38:ASN:O	5:AO:39:ASP:HB2	2.19	0.43
13:AP:22:LEU:HA	13:AP:25:LEU:CB	2.47	0.43
34:AQ:42:ILE:HD12	34:AQ:51:LEU:HD11	1.95	0.43
12:AR:20:TYR:HE1	12:AR:38:ILE:HG21	1.57	0.43
12:AR:5:ARG:N	12:AR:10:LYS:NZ	2.60	0.43
14:AT:124:THR:OG1	14:AT:125:PRO:HD2	2.19	0.43
3:AU:49:LYS:HB2	3:AU:49:LYS:HE2	1.57	0.43
17:AV:46:PHE:CG	17:AV:46:PHE:O	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AY:33:ALA:O	18:AY:34:THR:HB	2.19	0.43
36:B2:1196:A:C2	36:B2:1197:G:H1'	2.53	0.43
8:AS:136:THR:OG1	36:B2:1520:G:C5'	2.67	0.43
36:B2:1644:C:H2'	36:B2:1645:C:C6	2.54	0.43
36:B2:841:G:H2'	36:B2:842:C:C5'	2.41	0.43
51:CA:202:VAL:O	51:CA:202:VAL:HG13	2.18	0.43
63:CB:30:LYS:HD3	63:CB:30:LYS:HA	1.28	0.43
63:CB:5:LYS:HD2	63:CB:5:LYS:HA	2.75	0.43
74:CC:323:ARG:HD3	74:CC:327:LYS:HB2	1.99	0.43
81:CE:109:LEU:C	81:CE:110:ARG:HG3	2.39	0.43
81:CE:197:THR:CG2	81:CE:198:SER:N	2.82	0.43
81:CE:224:LYS:N	81:CE:225:PRO:HD3	2.33	0.43
81:CE:236:GLU:OE1	81:CE:239:LYS:HD3	2.18	0.43
64:CF:117:ILE:HG12	64:CF:118:PHE:CD1	2.54	0.43
82:CG:175:ARG:HG3	82:CG:230:TYR:CD1	2.54	0.43
82:CG:22:GLN:HB3	82:CG:23:GLU:H	1.51	0.43
47:CI:142:LEU:O	47:CI:145:GLU:HG3	2.18	0.43
79:CJ:112:HIS:CE1	79:CJ:126:TYR:N	2.87	0.43
79:CJ:85:LYS:O	79:CJ:88:LYS:HB3	2.19	0.43
42:CL:140:SER:O	42:CL:143:GLU:CB	2.64	0.43
42:CL:62:PRO:CD	42:CL:71:ARG:HH21	2.28	0.43
44:CM:120:ASN:O	44:CM:123:ILE:HG23	2.11	0.43
46:CN:120:TRP:CZ2	46:CN:122:GLY:CA	3.01	0.43
46:CN:136:ASP:O	46:CN:142:ILE:HD12	2.18	0.43
41:CO:190:ASP:CB	41:CO:194:GLU:H	2.31	0.43
54:CP:115:GLU:OE1	54:CP:151:THR:HG21	2.19	0.43
49:CQ:139:LEU:HD23	49:CQ:139:LEU:HA	1.49	0.43
50:CR:116:ASP:O	50:CR:117:ARG:C	2.56	0.43
50:CR:133:LYS:HD2	50:CR:137:ILE:CG1	2.48	0.43
50:CR:3:MET:SD	50:CR:5:ARG:HD2	2.58	0.43
52:CS:73:LEU:O	52:CS:76:LYS:NZ	2.49	0.43
55:CU:60:VAL:HG22	55:CU:75:GLU:HB2	2.00	0.43
85:A5:1342:A:N6	85:A5:1514:U:H3	2.15	0.43
85:A5:2256:C:HO2'	85:A5:2257:C:H5	1.50	0.43
85:A5:2505:C:H1'	85:A5:2506:G:C8	2.54	0.43
85:A5:2552:G:H2'	85:A5:2553:A:O5'	2.18	0.43
85:A5:4749:C:N4	85:A5:4951:G:N2	2.67	0.43
87:A8:102:G:C6	87:A8:104:A:N6	2.87	0.43
16:AA:124:VAL:HG21	16:AA:134:LEU:HD21	2.00	0.43
10:AN:56:ASP:HB2	15:AB:52:THR:OG1	86.13	0.43
15:AB:54:GLY:C	15:AB:56:LYS:H	2.22	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AC:259:THR:O	28:AC:261:PHE:HD2	2.02	0.43
23:AD:101:GLN:O	23:AD:104:SER:HB2	2.19	0.43
27:AE:59:ASP:OD1	27:AE:63:LYS:HE3	2.18	0.43
27:AE:71:LYS:HE2	27:AE:74:GLY:HA2	1.97	0.43
30:AF:190:ILE:CG2	30:AF:191:LYS:N	2.82	0.43
30:AF:49:LEU:HA	30:AF:50:PRO:HD3	1.88	0.43
29:AG:214:ALA:O	29:AG:218:LYS:HG3	2.18	0.43
29:AG:70:HIS:HA	29:AG:98:ARG:HH12	1.83	0.43
29:AG:79:LYS:HA	29:AG:86:PRO:HG2	2.01	0.43
31:AH:110:THR:HG23	36:B2:799:U:H5'	2.00	0.43
33:AI:58:LEU:O	33:AI:59:ARG:HB2	2.19	0.43
26:AJ:101:LYS:CG	26:AJ:103:GLU:OE1	2.61	0.43
26:AJ:34:GLU:O	26:AJ:123:ILE:HD12	2.19	0.43
26:AJ:50:LEU:CB	26:AJ:102:ILE:CD1	2.97	0.43
26:AJ:50:LEU:CG	26:AJ:102:ILE:HD13	2.49	0.43
5:AO:131:ASP:OD1	5:AO:133:THR:HG23	2.18	0.43
5:AO:26:ASN:CB	5:AO:91:THR:OG1	2.63	0.43
12:AR:121:GLN:NE2	12:AR:121:GLN:CA	2.76	0.43
3:AU:67:LYS:CD	3:AU:78:ASP:OD2	2.66	0.43
16:AA:186:ARG:HG3	17:AV:46:PHE:CZ	2.48	0.43
6:AX:27:TYR:CG	6:AX:31:HIS:CD2	3.07	0.43
6:AX:3:LYS:C	6:AX:4:CYS:O	2.57	0.43
18:AY:47:MET:CE	36:B2:837:A:C5	3.02	0.43
19:AZ:52:LYS:HB3	19:AZ:53:ALA:H	1.49	0.43
19:AZ:90:GLU:O	19:AZ:93:SER:N	2.43	0.43
36:B2:371:A:N6	36:B2:392:A:H61	2.16	0.43
18:AY:119:GLY:HA2	36:B2:85:A:H5'	1.99	0.43
32:AW:107:SER:HA	36:B2:862:A:C5	2.54	0.43
36:B2:887:U:C6	36:B2:888:U:C6	3.06	0.43
63:CB:141:ASP:C	63:CB:143:LYS:N	2.71	0.43
63:CB:297:LYS:CD	63:CB:297:LYS:H	2.32	0.43
63:CB:315:ASN:HD21	63:CB:320:PHE:H	1.66	0.43
74:CC:130:ALA:HB1	74:CC:136:LEU:HD13	2.00	0.43
81:CE:181:LEU:CD1	81:CE:268:GLN:CG	2.64	0.43
81:CE:212:LEU:HD13	81:CE:216:TYR:HD2	1.78	0.43
81:CE:258:LEU:CA	81:CE:261:ILE:HG12	2.47	0.43
81:CE:267:LEU:O	81:CE:271:LEU:HG	2.18	0.43
81:CE:30:GLY:O	81:CE:31:ASN:CG	2.57	0.43
81:CE:31:ASN:CB	81:CE:32:LEU:HD22	2.48	0.43
64:CF:193:GLU:CG	64:CF:200:ARG:HB3	2.48	0.43
82:CG:77:PRO:CD	82:CG:237:TRP:CZ3	2.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CI:76:MET:HG2	47:CI:151:ALA:CB	2.48	0.43
47:CI:30:LYS:HA	47:CI:30:LYS:HE3	0.53	0.43
79:CJ:22:LEU:HD13	79:CJ:43:LEU:HD21	2.00	0.43
79:CJ:85:LYS:HD2	79:CJ:115:LEU:HB2	2.00	0.43
40:CK:88:PRO:HB2	40:CK:89:PRO:CB	2.48	0.43
42:CL:127:PHE:CZ	42:CL:144:LEU:CD2	3.01	0.43
41:CO:191:LYS:HB3	41:CO:192:TYR:CD1	2.53	0.43
41:CO:20:ALA:C	41:CO:87:MET:HE3	2.39	0.43
54:CP:29:THR:CA	54:CP:32:THR:HG22	2.39	0.43
49:CQ:70:MET:CE	49:CQ:98:LEU:HG	2.49	0.43
50:CR:68:LEU:C	50:CR:68:LEU:HD12	2.34	0.43
58:CW:4:GLU:OE1	58:CW:5:LEU:O	2.37	0.43
29:AG:11:GLY:N	58:CW:80:ARG:NH2	2.64	0.43
57:CY:50:ARG:CG	57:CY:115:ARG:HH21	2.31	0.43
59:CZ:73:LYS:CG	59:CZ:75:TYR:CD2	3.02	0.43
85:A5:1102:U:N3	85:A5:1103:C:C5	2.87	0.43
85:A5:1276:C:C6	85:A5:1276:C:O4'	2.72	0.43
85:A5:1371:A:H3'	85:A5:1371:A:C8	2.54	0.43
85:A5:1431:C:H2'	85:A5:1432:G:H5'	2.01	0.43
85:A5:1965:G:H2'	85:A5:1966:C:C6	2.53	0.43
85:A5:3801:U:H5'	85:A5:4496:A:N3	2.33	0.43
85:A5:3937:C:H2'	85:A5:3938:G:C2	2.54	0.43
46:CN:83:LYS:HE3	85:A5:45:U:O4	2.18	0.43
85:A5:468:U:HO2'	85:A5:469:C:H6	1.66	0.43
81:CE:219:LYS:HA	85:A5:4939:C:H2'	2.00	0.43
16:AA:66:VAL:CG1	16:AA:186:ARG:HD3	2.47	0.43
15:AB:206:PRO:O	15:AB:207:LEU:CB	2.67	0.43
28:AC:236:PHE:CD2	28:AC:236:PHE:C	2.90	0.43
28:AC:98:LEU:C	28:AC:100:ALA:H	2.22	0.43
27:AE:212:ASP:C	27:AE:214:ASN:H	2.22	0.43
27:AE:92:ILE:CG2	27:AE:97:GLU:OE1	2.67	0.43
30:AF:63:LYS:HE2	36:B2:1677:U:OP2	2.19	0.43
29:AG:176:ILE:HG22	29:AG:179:LEU:CD2	2.32	0.43
29:AG:5:ILE:HG22	29:AG:124:LEU:CD2	2.43	0.43
31:AH:145:ARG:HB3	31:AH:145:ARG:HE	1.76	0.43
31:AH:69:LEU:O	31:AH:73:GLN:CG	2.66	0.43
31:AH:80:VAL:HA	31:AH:83:LEU:HG	2.00	0.43
33:AI:124:LYS:HB3	33:AI:125:LYS:H	1.48	0.43
11:AL:113:LEU:HD23	11:AL:114:SER:O	2.18	0.43
34:AQ:62:ARG:HA	34:AQ:62:ARG:HD3	1.47	0.43
8:AS:25:LYS:HG3	8:AS:54:LYS:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AS:88:LYS:HD3	13:AP:37:TYR:HA	2.01	0.43
3:AU:68:THR:HG22	3:AU:69:PRO:HD2	2.01	0.43
3:AU:32:LEU:HD22	3:AU:85:HIS:HB2	2.00	0.43
17:AV:29:HIS:CE1	28:AC:87:PRO:N	2.87	0.43
6:AX:71:ARG:NE	6:AX:82:THR:HG22	2.27	0.43
18:AY:46:LYS:O	18:AY:47:MET:CG	2.67	0.43
36:B2:1375:G:O5'	36:B2:1375:G:H8	2.02	0.43
36:B2:1512:C:H2'	36:B2:1513:C:C6	2.53	0.43
36:B2:126:G:N2	36:B2:180:G:O3'	2.49	0.43
36:B2:1834:A:H3'	36:B2:1835:A:H5''	2.00	0.43
36:B2:433:A:C2	36:B2:434:G:C5	3.07	0.43
36:B2:589:G:H2'	36:B2:590:A:OP2	2.19	0.43
51:CA:159:SER:HG	51:CA:162:ASN:CG	2.22	0.43
51:CA:174:ARG:HG2	51:CA:174:ARG:O	2.18	0.43
63:CB:333:LEU:CD2	63:CB:337:VAL:CG1	2.95	0.43
63:CB:3:HIS:O	63:CB:4:ARG:C	2.57	0.43
63:CB:76:VAL:O	63:CB:77:THR:HG22	2.19	0.43
74:CC:32:ILE:HD13	74:CC:126:SER:O	2.19	0.43
74:CC:210:ILE:HD12	74:CC:252:TRP:CZ3	2.52	0.43
74:CC:266:THR:O	74:CC:269:LYS:O	2.35	0.43
48:CD:234:ASP:OD1	48:CD:235:MET:N	2.52	0.43
81:CE:115:TYR:CB	81:CE:117:PRO:HD3	2.49	0.43
81:CE:225:PRO:HG2	81:CE:231:GLU:OE2	2.19	0.43
64:CF:105:VAL:HG21	64:CF:139:TYR:HE2	1.83	0.43
64:CF:182:TYR:CE1	64:CF:200:ARG:CZ	3.01	0.43
64:CF:209:TRP:CG	64:CF:210:PRO:CD	3.01	0.43
64:CF:22:ARG:O	64:CF:24:ASN:HB2	2.19	0.43
82:CG:138:ALA:HA	82:CG:143:VAL:CG2	2.49	0.43
80:CH:52:LYS:HD2	80:CH:52:LYS:HA	1.43	0.43
79:CJ:26:VAL:HG21	79:CJ:33:LEU:CD2	2.43	0.43
40:CK:120:SER:OG	40:CK:121:LEU:N	2.49	0.43
42:CL:125:ILE:HD13	42:CL:142:GLU:O	2.19	0.43
42:CL:148:THR:O	42:CL:149:GLN:O	2.36	0.43
42:CL:58:ILE:HD13	42:CL:157:VAL:CG1	2.26	0.43
44:CM:120:ASN:HA	44:CM:123:ILE:HG21	2.01	0.43
44:CM:31:ILE:C	52:CS:145:PHE:CE1	2.92	0.43
41:CO:170:LYS:HB3	41:CO:170:LYS:HE2	1.60	0.43
41:CO:196:LEU:HD13	44:CM:119:ARG:HH21	1.83	0.43
54:CP:104:LEU:HD23	54:CP:104:LEU:HA	1.77	0.43
50:CR:81:ARG:HG2	50:CR:88:ARG:NH1	2.33	0.43
53:CT:135:PRO:CG	53:CT:136:ARG:N	2.60	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CU:108:GLU:HA	55:CU:110:TYR:HH	1.81	0.43
43:CV:99:GLU:HB3	58:CW:24:THR:HG22	2.00	0.43
58:CW:4:GLU:OE1	58:CW:5:LEU:N	2.47	0.43
56:CX:38:LYS:CG	56:CX:39:LYS:O	2.67	0.43
59:CZ:68:ILE:HD13	59:CZ:118:PHE:HB3	2.01	0.43
85:A5:1358:G:H3'	85:A5:1359:G:C8	2.54	0.43
85:A5:1391:A:H2'	85:A5:1392:A:C8	2.54	0.43
85:A5:2022:C:H3'	85:A5:2023:C:H6	1.84	0.43
85:A5:2503:G:C4	85:A5:4084:G:H8	2.36	0.43
81:CE:172:LEU:CD2	85:A5:4941:G:C8	3.02	0.43
15:AB:37:ALA:HA	15:AB:42:ARG:HE	1.83	0.43
23:AD:108:LYS:HA	23:AD:113:LEU:CD2	2.48	0.43
23:AD:207:HIS:C	23:AD:208:VAL:HG23	2.39	0.43
23:AD:58:VAL:O	23:AD:65:ARG:HB2	2.19	0.43
27:AE:181:CYS:O	27:AE:192:ILE:HG23	2.18	0.43
27:AE:45:ILE:HD12	27:AE:80:ILE:CG2	2.49	0.43
29:AG:58:LYS:H	29:AG:58:LYS:HG2	1.51	0.43
31:AH:117:PRO:C	31:AH:119:SER:H	2.20	0.43
31:AH:126:HIS:O	31:AH:130:LEU:HD22	2.19	0.43
31:AH:14:GLU:HG2	31:AH:15:LYS:O	2.18	0.43
31:AH:65:PRO:C	31:AH:67:PRO:CD	2.86	0.43
33:AI:105:ASP:O	33:AI:106:SER:CB	2.64	0.43
26:AJ:130:ILE:CG1	26:AJ:135:ILE:CD1	2.81	0.43
4:AK:10:ALA:HA	4:AK:13:GLU:HG2	2.01	0.43
4:AK:1:MET:HG3	36:B2:1274:G:C5'	2.47	0.43
10:AN:2:GLY:O	10:AN:3:ARG:HB2	2.19	0.43
5:AO:30:VAL:HG13	5:AO:47:LEU:HA	2.00	0.43
5:AO:64:ALA:CB	5:AO:66:ARG:HE	2.28	0.43
34:AQ:56:LEU:H	34:AQ:56:LEU:HG	1.66	0.43
12:AR:88:VAL:O	12:AR:88:VAL:HG12	2.15	0.43
8:AS:15:VAL:CG1	8:AS:16:LEU:N	2.82	0.43
8:AS:33:ILE:CG2	8:AS:36:VAL:CG1	2.97	0.43
8:AS:46:ARG:HD2	14:AT:50:GLU:HG2	2.00	0.43
14:AT:75:MET:CA	14:AT:78:ILE:HG22	2.49	0.43
6:AX:67:ARG:O	6:AX:68:LYS:CB	2.66	0.43
6:AX:70:VAL:CG1	6:AX:71:ARG:N	2.82	0.43
14:AT:7:LYS:HE3	36:B2:1430:C:O2'	2.19	0.43
36:B2:1551:U:H2'	36:B2:1552:G:C8	2.52	0.43
36:B2:845:G:C2'	36:B2:846:G:H8	2.32	0.43
51:CA:116:LEU:HD11	51:CA:126:LEU:CB	2.45	0.43
63:CB:168:MET:O	63:CB:168:MET:HE2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:393:LYS:HA	63:CB:393:LYS:HD2	1.70	0.43
63:CB:85:VAL:CG1	63:CB:165:HIS:NE2	2.82	0.43
74:CC:11:TYR:OH	74:CC:148:PRO:CB	2.67	0.43
74:CC:163:LYS:HB2	74:CC:166:GLU:OE1	2.19	0.43
48:CD:119:TYR:CD1	48:CD:135:ILE:CD1	3.02	0.43
48:CD:64:ILE:HD13	48:CD:109:LEU:CD1	2.49	0.43
81:CE:148:THR:C	81:CE:163:VAL:HG11	2.34	0.43
81:CE:35:LYS:O	81:CE:37:PRO:C	2.57	0.43
64:CF:156:LYS:HD3	64:CF:248:ASN:OD1	2.19	0.43
82:CG:63:LEU:CB	82:CG:67:ARG:HH12	2.26	0.43
82:CG:70:LEU:HD22	82:CG:70:LEU:O	2.18	0.43
47:CI:104:SER:CA	47:CI:112:GLN:CG	2.64	0.43
47:CI:72:ALA:CB	47:CI:87:MET:HE3	2.49	0.43
40:CK:104:ILE:O	40:CK:105:THR:C	2.55	0.43
42:CL:163:LYS:HA	42:CL:163:LYS:HD2	1.50	0.43
42:CL:18:TRP:HE3	42:CL:22:VAL:CG2	2.32	0.43
54:CP:107:LEU:HA	54:CP:152:GLU:OE2	2.19	0.43
49:CQ:154:LYS:HE3	49:CQ:163:THR:OG1	2.19	0.43
49:CQ:61:LEU:O	49:CQ:86:ILE:HA	2.18	0.43
49:CQ:82:VAL:CG2	49:CQ:86:ILE:HD11	2.47	0.43
49:CQ:94:GLU:O	49:CQ:95:VAL:CG1	2.67	0.43
50:CR:81:ARG:CG	50:CR:88:ARG:NH1	2.82	0.43
52:CS:13:VAL:HG22	52:CS:62:VAL:HB	1.99	0.43
55:CU:66:SER:O	55:CU:67:LYS:CB	2.65	0.43
57:C'Y:104:VAL:CG1	57:C'Y:105:VAL:H	2.32	0.43
85:A5:1238:A:O2'	85:A5:1239:C:C6	2.68	0.42
85:A5:1379:C:H4'	85:A5:1380:G:C8	2.53	0.42
85:A5:2256:C:H5''	85:A5:2258:C:H41	1.83	0.42
85:A5:2395:A:C4	85:A5:2807:A:C8	3.07	0.42
54:CP:18:ARG:CG	85:A5:399:G:C5'	2.86	0.42
85:A5:4523:A:C2	85:A5:4559:A:C4	3.06	0.42
85:A5:4659:G:C6	85:A5:4660:G:C6	3.07	0.42
81:CE:188:ARG:NH1	85:A5:4940:C:C4'	2.82	0.42
64:CF:242:ARG:HH22	85:A5:941:C:H5''	1.83	0.42
15:AB:148:ASN:HD22	15:AB:148:ASN:N	2.14	0.42
28:AC:207:ALA:HB3	28:AC:210:PRO:CG	2.49	0.42
28:AC:260:VAL:O	28:AC:261:PHE:CB	2.65	0.42
23:AD:126:ILE:HD12	23:AD:134:CYS:HB3	1.93	0.42
23:AD:141:LYS:O	23:AD:141:LYS:HG3	2.18	0.42
30:AF:115:ALA:HB3	30:AF:177:LEU:CD2	2.49	0.42
31:AH:145:ARG:NH1	31:AH:155:LYS:NZ	2.57	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AI:163:GLU:O	33:AI:166:PHE:HB2	2.19	0.42
33:AI:19:LYS:HA	33:AI:19:LYS:HD2	1.10	0.42
26:AJ:110:LEU:CD1	26:AJ:135:ILE:CD1	2.96	0.42
4:AK:14:LEU:CB	4:AK:35:LEU:HD21	2.49	0.42
4:AK:1:MET:HG2	4:AK:2:LEU:CB	2.49	0.42
4:AK:8:ARG:HG2	4:AK:12:TYR:CE1	2.53	0.42
4:AK:89:ILE:HG23	4:AK:90:VAL:H	1.83	0.42
4:AK:95:ARG:HD2	23:AD:67:ARG:CZ	2.48	0.42
11:AL:10:TYR:CE2	11:AL:12:LYS:HB3	2.53	0.42
11:AL:71:ARG:CG	11:AL:73:LEU:CG	2.94	0.42
7:AM:61:TYR:HH	7:AM:108:CYS:CB	2.32	0.42
13:AP:17:TYR:CE2	13:AP:25:LEU:HD21	2.54	0.42
13:AP:41:GLN:NE2	13:AP:84:ILE:HD13	2.34	0.42
34:AQ:138:ARG:HH12	36:B2:1646:C:C3'	2.31	0.42
34:AQ:85:ARG:C	34:AQ:88:ILE:HG12	2.39	0.42
8:AS:40:TYR:CE1	8:AS:44:VAL:CG2	3.01	0.42
8:AS:71:MET:HG3	8:AS:99:LEU:CD1	2.48	0.42
14:AT:65:TYR:CA	14:AT:123:LEU:HD13	2.43	0.42
14:AT:39:LEU:HD11	14:AT:99:VAL:HG21	2.00	0.42
3:AU:48:LEU:O	3:AU:49:LYS:CG	2.66	0.42
19:AZ:58:LEU:CD2	19:AZ:77:LEU:HD11	2.38	0.42
19:AZ:104:ARG:HD3	36:B2:1594:A:C8	2.54	0.42
36:B2:454:U:H2'	36:B2:455:A:C8	2.54	0.42
36:B2:547:G:H2'	36:B2:548:C:C6	2.54	0.42
26:AJ:134:HIS:HE1	36:B2:562:U:OP1	2.01	0.42
36:B2:678:U:C2	36:B2:1028:A:C6	3.07	0.42
51:CA:14:SER:OG	51:CA:15:VAL:N	2.51	0.42
63:CB:113:GLU:CG	63:CB:176:LYS:O	2.67	0.42
74:CC:238:LEU:HD23	74:CC:238:LEU:HA	1.84	0.42
48:CD:185:SER:OG	48:CD:186:GLU:N	2.51	0.42
48:CD:223:PHE:C	48:CD:224:SER:HG	2.10	0.42
81:CE:149:ILE:O	81:CE:149:ILE:HG23	2.19	0.42
81:CE:165:LEU:HD13	81:CE:208:ILE:HD11	2.01	0.42
81:CE:85:LYS:O	81:CE:85:LYS:CA	2.52	0.42
64:CF:142:TRP:CH2	64:CF:235:ASN:ND2	2.86	0.42
82:CG:141:ASN:O	82:CG:144:THR:OG1	2.35	0.42
82:CG:150:LYS:CD	82:CG:177:MET:CE	2.96	0.42
80:CH:162:GLN:OE1	80:CH:179:ILE:C	2.53	0.42
80:CH:93:ARG:CD	80:CH:143:GLU:CD	2.86	0.42
79:CJ:169:LYS:HG3	79:CJ:170:TYR:N	2.34	0.42
46:CN:68:ARG:CB	46:CN:126:THR:O	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:CO:111:PRO:O	41:CO:113:ASP:N	2.52	0.42
41:CO:68:ARG:HH11	41:CO:68:ARG:CG	2.32	0.42
49:CQ:110:ARG:HH21	49:CQ:120:ILE:CD1	2.22	0.42
49:CQ:31:LEU:HD11	74:CC:292:ILE:HG21	2.00	0.42
50:CR:71:ARG:NH1	50:CR:71:ARG:CG	2.80	0.42
53:CT:144:ASN:CA	53:CT:146:LYS:O	2.64	0.42
55:CU:24:ASP:N	55:CU:111:GLU:HG2	2.33	0.42
43:CV:83:ARG:NH1	43:CV:120:PRO:HD2	2.34	0.42
58:CW:55:TYR:CE2	58:CW:59:HIS:CD2	3.07	0.42
56:CX:107:HIS:HE1	85:A5:2777:G:C5'	2.31	0.42
56:CX:76:ILE:HG23	56:CX:77:ILE:N	2.33	0.42
57:CY:124:LYS:CA	57:CY:127:GLN:HG2	2.48	0.42
57:CY:52:ASP:OD1	57:CY:69:LYS:HG3	2.19	0.42
57:CY:56:GLN:HE21	57:CY:56:GLN:HB3	1.59	0.42
59:CZ:103:ASP:HA	59:CZ:104:PRO:HD3	1.94	0.42
85:A5:1265:G:C6	85:A5:1266:G:C6	3.07	0.42
85:A5:1428:U:H2'	85:A5:1429:C:C5	2.54	0.42
85:A5:173:C:O2	85:A5:263:G:C2	2.72	0.42
85:A5:2263:A:C8	85:A5:2265:G:H8	2.35	0.42
85:A5:2520:C:H2'	85:A5:2521:G:C8	2.54	0.42
85:A5:2553:A:N3	85:A5:2553:A:H5''	2.34	0.42
16:AA:159:ILE:HD12	16:AA:160:ALA:H	1.83	0.42
15:AB:147:ASN:HA	15:AB:147:ASN:HD22	1.58	0.42
15:AB:63:LYS:CD	15:AB:63:LYS:C	2.79	0.42
28:AC:66:LEU:CD2	28:AC:75:ILE:HD12	2.48	0.42
30:AF:18:LYS:HD2	34:AQ:57:LEU:HD23	2.01	0.42
29:AG:229:ALA:HA	29:AG:232:ARG:HE	1.84	0.42
31:AH:23:ILE:HD13	31:AH:23:ILE:C	2.40	0.42
31:AH:50:GLU:CD	31:AH:58:LYS:CE	2.88	0.42
33:AI:172:LEU:HD22	33:AI:172:LEU:N	2.34	0.42
26:AJ:100:LEU:HD11	26:AJ:104:ASP:CB	2.49	0.42
4:AK:85:LEU:HD13	4:AK:89:ILE:CD1	2.48	0.42
11:AL:82:MET:HB3	11:AL:82:MET:HE2	1.76	0.42
5:AO:147:ARG:HH21	5:AO:150:ARG:CD	2.31	0.42
5:AO:31:CYS:SG	5:AO:93:LEU:HB2	2.58	0.42
13:AP:100:LYS:HD2	13:AP:101:THR:N	2.35	0.42
13:AP:17:TYR:CD1	13:AP:18:ARG:HG3	2.54	0.42
13:AP:89:MET:HB3	13:AP:107:ILE:HD13	1.97	0.42
34:AQ:58:LEU:CD2	34:AQ:111:ILE:HB	2.48	0.42
12:AR:104:GLU:HA	12:AR:107:LYS:HB2	2.00	0.42
8:AS:120:HIS:CD2	8:AS:124:ARG:CG	3.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AT:55:THR:CG2	14:AT:56:ARG:N	2.82	0.42
6:AX:52:LEU:HD12	6:AX:53:GLU:HG2	1.91	0.42
18:AY:93:ARG:HD2	18:AY:93:ARG:C	2.38	0.42
36:B2:1069:U:H5''	51:CA:248:GLY:HA2	2.01	0.42
36:B2:1518:C:OP1	36:B2:1519:U:H3'	2.19	0.42
13:AP:128:HIS:CD2	36:B2:1522:A:O4'	2.71	0.42
36:B2:1790:A:C2	36:B2:1791:A:C4	3.07	0.42
36:B2:547:G:H2'	36:B2:548:C:C5	2.54	0.42
36:B2:530:U:C4	36:B2:555:A:C2	3.07	0.42
36:B2:796:G:H3'	36:B2:797:C:H5'	2.01	0.42
51:CA:120:PRO:HG3	51:CA:159:SER:OG	2.19	0.42
51:CA:241:ARG:HG3	51:CA:242:ARG:N	2.35	0.42
63:CB:297:LYS:O	63:CB:298:LEU:N	2.39	0.42
63:CB:357:ARG:N	63:CB:359:ALA:O	2.51	0.42
63:CB:363:ILE:CG2	63:CB:364:ASP:N	2.82	0.42
74:CC:253:THR:C	74:CC:256:ALA:H	2.23	0.42
48:CD:75:VAL:HG12	48:CD:76:CYS:SG	2.58	0.42
81:CE:201:ILE:CD1	81:CE:260:LYS:HG2	2.49	0.42
82:CG:189:ARG:NH1	87:A8:154:G:H4'	2.35	0.42
80:CH:169:ASN:O	80:CH:170:LYS:HE3	2.18	0.42
47:CI:205:PRO:O	47:CI:207:ASP:CB	2.67	0.42
40:CK:102:GLY:O	40:CK:140:GLY:HA2	2.17	0.42
40:CK:73:VAL:HG12	40:CK:74:VAL:N	2.34	0.42
42:CL:125:ILE:CB	42:CL:127:PHE:HE1	2.33	0.42
42:CL:207:VAL:CG1	42:CL:211:LYS:HE3	2.50	0.42
46:CN:116:LEU:CG	46:CN:135:ILE:HD12	2.49	0.42
46:CN:188:ARG:HG3	46:CN:189:ARG:N	2.30	0.42
41:CO:190:ASP:HB2	41:CO:194:GLU:H	1.84	0.42
50:CR:51:ILE:CG2	50:CR:52:ARG:N	2.82	0.42
50:CR:95:TRP:O	50:CR:96:MET:C	2.57	0.42
52:CS:134:ALA:O	52:CS:136:LYS:HE2	2.08	0.42
50:CR:34:ASN:HD22	55:CU:126:ASP:HA	1.84	0.42
55:CU:34:MET:HE1	55:CU:39:PHE:CG	2.54	0.42
56:CX:81:LEU:HD11	56:CX:99:ILE:CG1	2.49	0.42
59:CZ:30:ASP:OD2	59:CZ:31:ASP:N	2.51	0.42
85:A5:2047:A:H61	85:A5:3885:G:H1'	1.84	0.42
85:A5:2549:G:C6	85:A5:2769:U:O4	2.72	0.42
85:A5:509:A:H3'	85:A5:510:U:C5'	2.49	0.42
86:A7:40:U:H5'	86:A7:41:G:OP2	2.19	0.42
86:A7:65:G:O5'	86:A7:65:G:H8	2.02	0.42
16:AA:16:LEU:HB2	16:AA:17:LYS:NZ	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:105:LEU:CD2	15:AB:213:ARG:O	2.66	0.42
15:AB:55:THR:O	15:AB:56:LYS:CG	2.67	0.42
15:AB:97:LEU:HD22	15:AB:232:HIS:CG	2.54	0.42
28:AC:124:PHE:CD2	28:AC:147:VAL:HG23	2.54	0.42
28:AC:210:PRO:HG3	28:AC:236:PHE:CE1	2.55	0.42
23:AD:112:GLY:N	23:AD:113:LEU:HD11	2.28	0.42
23:AD:123:LEU:HA	23:AD:126:ILE:HG12	2.01	0.42
27:AE:123:LEU:HD22	27:AE:236:ILE:HG23	2.02	0.42
27:AE:99:PHE:HE1	27:AE:113:ARG:CG	2.03	0.42
30:AF:112:LEU:HD23	30:AF:116:ILE:CG1	2.49	0.42
30:AF:94:LYS:O	30:AF:94:LYS:HD2	2.19	0.42
29:AG:185:LEU:CB	29:AG:189:ARG:HH12	2.32	0.42
31:AH:14:GLU:HG3	31:AH:15:LYS:N	2.32	0.42
31:AH:28:LEU:HG	31:AH:32:MET:CE	2.49	0.42
33:AI:29:LEU:HD21	33:AI:31:ARG:NH1	2.34	0.42
33:AI:62:VAL:HG23	33:AI:75:LYS:HE3	2.02	0.42
26:AJ:102:ILE:CG2	26:AJ:106:LEU:CD1	2.93	0.42
26:AJ:128:VAL:O	26:AJ:132:GLN:HG3	2.19	0.42
11:AL:126:VAL:HG23	11:AL:145:VAL:HA	2.02	0.42
11:AL:14:PRO:C	11:AL:15:THR:HG23	2.40	0.42
11:AL:82:MET:HE1	36:B2:373:G:H5'	2.01	0.42
7:AM:127:TYR:CG	7:AM:128:PHE:N	2.87	0.42
10:AN:4:MET:HE1	10:AN:124:ARG:NH2	2.34	0.42
5:AO:128:ARG:NH2	15:AB:72:ALA:CB	2.72	0.42
5:AO:92:ALA:O	5:AO:93:LEU:HD23	2.19	0.42
8:AS:82:TRP:CG	36:B2:1567:G:C5	3.07	0.42
14:AT:47:PRO:HG2	14:AT:52:TRP:CD1	2.54	0.42
14:AT:5:THR:HG22	14:AT:8:ASP:CG	2.39	0.42
18:AY:47:MET:HE3	36:B2:837:A:C5	2.54	0.42
19:AZ:94:LYS:CE	19:AZ:95:GLY:N	2.81	0.42
36:B2:1123:C:H2'	36:B2:1123:C:O2	2.19	0.42
36:B2:1242:U:H4'	36:B2:1243:U:H5''	2.01	0.42
36:B2:1536:G:H2'	36:B2:1537:A:H8	1.85	0.42
36:B2:1551:U:C5	36:B2:1577:G:N1	2.87	0.42
51:CA:234:LYS:CG	51:CA:238:ILE:HD12	2.49	0.42
74:CC:355:ALA:O	74:CC:358:ALA:N	2.53	0.42
48:CD:184:ASP:OD1	48:CD:186:GLU:OE2	2.37	0.42
81:CE:114:ARG:HG3	81:CE:114:ARG:HH11	1.83	0.42
81:CE:143:SER:O	81:CE:144:ILE:C	2.50	0.42
81:CE:274:VAL:CG1	81:CE:275:PHE:CA	2.92	0.42
64:CF:105:VAL:HG11	64:CF:139:TYR:CE2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:CF:200:ARG:O	64:CF:201:PHE:C	2.58	0.42
82:CG:120:LYS:HA	82:CG:120:LYS:HD3	1.75	0.42
82:CG:211:ASP:OD2	82:CG:214:ALA:HB3	2.16	0.42
79:CJ:35:ARG:HD3	79:CJ:122:SER:O	2.20	0.42
40:CK:104:ILE:HD13	40:CK:106:PHE:HE2	1.84	0.42
40:CK:136:ALA:HA	85:A5:2002:A:N6	2.34	0.42
40:CK:130:LYS:HZ2	40:CK:158:GLY:HA3	1.84	0.42
40:CK:163:PRO:O	40:CK:163:PRO:CD	2.64	0.42
40:CK:81:ILE:HD12	40:CK:116:MET:CE	2.48	0.42
46:CN:149:GLN:O	46:CN:152:THR:HG23	2.19	0.42
41:CO:49:ARG:HG2	41:CO:49:ARG:NH1	2.34	0.42
41:CO:73:PHE:HB3	41:CO:78:ARG:CB	2.49	0.42
54:CP:115:GLU:OE1	54:CP:151:THR:CG2	2.67	0.42
54:CP:60:PHE:O	54:CP:78:TRP:NE1	2.47	0.42
49:CQ:150:ARG:C	49:CQ:164:LYS:HB2	2.40	0.42
50:CR:39:GLN:HE21	50:CR:39:GLN:HB3	1.58	0.42
52:CS:106:VAL:CG1	52:CS:110:TYR:CE2	3.02	0.42
52:CS:157:ARG:HE	52:CS:157:ARG:HB2	1.49	0.42
52:CS:4:SER:O	52:CS:35:PRO:CG	2.66	0.42
53:CT:111:GLU:HG3	53:CT:115:LYS:HE3	2.02	0.42
53:CT:68:THR:O	53:CT:70:HIS:N	2.51	0.42
55:CU:18:VAL:CG1	55:CU:19:LEU:N	2.82	0.42
43:CV:106:VAL:CG1	43:CV:107:ASN:N	2.82	0.42
43:CV:83:ARG:NH1	43:CV:119:GLY:HA3	2.34	0.42
56:CX:123:LYS:HZ2	56:CX:139:ARG:CG	2.32	0.42
59:CZ:124:THR:O	59:CZ:126:LYS:N	2.52	0.42
59:CZ:5:MET:HB3	59:CZ:6:LYS:H	1.67	0.42
85:A5:3842:C:H2'	85:A5:3843:C:C5	2.54	0.42
85:A5:5015:G:H1'	85:A5:5034:A:N6	2.34	0.42
86:A7:64:G:C6	86:A7:65:G:C6	3.07	0.42
16:AA:157:VAL:O	17:AV:66:ASP:OD2	2.38	0.42
16:AA:5:LEU:HD13	16:AA:6:ASP:CB	2.48	0.42
15:AB:93:GLY:C	15:AB:94:LYS:HG2	2.38	0.42
28:AC:164:PRO:O	28:AC:164:PRO:HD2	2.20	0.42
28:AC:263:LYS:O	28:AC:264:SER:OG	2.33	0.42
28:AC:69:LEU:HD12	28:AC:273:LEU:HD11	1.84	0.42
28:AC:94:ILE:CD1	28:AC:162:ILE:HD13	2.33	0.42
23:AD:214:LYS:HG3	23:AD:215:ASP:CG	2.33	0.42
23:AD:217:ILE:O	23:AD:218:LEU:CB	2.67	0.42
23:AD:94:ARG:HB3	23:AD:94:ARG:HE	1.40	0.42
27:AE:11:ARG:NH1	27:AE:21:ASP:OD1	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AE:259:LYS:CG	27:AE:260:GLN:N	2.79	0.42
27:AE:59:ASP:O	27:AE:63:LYS:HG3	2.20	0.42
30:AF:20:PHE:CD2	30:AF:23:TRP:CD1	3.07	0.42
30:AF:38:TYR:HD1	30:AF:144:LEU:HD13	1.84	0.42
30:AF:49:LEU:HD21	34:AQ:46:THR:O	2.19	0.42
30:AF:62:ARG:O	30:AF:63:LYS:C	2.58	0.42
29:AG:142:ARG:NH1	29:AG:142:ARG:HG3	2.08	0.42
29:AG:181:THR:HA	29:AG:182:PRO:HD3	1.23	0.42
31:AH:117:PRO:CD	31:AH:120:ARG:HD2	2.49	0.42
31:AH:87:PHE:CD2	31:AH:90:LYS:HD2	2.54	0.42
33:AI:143:LYS:HB3	33:AI:143:LYS:HE2	1.82	0.42
33:AI:144:LYS:N	33:AI:144:LYS:HD2	2.33	0.42
4:AK:30:PRO:C	4:AK:31:LYS:CG	2.55	0.42
4:AK:36:ALA:O	4:AK:38:LYS:CA	2.66	0.42
4:AK:66:HIS:O	4:AK:67:PHE:HB2	2.18	0.42
7:AM:113:ASP:O	7:AM:114:TYR:CG	2.72	0.42
7:AM:18:LEU:HD21	7:AM:22:LEU:HD21	2.02	0.42
5:AO:146:ARG:NH1	5:AO:146:ARG:HG3	2.34	0.42
13:AP:40:ARG:HD2	13:AP:40:ARG:O	2.19	0.42
13:AP:67:ALA:HB1	13:AP:73:PRO:HB3	1.98	0.42
34:AQ:84:ILE:O	34:AQ:88:ILE:HG23	2.18	0.42
12:AR:110:ASP:O	12:AR:111:PHE:CD2	2.54	0.42
14:AT:66:LEU:HD23	14:AT:66:LEU:HA	1.85	0.42
6:AX:128:VAL:HG12	6:AX:133:LEU:HD11	2.00	0.42
6:AX:58:GLU:O	6:AX:59:ALA:O	2.38	0.42
36:B2:1213:C:H2'	36:B2:1214:A:H5'	2.01	0.42
36:B2:731:G:H2'	36:B2:732:U:H5'	2.01	0.42
63:CB:133:TYR:CE1	63:CB:136:LYS:CE	3.02	0.42
63:CB:10:ARG:CZ	63:CB:14:LEU:HD11	2.49	0.42
63:CB:25:HIS:NE2	85:A5:4984:C:H5''	2.34	0.42
63:CB:234:ARG:NH1	63:CB:270:GLY:CA	2.82	0.42
63:CB:32:PHE:O	63:CB:32:PHE:HD2	2.02	0.42
74:CC:110:ARG:O	74:CC:110:ARG:HG3	2.19	0.42
74:CC:12:SER:C	74:CC:13:GLU:OE1	2.57	0.42
74:CC:9:SER:CB	74:CC:21:ASN:OD1	2.67	0.42
74:CC:296:PRO:CG	74:CC:297:GLU:H	2.29	0.42
64:CF:156:LYS:HA	74:CC:317:ASN:OD1	2.19	0.42
74:CC:56:GLU:CD	74:CC:56:GLU:C	2.78	0.42
48:CD:138:GLN:HB3	48:CD:139:PRO:HD2	2.00	0.42
48:CD:207:TYR:CZ	48:CD:211:LEU:CD1	2.99	0.42
48:CD:58:ARG:HA	48:CD:58:ARG:HD2	1.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:CF:155:TYR:CE1	64:CF:191:ILE:HD11	2.50	0.42
64:CF:67:THR:CG2	64:CF:68:GLU:N	2.82	0.42
64:CF:92:VAL:HG12	64:CF:114:LEU:HD11	2.00	0.42
82:CG:103:ARG:HE	82:CG:193:LEU:HA	1.84	0.42
82:CG:28:VAL:HG13	82:CG:32:PHE:CG	2.53	0.42
80:CH:88:PHE:CE2	80:CH:151:ILE:HB	2.54	0.42
47:CI:190:LEU:O	47:CI:191:ILE:HG13	2.20	0.42
40:CK:161:GLU:CA	40:CK:163:PRO:HD3	2.49	0.42
40:CK:85:LEU:CD1	40:CK:109:ILE:CG2	2.96	0.42
44:CM:13:ALA:CB	44:CM:55:MET:HE2	2.50	0.42
44:CM:82:ILE:C	44:CM:83:ASN:CG	2.77	0.42
41:CO:134:LYS:HA	41:CO:134:LYS:HD3	1.81	0.42
54:CP:4:TYR:CZ	54:CP:18:ARG:HB3	2.54	0.42
54:CP:30:ARG:NH1	54:CP:62:ARG:HB3	2.34	0.42
50:CR:106:LEU:HG	50:CR:123:LEU:HD23	2.00	0.42
50:CR:144:LYS:HE2	50:CR:144:LYS:HB2	1.69	0.42
52:CS:153:PRO:HG2	52:CS:153:PRO:O	2.14	0.42
55:CU:101:ARG:O	55:CU:113:ARG:HG2	2.19	0.42
55:CU:48:LYS:HD3	55:CU:51:GLY:O	2.20	0.42
55:CU:57:GLY:O	55:CU:59:GLY:HA3	2.19	0.42
43:CV:80:VAL:HG11	43:CV:132:ILE:CD1	2.49	0.42
58:CW:14:TYR:CD1	63:CB:367:PHE:HZ	2.31	0.42
58:CW:12:LYS:C	58:CW:32:LEU:CD2	2.84	0.42
58:CW:74:ARG:HD3	58:CW:75:ALA:H	1.84	0.42
58:CW:89:ASP:O	58:CW:93:LYS:HG3	2.18	0.42
56:CX:114:LYS:HA	56:CX:119:ILE:O	2.19	0.42
56:CX:146:ALA:O	56:CX:149:VAL:HG12	2.19	0.42
59:CZ:73:LYS:CB	59:CZ:75:TYR:CE2	3.01	0.42
85:A5:1824:G:H2'	85:A5:1825:A:C8	2.55	0.42
85:A5:3965:A:N1	85:A5:4047:A:C5	2.88	0.42
85:A5:4271:A:N6	85:A5:4336:A:H61	2.18	0.42
87:A8:122:G:H21	87:A8:128:C:H5	1.66	0.42
15:AB:126:ASP:OD1	15:AB:136:ARG:NE	2.52	0.42
27:AE:201:HIS:HB2	27:AE:205:PHE:O	2.19	0.42
27:AE:212:ASP:OD1	27:AE:216:ASN:CB	2.35	0.42
27:AE:211:LYS:HE3	27:AE:217:SER:OG	2.20	0.42
30:AF:115:ALA:CB	30:AF:177:LEU:CD2	2.96	0.42
30:AF:91:ARG:HD3	34:AQ:46:THR:CG2	2.49	0.42
29:AG:122:PRO:O	29:AG:126:ASP:HB3	2.19	0.42
33:AI:140:LYS:HD3	33:AI:141:ARG:H	1.81	0.42
11:AL:8:ARG:O	33:AI:197:PHE:HE1	2.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AJ:90:GLY:O	26:AJ:96:TYR:HD2	1.77	0.42
4:AK:40:VAL:HG23	4:AK:44:HIS:H	1.84	0.42
4:AK:52:LEU:HA	4:AK:55:ARG:HD3	2.01	0.42
4:AK:49:MET:CB	4:AK:69:TRP:CE2	3.02	0.42
7:AM:104:VAL:CG2	7:AM:105:GLY:N	2.82	0.42
7:AM:76:LEU:N	7:AM:128:PHE:CZ	2.88	0.42
7:AM:35:ILE:HG23	7:AM:36:ARG:H	1.83	0.42
10:AN:130:LYS:HD3	10:AN:139:TRP:HB3	2.01	0.42
5:AO:98:ARG:HE	5:AO:134:PRO:HD3	1.84	0.42
13:AP:10:ARG:O	79:CJ:91:GLU:HG2	2.19	0.42
13:AP:49:LEU:C	13:AP:51:ARG:CA	2.82	0.42
34:AQ:117:ARG:HB2	34:AQ:117:ARG:HE	1.60	0.42
12:AR:105:MET:C	12:AR:109:LEU:HD12	2.40	0.42
8:AS:129:LEU:HD22	36:B2:1521:C:C5'	2.36	0.42
32:AW:11:LEU:HA	32:AW:14:ILE:CD1	2.50	0.42
6:AX:62:PRO:HD2	6:AX:63:ASN:H	1.83	0.42
18:AY:32:LYS:HG2	18:AY:33:ALA:C	2.40	0.42
36:B2:1397:U:H4'	36:B2:1398:G:C5'	2.50	0.42
36:B2:352:U:H2'	36:B2:353:C:O4'	2.20	0.42
36:B2:846:G:H8	36:B2:846:G:O5'	2.02	0.42
51:CA:57:PRO:HD2	51:CA:170:ALA:HB3	2.01	0.42
63:CB:116:ARG:HD3	63:CB:116:ARG:HA	1.74	0.42
63:CB:43:LEU:CD1	63:CB:43:LEU:H	2.33	0.42
74:CC:144:ILE:HG12	74:CC:249:PHE:CE2	2.53	0.42
74:CC:154:VAL:HG12	74:CC:158:VAL:CG2	2.50	0.42
74:CC:140:LYS:HG3	74:CC:245:HIS:HB3	2.02	0.42
49:CQ:124:ASP:CB	74:CC:284:MET:HG3	2.49	0.42
74:CC:337:ARG:HB2	81:CE:50:LEU:HD23	2.01	0.42
48:CD:181:PRO:HG3	48:CD:198:HIS:CD2	2.55	0.42
81:CE:108:LYS:HZ1	81:CE:114:ARG:HD3	1.85	0.42
81:CE:176:THR:HG23	81:CE:185:PRO:O	2.20	0.42
82:CG:143:VAL:HA	82:CG:146:LEU:HG	1.81	0.42
80:CH:4:ILE:HA	80:CH:4:ILE:HD12	3.62	0.42
47:CI:185:VAL:HG22	47:CI:190:LEU:HB2	2.00	0.42
40:CK:10:ILE:HG23	40:CK:65:GLN:C	2.28	0.42
42:CL:144:LEU:HA	42:CL:148:THR:HG1	1.84	0.42
42:CL:164:GLU:HG2	42:CL:164:GLU:H	1.69	0.42
44:CM:20:HIS:HB3	44:CM:45:VAL:HG22	2.02	0.42
41:CO:149:TYR:CZ	63:CB:96:PRO:O	2.72	0.42
49:CQ:187:LYS:HE2	49:CQ:188:ASN:ND2	2.31	0.42
49:CQ:94:GLU:C	49:CQ:95:VAL:HG13	2.39	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CR:133:LYS:HB2	50:CR:133:LYS:HE2	1.74	0.42
52:CS:141:ALA:CA	52:CS:144:GLN:NE2	2.79	0.42
53:CT:135:PRO:HB2	64:CF:86:GLU:CB	2.39	0.42
53:CT:23:GLY:C	53:CT:24:VAL:HG23	2.40	0.42
53:CT:36:LYS:HD3	53:CT:37:GLY:H	1.71	0.42
43:CV:30:ASP:HA	43:CV:116:ALA:O	2.18	0.42
56:CX:57:GLN:HE21	56:CX:57:GLN:HB3	1.42	0.42
57:CY:111:LEU:HA	57:CY:115:ARG:CD	2.41	0.42
57:CY:124:LYS:HA	57:CY:127:GLN:HG2	2.00	0.42
57:CY:5:PRO:CD	57:CY:6:PHE:N	2.75	0.42
85:A5:1358:G:C6	85:A5:1359:G:C2	3.08	0.42
85:A5:2438:A:C2	85:A5:2441:C:C6	3.08	0.42
85:A5:2468:U:O2	85:A5:2473:A:N1	2.53	0.42
85:A5:2553:A:H5'	85:A5:2554:U:O4'	2.20	0.42
85:A5:2580:U:C4	85:A5:2581:A:C2	3.07	0.42
85:A5:4524:G:H2'	85:A5:4525:C:H6	1.84	0.42
85:A5:4886:C:H42	85:A5:4933:C:H42	1.66	0.42
16:AA:106:GLY:O	16:AA:109:THR:O	2.38	0.42
28:AC:149:THR:CG2	28:AC:150:ALA:N	2.82	0.42
28:AC:255:LEU:N	28:AC:255:LEU:CD1	2.83	0.42
28:AC:73:MET:SD	28:AC:73:MET:N	2.92	0.42
27:AE:117:GLU:C	27:AE:119:ALA:N	2.73	0.42
27:AE:43:PRO:HD3	27:AE:46:ILE:HD12	1.99	0.42
30:AF:115:ALA:HB3	30:AF:177:LEU:HD22	1.99	0.42
30:AF:112:LEU:CA	30:AF:177:LEU:CD1	2.91	0.42
29:AG:143:LYS:CE	29:AG:143:LYS:CA	2.96	0.42
29:AG:64:LYS:HD2	29:AG:65:GLN:C	2.40	0.42
31:AH:144:ILE:O	32:AW:52:ILE:N	2.51	0.42
31:AH:140:VAL:HG21	31:AH:159:ASP:HA	2.01	0.42
31:AH:51:ILE:HD12	31:AH:176:VAL:HA	2.00	0.42
33:AI:110:ARG:HE	33:AI:128:LYS:NZ	2.17	0.42
33:AI:148:LYS:CE	33:AI:152:ARG:HH21	2.32	0.42
10:AN:131:THR:O	11:AL:153:LYS:CB	2.66	0.42
10:AN:94:LYS:HE3	10:AN:118:ILE:CD1	2.47	0.42
5:AO:31:CYS:HB3	5:AO:95:ILE:HG12	1.92	0.42
13:AP:92:SER:OG	13:AP:93:MET:N	2.52	0.42
34:AQ:21:ALA:HB2	34:AQ:72:VAL:CG2	2.32	0.42
12:AR:105:MET:HE2	16:AA:48:ILE:O	2.20	0.42
8:AS:111:LEU:HD13	8:AS:125:HIS:NE2	2.34	0.42
8:AS:36:VAL:HA	8:AS:40:TYR:HD2	1.84	0.42
14:AT:24:LYS:HD2	14:AT:24:LYS:HA	1.70	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AT:77:LYS:CE	14:AT:92:PHE:CE2	3.03	0.42
3:AU:66:ARG:CZ	3:AU:75:LYS:HA	2.49	0.42
6:AX:129:SER:O	6:AX:133:LEU:HG	2.20	0.42
6:AX:60:LYS:HE2	6:AX:116:PRO:HB3	2.01	0.42
18:AY:56:PHE:HB2	18:AY:58:PHE:HE2	1.81	0.42
18:AY:99:LYS:H	18:AY:99:LYS:CE	2.26	0.42
19:AZ:111:ARG:HH11	19:AZ:114:LYS:NZ	2.18	0.42
19:AZ:57:LYS:O	19:AZ:61:GLU:HG3	2.19	0.42
23:AD:6:SER:N	36:B2:1578:U:C5	2.87	0.42
36:B2:24:C:C2'	36:B2:25:A:H5'	2.49	0.42
36:B2:378:U:C4	36:B2:379:C:C4	3.08	0.42
36:B2:36:U:C2	36:B2:520:A:C2	3.07	0.42
36:B2:531:A:C2	36:B2:553:U:O2	2.72	0.42
51:CA:231:ALA:O	51:CA:232:GLY:C	2.57	0.42
63:CB:21:ARG:HD3	63:CB:274:TYR:CD2	2.53	0.42
63:CB:276:HIS:O	63:CB:277:ARG:HD3	2.19	0.42
63:CB:59:GLU:OE2	63:CB:71:GLU:CA	2.67	0.42
74:CC:218:ILE:CA	74:CC:229:LEU:HD12	2.48	0.42
48:CD:258:LYS:HB2	48:CD:258:LYS:HE2	1.66	0.42
81:CE:106:VAL:CG2	81:CE:108:LYS:H	2.28	0.42
81:CE:274:VAL:CG1	81:CE:275:PHE:C	2.88	0.42
81:CE:286:LEU:HB3	81:CE:287:VAL:CA	2.15	0.42
82:CG:167:VAL:O	82:CG:167:VAL:HG12	2.18	0.42
82:CG:183:ILE:CG2	82:CG:184:ILE:C	2.73	0.42
47:CI:3:ARG:HG2	47:CI:123:GLN:NE2	2.34	0.42
47:CI:48:LEU:O	47:CI:139:ARG:HA	2.20	0.42
79:CJ:136:ARG:N	79:CJ:139:PHE:CE2	2.88	0.42
42:CL:135:LYS:HG3	42:CL:136:LYS:H	1.84	0.42
42:CL:161:TYR:C	42:CL:162:LYS:HG3	2.39	0.42
41:CO:119:VAL:HG11	41:CO:124:LEU:CD1	2.33	0.42
41:CO:184:ASN:O	41:CO:188:LYS:N	2.53	0.42
41:CO:187:LYS:O	41:CO:188:LYS:C	2.58	0.42
41:CO:88:LEU:HD13	41:CO:99:LEU:CD2	2.45	0.42
54:CP:83:TRP:N	54:CP:84:PRO:HD3	2.31	0.42
49:CQ:15:ARG:HH12	49:CQ:19:LYS:CA	2.33	0.42
50:CR:142:ILE:CA	50:CR:145:LEU:HD21	2.43	0.42
52:CS:43:ARG:O	52:CS:47:PHE:CD2	2.66	0.42
52:CS:78:PHE:CE1	52:CS:130:GLU:C	2.93	0.42
52:CS:95:ARG:CG	52:CS:97:TYR:HE1	2.33	0.42
55:CU:93:LYS:HD2	55:CU:93:LYS:HA	1.76	0.42
58:CW:13:ILE:HD11	58:CW:32:LEU:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CZ:22:LYS:HE3	59:CZ:134:LEU:HB2	2.00	0.42
85:A5:1269:G:C8	85:A5:2111:G:N1	2.80	0.42
85:A5:1431:C:H2'	85:A5:1432:G:C5'	2.49	0.42
85:A5:2253:A:C8	85:A5:2254:G:H1'	2.54	0.42
87:A8:108:A:H2'	87:A8:109:C:O4'	2.20	0.42
16:AA:19:LEU:HA	16:AA:19:LEU:HD23	1.79	0.42
16:AA:5:LEU:CD1	16:AA:6:ASP:CB	2.97	0.42
28:AC:233:LEU:C	28:AC:233:LEU:HD12	2.39	0.42
23:AD:25:LEU:N	23:AD:25:LEU:HD22	2.34	0.42
27:AE:166:THR:C	27:AE:168:LYS:HG2	2.40	0.42
27:AE:205:PHE:CZ	27:AE:221:ARG:NH1	2.85	0.42
27:AE:53:LYS:HD3	27:AE:53:LYS:HA	1.80	0.42
30:AF:42:LYS:O	30:AF:45:TYR:N	2.53	0.42
29:AG:25:ARG:HG3	29:AG:28:TYR:CE2	2.47	0.42
31:AH:31:GLU:O	31:AH:37:LYS:CB	2.67	0.42
4:AK:31:LYS:HA	4:AK:40:VAL:O	2.20	0.42
4:AK:4:PRO:HG2	4:AK:7:ASN:CG	2.39	0.42
4:AK:51:SER:O	4:AK:55:ARG:HG2	2.19	0.42
4:AK:84:HIS:NE2	7:AM:27:ILE:HD11	2.34	0.42
10:AN:99:ARG:O	10:AN:103:GLU:HG2	2.20	0.42
5:AO:90:ILE:O	5:AO:124:MET:HE1	2.20	0.42
13:AP:41:GLN:NE2	13:AP:84:ILE:CG1	2.79	0.42
34:AQ:17:LYS:HB3	34:AQ:18:THR:H	1.70	0.42
8:AS:118:ARG:NH1	13:AP:108:LYS:HZ1	2.17	0.42
8:AS:77:TYR:O	8:AS:78:LYS:HB2	2.19	0.42
14:AT:44:GLU:HG2	14:AT:44:GLU:H	1.51	0.42
14:AT:78:ILE:CG2	14:AT:79:TYR:N	2.82	0.42
3:AU:77:TRP:CD1	34:AQ:132:PHE:HB2	2.54	0.42
32:AW:15:ASN:O	32:AW:19:LYS:HG3	2.20	0.42
31:AH:146:VAL:HG23	32:AW:50:PHE:CD1	2.52	0.42
32:AW:94:LEU:HA	32:AW:95:PRO:HD3	1.81	0.42
18:AY:58:PHE:HE1	18:AY:72:PHE:CD2	2.32	0.42
18:AY:55:ILE:HA	18:AY:75:ILE:HG12	2.02	0.42
19:AZ:91:LEU:HD21	19:AZ:96:LEU:HD12	1.98	0.42
36:B2:1237:C:O4'	36:B2:1237:C:C6	2.72	0.42
36:B2:1451:G:H1'	36:B2:1474:A:N6	2.35	0.42
36:B2:23:G:H1	36:B2:651:U:H3	1.67	0.42
51:CA:105:GLY:HA3	51:CA:160:SER:HB3	2.01	0.42
63:CB:112:ASP:N	63:CB:115:LYS:H	2.16	0.42
63:CB:203:GLN:HA	63:CB:203:GLN:HE21	1.83	0.42
74:CC:321:ASN:HD22	74:CC:322:LEU:H	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:63:SER:O	74:CC:80:ARG:NH1	2.53	0.42
48:CD:210:TYR:HE1	48:CD:214:GLU:OE2	2.01	0.42
48:CD:271:MET:HE1	48:CD:275:GLN:CD	2.38	0.42
48:CD:42:ASN:OD1	53:CT:67:VAL:HB	2.17	0.42
81:CE:212:LEU:CD2	81:CE:216:TYR:CD2	3.02	0.42
81:CE:242:ILE:HG13	81:CE:246:ARG:HD2	1.96	0.42
81:CE:76:ALA:C	81:CE:77:LYS:HG3	2.39	0.42
64:CF:135:ILE:CG2	64:CF:136:VAL:N	2.83	0.42
82:CG:255:LYS:HD3	82:CG:255:LYS:C	2.40	0.42
82:CG:71:TYR:CD1	82:CG:72:LYS:CG	3.03	0.42
80:CH:137:SER:HB3	80:CH:145:ILE:HD12	2.01	0.42
80:CH:156:ASN:O	80:CH:160:LEU:HG	2.19	0.42
80:CH:15:ASN:CB	80:CH:30:PRO:HD3	2.46	0.42
80:CH:56:ARG:CD	80:CH:58:ASP:OD2	2.67	0.42
80:CH:86:LEU:HD21	80:CH:189:GLN:OE1	2.19	0.42
79:CJ:146:ARG:HH22	79:CJ:147:ARG:CZ	2.31	0.42
44:CM:96:GLU:CD	44:CM:96:GLU:O	2.58	0.42
46:CN:58:GLY:O	46:CN:142:ILE:HD11	2.20	0.42
41:CO:37:ARG:CG	41:CO:39:GLU:OE2	2.68	0.42
49:CQ:10:ASP:HB2	49:CQ:11:ARG:HG2	2.01	0.42
52:CS:38:VAL:CG1	52:CS:39:VAL:N	2.83	0.42
52:CS:91:HIS:CD2	52:CS:91:HIS:N	2.88	0.42
53:CT:147:GLU:HB2	53:CT:148:PRO:HD2	2.02	0.42
58:CW:119:LYS:HA	58:CW:122:SER:OG	2.20	0.42
56:CX:81:LEU:CD2	56:CX:129:ARG:NH1	2.81	0.42
59:CZ:48:ARG:NH2	85:A5:2575:U:C4	2.87	0.42
85:A5:78:U:C2	85:A5:336:A:C2	3.07	0.42
85:A5:4320:G:H2'	85:A5:4321:U:C6	2.55	0.42
85:A5:1964:A:O2'	85:A5:4695:C:C2	2.61	0.42
85:A5:4748:U:H2'	85:A5:4749:C:C5'	2.50	0.42
86:A7:15:C:H2'	86:A7:16:A:C8	2.54	0.42
86:A7:38:U:N3	86:A7:40:U:H5''	2.35	0.42
16:AA:152:SER:HB3	16:AA:153:PRO:HD2	2.01	0.42
12:AR:101:ASP:C	16:AA:48:ILE:HD13	2.40	0.42
28:AC:142:LYS:CD	28:AC:157:LEU:HD11	2.42	0.42
28:AC:63:VAL:HG23	28:AC:90:GLU:HG2	2.01	0.42
4:AK:64:TRP:CE3	23:AD:20:GLU:HG2	2.55	0.42
27:AE:118:GLU:HA	27:AE:121:TYR:CE2	2.54	0.42
29:AG:177:GLN:O	29:AG:178:ARG:CB	2.68	0.42
29:AG:183:ARG:O	29:AG:187:HIS:CD2	2.73	0.42
33:AI:139:LYS:CD	33:AI:145:ILE:CD1	2.98	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AI:141:ARG:C	33:AI:143:LYS:CB	2.85	0.42
33:AI:93:THR:O	33:AI:94:LYS:HB2	2.20	0.42
4:AK:37:ASP:CA	4:AK:38:LYS:HD3	2.50	0.42
11:AL:146:THR:CG2	11:AL:147:LYS:N	2.80	0.42
11:AL:82:MET:SD	11:AL:85:THR:CG2	3.08	0.42
10:AN:16:LEU:HD23	10:AN:16:LEU:HA	1.79	0.42
10:AN:38:TYR:CZ	10:AN:78:LYS:CG	3.02	0.42
10:AN:56:ASP:OD1	15:AB:52:THR:CG2	84.59	0.42
5:AO:136:PRO:O	5:AO:138:ASP:CA	2.63	0.42
5:AO:28:PHE:CE1	5:AO:92:ALA:CB	3.02	0.42
13:AP:110:GLU:CD	13:AP:110:GLU:N	2.70	0.42
34:AQ:109:LYS:HZ1	34:AQ:113:ILE:CD1	2.31	0.42
8:AS:46:ARG:NH1	14:AT:50:GLU:CA	2.82	0.42
14:AT:47:PRO:CG	14:AT:52:TRP:CD1	3.02	0.42
14:AT:5:THR:HG21	14:AT:7:LYS:HB2	2.00	0.42
3:AU:61:LEU:O	3:AU:81:GLN:HA	2.19	0.42
17:AV:64:GLU:O	17:AV:67:ASP:N	2.53	0.42
16:AA:57:LYS:NZ	17:AV:70:LEU:HD21	2.35	0.42
32:AW:24:GLN:N	32:AW:24:GLN:OE1	2.53	0.42
32:AW:78:ARG:NE	32:AW:126:LEU:HD23	2.35	0.42
6:AX:58:GLU:O	6:AX:59:ALA:C	2.58	0.42
6:AX:77:ASN:C	6:AX:79:LYS:N	2.73	0.42
18:AY:18:LEU:HB3	18:AY:20:ARG:NE	2.33	0.42
18:AY:93:ARG:O	18:AY:93:ARG:CD	2.65	0.42
36:B2:1301:A:C2'	36:B2:1302:G:H5''	2.50	0.42
36:B2:1659:U:O2	36:B2:1664:A:N1	2.53	0.42
33:AI:33:ALA:HB2	36:B2:378:U:O2'	2.19	0.42
51:CA:101:VAL:HG13	51:CA:101:VAL:O	2.19	0.42
51:CA:234:LYS:C	51:CA:238:ILE:HD11	2.40	0.42
63:CB:117:ARG:HD3	63:CB:117:ARG:HA	1.80	0.42
63:CB:47:LEU:CG	63:CB:166:THR:HG21	2.48	0.42
63:CB:231:VAL:CG1	63:CB:232:THR:N	2.83	0.42
48:CD:258:LYS:HG3	48:CD:259:LYS:N	2.35	0.42
81:CE:103:GLY:HA2	85:A5:688:U:C5'	2.50	0.42
81:CE:248:ILE:CG2	81:CE:249:ASP:N	2.82	0.42
64:CF:29:LYS:HE2	64:CF:30:ILE:HD12	2.01	0.42
82:CG:143:VAL:HG22	82:CG:146:LEU:HD21	2.02	0.42
82:CG:82:GLN:CG	82:CG:233:ILE:HG22	2.38	0.42
82:CG:250:ILE:CG2	82:CG:251:ALA:N	2.82	0.42
15:AB:57:ILE:CA	82:CG:264:LYS:HE3	2.49	0.42
80:CH:79:ASN:CA	80:CH:82:LYS:HG3	2.42	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CI:177:ASN:HB3	47:CI:180:GLU:CD	2.34	0.42
47:CI:205:PRO:CD	47:CI:206:LEU:N	2.82	0.42
79:CJ:139:PHE:HA	79:CJ:151:ILE:HD11	2.00	0.42
79:CJ:135:GLY:CA	79:CJ:157:ILE:CD1	2.84	0.42
40:CK:131:GLU:HG2	40:CK:152:ILE:CG2	2.24	0.42
40:CK:39:PRO:CG	40:CK:42:VAL:HB	2.49	0.42
40:CK:88:PRO:CB	40:CK:89:PRO:HB3	2.50	0.42
44:CM:23:LYS:HD3	44:CM:43:THR:HB	2.01	0.42
46:CN:159:ARG:HA	46:CN:162:ARG:HH21	1.85	0.42
54:CP:27:LYS:O	54:CP:27:LYS:CE	6.38	0.42
49:CQ:151:HIS:HE1	49:CQ:164:LYS:CD	2.32	0.42
49:CQ:19:LYS:CE	49:CQ:20:SER:HB2	2.49	0.42
50:CR:28:GLU:CG	50:CR:49:LEU:HD22	2.32	0.42
50:CR:51:ILE:HG22	50:CR:52:ARG:N	2.35	0.42
52:CS:168:THR:HG23	52:CS:170:LYS:N	2.31	0.42
52:CS:84:TYR:CZ	52:CS:86:SER:HA	2.54	0.42
52:CS:88:SER:CB	52:CS:89:GLY:CA	2.97	0.42
53:CT:14:MET:HE3	53:CT:55:LYS:CB	2.49	0.42
55:CU:60:VAL:O	55:CU:61:VAL:CG1	2.68	0.42
43:CV:106:VAL:HG11	43:CV:110:GLY:CA	2.45	0.42
56:CX:119:ILE:CD1	56:CX:140:LEU:HD13	2.50	0.42
57:CY:64:GLY:C	57:CY:65:GLN:CG	2.88	0.42
59:CZ:11:VAL:CG1	59:CZ:80:LEU:CB	2.53	0.42
85:A5:1215:C:C5	85:A5:1216:C:C5	3.08	0.42
85:A5:973:G:N2	85:A5:1282:G:C8	2.88	0.42
85:A5:1906:U:C2'	85:A5:1907:A:H5''	2.49	0.42
85:A5:4543:G:C6	85:A5:4544:A:C6	3.08	0.42
85:A5:4751:G:C2'	85:A5:4752:U:H5'	2.50	0.42
86:A7:1:G:H2'	86:A7:2:U:H6	1.85	0.42
56:CX:62:ARG:NH1	87:A8:135:C:H4'	2.30	0.42
16:AA:124:VAL:CG1	16:AA:130:ASP:HB2	2.50	0.42
15:AB:188:LEU:HD22	15:AB:212:VAL:CG2	2.49	0.42
28:AC:110:MET:HA	28:AC:111:PRO:HD3	1.82	0.42
28:AC:185:THR:O	28:AC:246:LYS:HD3	2.19	0.42
23:AD:132:LYS:CB	23:AD:191:PRO:CD	2.90	0.42
23:AD:6:SER:OG	23:AD:8:LYS:HG3	2.19	0.42
23:AD:79:PHE:CG	23:AD:84:VAL:HB	2.55	0.42
27:AE:167:GLY:C	27:AE:168:LYS:CG	2.88	0.42
29:AG:70:HIS:CD2	29:AG:103:ASP:OD2	2.73	0.42
29:AG:131:ARG:HG2	58:CW:80:ARG:HB3	2.02	0.42
29:AG:26:THR:HG21	29:AG:40:ALA:HB1	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AG:80:GLY:C	29:AG:81:HIS:CG	2.92	0.42
31:AH:103:LYS:HG3	31:AH:103:LYS:O	2.18	0.42
26:AJ:127:ARG:CG	26:AJ:127:ARG:NH1	2.38	0.42
26:AJ:37:LEU:CD2	26:AJ:43:VAL:N	2.79	0.42
26:AJ:83:ARG:H	26:AJ:83:ARG:HG3	1.58	0.42
4:AK:14:LEU:HB2	4:AK:35:LEU:HD21	2.02	0.42
4:AK:4:PRO:HD2	4:AK:44:HIS:CE1	2.55	0.42
10:AN:114:ARG:HD3	10:AN:114:ARG:HA	1.45	0.42
5:AO:143:LYS:HG3	5:AO:144:GLY:N	2.34	0.42
13:AP:41:GLN:HE21	13:AP:84:ILE:CG1	2.22	0.42
34:AQ:32:ILE:C	34:AQ:39:LEU:HG	2.40	0.42
34:AQ:8:GLN:CB	34:AQ:99:TYR:CD1	2.95	0.42
8:AS:10:GLN:NE2	8:AS:57:GLY:O	2.44	0.42
8:AS:7:GLU:HA	8:AS:7:GLU:OE2	2.16	0.42
17:AV:40:ASP:O	17:AV:42:VAL:CG2	2.63	0.42
32:AW:42:MET:CE	32:AW:50:PHE:HD2	2.10	0.42
18:AY:32:LYS:CG	18:AY:33:ALA:O	2.62	0.42
18:AY:87:PRO:HB2	18:AY:89:HIS:ND1	2.30	0.42
19:AZ:62:VAL:HA	19:AZ:65:TYR:CZ	2.54	0.42
36:B2:1129:G:C6	36:B2:1130:G:C6	3.08	0.42
36:B2:183:G:C6	36:B2:184:G:C6	3.07	0.42
36:B2:338:G:H2'	36:B2:339:A:C8	2.55	0.42
36:B2:99:A:H61	36:B2:433:A:H1'	1.85	0.42
63:CB:81:THR:HG21	63:CB:207:VAL:HG11	2.01	0.42
63:CB:282:LYS:O	63:CB:333:LEU:HD11	2.20	0.42
63:CB:89:ILE:HG21	63:CB:197:ALA:CB	2.50	0.42
74:CC:147:VAL:CA	74:CC:175:LYS:HG3	2.34	0.42
74:CC:232:VAL:O	74:CC:263:LEU:HD13	2.14	0.42
81:CE:138:ARG:NH2	81:CE:171:GLY:HA2	2.35	0.42
81:CE:152:ILE:HG22	81:CE:160:LYS:H	1.83	0.42
64:CF:199:LYS:H	64:CF:199:LYS:HG2	1.49	0.42
82:CG:263:THR:CG2	82:CG:264:LYS:N	2.83	0.42
82:CG:62:ARG:CG	82:CG:63:LEU:HD23	2.50	0.42
47:CI:199:TYR:HA	47:CI:200:VAL:HG23	2.00	0.42
48:CD:152:ARG:CB	79:CJ:145:LYS:NZ	2.77	0.42
40:CK:110:VAL:O	40:CK:110:VAL:CG1	2.67	0.42
40:CK:111:ASN:C	40:CK:114:ARG:HG2	2.40	0.42
40:CK:80:LEU:HD23	40:CK:83:LYS:HD2	2.02	0.42
41:CO:119:VAL:CG1	41:CO:120:VAL:H	2.32	0.42
41:CO:16:LEU:HD11	41:CO:43:ILE:HD11	1.78	0.42
54:CP:71:ALA:CB	54:CP:74:LYS:CE	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CP:93:HIS:C	54:CP:95:LEU:N	2.73	0.42
50:CR:24:LEU:HD23	50:CR:24:LEU:HA	1.77	0.42
52:CS:17:LEU:HB2	52:CS:18:PRO:HD2	2.01	0.42
52:CS:9:GLU:HB3	52:CS:67:VAL:HG12	2.01	0.42
55:CU:27:HIS:HB3	55:CU:28:PRO:HD3	2.01	0.42
58:CW:91:MET:O	58:CW:95:ASN:CG	2.58	0.42
57:CY:66:GLN:N	57:CY:67:ILE:HG13	2.34	0.42
59:CZ:33:THR:CB	59:CZ:36:ARG:H	2.24	0.42
59:CZ:68:ILE:HG22	59:CZ:119:GLU:HG2	1.96	0.42
85:A5:1290:G:H1'	85:A5:4942:C:C4	2.55	0.42
85:A5:290:U:O2'	85:A5:291:U:H5'	2.20	0.42
85:A5:481:G:C6	85:A5:482:G:C5	3.07	0.42
87:A8:89:U:H2'	87:A8:90:C:C6	2.55	0.42
85:A5:425:U:H3	87:A8:9:A:H61	1.67	0.42
16:AA:18:PHE:HZ	16:AA:55:TRP:CZ3	2.37	0.42
15:AB:147:ASN:C	15:AB:149:GLN:H	2.22	0.42
17:AV:15:ARG:NH2	28:AC:83:LEU:O	2.52	0.42
23:AD:142:LEU:C	23:AD:144:GLY:H	2.22	0.42
27:AE:123:LEU:HA	27:AE:123:LEU:HD12	1.77	0.42
27:AE:48:LEU:HD12	27:AE:48:LEU:HA	1.82	0.42
30:AF:112:LEU:HD23	30:AF:112:LEU:C	2.39	0.42
30:AF:44:LYS:HA	30:AF:44:LYS:HD2	1.56	0.42
19:AZ:103:HIS:HB2	30:AF:95:HIS:NE2	2.35	0.42
29:AG:170:ARG:CD	29:AG:171:THR:O	2.67	0.42
29:AG:78:SER:OG	29:AG:81:HIS:NE2	2.52	0.42
31:AH:115:LYS:O	31:AH:116:ARG:CB	2.50	0.42
33:AI:55:TYR:CE2	36:B2:305:U:O2	2.73	0.42
26:AJ:79:ARG:CD	26:AJ:83:ARG:HD2	2.49	0.42
4:AK:64:TRP:O	4:AK:65:ARG:C	2.58	0.42
4:AK:16:PHE:CZ	4:AK:76:ILE:O	2.73	0.42
7:AM:113:ASP:C	7:AM:115:GLY:H	2.23	0.42
10:AN:64:ARG:HH22	36:B2:918:U:H5'	1.84	0.42
12:AR:104:GLU:O	16:AA:39:TYR:OH	2.29	0.42
14:AT:37:VAL:HG12	14:AT:39:LEU:N	2.35	0.42
32:AW:11:LEU:CA	32:AW:14:ILE:HG12	2.49	0.42
6:AX:32:LEU:O	6:AX:37:LYS:NZ	2.52	0.42
18:AY:54:VAL:HG23	18:AY:79:LEU:CD2	2.43	0.42
18:AY:21:LYS:CE	18:AY:77:ASP:OD1	2.48	0.42
18:AY:7:ILE:HD11	18:AY:43:LYS:HD2	1.97	0.42
36:B2:1542:C:C5	36:B2:1543:U:C5	3.08	0.42
36:B2:488:U:H5'	36:B2:489:A:H5'	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:115:LYS:NZ	63:CB:122:TRP:HZ3	1.97	0.42
63:CB:139:ASP:O	63:CB:141:ASP:HB2	2.20	0.42
63:CB:167:GLN:HE22	63:CB:204:GLN:HG2	1.84	0.42
63:CB:80:GLU:CG	63:CB:171:LEU:HD13	2.49	0.42
63:CB:282:LYS:CB	63:CB:333:LEU:CD1	2.90	0.42
43:CV:91:LYS:NZ	63:CB:67:VAL:HG21	2.31	0.42
74:CC:100:ARG:HD2	74:CC:101:MET:O	2.20	0.42
74:CC:323:ARG:HG3	74:CC:327:LYS:HB2	2.01	0.42
74:CC:72:ALA:C	74:CC:73:VAL:HG23	2.39	0.42
48:CD:83:LEU:HD23	48:CD:104:LEU:HD11	2.02	0.42
81:CE:239:LYS:HD2	85:A5:4939:C:H5	1.68	0.42
81:CE:256:GLN:HB3	81:CE:256:GLN:HE21	1.47	0.42
64:CF:213:LEU:CD1	64:CF:244:ILE:HD12	2.50	0.42
64:CF:243:LEU:CD2	64:CF:247:MET:SD	3.07	0.42
82:CG:34:LYS:NZ	82:CG:34:LYS:O	2.53	0.42
80:CH:110:SER:HG	80:CH:128:MET:N	1.87	0.42
40:CK:29:ALA:N	40:CK:30:PRO:HD2	2.35	0.42
40:CK:39:PRO:CB	40:CK:42:VAL:HB	2.50	0.42
40:CK:58:ILE:O	40:CK:59:THR:CG2	2.68	0.42
40:CK:84:ALA:C	40:CK:86:LYS:H	2.19	0.42
42:CL:191:LEU:O	42:CL:194:ILE:HB	2.19	0.42
42:CL:31:ARG:NE	42:CL:31:ARG:CA	2.83	0.42
42:CL:45:ARG:HD2	42:CL:45:ARG:HA	4.44	0.42
44:CM:23:LYS:CD	44:CM:43:THR:HB	2.49	0.42
46:CN:45:PRO:HG2	82:CG:166:LEU:CD2	2.42	0.42
41:CO:122:ALA:HA	52:CS:161:ARG:HB3	2.02	0.42
54:CP:53:LEU:HD22	54:CP:53:LEU:HA	1.79	0.42
50:CR:106:LEU:HD11	50:CR:138:LEU:HD13	2.02	0.42
52:CS:164:LYS:CE	52:CS:164:LYS:HA	2.40	0.42
52:CS:17:LEU:CB	52:CS:18:PRO:CD	2.96	0.42
52:CS:12:VAL:CG1	52:CS:44:PHE:CD1	3.03	0.42
52:CS:74:ARG:CB	52:CS:76:LYS:NZ	2.62	0.42
48:CD:41:LYS:HG3	53:CT:93:ILE:HD11	1.92	0.42
43:CV:51:ARG:HH21	43:CV:51:ARG:HG3	1.85	0.42
43:CV:42:VAL:HG21	43:CV:54:ALA:C	2.41	0.42
57:CY:69:LYS:HE2	57:CY:69:LYS:HB3	1.67	0.42
57:CY:85:VAL:HG11	57:CY:99:ILE:HD11	2.02	0.42
85:A5:1303:A:H2'	85:A5:1304:C:H5''	2.01	0.41
42:CL:36:ARG:HH22	85:A5:1363:C:H41	1.66	0.41
85:A5:1398:A:C2	85:A5:1399:G:H1'	2.55	0.41
85:A5:2670:C:H2'	85:A5:2671:C:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:4754:G:H2'	85:A5:4755:G:O4'	2.20	0.41
85:A5:4910:G:O2'	85:A5:4911:A:H8	2.02	0.41
85:A5:4941:G:O2'	85:A5:4942:C:C5'	2.67	0.41
16:AA:49:ILE:HG22	16:AA:50:ASN:N	2.35	0.41
28:AC:253:PRO:HA	28:AC:256:TRP:NE1	2.35	0.41
23:AD:164:VAL:CG1	23:AD:165:ASN:N	2.83	0.41
27:AE:174:LYS:HB2	27:AE:174:LYS:HE3	1.87	0.41
30:AF:154:LEU:HD12	30:AF:155:CYS:SG	2.58	0.41
29:AG:210:ALA:O	29:AG:213:LEU:CD1	2.68	0.41
4:AK:9:ILE:CG2	4:AK:10:ALA:N	2.82	0.41
4:AK:49:MET:HB3	4:AK:69:TRP:CE2	2.55	0.41
10:AN:27:LYS:HE3	10:AN:27:LYS:H	1.71	0.41
10:AN:36:GLN:O	10:AN:40:LEU:HG	2.19	0.41
34:AQ:9:SER:HA	34:AQ:26:LYS:HG3	1.98	0.41
34:AQ:49:TYR:C	34:AQ:53:GLU:HG3	2.39	0.41
12:AR:21:TYR:CG	12:AR:71:ILE:CD1	2.98	0.41
14:AT:40:ALA:O	14:AT:43:LYS:HG2	2.20	0.41
6:AX:1:MET:N	6:AX:1:MET:SD	2.80	0.41
6:AX:5:ARG:HB3	6:AX:5:ARG:HH21	1.77	0.41
18:AY:120:THR:HG22	36:B2:151:C:OP1	2.20	0.41
36:B2:1462:U:H3'	36:B2:1463:U:H5'	2.02	0.41
36:B2:1586:U:H3'	36:B2:1587:G:C5'	2.49	0.41
36:B2:210:U:H2'	36:B2:211:G:O5'	2.19	0.41
36:B2:747:U:H3	36:B2:794:A:H61	1.68	0.41
63:CB:226:LYS:HB2	63:CB:272:LYS:O	2.20	0.41
63:CB:56:ILE:HD12	63:CB:368:ILE:HA	2.02	0.41
63:CB:37:PRO:O	63:CB:38:SER:HB3	2.19	0.41
63:CB:85:VAL:CG1	63:CB:165:HIS:CE1	3.03	0.41
74:CC:47:ASN:CA	74:CC:112:HIS:ND1	2.77	0.41
74:CC:223:ASN:HD21	85:A5:225:G:H3'	1.84	0.41
64:CF:47:ARG:NH2	74:CC:327:LYS:O	2.53	0.41
81:CE:126:LEU:CD1	81:CE:127:SER:N	2.83	0.41
81:CE:192:LYS:HD2	81:CE:192:LYS:HA	1.83	0.41
81:CE:70:LYS:CA	81:CE:72:LYS:HE3	2.49	0.41
64:CF:161:LYS:HE2	64:CF:161:LYS:HB3	1.88	0.41
64:CF:20:LYS:HE2	64:CF:21:LYS:CD	2.49	0.41
64:CF:22:ARG:HG3	64:CF:22:ARG:NH1	4.77	0.41
82:CG:240:ASN:O	82:CG:240:ASN:CG	2.59	0.41
80:CH:92:MET:CE	80:CH:161:ILE:HG23	2.50	0.41
80:CH:92:MET:HE2	80:CH:179:ILE:HG22	2.02	0.41
80:CH:9:THR:HG21	80:CH:54:ARG:NH1	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:CI:175:LYS:CA	47:CI:176:PHE:CD1	3.03	0.41
79:CJ:32:ARG:HG3	79:CJ:35:ARG:NH2	2.31	0.41
42:CL:48:PRO:HB3	42:CL:144:LEU:HD21	2.02	0.41
42:CL:79:GLU:CD	42:CL:79:GLU:H	2.24	0.41
42:CL:88:LYS:HG2	42:CL:88:LYS:H	1.67	0.41
44:CM:70:GLN:O	44:CM:72:TYR:N	2.53	0.41
46:CN:149:GLN:O	46:CN:152:THR:N	2.43	0.41
41:CO:125:LYS:NZ	41:CO:135:PHE:CZ	2.83	0.41
41:CO:172:LYS:HE2	41:CO:172:LYS:HB3	1.94	0.41
41:CO:190:ASP:CG	41:CO:193:THR:CB	2.65	0.41
41:CO:4:VAL:HG11	41:CO:7:LEU:HD23	2.02	0.41
41:CO:27:VAL:HG11	41:CO:98:ALA:O	2.15	0.41
52:CS:124:ILE:HG22	52:CS:125:GLN:N	2.35	0.41
52:CS:70:LYS:HE3	52:CS:70:LYS:HB2	1.81	0.41
53:CT:147:GLU:N	53:CT:147:GLU:CD	2.72	0.41
53:CT:91:VAL:HG12	53:CT:96:ILE:HD11	2.02	0.41
55:CU:118:ASN:O	55:CU:119:GLN:C	2.57	0.41
55:CU:60:VAL:O	55:CU:74:SER:CA	2.67	0.41
43:CV:82:ILE:O	43:CV:83:ARG:HG3	2.19	0.41
56:CX:77:ILE:HA	56:CX:100:VAL:CG2	2.35	0.41
57:CY:34:LEU:HD12	57:CY:106:ILE:O	2.20	0.41
59:CZ:64:LYS:O	59:CZ:67:LYS:HG2	2.20	0.41
85:A5:2097:U:O2'	85:A5:2097:U:C6	2.73	0.41
58:CW:19:ARG:HH21	85:A5:4630:G:H5'	1.85	0.41
87:A8:108:A:C2	87:A8:112:G:C4	3.08	0.41
26:AJ:54:ARG:HH22	28:AC:201:GLY:CA	2.33	0.41
28:AC:211:LYS:CD	28:AC:211:LYS:C	2.88	0.41
28:AC:69:LEU:HB3	28:AC:75:ILE:HG13	2.02	0.41
23:AD:192:TRP:C	23:AD:194:PRO:N	2.61	0.41
33:AI:191:GLU:CA	33:AI:195:LEU:HB2	2.50	0.41
26:AJ:50:LEU:HD12	26:AJ:102:ILE:HG12	2.02	0.41
4:AK:14:LEU:CD2	4:AK:35:LEU:HD11	2.49	0.41
11:AL:22:ARG:NH1	33:AI:157:LYS:HG2	2.34	0.41
11:AL:40:ILE:CG2	11:AL:41:GLY:N	2.83	0.41
11:AL:42:LEU:HB2	11:AL:44:PHE:CD2	2.54	0.41
7:AM:43:ASP:O	7:AM:44:LYS:HG3	2.20	0.41
7:AM:84:LYS:HB3	7:AM:88:TRP:CZ2	2.55	0.41
10:AN:60:VAL:O	10:AN:60:VAL:CG2	2.66	0.41
5:AO:17:LEU:HD21	15:AB:30:TRP:CD1	2.55	0.41
13:AP:67:ALA:HB2	13:AP:73:PRO:CG	2.50	0.41
14:AT:40:ALA:CA	14:AT:43:LYS:CG	2.97	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AU:19:ARG:CG	3:AU:92:HIS:HE1	2.30	0.41
3:AU:37:ALA:O	3:AU:41:ARG:HG3	2.20	0.41
3:AU:48:LEU:O	3:AU:49:LYS:CB	2.66	0.41
32:AW:17:ALA:CB	32:AW:25:VAL:HG11	2.45	0.41
19:AZ:104:ARG:HH11	19:AZ:104:ARG:C	2.23	0.41
19:AZ:77:LEU:C	19:AZ:78:LYS:HG2	2.38	0.41
34:AQ:13:PHE:CE2	36:B2:1397:U:N3	2.88	0.41
36:B2:1411:G:O6	36:B2:1412:C:C4	2.73	0.41
36:B2:1473:G:H21	36:B2:1475:G:H2'	1.85	0.41
36:B2:1823:A:H4'	36:B2:1824:A:H1'	2.02	0.41
36:B2:185:G:C6	36:B2:186:C:C4	3.08	0.41
36:B2:319:C:H2'	36:B2:320:G:C8	2.55	0.41
5:AO:137:SER:HB2	36:B2:942:G:H21	1.85	0.41
51:CA:6:ARG:CZ	51:CA:198:ARG:HG3	2.50	0.41
63:CB:108:GLU:OE2	63:CB:137:TRP:HB3	2.20	0.41
63:CB:316:PRO:CD	63:CB:320:PHE:CZ	3.03	0.41
63:CB:51:ALA:CA	63:CB:78:ILE:HD11	2.50	0.41
74:CC:128:LEU:HD23	74:CC:240:LEU:HD13	2.00	0.41
74:CC:143:ARG:HH22	74:CC:182:LYS:HD2	1.79	0.41
74:CC:210:ILE:CD1	74:CC:252:TRP:CZ2	3.00	0.41
48:CD:130:TYR:CZ	48:CD:132:VAL:HG22	2.54	0.41
48:CD:22:ARG:NH2	86:A7:6:C:C6	2.87	0.41
81:CE:113:PRO:HB3	85:A5:458:C:P	2.60	0.41
81:CE:62:MET:HB2	81:CE:62:MET:HE2	1.92	0.41
81:CE:65:ARG:N	81:CE:65:ARG:HD3	2.36	0.41
53:CT:137:GLU:O	64:CF:85:ALA:CB	2.68	0.41
82:CG:61:ILE:O	82:CG:64:GLN:HG2	2.20	0.41
82:CG:68:ALA:O	82:CG:71:TYR:HB3	2.20	0.41
47:CI:206:LEU:HG	48:CD:287:PHE:HE2	1.85	0.41
46:CN:64:ILE:CD1	46:CN:102:ALA:HB1	2.35	0.41
41:CO:125:LYS:CE	41:CO:135:PHE:CE2	2.93	0.41
41:CO:177:LEU:HD22	44:CM:130:LEU:HD11	2.01	0.41
41:CO:26:GLN:HB3	41:CO:31:ARG:HB3	2.01	0.41
49:CQ:25:LEU:CD1	49:CQ:28:LEU:HD11	2.50	0.41
49:CQ:32:TYR:HE1	49:CQ:47:VAL:HB	1.54	0.41
50:CR:42:ARG:O	50:CR:45:ILE:HG22	2.19	0.41
52:CS:106:VAL:HG12	52:CS:110:TYR:CE2	2.55	0.41
52:CS:19:THR:OG1	52:CS:20:PRO:HG2	2.15	0.41
52:CS:36:ASN:O	52:CS:37:HIS:C	2.56	0.41
52:CS:48:VAL:CG1	52:CS:49:SER:N	2.83	0.41
53:CT:139:HIS:O	64:CF:83:VAL:N	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CT:18:PRO:O	53:CT:19:PHE:C	2.58	0.41
55:CU:63:ILE:CD1	55:CU:72:VAL:HG13	2.50	0.41
43:CV:70:PRO:C	43:CV:72:LEU:H	2.22	0.41
57:CY:58:VAL:O	57:CY:63:LYS:CG	2.69	0.41
85:A5:1245:C:C6	85:A5:1269:G:C6	3.07	0.41
85:A5:1367:C:O2	85:A5:1369:C:C2	2.73	0.41
85:A5:4415:A:C2	85:A5:4416:G:H1'	2.54	0.41
81:CE:188:ARG:HH11	85:A5:4940:C:H4'	1.84	0.41
15:AB:145:LYS:CA	15:AB:149:GLN:OE1	2.68	0.41
15:AB:208:HIS:NE2	15:AB:209:ASP:OD2	2.53	0.41
15:AB:71:LEU:C	15:AB:79:VAL:HG21	2.40	0.41
15:AB:93:GLY:HA2	15:AB:94:LYS:HD3	2.01	0.41
27:AE:122:LYS:HD2	27:AE:164:LEU:HD21	2.01	0.41
27:AE:49:ARG:HD2	27:AE:50:ASN:CG	2.40	0.41
27:AE:86:PHE:CZ	27:AE:182:MET:SD	3.13	0.41
30:AF:167:LYS:CG	30:AF:171:GLU:HG2	2.50	0.41
31:AH:16:PRO:O	31:AH:20:GLU:OE2	2.37	0.41
31:AH:39:GLN:CG	31:AH:40:LEU:N	2.83	0.41
33:AI:141:ARG:O	33:AI:142:SER:HB3	2.19	0.41
26:AJ:114:VAL:C	26:AJ:120:ALA:HB3	2.41	0.41
26:AJ:66:LYS:C	26:AJ:71:LEU:CD1	2.89	0.41
4:AK:80:ARG:HA	4:AK:85:LEU:CD1	2.51	0.41
4:AK:94:LEU:CG	4:AK:95:ARG:N	2.82	0.41
11:AL:45:LYS:O	11:AL:47:PRO:HD3	2.20	0.41
7:AM:13:ASP:O	7:AM:14:VAL:C	2.58	0.41
10:AN:129:TYR:HB2	10:AN:135:LEU:HD12	2.02	0.41
5:AO:32:HIS:O	5:AO:43:HIS:HB3	2.20	0.41
13:AP:17:TYR:CE1	13:AP:18:ARG:HG3	2.55	0.41
13:AP:28:MET:SD	13:AP:32:GLN:OE1	2.78	0.41
13:AP:60:LEU:HD13	13:AP:89:MET:HG3	2.02	0.41
34:AQ:128:GLU:HG3	36:B2:1648:G:H3'	2.03	0.41
34:AQ:44:PRO:CB	34:AQ:81:ILE:HD11	2.50	0.41
8:AS:89:ASP:HB3	8:AS:90:VAL:H	1.47	0.41
14:AT:40:ALA:HB3	14:AT:43:LYS:HE3	2.02	0.41
3:AU:26:SER:HB2	3:AU:110:VAL:HA	2.03	0.41
17:AV:66:ASP:O	17:AV:67:ASP:O	2.39	0.41
18:AY:62:THR:OG1	36:B2:581:U:C4'	2.69	0.41
36:B2:1119:A:H3'	36:B2:1120:U:H5''	2.02	0.41
28:AC:113:GLN:NE2	36:B2:11:A:H5'	2.36	0.41
36:B2:1305:C:H2'	36:B2:1306:U:C6	2.55	0.41
36:B2:1083:A:C2	36:B2:1861:G:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AE:1:MET:HE2	36:B2:432:G:C8	2.52	0.41
31:AH:106:ARG:HD2	36:B2:861:A:C5	2.54	0.41
51:CA:30:ARG:NH1	51:CA:36:GLU:HG3	2.35	0.41
51:CA:52:PRO:O	51:CA:52:PRO:CD	2.68	0.41
51:CA:8:GLN:NE2	51:CA:232:GLY:N	2.69	0.41
63:CB:223:THR:O	63:CB:274:TYR:HA	2.19	0.41
63:CB:81:THR:HG21	63:CB:207:VAL:CG2	2.50	0.41
74:CC:187:GLN:HG3	74:CC:187:GLN:O	2.14	0.41
74:CC:5:ARG:CZ	74:CC:26:ALA:HB2	2.50	0.41
74:CC:28:PHE:CE1	74:CC:131:SER:N	2.89	0.41
74:CC:90:GLY:HA3	74:CC:97:ARG:O	2.20	0.41
48:CD:138:GLN:HB3	48:CD:139:PRO:CD	2.51	0.41
48:CD:207:TYR:CE1	48:CD:211:LEU:CD1	2.99	0.41
48:CD:214:GLU:O	48:CD:215:ASP:HB2	2.20	0.41
48:CD:223:PHE:CB	48:CD:226:TYR:HE2	2.25	0.41
81:CE:147:GLY:O	81:CE:201:ILE:CG2	2.46	0.41
81:CE:56:ARG:HG3	81:CE:57:TYR:HA	2.02	0.41
82:CG:115:LEU:CD2	82:CG:119:GLU:OE1	2.67	0.41
82:CG:217:LYS:NZ	82:CG:220:GLU:CB	2.83	0.41
82:CG:24:ALA:C	82:CG:26:LYS:H	2.23	0.41
82:CG:32:PHE:O	82:CG:33:GLU:CB	2.55	0.41
80:CH:103:VAL:HG22	80:CH:114:ILE:HG12	2.01	0.41
47:CI:76:MET:HG2	47:CI:151:ALA:HB1	2.02	0.41
79:CJ:144:LYS:HE3	79:CJ:146:ARG:O	2.20	0.41
79:CJ:56:THR:CG2	79:CJ:64:ARG:H	2.26	0.41
79:CJ:71:HIS:O	79:CJ:72:CYS:SG	2.72	0.41
40:CK:2:PRO:CA	40:CK:3:PRO:CD	2.98	0.41
42:CL:55:ILE:HD11	42:CL:120:TYR:CE2	2.50	0.41
42:CL:81:LEU:HB3	42:CL:86:ILE:O	2.20	0.41
46:CN:149:GLN:C	46:CN:151:ILE:N	2.71	0.41
46:CN:71:ARG:HB3	46:CN:71:ARG:HE	1.65	0.41
46:CN:99:GLN:HG3	46:CN:130:PHE:CE2	2.38	0.41
54:CP:49:LYS:O	54:CP:52:THR:OG1	2.35	0.41
50:CR:178:GLN:HA	50:CR:181:LYS:HB2	2.03	0.41
50:CR:183:GLU:O	50:CR:187:THR:HG23	2.20	0.41
53:CT:29:THR:CB	53:CT:30:TYR:CE2	3.04	0.41
55:CU:76:VAL:HG13	55:CU:77:PRO:HD2	2.01	0.41
55:CU:33:ILE:CD1	55:CU:96:LEU:CD2	2.99	0.41
58:CW:109:ILE:HG22	58:CW:113:LYS:CE	2.41	0.41
58:CW:88:ALA:O	58:CW:89:ASP:C	2.59	0.41
57:CY:42:TYR:CB	57:CY:44:VAL:HG23	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CL:35:ARG:HD2	85:A5:1361:G:H5''	2.02	0.41
85:A5:2471:G:C2	85:A5:2473:A:O4'	2.73	0.41
85:A5:2639:U:C2	85:A5:2694:G:C6	3.07	0.41
80:CH:98:HIS:CD2	85:A5:4602:A:H4'	2.55	0.41
16:AA:125:THR:HG22	16:AA:175:TRP:CE2	2.56	0.41
16:AA:11:LYS:HG3	16:AA:13:GLU:CG	2.40	0.41
23:AD:41:VAL:O	23:AD:41:VAL:HG13	2.19	0.41
27:AE:51:ARG:HG2	27:AE:111:VAL:HG23	2.02	0.41
30:AF:124:ASP:CA	30:AF:200:ALA:HB2	2.51	0.41
30:AF:134:VAL:HB	30:AF:136:ARG:NH2	2.34	0.41
30:AF:37:ASP:N	30:AF:37:ASP:OD1	2.53	0.41
30:AF:86:LYS:O	30:AF:90:VAL:HG23	2.19	0.41
29:AG:188:LYS:C	29:AG:191:ARG:HG2	2.41	0.41
31:AH:65:PRO:O	31:AH:66:VAL:HB	2.20	0.41
31:AH:80:VAL:HA	31:AH:83:LEU:CG	2.50	0.41
26:AJ:144:ILE:C	26:AJ:146:SER:N	2.72	0.41
26:AJ:53:ILE:HD13	26:AJ:105:PHE:CZ	2.55	0.41
4:AK:12:TYR:CD2	4:AK:79:LEU:HD22	2.56	0.41
11:AL:95:TYR:C	11:AL:96:ILE:HD12	2.40	0.41
7:AM:101:ARG:NE	7:AM:101:ARG:HA	2.36	0.41
7:AM:22:LEU:HD12	7:AM:88:TRP:HB3	2.02	0.41
13:AP:14:LYS:C	13:AP:22:LEU:HD23	2.37	0.41
34:AQ:49:TYR:O	34:AQ:53:GLU:N	2.50	0.41
8:AS:28:PHE:CE1	36:B2:1603:G:C8	3.08	0.41
14:AT:97:LYS:HZ3	36:B2:1569:A:P	2.44	0.41
6:AX:91:LEU:C	6:AX:93:PHE:H	2.19	0.41
18:AY:68:LYS:C	18:AY:69:THR:HG23	2.41	0.41
18:AY:99:LYS:HD2	18:AY:99:LYS:O	2.15	0.41
51:CA:120:PRO:CA	51:CA:162:ASN:OD1	2.68	0.41
51:CA:185:ALA:O	51:CA:188:LYS:HG2	2.20	0.41
51:CA:6:ARG:HH22	51:CA:198:ARG:CD	2.34	0.41
63:CB:229:LYS:HB2	63:CB:272:LYS:CB	2.50	0.41
63:CB:57:VAL:HG22	63:CB:73:VAL:HG12	2.02	0.41
63:CB:51:ALA:CB	63:CB:78:ILE:HD12	2.41	0.41
74:CC:12:SER:CB	74:CC:13:GLU:OE1	2.69	0.41
74:CC:170:LEU:HD12	74:CC:171:LEU:CA	2.48	0.41
74:CC:179:ASP:O	74:CC:182:LYS:HB3	2.20	0.41
74:CC:187:GLN:HB2	74:CC:187:GLN:HE21	1.55	0.41
81:CE:63:TYR:O	81:CE:66:LYS:CG	2.68	0.41
64:CF:183:GLY:O	64:CF:184:ILE:C	2.57	0.41
64:CF:226:HIS:H	64:CF:229:GLU:HB2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:CN:18:VAL:HG22	82:CG:79:ALA:HB3	2.02	0.41
80:CH:89:ARG:CD	80:CH:91:LYS:HE3	2.25	0.41
47:CI:38:ARG:HH11	47:CI:83:ASP:CB	2.31	0.41
40:CK:117:ARG:CG	40:CK:133:LEU:HD21	2.51	0.41
40:CK:134:GLY:O	40:CK:136:ALA:N	2.53	0.41
40:CK:50:THR:CG2	40:CK:72:GLU:HB2	2.50	0.41
41:CO:55:LEU:HA	41:CO:58:LEU:CD1	2.48	0.41
41:CO:7:LEU:CD1	52:CS:167:PHE:CZ	2.96	0.41
54:CP:41:ILE:HD12	54:CP:112:LEU:CA	2.40	0.41
49:CQ:146:ARG:CG	49:CQ:146:ARG:HH11	2.33	0.41
49:CQ:156:PRO:HB2	49:CQ:157:GLY:CA	2.50	0.41
49:CQ:61:LEU:HD23	49:CQ:141:GLY:HA2	2.01	0.41
49:CQ:63:LEU:HD11	49:CQ:113:ILE:HG13	2.01	0.41
50:CR:133:LYS:CD	50:CR:137:ILE:CD1	2.95	0.41
52:CS:114:GLY:O	52:CS:118:ARG:HA	2.21	0.41
41:CO:122:ALA:HB1	52:CS:161:ARG:HG3	2.03	0.41
52:CS:98:ARG:CD	52:CS:145:PHE:CD2	3.00	0.41
55:CU:58:GLY:O	55:CU:61:VAL:CG2	2.64	0.41
58:CW:88:ALA:O	58:CW:90:ILE:N	2.54	0.41
56:CX:119:ILE:HG12	56:CX:140:LEU:CD1	2.50	0.41
85:A5:355:A:C5	85:A5:356:G:C8	3.08	0.41
85:A5:3635:A:N7	85:A5:3692:A:H1'	2.36	0.41
85:A5:4465:U:C6	85:A5:4488:A:N6	2.88	0.41
16:AA:159:ILE:HD12	16:AA:159:ILE:HA	1.28	0.41
16:AA:161:ILE:CG2	16:AA:174:MET:HE2	2.51	0.41
16:AA:75:SER:HB2	16:AA:122:LEU:CD2	2.46	0.41
15:AB:24:PRO:O	15:AB:27:LYS:HB2	2.20	0.41
28:AC:128:VAL:HG12	28:AC:129:ALA:N	2.34	0.41
28:AC:169:TYR:CG	28:AC:173:LYS:HB3	2.56	0.41
28:AC:259:THR:C	28:AC:261:PHE:N	2.68	0.41
28:AC:58:LYS:CE	28:AC:58:LYS:HA	2.22	0.41
28:AC:78:LEU:HD12	28:AC:98:LEU:HD22	2.01	0.41
23:AD:166:TYR:HD1	23:AD:200:PRO:CG	2.33	0.41
30:AF:115:ALA:HB3	30:AF:116:ILE:HD13	2.02	0.41
30:AF:89:THR:HG23	30:AF:90:VAL:N	2.35	0.41
30:AF:93:VAL:C	30:AF:97:PHE:CD1	2.86	0.41
29:AG:65:GLN:C	29:AG:100:CYS:SG	2.99	0.41
29:AG:177:GLN:NE2	36:B2:315:C:C5'	2.83	0.41
31:AH:10:LYS:NZ	31:AH:16:PRO:C	2.74	0.41
31:AH:152:ARG:O	31:AH:153:LEU:HD23	2.21	0.41
31:AH:133:LEU:HD13	31:AH:173:PHE:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:37:LYS:HZ3	31:AH:41:ARG:CG	2.31	0.41
33:AI:144:LYS:HG2	36:B2:191:A:OP2	2.21	0.41
33:AI:191:GLU:HG2	33:AI:192:GLY:N	2.34	0.41
33:AI:73:THR:HG23	33:AI:73:THR:O	2.21	0.41
26:AJ:180:LYS:HD2	26:AJ:181:GLY:N	2.35	0.41
26:AJ:84:ILE:CD1	26:AJ:86:VAL:HG23	2.49	0.41
4:AK:57:TYR:O	4:AK:71:LEU:HD12	2.21	0.41
11:AL:4:ILE:HB	11:AL:5:GLN:H	1.56	0.41
11:AL:70:GLY:O	11:AL:72:ILE:HD12	2.20	0.41
7:AM:71:GLU:OE1	7:AM:71:GLU:CA	2.68	0.41
10:AN:116:ILE:HA	10:AN:119:GLU:OE1	2.20	0.41
34:AQ:15:ARG:NH1	34:AQ:20:THR:HG22	2.36	0.41
34:AQ:41:MET:HG2	34:AQ:41:MET:H	1.57	0.41
12:AR:91:LEU:CB	12:AR:92:ASP:C	2.66	0.41
8:AS:40:TYR:OH	8:AS:99:LEU:HD21	2.21	0.41
3:AU:44:LYS:HB2	3:AU:49:LYS:HA	2.02	0.41
3:AU:97:ILE:O	3:AU:101:ILE:HD12	2.20	0.41
6:AX:14:ARG:CA	11:AL:99:TYR:CZ	2.71	0.41
18:AY:102:THR:CG2	18:AY:107:ARG:HD3	2.50	0.41
36:B2:1287:A:N3	36:B2:1315:U:C5	2.88	0.41
36:B2:1541:G:C2'	36:B2:1542:C:H5'	2.51	0.41
36:B2:1204:A:N6	36:B2:1694:U:H3	2.18	0.41
36:B2:742:U:H6	36:B2:743:U:C6	2.39	0.41
51:CA:82:ILE:HG22	51:CA:83:HIS:N	2.36	0.41
74:CC:105:THR:O	74:CC:106:LYS:CD	2.69	0.41
74:CC:324:ILE:HG13	85:A5:1282:G:H5''	2.02	0.41
74:CC:370:ALA:C	74:CC:371:VAL:O	2.57	0.41
74:CC:6:PRO:O	74:CC:7:LEU:CB	2.66	0.41
74:CC:7:LEU:HD21	74:CC:21:ASN:ND2	2.36	0.41
81:CE:138:ARG:HH22	81:CE:171:GLY:H	1.65	0.41
81:CE:165:LEU:HB3	81:CE:174:LEU:HD23	1.98	0.41
81:CE:222:LEU:H	81:CE:222:LEU:CD2	2.34	0.41
81:CE:80:VAL:HB	81:CE:81:GLU:HB3	2.01	0.41
64:CF:105:VAL:HG13	64:CF:136:VAL:HG12	2.03	0.41
53:CT:141:VAL:O	64:CF:80:ASN:CA	2.69	0.41
82:CG:110:LYS:HD3	82:CG:110:LYS:HA	1.33	0.41
82:CG:120:LYS:C	82:CG:120:LYS:HD3	2.38	0.41
80:CH:18:ILE:HG22	80:CH:27:VAL:CG2	2.43	0.41
47:CI:144:ASN:O	47:CI:145:GLU:C	2.59	0.41
47:CI:7:ARG:HG3	47:CI:8:CYS:N	2.35	0.41
79:CJ:32:ARG:HA	79:CJ:35:ARG:NH2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CL:39:ARG:HH22	85:A5:1361:G:H4'	1.85	0.41
42:CL:76:PHE:CZ	42:CL:117:LEU:HD23	2.56	0.41
46:CN:34:SER:C	46:CN:65:ARG:HH11	2.24	0.41
36:B2:909:G:OP1	50:CR:172:ARG:HD3	2.21	0.41
50:CR:69:ALA:O	50:CR:74:ARG:N	2.44	0.41
50:CR:71:ARG:CZ	50:CR:71:ARG:CB	3.35	0.41
52:CS:2:LYS:CD	52:CS:43:ARG:CG	2.98	0.41
53:CT:138:ALA:CA	53:CT:139:HIS:CG	3.02	0.41
53:CT:80:VAL:CA	53:CT:83:LYS:H	2.33	0.41
58:CW:73:ARG:HG2	58:CW:74:ARG:O	2.21	0.41
29:AG:129:VAL:C	58:CW:80:ARG:NH1	2.74	0.41
85:A5:1268:G:H21	85:A5:1269:G:H2'	1.84	0.41
85:A5:1908:A:H8	85:A5:1908:A:O5'	2.03	0.41
85:A5:2693:G:C6	85:A5:2694:G:C6	3.09	0.41
85:A5:4459:U:H2'	85:A5:4460:U:C6	2.55	0.41
86:A7:54:A:H2'	86:A7:55:A:O4'	2.20	0.41
16:AA:57:LYS:NZ	17:AV:70:LEU:HG	2.31	0.41
15:AB:151:ARG:HD2	15:AB:153:THR:OG1	2.21	0.41
15:AB:161:VAL:HG12	15:AB:165:ARG:CZ	2.49	0.41
28:AC:117:ARG:CG	28:AC:118:ALA:N	2.56	0.41
28:AC:240:THR:HG23	28:AC:241:PHE:N	2.35	0.41
23:AD:145:GLN:HG3	23:AD:146:ARG:H	1.84	0.41
27:AE:151:ASP:HA	27:AE:152:PRO:HD3	1.45	0.41
27:AE:45:ILE:HA	27:AE:61:VAL:HG11	2.02	0.41
29:AG:64:LYS:HB3	29:AG:97:VAL:HG11	2.03	0.41
31:AH:121:THR:CG2	31:AH:124:ALA:HB2	2.50	0.41
31:AH:148:LEU:HD23	31:AH:148:LEU:C	2.39	0.41
31:AH:69:LEU:HD23	31:AH:69:LEU:HA	1.88	0.41
33:AI:145:ILE:O	33:AI:149:TYR:CD2	2.73	0.41
33:AI:154:LYS:NZ	33:AI:154:LYS:C	2.68	0.41
4:AK:58:VAL:HG23	4:AK:70:TYR:O	2.20	0.41
4:AK:62:PHE:CE1	4:AK:67:PHE:HE2	2.17	0.41
10:AN:16:LEU:HA	10:AN:17:PRO:HD3	1.87	0.41
8:AS:59:LEU:N	8:AS:59:LEU:HD12	2.31	0.41
14:AT:49:ASP:O	14:AT:52:TRP:HD1	2.03	0.41
16:AA:143:PRO:CG	17:AV:32:ILE:CG2	2.86	0.41
18:AY:104:ARG:HA	18:AY:107:ARG:CZ	2.51	0.41
3:AU:72:GLU:OE2	36:B2:1246:A:H1'	2.21	0.41
36:B2:1415:C:C5	36:B2:1416:C:N1	2.89	0.41
36:B2:1705:C:H2'	36:B2:1706:G:C8	2.56	0.41
36:B2:1823:A:C4'	36:B2:1824:A:O4'	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:1862:G:H1'	36:B2:1863:A:H2'	2.03	0.41
36:B2:689:U:C5	36:B2:742:U:N3	2.88	0.41
51:CA:104:VAL:CG2	51:CA:162:ASN:O	2.69	0.41
51:CA:180:LEU:HD23	51:CA:184:ARG:NH1	2.34	0.41
63:CB:123:HIS:CG	63:CB:124:LYS:N	2.88	0.41
63:CB:240:LEU:H	63:CB:240:LEU:HD22	1.85	0.41
74:CC:210:ILE:HG21	74:CC:252:TRP:HZ3	1.83	0.41
74:CC:322:LEU:O	74:CC:323:ARG:C	2.58	0.41
74:CC:341:LEU:HD13	74:CC:341:LEU:HA	1.77	0.41
74:CC:69:THR:CG2	74:CC:70:GLY:N	4.25	0.41
81:CE:162:VAL:CG1	81:CE:177:GLY:N	2.81	0.41
64:CF:30:ILE:O	64:CF:34:ARG:HG2	2.19	0.41
82:CG:31:LEU:CD1	82:CG:31:LEU:H	2.31	0.41
82:CG:73:ARG:HD3	82:CG:73:ARG:HA	1.62	0.41
47:CI:164:LYS:HE2	47:CI:164:LYS:HB3	1.64	0.41
79:CJ:48:PRO:HB2	79:CJ:70:VAL:CG2	2.50	0.41
42:CL:154:VAL:C	42:CL:155:MET:SD	2.92	0.41
42:CL:18:TRP:CZ3	42:CL:22:VAL:HG21	2.56	0.41
44:CM:14:TYR:CZ	44:CM:22:GLY:HA2	2.55	0.41
44:CM:86:TRP:HA	44:CM:86:TRP:CE3	2.55	0.41
46:CN:42:PRO:HG3	46:CN:61:ILE:HG21	2.02	0.41
46:CN:4:TYR:CA	46:CN:46:ASP:OD1	2.66	0.41
46:CN:67:ARG:HD2	46:CN:67:ARG:HA	1.37	0.41
41:CO:168:TYR:HB2	85:A5:4758:U:H1'	2.03	0.41
41:CO:64:THR:CG2	63:CB:261:ARG:CD	2.64	0.41
41:CO:80:PHE:O	41:CO:83:THR:OG1	2.32	0.41
54:CP:26:PHE:HB2	54:CP:144:CYS:SG	2.60	0.41
49:CQ:124:ASP:HB3	74:CC:284:MET:HG3	2.02	0.41
50:CR:53:LYS:HA	50:CR:54:PRO:HD2	1.70	0.41
52:CS:134:ALA:O	52:CS:135:SER:HB3	2.20	0.41
52:CS:27:LEU:N	52:CS:27:LEU:HD12	2.26	0.41
52:CS:9:GLU:CG	52:CS:33:PHE:CD2	3.03	0.41
55:CU:23:LEU:CD2	55:CU:110:TYR:C	2.88	0.41
55:CU:91:LEU:HD23	55:CU:91:LEU:HA	1.75	0.41
58:CW:87:LEU:O	58:CW:90:ILE:CG1	2.61	0.41
58:CW:90:ILE:HG23	58:CW:94:ARG:NE	2.35	0.41
56:CX:101:ASP:OD1	56:CX:102:VAL:N	2.53	0.41
56:CX:61:PRO:O	56:CX:62:ARG:HD3	2.20	0.41
85:A5:2079:G:C6	85:A5:2080:U:C4	3.09	0.41
85:A5:2770:C:C4	85:A5:2771:G:N7	2.88	0.41
85:A5:2835:A:H2'	85:A5:2836:A:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:2836:A:H2'	85:A5:2837:U:H5'	2.02	0.41
85:A5:469:C:C5	85:A5:684:G:N2	2.88	0.41
85:A5:4947:U:H2'	85:A5:4948:C:C5	2.53	0.41
48:CD:74:ILE:CD1	86:A7:115:A:H1'	2.49	0.41
87:A8:96:C:H2'	87:A8:97:A:C8	2.56	0.41
16:AA:123:VAL:HG12	16:AA:175:TRP:CH2	2.55	0.41
15:AB:182:LYS:O	15:AB:185:VAL:HB	2.21	0.41
15:AB:210:VAL:C	15:AB:211:PHE:CG	2.93	0.41
23:AD:213:PRO:O	23:AD:214:LYS:CB	2.37	0.41
23:AD:29:LEU:CD2	23:AD:65:ARG:NH2	2.84	0.41
23:AD:73:VAL:O	23:AD:77:PHE:HD2	2.04	0.41
27:AE:20:LEU:HD21	27:AE:50:ASN:ND2	2.35	0.41
30:AF:111:VAL:HG13	30:AF:181:ALA:HB2	2.03	0.41
30:AF:20:PHE:HB3	30:AF:23:TRP:CB	2.46	0.41
29:AG:32:MET:HA	29:AG:52:ILE:CG2	2.51	0.41
29:AG:49:VAL:CG2	29:AG:115:LYS:HE2	2.51	0.41
31:AH:23:ILE:HG23	31:AH:24:SER:N	2.35	0.41
33:AI:139:LYS:HD2	33:AI:145:ILE:HD12	2.01	0.41
33:AI:55:TYR:CZ	36:B2:305:U:H1'	2.56	0.41
26:AJ:21:GLU:C	26:AJ:23:SER:N	2.58	0.41
4:AK:84:HIS:HD2	7:AM:27:ILE:CD1	2.31	0.41
11:AL:50:ALA:N	11:AL:116:CYS:SG	2.94	0.41
11:AL:71:ARG:HB2	11:AL:71:ARG:HE	1.52	0.41
10:AN:94:LYS:CE	36:B2:1010:G:OP1	2.68	0.41
13:AP:4:VAL:C	13:AP:10:ARG:HH11	2.19	0.41
8:AS:120:HIS:HB2	13:AP:121:ILE:HA	2.03	0.41
13:AP:84:ILE:HD11	13:AP:115:TYR:CZ	2.52	0.41
13:AP:89:MET:HB3	13:AP:107:ILE:HD11	1.95	0.41
34:AQ:9:SER:N	34:AQ:99:TYR:OH	2.48	0.41
12:AR:85:VAL:CG1	16:AA:198:MET:CB	2.65	0.41
14:AT:33:TRP:HB2	14:AT:36:THR:HG22	2.02	0.41
14:AT:60:THR:HG23	14:AT:64:LEU:HD21	2.03	0.41
14:AT:75:MET:HE3	14:AT:79:TYR:CZ	2.48	0.41
3:AU:44:LYS:O	3:AU:45:GLU:C	2.58	0.41
19:AZ:84:ALA:O	19:AZ:87:ALA:N	2.54	0.41
14:AT:129:ARG:CB	36:B2:1417:C:H4'	2.49	0.41
36:B2:1601:A:C5'	36:B2:1602:U:H6	2.33	0.41
36:B2:1745:A:C2	36:B2:1746:U:C5	3.08	0.41
63:CB:108:GLU:CD	63:CB:137:TRP:CB	2.89	0.41
63:CB:292:LEU:CD2	63:CB:293:ILE:HG13	2.50	0.41
42:CL:18:TRP:HZ3	74:CC:108:TRP:CZ2	2.37	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:36:ILE:HD12	74:CC:122:TYR:CD2	2.56	0.41
74:CC:7:LEU:HD11	74:CC:21:ASN:HB2	1.93	0.41
48:CD:190:PHE:CZ	48:CD:195:HIS:CG	3.03	0.41
48:CD:64:ILE:HD13	48:CD:76:CYS:HB2	2.01	0.41
81:CE:115:TYR:HB2	81:CE:117:PRO:CD	2.51	0.41
81:CE:140:LEU:HD21	81:CE:167:GLN:OE1	2.19	0.41
64:CF:30:ILE:HD12	64:CF:30:ILE:N	2.36	0.41
80:CH:31:ARG:CG	80:CH:149:ASN:OD1	2.68	0.41
79:CJ:135:GLY:C	79:CJ:139:PHE:HE2	2.22	0.41
40:CK:52:ASP:CB	40:CK:53:TRP:NE1	2.76	0.41
40:CK:92:ARG:CG	40:CK:95:GLN:OE1	2.68	0.41
42:CL:62:PRO:HD2	42:CL:71:ARG:HH21	1.86	0.41
46:CN:11:TRP:CZ3	46:CN:44:ARG:NH2	2.84	0.41
49:CQ:163:THR:O	49:CQ:165:PRO:CD	2.64	0.41
49:CQ:57:ASN:C	49:CQ:59:PRO:CD	2.88	0.41
49:CQ:69:LYS:CD	49:CQ:69:LYS:N	2.83	0.41
49:CQ:97:LYS:O	49:CQ:118:GLY:HA2	2.20	0.41
44:CM:6:PHE:HA	52:CS:152:PHE:C	2.40	0.41
52:CS:152:PHE:HB2	52:CS:153:PRO:CD	2.45	0.41
52:CS:17:LEU:CG	52:CS:58:SER:C	2.89	0.41
56:CX:40:ILE:HG13	82:CG:52:THR:CG2	2.47	0.41
85:A5:1367:C:H1'	85:A5:1370:G:C5	2.55	0.41
85:A5:1354:A:C8	85:A5:1503:A:C6	3.09	0.41
85:A5:183:C:H2'	85:A5:184:U:H5'	2.02	0.41
46:CN:138:PHE:CE1	85:A5:18:C:H4'	2.56	0.41
85:A5:3907:G:HO2'	85:A5:3909:C:H5	1.67	0.41
85:A5:4281:A:C2	85:A5:4283:G:C6	3.08	0.41
85:A5:450:G:H2'	85:A5:451:C:C6	2.55	0.41
16:AA:106:GLY:CA	16:AA:110:ASN:HD22	2.33	0.41
16:AA:205:ARG:HG3	16:AA:206:ASP:N	2.28	0.41
16:AA:6:ASP:C	16:AA:8:LEU:N	2.73	0.41
15:AB:119:THR:O	15:AB:142:PHE:HA	2.21	0.41
28:AC:261:PHE:HB3	28:AC:262:THR:H	1.63	0.41
28:AC:68:ARG:NH1	28:AC:273:LEU:O	2.52	0.41
28:AC:74:LYS:CD	28:AC:269:PHE:CE1	3.04	0.41
23:AD:53:THR:CG2	23:AD:91:VAL:CB	2.89	0.41
33:AI:97:VAL:CG2	33:AI:100:CYS:SG	3.05	0.41
26:AJ:32:ILE:C	26:AJ:35:TYR:O	2.59	0.41
7:AM:35:ILE:CG2	7:AM:36:ARG:N	2.81	0.41
7:AM:64:LEU:HA	7:AM:64:LEU:HD23	1.91	0.41
5:AO:83:GLN:O	5:AO:87:GLU:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:97:TYR:HA	13:AP:101:THR:O	2.21	0.41
13:AP:78:THR:O	13:AP:102:PHE:HE1	2.03	0.41
34:AQ:37:ARG:HB2	34:AQ:41:MET:HG3	2.03	0.41
34:AQ:85:ARG:CZ	34:AQ:117:ARG:CG	2.72	0.41
8:AS:82:TRP:CG	8:AS:83:PHE:N	2.89	0.41
8:AS:7:GLU:C	8:AS:8:LYS:CD	2.89	0.41
6:AX:21:LYS:HB3	6:AX:27:TYR:CE2	2.55	0.41
18:AY:35:VAL:HG12	18:AY:39:GLU:OE1	2.20	0.41
19:AZ:92:LEU:HD13	19:AZ:99:LEU:HD21	2.02	0.41
36:B2:168:C:C5	36:B2:169:U:C4	3.09	0.41
36:B2:558:G:C6	36:B2:559:G:C6	3.09	0.41
63:CB:10:ARG:CD	63:CB:14:LEU:HD11	2.50	0.41
63:CB:82:PRO:HD3	63:CB:171:LEU:HD21	2.02	0.41
63:CB:173:LEU:CD1	63:CB:342:LYS:CG	2.92	0.41
63:CB:61:ASP:OD2	63:CB:361:GLU:HG3	2.17	0.41
41:CO:149:TYR:CE1	63:CB:96:PRO:O	2.74	0.41
63:CB:8:ALA:HA	63:CB:9:PRO:HD3	1.79	0.41
74:CC:109:ARG:HD2	74:CC:111:TRP:HZ3	1.73	0.41
74:CC:22:VAL:O	74:CC:22:VAL:HG13	2.10	0.41
74:CC:230:LEU:HD12	74:CC:239:LYS:HD3	2.02	0.41
74:CC:210:ILE:CA	74:CC:230:LEU:O	2.66	0.41
74:CC:259:LYS:O	74:CC:262:GLU:CA	2.69	0.41
74:CC:267:TRP:C	74:CC:269:LYS:N	2.74	0.41
74:CC:40:VAL:O	74:CC:44:LEU:N	2.54	0.41
48:CD:181:PRO:CG	48:CD:198:HIS:CG	3.03	0.41
81:CE:33:LYS:HD2	81:CE:35:LYS:H	1.85	0.41
64:CF:51:TYR:CD2	81:CE:58:SER:CA	3.04	0.41
64:CF:240:ILE:CG2	64:CF:241:ASN:N	2.83	0.41
64:CF:247:MET:C	64:CF:248:ASN:O	2.55	0.41
82:CG:115:LEU:HA	82:CG:115:LEU:HD23	1.81	0.41
82:CG:81:ASN:CG	82:CG:238:GLY:H	2.21	0.41
82:CG:28:VAL:O	82:CG:32:PHE:N	2.50	0.41
82:CG:57:TRP:HA	82:CG:57:TRP:CE3	2.55	0.41
79:CJ:156:ARG:HG2	79:CJ:157:ILE:H	1.85	0.41
40:CK:56:LEU:C	40:CK:57:ARG:HG3	2.41	0.41
42:CL:31:ARG:NE	42:CL:31:ARG:HA	2.36	0.41
44:CM:63:LYS:HD2	44:CM:64:PHE:N	2.36	0.41
46:CN:64:ILE:CD1	46:CN:102:ALA:C	2.89	0.41
41:CO:54:TYR:CE2	41:CO:145:VAL:CG2	3.03	0.41
41:CO:202:LEU:O	41:CO:203:VAL:N	2.42	0.41
49:CQ:33:ARG:HG3	49:CQ:48:LEU:CD1	2.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:CR:137:ILE:HG23	50:CR:138:LEU:N	2.35	0.41
50:CR:170:ARG:O	50:CR:173:ARG:HG2	2.21	0.41
50:CR:46:LYS:O	50:CR:46:LYS:HG3	2.20	0.41
53:CT:126:VAL:O	53:CT:127:GLN:CB	2.69	0.41
55:CU:23:LEU:HD23	55:CU:110:TYR:C	2.37	0.41
43:CV:105:ILE:HG22	43:CV:113:LYS:HB3	2.02	0.41
58:CW:99:GLU:CD	58:CW:99:GLU:H	2.23	0.41
56:CX:68:ARG:O	56:CX:70:LYS:N	2.51	0.41
57:CY:86:GLN:HG2	57:CY:94:THR:HB	2.03	0.41
59:CZ:16:GLY:C	59:CZ:18:TYR:N	2.71	0.41
59:CZ:32:GLY:O	59:CZ:40:HIS:HE1	2.04	0.41
85:A5:1271:G:H3'	85:A5:1272:C:H5'	2.02	0.41
85:A5:1437:C:N4	85:A5:1447:C:H42	2.18	0.41
85:A5:1979:A:H3'	85:A5:1980:U:H5'	2.02	0.41
85:A5:2636:U:O2'	85:A5:2637:U:H5'	2.20	0.41
85:A5:2647:A:H62	85:A5:2686:G:C2'	2.33	0.41
85:A5:291:U:O2	85:A5:297:U:C2	2.74	0.41
85:A5:3861:A:C2	85:A5:3862:A:C4	3.09	0.41
16:AA:17:LYS:N	16:AA:17:LYS:CD	2.82	0.41
16:AA:57:LYS:HD2	16:AA:160:ALA:O	2.20	0.41
15:AB:66:VAL:HG22	15:AB:87:ILE:CA	2.51	0.41
15:AB:87:ILE:O	15:AB:87:ILE:HG13	2.20	0.41
28:AC:166:ARG:HH12	28:AC:255:LEU:HD13	1.67	0.41
28:AC:240:THR:CG2	28:AC:241:PHE:N	2.84	0.41
28:AC:246:LYS:HE3	28:AC:246:LYS:HB3	1.46	0.41
28:AC:265:PRO:O	28:AC:269:PHE:CD2	2.74	0.41
17:AV:27:LYS:NZ	28:AC:82:TYR:CD1	2.81	0.41
28:AC:98:LEU:C	28:AC:100:ALA:N	2.74	0.41
23:AD:157:MET:HE1	23:AD:187:LYS:CG	2.49	0.41
23:AD:218:LEU:O	23:AD:218:LEU:HG	2.21	0.41
27:AE:169:ILE:O	27:AE:169:ILE:HG13	2.21	0.41
27:AE:229:GLY:HA2	27:AE:235:TRP:NE1	2.36	0.41
29:AG:109:LEU:HD23	29:AG:109:LEU:HA	1.91	0.41
29:AG:121:ILE:CG1	29:AG:122:PRO:HD3	2.51	0.41
29:AG:173:ALA:CB	36:B2:77:A:H4'	2.51	0.41
29:AG:25:ARG:CD	29:AG:28:TYR:CD2	3.04	0.41
31:AH:10:LYS:HB2	31:AH:10:LYS:HE2	1.71	0.41
31:AH:58:LYS:O	31:AH:90:LYS:HA	2.21	0.41
33:AI:157:LYS:O	33:AI:158:ILE:CG2	2.69	0.41
33:AI:25:ARG:HD2	33:AI:27:TYR:HE2	0.78	0.41
5:AO:42:VAL:HG12	5:AO:43:HIS:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:41:GLN:OE1	13:AP:45:LEU:HD12	2.21	0.41
34:AQ:19:ALA:CA	34:AQ:74:GLY:C	2.89	0.41
8:AS:131:VAL:O	8:AS:131:VAL:HG12	2.21	0.41
8:AS:137:LYS:HE3	36:B2:1236:G:O6	2.21	0.41
14:AT:64:LEU:HD12	14:AT:113:VAL:HG11	2.03	0.41
17:AV:41:LYS:O	17:AV:43:THR:CA	2.67	0.41
32:AW:36:ARG:HE	32:AW:110:ILE:HB	1.85	0.41
32:AW:96:SER:OG	32:AW:98:GLN:CG	2.67	0.41
18:AY:108:LYS:O	18:AY:111:LYS:CG	2.61	0.41
36:B2:1433:C:C2'	36:B2:1434:C:O5'	2.69	0.41
36:B2:287:U:C6	36:B2:287:U:H5''	2.55	0.41
36:B2:732:U:H2'	36:B2:733:C:C6	2.56	0.41
51:CA:51:ASP:CG	51:CA:54:ARG:HD2	2.41	0.41
63:CB:173:LEU:HD13	63:CB:342:LYS:HE3	1.99	0.41
63:CB:317:LEU:HD12	63:CB:379:PHE:O	2.21	0.41
63:CB:383:GLU:OE1	63:CB:384:GLU:N	2.54	0.41
63:CB:381:THR:HG22	63:CB:384:GLU:HB2	2.02	0.41
74:CC:105:THR:CB	74:CC:109:ARG:HH22	2.10	0.41
74:CC:287:THR:O	74:CC:288:ASP:CB	2.68	0.41
48:CD:208:MET:SD	48:CD:223:PHE:CE1	3.14	0.41
81:CE:106:VAL:CG1	81:CE:108:LYS:H	2.33	0.41
81:CE:219:LYS:HE2	85:A5:1291:G:C5'	2.44	0.41
82:CG:150:LYS:HD2	82:CG:177:MET:HE1	2.03	0.41
82:CG:164:ILE:HG12	82:CG:168:VAL:HG22	1.94	0.41
82:CG:229:ARG:O	82:CG:233:ILE:HG13	2.20	0.41
82:CG:239:GLY:O	82:CG:240:ASN:O	2.38	0.41
82:CG:261:LEU:O	82:CG:264:LYS:N	2.53	0.41
80:CH:111:LEU:HD21	80:CH:127:ARG:HD2	0.44	0.41
80:CH:77:VAL:HG22	80:CH:80:MET:HE2	2.02	0.41
79:CJ:120:ASP:HB2	79:CJ:123:ILE:HD12	2.03	0.41
79:CJ:164:ARG:HG2	79:CJ:168:GLN:CD	2.41	0.41
79:CJ:57:VAL:O	79:CJ:57:VAL:HG12	2.19	0.41
42:CL:91:ALA:O	42:CL:94:ILE:HB	2.20	0.41
44:CM:6:PHE:CG	52:CS:152:PHE:O	2.74	0.41
46:CN:65:ARG:HD2	46:CN:129:PHE:HE1	1.78	0.41
46:CN:50:ARG:NH2	46:CN:50:ARG:HG3	2.17	0.41
41:CO:147:TRP:CH2	41:CO:150:GLN:HA	2.55	0.41
50:CR:11:ALA:HB2	50:CR:50:ILE:HD12	2.01	0.41
50:CR:130:ASN:HD21	85:A5:1570:G:H21	1.67	0.41
52:CS:47:PHE:O	52:CS:50:GLN:HB2	2.20	0.41
52:CS:88:SER:OG	52:CS:89:GLY:HA2	2.16	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CT:4:THR:HB	53:CT:9:ARG:CD	2.50	0.41
55:CU:38:ASN:O	55:CU:42:PHE:N	2.53	0.41
56:CX:68:ARG:NH2	56:CX:69:ASN:OD1	2.54	0.41
57:CY:47:MET:CE	57:CY:48:PRO:HD3	2.40	0.41
57:CY:62:TYR:O	57:CY:63:LYS:C	2.59	0.41
85:A5:1316:G:H4'	85:A5:2348:G:C6	2.56	0.41
85:A5:1433:A:H2'	85:A5:1434:G:H5'	2.03	0.41
85:A5:2360:A:C8	85:A5:2362:U:C2	3.09	0.41
63:CB:248:LEU:CA	85:A5:2838:G:OP1	2.69	0.41
51:CA:193:ARG:NH2	85:A5:3685:C:H5''	2.31	0.41
63:CB:262:VAL:HG13	85:A5:4565:C:H5'	2.02	0.41
85:A5:4624:A:H61	85:A5:4672:A:N6	2.19	0.41
85:A5:4714:C:C5	85:A5:4715:C:C5	3.09	0.41
86:A7:33:U:H2'	86:A7:33:U:O2	2.21	0.41
16:AA:111:GLN:HB3	28:AC:63:VAL:CG1	2.46	0.41
16:AA:36:GLN:O	16:AA:53:ARG:CZ	2.69	0.41
15:AB:104:ASP:CG	15:AB:105:LEU:N	2.71	0.41
15:AB:120:MET:CB	15:AB:142:PHE:CE1	3.04	0.41
15:AB:208:HIS:O	15:AB:209:ASP:CB	2.48	0.41
28:AC:142:LYS:HE3	28:AC:143:CYS:H	1.85	0.41
17:AV:1:MET:SD	28:AC:166:ARG:NH2	2.94	0.41
28:AC:259:THR:CG2	28:AC:261:PHE:CB	2.98	0.41
28:AC:84:PHE:CE1	28:AC:262:THR:HG23	2.55	0.41
23:AD:197:LYS:N	23:AD:199:GLY:CA	2.84	0.41
23:AD:4:GLN:O	23:AD:5:ILE:CG1	2.69	0.41
30:AF:18:LYS:HD2	34:AQ:57:LEU:HD21	2.03	0.41
33:AI:65:PHE:HA	33:AI:187:GLY:O	2.21	0.41
26:AJ:34:GLU:HB3	26:AJ:35:TYR:CE2	2.56	0.41
26:AJ:50:LEU:CD2	26:AJ:54:ARG:HG3	2.45	0.41
4:AK:14:LEU:HD23	4:AK:35:LEU:HD22	1.87	0.41
4:AK:88:GLU:O	4:AK:89:ILE:C	2.58	0.41
7:AM:124:ILE:O	7:AM:128:PHE:HB2	2.21	0.41
5:AO:61:LYS:C	5:AO:62:VAL:HG23	2.27	0.41
13:AP:36:LEU:HA	13:AP:37:TYR:CG	2.56	0.41
34:AQ:100:VAL:CG1	34:AQ:101:ASP:N	2.44	0.41
34:AQ:42:ILE:CG1	34:AQ:51:LEU:HD22	2.47	0.41
12:AR:98:VAL:O	12:AR:100:PRO:CD	2.69	0.41
8:AS:108:ARG:NH2	79:CJ:119:TYR:HE2	1.92	0.41
8:AS:120:HIS:HA	13:AP:121:ILE:CG2	2.44	0.41
8:AS:14:ARG:HH11	8:AS:17:ASN:HA	1.63	0.41
17:AV:3:ASN:O	17:AV:4:ASP:C	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:AW:102:ILE:N	32:AW:113:HIS:CE1	2.78	0.41
32:AW:30:CYS:SG	32:AW:61:ILE:CD1	2.97	0.41
28:AC:183:LYS:HG3	32:AW:95:PRO:HA	2.03	0.41
18:AY:36:PRO:HG3	18:AY:39:GLU:OE2	2.19	0.41
18:AY:98:GLU:O	18:AY:99:LYS:CB	2.67	0.41
36:B2:1432:U:C4	36:B2:1433:C:C4	3.09	0.41
14:AT:63:HIS:CE1	36:B2:1587:G:N2	2.88	0.41
36:B2:224:A:C2	36:B2:298:G:C6	3.09	0.41
11:AL:82:MET:CE	36:B2:373:G:H5'	2.51	0.41
36:B2:850:C:C5	36:B2:851:C:C5	3.09	0.41
51:CA:137:ILE:O	51:CA:138:SER:CB	2.62	0.41
51:CA:210:PRO:HG3	51:CA:233:ARG:HA	2.00	0.41
63:CB:115:LYS:NZ	63:CB:119:TYR:HD2	2.18	0.41
63:CB:297:LYS:HE3	63:CB:297:LYS:H	1.85	0.41
74:CC:230:LEU:HG	74:CC:239:LYS:NZ	2.36	0.41
48:CD:24:ARG:NH2	86:A7:13:A:O2'	2.54	0.41
48:CD:257:PRO:O	48:CD:258:LYS:HB2	2.21	0.41
81:CE:229:GLU:C	81:CE:231:GLU:H	2.22	0.41
81:CE:185:PRO:CB	81:CE:250:GLN:HE22	2.30	0.41
81:CE:40:GLY:O	81:CE:41:LYS:HG3	2.21	0.41
81:CE:56:ARG:HG2	81:CE:57:TYR:CA	2.51	0.41
64:CF:135:ILE:HG23	64:CF:136:VAL:N	2.36	0.41
64:CF:142:TRP:CZ3	64:CF:235:ASN:ND2	2.89	0.41
64:CF:193:GLU:OE2	64:CF:200:ARG:HB2	2.19	0.41
82:CG:207:VAL:O	82:CG:208:ASN:C	2.55	0.41
82:CG:23:GLU:O	82:CG:25:LYS:N	2.54	0.41
47:CI:109:ASP:CA	47:CI:112:GLN:NE2	2.65	0.41
44:CM:89:THR:OG1	44:CM:92:ALA:CA	2.68	0.41
54:CP:109:VAL:HG12	54:CP:110:ASP:H	1.72	0.41
49:CQ:187:LYS:HZ3	49:CQ:188:ASN:ND2	2.11	0.41
49:CQ:90:VAL:O	49:CQ:91:ARG:C	2.58	0.41
50:CR:68:LEU:O	50:CR:72:LYS:HG3	2.21	0.41
52:CS:136:LYS:N	52:CS:136:LYS:CD	2.84	0.41
55:CU:120:ASP:C	55:CU:121:GLU:HG3	2.38	0.41
43:CV:128:LEU:HB3	43:CV:129:TRP:CD1	2.56	0.41
58:CW:55:TYR:CE1	58:CW:59:HIS:NE2	2.89	0.41
57:CY:83:GLU:C	57:CY:85:VAL:H	2.25	0.41
59:CZ:17:ARG:H	59:CZ:17:ARG:HG2	1.67	0.41
59:CZ:38:TYR:N	59:CZ:38:TYR:CD2	2.88	0.41
59:CZ:26:VAL:HG12	59:CZ:89:ILE:HG13	2.03	0.41
85:A5:1078:A:H2	85:A5:1233:G:O6	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:1267:C:H1'	85:A5:1268:G:C8	2.56	0.41
85:A5:227:A:C2'	85:A5:228:C:O5'	2.69	0.41
85:A5:4936:G:C2	85:A5:4938:A:C6	3.09	0.41
85:A5:511:C:C2	85:A5:649:A:C2	3.08	0.41
16:AA:126:ASP:O	16:AA:130:ASP:HB2	2.21	0.41
15:AB:133:TYR:CD1	15:AB:217:MET:HE1	2.55	0.41
23:AD:76:ARG:HD2	23:AD:76:ARG:O	2.21	0.41
27:AE:166:THR:O	27:AE:168:LYS:CD	2.52	0.41
27:AE:185:GLY:HA2	27:AE:189:LEU:HD13	2.03	0.41
27:AE:260:GLN:HA	27:AE:260:GLN:OE1	2.20	0.41
30:AF:112:LEU:CB	30:AF:177:LEU:HD11	2.50	0.41
31:AH:107:LYS:HD3	31:AH:107:LYS:HA	1.86	0.41
31:AH:159:ASP:O	31:AH:190:PRO:HG3	2.21	0.41
33:AI:144:LYS:HD2	33:AI:144:LYS:HA	1.86	0.41
33:AI:62:VAL:HG21	33:AI:75:LYS:HZ1	1.75	0.41
33:AI:73:THR:HG21	36:B2:302:A:H1'	2.02	0.41
26:AJ:136:ARG:NH1	26:AJ:161:LEU:HB2	2.35	0.41
26:AJ:171:GLY:O	26:AJ:175:ARG:N	2.50	0.41
26:AJ:170:PRO:CD	26:AJ:175:ARG:CG	2.94	0.41
26:AJ:82:VAL:HG21	26:AJ:92:MET:HG2	2.03	0.41
4:AK:4:PRO:HG2	4:AK:7:ASN:ND2	2.35	0.41
11:AL:49:GLU:HB2	11:AL:116:CYS:HG	1.86	0.41
11:AL:77:VAL:CG1	11:AL:80:MET:SD	2.96	0.41
7:AM:117:GLU:O	7:AM:118:SER:CB	2.69	0.41
7:AM:31:LEU:HD13	7:AM:31:LEU:C	2.42	0.41
10:AN:107:LYS:HD2	10:AN:107:LYS:HA	1.69	0.41
10:AN:3:ARG:H	36:B2:923:G:H5''	1.86	0.41
10:AN:84:LEU:HD11	10:AN:89:TYR:CA	2.51	0.41
3:AU:44:LYS:HG3	3:AU:45:GLU:N	2.35	0.41
17:AV:50:PHE:HZ	28:AC:267:GLN:NE2	2.18	0.41
18:AY:29:HIS:HA	18:AY:30:PRO:HD2	1.97	0.41
18:AY:58:PHE:N	18:AY:58:PHE:CD2	2.89	0.41
36:B2:1462:U:H6	36:B2:1462:U:HO2'	1.68	0.41
36:B2:193:C:O2'	36:B2:194:C:C5'	2.69	0.41
11:AL:133:PRO:O	36:B2:384:U:H5'	2.21	0.41
36:B2:688:U:C6	36:B2:742:U:C5	3.09	0.41
36:B2:928:G:H2'	36:B2:929:G:C8	2.56	0.41
51:CA:144:LYS:C	51:CA:145:LYS:CG	2.86	0.41
51:CA:32:VAL:CG1	51:CA:163:ARG:NH1	2.83	0.41
51:CA:242:ARG:NH2	51:CA:247:ARG:CZ	2.74	0.41
63:CB:235:TRP:CD1	63:CB:267:ALA:CB	2.95	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CD:122:GLN:HE21	48:CD:125:VAL:N	2.18	0.41
48:CD:263:LYS:HB3	48:CD:264:LYS:H	1.40	0.41
47:CI:210:ARG:HB2	48:CD:287:PHE:CE2	2.55	0.41
81:CE:216:TYR:C	81:CE:216:TYR:CD1	2.95	0.41
64:CF:89:LEU:HD11	64:CF:122:PHE:CD1	2.55	0.41
64:CF:135:ILE:CG2	64:CF:136:VAL:HG13	2.51	0.41
64:CF:143:GLY:HA3	64:CF:240:ILE:HB	2.03	0.41
82:CG:181:TYR:CD2	82:CG:227:ASN:OD1	2.71	0.41
15:AB:58:ALA:N	82:CG:264:LYS:NZ	2.69	0.41
47:CI:9:TYR:CZ	47:CI:97:ILE:HG21	2.54	0.41
79:CJ:104:ASN:OD1	79:CJ:133:VAL:HG13	2.21	0.41
40:CK:131:GLU:CB	40:CK:152:ILE:HG23	2.50	0.41
42:CL:198:ARG:N	42:CL:198:ARG:HD2	2.36	0.41
44:CM:63:LYS:CD	44:CM:64:PHE:N	2.82	0.41
46:CN:149:GLN:H	46:CN:149:GLN:HG3	1.48	0.41
46:CN:42:PRO:CD	46:CN:61:ILE:CD1	2.99	0.41
41:CO:108:ILE:CG2	41:CO:108:ILE:O	2.61	0.41
41:CO:126:VAL:HG13	41:CO:127:VAL:HG23	2.03	0.41
49:CQ:110:ARG:HG2	49:CQ:114:LEU:HD12	2.03	0.41
49:CQ:31:LEU:C	49:CQ:31:LEU:CD2	2.89	0.41
55:CU:20:LYS:HE2	55:CU:22:THR:HG23	2.02	0.41
57:CY:82:ILE:HD12	57:CY:99:ILE:HD13	2.02	0.41
59:CZ:97:ASN:CB	59:CZ:100:VAL:HG23	2.51	0.41
85:A5:1198:G:H2'	85:A5:1199:G:C8	2.56	0.40
85:A5:1218:G:C3'	85:A5:1219:G:H5''	2.50	0.40
85:A5:1271:G:H5''	85:A5:1272:C:C6	2.56	0.40
49:CQ:19:LYS:HG2	85:A5:1349:G:H5''	2.01	0.40
85:A5:1371:A:C8	85:A5:1371:A:C3'	3.04	0.40
85:A5:2259:G:H3'	85:A5:2260:C:C5'	2.51	0.40
54:CP:97:ASN:HD21	85:A5:399:G:H1'	1.86	0.40
16:AA:111:GLN:HE22	16:AA:116:PHE:HZ	1.67	0.40
15:AB:127:VAL:HG11	15:AB:176:VAL:HB	2.02	0.40
28:AC:135:GLY:O	28:AC:165:VAL:HG22	2.22	0.40
28:AC:137:VAL:HG11	28:AC:217:ALA:CA	2.52	0.40
28:AC:60:TRP:CD1	28:AC:61:MET:N	2.89	0.40
23:AD:214:LYS:C	23:AD:215:ASP:CG	2.79	0.40
23:AD:29:LEU:CD1	23:AD:50:ILE:HG21	2.51	0.40
30:AF:145:ARG:O	30:AF:149:GLN:HG2	2.21	0.40
29:AG:145:PHE:CB	29:AG:147:LEU:HD13	2.47	0.40
29:AG:28:TYR:C	29:AG:30:LYS:N	2.74	0.40
29:AG:64:LYS:CE	29:AG:65:GLN:O	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:AH:121:THR:HG22	31:AH:124:ALA:HB2	2.02	0.40
31:AH:46:THR:CG2	31:AH:47:ALA:N	2.84	0.40
26:AJ:136:ARG:HG2	26:AJ:141:VAL:CA	2.51	0.40
11:AL:55:TYR:CD1	11:AL:55:TYR:C	2.94	0.40
11:AL:73:LEU:HD22	11:AL:90:ARG:NH2	2.37	0.40
34:AQ:135:PRO:HD2	34:AQ:141:TYR:HD1	1.80	0.40
12:AR:111:PHE:CD1	16:AA:15:VAL:HG21	2.56	0.40
8:AS:24:ARG:C	8:AS:55:ARG:HD2	2.42	0.40
17:AV:24:ILE:HD13	17:AV:25:GLY:CA	2.38	0.40
17:AV:41:LYS:HB3	17:AV:42:VAL:H	1.55	0.40
32:AW:37:PHE:CE1	32:AW:103:VAL:CG1	3.03	0.40
32:AW:49:GLU:CD	32:AW:64:ASN:HD22	2.24	0.40
19:AZ:104:ARG:HB3	19:AZ:105:ALA:H	1.63	0.40
23:AD:27:ARG:NH2	36:B2:1263:U:H4'	23.67	0.40
36:B2:1620:A:H4'	36:B2:1621:U:H6	1.86	0.40
11:AL:82:MET:HE3	36:B2:373:G:C4'	2.46	0.40
36:B2:394:G:C8	36:B2:394:G:H5''	2.56	0.40
36:B2:887:U:C6	36:B2:888:U:C5	3.09	0.40
51:CA:17:ARG:HG2	51:CA:18:ALA:H	1.85	0.40
51:CA:207:VAL:HG11	85:A5:1633:G:N1	2.37	0.40
63:CB:298:LEU:O	63:CB:300:LYS:CE	2.69	0.40
63:CB:52:GLY:C	63:CB:78:ILE:CG1	2.73	0.40
74:CC:133:LEU:CG	74:CC:136:LEU:HG	2.49	0.40
74:CC:5:ARG:CB	74:CC:24:LEU:CD1	2.95	0.40
74:CC:64:ALA:HB1	74:CC:78:ARG:O	2.20	0.40
48:CD:130:TYR:CE2	48:CD:132:VAL:N	2.89	0.40
81:CE:137:VAL:C	81:CE:138:ARG:CG	2.90	0.40
81:CE:181:LEU:HD13	81:CE:268:GLN:HA	2.01	0.40
82:CG:31:LEU:HB2	82:CG:32:PHE:HD1	1.86	0.40
47:CI:68:ALA:HB3	47:CI:159:PHE:HZ	1.85	0.40
47:CI:74:LYS:HE3	47:CI:74:LYS:HB2	1.77	0.40
40:CK:105:THR:O	40:CK:106:PHE:CD1	2.73	0.40
40:CK:110:VAL:O	40:CK:114:ARG:NE	2.54	0.40
40:CK:59:THR:O	40:CK:80:LEU:HD11	2.21	0.40
42:CL:176:PHE:HD1	42:CL:177:LYS:N	2.19	0.40
42:CL:75:GLY:HA3	42:CL:99:ASP:CB	2.51	0.40
44:CM:35:ARG:HA	44:CM:50:MET:O	2.21	0.40
46:CN:36:LEU:CD2	46:CN:109:HIS:CG	3.02	0.40
41:CO:49:ARG:CG	41:CO:49:ARG:NH1	2.80	0.40
41:CO:50:ASN:HD22	41:CO:136:ALA:CB	2.31	0.40
54:CP:110:ASP:O	54:CP:112:LEU:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CQ:101:CYS:SG	49:CQ:121:LEU:CB	3.06	0.40
49:CQ:150:ARG:CB	49:CQ:164:LYS:HB2	2.26	0.40
49:CQ:50:ARG:HD2	49:CQ:53:MET:SD	2.61	0.40
49:CQ:72:LEU:CA	49:CQ:75:ARG:HG2	2.50	0.40
50:CR:102:LEU:O	50:CR:106:LEU:HD13	2.21	0.40
50:CR:82:LYS:HG3	85:A5:2811:G:H4'	2.03	0.40
52:CS:13:VAL:HB	52:CS:28:TYR:O	2.21	0.40
52:CS:60:GLU:O	52:CS:61:ILE:C	2.58	0.40
53:CT:146:LYS:C	53:CT:147:GLU:CG	2.89	0.40
53:CT:85:LEU:HD23	53:CT:85:LEU:HA	1.77	0.40
55:CU:27:HIS:CD2	55:CU:114:TYR:N	2.88	0.40
55:CU:60:VAL:CA	55:CU:76:VAL:H	2.34	0.40
56:CX:146:ALA:O	56:CX:150:ALA:N	2.52	0.40
57:CY:35:SER:CA	57:CY:105:VAL:CG2	3.00	0.40
59:CZ:11:VAL:HG12	59:CZ:12:LEU:O	2.21	0.40
59:CZ:40:HIS:C	59:CZ:77:TYR:CE1	2.94	0.40
85:A5:149:A:H5''	85:A5:151:G:O4'	2.21	0.40
85:A5:1688:G:H2'	85:A5:1689:G:C8	2.57	0.40
85:A5:2022:C:H3'	85:A5:2023:C:C6	2.56	0.40
85:A5:3795:A:C5	85:A5:3796:U:C4	3.10	0.40
85:A5:3965:A:C2	85:A5:4047:A:C6	3.09	0.40
85:A5:4948:C:C4	85:A5:4949:G:O6	2.74	0.40
86:A7:118:C:N3	86:A7:119:U:C5	2.89	0.40
87:A8:94:G:HO2'	87:A8:95:A:P	2.45	0.40
16:AA:202:TYR:O	16:AA:203:PHE:HB2	2.21	0.40
28:AC:65:LYS:HG2	28:AC:66:LEU:N	2.36	0.40
29:AG:144:LEU:HG	29:AG:144:LEU:O	2.21	0.40
29:AG:28:TYR:O	29:AG:29:GLU:HB3	2.21	0.40
29:AG:64:LYS:HG2	29:AG:67:VAL:CG1	2.49	0.40
31:AH:101:LEU:CG	31:AH:120:ARG:HG2	2.38	0.40
26:AJ:132:GLN:O	36:B2:562:U:H4'	2.21	0.40
4:AK:42:ASN:O	4:AK:43:LEU:CG	2.70	0.40
4:AK:4:PRO:CG	4:AK:7:ASN:CB	2.92	0.40
11:AL:139:ARG:HG2	36:B2:352:U:C5'	2.51	0.40
11:AL:125:ILE:C	11:AL:146:THR:HG22	2.40	0.40
7:AM:35:ILE:HB	7:AM:61:TYR:CZ	2.56	0.40
7:AM:78:LYS:HD2	7:AM:79:VAL:H	1.87	0.40
10:AN:37:ILE:HD11	10:AN:63:VAL:CG1	2.51	0.40
10:AN:38:TYR:HE1	10:AN:78:LYS:NZ	2.18	0.40
10:AN:94:LYS:HE2	36:B2:1010:G:OP1	2.21	0.40
5:AO:62:VAL:CG1	5:AO:63:LYS:N	2.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AR:7:LYS:O	12:AR:11:LYS:HG3	2.21	0.40
3:AU:44:LYS:C	3:AU:47:ASN:HA	2.41	0.40
32:AW:78:ARG:HD3	32:AW:126:LEU:HD23	2.00	0.40
18:AY:54:VAL:HG12	18:AY:75:ILE:HG23	2.02	0.40
18:AY:62:THR:OG1	36:B2:581:U:H4'	2.21	0.40
36:B2:1649:U:O2	36:B2:1675:A:C2	2.74	0.40
36:B2:1823:A:H4'	36:B2:1824:A:C4'	2.51	0.40
29:AG:171:THR:HB	36:B2:75:G:N2	2.36	0.40
37:BC:55:C:C6	85:A5:4046:A:H1'	2.56	0.40
51:CA:70:LYS:HG2	51:CA:72:ARG:HE	1.86	0.40
63:CB:175:GLN:O	63:CB:176:LYS:HB2	2.22	0.40
63:CB:60:VAL:CG2	63:CB:72:VAL:HG13	2.51	0.40
74:CC:122:TYR:CE1	74:CC:280:PRO:HB2	2.49	0.40
74:CC:149:GLU:O	74:CC:152:LEU:HD13	2.21	0.40
74:CC:232:VAL:HG13	74:CC:260:LEU:HD23	2.00	0.40
74:CC:277:TYR:C	74:CC:277:TYR:CD1	2.95	0.40
48:CD:120:GLU:HG2	48:CD:120:GLU:H	1.73	0.40
48:CD:160:PHE:HD2	48:CD:179:ARG:C	2.24	0.40
81:CE:280:GLY:HA2	81:CE:282:TYR:HE2	1.84	0.40
81:CE:57:TYR:C	81:CE:60:SER:HB3	2.41	0.40
64:CF:160:GLY:CA	64:CF:207:PHE:CE2	3.02	0.40
82:CG:88:ASP:OD1	82:CG:89:ARG:NH1	2.52	0.40
47:CI:106:ALA:HB3	47:CI:108:ALA:CA	2.41	0.40
47:CI:46:PHE:HB3	47:CI:140:THR:CA	2.51	0.40
47:CI:32:ARG:HD3	47:CI:32:ARG:HA	1.83	0.40
47:CI:4:ARG:HG2	47:CI:5:PRO:HD3	2.03	0.40
79:CJ:31:ASP:O	79:CJ:35:ARG:HB2	2.20	0.40
40:CK:50:THR:HG21	40:CK:72:GLU:HB2	2.01	0.40
40:CK:97:ASN:N	40:CK:98:ILE:CA	2.84	0.40
42:CL:63:THR:HG1	42:CL:66:TYR:HD2	0.61	0.40
44:CM:77:TRP:HD1	44:CM:82:ILE:CG1	1.94	0.40
46:CN:150:TRP:CE2	46:CN:151:ILE:CG1	3.00	0.40
41:CO:185:VAL:HG22	44:CM:126:GLU:HB2	1.68	0.40
54:CP:107:LEU:HD22	54:CP:107:LEU:HA	1.63	0.40
49:CQ:105:VAL:CG1	49:CQ:110:ARG:HB2	2.49	0.40
49:CQ:157:GLY:H	49:CQ:159:PRO:HD3	1.85	0.40
53:CT:80:VAL:N	53:CT:83:LYS:H	2.18	0.40
55:CU:37:ALA:CB	55:CU:65:ARG:HH12	2.32	0.40
58:CW:63:GLN:CD	58:CW:67:ILE:HD11	2.40	0.40
56:CX:38:LYS:CG	56:CX:39:LYS:C	2.81	0.40
57:CY:126:ARG:CZ	57:CY:130:LYS:HD3	2.49	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:CY:49:ILE:HD12	57:CY:101:PRO:HB2	1.74	0.40
57:CY:69:LYS:H	57:CY:83:GLU:HB2	1.85	0.40
59:CZ:109:LYS:HG3	59:CZ:110:ALA:N	2.31	0.40
59:CZ:14:LEU:O	59:CZ:14:LEU:HD12	2.20	0.40
59:CZ:21:ARG:HD2	59:CZ:49:TYR:CZ	2.56	0.40
85:A5:1546:C:N3	85:A5:1612:G:O6	2.54	0.40
85:A5:1646:A:H2'	85:A5:1647:U:C6	2.56	0.40
85:A5:2266:C:O2'	85:A5:2267:U:P	2.79	0.40
85:A5:2766:A:H3'	85:A5:2767:U:C6	2.56	0.40
85:A5:2771:G:C2'	85:A5:2772:C:H5'	2.51	0.40
85:A5:505:G:H2'	85:A5:506:C:C6	2.57	0.40
16:AA:191:ARG:HD3	16:AA:193:HIS:CD2	2.56	0.40
16:AA:36:GLN:O	16:AA:53:ARG:NH1	2.55	0.40
16:AA:7:VAL:HG13	17:AV:43:THR:CG2	2.51	0.40
16:AA:85:ARG:HD3	16:AA:203:PHE:O	2.21	0.40
16:AA:97:THR:HA	16:AA:98:PRO:HD3	1.77	0.40
15:AB:140:VAL:CG1	15:AB:211:PHE:HD2	2.33	0.40
15:AB:49:VAL:CG2	15:AB:65:ARG:CZ	2.95	0.40
28:AC:157:LEU:HA	28:AC:160:LEU:HD22	1.80	0.40
28:AC:191:VAL:HG11	28:AC:236:PHE:HA	2.03	0.40
28:AC:63:VAL:CG2	28:AC:90:GLU:HG2	2.52	0.40
23:AD:110:LEU:HD23	23:AD:110:LEU:C	2.41	0.40
23:AD:170:THR:CG2	23:AD:171:ALA:N	2.84	0.40
23:AD:177:LEU:HD12	23:AD:177:LEU:HA	1.93	0.40
23:AD:98:ALA:HA	23:AD:188:ILE:CD1	2.50	0.40
27:AE:143:ASP:OD1	27:AE:145:ARG:HD2	2.21	0.40
30:AF:176:GLU:CD	30:AF:187:SER:HG	2.10	0.40
30:AF:86:LYS:HA	30:AF:89:THR:HG22	2.04	0.40
29:AG:217:MET:HG2	29:AG:217:MET:H	1.62	0.40
31:AH:145:ARG:HD3	31:AH:155:LYS:NZ	2.36	0.40
31:AH:83:LEU:HD12	31:AH:84:GLU:CA	2.51	0.40
33:AI:139:LYS:HD2	33:AI:149:TYR:OH	2.21	0.40
33:AI:25:ARG:NE	33:AI:27:TYR:OH	2.54	0.40
33:AI:66:SER:HB3	33:AI:73:THR:HB	2.04	0.40
4:AK:53:LYS:HB3	4:AK:58:VAL:HG13	2.03	0.40
11:AL:122:ILE:O	11:AL:122:ILE:HG13	2.21	0.40
11:AL:21:LYS:HA	11:AL:21:LYS:HD3	1.73	0.40
7:AM:35:ILE:CD1	7:AM:61:TYR:CE2	3.02	0.40
13:AP:30:TYR:OH	13:AP:51:ARG:NH1	2.54	0.40
34:AQ:78:VAL:O	34:AQ:82:TYR:HD2	2.05	0.40
8:AS:28:PHE:O	8:AS:31:THR:OG1	2.29	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AS:92:ASP:C	8:AS:94:LYS:H	2.23	0.40
17:AV:12:TYR:CE2	28:AC:248:TYR:CZ	3.09	0.40
32:AW:49:GLU:H	32:AW:64:ASN:HD22	1.69	0.40
36:B2:1045:U:C5	36:B2:1046:U:C5	3.09	0.40
36:B2:1866:A:H2'	36:B2:1867:U:C6	2.56	0.40
32:AW:107:SER:HA	36:B2:862:A:C4	2.56	0.40
51:CA:61:VAL:HB	51:CA:76:PHE:CD2	2.56	0.40
63:CB:201:LEU:N	63:CB:201:LEU:HD12	2.37	0.40
63:CB:217:ILE:HD12	63:CB:347:LEU:HD12	2.04	0.40
74:CC:140:LYS:HD3	74:CC:246:VAL:O	2.21	0.40
74:CC:174:LEU:C	74:CC:175:LYS:CD	2.90	0.40
74:CC:144:ILE:CD1	74:CC:249:PHE:HB2	2.46	0.40
74:CC:47:ASN:OD1	74:CC:112:HIS:HA	2.22	0.40
48:CD:107:ARG:NH1	48:CD:107:ARG:HG2	2.37	0.40
48:CD:104:LEU:CG	48:CD:247:ILE:HD13	2.51	0.40
81:CE:31:ASN:CA	81:CE:32:LEU:CD2	2.93	0.40
64:CF:135:ILE:HG23	64:CF:136:VAL:HG13	2.03	0.40
64:CF:179:LEU:HB3	64:CF:184:ILE:HB	2.04	0.40
82:CG:206:GLN:C	82:CG:207:VAL:HG23	2.42	0.40
80:CH:117:PHE:CE2	80:CH:118:LEU:HD12	2.56	0.40
80:CH:63:ASN:HB2	80:CH:66:GLU:CD	2.37	0.40
40:CK:56:LEU:O	40:CK:91:ASP:OD1	2.39	0.40
42:CL:144:LEU:HD12	42:CL:150:LEU:HG	2.02	0.40
42:CL:52:SER:OG	42:CL:153:PRO:HD3	2.21	0.40
42:CL:61:CYS:HA	42:CL:62:PRO:HD3	1.92	0.40
42:CL:67:HIS:CG	85:A5:72:C:C5	3.09	0.40
44:CM:77:TRP:O	44:CM:81:ASP:N	2.53	0.40
46:CN:139:HIS:O	46:CN:140:LYS:C	2.59	0.40
46:CN:192:TRP:CA	46:CN:195:ARG:HG2	2.52	0.40
46:CN:73:ARG:HB3	46:CN:75:VAL:HG22	2.03	0.40
46:CN:68:ARG:HA	46:CN:98:LEU:HD11	2.02	0.40
41:CO:182:GLU:O	41:CO:186:GLU:CB	2.70	0.40
54:CP:118:GLN:CD	54:CP:147:GLU:OE2	2.60	0.40
54:CP:4:TYR:O	54:CP:5:SER:OG	2.37	0.40
50:CR:133:LYS:HG3	50:CR:134:ASN:N	2.35	0.40
52:CS:137:CYS:SG	52:CS:143:LYS:HB3	2.53	0.40
52:CS:12:VAL:CB	52:CS:44:PHE:CD1	2.97	0.40
52:CS:78:PHE:HD1	52:CS:130:GLU:O	2.05	0.40
58:CW:16:GLY:O	58:CW:17:HIS:CG	2.75	0.40
74:CC:109:ARG:HA	85:A5:1341:U:H5'	2.02	0.40
85:A5:1445:U:H3	85:A5:2099:G:H1	1.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:A5:1446:C:C2'	85:A5:1447:C:H5'	2.47	0.40
85:A5:1964:A:C8	85:A5:1964:A:H5''	2.56	0.40
85:A5:2701:U:H3	85:A5:2715:G:H1	1.68	0.40
85:A5:4293:U:H3	85:A5:4317:A:H61	1.69	0.40
85:A5:973:G:O2'	85:A5:974:C:H5'	2.21	0.40
86:A7:16:A:H61	86:A7:62:U:H3	1.70	0.40
16:AA:134:LEU:CD2	16:AA:144:THR:HG21	2.52	0.40
16:AA:186:ARG:CA	16:AA:186:ARG:HH11	2.33	0.40
12:AR:101:ASP:C	16:AA:48:ILE:CD1	2.90	0.40
28:AC:170:TRP:HB2	28:AC:178:HIS:HE1	1.86	0.40
23:AD:69:LEU:HB2	23:AD:86:LEU:HD22	2.04	0.40
23:AD:97:CYS:O	23:AD:99:ILE:CA	2.60	0.40
27:AE:201:HIS:NE2	36:B2:857:U:H5''	2.37	0.40
27:AE:31:PRO:CG	27:AE:38:LEU:HD13	2.45	0.40
27:AE:34:GLY:HA3	27:AE:83:PRO:CG	2.51	0.40
30:AF:20:PHE:CZ	30:AF:50:PRO:HG3	2.56	0.40
29:AG:122:PRO:CD	29:AG:123:GLY:N	2.83	0.40
31:AH:92:VAL:O	31:AH:93:VAL:HB	2.22	0.40
4:AK:9:ILE:HG23	4:AK:10:ALA:N	2.35	0.40
11:AL:107:LYS:CD	36:B2:354:U:OP2	2.69	0.40
11:AL:22:ARG:CG	33:AI:154:LYS:HZ3	2.35	0.40
11:AL:71:ARG:CG	11:AL:73:LEU:CD2	2.97	0.40
5:AO:103:ASN:O	5:AO:104:ARG:O	2.38	0.40
5:AO:84:ARG:HA	5:AO:87:GLU:CB	2.47	0.40
34:AQ:107:GLU:O	34:AQ:111:ILE:HG13	2.22	0.40
34:AQ:88:ILE:O	34:AQ:91:ALA:HB3	2.21	0.40
8:AS:61:GLU:CA	8:AS:64:VAL:HG22	2.51	0.40
14:AT:102:ARG:HD3	14:AT:105:GLN:OE1	2.21	0.40
14:AT:40:ALA:C	14:AT:43:LYS:HG2	2.41	0.40
3:AU:68:THR:CB	3:AU:70:CYS:O	2.69	0.40
3:AU:75:LYS:HG3	3:AU:75:LYS:H	1.25	0.40
17:AV:41:LYS:HD2	17:AV:41:LYS:HA	1.39	0.40
19:AZ:104:ARG:HA	19:AZ:104:ARG:HD2	1.37	0.40
36:B2:1396:A:N3	36:B2:1396:A:H5''	2.37	0.40
36:B2:1434:C:C3'	36:B2:1435:C:O4'	2.69	0.40
36:B2:1595:U:C5	36:B2:1596:U:C5	3.08	0.40
3:AU:79:ARG:NH2	36:B2:1668:U:O3'	2.54	0.40
51:CA:115:CYS:O	51:CA:115:CYS:SG	2.79	0.40
63:CB:90:VAL:HG12	63:CB:161:ARG:HB2	2.02	0.40
63:CB:57:VAL:HB	63:CB:367:PHE:HB3	2.04	0.40
74:CC:137:VAL:HG13	74:CC:142:HIS:ND1	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:CC:260:LEU:O	74:CC:264:TYR:HD2	2.04	0.40
49:CQ:34:PHE:CE2	74:CC:293:LEU:HB3	2.56	0.40
48:CD:90:VAL:CG2	48:CD:226:TYR:OH	2.69	0.40
48:CD:262:LYS:CA	48:CD:263:LYS:HB2	2.51	0.40
81:CE:207:LYS:O	81:CE:208:ILE:CD1	2.69	0.40
81:CE:85:LYS:CB	81:CE:92:VAL:HG12	2.38	0.40
64:CF:105:VAL:HA	64:CF:135:ILE:HD12	2.04	0.40
80:CH:45:LEU:HD22	80:CH:57:VAL:CG1	2.37	0.40
80:CH:78:GLN:O	80:CH:82:LYS:HG3	2.21	0.40
47:CI:52:MET:CE	47:CI:155:ALA:HB3	2.51	0.40
47:CI:174:THR:CB	47:CI:176:PHE:CD2	2.79	0.40
79:CJ:118:LYS:HB3	79:CJ:119:TYR:H	1.57	0.40
42:CL:29:PRO:CG	42:CL:30:ALA:H	2.34	0.40
44:CM:41:PRO:CG	44:CM:73:VAL:CG2	2.54	0.40
41:CO:131:PRO:C	41:CO:132:THR:CG2	2.65	0.40
41:CO:190:ASP:HA	41:CO:191:LYS:HB3	1.99	0.40
41:CO:199:HIS:CD2	41:CO:200:GLY:N	2.89	0.40
41:CO:3:GLU:HG2	41:CO:3:GLU:H	1.32	0.40
54:CP:18:ARG:HG2	85:A5:399:G:H4'	2.03	0.40
50:CR:4:LEU:HD12	50:CR:32:ILE:HG22	2.04	0.40
52:CS:74:ARG:C	52:CS:75:VAL:HG12	2.41	0.40
52:CS:85:ASP:OD1	52:CS:90:THR:HB	2.21	0.40
53:CT:113:ASP:OD1	53:CT:113:ASP:C	2.56	0.40
55:CU:66:SER:O	55:CU:67:LYS:HG3	2.18	0.40
58:CW:110:ARG:HD2	58:CW:113:LYS:HD2	2.02	0.40
58:CW:14:TYR:OH	63:CB:380:GLN:HG2	2.19	0.40
58:CW:31:PHE:CZ	58:CW:40:PHE:CD2	3.09	0.40
56:CX:110:LYS:HG2	56:CX:114:LYS:HE2	2.04	0.40
59:CZ:91:LEU:CB	59:CZ:117:LYS:HE2	2.50	0.40
85:A5:1426:G:H1'	85:A5:1459:A:N6	2.37	0.40
85:A5:246:G:H4'	85:A5:246:G:OP1	2.21	0.40
85:A5:3682:A:C8	85:A5:3684:G:C2	3.09	0.40
85:A5:4561:C:H2'	85:A5:4562:C:H6	1.84	0.40
87:A8:102:G:P	87:A8:104:A:O2'	2.80	0.40
16:AA:103:PHE:HE2	16:AA:136:GLU:OE2	2.02	0.40
16:AA:204:TYR:CD2	16:AA:204:TYR:C	2.95	0.40
15:AB:229:MET:H	15:AB:229:MET:HG2	1.63	0.40
15:AB:72:ALA:CB	15:AB:79:VAL:O	2.57	0.40
23:AD:167:TYR:HB3	23:AD:189:MET:SD	2.62	0.40
23:AD:58:VAL:CG2	23:AD:59:LEU:N	2.83	0.40
27:AE:122:LYS:HG3	27:AE:164:LEU:CD2	2.50	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AE:127:ARG:HH22	36:B2:344:U:C5'	2.34	0.40
27:AE:67:GLN:C	27:AE:68:ARG:CG	2.88	0.40
29:AG:129:VAL:HG13	29:AG:130:PRO:HD2	2.04	0.40
33:AI:8:TRP:CD1	33:AI:22:HIS:HE1	2.40	0.40
26:AJ:37:LEU:HD23	26:AJ:39:ASN:O	2.22	0.40
4:AK:16:PHE:CD2	4:AK:79:LEU:CD1	3.05	0.40
11:AL:141:ASN:O	11:AL:143:LEU:CD1	2.70	0.40
11:AL:56:ILE:HG22	11:AL:57:ASP:N	2.36	0.40
11:AL:93:LEU:HB3	11:AL:102:PHE:HD2	1.87	0.40
7:AM:113:ASP:O	7:AM:114:TYR:CD2	2.74	0.40
10:AN:38:TYR:CD1	10:AN:78:LYS:HG3	2.56	0.40
5:AO:98:ARG:NE	5:AO:134:PRO:HD3	2.37	0.40
8:AS:93:GLY:HA2	13:AP:18:ARG:HG2	2.04	0.40
13:AP:81:ARG:HB3	36:B2:1621:U:O2	2.21	0.40
34:AQ:113:ILE:CG1	34:AQ:120:LEU:HD12	2.51	0.40
8:AS:118:ARG:HH12	13:AP:108:LYS:CE	2.34	0.40
8:AS:47:LYS:HZ1	8:AS:78:LYS:HB3	1.85	0.40
8:AS:52:LEU:HD12	8:AS:53:THR:CA	2.51	0.40
8:AS:82:TRP:CZ2	36:B2:1567:G:H1'	2.57	0.40
14:AT:18:LEU:HD13	14:AT:134:ILE:CD1	2.16	0.40
3:AU:30:LYS:O	3:AU:34:LYS:HG2	2.22	0.40
32:AW:20:ARG:HA	32:AW:20:ARG:HD3	1.38	0.40
18:AY:56:PHE:C	18:AY:58:PHE:CE2	2.95	0.40
10:AN:71:ILE:HD12	36:B2:1018:U:H5''	2.03	0.40
36:B2:1096:G:H1	36:B2:1136:U:H3	1.69	0.40
36:B2:109:U:O5'	36:B2:109:U:H6	2.03	0.40
36:B2:118:C:C5	36:B2:119:U:C5	3.10	0.40
23:AD:151:LYS:NZ	36:B2:1486:A:OP2	2.55	0.40
6:AX:76:LYS:HD3	36:B2:483:C:OP1	2.21	0.40
51:CA:206:PRO:CD	51:CA:207:VAL:N	2.82	0.40
51:CA:221:LYS:HA	51:CA:221:LYS:HD2	1.67	0.40
63:CB:240:LEU:HD11	63:CB:252:ALA:HB2	2.02	0.40
63:CB:282:LYS:HB3	63:CB:333:LEU:HG	2.02	0.40
49:CQ:34:PHE:CB	74:CC:293:LEU:HD21	2.49	0.40
74:CC:351:VAL:O	74:CC:354:ALA:N	2.54	0.40
74:CC:80:ARG:O	74:CC:80:ARG:CG	2.69	0.40
81:CE:127:SER:CA	81:CE:129:GLY:N	2.71	0.40
81:CE:240:TYR:O	81:CE:243:THR:HB	2.21	0.40
81:CE:63:TYR:O	81:CE:66:LYS:HG3	2.21	0.40
82:CG:99:ALA:HB1	82:CG:136:LEU:HD11	2.04	0.40
82:CG:23:GLU:HB3	82:CG:24:ALA:H	1.66	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CJ:20:LEU:HD22	79:CJ:83:LEU:CG	2.52	0.40
79:CJ:9:GLU:O	79:CJ:10:ASN:ND2	2.54	0.40
44:CM:113:MET:CE	44:CM:117:LYS:HG3	2.46	0.40
46:CN:47:LYS:O	46:CN:47:LYS:HD3	2.21	0.40
54:CP:29:THR:C	54:CP:32:THR:CG2	2.87	0.40
49:CQ:34:PHE:HB3	74:CC:293:LEU:CD2	2.51	0.40
49:CQ:6:ARG:HD2	64:CF:110:GLN:HB2	2.03	0.40
50:CR:142:ILE:CA	50:CR:145:LEU:CG	2.92	0.40
50:CR:68:LEU:HA	50:CR:71:ARG:CD	2.41	0.40
53:CT:135:PRO:HG3	64:CF:88:LYS:HE3	2.03	0.40
53:CT:25:VAL:CG1	53:CT:26:PRO:HD2	2.47	0.40
53:CT:30:TYR:HH	53:CT:94:GLU:CD	2.24	0.40
55:CU:40:GLU:HG2	55:CU:70:ILE:HG21	2.03	0.40
58:CW:34:ALA:CA	58:CW:37:GLU:CD	2.69	0.40
58:CW:98:PRO:HB2	58:CW:99:GLU:H	1.65	0.40
56:CX:77:ILE:CD1	56:CX:113:VAL:HG22	2.50	0.40
56:CX:36:LYS:HD3	56:CX:36:LYS:HA	1.88	0.40
56:CX:63:LYS:NZ	56:CX:63:LYS:CB	2.77	0.40
57:CY:20:ASN:O	57:CY:21:ALA:C	2.60	0.40
57:CY:46:SER:O	57:CY:47:MET:SD	2.80	0.40
57:CY:83:GLU:O	57:CY:85:VAL:N	2.49	0.40
57:CY:84:ARG:HG2	57:CY:84:ARG:HH11	1.86	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	Az	854/858 (100%)	766 (90%)	51 (6%)	37 (4%)	<b>3</b> <b>28</b>
2	Ag	311/317 (98%)	271 (87%)	23 (7%)	17 (6%)	<b>2</b> <b>23</b>
3	AU	102/119 (86%)	77 (76%)	9 (9%)	16 (16%)	<b>0</b> <b>4</b>

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	AK	96/165 (58%)	67 (70%)	11 (12%)	18 (19%)	0	3
5	AO	134/151 (89%)	101 (75%)	14 (10%)	19 (14%)	0	5
6	AX	140/143 (98%)	121 (86%)	11 (8%)	8 (6%)	2	22
7	AM	122/132 (92%)	85 (70%)	16 (13%)	21 (17%)	0	3
8	AS	135/152 (89%)	106 (78%)	20 (15%)	9 (7%)	1	19
9	Ad	51/56 (91%)	46 (90%)	3 (6%)	2 (4%)	3	29
10	AN	148/151 (98%)	124 (84%)	18 (12%)	6 (4%)	3	28
11	AL	156/158 (99%)	132 (85%)	10 (6%)	14 (9%)	1	14
12	AR	124/135 (92%)	96 (77%)	13 (10%)	15 (12%)	0	6
13	AP	125/145 (86%)	92 (74%)	16 (13%)	17 (14%)	0	5
14	AT	139/145 (96%)	121 (87%)	8 (6%)	10 (7%)	1	18
15	AB	213/264 (81%)	174 (82%)	24 (11%)	15 (7%)	1	18
16	AA	206/295 (70%)	156 (76%)	23 (11%)	27 (13%)	0	6
17	AV	80/83 (96%)	59 (74%)	10 (12%)	11 (14%)	0	5
18	AY	124/133 (93%)	91 (73%)	15 (12%)	18 (14%)	0	4
19	AZ	73/125 (58%)	52 (71%)	12 (16%)	9 (12%)	0	6
20	Aa	105/115 (91%)	74 (70%)	13 (12%)	18 (17%)	0	4
21	Ab	82/84 (98%)	57 (70%)	14 (17%)	11 (13%)	0	5
22	Ac	62/69 (90%)	44 (71%)	13 (21%)	5 (8%)	1	15
23	AD	225/243 (93%)	180 (80%)	24 (11%)	21 (9%)	1	13
24	Ae	57/59 (97%)	39 (68%)	5 (9%)	13 (23%)	0	1
25	Af	69/80 (86%)	38 (55%)	13 (19%)	18 (26%)	0	1
26	AJ	180/194 (93%)	138 (77%)	18 (10%)	24 (13%)	0	5
27	AE	261/263 (99%)	210 (80%)	29 (11%)	22 (8%)	1	14
28	AC	224/293 (76%)	203 (91%)	10 (4%)	11 (5%)	2	25
29	AG	235/249 (94%)	202 (86%)	18 (8%)	15 (6%)	1	20
30	AF	189/204 (93%)	162 (86%)	15 (8%)	12 (6%)	1	21
31	AH	188/194 (97%)	146 (78%)	11 (6%)	31 (16%)	0	4
32	AW	127/130 (98%)	111 (87%)	14 (11%)	2 (2%)	11	49
33	AI	204/208 (98%)	169 (83%)	13 (6%)	22 (11%)	0	9
34	AQ	139/146 (95%)	110 (79%)	19 (14%)	10 (7%)	1	18

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
35	Ah	69/408 (17%)	31 (45%)	15 (22%)	23 (33%)	0	0
38	Cz	213/217 (98%)	189 (89%)	16 (8%)	8 (4%)	3	30
39	Cq	278/317 (88%)	197 (71%)	31 (11%)	50 (18%)	0	3
40	CK	161/165 (98%)	77 (48%)	35 (22%)	49 (30%)	0	0
41	CO	200/203 (98%)	183 (92%)	12 (6%)	5 (2%)	6	39
42	CL	208/211 (99%)	165 (79%)	18 (9%)	25 (12%)	0	6
43	CV	131/140 (94%)	116 (88%)	11 (8%)	4 (3%)	4	35
44	CM	137/215 (64%)	112 (82%)	16 (12%)	9 (7%)	1	20
45	Ca	145/148 (98%)	120 (83%)	14 (10%)	11 (8%)	1	16
46	CN	201/204 (98%)	179 (89%)	9 (4%)	13 (6%)	1	20
47	CI	211/214 (99%)	165 (78%)	27 (13%)	19 (9%)	1	14
48	CD	287/297 (97%)	237 (83%)	24 (8%)	26 (9%)	1	13
49	CQ	186/188 (99%)	152 (82%)	18 (10%)	16 (9%)	1	14
50	CR	187/196 (95%)	165 (88%)	15 (8%)	7 (4%)	4	31
51	CA	253/257 (98%)	210 (83%)	23 (9%)	20 (8%)	1	16
52	CS	173/176 (98%)	137 (79%)	15 (9%)	21 (12%)	0	6
53	CT	157/160 (98%)	131 (83%)	11 (7%)	15 (10%)	1	12
54	CP	150/184 (82%)	134 (89%)	9 (6%)	7 (5%)	2	26
55	CU	110/128 (86%)	90 (82%)	13 (12%)	7 (6%)	1	20
56	CX	119/156 (76%)	98 (82%)	14 (12%)	7 (6%)	2	22
57	CY	131/145 (90%)	116 (88%)	11 (8%)	4 (3%)	4	35
58	CW	122/157 (78%)	94 (77%)	13 (11%)	15 (12%)	0	6
59	CZ	133/136 (98%)	109 (82%)	14 (10%)	10 (8%)	1	17
60	Cr	135/137 (98%)	86 (64%)	22 (16%)	27 (20%)	0	2
61	Ch	121/123 (98%)	93 (77%)	14 (12%)	14 (12%)	0	7
62	Cb	76/159 (48%)	58 (76%)	9 (12%)	9 (12%)	0	7
63	CB	395/403 (98%)	322 (82%)	34 (9%)	39 (10%)	1	11
64	CF	227/248 (92%)	209 (92%)	6 (3%)	12 (5%)	2	24
65	Cc	98/115 (85%)	90 (92%)	5 (5%)	3 (3%)	4	35
66	Cd	111/125 (89%)	75 (68%)	20 (18%)	16 (14%)	0	5
67	Ce	131/135 (97%)	102 (78%)	14 (11%)	15 (12%)	0	7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
68	Cf	107/110 (97%)	82 (77%)	12 (11%)	13 (12%)	0	6
69	Cg	112/117 (96%)	91 (81%)	7 (6%)	14 (12%)	0	6
70	Ci	101/105 (96%)	78 (77%)	7 (7%)	16 (16%)	0	4
71	Cj	88/97 (91%)	74 (84%)	7 (8%)	7 (8%)	1	15
72	Ck	67/70 (96%)	59 (88%)	5 (8%)	3 (4%)	3	27
73	Cl	48/51 (94%)	37 (77%)	8 (17%)	3 (6%)	1	21
74	CC	366/427 (86%)	259 (71%)	41 (11%)	66 (18%)	0	3
75	Cm	50/52 (96%)	44 (88%)	3 (6%)	3 (6%)	2	21
76	Cn	23/25 (92%)	21 (91%)	2 (9%)	0	100	100
77	Cp	88/92 (96%)	75 (85%)	9 (10%)	4 (4%)	3	27
78	Co	103/106 (97%)	74 (72%)	14 (14%)	15 (15%)	0	4
79	CJ	166/178 (93%)	132 (80%)	20 (12%)	14 (8%)	1	14
80	CH	189/192 (98%)	163 (86%)	18 (10%)	8 (4%)	3	28
81	CE	260/288 (90%)	164 (63%)	39 (15%)	57 (22%)	0	2
82	CG	244/266 (92%)	165 (68%)	31 (13%)	48 (20%)	0	2
83	Cs	55/114 (48%)	53 (96%)	2 (4%)	0	100	100
83	Ct	55/114 (48%)	55 (100%)	0	0	100	100
84	Cu	54/115 (47%)	49 (91%)	1 (2%)	4 (7%)	1	17
84	Cv	54/115 (47%)	51 (94%)	0	3 (6%)	2	23
All	All	13166/14959 (88%)	10588 (80%)	1270 (10%)	1308 (10%)	1	11

All (1308) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	Az	4	PHE
1	Az	43	ALA
1	Az	44	GLY
1	Az	45	ILE
1	Az	47	ALA
1	Az	61	LYS
1	Az	71	LYS
1	Az	206	ASP
1	Az	207	PRO
1	Az	240	GLY
1	Az	241	GLU

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Mol	Chain	Res	Type
1	Az	481	LYS
1	Az	498	LYS
1	Az	499	PHE
1	Az	500	SER
1	Az	504	VAL
1	Az	577	VAL
1	Az	716	ARG
1	Az	753	GLU
1	Az	776	VAL
1	Az	778	GLY
1	Az	808	ALA
1	Az	849	PRO
2	Ag	3	GLU
2	Ag	48	ASP
2	Ag	52	TYR
2	Ag	96	THR
2	Ag	282	GLU
2	Ag	283	PRO
3	AU	51	LYS
3	AU	94	PRO
3	AU	95	SER
3	AU	107	GLU
3	AU	118	ASP
4	AK	2	LEU
4	AK	3	MET
4	AK	30	PRO
4	AK	35	LEU
4	AK	39	ASN
4	AK	40	VAL
4	AK	41	PRO
4	AK	44	HIS
4	AK	63	ALA
4	AK	88	GLU
4	AK	89	ILE
5	AO	23	GLU
5	AO	52	THR
5	AO	53	ILE
5	AO	64	ALA
5	AO	104	ARG
5	AO	137	SER
5	AO	138	ASP
5	AO	139	SER

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Mol	Chain	Res	Type
5	AO	140	THR
6	AX	3	LYS
6	AX	4	CYS
7	AM	12	MET
7	AM	15	ASN
7	AM	44	LYS
7	AM	72	HIS
7	AM	77	ILE
7	AM	78	LYS
7	AM	79	VAL
7	AM	81	ASP
7	AM	89	VAL
7	AM	96	ARG
7	AM	100	PRO
7	AM	116	LYS
7	AM	117	GLU
8	AS	11	HIS
8	AS	53	THR
8	AS	59	LEU
8	AS	90	VAL
9	Ad	8	TRP
10	AN	22	VAL
11	AL	5	GLN
11	AL	6	THR
11	AL	7	GLU
11	AL	20	LYS
11	AL	23	VAL
11	AL	147	LYS
11	AL	152	LYS
11	AL	153	LYS
12	AR	88	VAL
12	AR	89	SER
12	AR	100	PRO
12	AR	101	ASP
12	AR	121	GLN
12	AR	123	THR
13	AP	6	GLN
13	AP	11	THR
13	AP	12	PHE
13	AP	37	TYR
13	AP	38	SER
13	AP	68	PRO

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Mol	Chain	Res	Type
13	AP	69	PRO
13	AP	71	GLU
13	AP	73	PRO
13	AP	75	VAL
13	AP	125	PRO
13	AP	126	VAL
13	AP	127	LYS
14	AT	5	THR
14	AT	31	PRO
14	AT	32	GLU
14	AT	33	TRP
14	AT	34	VAL
14	AT	96	SER
14	AT	143	LYS
15	AB	27	LYS
15	AB	77	ASP
15	AB	78	GLU
15	AB	106	THR
15	AB	154	SER
15	AB	179	ASN
15	AB	206	PRO
15	AB	210	VAL
16	AA	9	GLN
16	AA	31	ASP
16	AA	45	GLY
16	AA	103	PHE
16	AA	164	ASN
16	AA	165	ASN
16	AA	188	THR
16	AA	192	GLU
16	AA	203	PHE
16	AA	207	PRO
17	AV	4	ASP
17	AV	10	ASP
17	AV	42	VAL
17	AV	43	THR
17	AV	44	GLY
17	AV	50	PHE
17	AV	65	SER
18	AY	6	THR
18	AY	30	PRO
18	AY	34	THR

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Mol	Chain	Res	Type
18	AY	86	GLU
18	AY	87	PRO
18	AY	100	LYS
18	AY	104	ARG
18	AY	120	THR
19	AZ	93	SER
19	AZ	104	ARG
19	AZ	108	ILE
19	AZ	113	THR
20	Aa	28	ARG
20	Aa	46	GLU
20	Aa	47	ALA
20	Aa	58	VAL
20	Aa	59	PHE
20	Aa	61	ALA
20	Aa	63	VAL
20	Aa	64	LEU
20	Aa	98	PRO
20	Aa	99	PRO
20	Aa	107	ALA
21	Ab	62	VAL
21	Ab	63	LEU
21	Ab	64	CYS
22	Ac	8	PRO
22	Ac	67	ARG
23	AD	2	ALA
23	AD	4	GLN
23	AD	93	THR
23	AD	98	ALA
23	AD	202	LYS
23	AD	205	PRO
23	AD	213	PRO
23	AD	214	LYS
23	AD	216	GLU
23	AD	220	THR
23	AD	221	THR
23	AD	222	PRO
23	AD	223	ILE
23	AD	226	GLN
24	Ae	2	VAL
24	Ae	4	GLY
24	Ae	7	ALA

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Mol	Chain	Res	Type
24	Ae	24	LYS
24	Ae	45	VAL
24	Ae	47	PRO
24	Ae	52	LYS
25	Af	84	SER
25	Af	85	TYR
25	Af	86	THR
25	Af	91	ASN
25	Af	102	VAL
25	Af	106	TYR
25	Af	110	GLU
25	Af	128	ALA
26	AJ	19	PRO
26	AJ	22	LYS
26	AJ	36	GLY
26	AJ	110	LEU
26	AJ	111	GLN
26	AJ	118	GLY
26	AJ	119	LEU
26	AJ	122	SER
26	AJ	138	ARG
26	AJ	161	LEU
26	AJ	163	SER
26	AJ	169	ARG
26	AJ	170	PRO
26	AJ	172	ARG
27	AE	12	VAL
27	AE	24	THR
27	AE	76	VAL
27	AE	95	THR
27	AE	163	ASP
27	AE	196	THR
27	AE	260	GLN
27	AE	261	SER
28	AC	117	ARG
28	AC	119	GLY
28	AC	132	ASP
28	AC	233	LEU
28	AC	275	LYS
29	AG	20	ASP
29	AG	154	ARG
29	AG	164	LYS

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Mol	Chain	Res	Type
29	AG	174	PRO
29	AG	175	LYS
29	AG	180	VAL
29	AG	181	THR
30	AF	43	GLU
30	AF	44	LYS
30	AF	202	SER
30	AF	203	ASN
31	AH	15	LYS
31	AH	16	PRO
31	AH	33	ASN
31	AH	35	ASP
31	AH	66	VAL
31	AH	88	SER
31	AH	108	SER
31	AH	109	ARG
31	AH	110	THR
31	AH	116	ARG
31	AH	135	PHE
31	AH	137	SER
31	AH	138	GLU
31	AH	160	LYS
31	AH	190	PRO
33	AI	8	TRP
33	AI	120	PRO
33	AI	124	LYS
33	AI	131	PRO
33	AI	133	GLU
33	AI	139	LYS
33	AI	140	LYS
33	AI	142	SER
33	AI	143	LYS
33	AI	145	ILE
33	AI	153	LYS
33	AI	154	LYS
33	AI	158	ILE
33	AI	206	LYS
34	AQ	19	ALA
34	AQ	61	GLU
34	AQ	62	ARG
34	AQ	117	ARG
34	AQ	119	LEU

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Mol	Chain	Res	Type
34	AQ	141	TYR
35	Ah	143	GLU
35	Ah	149	GLY
35	Ah	150	GLU
35	Ah	151	PHE
35	Ah	154	ASP
35	Ah	155	ARG
35	Ah	176	GLY
35	Ah	178	GLY
35	Ah	299	LYS
35	Ah	300	ASP
38	Cz	60	ARG
38	Cz	81	ASP
38	Cz	84	HIS
38	Cz	209	THR
38	Cz	210	MET
39	Cq	25	PRO
39	Cq	27	CYS
39	Cq	37	SER
39	Cq	69	LEU
39	Cq	70	GLU
39	Cq	73	PRO
39	Cq	74	ALA
39	Cq	108	PRO
39	Cq	109	ALA
39	Cq	126	GLN
39	Cq	135	THR
39	Cq	140	ALA
39	Cq	149	ARG
39	Cq	150	GLY
39	Cq	182	PRO
39	Cq	183	PHE
39	Cq	184	SER
39	Cq	185	PHE
39	Cq	201	PRO
39	Cq	232	PRO
39	Cq	237	VAL
39	Cq	257	TYR
39	Cq	260	PRO
39	Cq	261	LEU
39	Cq	263	GLU
40	CK	2	PRO

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Mol	Chain	Res	Type
40	CK	5	PHE
40	CK	7	PRO
40	CK	8	ASN
40	CK	9	GLU
40	CK	28	LEU
40	CK	30	PRO
40	CK	38	SER
40	CK	39	PRO
40	CK	54	LYS
40	CK	58	ILE
40	CK	86	LYS
40	CK	89	PRO
40	CK	92	ARG
40	CK	98	ILE
40	CK	105	THR
40	CK	117	ARG
40	CK	118	HIS
40	CK	119	ARG
40	CK	121	LEU
40	CK	126	SER
40	CK	135	THR
40	CK	141	CYS
40	CK	142	ASN
40	CK	144	ASP
40	CK	147	HIS
40	CK	148	PRO
40	CK	149	HIS
40	CK	159	ALA
41	CO	110	PRO
41	CO	111	PRO
41	CO	182	GLU
42	CL	3	PRO
42	CL	14	PHE
42	CL	47	ALA
42	CL	49	ARG
42	CL	50	PRO
42	CL	51	ALA
42	CL	52	SER
42	CL	54	PRO
42	CL	129	ARG
42	CL	130	LYS
42	CL	131	PRO

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Mol	Chain	Res	Type
42	CL	134	PRO
42	CL	143	GLU
42	CL	151	THR
42	CL	153	PRO
42	CL	155	MET
42	CL	160	VAL
42	CL	165	LYS
42	CL	166	ALA
44	CM	3	PHE
44	CM	4	ARG
44	CM	35	ARG
44	CM	43	THR
44	CM	65	PRO
44	CM	71	LYS
45	Ca	48	TYR
45	Ca	76	ASP
45	Ca	94	LYS
45	Ca	97	ALA
45	Ca	98	ALA
45	Ca	118	PRO
45	Ca	119	LYS
46	CN	79	ALA
46	CN	80	THR
46	CN	81	TYR
46	CN	125	SER
46	CN	146	PRO
46	CN	147	ASP
46	CN	184	ILE
47	CI	3	ARG
47	CI	6	ALA
47	CI	104	SER
47	CI	106	ALA
47	CI	110	ARG
47	CI	112	GLN
47	CI	113	THR
47	CI	200	VAL
47	CI	201	PRO
47	CI	205	PRO
47	CI	206	LEU
47	CI	207	ASP
48	CD	20	PHE
48	CD	44	TYR

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Mol	Chain	Res	Type
48	CD	58	ARG
48	CD	187	SER
48	CD	189	GLU
48	CD	219	TYR
48	CD	220	LYS
48	CD	233	PRO
48	CD	234	ASP
48	CD	253	TYR
48	CD	259	LYS
48	CD	261	VAL
48	CD	271	MET
48	CD	272	SER
48	CD	285	ALA
49	CQ	11	ARG
49	CQ	98	LEU
49	CQ	147	GLU
49	CQ	153	GLY
49	CQ	160	HIS
50	CR	16	ARG
51	CA	115	CYS
51	CA	142	GLU
51	CA	219	ILE
51	CA	221	LYS
51	CA	222	PRO
51	CA	230	PRO
51	CA	231	ALA
51	CA	233	ARG
51	CA	234	LYS
51	CA	249	THR
51	CA	251	THR
51	CA	255	LYS
52	CS	16	CYS
52	CS	20	PRO
52	CS	24	THR
52	CS	76	LYS
52	CS	149	LYS
52	CS	152	PHE
52	CS	153	PRO
52	CS	155	PRO
52	CS	171	ARG
52	CS	174	THR
53	CT	5	LYS

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Mol	Chain	Res	Type
53	CT	81	LYS
53	CT	127	GLN
53	CT	134	PRO
53	CT	135	PRO
53	CT	138	ALA
53	CT	158	PHE
54	CP	6	LEU
54	CP	7	ASP
54	CP	8	PRO
54	CP	11	PRO
54	CP	66	GLY
55	CU	17	GLN
56	CX	40	ILE
56	CX	54	LEU
56	CX	58	PRO
56	CX	61	PRO
57	CY	92	GLY
58	CW	73	ARG
58	CW	74	ARG
58	CW	75	ALA
58	CW	77	LYS
58	CW	89	ASP
58	CW	95	ASN
58	CW	98	PRO
58	CW	99	GLU
59	CZ	36	ARG
59	CZ	56	ALA
59	CZ	125	GLY
60	Cr	2	SER
60	Cr	3	ALA
60	Cr	22	LYS
60	Cr	28	GLU
60	Cr	29	PRO
60	Cr	30	ASN
60	Cr	32	LEU
60	Cr	41	ASN
60	Cr	42	GLY
60	Cr	43	LEU
60	Cr	66	ARG
60	Cr	67	ARG
60	Cr	83	ASN
60	Cr	90	LEU

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Mol	Chain	Res	Type
60	Cr	107	ARG
60	Cr	126	VAL
60	Cr	127	LYS
61	Ch	2	ALA
61	Ch	4	ILE
61	Ch	37	THR
61	Ch	77	LYS
61	Ch	78	TYR
61	Ch	85	PRO
61	Ch	86	LYS
61	Ch	115	PRO
61	Ch	120	ALA
61	Ch	122	LYS
62	Cb	25	ARG
62	Cb	37	PRO
62	Cb	38	LYS
63	CB	3	HIS
63	CB	5	LYS
63	CB	19	ARG
63	CB	25	HIS
63	CB	34	LYS
63	CB	40	PRO
63	CB	41	VAL
63	CB	112	ASP
63	CB	113	GLU
63	CB	139	ASP
63	CB	140	GLU
63	CB	144	LYS
63	CB	189	THR
63	CB	293	ILE
63	CB	312	LYS
63	CB	357	ARG
63	CB	393	LYS
64	CF	22	ARG
64	CF	23	ARG
64	CF	25	PHE
64	CF	218	GLY
64	CF	220	MET
64	CF	225	THR
66	Cd	16	ALA
66	Cd	17	ILE
66	Cd	20	VAL

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Mol	Chain	Res	Type
66	Cd	58	GLY
66	Cd	59	THR
66	Cd	60	PRO
66	Cd	96	GLU
66	Cd	97	ASP
66	Cd	113	THR
67	Ce	2	ALA
67	Ce	5	ARG
67	Ce	6	PRO
67	Ce	7	LEU
67	Ce	12	ILE
67	Ce	92	ASN
67	Ce	127	ALA
67	Ce	130	ARG
67	Ce	131	SER
68	Cf	7	SER
68	Cf	31	GLU
68	Cf	34	TYR
68	Cf	57	THR
68	Cf	58	VAL
68	Cf	64	PRO
68	Cf	65	ASN
69	Cg	48	VAL
69	Cg	50	PRO
69	Cg	58	ALA
69	Cg	75	SER
69	Cg	76	ARG
69	Cg	81	SER
70	Ci	2	ALA
70	Ci	4	ARG
70	Ci	5	TYR
70	Ci	6	PRO
70	Ci	9	VAL
70	Ci	12	ASN
70	Ci	20	ASN
70	Ci	23	LYS
70	Ci	24	PRO
70	Ci	34	THR
70	Ci	63	VAL
70	Ci	64	SER
71	Cj	83	THR
71	Cj	86	PRO

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Mol	Chain	Res	Type
71	Cj	87	LYS
71	Cj	90	ALA
73	Cl	37	TYR
74	CC	8	ILE
74	CC	17	SER
74	CC	18	SER
74	CC	23	THR
74	CC	24	LEU
74	CC	25	PRO
74	CC	45	ARG
74	CC	60	HIS
74	CC	61	GLN
74	CC	92	PHE
74	CC	156	ASP
74	CC	175	LYS
74	CC	213	GLU
74	CC	263	LEU
74	CC	267	TRP
74	CC	268	ARG
74	CC	273	LEU
74	CC	274	LYS
74	CC	275	SER
74	CC	276	ASN
74	CC	286	ASN
74	CC	287	THR
74	CC	288	ASP
74	CC	289	LEU
74	CC	295	SER
74	CC	296	PRO
74	CC	304	ALA
74	CC	307	LYS
74	CC	310	HIS
74	CC	311	ARG
74	CC	312	ARG
74	CC	313	VAL
74	CC	318	PRO
74	CC	319	LEU
74	CC	342	ARG
75	Cm	104	HIS
77	Cp	4	ARG
78	Co	14	LYS
78	Co	31	ASP

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Mol	Chain	Res	Type
78	Co	32	SER
78	Co	63	THR
78	Co	65	LYS
78	Co	66	ILE
78	Co	73	VAL
78	Co	74	GLU
78	Co	77	CYS
78	Co	100	LYS
79	CJ	10	ASN
79	CJ	11	PRO
79	CJ	13	ARG
79	CJ	15	LEU
79	CJ	97	ASN
79	CJ	98	ASN
79	CJ	111	GLU
79	CJ	118	LYS
79	CJ	170	TYR
80	CH	42	ASN
80	CH	53	LYS
80	CH	107	GLU
80	CH	110	SER
81	CE	37	PRO
81	CE	41	LYS
81	CE	42	PRO
81	CE	44	CYS
81	CE	45	SER
81	CE	47	ASN
81	CE	51	VAL
81	CE	58	SER
81	CE	60	SER
81	CE	75	ALA
81	CE	76	ALA
81	CE	86	GLU
81	CE	94	LYS
81	CE	96	VAL
81	CE	101	ASN
81	CE	106	VAL
81	CE	115	TYR
81	CE	116	TYR
81	CE	118	THR
81	CE	119	GLU
81	CE	121	VAL

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Mol	Chain	Res	Type
81	CE	128	HIS
81	CE	130	LYS
81	CE	131	LYS
81	CE	138	ARG
81	CE	187	ARG
81	CE	208	ILE
81	CE	214	ASP
81	CE	224	LYS
81	CE	227	HIS
81	CE	230	GLY
81	CE	234	ASP
81	CE	267	LEU
81	CE	278	THR
81	CE	283	PRO
81	CE	284	HIS
82	CG	22	GLN
82	CG	23	GLU
82	CG	24	ALA
82	CG	25	LYS
82	CG	32	PHE
82	CG	36	PRO
82	CG	37	LYS
82	CG	41	ILE
82	CG	44	ASP
82	CG	45	ILE
82	CG	52	THR
82	CG	71	TYR
82	CG	83	PHE
82	CG	86	ALA
82	CG	88	ASP
82	CG	107	LYS
82	CG	120	LYS
82	CG	125	LYS
82	CG	133	PRO
82	CG	161	VAL
82	CG	163	PRO
82	CG	185	LYS
82	CG	212	LYS
82	CG	240	ASN
82	CG	241	VAL
82	CG	242	LEU
82	CG	244	PRO

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Mol	Chain	Res	Type
84	Cu	16	SER
84	Cu	17	SER
84	Cu	18	PRO
84	Cv	18	PRO
1	Az	48	SER
1	Az	53	GLU
1	Az	54	THR
1	Az	62	ASP
2	Ag	49	GLU
2	Ag	60	ARG
2	Ag	144	ASP
2	Ag	159	ASN
2	Ag	171	ASP
2	Ag	281	ALA
2	Ag	295	GLY
3	AU	74	SER
3	AU	98	VAL
4	AK	34	GLU
4	AK	91	PRO
5	AO	54	CYS
5	AO	56	VAL
6	AX	59	ALA
7	AM	45	ARG
8	AS	17	ASN
8	AS	31	THR
8	AS	140	GLY
10	AN	68	GLY
11	AL	4	ILE
11	AL	21	LYS
11	AL	22	ARG
11	AL	57	ASP
12	AR	93	GLN
12	AR	112	GLY
12	AR	125	GLY
13	AP	54	HIS
14	AT	142	ASN
15	AB	93	GLY
15	AB	209	ASP
16	AA	7	VAL
16	AA	96	ALA
16	AA	112	ILE
16	AA	140	VAL

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Mol	Chain	Res	Type
16	AA	159	ILE
16	AA	186	ARG
16	AA	190	SER
16	AA	191	ARG
17	AV	6	GLY
17	AV	48	GLY
17	AV	77	GLY
18	AY	95	GLY
18	AY	99	LYS
18	AY	119	GLY
19	AZ	53	ALA
20	Aa	35	ALA
21	Ab	2	PRO
21	Ab	38	PRO
21	Ab	81	ARG
23	AD	78	GLY
23	AD	194	PRO
23	AD	201	LYS
23	AD	208	VAL
24	Ae	3	HIS
24	Ae	30	GLY
24	Ae	50	GLY
25	Af	98	VAL
25	Af	127	GLY
25	Af	148	TYR
26	AJ	106	LEU
26	AJ	120	ALA
26	AJ	124	HIS
26	AJ	135	ILE
26	AJ	148	ILE
27	AE	104	ASP
27	AE	164	LEU
28	AC	261	PHE
29	AG	26	THR
29	AG	146	ASN
29	AG	153	VAL
30	AF	21	GLY
30	AF	32	ASP
30	AF	41	VAL
30	AF	54	GLY
30	AF	79	HIS
31	AH	11	PRO

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Mol	Chain	Res	Type
31	AH	17	ASP
31	AH	38	ALA
31	AH	41	ARG
31	AH	76	GLN
31	AH	100	ILE
31	AH	112	ASN
31	AH	120	ARG
31	AH	159	ASP
31	AH	193	GLN
32	AW	66	THR
33	AI	22	HIS
33	AI	192	GLY
34	AQ	32	ILE
34	AQ	100	VAL
35	Ah	146	GLY
35	Ah	147	GLU
35	Ah	156	PRO
35	Ah	168	LEU
35	Ah	174	GLY
35	Ah	283	GLU
35	Ah	285	PRO
35	Ah	296	ILE
39	Cq	33	ASP
39	Cq	46	SER
39	Cq	49	GLY
39	Cq	58	ASN
39	Cq	94	ASP
39	Cq	105	ASN
39	Cq	106	LYS
39	Cq	142	GLY
39	Cq	156	SER
39	Cq	179	ASN
39	Cq	180	ILE
39	Cq	259	PHE
40	CK	10	ILE
40	CK	24	ALA
40	CK	34	PRO
40	CK	40	LYS
40	CK	53	TRP
40	CK	60	VAL
40	CK	94	LYS
40	CK	99	LYS

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Mol	Chain	Res	Type
40	CK	120	SER
40	CK	140	GLY
41	CO	132	THR
42	CL	157	VAL
43	CV	44	GLY
43	CV	45	ILE
44	CM	5	ARG
45	Ca	47	LYS
45	Ca	66	ASN
46	CN	188	ARG
47	CI	4	ARG
47	CI	109	ASP
47	CI	175	LYS
47	CI	202	SER
48	CD	59	ASP
48	CD	137	GLY
48	CD	171	LEU
48	CD	215	ASP
49	CQ	20	SER
49	CQ	169	SER
50	CR	47	ASP
50	CR	113	LYS
50	CR	131	VAL
50	CR	133	LYS
51	CA	13	GLY
51	CA	31	ALA
51	CA	143	THR
52	CS	27	LEU
52	CS	134	ALA
53	CT	3	ASN
53	CT	136	ARG
53	CT	143	THR
53	CT	146	LYS
54	CP	3	ARG
55	CU	55	ASN
55	CU	60	VAL
57	CY	43	ASN
57	CY	53	ASP
58	CW	18	GLY
58	CW	26	GLY
58	CW	71	ARG
59	CZ	5	MET

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Mol	Chain	Res	Type
59	CZ	32	GLY
59	CZ	102	ARG
60	Cr	44	ILE
60	Cr	47	LYS
60	Cr	53	PRO
60	Cr	55	ALA
60	Cr	56	ASP
60	Cr	104	PRO
61	Ch	39	GLY
61	Ch	40	ALA
62	Cb	23	LYS
62	Cb	54	LEU
63	CB	38	SER
63	CB	138	GLN
63	CB	141	ASP
63	CB	145	GLN
63	CB	151	SER
63	CB	292	LEU
63	CB	294	LYS
63	CB	361	GLU
63	CB	397	ILE
64	CF	24	ASN
64	CF	237	GLU
65	Cc	11	LEU
65	Cc	12	GLU
65	Cc	92	CYS
66	Cd	13	GLY
66	Cd	98	SER
66	Cd	116	ASN
67	Ce	4	LEU
67	Ce	30	LYS
67	Ce	48	ARG
68	Cf	55	ASN
68	Cf	66	LYS
68	Cf	81	SER
69	Cg	49	CYS
69	Cg	78	TYR
69	Cg	79	GLY
69	Cg	80	GLY
70	Ci	13	LYS
71	Cj	88	ARG
72	Ck	66	VAL

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Mol	Chain	Res	Type
73	Cl	50	GLY
74	CC	7	LEU
74	CC	15	GLY
74	CC	35	ASP
74	CC	59	GLY
74	CC	108	TRP
74	CC	116	ASN
74	CC	157	LYS
74	CC	214	ASP
74	CC	272	SER
74	CC	305	PRO
74	CC	306	ARG
74	CC	309	ILE
74	CC	321	ASN
74	CC	339	THR
74	CC	341	LEU
78	Co	34	TYR
80	CH	4	ILE
81	CE	29	LYS
81	CE	61	ALA
81	CE	73	TYR
81	CE	87	LYS
81	CE	90	ALA
81	CE	139	LYS
81	CE	229	GLU
81	CE	286	LEU
82	CG	46	GLN
82	CG	58	PRO
82	CG	59	ARG
82	CG	72	LYS
82	CG	140	VAL
82	CG	160	ASP
82	CG	167	VAL
82	CG	184	ILE
82	CG	200	THR
82	CG	207	VAL
84	Cv	16	SER
1	Az	269	ALA
1	Az	434	TYR
2	Ag	84	ASP
2	Ag	255	SER
2	Ag	285	GLN

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Mol	Chain	Res	Type
3	AU	70	CYS
3	AU	93	SER
3	AU	110	VAL
4	AK	28	HIS
4	AK	87	PRO
5	AO	32	HIS
6	AX	92	ASN
7	AM	91	LEU
10	AN	28	LEU
12	AR	86	PRO
12	AR	122	PRO
13	AP	17	TYR
13	AP	39	ALA
14	AT	29	LYS
15	AB	56	LYS
15	AB	82	ARG
16	AA	11	LYS
16	AA	30	LEU
16	AA	194	PRO
16	AA	205	ARG
18	AY	53	ASP
18	AY	60	PHE
18	AY	63	HIS
20	Aa	13	LYS
20	Aa	97	PRO
20	Aa	102	ARG
20	Aa	103	PRO
21	Ab	7	LEU
22	Ac	65	ALA
23	AD	218	LEU
24	Ae	53	LYS
24	Ae	55	PRO
25	Af	137	ASP
25	Af	138	ARG
26	AJ	91	LYS
27	AE	168	LYS
27	AE	194	VAL
27	AE	205	PHE
29	AG	69	THR
31	AH	18	GLU
31	AH	117	PRO
31	AH	150	GLY

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Mol	Chain	Res	Type
33	AI	105	ASP
33	AI	106	SER
33	AI	144	LYS
35	Ah	161	PRO
38	Cz	105	LYS
39	Cq	137	PHE
39	Cq	256	ASP
39	Cq	262	ALA
40	CK	3	PRO
40	CK	56	LEU
40	CK	67	ARG
40	CK	90	ARG
40	CK	125	LEU
40	CK	139	VAL
42	CL	62	PRO
42	CL	149	GLN
44	CM	6	PHE
44	CM	67	SER
46	CN	50	ARG
47	CI	5	PRO
48	CD	112	ARG
48	CD	138	GLN
48	CD	251	PRO
48	CD	257	PRO
49	CQ	159	PRO
49	CQ	186	TYR
52	CS	162	GLN
53	CT	4	THR
53	CT	98	HIS
54	CP	40	HIS
55	CU	52	LYS
55	CU	122	GLU
56	CX	69	ASN
60	Cr	34	ALA
62	Cb	29	TYR
63	CB	4	ARG
63	CB	261	ARG
63	CB	326	VAL
63	CB	396	ARG
64	CF	184	ILE
64	CF	197	VAL
66	Cd	101	LYS

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Mol	Chain	Res	Type
67	Ce	94	SER
70	Ci	65	LYS
71	Cj	84	PRO
72	Ck	18	LYS
74	CC	13	GLU
74	CC	86	ARG
74	CC	183	VAL
74	CC	184	TYR
74	CC	249	PHE
74	CC	255	SER
75	Cm	105	PRO
77	Cp	18	TYR
78	Co	15	CYS
78	Co	61	LYS
78	Co	96	ASP
81	CE	30	GLY
81	CE	39	LYS
81	CE	85	LYS
82	CG	33	GLU
82	CG	84	THR
82	CG	134	PRO
82	CG	139	GLY
1	Az	502	SER
2	Ag	37	ASP
3	AU	50	VAL
4	AK	67	PHE
4	AK	95	ARG
5	AO	17	LEU
5	AO	83	GLN
6	AX	9	THR
6	AX	129	SER
7	AM	29	ASP
7	AM	113	ASP
8	AS	12	ILE
11	AL	119	ASP
12	AR	95	ILE
13	AP	50	ARG
14	AT	46	ALA
15	AB	224	GLU
16	AA	104	THR
18	AY	5	VAL
18	AY	102	THR

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Mol	Chain	Res	Type
19	AZ	111	ARG
19	AZ	114	LYS
20	Aa	62	TYR
21	Ab	10	PRO
21	Ab	24	LEU
22	Ac	63	ARG
25	Af	145	CYS
26	AJ	151	LEU
26	AJ	162	ARG
27	AE	30	ARG
27	AE	119	ALA
27	AE	189	LEU
28	AC	259	THR
28	AC	264	SER
29	AG	33	ALA
29	AG	122	PRO
30	AF	37	ASP
35	Ah	153	VAL
35	Ah	167	GLY
38	Cz	197	ASN
39	Cq	24	TYR
39	Cq	61	MET
39	Cq	191	GLN
39	Cq	199	TYR
41	CO	181	ALA
42	CL	161	TYR
46	CN	68	ARG
46	CN	77	LYS
46	CN	183	THR
47	CI	213	HIS
48	CD	21	ARG
48	CD	260	GLU
50	CR	53	LYS
51	CA	138	SER
51	CA	220	GLY
52	CS	26	PRO
52	CS	75	VAL
52	CS	146	HIS
52	CS	150	ILE
52	CS	172	PRO
55	CU	56	LEU
56	CX	43	SER

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Mol	Chain	Res	Type
56	CX	57	GLN
58	CW	78	PHE
58	CW	83	THR
59	CZ	129	TRP
60	Cr	82	ILE
62	Cb	32	LEU
63	CB	78	ILE
63	CB	309	LEU
63	CB	311	ASP
63	CB	342	LYS
63	CB	360	LEU
66	Cd	112	THR
68	Cf	63	LYS
69	Cg	47	GLY
70	Ci	27	SER
70	Ci	67	LYS
74	CC	148	PRO
74	CC	177	TRP
74	CC	262	GLU
79	CJ	58	ARG
79	CJ	114	ASP
79	CJ	175	LEU
81	CE	83	LYS
81	CE	134	SER
81	CE	282	TYR
82	CG	162	ASP
82	CG	166	LEU
84	Cv	17	SER
1	Az	246	PRO
1	Az	574	ASP
3	AU	26	SER
3	AU	116	ILE
3	AU	117	ALA
4	AK	38	LYS
5	AO	22	ALA
5	AO	38	ASN
6	AX	99	GLU
7	AM	59	PRO
7	AM	94	ILE
7	AM	95	ASP
8	AS	7	GLU
10	AN	3	ARG

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Mol	Chain	Res	Type
10	AN	138	ASN
11	AL	2	ALA
12	AR	99	ASP
18	AY	51	THR
18	AY	121	ALA
19	AZ	62	VAL
19	AZ	78	LYS
22	Ac	39	SER
23	AD	80	PRO
24	Ae	23	GLU
25	Af	93	HIS
25	Af	94	LYS
25	Af	147	THR
26	AJ	116	LYS
27	AE	90	ILE
27	AE	134	LYS
27	AE	213	ALA
28	AC	179	THR
32	AW	67	GLY
33	AI	52	ASN
33	AI	59	ARG
34	AQ	43	GLU
35	Ah	141	PRO
35	Ah	173	GLY
39	Cq	133	GLU
40	CK	36	GLY
40	CK	96	LYS
40	CK	124	GLU
42	CL	138	ASP
42	CL	146	LEU
46	CN	45	PRO
47	CI	25	GLY
48	CD	125	VAL
49	CQ	42	THR
49	CQ	142	PRO
49	CQ	157	GLY
49	CQ	173	LYS
50	CR	55	VAL
51	CA	35	ALA
51	CA	123	ARG
51	CA	145	LYS
52	CS	4	SER

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Mol	Chain	Res	Type
52	CS	74	ARG
60	Cr	37	SER
61	Ch	5	LYS
63	CB	378	ARG
64	CF	232	ASP
67	Ce	9	LYS
68	Cf	32	GLY
69	Cg	57	ARG
69	Cg	69	LYS
72	Ck	32	VAL
74	CC	30	ALA
74	CC	74	ALA
74	CC	234	LYS
75	Cm	78	ILE
77	Cp	51	ALA
80	CH	13	PRO
80	CH	188	GLN
81	CE	77	LYS
81	CE	80	VAL
82	CG	43	GLN
82	CG	74	LEU
82	CG	129	PRO
1	Az	7	ASP
1	Az	503	PRO
5	AO	24	GLY
5	AO	136	PRO
6	AX	78	GLY
10	AN	60	VAL
12	AR	116	ASN
16	AA	23	THR
16	AA	110	ASN
17	AV	9	VAL
25	Af	87	THR
26	AJ	68	PRO
28	AC	181	PRO
29	AG	68	LEU
29	AG	165	GLU
30	AF	46	ALA
30	AF	183	GLY
31	AH	170	VAL
38	Cz	19	HIS
40	CK	138	SER

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Mol	Chain	Res	Type
45	Ca	117	LEU
49	CQ	164	LYS
55	CU	125	GLU
57	CY	84	ARG
58	CW	63	GLN
58	CW	103	ALA
59	CZ	6	LYS
60	Cr	45	HIS
62	Cb	21	ILE
62	Cb	56	LYS
64	CF	222	LYS
67	Ce	15	LYS
71	Cj	85	LYS
73	Cl	3	SER
74	CC	54	VAL
74	CC	88	GLY
74	CC	329	ASN
77	Cp	52	VAL
78	Co	75	PRO
79	CJ	117	ILE
80	CH	41	ILE
81	CE	232	ILE
82	CG	80	ILE
84	Cu	46	LEU
1	Az	517	LEU
3	AU	104	ILE
23	AD	63	GLY
33	AI	119	LEU
39	Cq	198	ILE
53	CT	126	VAL
61	Ch	79	LYS
63	CB	36	ASP
66	Cd	99	PRO
69	Cg	38	VAL
81	CE	117	PRO
81	CE	264	ILE
1	Az	109	VAL
27	AE	152	PRO
31	AH	10	LYS
39	Cq	80	PRO
43	CV	139	ILE
49	CQ	58	ARG

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Mol	Chain	Res	Type
52	CS	17	LEU
68	Cf	60	PRO
81	CE	209	PRO
5	AO	62	VAL
15	AB	24	PRO
16	AA	95	GLY
16	AA	98	PRO
20	Aa	96	THR
21	Ab	37	CYS
27	AE	195	ILE
27	AE	231	GLY
28	AC	176	LYS
34	AQ	42	ILE
39	Cq	206	ILE
43	CV	57	VAL
49	CQ	155	ALA
63	CB	81	THR
66	Cd	111	VAL
74	CC	115	VAL
79	CJ	121	PRO
81	CE	185	PRO
3	AU	29	VAL
7	AM	30	GLY
9	Ad	11	PRO
21	Ab	9	HIS
31	AH	93	VAL
39	Cq	107	VAL
45	Ca	70	CYS
59	CZ	37	PRO
59	CZ	89	ILE
82	CG	103	ARG
1	Az	575	PRO
12	AR	15	VAL
15	AB	21	VAL
39	Cq	82	ILE
53	CT	51	GLY
63	CB	18	PRO

### 5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM

entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	Az	728/730 (100%)	586 (80%)	142 (20%)	1	10
2	Ag	272/275 (99%)	223 (82%)	49 (18%)	2	12
3	AU	94/107 (88%)	74 (79%)	20 (21%)	1	7
4	AK	89/136 (65%)	61 (68%)	28 (32%)	0	2
5	AO	106/119 (89%)	87 (82%)	19 (18%)	2	13
6	AX	114/115 (99%)	91 (80%)	23 (20%)	1	9
7	AM	104/108 (96%)	81 (78%)	23 (22%)	1	7
8	AS	119/132 (90%)	95 (80%)	24 (20%)	1	9
9	Ad	47/49 (96%)	35 (74%)	12 (26%)	0	5
10	AN	130/131 (99%)	103 (79%)	27 (21%)	1	8
11	AL	142/142 (100%)	105 (74%)	37 (26%)	0	4
12	AR	114/122 (93%)	90 (79%)	24 (21%)	1	7
13	AP	116/130 (89%)	84 (72%)	32 (28%)	0	4
14	AT	112/115 (97%)	85 (76%)	27 (24%)	1	5
15	AB	196/231 (85%)	154 (79%)	42 (21%)	1	7
16	AA	174/243 (72%)	140 (80%)	34 (20%)	1	10
17	AV	66/67 (98%)	47 (71%)	19 (29%)	0	3
18	AY	108/115 (94%)	85 (79%)	23 (21%)	1	7
19	AZ	66/103 (64%)	53 (80%)	13 (20%)	1	9
20	Aa	90/98 (92%)	75 (83%)	15 (17%)	2	16
21	Ab	76/76 (100%)	63 (83%)	13 (17%)	2	15
22	Ac	57/62 (92%)	46 (81%)	11 (19%)	1	10
23	AD	190/202 (94%)	144 (76%)	46 (24%)	1	5
24	Ae	48/48 (100%)	24 (50%)	24 (50%)	0	0
25	Af	64/72 (89%)	43 (67%)	21 (33%)	0	2
26	AJ	157/168 (94%)	128 (82%)	29 (18%)	2	12
27	AE	225/225 (100%)	172 (76%)	53 (24%)	1	6
28	AC	190/225 (84%)	145 (76%)	45 (24%)	1	5
29	AG	207/218 (95%)	157 (76%)	50 (24%)	1	5

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
30	AF	161/170 (95%)	117 (73%)	44 (27%)	0	4
31	AH	170/174 (98%)	125 (74%)	45 (26%)	0	4
32	AW	112/113 (99%)	98 (88%)	14 (12%)	5	24
33	AI	178/180 (99%)	142 (80%)	36 (20%)	1	9
34	AQ	117/121 (97%)	89 (76%)	28 (24%)	1	5
35	Ah	55/328 (17%)	41 (74%)	14 (26%)	0	5
38	Cz	195/196 (100%)	174 (89%)	21 (11%)	7	30
39	Cq	232/258 (90%)	194 (84%)	38 (16%)	2	16
40	CK	136/137 (99%)	110 (81%)	26 (19%)	1	10
41	CO	173/174 (99%)	137 (79%)	36 (21%)	1	8
42	CL	176/177 (99%)	135 (77%)	41 (23%)	1	6
43	CV	102/107 (95%)	83 (81%)	19 (19%)	2	11
44	CM	118/161 (73%)	85 (72%)	33 (28%)	0	3
45	Ca	120/121 (99%)	100 (83%)	20 (17%)	2	16
46	CN	171/172 (99%)	132 (77%)	39 (23%)	1	6
47	CI	180/181 (99%)	150 (83%)	30 (17%)	2	16
48	CD	243/250 (97%)	210 (86%)	33 (14%)	4	22
49	CQ	165/165 (100%)	119 (72%)	46 (28%)	0	3
50	CR	168/175 (96%)	126 (75%)	42 (25%)	0	5
51	CA	197/199 (99%)	161 (82%)	36 (18%)	2	12
52	CS	156/157 (99%)	97 (62%)	59 (38%)	0	1
53	CT	139/140 (99%)	102 (73%)	37 (27%)	0	4
54	CP	133/163 (82%)	94 (71%)	39 (29%)	0	3
55	CU	102/115 (89%)	82 (80%)	20 (20%)	1	10
56	CX	109/133 (82%)	78 (72%)	31 (28%)	0	3
57	CY	123/135 (91%)	95 (77%)	28 (23%)	1	6
58	CW	103/126 (82%)	75 (73%)	28 (27%)	0	4
59	CZ	117/118 (99%)	82 (70%)	35 (30%)	0	3
60	Cr	121/121 (100%)	91 (75%)	30 (25%)	0	5
61	Ch	110/110 (100%)	81 (74%)	29 (26%)	0	4
62	Cb	66/126 (52%)	41 (62%)	25 (38%)	0	1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
63	CB	345/349 (99%)	261 (76%)	84 (24%)	1	5
64	CF	198/215 (92%)	172 (87%)	26 (13%)	4	23
65	Cc	85/97 (88%)	73 (86%)	12 (14%)	4	22
66	Cd	102/110 (93%)	78 (76%)	24 (24%)	1	6
67	Ce	119/121 (98%)	87 (73%)	32 (27%)	0	4
68	Cf	88/89 (99%)	57 (65%)	31 (35%)	0	1
69	Cg	98/100 (98%)	63 (64%)	35 (36%)	0	1
70	Ci	87/89 (98%)	51 (59%)	36 (41%)	0	0
71	Cj	75/80 (94%)	55 (73%)	20 (27%)	0	4
72	Ck	64/65 (98%)	45 (70%)	19 (30%)	0	3
73	Cl	47/48 (98%)	33 (70%)	14 (30%)	0	3
74	CC	305/348 (88%)	222 (73%)	83 (27%)	0	4
75	Cm	48/48 (100%)	31 (65%)	17 (35%)	0	1
76	Cn	24/24 (100%)	14 (58%)	10 (42%)	0	0
77	Cp	74/75 (99%)	53 (72%)	21 (28%)	0	3
78	Co	93/94 (99%)	60 (64%)	33 (36%)	0	1
79	CJ	142/149 (95%)	130 (92%)	12 (8%)	12	41
80	CH	170/171 (99%)	146 (86%)	24 (14%)	4	22
81	CE	232/252 (92%)	156 (67%)	76 (33%)	0	2
82	CG	209/223 (94%)	141 (68%)	68 (32%)	0	2
83	Cs	46/81 (57%)	46 (100%)	0	100	100
83	Ct	46/81 (57%)	46 (100%)	0	100	100
84	Cu	46/83 (55%)	45 (98%)	1 (2%)	55	77
84	Cv	46/83 (55%)	45 (98%)	1 (2%)	55	77
All	All	11438/12642 (90%)	8832 (77%)	2606 (23%)	3	6

All (2606) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	Az	3	ASN
1	Az	4	PHE
1	Az	5	THR
1	Az	6	VAL
1	Az	12	ILE

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Mol	Chain	Res	Type
1	Az	15	LYS
1	Az	16	LYS
1	Az	27	HIS
1	Az	45	ILE
1	Az	48	SER
1	Az	50	ARG
1	Az	53	GLU
1	Az	55	ARG
1	Az	56	PHE
1	Az	60	ARG
1	Az	61	LYS
1	Az	64	GLN
1	Az	71	LYS
1	Az	73	THR
1	Az	75	ILE
1	Az	79	TYR
1	Az	91	GLN
1	Az	92	SER
1	Az	93	LYS
1	Az	109	VAL
1	Az	110	ASP
1	Az	111	PHE
1	Az	113	SER
1	Az	114	GLU
1	Az	122	THR
1	Az	141	THR
1	Az	144	ARG
1	Az	159	LYS
1	Az	160	MET
1	Az	162	ARG
1	Az	166	GLU
1	Az	167	LEU
1	Az	168	GLN
1	Az	169	LEU
1	Az	183	GLU
1	Az	192	TYR
1	Az	194	GLU
1	Az	196	GLU
1	Az	200	MET
1	Az	209	LEU
1	Az	216	SER
1	Az	225	LEU

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Mol	Chain	Res	Type
1	Az	226	LYS
1	Az	228	PHE
1	Az	236	PHE
1	Az	239	LYS
1	Az	244	LEU
1	Az	248	GLU
1	Az	252	LYS
1	Az	256	MET
1	Az	258	LYS
1	Az	264	ARG
1	Az	265	TYR
1	Az	267	ASP
1	Az	275	LYS
1	Az	281	GLU
1	Az	284	LYS
1	Az	311	GLU
1	Az	314	LYS
1	Az	317	GLU
1	Az	322	LYS
1	Az	330	LYS
1	Az	333	LYS
1	Az	343	TRP
1	Az	359	PRO
1	Az	366	LYS
1	Az	368	ARG
1	Az	370	GLU
1	Az	371	LEU
1	Az	393	PRO
1	Az	409	ARG
1	Az	411	TYR
1	Az	420	LEU
1	Az	439	LYS
1	Az	448	GLN
1	Az	461	ILE
1	Az	462	GLU
1	Az	476	ASP
1	Az	477	GLN
1	Az	481	LYS
1	Az	488	PHE
1	Az	492	HIS
1	Az	493	ASN
1	Az	495	ARG

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Mol	Chain	Res	Type
1	Az	497	MET
1	Az	498	LYS
1	Az	499	PHE
1	Az	502	SER
1	Az	519	LYS
1	Az	524	LEU
1	Az	525	LYS
1	Az	526	ARG
1	Az	540	GLU
1	Az	541	SER
1	Az	559	LYS
1	Az	560	ASP
1	Az	563	GLU
1	Az	570	ILE
1	Az	571	LYS
1	Az	572	LYS
1	Az	577	VAL
1	Az	579	TYR
1	Az	592	LEU
1	Az	607	ARG
1	Az	609	PHE
1	Az	613	LEU
1	Az	615	GLU
1	Az	619	LYS
1	Az	625	ARG
1	Az	630	GLN
1	Az	641	TRP
1	Az	647	ARG
1	Az	667	LYS
1	Az	669	VAL
1	Az	673	ASN
1	Az	689	GLU
1	Az	726	ARG
1	Az	727	ARG
1	Az	748	GLU
1	Az	754	GLN
1	Az	775	GLN
1	Az	785	LYS
1	Az	794	PHE
1	Az	801	ARG
1	Az	807	GLN
1	Az	811	GLN

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Mol	Chain	Res	Type
1	Az	823	ASP
1	Az	827	ASN
1	Az	830	ARG
1	Az	842	LYS
1	Az	845	LYS
1	Az	846	GLU
1	Az	848	ILE
1	Az	849	PRO
1	Az	854	PHE
1	Az	855	LEU
1	Az	858	LEU
2	Ag	2	THR
2	Ag	8	ARG
2	Ag	24	THR
2	Ag	25	PRO
2	Ag	36	ARG
2	Ag	42	MET
2	Ag	44	LYS
2	Ag	47	ARG
2	Ag	50	THR
2	Ag	51	ASN
2	Ag	57	ARG
2	Ag	60	ARG
2	Ag	64	HIS
2	Ag	68	ASP
2	Ag	74	ASP
2	Ag	76	GLN
2	Ag	87	LEU
2	Ag	88	ARG
2	Ag	91	ASP
2	Ag	93	THR
2	Ag	100	ARG
2	Ag	118	ARG
2	Ag	119	GLN
2	Ag	131	LEU
2	Ag	139	LYS
2	Ag	140	TYR
2	Ag	143	GLN
2	Ag	145	GLU
2	Ag	146	SER
2	Ag	149	GLU
2	Ag	156	PHE

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Mol	Chain	Res	Type
2	Ag	161	SER
2	Ag	175	LYS
2	Ag	183	LYS
2	Ag	185	LYS
2	Ag	192	THR
2	Ag	203	ASP
2	Ag	225	LYS
2	Ag	246	TYR
2	Ag	259	TRP
2	Ag	264	LYS
2	Ag	271	LYS
2	Ag	275	ILE
2	Ag	276	SER
2	Ag	277	THR
2	Ag	279	SER
2	Ag	280	LYS
2	Ag	289	LEU
2	Ag	294	ASP
3	AU	19	ARG
3	AU	20	ILE
3	AU	21	ARG
3	AU	24	LEU
3	AU	33	GLU
3	AU	44	LYS
3	AU	47	ASN
3	AU	48	LEU
3	AU	49	LYS
3	AU	51	LYS
3	AU	62	ARG
3	AU	68	THR
3	AU	72	GLU
3	AU	75	LYS
3	AU	85	HIS
3	AU	87	ARG
3	AU	104	ILE
3	AU	106	ILE
3	AU	108	PRO
3	AU	111	GLU
4	AK	1	MET
4	AK	2	LEU
4	AK	3	MET
4	AK	5	LYS

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Mol	Chain	Res	Type
4	AK	13	GLU
4	AK	16	PHE
4	AK	17	LYS
4	AK	20	VAL
4	AK	31	LYS
4	AK	34	GLU
4	AK	35	LEU
4	AK	37	ASP
4	AK	38	LYS
4	AK	43	LEU
4	AK	53	LYS
4	AK	55	ARG
4	AK	65	ARG
4	AK	66	HIS
4	AK	69	TRP
4	AK	74	GLU
4	AK	84	HIS
4	AK	85	LEU
4	AK	89	ILE
4	AK	93	THR
4	AK	94	LEU
4	AK	95	ARG
4	AK	96	ARG
4	AK	98	ARG
5	AO	23	GLU
5	AO	25	GLU
5	AO	28	PHE
5	AO	34	PHE
5	AO	65	ASP
5	AO	66	ARG
5	AO	72	TYR
5	AO	90	ILE
5	AO	103	ASN
5	AO	116	LEU
5	AO	117	ARG
5	AO	121	ARG
5	AO	125	LYS
5	AO	128	ARG
5	AO	129	ILE
5	AO	138	ASP
5	AO	141	ARG
5	AO	146	ARG

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Mol	Chain	Res	Type
5	AO	150	ARG
6	AX	1	MET
6	AX	3	LYS
6	AX	5	ARG
6	AX	7	LEU
6	AX	12	LYS
6	AX	21	LYS
6	AX	29	LYS
6	AX	37	LYS
6	AX	67	ARG
6	AX	68	LYS
6	AX	71	ARG
6	AX	75	ILE
6	AX	80	LYS
6	AX	91	LEU
6	AX	98	ASP
6	AX	101	LEU
6	AX	107	ARG
6	AX	108	LYS
6	AX	110	HIS
6	AX	115	ILE
6	AX	135	LYS
6	AX	141	PRO
6	AX	142	ARG
7	AM	12	MET
7	AM	13	ASP
7	AM	18	LEU
7	AM	20	GLU
7	AM	26	LEU
7	AM	28	HIS
7	AM	33	ARG
7	AM	36	ARG
7	AM	40	LYS
7	AM	43	ASP
7	AM	45	ARG
7	AM	71	GLU
7	AM	76	LEU
7	AM	77	ILE
7	AM	78	LYS
7	AM	83	LYS
7	AM	85	LEU
7	AM	91	LEU

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Mol	Chain	Res	Type
7	AM	94	ILE
7	AM	101	ARG
7	AM	102	LYS
7	AM	127	TYR
7	AM	128	PHE
8	AS	7	GLU
8	AS	8	LYS
8	AS	9	PHE
8	AS	11	HIS
8	AS	12	ILE
8	AS	17	ASN
8	AS	34	LYS
8	AS	36	VAL
8	AS	39	ARG
8	AS	59	LEU
8	AS	63	GLU
8	AS	71	MET
8	AS	78	LYS
8	AS	86	ARG
8	AS	87	GLN
8	AS	92	ASP
8	AS	94	LYS
8	AS	118	ARG
8	AS	125	HIS
8	AS	130	ARG
8	AS	132	ARG
8	AS	134	GLN
8	AS	137	LYS
8	AS	142	ARG
9	Ad	7	TYR
9	Ad	10	HIS
9	Ad	16	GLN
9	Ad	19	ARG
9	Ad	27	ARG
9	Ad	30	LEU
9	Ad	33	LYS
9	Ad	39	CYS
9	Ad	44	ARG
9	Ad	46	TYR
9	Ad	53	ILE
9	Ad	56	ASP
10	AN	3	ARG

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Mol	Chain	Res	Type
10	AN	9	LYS
10	AN	16	LEU
10	AN	21	SER
10	AN	27	LYS
10	AN	49	GLN
10	AN	50	ILE
10	AN	53	ILE
10	AN	56	ASP
10	AN	64	ARG
10	AN	73	ARG
10	AN	76	LYS
10	AN	78	LYS
10	AN	80	LEU
10	AN	94	LYS
10	AN	104	ARG
10	AN	107	LYS
10	AN	112	LYS
10	AN	114	ARG
10	AN	119	GLU
10	AN	121	ARG
10	AN	125	LEU
10	AN	130	LYS
10	AN	133	ARG
10	AN	134	VAL
10	AN	141	TYR
10	AN	142	GLU
11	AL	1	MET
11	AL	4	ILE
11	AL	7	GLU
11	AL	8	ARG
11	AL	12	LYS
11	AL	15	THR
11	AL	18	GLN
11	AL	20	LYS
11	AL	22	ARG
11	AL	25	LEU
11	AL	30	LYS
11	AL	40	ILE
11	AL	49	GLU
11	AL	56	ILE
11	AL	69	ARG
11	AL	71	ARG

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Mol	Chain	Res	Type
11	AL	79	LYS
11	AL	80	MET
11	AL	82	MET
11	AL	83	GLN
11	AL	89	ARG
11	AL	97	ARG
11	AL	99	TYR
11	AL	100	ASN
11	AL	101	ARG
11	AL	102	PHE
11	AL	105	ARG
11	AL	118	ARG
11	AL	121	GLN
11	AL	136	LYS
11	AL	147	LYS
11	AL	151	THR
11	AL	153	LYS
11	AL	155	PHE
11	AL	156	GLN
11	AL	157	LYS
11	AL	158	PHE
12	AR	1	MET
12	AR	8	THR
12	AR	26	ASN
12	AR	32	LYS
12	AR	47	ARG
12	AR	59	LYS
12	AR	63	ARG
12	AR	69	ILE
12	AR	78	ARG
12	AR	83	ASN
12	AR	87	GLU
12	AR	88	VAL
12	AR	89	SER
12	AR	91	LEU
12	AR	93	GLN
12	AR	94	GLU
12	AR	95	ILE
12	AR	103	LYS
12	AR	105	MET
12	AR	111	PHE
12	AR	118	GLN

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Mol	Chain	Res	Type
12	AR	120	THR
12	AR	121	GLN
12	AR	123	THR
13	AP	5	GLU
13	AP	6	GLN
13	AP	7	LYS
13	AP	10	ARG
13	AP	12	PHE
13	AP	13	ARG
13	AP	14	LYS
13	AP	15	PHE
13	AP	17	TYR
13	AP	34	MET
13	AP	40	ARG
13	AP	41	GLN
13	AP	43	ARG
13	AP	50	ARG
13	AP	51	ARG
13	AP	52	LYS
13	AP	61	ARG
13	AP	64	LYS
13	AP	71	GLU
13	AP	72	LYS
13	AP	74	GLU
13	AP	84	ILE
13	AP	86	LEU
13	AP	88	GLU
13	AP	89	MET
13	AP	100	LYS
13	AP	104	GLN
13	AP	110	GLU
13	AP	111	MET
13	AP	122	THR
13	AP	124	LYS
13	AP	127	LYS
14	AT	11	GLN
14	AT	16	ARG
14	AT	21	PHE
14	AT	23	LYS
14	AT	28	LEU
14	AT	29	LYS
14	AT	38	LYS

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Mol	Chain	Res	Type
14	AT	41	LYS
14	AT	42	HIS
14	AT	44	GLU
14	AT	62	ARG
14	AT	64	LEU
14	AT	67	ARG
14	AT	83	GLN
14	AT	84	ARG
14	AT	88	MET
14	AT	91	HIS
14	AT	93	SER
14	AT	94	ARG
14	AT	97	LYS
14	AT	102	ARG
14	AT	117	GLN
14	AT	121	ARG
14	AT	130	ASP
14	AT	133	ARG
14	AT	143	LYS
14	AT	144	LYS
15	AB	19	LYS
15	AB	20	LYS
15	AB	21	VAL
15	AB	22	VAL
15	AB	34	LYS
15	AB	41	ILE
15	AB	48	LEU
15	AB	52	THR
15	AB	55	THR
15	AB	56	LYS
15	AB	75	GLN
15	AB	78	GLU
15	AB	82	ARG
15	AB	83	LYS
15	AB	89	GLU
15	AB	94	LYS
15	AB	115	LYS
15	AB	116	LYS
15	AB	131	ASP
15	AB	138	PHE
15	AB	144	LYS
15	AB	146	ARG

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Mol	Chain	Res	Type
15	AB	148	ASN
15	AB	150	ILE
15	AB	151	ARG
15	AB	158	HIS
15	AB	162	ARG
15	AB	165	ARG
15	AB	166	LYS
15	AB	172	MET
15	AB	181	LEU
15	AB	182	LYS
15	AB	195	LYS
15	AB	208	HIS
15	AB	211	PHE
15	AB	213	ARG
15	AB	214	LYS
15	AB	219	LYS
15	AB	222	LYS
15	AB	223	PHE
15	AB	227	LYS
15	AB	229	MET
16	AA	5	LEU
16	AA	7	VAL
16	AA	10	MET
16	AA	12	GLU
16	AA	13	GLU
16	AA	17	LYS
16	AA	19	LEU
16	AA	25	LEU
16	AA	36	GLN
16	AA	40	LYS
16	AA	42	LYS
16	AA	44	ASP
16	AA	52	LYS
16	AA	58	LEU
16	AA	63	ARG
16	AA	73	ASP
16	AA	88	LEU
16	AA	89	LYS
16	AA	102	ARG
16	AA	117	ARG
16	AA	128	ARG
16	AA	139	TYR

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Mol	Chain	Res	Type
16	AA	147	LEU
16	AA	159	ILE
16	AA	169	HIS
16	AA	181	GLU
16	AA	186	ARG
16	AA	188	THR
16	AA	191	ARG
16	AA	195	TRP
16	AA	196	GLU
16	AA	198	MET
16	AA	204	TYR
16	AA	207	PRO
17	AV	1	MET
17	AV	3	ASN
17	AV	7	GLU
17	AV	16	LYS
17	AV	24	ILE
17	AV	31	SER
17	AV	40	ASP
17	AV	41	LYS
17	AV	43	THR
17	AV	45	ARG
17	AV	49	GLN
17	AV	51	LYS
17	AV	52	THR
17	AV	61	ARG
17	AV	64	GLU
17	AV	74	LYS
17	AV	78	ILE
17	AV	79	VAL
17	AV	81	LYS
18	AY	16	ARG
18	AY	20	ARG
18	AY	21	LYS
18	AY	23	MET
18	AY	29	HIS
18	AY	32	LYS
18	AY	35	VAL
18	AY	46	LYS
18	AY	58	PHE
18	AY	61	ARG
18	AY	64	PHE

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Mol	Chain	Res	Type
18	AY	68	LYS
18	AY	93	ARG
18	AY	96	LEU
18	AY	97	TYR
18	AY	98	GLU
18	AY	99	LYS
18	AY	100	LYS
18	AY	101	LYS
18	AY	102	THR
18	AY	111	LYS
18	AY	118	ARG
18	AY	122	LYS
19	AZ	44	LEU
19	AZ	50	PHE
19	AZ	52	LYS
19	AZ	65	TYR
19	AZ	85	ARG
19	AZ	91	LEU
19	AZ	94	LYS
19	AZ	102	LYS
19	AZ	103	HIS
19	AZ	104	ARG
19	AZ	107	VAL
19	AZ	112	ASN
19	AZ	114	LYS
20	Aa	10	ARG
20	Aa	15	ARG
20	Aa	26	CYS
20	Aa	38	LYS
20	Aa	41	ILE
20	Aa	44	ILE
20	Aa	50	VAL
20	Aa	51	ARG
20	Aa	60	ASP
20	Aa	63	VAL
20	Aa	70	LYS
20	Aa	82	LYS
20	Aa	85	ARG
20	Aa	94	ASP
20	Aa	95	ARG
21	Ab	3	LEU
21	Ab	5	LYS

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Mol	Chain	Res	Type
21	Ab	16	LYS
21	Ab	20	LYS
21	Ab	23	ARG
21	Ab	26	GLN
21	Ab	41	TYR
21	Ab	42	LYS
21	Ab	49	HIS
21	Ab	51	GLN
21	Ab	53	VAL
21	Ab	83	GLN
21	Ab	84	HIS
22	Ac	5	ARG
22	Ac	7	GLN
22	Ac	13	ARG
22	Ac	35	MET
22	Ac	42	ILE
22	Ac	47	LYS
22	Ac	51	ARG
22	Ac	62	GLU
22	Ac	63	ARG
22	Ac	67	ARG
22	Ac	68	LEU
23	AD	8	LYS
23	AD	10	LYS
23	AD	18	LYS
23	AD	21	LEU
23	AD	27	ARG
23	AD	31	GLU
23	AD	35	SER
23	AD	44	THR
23	AD	56	GLN
23	AD	64	ARG
23	AD	67	ARG
23	AD	74	GLN
23	AD	76	ARG
23	AD	79	PHE
23	AD	89	GLU
23	AD	90	LYS
23	AD	94	ARG
23	AD	97	CYS
23	AD	103	GLU
23	AD	113	LEU

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Mol	Chain	Res	Type
23	AD	120	TYR
23	AD	127	MET
23	AD	129	SER
23	AD	146	ARG
23	AD	151	LYS
23	AD	156	LEU
23	AD	157	MET
23	AD	158	ILE
23	AD	176	LEU
23	AD	177	LEU
23	AD	178	ARG
23	AD	187	LYS
23	AD	190	LEU
23	AD	192	TRP
23	AD	198	ILE
23	AD	202	LYS
23	AD	206	ASP
23	AD	207	HIS
23	AD	211	VAL
23	AD	212	GLU
23	AD	214	LYS
23	AD	215	ASP
23	AD	216	GLU
23	AD	218	LEU
23	AD	220	THR
23	AD	226	GLN
24	Ae	2	VAL
24	Ae	6	LEU
24	Ae	11	LYS
24	Ae	13	ARG
24	Ae	18	LYS
24	Ae	21	LYS
24	Ae	23	GLU
24	Ae	24	LYS
24	Ae	25	LYS
24	Ae	26	LYS
24	Ae	28	LYS
24	Ae	29	THR
24	Ae	31	ARG
24	Ae	34	ARG
24	Ae	36	MET
24	Ae	40	ARG

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Mol	Chain	Res	Type
24	Ae	41	ARG
24	Ae	44	ASN
24	Ae	46	VAL
24	Ae	48	THR
24	Ae	49	PHE
24	Ae	51	LYS
24	Ae	52	LYS
24	Ae	53	LYS
25	Af	86	THR
25	Af	88	PRO
25	Af	89	LYS
25	Af	90	LYS
25	Af	94	LYS
25	Af	95	ARG
25	Af	96	LYS
25	Af	97	LYS
25	Af	104	LYS
25	Af	109	ASP
25	Af	110	GLU
25	Af	111	ASN
25	Af	113	LYS
25	Af	116	ARG
25	Af	118	ARG
25	Af	121	CYS
25	Af	130	VAL
25	Af	135	HIS
25	Af	136	PHE
25	Af	139	HIS
25	Af	150	PHE
26	AJ	8	VAL
26	AJ	10	ARG
26	AJ	17	ARG
26	AJ	18	ARG
26	AJ	29	LEU
26	AJ	38	ARG
26	AJ	42	GLU
26	AJ	50	LEU
26	AJ	58	ARG
26	AJ	66	LYS
26	AJ	69	ARG
26	AJ	79	ARG
26	AJ	89	GLU

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Mol	Chain	Res	Type
26	AJ	93	LYS
26	AJ	101	LYS
26	AJ	108	ARG
26	AJ	109	ARG
26	AJ	110	LEU
26	AJ	119	LEU
26	AJ	121	LYS
26	AJ	127	ARG
26	AJ	139	LYS
26	AJ	143	ASN
26	AJ	162	ARG
26	AJ	165	TYR
26	AJ	172	ARG
26	AJ	174	LYS
26	AJ	176	LYS
26	AJ	180	LYS
27	AE	1	MET
27	AE	6	LYS
27	AE	7	LYS
27	AE	9	LEU
27	AE	10	LYS
27	AE	38	LEU
27	AE	39	ARG
27	AE	48	LEU
27	AE	49	ARG
27	AE	51	ARG
27	AE	56	LEU
27	AE	65	CYS
27	AE	67	GLN
27	AE	68	ARG
27	AE	77	ARG
27	AE	94	LYS
27	AE	97	GLU
27	AE	106	LYS
27	AE	118	GLU
27	AE	120	LYS
27	AE	122	LYS
27	AE	123	LEU
27	AE	125	LYS
27	AE	128	LYS
27	AE	130	PHE
27	AE	133	THR

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Mol	Chain	Res	Type
27	AE	136	ILE
27	AE	145	ARG
27	AE	147	ILE
27	AE	148	ARG
27	AE	151	ASP
27	AE	153	LEU
27	AE	164	LEU
27	AE	165	GLU
27	AE	168	LYS
27	AE	174	LYS
27	AE	175	PHE
27	AE	180	LEU
27	AE	181	CYS
27	AE	198	ARG
27	AE	200	ARG
27	AE	202	PRO
27	AE	211	LYS
27	AE	212	ASP
27	AE	221	ARG
27	AE	222	LEU
27	AE	237	SER
27	AE	240	ARG
27	AE	242	LYS
27	AE	245	ARG
27	AE	246	LEU
27	AE	259	LYS
27	AE	260	GLN
28	AC	54	LYS
28	AC	58	LYS
28	AC	61	MET
28	AC	63	VAL
28	AC	64	THR
28	AC	65	LYS
28	AC	66	LEU
28	AC	71	LYS
28	AC	73	MET
28	AC	74	LYS
28	AC	76	LYS
28	AC	94	ILE
28	AC	104	ASP
28	AC	110	MET
28	AC	114	LYS

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Mol	Chain	Res	Type
28	AC	115	GLN
28	AC	116	THR
28	AC	117	ARG
28	AC	120	GLN
28	AC	134	ASN
28	AC	142	LYS
28	AC	146	GLU
28	AC	160	LEU
28	AC	166	ARG
28	AC	167	ARG
28	AC	172	ASN
28	AC	173	LYS
28	AC	183	LYS
28	AC	184	VAL
28	AC	211	LYS
28	AC	212	LYS
28	AC	215	MET
28	AC	216	MET
28	AC	227	ARG
28	AC	236	PHE
28	AC	238	LYS
28	AC	250	TYR
28	AC	257	LYS
28	AC	259	THR
28	AC	261	PHE
28	AC	262	THR
28	AC	263	LYS
28	AC	267	GLN
28	AC	271	ASP
28	AC	275	LYS
29	AG	1	MET
29	AG	2	LYS
29	AG	13	GLN
29	AG	17	GLU
29	AG	19	ASP
29	AG	29	GLU
29	AG	30	LYS
29	AG	31	ARG
29	AG	32	MET
29	AG	44	GLU
29	AG	58	LYS
29	AG	64	LYS

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Mol	Chain	Res	Type
29	AG	74	ARG
29	AG	76	LEU
29	AG	77	LEU
29	AG	79	LYS
29	AG	88	ARG
29	AG	94	ARG
29	AG	98	ARG
29	AG	115	LYS
29	AG	116	LYS
29	AG	120	ASP
29	AG	121	ILE
29	AG	126	ASP
29	AG	127	THR
29	AG	128	THR
29	AG	131	ARG
29	AG	133	LEU
29	AG	137	ARG
29	AG	142	ARG
29	AG	143	LYS
29	AG	145	PHE
29	AG	150	GLU
29	AG	158	VAL
29	AG	159	ARG
29	AG	164	LYS
29	AG	168	LYS
29	AG	170	ARG
29	AG	172	LYS
29	AG	175	LYS
29	AG	179	LEU
29	AG	180	VAL
29	AG	196	LYS
29	AG	198	ARG
29	AG	200	LYS
29	AG	203	LYS
29	AG	217	MET
29	AG	224	ARG
29	AG	230	LYS
29	AG	233	ARG
30	AF	15	PRO
30	AF	18	LYS
30	AF	29	GLN
30	AF	36	GLN

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Mol	Chain	Res	Type
30	AF	37	ASP
30	AF	38	TYR
30	AF	41	VAL
30	AF	42	LYS
30	AF	43	GLU
30	AF	44	LYS
30	AF	47	LYS
30	AF	49	LEU
30	AF	60	ARG
30	AF	62	ARG
30	AF	63	LYS
30	AF	65	GLN
30	AF	71	ARG
30	AF	76	MET
30	AF	78	MET
30	AF	85	LYS
30	AF	88	MET
30	AF	91	ARG
30	AF	94	LYS
30	AF	98	GLU
30	AF	110	GLN
30	AF	116	ILE
30	AF	122	ARG
30	AF	125	SER
30	AF	127	ARG
30	AF	128	ILE
30	AF	130	ARG
30	AF	136	ARG
30	AF	145	ARG
30	AF	164	ARG
30	AF	167	LYS
30	AF	175	ASP
30	AF	177	LEU
30	AF	182	LYS
30	AF	186	ASN
30	AF	190	ILE
30	AF	192	LYS
30	AF	195	GLU
30	AF	202	SER
30	AF	204	ARG
31	AH	9	VAL
31	AH	10	LYS

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Mol	Chain	Res	Type
31	AH	11	PRO
31	AH	14	GLU
31	AH	15	LYS
31	AH	16	PRO
31	AH	17	ASP
31	AH	23	ILE
31	AH	32	MET
31	AH	34	SER
31	AH	36	LEU
31	AH	37	LYS
31	AH	40	LEU
31	AH	57	ARG
31	AH	58	LYS
31	AH	61	ILE
31	AH	69	LEU
31	AH	72	PHE
31	AH	74	LYS
31	AH	81	ARG
31	AH	82	GLU
31	AH	85	LYS
31	AH	87	PHE
31	AH	93	VAL
31	AH	99	ARG
31	AH	105	THR
31	AH	107	LYS
31	AH	109	ARG
31	AH	111	LYS
31	AH	112	ASN
31	AH	113	LYS
31	AH	116	ARG
31	AH	118	ARG
31	AH	120	ARG
31	AH	122	LEU
31	AH	131	GLU
31	AH	143	ARG
31	AH	145	ARG
31	AH	157	HIS
31	AH	158	LEU
31	AH	160	LYS
31	AH	163	GLN
31	AH	179	LYS
31	AH	185	VAL

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Mol	Chain	Res	Type
31	AH	193	GLN
32	AW	3	ARG
32	AW	4	MET
32	AW	18	GLU
32	AW	20	ARG
32	AW	23	ARG
32	AW	52	ILE
32	AW	64	ASN
32	AW	84	LYS
32	AW	98	GLN
32	AW	103	VAL
32	AW	114	GLU
32	AW	124	LYS
32	AW	128	PHE
32	AW	129	PHE
33	AI	3	ILE
33	AI	5	ARG
33	AI	6	ASP
33	AI	13	LYS
33	AI	19	LYS
33	AI	23	LYS
33	AI	25	ARG
33	AI	37	LYS
33	AI	41	ARG
33	AI	47	ARG
33	AI	49	ARG
33	AI	56	ARG
33	AI	70	GLU
33	AI	74	ARG
33	AI	100	CYS
33	AI	110	ARG
33	AI	117	TYR
33	AI	119	LEU
33	AI	123	ARG
33	AI	124	LYS
33	AI	125	LYS
33	AI	140	LYS
33	AI	141	ARG
33	AI	143	LYS
33	AI	144	LYS
33	AI	148	LYS
33	AI	150	ASP

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Mol	Chain	Res	Type
33	AI	154	LYS
33	AI	155	ASN
33	AI	158	ILE
33	AI	161	LEU
33	AI	167	GLN
33	AI	191	GLU
33	AI	202	ILE
33	AI	205	ARG
33	AI	206	LYS
34	AQ	6	PRO
34	AQ	7	LEU
34	AQ	13	PHE
34	AQ	17	LYS
34	AQ	20	THR
34	AQ	24	HIS
34	AQ	26	LYS
34	AQ	33	LYS
34	AQ	37	ARG
34	AQ	41	MET
34	AQ	56	LEU
34	AQ	62	ARG
34	AQ	73	LYS
34	AQ	101	ASP
34	AQ	102	GLU
34	AQ	105	LYS
34	AQ	107	GLU
34	AQ	115	TYR
34	AQ	117	ARG
34	AQ	120	LEU
34	AQ	126	ARG
34	AQ	130	LYS
34	AQ	131	LYS
34	AQ	135	PRO
34	AQ	140	ARG
34	AQ	142	GLN
34	AQ	145	TYR
34	AQ	146	ARG
35	Ah	140	LYS
35	Ah	142	LEU
35	Ah	145	LYS
35	Ah	151	PHE
35	Ah	155	ARG

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Mol	Chain	Res	Type
35	Ah	160	ARG
35	Ah	165	ARG
35	Ah	170	ARG
35	Ah	172	ARG
35	Ah	179	MET
35	Ah	181	ARG
35	Ah	185	PHE
35	Ah	286	LYS
35	Ah	297	GLN
38	Cz	17	VAL
38	Cz	28	PHE
38	Cz	29	LEU
38	Cz	35	GLN
38	Cz	48	ARG
38	Cz	58	THR
38	Cz	91	LYS
38	Cz	99	LEU
38	Cz	100	VAL
38	Cz	101	LYS
38	Cz	111	LEU
38	Cz	119	GLN
38	Cz	147	LYS
38	Cz	156	LYS
38	Cz	159	MET
38	Cz	160	LYS
38	Cz	163	LEU
38	Cz	202	ARG
38	Cz	207	LYS
38	Cz	210	MET
38	Cz	212	LYS
39	Cq	5	ASP
39	Cq	6	ARG
39	Cq	14	PHE
39	Cq	16	LYS
39	Cq	24	TYR
39	Cq	26	LYS
39	Cq	34	ASN
39	Cq	42	GLN
39	Cq	44	ARG
39	Cq	45	MET
39	Cq	48	ARG
39	Cq	50	LYS

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Mol	Chain	Res	Type
39	Cq	62	ARG
39	Cq	69	LEU
39	Cq	77	LYS
39	Cq	81	HIS
39	Cq	94	ASP
39	Cq	96	THR
39	Cq	99	ARG
39	Cq	105	ASN
39	Cq	108	PRO
39	Cq	130	LEU
39	Cq	133	GLU
39	Cq	134	LYS
39	Cq	137	PHE
39	Cq	141	LEU
39	Cq	149	ARG
39	Cq	155	LEU
39	Cq	162	LYS
39	Cq	183	PHE
39	Cq	185	PHE
39	Cq	191	GLN
39	Cq	206	ILE
39	Cq	231	TYR
39	Cq	234	VAL
39	Cq	239	HIS
39	Cq	255	THR
39	Cq	264	LYS
40	CK	1	MET
40	CK	2	PRO
40	CK	5	PHE
40	CK	14	TYR
40	CK	16	ARG
40	CK	21	GLU
40	CK	30	PRO
40	CK	40	LYS
40	CK	41	LYS
40	CK	44	ASP
40	CK	53	TRP
40	CK	56	LEU
40	CK	61	LYS
40	CK	90	ARG
40	CK	91	ASP
40	CK	92	ARG

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Mol	Chain	Res	Type
40	CK	96	LYS
40	CK	99	LYS
40	CK	104	ILE
40	CK	108	GLU
40	CK	114	ARG
40	CK	116	MET
40	CK	117	ARG
40	CK	119	ARG
40	CK	123	ARG
40	CK	130	LYS
41	CO	3	GLU
41	CO	5	GLN
41	CO	12	ARG
41	CO	18	ARG
41	CO	25	LYS
41	CO	49	ARG
41	CO	53	LYS
41	CO	68	ARG
41	CO	78	ARG
41	CO	82	ARG
41	CO	85	ARG
41	CO	93	LYS
41	CO	94	ARG
41	CO	96	GLN
41	CO	103	LYS
41	CO	106	ASP
41	CO	110	PRO
41	CO	117	ARG
41	CO	128	ARG
41	CO	129	LEU
41	CO	133	ARG
41	CO	138	LEU
41	CO	158	GLU
41	CO	159	LYS
41	CO	169	ARG
41	CO	173	GLN
41	CO	175	MET
41	CO	183	LYS
41	CO	187	LYS
41	CO	188	LYS
41	CO	189	ILE
41	CO	190	ASP

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Mol	Chain	Res	Type
41	CO	192	TYR
41	CO	198	THR
41	CO	199	HIS
41	CO	201	LEU
42	CL	12	PRO
42	CL	19	GLN
42	CL	20	ARG
42	CL	21	ARG
42	CL	28	GLN
42	CL	31	ARG
42	CL	33	ILE
42	CL	34	ARG
42	CL	44	ARG
42	CL	46	ILE
42	CL	49	ARG
42	CL	61	CYS
42	CL	69	LYS
42	CL	74	ARG
42	CL	79	GLU
42	CL	82	ARG
42	CL	88	LYS
42	CL	92	ARG
42	CL	101	ARG
42	CL	103	ARG
42	CL	108	GLU
42	CL	127	PHE
42	CL	135	LYS
42	CL	136	LYS
42	CL	149	GLN
42	CL	150	LEU
42	CL	155	MET
42	CL	158	ARG
42	CL	159	ASN
42	CL	163	LYS
42	CL	164	GLU
42	CL	165	LYS
42	CL	167	ARG
42	CL	173	GLU
42	CL	176	PHE
42	CL	190	ARG
42	CL	195	ARG
42	CL	198	ARG

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Mol	Chain	Res	Type
42	CL	200	LYS
42	CL	201	GLU
42	CL	205	GLN
43	CV	10	SER
43	CV	15	ARG
43	CV	16	ILE
43	CV	43	LYS
43	CV	48	ARG
43	CV	52	LEU
43	CV	66	LYS
43	CV	67	LYS
43	CV	74	LYS
43	CV	75	LYS
43	CV	85	ARG
43	CV	88	TYR
43	CV	92	ASP
43	CV	94	VAL
43	CV	101	ASN
43	CV	109	LYS
43	CV	113	LYS
43	CV	118	THR
43	CV	123	LYS
44	CM	2	VAL
44	CM	3	PHE
44	CM	5	ARG
44	CM	7	VAL
44	CM	11	ARG
44	CM	12	VAL
44	CM	32	ASP
44	CM	34	ASN
44	CM	37	LEU
44	CM	42	CYS
44	CM	43	THR
44	CM	47	ARG
44	CM	48	GLN
44	CM	59	ASP
44	CM	60	PHE
44	CM	61	ILE
44	CM	62	LEU
44	CM	63	LYS
44	CM	65	PRO
44	CM	67	SER

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Mol	Chain	Res	Type
44	CM	69	HIS
44	CM	74	ARG
44	CM	77	TRP
44	CM	79	LYS
44	CM	90	ARG
44	CM	99	GLU
44	CM	100	ARG
44	CM	107	PHE
44	CM	113	MET
44	CM	114	LYS
44	CM	118	MET
44	CM	119	ARG
44	CM	124	LYS
45	Ca	7	LYS
45	Ca	9	ARG
45	Ca	10	LYS
45	Ca	12	ARG
45	Ca	14	HIS
45	Ca	27	LYS
45	Ca	45	PHE
45	Ca	58	MET
45	Ca	59	LYS
45	Ca	63	LEU
45	Ca	64	LYS
45	Ca	65	ARG
45	Ca	77	LYS
45	Ca	85	GLN
45	Ca	92	LYS
45	Ca	93	ASN
45	Ca	94	LYS
45	Ca	117	LEU
45	Ca	119	LYS
45	Ca	129	PHE
46	CN	21	PHE
46	CN	24	ARG
46	CN	31	ARG
46	CN	32	GLN
46	CN	41	ARG
46	CN	44	ARG
46	CN	49	ARG
46	CN	54	LYS
46	CN	61	ILE

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Mol	Chain	Res	Type
46	CN	64	ILE
46	CN	67	ARG
46	CN	68	ARG
46	CN	71	ARG
46	CN	72	LYS
46	CN	73	ARG
46	CN	75	VAL
46	CN	77	LYS
46	CN	80	THR
46	CN	89	VAL
46	CN	91	GLN
46	CN	94	PHE
46	CN	108	ARG
46	CN	114	ARG
46	CN	128	LYS
46	CN	138	PHE
46	CN	139	HIS
46	CN	140	LYS
46	CN	149	GLN
46	CN	162	ARG
46	CN	169	ARG
46	CN	170	LYS
46	CN	172	ARG
46	CN	176	LYS
46	CN	184	ILE
46	CN	188	ARG
46	CN	189	ARG
46	CN	195	ARG
46	CN	198	LEU
46	CN	199	GLN
47	CI	7	ARG
47	CI	10	ARG
47	CI	21	ARG
47	CI	24	ARG
47	CI	30	LYS
47	CI	39	LYS
47	CI	69	ARG
47	CI	74	LYS
47	CI	76	MET
47	CI	82	ARG
47	CI	86	HIS
47	CI	88	ARG

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Mol	Chain	Res	Type
47	CI	101	LYS
47	CI	102	MET
47	CI	103	LEU
47	CI	109	ASP
47	CI	112	GLN
47	CI	116	ARG
47	CI	133	GLN
47	CI	139	ARG
47	CI	146	GLU
47	CI	153	ARG
47	CI	154	ARG
47	CI	164	LYS
47	CI	169	LYS
47	CI	187	LYS
47	CI	200	VAL
47	CI	202	SER
47	CI	208	LYS
47	CI	213	HIS
48	CD	22	ARG
48	CD	23	ARG
48	CD	35	ARG
48	CD	41	LYS
48	CD	50	ARG
48	CD	58	ARG
48	CD	63	GLN
48	CD	66	TYR
48	CD	93	THR
48	CD	107	ARG
48	CD	113	PHE
48	CD	115	MET
48	CD	124	GLU
48	CD	130	TYR
48	CD	152	ARG
48	CD	160	PHE
48	CD	193	GLU
48	CD	202	GLN
48	CD	223	PHE
48	CD	252	VAL
48	CD	254	GLU
48	CD	255	LYS
48	CD	256	LYS
48	CD	258	LYS

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Mol	Chain	Res	Type
48	CD	259	LYS
48	CD	260	GLU
48	CD	262	LYS
48	CD	263	LYS
48	CD	265	ARG
48	CD	268	ARG
48	CD	270	LYS
48	CD	291	GLN
48	CD	293	ARG
49	CQ	6	ARG
49	CQ	7	HIS
49	CQ	8	ASN
49	CQ	9	LYS
49	CQ	11	ARG
49	CQ	13	VAL
49	CQ	14	ARG
49	CQ	15	ARG
49	CQ	16	LYS
49	CQ	17	GLU
49	CQ	19	LYS
49	CQ	20	SER
49	CQ	21	GLN
49	CQ	22	ASP
49	CQ	31	LEU
49	CQ	32	TYR
49	CQ	50	ARG
49	CQ	53	MET
49	CQ	65	ARG
49	CQ	66	MET
49	CQ	69	LYS
49	CQ	71	LYS
49	CQ	75	ARG
49	CQ	78	LYS
49	CQ	91	ARG
49	CQ	93	GLN
49	CQ	94	GLU
49	CQ	97	LYS
49	CQ	98	LEU
49	CQ	108	ARG
49	CQ	112	ARG
49	CQ	140	SER
49	CQ	144	LYS

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Mol	Chain	Res	Type
49	CQ	150	ARG
49	CQ	154	LYS
49	CQ	160	HIS
49	CQ	162	HIS
49	CQ	163	THR
49	CQ	164	LYS
49	CQ	166	TYR
49	CQ	170	LYS
49	CQ	172	ARG
49	CQ	173	LYS
49	CQ	178	ARG
49	CQ	181	ARG
49	CQ	187	LYS
50	CR	3	MET
50	CR	5	ARG
50	CR	17	CYS
50	CR	20	LYS
50	CR	21	LYS
50	CR	24	LEU
50	CR	25	ASP
50	CR	29	THR
50	CR	34	ASN
50	CR	39	GLN
50	CR	46	LYS
50	CR	57	VAL
50	CR	60	ARG
50	CR	62	ARG
50	CR	63	CYS
50	CR	70	ARG
50	CR	71	ARG
50	CR	74	ARG
50	CR	76	MET
50	CR	81	ARG
50	CR	92	LYS
50	CR	96	MET
50	CR	97	ARG
50	CR	104	ARG
50	CR	106	LEU
50	CR	113	LYS
50	CR	116	ASP
50	CR	117	ARG
50	CR	119	MET

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Mol	Chain	Res	Type
50	CR	130	ASN
50	CR	133	LYS
50	CR	134	ASN
50	CR	138	LEU
50	CR	140	GLU
50	CR	141	HIS
50	CR	144	LYS
50	CR	145	LEU
50	CR	153	LYS
50	CR	157	ASP
50	CR	160	GLU
50	CR	162	ARG
50	CR	165	LYS
51	CA	21	LYS
51	CA	24	LYS
51	CA	30	ARG
51	CA	38	HIS
51	CA	64	ARG
51	CA	67	TYR
51	CA	72	ARG
51	CA	92	LYS
51	CA	93	LYS
51	CA	95	GLN
51	CA	97	ASN
51	CA	104	VAL
51	CA	118	GLU
51	CA	119	LYS
51	CA	123	ARG
51	CA	125	LYS
51	CA	143	THR
51	CA	144	LYS
51	CA	147	ARG
51	CA	155	LYS
51	CA	156	LYS
51	CA	181	LYS
51	CA	188	LYS
51	CA	190	LYS
51	CA	192	LYS
51	CA	202	VAL
51	CA	205	ASN
51	CA	221	LYS
51	CA	226	ARG

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Mol	Chain	Res	Type
51	CA	227	ARG
51	CA	241	ARG
51	CA	245	ARG
51	CA	247	ARG
51	CA	250	LYS
51	CA	255	LYS
51	CA	256	GLU
52	CS	7	LEU
52	CS	8	ARG
52	CS	9	GLU
52	CS	13	VAL
52	CS	15	ARG
52	CS	16	CYS
52	CS	17	LEU
52	CS	19	THR
52	CS	20	PRO
52	CS	23	HIS
52	CS	24	THR
52	CS	29	ARG
52	CS	36	ASN
52	CS	41	LYS
52	CS	43	ARG
52	CS	53	LYS
52	CS	54	MET
52	CS	60	GLU
52	CS	66	GLN
52	CS	68	PHE
52	CS	69	GLU
52	CS	70	LYS
52	CS	74	ARG
52	CS	78	PHE
52	CS	81	TRP
52	CS	83	ARG
52	CS	84	TYR
52	CS	87	ARG
52	CS	88	SER
52	CS	91	HIS
52	CS	94	TYR
52	CS	95	ARG
52	CS	108	GLN
52	CS	111	ARG
52	CS	118	ARG

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Mol	Chain	Res	Type
52	CS	120	ARG
52	CS	125	GLN
52	CS	127	MET
52	CS	128	LYS
52	CS	131	GLU
52	CS	136	LYS
52	CS	138	ARG
52	CS	139	ARG
52	CS	143	LYS
52	CS	149	LYS
52	CS	152	PHE
52	CS	154	LEU
52	CS	157	ARG
52	CS	158	VAL
52	CS	159	LEU
52	CS	161	ARG
52	CS	162	GLN
52	CS	164	LYS
52	CS	166	ARG
52	CS	167	PHE
52	CS	170	LYS
52	CS	173	ASN
52	CS	175	PHE
52	CS	176	PHE
53	CT	4	THR
53	CT	5	LYS
53	CT	7	LYS
53	CT	17	ARG
53	CT	18	PRO
53	CT	21	LYS
53	CT	30	TYR
53	CT	31	MET
53	CT	33	ILE
53	CT	36	LYS
53	CT	41	ASP
53	CT	45	MET
53	CT	60	LYS
53	CT	63	ARG
53	CT	65	TYR
53	CT	70	HIS
53	CT	78	LYS
53	CT	80	VAL

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Mol	Chain	Res	Type
53	CT	84	ILE
53	CT	85	LEU
53	CT	88	ARG
53	CT	89	ILE
53	CT	107	LYS
53	CT	114	GLN
53	CT	116	LYS
53	CT	122	LYS
53	CT	124	THR
53	CT	127	GLN
53	CT	128	LEU
53	CT	140	PHE
53	CT	144	ASN
53	CT	146	LYS
53	CT	148	PRO
53	CT	150	LEU
53	CT	152	GLU
53	CT	154	ILE
53	CT	156	TYR
54	CP	4	TYR
54	CP	5	SER
54	CP	6	LEU
54	CP	7	ASP
54	CP	8	PRO
54	CP	10	ASN
54	CP	16	LYS
54	CP	18	ARG
54	CP	23	ARG
54	CP	26	PHE
54	CP	32	THR
54	CP	40	HIS
54	CP	42	ARG
54	CP	46	LYS
54	CP	49	LYS
54	CP	53	LEU
54	CP	64	ASN
54	CP	69	ARG
54	CP	76	TRP
54	CP	78	TRP
54	CP	86	LYS
54	CP	92	LEU
54	CP	94	MET

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Mol	Chain	Res	Type
54	CP	99	GLU
54	CP	103	GLU
54	CP	104	LEU
54	CP	105	LYS
54	CP	107	LEU
54	CP	109	VAL
54	CP	114	ILE
54	CP	115	GLU
54	CP	118	GLN
54	CP	120	ASN
54	CP	126	ARG
54	CP	128	ARG
54	CP	139	TYR
54	CP	140	MET
54	CP	145	HIS
54	CP	153	LYS
55	CU	35	ASP
55	CU	41	GLN
55	CU	46	ARG
55	CU	52	LYS
55	CU	56	LEU
55	CU	65	ARG
55	CU	66	SER
55	CU	67	LYS
55	CU	75	GLU
55	CU	78	PHE
55	CU	80	LYS
55	CU	84	LYS
55	CU	91	LEU
55	CU	93	LYS
55	CU	101	ARG
55	CU	107	LYS
55	CU	110	TYR
55	CU	113	ARG
55	CU	115	PHE
55	CU	125	GLU
56	CX	36	LYS
56	CX	39	LYS
56	CX	40	ILE
56	CX	41	ARG
56	CX	46	PHE
56	CX	48	ARG

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Mol	Chain	Res	Type
56	CX	50	LYS
56	CX	55	ARG
56	CX	57	GLN
56	CX	60	TYR
56	CX	62	ARG
56	CX	63	LYS
56	CX	67	ARG
56	CX	68	ARG
56	CX	69	ASN
56	CX	76	ILE
56	CX	79	PHE
56	CX	89	LYS
56	CX	90	ILE
56	CX	91	GLU
56	CX	100	VAL
56	CX	110	LYS
56	CX	111	GLN
56	CX	114	LYS
56	CX	119	ILE
56	CX	123	LYS
56	CX	129	ARG
56	CX	139	ARG
56	CX	153	ILE
56	CX	155	ILE
56	CX	156	ILE
57	CY	2	LYS
57	CY	15	ARG
57	CY	24	HIS
57	CY	28	LYS
57	CY	36	LYS
57	CY	45	ARG
57	CY	47	MET
57	CY	50	ARG
57	CY	52	ASP
57	CY	54	GLU
57	CY	56	GLN
57	CY	59	ARG
57	CY	61	HIS
57	CY	62	TYR
57	CY	65	GLN
57	CY	66	GLN
57	CY	69	LYS

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Mol	Chain	Res	Type
57	CY	72	GLN
57	CY	76	LYS
57	CY	83	GLU
57	CY	86	GLN
57	CY	109	LEU
57	CY	110	LYS
57	CY	113	LYS
57	CY	117	LYS
57	CY	130	LYS
57	CY	131	GLU
57	CY	132	LYS
58	CW	2	LYS
58	CW	3	VAL
58	CW	7	SER
58	CW	11	TYR
58	CW	12	LYS
58	CW	17	HIS
58	CW	19	ARG
58	CW	23	ARG
58	CW	25	ASP
58	CW	27	LYS
58	CW	28	VAL
58	CW	37	GLU
58	CW	43	LYS
58	CW	44	ARG
58	CW	57	ARG
58	CW	61	LYS
58	CW	65	GLU
58	CW	69	LYS
58	CW	73	ARG
58	CW	74	ARG
58	CW	77	LYS
58	CW	80	ARG
58	CW	83	THR
58	CW	91	MET
58	CW	96	GLN
58	CW	97	LYS
58	CW	99	GLU
58	CW	110	ARG
59	CZ	3	LYS
59	CZ	5	MET
59	CZ	6	LYS

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Mol	Chain	Res	Type
59	CZ	17	ARG
59	CZ	21	ARG
59	CZ	28	ASN
59	CZ	30	ASP
59	CZ	31	ASP
59	CZ	34	SER
59	CZ	36	ARG
59	CZ	38	TYR
59	CZ	42	LEU
59	CZ	47	ASP
59	CZ	48	ARG
59	CZ	52	LYS
59	CZ	54	THR
59	CZ	57	MET
59	CZ	64	LYS
59	CZ	79	HIS
59	CZ	81	MET
59	CZ	83	THR
59	CZ	93	LYS
59	CZ	99	ASP
59	CZ	102	ARG
59	CZ	108	ARG
59	CZ	109	LYS
59	CZ	118	PHE
59	CZ	121	ARG
59	CZ	123	LYS
59	CZ	126	LYS
59	CZ	127	ASN
59	CZ	128	LYS
59	CZ	133	LYS
59	CZ	135	ARG
59	CZ	136	PHE
60	Cr	11	ARG
60	Cr	18	ILE
60	Cr	20	ARG
60	Cr	23	GLN
60	Cr	28	GLU
60	Cr	33	LYS
60	Cr	35	ARG
60	Cr	43	LEU
60	Cr	44	ILE
60	Cr	45	HIS

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Mol	Chain	Res	Type
60	Cr	47	LYS
60	Cr	48	THR
60	Cr	56	ASP
60	Cr	67	ARG
60	Cr	71	ARG
60	Cr	72	LYS
60	Cr	77	TYR
60	Cr	79	ARG
60	Cr	82	ILE
60	Cr	84	LYS
60	Cr	87	ARG
60	Cr	99	LYS
60	Cr	101	LYS
60	Cr	105	ASP
60	Cr	106	LEU
60	Cr	107	ARG
60	Cr	108	MET
60	Cr	112	ARG
60	Cr	128	ARG
60	Cr	132	ARG
61	Ch	4	ILE
61	Ch	8	ASP
61	Ch	10	ARG
61	Ch	14	LYS
61	Ch	23	ASP
61	Ch	27	GLU
61	Ch	32	ARG
61	Ch	35	LYS
61	Ch	48	ARG
61	Ch	51	ARG
61	Ch	56	ARG
61	Ch	73	TYR
61	Ch	74	LYS
61	Ch	76	LYS
61	Ch	78	TYR
61	Ch	82	ASP
61	Ch	86	LYS
61	Ch	91	MET
61	Ch	94	ARG
61	Ch	97	LYS
61	Ch	98	HIS
61	Ch	103	LYS

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Mol	Chain	Res	Type
61	Ch	105	LYS
61	Ch	106	LYS
61	Ch	109	ARG
61	Ch	114	TYR
61	Ch	117	ARG
61	Ch	118	LYS
61	Ch	122	LYS
62	Cb	5	LYS
62	Cb	7	HIS
62	Cb	12	GLN
62	Cb	14	ARG
62	Cb	15	LYS
62	Cb	18	ARG
62	Cb	22	LYS
62	Cb	25	ARG
62	Cb	26	SER
62	Cb	28	ARG
62	Cb	33	LYS
62	Cb	38	LYS
62	Cb	39	PHE
62	Cb	41	ARG
62	Cb	47	LYS
62	Cb	51	LYS
62	Cb	54	LEU
62	Cb	55	LYS
62	Cb	56	LYS
62	Cb	57	MET
62	Cb	58	GLN
62	Cb	60	ASN
62	Cb	63	LYS
62	Cb	65	MET
62	Cb	73	LYS
63	CB	2	SER
63	CB	10	ARG
63	CB	20	LYS
63	CB	24	ARG
63	CB	25	HIS
63	CB	26	ARG
63	CB	28	LYS
63	CB	30	LYS
63	CB	32	PHE
63	CB	34	LYS

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Mol	Chain	Res	Type
63	CB	36	ASP
63	CB	41	VAL
63	CB	50	LYS
63	CB	59	GLU
63	CB	61	ASP
63	CB	76	VAL
63	CB	77	THR
63	CB	99	LEU
63	CB	102	PHE
63	CB	103	LYS
63	CB	104	THR
63	CB	106	PHE
63	CB	112	ASP
63	CB	115	LYS
63	CB	119	TYR
63	CB	120	LYS
63	CB	124	LYS
63	CB	127	LYS
63	CB	134	CYS
63	CB	138	GLN
63	CB	139	ASP
63	CB	144	LYS
63	CB	145	GLN
63	CB	148	LYS
63	CB	150	PHE
63	CB	154	LYS
63	CB	155	LYS
63	CB	158	GLN
63	CB	160	ILE
63	CB	163	ILE
63	CB	167	GLN
63	CB	169	ARG
63	CB	174	ARG
63	CB	198	ARG
63	CB	199	GLU
63	CB	200	ARG
63	CB	204	GLN
63	CB	208	ASN
63	CB	224	LYS
63	CB	226	LYS
63	CB	229	LYS
63	CB	242	ARG

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Mol	Chain	Res	Type
63	CB	243	LYS
63	CB	261	ARG
63	CB	264	PHE
63	CB	282	LYS
63	CB	291	TYR
63	CB	295	ASP
63	CB	297	LYS
63	CB	299	ILE
63	CB	300	LYS
63	CB	304	SER
63	CB	306	ASP
63	CB	309	LEU
63	CB	311	ASP
63	CB	312	LYS
63	CB	322	HIS
63	CB	325	GLU
63	CB	329	ASP
63	CB	345	LEU
63	CB	349	LYS
63	CB	354	GLN
63	CB	356	LYS
63	CB	357	ARG
63	CB	358	ARG
63	CB	361	GLU
63	CB	365	LEU
63	CB	366	LYS
63	CB	374	PHE
63	CB	378	ARG
63	CB	389	MET
63	CB	393	LYS
63	CB	394	LYS
63	CB	396	ARG
64	CF	21	LYS
64	CF	29	LYS
64	CF	47	ARG
64	CF	52	GLU
64	CF	66	ARG
64	CF	74	MET
64	CF	88	LYS
64	CF	94	ARG
64	CF	98	ILE
64	CF	106	ARG

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Mol	Chain	Res	Type
64	CF	107	LYS
64	CF	134	ARG
64	CF	135	ILE
64	CF	146	ASN
64	CF	157	ARG
64	CF	170	THR
64	CF	171	ASP
64	CF	181	LYS
64	CF	190	LEU
64	CF	199	LYS
64	CF	200	ARG
64	CF	220	MET
64	CF	221	LYS
64	CF	222	LYS
64	CF	224	THR
64	CF	243	LEU
65	Cc	10	SER
65	Cc	11	LEU
65	Cc	39	ARG
65	Cc	40	GLN
65	Cc	57	LYS
65	Cc	59	GLU
65	Cc	61	GLU
65	Cc	68	LYS
65	Cc	80	GLU
65	Cc	88	TYR
65	Cc	90	ARG
65	Cc	91	VAL
66	Cd	12	LYS
66	Cd	17	ILE
66	Cd	18	ASN
66	Cd	23	ARG
66	Cd	39	LYS
66	Cd	41	ARG
66	Cd	44	ARG
66	Cd	48	GLU
66	Cd	55	LYS
66	Cd	57	MET
66	Cd	60	PRO
66	Cd	63	ARG
66	Cd	67	ARG
66	Cd	70	LYS

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Mol	Chain	Res	Type
66	Cd	75	LYS
66	Cd	91	LYS
66	Cd	92	ARG
66	Cd	95	ASP
66	Cd	101	LYS
66	Cd	103	TYR
66	Cd	113	THR
66	Cd	114	PHE
66	Cd	116	ASN
66	Cd	117	LEU
67	Ce	5	ARG
67	Ce	9	LYS
67	Ce	11	LYS
67	Ce	12	ILE
67	Ce	13	VAL
67	Ce	17	THR
67	Ce	19	LYS
67	Ce	21	ILE
67	Ce	22	ARG
67	Ce	27	ARG
67	Ce	28	TYR
67	Ce	30	LYS
67	Ce	33	ARG
67	Ce	36	ARG
67	Ce	37	LYS
67	Ce	39	ARG
67	Ce	42	ASP
67	Ce	44	ARG
67	Ce	64	LYS
67	Ce	69	MET
67	Ce	74	PHE
67	Ce	76	LYS
67	Ce	78	LEU
67	Ce	80	HIS
67	Ce	83	LYS
67	Ce	90	MET
67	Ce	106	LYS
67	Ce	108	ARG
67	Ce	109	LYS
67	Ce	128	ARG
67	Ce	129	LEU
67	Ce	130	ARG

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Mol	Chain	Res	Type
68	Cf	4	ARG
68	Cf	5	LEU
68	Cf	15	LYS
68	Cf	16	ARG
68	Cf	18	LEU
68	Cf	19	ARG
68	Cf	22	ARG
68	Cf	23	GLU
68	Cf	24	HIS
68	Cf	29	LYS
68	Cf	31	GLU
68	Cf	33	VAL
68	Cf	38	GLU
68	Cf	46	ARG
68	Cf	49	TYR
68	Cf	52	LYS
68	Cf	54	LYS
68	Cf	55	ASN
68	Cf	66	LYS
68	Cf	70	ILE
68	Cf	73	LYS
68	Cf	80	ASN
68	Cf	87	LYS
68	Cf	89	ARG
68	Cf	95	LYS
68	Cf	100	ARG
68	Cf	101	ILE
68	Cf	102	ARG
68	Cf	104	MET
68	Cf	106	TYR
68	Cf	109	ARG
69	Cg	3	GLN
69	Cg	5	LEU
69	Cg	8	ARG
69	Cg	9	ARG
69	Cg	18	ASN
69	Cg	19	LYS
69	Cg	21	ARG
69	Cg	22	LEU
69	Cg	29	ARG
69	Cg	30	ILE
69	Cg	32	TYR

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Mol	Chain	Res	Type
69	Cg	36	LYS
69	Cg	38	VAL
69	Cg	40	LYS
69	Cg	42	PRO
69	Cg	43	LYS
69	Cg	48	VAL
69	Cg	50	PRO
69	Cg	53	LEU
69	Cg	54	ARG
69	Cg	57	ARG
69	Cg	59	VAL
69	Cg	60	ARG
69	Cg	65	MET
69	Cg	66	ARG
69	Cg	67	LEU
69	Cg	72	LYS
69	Cg	74	VAL
69	Cg	76	ARG
69	Cg	78	TYR
69	Cg	81	SER
69	Cg	83	CYS
69	Cg	85	LYS
69	Cg	88	ARG
69	Cg	108	LYS
70	Ci	3	LEU
70	Ci	4	ARG
70	Ci	6	PRO
70	Ci	7	MET
70	Ci	11	LEU
70	Ci	12	ASN
70	Ci	13	LYS
70	Ci	18	THR
70	Ci	21	VAL
70	Ci	22	SER
70	Ci	23	LYS
70	Ci	25	ARG
70	Ci	28	ARG
70	Ci	29	ARG
70	Ci	32	ARG
70	Ci	33	LEU
70	Ci	35	LYS
70	Ci	38	LYS

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Mol	Chain	Res	Type
70	Ci	42	ASP
70	Ci	43	MET
70	Ci	45	ARG
70	Ci	60	LEU
70	Ci	62	LYS
70	Ci	65	LYS
70	Ci	71	LYS
70	Ci	74	LYS
70	Ci	75	LYS
70	Ci	76	ARG
70	Ci	80	HIS
70	Ci	82	ARG
70	Ci	85	ARG
70	Ci	86	LYS
70	Ci	88	GLU
70	Ci	91	SER
70	Ci	98	ARG
70	Ci	99	LYS
71	Cj	25	LYS
71	Cj	31	LYS
71	Cj	36	LYS
71	Cj	46	LYS
71	Cj	52	LYS
71	Cj	54	LYS
71	Cj	55	ARG
71	Cj	57	ASN
71	Cj	64	MET
71	Cj	65	ARG
71	Cj	68	LYS
71	Cj	71	TYR
71	Cj	72	ARG
71	Cj	73	ARG
71	Cj	75	ARG
71	Cj	79	ARG
71	Cj	83	THR
71	Cj	87	LYS
71	Cj	88	ARG
71	Cj	91	VAL
72	Ck	4	LYS
72	Ck	6	GLU
72	Ck	7	GLU
72	Ck	9	LYS

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Mol	Chain	Res	Type
72	Ck	16	ARG
72	Ck	21	LYS
72	Ck	24	LYS
72	Ck	26	LYS
72	Ck	27	LYS
72	Ck	29	LYS
72	Ck	30	ASP
72	Ck	31	ASN
72	Ck	37	ARG
72	Ck	48	THR
72	Ck	52	LYS
72	Ck	54	GLU
72	Ck	55	LYS
72	Ck	57	LYS
72	Ck	69	LEU
73	Cl	5	LYS
73	Cl	8	ARG
73	Cl	11	ARG
73	Cl	12	PHE
73	Cl	16	LYS
73	Cl	21	ARG
73	Cl	25	GLN
73	Cl	28	ARG
73	Cl	29	MET
73	Cl	30	LYS
73	Cl	37	TYR
73	Cl	40	LYS
73	Cl	46	ARG
73	Cl	48	LYS
74	CC	5	ARG
74	CC	8	ILE
74	CC	9	SER
74	CC	13	GLU
74	CC	14	LYS
74	CC	16	GLU
74	CC	17	SER
74	CC	20	LYS
74	CC	22	VAL
74	CC	24	LEU
74	CC	27	VAL
74	CC	28	PHE
74	CC	29	LYS

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Mol	Chain	Res	Type
74	CC	33	ARG
74	CC	39	PHE
74	CC	48	ASN
74	CC	56	GLU
74	CC	57	LEU
74	CC	65	GLU
74	CC	86	ARG
74	CC	87	SER
74	CC	92	PHE
74	CC	100	ARG
74	CC	106	LYS
74	CC	109	ARG
74	CC	110	ARG
74	CC	113	ARG
74	CC	116	ASN
74	CC	140	LYS
74	CC	165	LYS
74	CC	173	LYS
74	CC	175	LYS
74	CC	179	ASP
74	CC	184	TYR
74	CC	187	GLN
74	CC	193	LYS
74	CC	199	ARG
74	CC	200	ARG
74	CC	201	ARG
74	CC	205	ARG
74	CC	213	GLU
74	CC	214	ASP
74	CC	217	ILE
74	CC	218	ILE
74	CC	229	LEU
74	CC	234	LYS
74	CC	235	LEU
74	CC	248	ARG
74	CC	254	GLU
74	CC	258	ARG
74	CC	260	LEU
74	CC	261	ASP
74	CC	272	SER
74	CC	273	LEU
74	CC	274	LYS

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Mol	Chain	Res	Type
74	CC	275	SER
74	CC	279	LEU
74	CC	283	LYS
74	CC	286	ASN
74	CC	289	LEU
74	CC	294	LYS
74	CC	300	ARG
74	CC	303	ARG
74	CC	308	LYS
74	CC	311	ARG
74	CC	312	ARG
74	CC	313	VAL
74	CC	314	LEU
74	CC	320	LYS
74	CC	321	ASN
74	CC	323	ARG
74	CC	325	MET
74	CC	328	LEU
74	CC	333	LYS
74	CC	340	ILE
74	CC	341	LEU
74	CC	343	GLN
74	CC	345	ARG
74	CC	347	HIS
74	CC	350	ARG
74	CC	351	VAL
74	CC	353	LYS
74	CC	364	LYS
75	Cm	79	GLU
75	Cm	83	ARG
75	Cm	85	LEU
75	Cm	88	LYS
75	Cm	91	CYS
75	Cm	93	LYS
75	Cm	97	ARG
75	Cm	98	LYS
75	Cm	106	ARG
75	Cm	111	ARG
75	Cm	112	LYS
75	Cm	113	LYS
75	Cm	114	LYS
75	Cm	125	LYS

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Mol	Chain	Res	Type
75	Cm	126	LYS
75	Cm	127	VAL
75	Cm	128	LYS
76	Cn	5	TRP
76	Cn	6	ARG
76	Cn	8	LYS
76	Cn	9	ARG
76	Cn	10	MET
76	Cn	15	ARG
76	Cn	18	ARG
76	Cn	19	LYS
76	Cn	21	ARG
76	Cn	23	ARG
77	Cp	3	LYS
77	Cp	6	LYS
77	Cp	17	ARG
77	Cp	24	LYS
77	Cp	25	MET
77	Cp	27	LYS
77	Cp	28	LYS
77	Cp	30	GLU
77	Cp	42	CYS
77	Cp	46	LYS
77	Cp	48	LYS
77	Cp	49	ARG
77	Cp	50	ARG
77	Cp	54	ILE
77	Cp	62	LYS
77	Cp	75	SER
77	Cp	84	ARG
77	Cp	85	ARG
77	Cp	87	LYS
77	Cp	90	LYS
77	Cp	92	GLN
78	Co	6	LYS
78	Co	8	ARG
78	Co	13	LYS
78	Co	14	LYS
78	Co	24	THR
78	Co	27	LYS
78	Co	28	LYS
78	Co	40	ARG

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Mol	Chain	Res	Type
78	Co	43	ARG
78	Co	44	LYS
78	Co	45	GLN
78	Co	55	ILE
78	Co	58	LYS
78	Co	59	LYS
78	Co	61	LYS
78	Co	64	LYS
78	Co	65	LYS
78	Co	66	ILE
78	Co	71	GLU
78	Co	76	ASN
78	Co	78	ARG
78	Co	81	ARG
78	Co	82	MET
78	Co	83	LEU
78	Co	87	ARG
78	Co	89	LYS
78	Co	91	PHE
78	Co	93	LEU
78	Co	97	LYS
78	Co	98	LYS
78	Co	99	ARG
78	Co	104	ILE
78	Co	105	GLN
79	CJ	9	GLU
79	CJ	16	ARG
79	CJ	19	LYS
79	CJ	32	ARG
79	CJ	38	LYS
79	CJ	95	ARG
79	CJ	96	LYS
79	CJ	97	ASN
79	CJ	111	GLU
79	CJ	113	ILE
79	CJ	131	TYR
79	CJ	146	ARG
80	CH	1	MET
80	CH	2	LYS
80	CH	12	ILE
80	CH	20	LEU
80	CH	23	ARG

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Mol	Chain	Res	Type
80	CH	28	LYS
80	CH	37	ASP
80	CH	41	ILE
80	CH	50	LYS
80	CH	52	LYS
80	CH	53	LYS
80	CH	59	LYS
80	CH	89	ARG
80	CH	92	MET
80	CH	105	ILE
80	CH	107	GLU
80	CH	108	ASN
80	CH	121	LYS
80	CH	124	ARG
80	CH	129	ARG
80	CH	150	ASP
80	CH	168	LYS
80	CH	177	ASP
80	CH	188	GLN
81	CE	27	VAL
81	CE	32	LEU
81	CE	38	LYS
81	CE	41	LYS
81	CE	42	PRO
81	CE	46	ARG
81	CE	51	VAL
81	CE	52	ARG
81	CE	56	ARG
81	CE	57	TYR
81	CE	60	SER
81	CE	62	MET
81	CE	65	ARG
81	CE	66	LYS
81	CE	68	MET
81	CE	72	LYS
81	CE	74	SER
81	CE	80	VAL
81	CE	81	GLU
81	CE	82	LYS
81	CE	84	LYS
81	CE	85	LYS
81	CE	87	LYS

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Mol	Chain	Res	Type
81	CE	94	LYS
81	CE	99	ASP
81	CE	108	LYS
81	CE	109	LEU
81	CE	111	LYS
81	CE	114	ARG
81	CE	115	TYR
81	CE	120	ASP
81	CE	121	VAL
81	CE	123	ARG
81	CE	126	LEU
81	CE	127	SER
81	CE	130	LYS
81	CE	133	PHE
81	CE	134	SER
81	CE	136	HIS
81	CE	138	ARG
81	CE	139	LYS
81	CE	144	ILE
81	CE	158	ARG
81	CE	163	VAL
81	CE	167	GLN
81	CE	183	ARG
81	CE	186	LEU
81	CE	187	ARG
81	CE	192	LYS
81	CE	198	SER
81	CE	204	SER
81	CE	205	ASN
81	CE	207	LYS
81	CE	210	LYS
81	CE	212	LEU
81	CE	213	THR
81	CE	222	LEU
81	CE	223	ARG
81	CE	224	LYS
81	CE	228	GLN
81	CE	229	GLU
81	CE	232	ILE
81	CE	234	ASP
81	CE	239	LYS
81	CE	240	TYR

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Mol	Chain	Res	Type
81	CE	243	THR
81	CE	245	GLN
81	CE	247	LYS
81	CE	256	GLN
81	CE	260	LYS
81	CE	264	ILE
81	CE	281	ILE
81	CE	282	TYR
81	CE	285	LYS
81	CE	286	LEU
81	CE	287	VAL
82	CG	22	GLN
82	CG	25	LYS
82	CG	31	LEU
82	CG	32	PHE
82	CG	33	GLU
82	CG	34	LYS
82	CG	38	ASN
82	CG	39	PHE
82	CG	41	ILE
82	CG	43	GLN
82	CG	44	ASP
82	CG	45	ILE
82	CG	48	LYS
82	CG	51	LEU
82	CG	56	LYS
82	CG	58	PRO
82	CG	62	ARG
82	CG	67	ARG
82	CG	71	TYR
82	CG	73	ARG
82	CG	82	GLN
82	CG	83	PHE
82	CG	85	GLN
82	CG	88	ASP
82	CG	89	ARG
82	CG	90	GLN
82	CG	91	THR
82	CG	94	GLN
82	CG	97	LYS
82	CG	98	LEU
82	CG	101	LYS

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Mol	Chain	Res	Type
82	CG	105	GLU
82	CG	107	LYS
82	CG	110	LYS
82	CG	113	ARG
82	CG	117	ARG
82	CG	120	LYS
82	CG	121	LYS
82	CG	125	LYS
82	CG	133	PRO
82	CG	148	GLU
82	CG	154	LEU
82	CG	156	VAL
82	CG	166	LEU
82	CG	173	LEU
82	CG	175	ARG
82	CG	176	LYS
82	CG	179	VAL
82	CG	183	ILE
82	CG	184	ILE
82	CG	185	LYS
82	CG	187	LYS
82	CG	189	ARG
82	CG	190	LEU
82	CG	196	ARG
82	CG	200	THR
82	CG	205	THR
82	CG	217	LYS
82	CG	230	TYR
82	CG	231	ASP
82	CG	234	ARG
82	CG	236	HIS
82	CG	240	ASN
82	CG	254	GLU
82	CG	259	LYS
82	CG	261	LEU
82	CG	264	LYS
82	CG	265	LEU
84	Cu	49	LYS
84	Cv	2	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (308) such sidechains are listed below:

Mol	Chain	Res	Type
1	Az	3	ASN
1	Az	21	ASN
1	Az	27	HIS
1	Az	64	GLN
1	Az	101	ASN
1	Az	158	ASN
1	Az	168	GLN
1	Az	176	GLN
1	Az	448	GLN
1	Az	477	GLN
1	Az	493	ASN
1	Az	705	HIS
1	Az	710	HIS
1	Az	715	HIS
1	Az	737	GLN
1	Az	803	ASN
1	Az	827	ASN
2	Ag	20	GLN
2	Ag	64	HIS
2	Ag	76	GLN
2	Ag	119	GLN
2	Ag	143	GLN
2	Ag	226	HIS
2	Ag	237	ASN
3	AU	18	HIS
3	AU	47	ASN
4	AK	7	ASN
4	AK	28	HIS
4	AK	39	ASN
4	AK	44	HIS
4	AK	50	GLN
4	AK	66	HIS
5	AO	20	GLN
6	AX	39	ASN
6	AX	46	HIS
7	AM	19	GLN
7	AM	28	HIS
7	AM	75	ASN
7	AM	82	ASN
8	AS	11	HIS
8	AS	42	HIS
8	AS	87	GLN
9	Ad	26	ASN

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Mol	Chain	Res	Type
9	Ad	28	HIS
10	AN	5	HIS
10	AN	62	GLN
10	AN	101	HIS
10	AN	123	HIS
11	AL	18	GLN
11	AL	19	ASN
11	AL	65	ASN
11	AL	121	GLN
11	AL	156	GLN
12	AR	74	GLN
12	AR	121	GLN
13	AP	41	GLN
13	AP	53	GLN
13	AP	79	HIS
13	AP	103	ASN
13	AP	114	HIS
13	AP	128	HIS
14	AT	11	GLN
14	AT	42	HIS
14	AT	63	HIS
14	AT	83	GLN
14	AT	85	ASN
14	AT	126	GLN
14	AT	128	GLN
15	AB	75	GLN
15	AB	76	ASN
15	AB	101	HIS
15	AB	118	GLN
15	AB	147	ASN
15	AB	148	ASN
15	AB	179	ASN
15	AB	202	GLN
15	AB	232	HIS
16	AA	50	ASN
16	AA	81	ASN
16	AA	110	ASN
16	AA	141	ASN
17	AV	47	ASN
18	AY	29	HIS
18	AY	85	ASN
18	AY	89	HIS

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Mol	Chain	Res	Type
18	AY	94	HIS
19	AZ	103	HIS
21	Ab	49	HIS
21	Ab	83	GLN
21	Ab	84	HIS
22	Ac	26	GLN
23	AD	74	GLN
23	AD	179	GLN
23	AD	226	GLN
25	Af	151	ASN
26	AJ	125	HIS
27	AE	50	ASN
27	AE	98	ASN
27	AE	142	HIS
27	AE	188	ASN
27	AE	209	HIS
28	AC	115	GLN
28	AC	172	ASN
29	AG	56	ASN
29	AG	65	GLN
29	AG	81	HIS
29	AG	177	GLN
29	AG	187	HIS
30	AF	29	GLN
30	AF	65	GLN
30	AF	83	ASN
30	AF	186	ASN
31	AH	12	ASN
31	AH	73	GLN
31	AH	163	GLN
31	AH	168	HIS
32	AW	15	ASN
32	AW	44	HIS
32	AW	64	ASN
32	AW	98	GLN
33	AI	22	HIS
33	AI	84	ASN
33	AI	99	ASN
33	AI	165	GLN
34	AQ	80	GLN
35	Ah	298	ASN
38	Cz	44	GLN

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Mol	Chain	Res	Type
38	Cz	72	GLN
38	Cz	96	ASN
38	Cz	143	ASN
38	Cz	188	ASN
39	Cq	39	GLN
39	Cq	68	HIS
39	Cq	127	ASN
39	Cq	139	GLN
39	Cq	212	HIS
41	CO	26	GLN
41	CO	50	ASN
41	CO	72	HIS
41	CO	199	HIS
42	CL	67	HIS
42	CL	87	HIS
42	CL	104	ASN
42	CL	115	GLN
43	CV	36	ASN
43	CV	84	GLN
45	Ca	14	HIS
45	Ca	17	HIS
45	Ca	93	ASN
46	CN	8	GLN
46	CN	29	GLN
46	CN	57	GLN
46	CN	87	HIS
46	CN	90	ASN
46	CN	91	GLN
46	CN	109	HIS
46	CN	139	HIS
46	CN	149	GLN
46	CN	156	HIS
46	CN	199	GLN
46	CN	201	HIS
47	CI	86	HIS
47	CI	92	HIS
47	CI	112	GLN
47	CI	123	GLN
47	CI	130	HIS
47	CI	133	GLN
47	CI	147	HIS
47	CI	163	GLN

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Mol	Chain	Res	Type
47	CI	203	HIS
47	CI	213	HIS
48	CD	81	HIS
48	CD	122	GLN
48	CD	195	HIS
48	CD	244	HIS
49	CQ	8	ASN
49	CQ	21	GLN
49	CQ	45	GLN
49	CQ	93	GLN
49	CQ	188	ASN
50	CR	34	ASN
50	CR	39	GLN
50	CR	40	GLN
50	CR	121	HIS
50	CR	130	ASN
50	CR	158	GLN
51	CA	8	GLN
51	CA	50	HIS
51	CA	97	ASN
51	CA	209	HIS
52	CS	23	HIS
52	CS	92	ASN
52	CS	108	GLN
52	CS	117	HIS
52	CS	125	GLN
52	CS	144	GLN
52	CS	173	ASN
53	CT	22	HIS
53	CT	54	HIS
53	CT	70	HIS
53	CT	112	ASN
53	CT	127	GLN
53	CT	131	GLN
53	CT	144	ASN
54	CP	10	ASN
54	CP	54	GLN
54	CP	93	HIS
54	CP	97	ASN
54	CP	118	GLN
54	CP	137	ASN
54	CP	145	HIS

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Mol	Chain	Res	Type
55	CU	50	ASN
56	CX	107	HIS
57	CY	56	GLN
57	CY	61	HIS
57	CY	66	GLN
57	CY	100	HIS
58	CW	17	HIS
58	CW	59	HIS
58	CW	95	ASN
59	CZ	76	ASN
59	CZ	127	ASN
60	Cr	6	GLN
60	Cr	31	ASN
60	Cr	70	GLN
60	Cr	95	HIS
62	Cb	7	HIS
62	Cb	42	ASN
62	Cb	49	HIS
63	CB	42	HIS
63	CB	55	HIS
63	CB	68	ASN
63	CB	175	GLN
63	CB	203	GLN
63	CB	204	GLN
63	CB	245	HIS
63	CB	275	HIS
63	CB	328	ASN
63	CB	376	HIS
64	CF	24	ASN
64	CF	39	GLN
64	CF	58	HIS
64	CF	63	GLN
64	CF	192	HIS
64	CF	239	GLN
64	CF	248	ASN
65	Cc	19	GLN
65	Cc	33	GLN
65	Cc	78	ASN
66	Cd	18	ASN
66	Cd	79	ASN
66	Cd	93	ASN
66	Cd	100	ASN

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Mol	Chain	Res	Type
66	Cd	116	ASN
66	Cd	118	GLN
67	Ce	24	GLN
67	Ce	43	ASN
67	Ce	92	ASN
68	Cf	20	ASN
68	Cf	91	ASN
69	Cg	112	GLN
70	Ci	15	HIS
70	Ci	26	HIS
70	Ci	80	HIS
71	Cj	48	ASN
71	Cj	57	ASN
72	Ck	31	ASN
73	Cl	33	ASN
73	Cl	43	HIS
74	CC	50	GLN
74	CC	61	GLN
74	CC	142	HIS
74	CC	187	GLN
74	CC	321	ASN
74	CC	329	ASN
74	CC	346	ASN
75	Cm	90	ASN
77	Cp	33	GLN
77	Cp	34	HIS
77	Cp	92	GLN
78	Co	36	GLN
79	CJ	46	GLN
79	CJ	98	ASN
80	CH	42	ASN
80	CH	98	HIS
80	CH	162	GLN
81	CE	47	ASN
81	CE	182	ASN
81	CE	191	GLN
81	CE	205	ASN
81	CE	228	GLN
81	CE	250	GLN
81	CE	256	GLN
81	CE	266	GLN
81	CE	279	ASN

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Mol	Chain	Res	Type
82	CG	43	GLN
82	CG	46	GLN
82	CG	64	GLN
82	CG	85	GLN
82	CG	100	HIS
82	CG	159	HIS
82	CG	208	ASN
82	CG	227	ASN
82	CG	236	HIS
82	CG	240	ASN
83	Cs	17	HIS
83	Ct	17	HIS
84	Cv	15	ASN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
36	B2	1760/1869 (94%)	503 (28%)	128 (7%)
37	BC	74/75 (98%)	13 (17%)	3 (4%)
85	A5	3761/5070 (74%)	1048 (27%)	337 (8%)
86	A7	120/121 (99%)	24 (20%)	2 (1%)
87	A8	156/157 (99%)	38 (24%)	12 (7%)
All	All	5871/7292 (80%)	1626 (27%)	482 (8%)

All (1626) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
36	B2	2	A
36	B2	3	C
36	B2	4	C
36	B2	8	U
36	B2	16	G
36	B2	25	A
36	B2	26	U
36	B2	32	U
36	B2	33	G
36	B2	41	G
36	B2	44	U
36	B2	45	A
36	B2	46	A
36	B2	50	A

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Mol	Chain	Res	Type
36	B2	56	G
36	B2	59	U
36	B2	66	G
36	B2	67	C
36	B2	68	A
36	B2	70	G
36	B2	72	C
36	B2	73	C
36	B2	74	G
36	B2	75	G
36	B2	76	U
36	B2	77	A
36	B2	78	C
36	B2	79	A
36	B2	80	G
36	B2	99	A
36	B2	103	A
36	B2	113	G
36	B2	126	G
36	B2	139	C
36	B2	140	C
36	B2	141	A
36	B2	142	C
36	B2	143	U
36	B2	147	A
36	B2	148	U
36	B2	155	G
36	B2	160	U
36	B2	161	U
36	B2	162	C
36	B2	170	A
36	B2	176	U
36	B2	182	C
36	B2	183	G
36	B2	188	C
36	B2	189	U
36	B2	190	G
36	B2	191	A
36	B2	192	C
36	B2	206	G
36	B2	208	G
36	B2	209	A

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Mol	Chain	Res	Type
36	B2	215	G
36	B2	216	C
36	B2	226	A
36	B2	227	U
36	B2	228	C
36	B2	229	A
36	B2	232	A
36	B2	233	C
36	B2	235	A
36	B2	236	A
36	B2	237	C
36	B2	238	C
36	B2	241	G
36	B2	282	G
36	B2	284	C
36	B2	285	U
36	B2	286	U
36	B2	287	U
36	B2	288	G
36	B2	295	C
36	B2	296	U
36	B2	307	G
36	B2	308	G
36	B2	309	G
36	B2	312	G
36	B2	313	A
36	B2	316	G
36	B2	318	A
36	B2	319	C
36	B2	321	C
36	B2	323	C
36	B2	324	C
36	B2	325	C
36	B2	326	C
36	B2	327	G
36	B2	328	U
36	B2	330	G
36	B2	332	G
36	B2	336	A
36	B2	342	C
36	B2	347	G
36	B2	349	A

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Mol	Chain	Res	Type
36	B2	356	C
36	B2	362	C
36	B2	364	A
36	B2	367	U
36	B2	369	C
36	B2	385	G
36	B2	386	C
36	B2	389	A
36	B2	392	A
36	B2	400	C
36	B2	407	G
36	B2	408	A
36	B2	409	C
36	B2	426	A
36	B2	448	A
36	B2	450	C
36	B2	452	G
36	B2	459	C
36	B2	464	A
36	B2	466	G
36	B2	470	G
36	B2	471	G
36	B2	472	C
36	B2	473	A
36	B2	474	G
36	B2	476	A
36	B2	482	G
36	B2	487	U
36	B2	492	C
36	B2	494	C
36	B2	496	C
36	B2	525	A
36	B2	531	A
36	B2	532	C
36	B2	533	A
36	B2	535	G
36	B2	547	G
36	B2	549	C
36	B2	551	U
36	B2	552	G
36	B2	553	U
36	B2	556	U

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Mol	Chain	Res	Type
36	B2	557	U
36	B2	559	G
36	B2	560	A
36	B2	564	A
36	B2	565	G
36	B2	576	A
36	B2	584	A
36	B2	586	G
36	B2	588	G
36	B2	590	A
36	B2	591	U
36	B2	592	C
36	B2	593	C
36	B2	596	U
36	B2	600	G
36	B2	605	A
36	B2	606	G
36	B2	607	U
36	B2	608	C
36	B2	610	G
36	B2	614	C
36	B2	619	A
36	B2	620	G
36	B2	628	A
36	B2	629	A
36	B2	634	A
36	B2	641	A
36	B2	642	U
36	B2	643	A
36	B2	644	G
36	B2	655	A
36	B2	663	C
36	B2	668	A
36	B2	669	A
36	B2	670	A
36	B2	671	A
36	B2	672	A
36	B2	679	A
36	B2	688	U
36	B2	689	U
36	B2	691	G
36	B2	693	A

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Mol	Chain	Res	Type
36	B2	694	G
36	B2	695	C
36	B2	696	G
36	B2	697	G
36	B2	699	C
36	B2	701	G
36	B2	729	C
36	B2	731	G
36	B2	732	U
36	B2	733	C
36	B2	734	C
36	B2	735	C
36	B2	738	C
36	B2	739	C
36	B2	740	C
36	B2	741	C
36	B2	742	U
36	B2	743	U
36	B2	744	G
36	B2	746	C
36	B2	747	U
36	B2	748	C
36	B2	749	U
36	B2	751	G
36	B2	752	G
36	B2	753	C
36	B2	754	G
36	B2	755	C
36	B2	788	G
36	B2	791	C
36	B2	797	C
36	B2	798	G
36	B2	799	U
36	B2	810	A
36	B2	811	A
36	B2	812	A
36	B2	818	A
36	B2	821	G
36	B2	822	U
36	B2	830	A
36	B2	831	G
36	B2	834	C

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Mol	Chain	Res	Type
36	B2	835	C
36	B2	836	G
36	B2	837	A
36	B2	838	G
36	B2	839	C
36	B2	840	C
36	B2	842	C
36	B2	843	C
36	B2	845	G
36	B2	847	A
36	B2	853	C
36	B2	864	A
36	B2	868	G
36	B2	869	A
36	B2	870	A
36	B2	871	U
36	B2	873	G
36	B2	874	G
36	B2	875	A
36	B2	876	C
36	B2	877	C
36	B2	878	G
36	B2	881	G
36	B2	886	A
36	B2	887	U
36	B2	888	U
36	B2	889	U
36	B2	890	U
36	B2	894	G
36	B2	895	G
36	B2	897	U
36	B2	903	A
36	B2	904	A
36	B2	911	C
36	B2	913	A
36	B2	914	U
36	B2	920	A
36	B2	921	G
36	B2	933	G
36	B2	951	C
36	B2	955	A
36	B2	966	U

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Mol	Chain	Res	Type
36	B2	969	U
36	B2	970	G
36	B2	971	G
36	B2	976	G
36	B2	978	G
36	B2	990	A
36	B2	992	A
36	B2	999	G
36	B2	1001	A
36	B2	1008	A
36	B2	1017	U
36	B2	1023	A
36	B2	1025	U
36	B2	1031	A
36	B2	1039	C
36	B2	1045	U
36	B2	1049	A
36	B2	1050	A
36	B2	1051	G
36	B2	1052	A
36	B2	1054	G
36	B2	1060	A
36	B2	1061	U
36	B2	1062	A
36	B2	1072	U
36	B2	1073	U
36	B2	1077	A
36	B2	1078	C
36	B2	1083	A
36	B2	1096	G
36	B2	1097	G
36	B2	1109	C
36	B2	1110	G
36	B2	1111	U
36	B2	1115	U
36	B2	1116	C
36	B2	1117	C
36	B2	1118	C
36	B2	1120	U
36	B2	1123	C
36	B2	1131	G
36	B2	1136	U

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Mol	Chain	Res	Type
36	B2	1138	C
36	B2	1140	G
36	B2	1141	G
36	B2	1143	A
36	B2	1148	A
36	B2	1149	A
36	B2	1150	A
36	B2	1153	C
36	B2	1154	U
36	B2	1155	U
36	B2	1157	G
36	B2	1158	G
36	B2	1161	U
36	B2	1166	G
36	B2	1168	G
36	B2	1203	G
36	B2	1206	G
36	B2	1208	A
36	B2	1209	A
36	B2	1212	G
36	B2	1214	A
36	B2	1215	C
36	B2	1216	C
36	B2	1217	A
36	B2	1221	G
36	B2	1224	G
36	B2	1236	G
36	B2	1237	C
36	B2	1242	U
36	B2	1245	G
36	B2	1251	A
36	B2	1253	A
36	B2	1254	C
36	B2	1256	G
36	B2	1257	G
36	B2	1259	A
36	B2	1260	A
36	B2	1263	U
36	B2	1264	C
36	B2	1274	G
36	B2	1275	G
36	B2	1276	A

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Mol	Chain	Res	Type
36	B2	1278	A
36	B2	1283	C
36	B2	1284	A
36	B2	1285	G
36	B2	1300	U
36	B2	1301	A
36	B2	1303	C
36	B2	1307	U
36	B2	1308	U
36	B2	1314	U
36	B2	1315	U
36	B2	1316	C
36	B2	1317	C
36	B2	1324	G
36	B2	1329	U
36	B2	1342	U
36	B2	1343	U
36	B2	1348	G
36	B2	1358	U
36	B2	1371	U
36	B2	1372	U
36	B2	1373	C
36	B2	1378	A
36	B2	1394	G
36	B2	1395	C
36	B2	1396	A
36	B2	1397	U
36	B2	1398	G
36	B2	1401	A
36	B2	1402	A
36	B2	1404	U
36	B2	1406	G
36	B2	1407	U
36	B2	1409	A
36	B2	1410	C
36	B2	1412	C
36	B2	1417	C
36	B2	1418	C
36	B2	1419	C
36	B2	1426	U
36	B2	1430	C
36	B2	1435	C

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Mol	Chain	Res	Type
36	B2	1437	C
36	B2	1449	G
36	B2	1452	A
36	B2	1454	A
36	B2	1456	G
36	B2	1459	G
36	B2	1462	U
36	B2	1465	A
36	B2	1474	A
36	B2	1475	G
36	B2	1476	A
36	B2	1477	U
36	B2	1478	U
36	B2	1489	A
36	B2	1490	G
36	B2	1493	C
36	B2	1494	U
36	B2	1495	G
36	B2	1508	A
36	B2	1516	G
36	B2	1519	U
36	B2	1520	G
36	B2	1521	C
36	B2	1524	G
36	B2	1533	A
36	B2	1535	U
36	B2	1537	A
36	B2	1540	G
36	B2	1544	C
36	B2	1545	A
36	B2	1550	G
36	B2	1551	U
36	B2	1552	G
36	B2	1553	C
36	B2	1554	C
36	B2	1556	A
36	B2	1557	C
36	B2	1558	C
36	B2	1563	G
36	B2	1564	C
36	B2	1570	G
36	B2	1578	U

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Mol	Chain	Res	Type
36	B2	1580	A
36	B2	1582	C
36	B2	1585	U
36	B2	1587	G
36	B2	1588	A
36	B2	1598	G
36	B2	1599	U
36	B2	1600	G
36	B2	1602	U
36	B2	1604	G
36	B2	1621	U
36	B2	1622	U
36	B2	1623	A
36	B2	1632	G
36	B2	1633	A
36	B2	1637	A
36	B2	1638	G
36	B2	1639	G
36	B2	1648	G
36	B2	1654	G
36	B2	1657	G
36	B2	1665	G
36	B2	1680	G
36	B2	1688	C
36	B2	1695	A
36	B2	1699	A
36	B2	1701	C
36	B2	1702	G
36	B2	1721	U
36	B2	1722	G
36	B2	1727	G
36	B2	1729	U
36	B2	1745	A
36	B2	1746	U
36	B2	1748	G
36	B2	1752	C
36	B2	1757	G
36	B2	1761	U
36	B2	1780	G
36	B2	1781	A
36	B2	1782	G
36	B2	1783	C

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Mol	Chain	Res	Type
36	B2	1784	G
36	B2	1785	C
36	B2	1786	U
36	B2	1796	G
36	B2	1798	C
36	B2	1805	G
36	B2	1824	A
36	B2	1825	A
36	B2	1826	G
36	B2	1828	C
36	B2	1829	G
36	B2	1831	A
36	B2	1832	A
36	B2	1835	A
36	B2	1838	U
36	B2	1839	U
36	B2	1849	G
36	B2	1851	A
36	B2	1852	C
36	B2	1858	G
36	B2	1861	G
36	B2	1862	G
36	B2	1863	A
36	B2	1864	U
36	B2	1865	C
36	B2	1867	U
36	B2	1869	A
37	BC	8	U
37	BC	9	G
37	BC	13	C
37	BC	16	C
37	BC	18	G
37	BC	20	A
37	BC	21	G
37	BC	36	A
37	BC	46	U
37	BC	47	C
37	BC	48	G
37	BC	58	A
37	BC	75	A
85	A5	2	G
85	A5	12	A

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Mol	Chain	Res	Type
85	A5	13	U
85	A5	15	A
85	A5	19	G
85	A5	25	A
85	A5	39	A
85	A5	42	A
85	A5	48	G
85	A5	49	U
85	A5	58	G
85	A5	59	A
85	A5	64	A
85	A5	65	A
85	A5	73	A
85	A5	75	G
85	A5	82	U
85	A5	91	G
85	A5	95	G
85	A5	98	A
85	A5	108	A
85	A5	109	G
85	A5	112	C
85	A5	115	C
85	A5	116	G
85	A5	120	A
85	A5	126	C
85	A5	133	C
85	A5	136	C
85	A5	142	G
85	A5	143	C
85	A5	144	G
85	A5	149	A
85	A5	157	U
85	A5	159	C
85	A5	160	G
85	A5	164	G
85	A5	170	C
85	A5	172	C
85	A5	174	C
85	A5	178	C
85	A5	184	U
85	A5	185	C
85	A5	187	U

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Mol	Chain	Res	Type
85	A5	188	G
85	A5	189	G
85	A5	190	G
85	A5	191	G
85	A5	200	U
85	A5	201	C
85	A5	202	C
85	A5	207	G
85	A5	210	C
85	A5	216	C
85	A5	217	C
85	A5	219	G
85	A5	220	C
85	A5	221	C
85	A5	224	U
85	A5	226	G
85	A5	228	C
85	A5	232	G
85	A5	233	U
85	A5	238	C
85	A5	245	C
85	A5	246	G
85	A5	251	C
85	A5	265	C
85	A5	266	C
85	A5	276	C
85	A5	277	G
85	A5	280	G
85	A5	281	U
85	A5	286	U
85	A5	293	G
85	A5	294	G
85	A5	297	U
85	A5	305	A
85	A5	306	A
85	A5	310	G
85	A5	316	U
85	A5	318	A
85	A5	334	A
85	A5	340	C
85	A5	349	A
85	A5	350	C

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Mol	Chain	Res	Type
85	A5	357	U
85	A5	360	A
85	A5	361	C
85	A5	362	A
85	A5	381	U
85	A5	386	A
85	A5	387	G
85	A5	398	A
85	A5	405	U
85	A5	406	C
85	A5	407	A
85	A5	408	A
85	A5	409	G
85	A5	410	A
85	A5	412	G
85	A5	413	G
85	A5	414	C
85	A5	418	A
85	A5	431	G
85	A5	432	U
85	A5	433	A
85	A5	435	A
85	A5	436	C
85	A5	445	U
85	A5	446	C
85	A5	449	C
85	A5	451	C
85	A5	452	A
85	A5	453	G
85	A5	454	U
85	A5	455	C
85	A5	460	C
85	A5	464	G
85	A5	465	G
85	A5	466	A
85	A5	468	U
85	A5	469	C
85	A5	470	A
85	A5	480	C
85	A5	485	C
85	A5	486	C
85	A5	487	G

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Mol	Chain	Res	Type
85	A5	489	C
85	A5	490	C
85	A5	497	G
85	A5	498	C
85	A5	500	G
85	A5	502	C
85	A5	503	C
85	A5	504	G
85	A5	505	G
85	A5	506	C
85	A5	509	A
85	A5	510	U
85	A5	513	U
85	A5	514	U
85	A5	639	U
85	A5	640	C
85	A5	641	G
85	A5	649	A
85	A5	650	C
85	A5	656	C
85	A5	662	C
85	A5	664	G
85	A5	665	C
85	A5	666	G
85	A5	667	A
85	A5	668	C
85	A5	669	C
85	A5	670	G
85	A5	681	G
85	A5	683	C
85	A5	685	C
85	A5	686	A
85	A5	687	U
85	A5	688	U
85	A5	690	C
85	A5	694	C
85	A5	696	C
85	A5	697	G
85	A5	704	C
85	A5	705	G
85	A5	712	C
85	A5	717	U

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Mol	Chain	Res	Type
85	A5	720	G
85	A5	725	G
85	A5	726	G
85	A5	728	U
85	A5	729	G
85	A5	730	G
85	A5	732	A
85	A5	737	C
85	A5	741	C
85	A5	746	A
85	A5	747	A
85	A5	748	G
85	A5	749	G
85	A5	912	G
85	A5	918	G
85	A5	923	C
85	A5	927	G
85	A5	928	C
85	A5	929	A
85	A5	931	C
85	A5	932	A
85	A5	933	G
85	A5	934	C
85	A5	935	A
85	A5	936	C
85	A5	937	U
85	A5	938	C
85	A5	939	G
85	A5	943	A
85	A5	944	A
85	A5	945	U
85	A5	946	C
85	A5	947	C
85	A5	949	G
85	A5	951	G
85	A5	952	G
85	A5	956	A
85	A5	957	G
85	A5	958	G
85	A5	959	G
85	A5	960	A
85	A5	961	G

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Mol	Chain	Res	Type
85	A5	962	C
85	A5	963	G
85	A5	964	A
85	A5	965	G
85	A5	966	A
85	A5	967	C
85	A5	968	C
85	A5	969	C
85	A5	970	G
85	A5	971	U
85	A5	972	C
85	A5	975	C
85	A5	982	U
85	A5	983	C
85	A5	1052	G
85	A5	1064	G
85	A5	1072	C
85	A5	1073	G
85	A5	1076	C
85	A5	1080	C
85	A5	1087	A
85	A5	1098	G
85	A5	1101	C
85	A5	1102	U
85	A5	1103	C
85	A5	1164	G
85	A5	1166	G
85	A5	1167	C
85	A5	1168	G
85	A5	1198	G
85	A5	1199	G
85	A5	1210	C
85	A5	1211	G
85	A5	1212	G
85	A5	1214	C
85	A5	1215	C
85	A5	1216	C
85	A5	1218	G
85	A5	1219	G
85	A5	1222	A
85	A5	1231	C
85	A5	1233	G

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Mol	Chain	Res	Type
85	A5	1238	A
85	A5	1239	C
85	A5	1240	G
85	A5	1242	G
85	A5	1243	C
85	A5	1244	G
85	A5	1245	C
85	A5	1246	G
85	A5	1255	A
85	A5	1266	G
85	A5	1267	C
85	A5	1268	G
85	A5	1269	G
85	A5	1270	A
85	A5	1271	G
85	A5	1272	C
85	A5	1273	G
85	A5	1274	A
85	A5	1275	G
85	A5	1276	C
85	A5	1277	G
85	A5	1279	A
85	A5	1281	G
85	A5	1282	G
85	A5	1283	G
85	A5	1285	U
85	A5	1286	C
85	A5	1287	G
85	A5	1288	G
85	A5	1289	C
85	A5	1293	G
85	A5	1294	A
85	A5	1295	C
85	A5	1296	G
85	A5	1297	U
85	A5	1301	C
85	A5	1302	U
85	A5	1303	A
85	A5	1304	C
85	A5	1313	C
85	A5	1325	C
85	A5	1326	A

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Mol	Chain	Res	Type
85	A5	1333	A
85	A5	1335	G
85	A5	1337	A
85	A5	1345	A
85	A5	1354	A
85	A5	1357	C
85	A5	1358	G
85	A5	1359	G
85	A5	1360	G
85	A5	1361	G
85	A5	1365	C
85	A5	1366	G
85	A5	1367	C
85	A5	1368	A
85	A5	1369	C
85	A5	1370	G
85	A5	1371	A
85	A5	1372	A
85	A5	1377	G
85	A5	1378	C
85	A5	1379	C
85	A5	1380	G
85	A5	1381	U
85	A5	1382	G
85	A5	1387	A
85	A5	1390	G
85	A5	1394	G
85	A5	1398	A
85	A5	1399	G
85	A5	1407	C
85	A5	1408	G
85	A5	1409	C
85	A5	1410	U
85	A5	1411	C
85	A5	1420	A
85	A5	1425	G
85	A5	1426	G
85	A5	1427	A
85	A5	1428	U
85	A5	1429	C
85	A5	1432	G
85	A5	1439	C

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Mol	Chain	Res	Type
85	A5	1440	U
85	A5	1441	C
85	A5	1442	C
85	A5	1443	A
85	A5	1444	G
85	A5	1445	U
85	A5	1446	C
85	A5	1447	C
85	A5	1455	G
85	A5	1456	C
85	A5	1475	G
85	A5	1478	C
85	A5	1480	C
85	A5	1481	C
85	A5	1482	G
85	A5	1483	C
85	A5	1485	C
85	A5	1486	C
85	A5	1487	G
85	A5	1497	A
85	A5	1498	G
85	A5	1501	C
85	A5	1518	A
85	A5	1523	A
85	A5	1534	A
85	A5	1547	A
85	A5	1554	A
85	A5	1566	C
85	A5	1568	C
85	A5	1579	C
85	A5	1587	G
85	A5	1591	U
85	A5	1596	U
85	A5	1600	A
85	A5	1608	G
85	A5	1612	G
85	A5	1613	A
85	A5	1614	C
85	A5	1624	G
85	A5	1625	G
85	A5	1631	A
85	A5	1633	G

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Mol	Chain	Res	Type
85	A5	1634	A
85	A5	1640	C
85	A5	1642	A
85	A5	1650	A
85	A5	1651	G
85	A5	1654	G
85	A5	1661	C
85	A5	1664	U
85	A5	1676	C
85	A5	1677	U
85	A5	1680	G
85	A5	1691	G
85	A5	1693	U
85	A5	1697	G
85	A5	1698	C
85	A5	1699	A
85	A5	1700	G
85	A5	1718	C
85	A5	1721	G
85	A5	1723	A
85	A5	1724	G
85	A5	1725	U
85	A5	1734	G
85	A5	1741	G
85	A5	1742	A
85	A5	1746	A
85	A5	1750	G
85	A5	1755	C
85	A5	1756	U
85	A5	1758	G
85	A5	1760	G
85	A5	1761	G
85	A5	1764	G
85	A5	1766	A
85	A5	1769	G
85	A5	1770	A
85	A5	1775	A
85	A5	1776	A
85	A5	1777	C
85	A5	1787	A
85	A5	1789	C
85	A5	1790	U

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Mol	Chain	Res	Type
85	A5	1792	U
85	A5	1797	G
85	A5	1803	G
85	A5	1804	A
85	A5	1805	A
85	A5	1806	G
85	A5	1812	C
85	A5	1821	G
85	A5	1822	U
85	A5	1823	G
85	A5	1833	G
85	A5	1834	U
85	A5	1835	G
85	A5	1836	G
85	A5	1841	C
85	A5	1842	G
85	A5	1854	G
85	A5	1855	G
85	A5	1869	G
85	A5	1871	A
85	A5	1890	G
85	A5	1891	A
85	A5	1897	A
85	A5	1902	G
85	A5	1907	A
85	A5	1908	A
85	A5	1918	U
85	A5	1920	C
85	A5	1921	C
85	A5	1922	G
85	A5	1930	U
85	A5	1931	C
85	A5	1932	A
85	A5	1940	G
85	A5	1947	U
85	A5	1948	G
85	A5	1951	G
85	A5	1952	G
85	A5	1961	G
85	A5	1962	A
85	A5	1971	C
85	A5	1972	G

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Mol	Chain	Res	Type
85	A5	1973	G
85	A5	1976	G
85	A5	1978	C
85	A5	1979	A
85	A5	1982	G
85	A5	1983	A
85	A5	1984	A
85	A5	1985	G
85	A5	1987	C
85	A5	1988	G
85	A5	1997	U
85	A5	1998	A
85	A5	1999	A
85	A5	2001	G
85	A5	2002	A
85	A5	2003	G
85	A5	2004	U
85	A5	2008	U
85	A5	2009	A
85	A5	2010	A
85	A5	2016	C
85	A5	2020	U
85	A5	2024	G
85	A5	2025	A
85	A5	2026	A
85	A5	2044	U
85	A5	2047	A
85	A5	2048	U
85	A5	2052	G
85	A5	2066	C
85	A5	2069	A
85	A5	2084	C
85	A5	2085	G
85	A5	2087	C
85	A5	2089	G
85	A5	2090	U
85	A5	2091	C
85	A5	2092	G
85	A5	2094	G
85	A5	2097	U
85	A5	2098	G
85	A5	2100	A

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Mol	Chain	Res	Type
85	A5	2103	G
85	A5	2105	A
85	A5	2106	G
85	A5	2107	C
85	A5	2108	G
85	A5	2109	G
85	A5	2110	C
85	A5	2111	G
85	A5	2112	G
85	A5	2113	G
85	A5	2114	G
85	A5	2115	G
85	A5	2116	C
85	A5	2117	G
85	A5	2118	G
85	A5	2119	C
85	A5	2120	G
85	A5	2123	C
85	A5	2124	G
85	A5	2125	C
85	A5	2126	G
85	A5	2127	C
85	A5	2128	G
85	A5	2131	C
85	A5	2242	C
85	A5	2247	C
85	A5	2248	C
85	A5	2250	C
85	A5	2251	G
85	A5	2252	G
85	A5	2254	G
85	A5	2255	C
85	A5	2256	C
85	A5	2257	C
85	A5	2258	C
85	A5	2259	G
85	A5	2260	C
85	A5	2261	G
85	A5	2263	A
85	A5	2264	C
85	A5	2265	G
85	A5	2267	U

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Mol	Chain	Res	Type
85	A5	2268	A
85	A5	2269	C
85	A5	2273	G
85	A5	2289	C
85	A5	2290	C
85	A5	2291	G
85	A5	2301	G
85	A5	2313	A
85	A5	2314	G
85	A5	2315	G
85	A5	2317	C
85	A5	2333	G
85	A5	2336	G
85	A5	2348	G
85	A5	2351	C
85	A5	2354	G
85	A5	2359	U
85	A5	2360	A
85	A5	2363	A
85	A5	2364	G
85	A5	2366	A
85	A5	2395	A
85	A5	2396	A
85	A5	2398	U
85	A5	2399	G
85	A5	2407	G
85	A5	2409	U
85	A5	2410	C
85	A5	2421	G
85	A5	2422	C
85	A5	2426	U
85	A5	2437	C
85	A5	2440	U
85	A5	2441	C
85	A5	2442	G
85	A5	2443	G
85	A5	2447	U
85	A5	2450	G
85	A5	2459	G
85	A5	2470	C
85	A5	2471	G
85	A5	2472	A

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Mol	Chain	Res	Type
85	A5	2475	G
85	A5	2476	G
85	A5	2487	G
85	A5	2488	C
85	A5	2489	C
85	A5	2491	C
85	A5	2495	U
85	A5	2503	G
85	A5	2504	C
85	A5	2505	C
85	A5	2506	G
85	A5	2507	A
85	A5	2513	A
85	A5	2517	A
85	A5	2531	C
85	A5	2532	C
85	A5	2544	G
85	A5	2546	G
85	A5	2547	G
85	A5	2550	G
85	A5	2552	G
85	A5	2554	U
85	A5	2575	U
85	A5	2580	U
85	A5	2583	C
85	A5	2589	C
85	A5	2599	G
85	A5	2601	A
85	A5	2602	G
85	A5	2627	C
85	A5	2631	U
85	A5	2639	U
85	A5	2647	A
85	A5	2648	G
85	A5	2650	G
85	A5	2652	G
85	A5	2661	U
85	A5	2662	G
85	A5	2669	C
85	A5	2670	C
85	A5	2671	C
85	A5	2673	G

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Mol	Chain	Res	Type
85	A5	2674	A
85	A5	2675	G
85	A5	2676	A
85	A5	2681	G
85	A5	2686	G
85	A5	2687	U
85	A5	2688	G
85	A5	2691	U
85	A5	2694	G
85	A5	2695	A
85	A5	2696	A
85	A5	2711	G
85	A5	2713	C
85	A5	2716	C
85	A5	2725	A
85	A5	2726	G
85	A5	2743	A
85	A5	2752	G
85	A5	2753	G
85	A5	2755	A
85	A5	2756	G
85	A5	2761	U
85	A5	2762	G
85	A5	2765	A
85	A5	2766	A
85	A5	2767	U
85	A5	2768	C
85	A5	2769	U
85	A5	2770	C
85	A5	2782	U
85	A5	2787	A
85	A5	2788	U
85	A5	2789	A
85	A5	2790	U
85	A5	2794	C
85	A5	2796	G
85	A5	2798	A
85	A5	2803	U
85	A5	2814	C
85	A5	2824	C
85	A5	2825	A
85	A5	2826	U

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Mol	Chain	Res	Type
85	A5	2827	G
85	A5	2828	U
85	A5	2829	U
85	A5	2833	A
85	A5	2854	G
85	A5	2855	G
85	A5	2884	G
85	A5	2900	U
85	A5	2904	U
85	A5	2905	C
85	A5	3594	C
85	A5	3596	A
85	A5	3597	G
85	A5	3602	C
85	A5	3605	C
85	A5	3606	U
85	A5	3615	G
85	A5	3616	U
85	A5	3617	G
85	A5	3618	C
85	A5	3620	G
85	A5	3625	G
85	A5	3626	G
85	A5	3634	G
85	A5	3635	A
85	A5	3662	A
85	A5	3663	A
85	A5	3664	G
85	A5	3673	C
85	A5	3674	G
85	A5	3682	A
85	A5	3691	G
85	A5	3692	A
85	A5	3697	U
85	A5	3698	G
85	A5	3702	A
85	A5	3709	U
85	A5	3710	G
85	A5	3711	A
85	A5	3713	U
85	A5	3714	G
85	A5	3717	A

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Mol	Chain	Res	Type
85	A5	3727	A
85	A5	3729	U
85	A5	3732	A
85	A5	3748	A
85	A5	3752	C
85	A5	3753	G
85	A5	3754	G
85	A5	3756	A
85	A5	3757	G
85	A5	3759	A
85	A5	3776	G
85	A5	3777	G
85	A5	3778	U
85	A5	3784	A
85	A5	3785	A
85	A5	3786	U
85	A5	3792	G
85	A5	3795	A
85	A5	3802	U
85	A5	3810	C
85	A5	3811	G
85	A5	3812	C
85	A5	3814	U
85	A5	3817	A
85	A5	3818	U
85	A5	3819	G
85	A5	3830	A
85	A5	3833	C
85	A5	3834	C
85	A5	3838	U
85	A5	3840	U
85	A5	3875	G
85	A5	3877	A
85	A5	3878	C
85	A5	3879	G
85	A5	3888	G
85	A5	3889	G
85	A5	3897	G
85	A5	3901	A
85	A5	3906	A
85	A5	3907	G
85	A5	3908	A

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Mol	Chain	Res	Type
85	A5	3910	C
85	A5	3915	U
85	A5	3923	A
85	A5	3937	C
85	A5	3939	G
85	A5	3941	G
85	A5	3947	A
85	A5	3949	A
85	A5	3951	G
85	A5	3955	G
85	A5	3959	U
85	A5	3960	A
85	A5	3962	A
85	A5	3963	A
85	A5	3964	U
85	A5	3965	A
85	A5	3966	A
85	A5	3969	G
85	A5	3970	G
85	A5	3973	G
85	A5	4034	G
85	A5	4037	C
85	A5	4038	C
85	A5	4039	G
85	A5	4041	C
85	A5	4042	G
85	A5	4043	G
85	A5	4045	G
85	A5	4047	A
85	A5	4048	A
85	A5	4049	U
85	A5	4053	A
85	A5	4059	C
85	A5	4061	G
85	A5	4062	A
85	A5	4069	U
85	A5	4073	A
85	A5	4076	G
85	A5	4077	A
85	A5	4083	U
85	A5	4086	G
85	A5	4088	C

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Mol	Chain	Res	Type
85	A5	4091	G
85	A5	4093	G
85	A5	4094	G
85	A5	4114	C
85	A5	4115	G
85	A5	4116	C
85	A5	4117	U
85	A5	4119	C
85	A5	4120	U
85	A5	4121	G
85	A5	4122	G
85	A5	4125	C
85	A5	4126	C
85	A5	4127	A
85	A5	4128	A
85	A5	4131	G
85	A5	4133	C
85	A5	4136	G
85	A5	4141	G
85	A5	4143	G
85	A5	4144	C
85	A5	4145	C
85	A5	4153	C
85	A5	4158	C
85	A5	4159	C
85	A5	4161	G
85	A5	4162	C
85	A5	4163	U
85	A5	4164	C
85	A5	4165	C
85	A5	4170	A
85	A5	4171	C
85	A5	4175	G
85	A5	4183	G
85	A5	4184	G
85	A5	4191	G
85	A5	4201	G
85	A5	4212	A
85	A5	4214	A
85	A5	4229	U
85	A5	4232	U
85	A5	4233	A

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Mol	Chain	Res	Type
85	A5	4238	G
85	A5	4249	G
85	A5	4251	A
85	A5	4253	A
85	A5	4254	G
85	A5	4258	C
85	A5	4266	G
85	A5	4267	G
85	A5	4268	A
85	A5	4270	C
85	A5	4271	A
85	A5	4273	A
85	A5	4276	G
85	A5	4280	A
85	A5	4285	U
85	A5	4291	G
85	A5	4296	U
85	A5	4297	G
85	A5	4304	A
85	A5	4306	U
85	A5	4328	G
85	A5	4329	G
85	A5	4330	G
85	A5	4331	G
85	A5	4332	C
85	A5	4347	G
85	A5	4348	A
85	A5	4349	C
85	A5	4350	C
85	A5	4354	U
85	A5	4355	G
85	A5	4356	G
85	A5	4373	G
85	A5	4376	A
85	A5	4377	G
85	A5	4378	A
85	A5	4383	U
85	A5	4387	C
85	A5	4394	A
85	A5	4395	U
85	A5	4406	U
85	A5	4419	U

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Mol	Chain	Res	Type
85	A5	4422	A
85	A5	4426	C
85	A5	4438	U
85	A5	4444	C
85	A5	4448	G
85	A5	4449	A
85	A5	4450	U
85	A5	4452	U
85	A5	4453	C
85	A5	4455	G
85	A5	4456	C
85	A5	4464	A
85	A5	4473	A
85	A5	4474	A
85	A5	4475	G
85	A5	4476	C
85	A5	4477	A
85	A5	4500	U
85	A5	4504	C
85	A5	4512	U
85	A5	4513	A
85	A5	4518	A
85	A5	4519	C
85	A5	4522	G
85	A5	4528	G
85	A5	4532	U
85	A5	4534	G
85	A5	4550	G
85	A5	4567	G
85	A5	4569	U
85	A5	4570	G
85	A5	4574	U
85	A5	4575	G
85	A5	4590	A
85	A5	4599	A
85	A5	4601	U
85	A5	4626	A
85	A5	4636	U
85	A5	4637	G
85	A5	4639	G
85	A5	4640	C
85	A5	4656	A

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Mol	Chain	Res	Type
85	A5	4657	U
85	A5	4658	G
85	A5	4661	G
85	A5	4664	A
85	A5	4670	C
85	A5	4675	U
85	A5	4677	U
85	A5	4678	G
85	A5	4691	A
85	A5	4694	G
85	A5	4697	U
85	A5	4706	G
85	A5	4708	A
85	A5	4709	U
85	A5	4712	C
85	A5	4714	C
85	A5	4717	A
85	A5	4720	C
85	A5	4728	U
85	A5	4729	A
85	A5	4730	C
85	A5	4731	G
85	A5	4734	A
85	A5	4735	G
85	A5	4736	C
85	A5	4739	C
85	A5	4745	G
85	A5	4748	U
85	A5	4749	C
85	A5	4750	G
85	A5	4751	G
85	A5	4752	U
85	A5	4753	U
85	A5	4756	C
85	A5	4758	U
85	A5	4762	A
85	A5	4764	A
85	A5	4771	C
85	A5	4859	C
85	A5	4867	G
85	A5	4870	G
85	A5	4871	C

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Mol	Chain	Res	Type
85	A5	4872	G
85	A5	4874	A
85	A5	4875	G
85	A5	4876	U
85	A5	4877	G
85	A5	4882	U
85	A5	4883	C
85	A5	4884	G
85	A5	4885	U
85	A5	4886	C
85	A5	4888	U
85	A5	4889	G
85	A5	4890	G
85	A5	4895	C
85	A5	4896	G
85	A5	4898	G
85	A5	4899	G
85	A5	4900	C
85	A5	4901	G
85	A5	4904	G
85	A5	4906	C
85	A5	4908	G
85	A5	4910	G
85	A5	4912	G
85	A5	4913	G
85	A5	4914	C
85	A5	4915	G
85	A5	4925	U
85	A5	4932	U
85	A5	4933	C
85	A5	4934	A
85	A5	4935	C
85	A5	4937	C
85	A5	4938	A
85	A5	4943	A
85	A5	4944	C
85	A5	4945	G
85	A5	4949	G
85	A5	4951	G
85	A5	4952	G
85	A5	4956	A
85	A5	4965	U

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Mol	Chain	Res	Type
85	A5	4966	A
85	A5	4967	A
85	A5	4975	G
85	A5	4976	U
85	A5	4979	A
85	A5	4985	U
85	A5	4988	U
85	A5	4989	U
85	A5	4991	U
85	A5	4992	G
85	A5	4998	G
85	A5	5002	U
85	A5	5003	U
85	A5	5004	C
85	A5	5006	U
85	A5	5007	A
85	A5	5008	C
85	A5	5013	C
85	A5	5014	A
85	A5	5017	G
85	A5	5019	A
85	A5	5020	G
85	A5	5021	C
85	A5	5022	U
85	A5	5023	C
85	A5	5027	C
85	A5	5028	G
85	A5	5041	G
85	A5	5042	A
85	A5	5047	C
85	A5	5050	C
85	A5	5054	C
85	A5	5059	C
85	A5	5060	A
85	A5	5061	A
85	A5	5062	G
85	A5	5063	G
85	A5	5067	U
86	A7	7	G
86	A7	11	A
86	A7	13	A
86	A7	15	C

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Mol	Chain	Res	Type
86	A7	21	G
86	A7	22	A
86	A7	26	C
86	A7	33	U
86	A7	41	G
86	A7	42	A
86	A7	45	U
86	A7	50	A
86	A7	52	C
86	A7	53	U
86	A7	63	C
86	A7	64	G
86	A7	73	U
86	A7	74	A
86	A7	93	G
86	A7	100	A
86	A7	110	G
86	A7	112	U
86	A7	113	G
86	A7	121	U
87	A8	16	G
87	A8	23	C
87	A8	30	U
87	A8	34	U
87	A8	35	C
87	A8	38	U
87	A8	51	U
87	A8	59	A
87	A8	62	A
87	A8	63	U
87	A8	76	C
87	A8	81	C
87	A8	82	A
87	A8	83	C
87	A8	84	A
87	A8	85	U
87	A8	86	U
87	A8	87	G
87	A8	90	C
87	A8	92	U
87	A8	94	G
87	A8	95	A

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Mol	Chain	Res	Type
87	A8	97	A
87	A8	103	A
87	A8	104	A
87	A8	105	C
87	A8	112	G
87	A8	122	G
87	A8	125	C
87	A8	126	C
87	A8	127	U
87	A8	132	G
87	A8	137	A
87	A8	142	U
87	A8	150	C
87	A8	154	G
87	A8	156	U
87	A8	157	U

All (482) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
36	B2	2	A
36	B2	24	C
36	B2	31	U
36	B2	44	U
36	B2	65	C
36	B2	66	G
36	B2	72	C
36	B2	74	G
36	B2	77	A
36	B2	78	C
36	B2	102	A
36	B2	127	C
36	B2	139	C
36	B2	140	C
36	B2	141	A
36	B2	160	U
36	B2	181	A
36	B2	183	G
36	B2	190	G
36	B2	214	U
36	B2	225	G
36	B2	228	C

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Mol	Chain	Res	Type
36	B2	285	U
36	B2	287	U
36	B2	308	G
36	B2	325	C
36	B2	327	G
36	B2	335	G
36	B2	368	U
36	B2	406	U
36	B2	465	A
36	B2	516	A
36	B2	531	A
36	B2	532	C
36	B2	534	G
36	B2	548	C
36	B2	552	G
36	B2	592	C
36	B2	604	A
36	B2	606	G
36	B2	655	A
36	B2	687	C
36	B2	688	U
36	B2	690	G
36	B2	695	C
36	B2	698	G
36	B2	732	U
36	B2	734	C
36	B2	740	C
36	B2	746	C
36	B2	747	U
36	B2	750	C
36	B2	751	G
36	B2	752	G
36	B2	753	C
36	B2	754	G
36	B2	796	G
36	B2	797	C
36	B2	798	G
36	B2	811	A
36	B2	821	G
36	B2	833	C
36	B2	839	C
36	B2	869	A

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Mol	Chain	Res	Type
36	B2	873	G
36	B2	875	A
36	B2	880	G
36	B2	886	A
36	B2	919	A
36	B2	970	G
36	B2	998	A
36	B2	1016	U
36	B2	1108	G
36	B2	1115	U
36	B2	1137	U
36	B2	1155	U
36	B2	1157	G
36	B2	1165	G
36	B2	1214	A
36	B2	1215	C
36	B2	1253	A
36	B2	1265	A
36	B2	1276	A
36	B2	1283	C
36	B2	1307	U
36	B2	1394	G
36	B2	1395	C
36	B2	1396	A
36	B2	1401	A
36	B2	1411	G
36	B2	1416	C
36	B2	1417	C
36	B2	1418	C
36	B2	1429	G
36	B2	1434	C
36	B2	1436	C
36	B2	1474	A
36	B2	1475	G
36	B2	1476	A
36	B2	1477	U
36	B2	1494	U
36	B2	1519	U
36	B2	1520	G
36	B2	1538	C
36	B2	1543	U
36	B2	1549	U

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Mol	Chain	Res	Type
36	B2	1553	C
36	B2	1556	A
36	B2	1557	C
36	B2	1578	U
36	B2	1598	G
36	B2	1601	A
36	B2	1632	G
36	B2	1637	A
36	B2	1664	A
36	B2	1679	A
36	B2	1701	C
36	B2	1720	U
36	B2	1721	U
36	B2	1756	C
36	B2	1779	G
36	B2	1780	G
36	B2	1783	C
36	B2	1823	A
36	B2	1825	A
36	B2	1830	U
36	B2	1851	A
36	B2	1868	U
37	BC	17	G
37	BC	45	G
37	BC	57	A
85	A5	12	A
85	A5	64	A
85	A5	119	G
85	A5	125	C
85	A5	141	C
85	A5	142	G
85	A5	143	C
85	A5	177	G
85	A5	183	C
85	A5	184	U
85	A5	186	G
85	A5	187	U
85	A5	215	C
85	A5	218	A
85	A5	219	G
85	A5	220	C
85	A5	224	U

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Mol	Chain	Res	Type
85	A5	237	G
85	A5	245	C
85	A5	293	G
85	A5	309	C
85	A5	315	G
85	A5	316	U
85	A5	333	U
85	A5	406	C
85	A5	408	A
85	A5	431	G
85	A5	444	G
85	A5	445	U
85	A5	451	C
85	A5	452	A
85	A5	453	G
85	A5	484	U
85	A5	486	C
85	A5	497	G
85	A5	499	G
85	A5	503	C
85	A5	505	G
85	A5	638	G
85	A5	639	U
85	A5	648	G
85	A5	655	C
85	A5	661	C
85	A5	664	G
85	A5	666	G
85	A5	668	C
85	A5	669	C
85	A5	685	C
85	A5	686	A
85	A5	693	C
85	A5	703	G
85	A5	727	C
85	A5	740	G
85	A5	745	G
85	A5	746	A
85	A5	911	U
85	A5	917	A
85	A5	926	G
85	A5	927	G

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Mol	Chain	Res	Type
85	A5	930	G
85	A5	931	C
85	A5	934	C
85	A5	936	C
85	A5	943	A
85	A5	945	U
85	A5	955	G
85	A5	956	A
85	A5	957	G
85	A5	958	G
85	A5	959	G
85	A5	963	G
85	A5	965	G
85	A5	967	C
85	A5	969	C
85	A5	970	G
85	A5	971	U
85	A5	974	C
85	A5	982	U
85	A5	1052	G
85	A5	1071	C
85	A5	1072	C
85	A5	1163	G
85	A5	1166	G
85	A5	1167	C
85	A5	1197	C
85	A5	1210	C
85	A5	1211	G
85	A5	1214	C
85	A5	1218	G
85	A5	1221	G
85	A5	1222	A
85	A5	1232	G
85	A5	1238	A
85	A5	1239	C
85	A5	1240	G
85	A5	1241	C
85	A5	1242	G
85	A5	1243	C
85	A5	1245	C
85	A5	1266	G
85	A5	1267	C

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Mol	Chain	Res	Type
85	A5	1268	G
85	A5	1269	G
85	A5	1270	A
85	A5	1272	C
85	A5	1274	A
85	A5	1280	C
85	A5	1281	G
85	A5	1284	G
85	A5	1285	U
85	A5	1287	G
85	A5	1288	G
85	A5	1293	G
85	A5	1294	A
85	A5	1296	G
85	A5	1302	U
85	A5	1324	A
85	A5	1325	C
85	A5	1356	U
85	A5	1358	G
85	A5	1360	G
85	A5	1365	C
85	A5	1366	G
85	A5	1369	C
85	A5	1371	A
85	A5	1378	C
85	A5	1379	C
85	A5	1380	G
85	A5	1387	A
85	A5	1398	A
85	A5	1407	C
85	A5	1410	U
85	A5	1419	G
85	A5	1420	A
85	A5	1426	G
85	A5	1428	U
85	A5	1439	C
85	A5	1440	U
85	A5	1442	C
85	A5	1444	G
85	A5	1445	U
85	A5	1446	C
85	A5	1455	G

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Mol	Chain	Res	Type
85	A5	1474	C
85	A5	1481	C
85	A5	1482	G
85	A5	1484	G
85	A5	1485	C
85	A5	1500	A
85	A5	1533	A
85	A5	1590	C
85	A5	1613	A
85	A5	1633	G
85	A5	1650	A
85	A5	1696	C
85	A5	1698	C
85	A5	1700	G
85	A5	1774	C
85	A5	1804	A
85	A5	1805	A
85	A5	1832	C
85	A5	1833	G
85	A5	1835	G
85	A5	1841	C
85	A5	1853	G
85	A5	1919	G
85	A5	1920	C
85	A5	1921	C
85	A5	1931	C
85	A5	1947	U
85	A5	1975	G
85	A5	2009	A
85	A5	2025	A
85	A5	2046	G
85	A5	2068	C
85	A5	2083	C
85	A5	2088	A
85	A5	2089	G
85	A5	2091	C
85	A5	2094	G
85	A5	2097	U
85	A5	2105	A
85	A5	2107	C
85	A5	2116	C
85	A5	2119	C

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Mol	Chain	Res	Type
85	A5	2122	G
85	A5	2123	C
85	A5	2124	G
85	A5	2127	C
85	A5	2246	C
85	A5	2247	C
85	A5	2250	C
85	A5	2251	G
85	A5	2255	C
85	A5	2256	C
85	A5	2257	C
85	A5	2258	C
85	A5	2259	G
85	A5	2260	C
85	A5	2263	A
85	A5	2264	C
85	A5	2266	C
85	A5	2267	U
85	A5	2268	A
85	A5	2272	C
85	A5	2290	C
85	A5	2313	A
85	A5	2395	A
85	A5	2398	U
85	A5	2421	G
85	A5	2487	G
85	A5	2490	U
85	A5	2505	C
85	A5	2506	G
85	A5	2529	A
85	A5	2531	C
85	A5	2546	G
85	A5	2549	G
85	A5	2551	A
85	A5	2574	G
85	A5	2587	A
85	A5	2626	U
85	A5	2638	G
85	A5	2649	G
85	A5	2651	C
85	A5	2661	U
85	A5	2669	C

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Mol	Chain	Res	Type
85	A5	2670	C
85	A5	2673	G
85	A5	2675	G
85	A5	2695	A
85	A5	2724	G
85	A5	2740	U
85	A5	2760	G
85	A5	2761	U
85	A5	2766	A
85	A5	2769	U
85	A5	2825	A
85	A5	2827	G
85	A5	2875	C
85	A5	2882	A
85	A5	3593	C
85	A5	3605	C
85	A5	3616	U
85	A5	3662	A
85	A5	3663	A
85	A5	3672	G
85	A5	3697	U
85	A5	3731	C
85	A5	3753	G
85	A5	3777	G
85	A5	3784	A
85	A5	3786	U
85	A5	3876	A
85	A5	3887	C
85	A5	3888	G
85	A5	3907	G
85	A5	3946	G
85	A5	3959	U
85	A5	3963	A
85	A5	3965	A
85	A5	3968	U
85	A5	3972	A
85	A5	3977	C
85	A5	4036	G
85	A5	4041	C
85	A5	4061	G
85	A5	4072	C
85	A5	4075	U

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Mol	Chain	Res	Type
85	A5	4082	G
85	A5	4085	A
85	A5	4087	G
85	A5	4093	G
85	A5	4115	G
85	A5	4119	C
85	A5	4121	G
85	A5	4127	A
85	A5	4130	C
85	A5	4135	G
85	A5	4143	G
85	A5	4144	C
85	A5	4163	U
85	A5	4164	C
85	A5	4170	A
85	A5	4232	U
85	A5	4233	A
85	A5	4237	C
85	A5	4305	G
85	A5	4329	G
85	A5	4335	C
85	A5	4348	A
85	A5	4354	U
85	A5	4395	U
85	A5	4448	G
85	A5	4449	A
85	A5	4452	U
85	A5	4527	G
85	A5	4635	A
85	A5	4639	G
85	A5	4656	A
85	A5	4671	C
85	A5	4694	G
85	A5	4713	G
85	A5	4719	G
85	A5	4720	C
85	A5	4730	C
85	A5	4735	G
85	A5	4738	C
85	A5	4747	C
85	A5	4748	U
85	A5	4749	C

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Mol	Chain	Res	Type
85	A5	4752	U
85	A5	4869	U
85	A5	4871	C
85	A5	4874	A
85	A5	4876	U
85	A5	4882	U
85	A5	4885	U
85	A5	4887	C
85	A5	4888	U
85	A5	4889	G
85	A5	4900	C
85	A5	4907	G
85	A5	4924	C
85	A5	4936	G
85	A5	4937	C
85	A5	4942	C
85	A5	4943	A
85	A5	4951	G
85	A5	4991	U
85	A5	4997	G
85	A5	5006	U
85	A5	5022	U
85	A5	5027	C
85	A5	5059	C
85	A5	5060	A
85	A5	5061	A
86	A7	72	U
86	A7	73	U
87	A8	34	U
87	A8	38	U
87	A8	40	A
87	A8	48	A
87	A8	83	C
87	A8	85	U
87	A8	94	G
87	A8	96	C
87	A8	108	A
87	A8	111	U
87	A8	124	U
87	A8	126	C

## 5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

There are no ligands in this entry.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
74	CC	5
63	CB	4
26	AJ	3
82	CG	3
81	CE	3
8	AS	2
66	Cd	2
64	CF	2
29	AG	2
47	CI	2
58	CW	2
1	Az	2
35	Ah	1
70	Ci	1
28	AC	1
73	Cl	1
38	Cz	1
41	CO	1
61	Ch	1
56	CX	1

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Mol	Chain	Number of breaks
23	AD	1
53	CT	1
24	Ae	1
33	AI	1
3	AU	1
12	AR	1
69	Cg	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	Cz	100:VAL	C	101:LYS	N	2.08
1	AD	5:ILE	C	6:SER	N	1.82
1	CI	205:PRO	C	206:LEU	N	1.82
1	CO	202:LEU	C	203:VAL	N	1.80
1	Ci	78:GLY	C	79:THR	N	1.80
1	CG	243:GLY	C	244:PRO	N	1.80
1	Az	712:ASP	C	713:ALA	N	1.79
1	CT	150:LEU	C	151:LEU	N	1.78
1	Ae	21:LYS	C	22:GLN	N	1.76
1	Cd	108:TYR	C	109:VAL	N	1.75
1	CG	35:ARG	C	36:PRO	N	1.75
1	AJ	118:GLY	C	119:LEU	N	1.73
1	CB	297:LYS	C	298:LEU	N	1.69
1	AI	43:ILE	C	44:HIS	N	1.67
1	CG	103:ARG	C	104:PRO	N	1.67
1	Ch	114:TYR	C	115:PRO	N	1.64
1	AU	93:SER	C	94:PRO	N	1.61
1	AJ	146:SER	C	147:PHE	N	1.61
1	CX	53:ARG	C	54:LEU	N	1.61
1	Cl	5:LYS	C	6:THR	N	1.61
1	CE	36:LYS	C	37:PRO	N	1.61
1	CE	115:TYR	C	116:TYR	N	1.61
1	Az	269:ALA	C	270:ASN	N	1.60
1	AS	141:ARG	C	142:ARG	N	1.60
1	Cg	45:ALA	C	46:CYS	N	1.19
1	CI	193:ASP	C	194:GLY	N	1.18
1	CE	125:LEU	C	126:LEU	N	1.18
1	AC	108:LYS	C	109:ILE	N	1.17
1	CC	304:ALA	C	305:PRO	N	1.17
1	AG	130:PRO	C	131:ARG	N	1.16
1	Cd	105:LEU	C	106:VAL	N	1.16
1	CC	54:VAL	C	55:SER	N	1.16

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	CB	16:PHE	C	17:LEU	N	1.14
1	AR	1:MET	C	2:GLY	N	1.13
1	CW	32:LEU	C	33:ASN	N	1.13
1	CB	15:GLY	C	16:PHE	N	1.12
1	CW	31:PHE	C	32:LEU	N	1.11
1	CC	226:GLY	C	227:ILE	N	1.11
1	AS	40:TYR	C	41:ALA	N	1.09
1	AG	219:GLU	C	220:ALA	N	1.09
1	CB	298:LEU	C	299:ILE	N	1.09
1	CF	183:GLY	C	184:ILE	N	1.08
1	CC	150:LEU	C	151:PRO	N	1.08
1	Ah	294:LYS	C	295:ALA	N	1.04
1	CF	23:ARG	C	24:ASN	N	1.00
1	AJ	85:GLY	C	86:VAL	N	0.95
1	CC	348:LYS	C	349:LEU	N	0.73