



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 16, 2017 – 10:05 am GMT

PDB ID : 4U55  
Title : Crystal structure of Cryptopleurine bound to the yeast 80S ribosome  
Authors : Garreau de Loubresse, N.; Prokhorova, I.; Yusupova, G.; Yusupov, M.  
Deposited on : 2014-07-24  
Resolution : 3.20 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

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

A user guide is available at

<http://wwpdb.org/validation/2016/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

MolProbity : 4.02b-467  
Mogul : 1.7.2 (RC1), CSD as538be (2017)  
Xtriage (Phenix) : 1.9-1692  
EDS : **FAILED**  
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : recalc28986

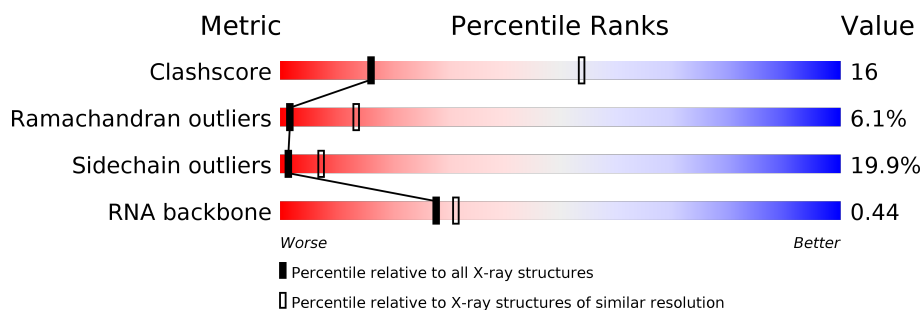
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.20 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)	Similar resolution (#Entries, resolution range(Å))
Clashscore	112137	1009 (3.20-3.20)
Ramachandran outliers	110173	1118 (3.22-3.18)
Sidechain outliers	110143	1117 (3.22-3.18)
RNA backbone	2435	1045 (3.60-2.80)

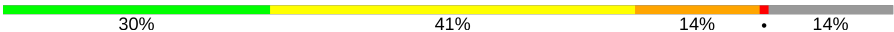

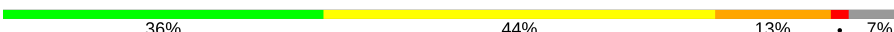

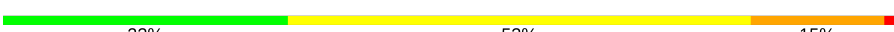

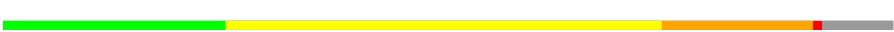







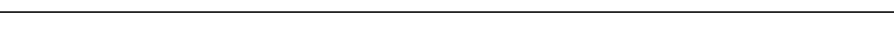

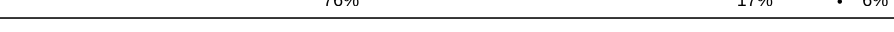
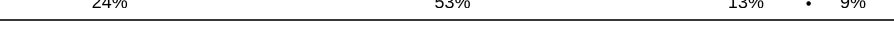
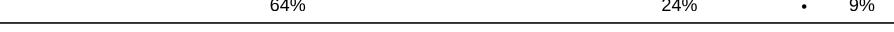


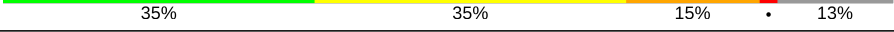



The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. 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  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Note EDS failed to run properly.

Mol	Chain	Length	Quality of chain
1	2	1800	
1	6	1800	
2	S0	251	
2	s0	251	
3	S1	254	
3	s1	254	


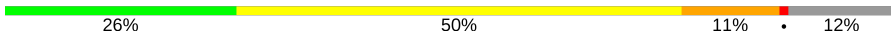



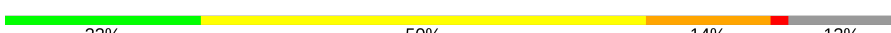





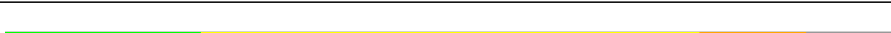


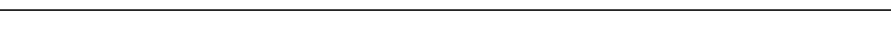




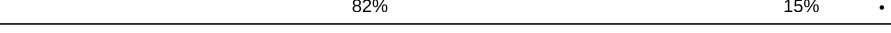




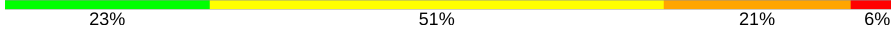
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Mol	Chain	Length	Quality of chain
4	S2	253	
4	s2	253	
5	S3	239	
5	s3	239	
6	S4	260	
6	s4	260	
7	S5	224	
7	s5	224	
8	S6	236	
8	s6	236	
9	S7	189	
9	s7	189	
10	S8	200	
10	s8	200	
11	S9	196	
11	s9	196	
12	C0	105	
12	c0	105	
13	C1	155	
13	c1	155	
14	C2	142	
14	c2	142	
15	C3	150	
15	c3	150	
16	C4	136	



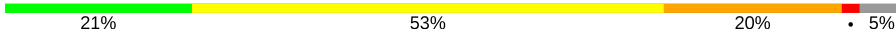

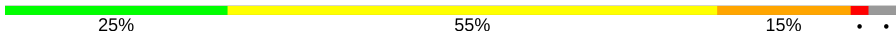

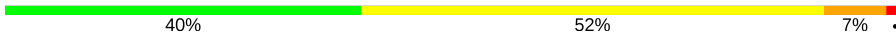
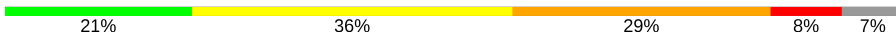

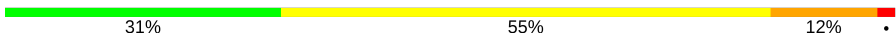



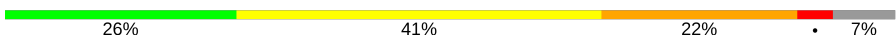
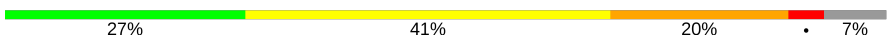

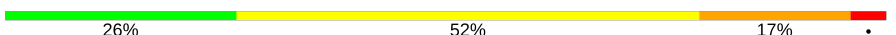
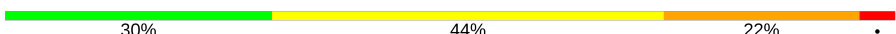







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Mol	Chain	Length	Quality of chain
16	c4	136	
17	C5	141	
17	c5	141	
18	C6	142	
18	c6	142	
19	C7	136	
19	c7	136	
20	C8	145	
20	c8	145	
21	C9	143	
21	c9	143	
22	D0	120	
22	d0	120	
23	D1	87	
23	d1	87	
24	D2	129	
24	d2	129	
25	D3	144	
25	d3	144	
26	D4	134	
26	d4	134	
27	D5	107	
27	d5	107	
28	D6	97	
28	d6	97	





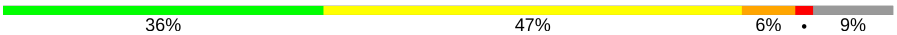

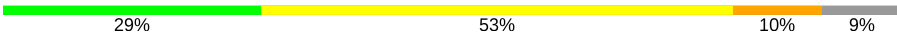

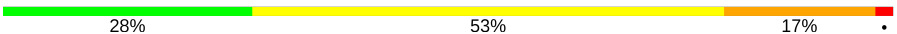

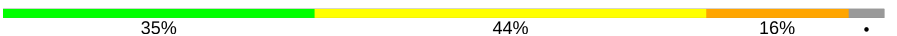

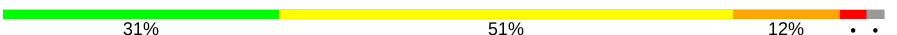












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Mol	Chain	Length	Quality of chain
29	D7	81	
29	d7	81	
30	D8	66	
30	d8	66	
31	D9	55	
31	d9	55	
32	E0	60	
33	E1	76	
33	e1	76	
34	SR	318	
34	sR	318	
35	SM	273	
35	sM	273	
36	1	3396	
36	5	3396	
37	3	121	
37	7	121	
38	4	158	
38	8	158	
39	L2	253	
39	l2	253	
40	L3	386	
40	l3	386	
41	L4	361	
41	l4	361	


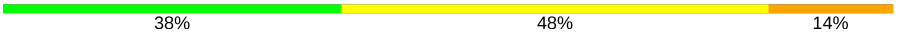



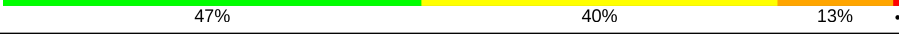

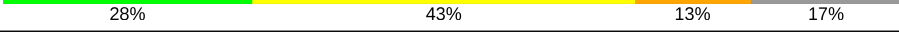
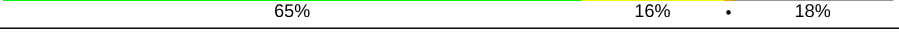


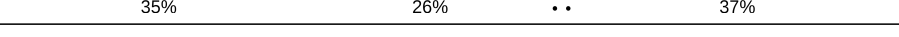

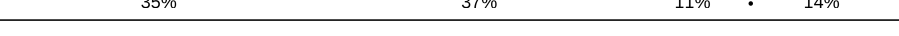


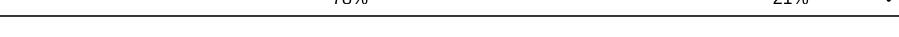
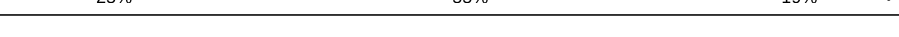
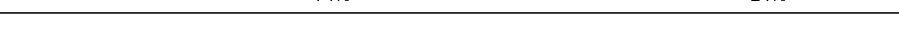
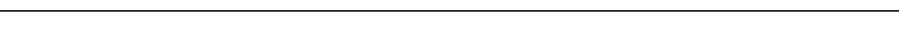

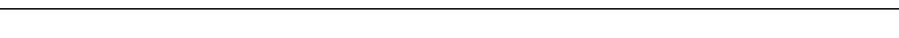
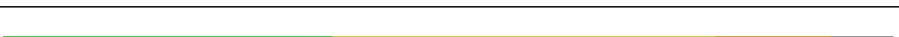


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Mol	Chain	Length	Quality of chain
42	L5	296	
42	l5	296	
43	L6	175	
43	l6	175	
44	L7	243	
44	l7	243	
45	L8	255	
45	l8	255	
46	L9	191	
46	l9	191	
47	M0	220	
47	m0	220	
48	M1	173	
48	m1	173	
49	M3	198	
49	m3	198	
50	M4	137	
50	m4	137	
51	M5	203	
51	m5	203	
52	M6	198	
52	m6	198	
53	M7	183	
53	m7	183	
54	M8	185	





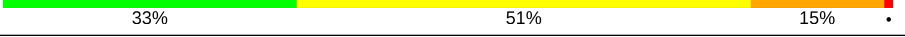

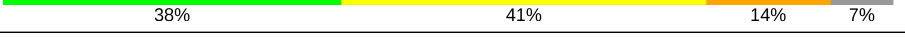

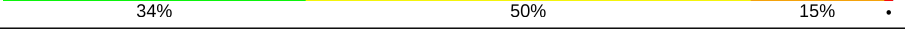


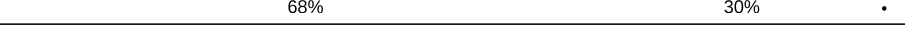

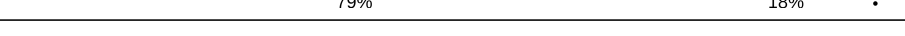


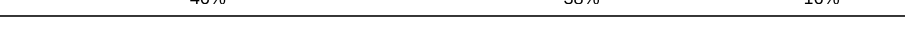

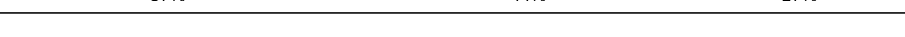
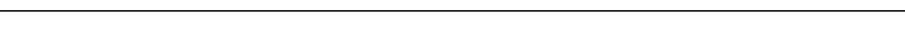

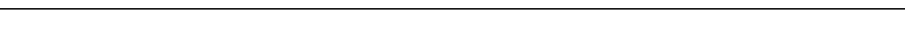
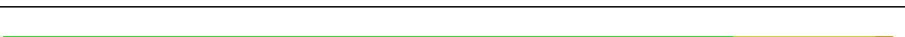
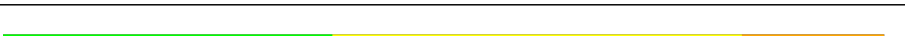

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Mol	Chain	Length	Quality of chain
54	m8	185	
55	M9	188	
55	m9	188	
56	N0	172	
56	n0	172	
57	N1	159	
57	n1	159	
58	N2	120	
58	n2	120	
59	N3	136	
59	n3	136	
60	N4	155	
60	n4	155	
61	N5	141	
61	n5	141	
62	N6	126	
62	n6	126	
63	N7	135	
63	n7	135	
64	N8	148	
64	n8	148	
65	N9	58	
65	n9	58	
66	O0	104	
66	o0	104	

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Mol	Chain	Length	Quality of chain
67	O1	112	
67	o1	112	
68	O2	129	
68	o2	129	
69	O3	106	
69	o3	106	
70	O4	120	
70	o4	120	
71	O5	119	
71	o5	119	
72	O6	99	
72	o6	99	
73	O7	87	
73	o7	87	
74	O8	77	
74	o8	77	
75	O9	50	
75	o9	50	
76	Q0	52	
76	q0	52	
77	Q1	25	
77	q1	25	
78	Q2	105	
78	q2	105	
79	Q3	91	

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Mol	Chain	Length	Quality of chain
79	q3	91	
80	e0	62	
81	p0	311	
82	m2	160	
83	p1	47	
84	p2	46	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
86	OHX	1	3954	-	-	X	-
86	OHX	1	3968	-	-	X	-
86	OHX	1	3973	-	-	X	-
86	OHX	1	4000	-	-	X	-
86	OHX	1	4025	-	-	X	-
86	OHX	1	4029	-	-	X	-
86	OHX	1	4041	-	-	X	-
86	OHX	1	4042	-	-	X	-
86	OHX	1	4053	-	-	X	-
86	OHX	1	4054	-	-	X	-
86	OHX	1	4079	-	-	X	-
86	OHX	1	4083	-	-	X	-
86	OHX	1	4145	-	-	X	-
86	OHX	1	4149	-	-	X	-
86	OHX	1	4154	-	-	X	-
86	OHX	1	4155	-	-	X	-
86	OHX	1	4162	-	-	X	-
86	OHX	1	4171	-	-	X	-
86	OHX	1	4196	-	-	X	-
86	OHX	2	2031	-	-	X	-
86	OHX	2	2044	-	-	X	-
86	OHX	2	2075	-	-	X	-
86	OHX	2	2089	-	-	X	-
86	OHX	2	2090	-	-	X	-
86	OHX	2	2098	-	-	X	-
86	OHX	2	2131	-	-	X	-
86	OHX	2	2145	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
86	OHX	2	2161	-	-	X	-
86	OHX	5	3944	-	-	X	-
86	OHX	5	3964	-	-	X	-
86	OHX	5	3975	-	-	X	-
86	OHX	5	3980	-	-	X	-
86	OHX	5	4003	-	-	X	-
86	OHX	5	4004	-	-	X	-
86	OHX	5	4013	-	-	X	-
86	OHX	5	4022	-	-	X	-
86	OHX	5	4035	-	-	X	-
86	OHX	5	4037	-	-	X	-
86	OHX	5	4057	-	-	X	-
86	OHX	5	4068	-	-	X	-
86	OHX	5	4083	-	-	X	-
86	OHX	5	4093	-	-	X	-
86	OHX	5	4146	-	-	X	-
86	OHX	5	4191	-	-	X	-
86	OHX	5	4193	-	-	X	-
86	OHX	5	4200	-	-	X	-
86	OHX	5	4201	-	-	X	-
86	OHX	5	4202	-	-	X	-
86	OHX	5	4205	-	-	X	-
86	OHX	5	4219	-	-	X	-
86	OHX	5	4236	-	-	X	-
86	OHX	5	4240	-	-	X	-
86	OHX	5	4245	-	-	X	-
86	OHX	6	2060	-	-	X	-
86	OHX	6	2121	-	-	X	-
86	OHX	6	2147	-	-	X	-
86	OHX	6	2171	-	-	X	-
86	OHX	7	219	-	-	X	-
86	OHX	7	226	-	-	X	-
86	OHX	8	216	-	-	X	-
86	OHX	8	225	-	-	X	-
86	OHX	8	226	-	-	X	-
86	OHX	C5	201	-	-	X	-
86	OHX	O1	201	-	-	X	-
86	OHX	O7	105	-	-	X	-

## 2 Entry composition

There are 88 unique types of molecules in this entry. The entry contains 411206 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	2	1750	Total	C	N	O	P	0	0	0
			37283	16668	6591	12274	1750			
1	6	1795	Total	C	N	O	P	0	0	0
			38238	17095	6758	12590	1795			

- Molecule 2 is a protein called 40S ribosomal protein S0-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	S0	206	Total	C	N	O	S	0	0	0
			1577	1014	278	283	2			
2	s0	206	Total	C	N	O	S	0	0	0
			1583	1017	281	283	2			

- Molecule 3 is a protein called 40S ribosomal protein S1-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	S1	214	Total	C	N	O	S	0	0	0
			1709	1084	310	311	4			
3	s1	216	Total	C	N	O	S	0	0	0
			1722	1091	312	315	4			

- Molecule 4 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	S2	217	Total	C	N	O	S	0	0	0
			1635	1047	289	297	2			
4	s2	217	Total	C	N	O	S	0	0	0
			1635	1047	289	297	2			

- Molecule 5 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	S3	223	Total	C	N	O	S	0	0	0
			1734	1101	313	314	6			
5	s3	223	Total	C	N	O	S	0	0	0
			1734	1101	313	314	6			

- Molecule 6 is a protein called 40S ribosomal protein S4-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	S4	260	Total	C	N	O	S	0	0	0
			2068	1316	389	360	3			
6	s4	260	Total	C	N	O	S	0	0	0
			2068	1316	389	360	3			

- Molecule 7 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	S5	206	Total	C	N	O	S	0	0	0
			1609	1007	300	299	3			
7	s5	206	Total	C	N	O	S	0	0	0
			1609	1007	300	299	3			

- Molecule 8 is a protein called 40S ribosomal protein S6-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	S6	226	Total	C	N	O	S	0	0	0
			1799	1129	346	321	3			
8	s6	218	Total	C	N	O	S	0	0	0
			1755	1102	337	313	3			

- Molecule 9 is a protein called 40S ribosomal protein S7-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	S7	184	Total	C	N	O		0	0	0
			1481	951	265	265				
9	s7	186	Total	C	N	O		0	0	0
			1491	957	267	267				

- Molecule 10 is a protein called 40S ribosomal protein S8-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	S8	188	Total	C	N	O	S	0	0	0
			1489	925	298	264	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	s8	188	Total	C	N	O	S	0	0	0
			1489	925	298	264	2			

- Molecule 11 is a protein called 40S ribosomal protein S9-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	S9	185	Total	C	N	O	S	0	0	0
			1494	943	289	261	1			
11	s9	185	Total	C	N	O	S	0	0	0
			1494	943	289	261	1			

- Molecule 12 is a protein called 40S ribosomal protein S10-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	C0	96	Total	C	N	O	S	0	0	0
			773	500	126	145	2			
12	c0	96	Total	C	N	O	S	0	0	0
			762	491	125	144	2			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C0	89	ALA	GLY	conflict	UNP Q08745
c0	89	ALA	GLY	conflict	UNP Q08745

- Molecule 13 is a protein called 40S ribosomal protein S11-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	C1	155	Total	C	N	O	S	0	0	0
			1214	775	230	206	3			
13	c1	146	Total	C	N	O	S	0	0	0
			1168	747	221	197	3			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C1	147	ALA	GLY	conflict	UNP P0CX47
c1	147	ALA	GLY	conflict	UNP P0CX47

- Molecule 14 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	C2	124	Total	C	N	O	S	0	0	0
			892	562	156	172	2			
14	c2	124	Total	C	N	O	S	0	0	0
			892	562	156	172	2			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C2	104	ALA	GLY	conflict	UNP P48589
C2	110	ALA	GLY	conflict	UNP P48589
c2	104	ALA	GLY	conflict	UNP P48589
c2	110	ALA	GLY	conflict	UNP P48589

- Molecule 15 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	C3	150	Total	C	N	O	S	0	0	0
			1192	759	224	207	2			
15	c3	150	Total	C	N	O	S	0	0	0
			1192	759	224	207	2			

- Molecule 16 is a protein called 40S ribosomal protein S14-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	C4	127	Total	C	N	O	S	0	0	0
			891	545	182	163	1			
16	c4	128	Total	C	N	O	S	0	0	0
			949	582	188	176	3			

- Molecule 17 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	C5	124	Total	C	N	O	S	0	0	0
			977	622	182	166	7			
17	c5	135	Total	C	N	O	S	0	0	0
			1039	658	196	178	7			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C5	137	SER	ARG	conflict	UNP Q01855
c5	137	SER	ARG	conflict	UNP Q01855

- Molecule 18 is a protein called 40S ribosomal protein S16-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	C6	141	Total	C	N	O	0	0	0
			1105	708	203	194			
18	c6	142	Total	C	N	O	0	0	0
			1111	711	204	196			

- Molecule 19 is a protein called 40S ribosomal protein S17-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	C7	120	Total	C	N	O	S	0	0	0
			926	577	177	170	2			
19	c7	117	Total	C	N	O	S	0	0	0
			906	563	174	167	2			

- Molecule 20 is a protein called 40S ribosomal protein S18-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	C8	145	Total	C	N	O	S	0	0	0
			1192	743	237	210	2			
20	c8	145	Total	C	N	O	S	0	0	0
			1192	743	237	210	2			

- Molecule 21 is a protein called 40S ribosomal protein S19-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	C9	143	Total	C	N	O	S	0	0	0
			1112	694	208	208	2			
21	c9	143	Total	C	N	O	S	0	0	0
			1112	694	208	208	2			

- Molecule 22 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	D0	107	Total	C	N	O	S	0	0	0
			855	539	156	159	1			
22	d0	110	Total	C	N	O	S	0	0	0
			882	554	161	166	1			

- Molecule 23 is a protein called 40S ribosomal protein S21-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	D1	87	Total	C	N	O	S	0	0	0
			684	420	125	137	2			
23	d1	87	Total	C	N	O	S	0	0	0
			684	420	125	137	2			

- Molecule 24 is a protein called 40S ribosomal protein S22-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	D2	129	Total	C	N	O	S	0	0	0
			1021	650	188	180	3			
24	d2	129	Total	C	N	O	S	0	0	0
			1021	650	188	180	3			

- Molecule 25 is a protein called 40S ribosomal protein S23-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	D3	144	Total	C	N	O	S	0	0	0
			1121	708	220	191	2			
25	d3	144	Total	C	N	O	S	0	0	0
			1121	708	220	191	2			

- Molecule 26 is a protein called 40S ribosomal protein S24-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
26	D4	134	Total	C	N	O	0	0	0
			1073	676	208	189			
26	d4	134	Total	C	N	O	0	0	0
			1073	676	208	189			

- Molecule 27 is a protein called 40S ribosomal protein S25-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
27	D5	70	Total	C	N	O	0	0	0
			563	360	104	99			
27	d5	69	Total	C	N	O	0	0	0
			558	357	103	98			

- Molecule 28 is a protein called 40S ribosomal protein S26-B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	D6	97	Total	C	N	O	S	0	0	0
			769	475	160	129	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	d6	97	Total	C	N	O	S	0	0	0
			769	475	160	129	5			

- Molecule 29 is a protein called 40S ribosomal protein S27-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	D7	81	Total	C	N	O	S	0	0	0
			610	382	110	113	5			
29	d7	81	Total	C	N	O	S	0	0	0
			610	382	110	113	5			

- Molecule 30 is a protein called 40S ribosomal protein S28-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	D8	63	Total	C	N	O	S	0	0	0
			497	306	99	91	1			
30	d8	63	Total	C	N	O	S	0	0	0
			497	306	99	91	1			

- Molecule 31 is a protein called 40S ribosomal protein S29-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	D9	53	Total	C	N	O	S	0	0	0
			442	274	92	72	4			
31	d9	53	Total	C	N	O	S	0	0	0
			442	274	92	72	4			

- Molecule 32 is a protein called 40S ribosomal protein S30-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	E0	60	Total	C	N	O	S	0	0	0
			475	299	98	77	1			

- Molecule 33 is a protein called Ubiquitin-40S ribosomal protein S31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	E1	71	Total	C	N	O	S	0	0	0
			566	362	106	94	4			
33	e1	76	Total	C	N	O	S	0	0	0
			608	388	117	99	4			

- Molecule 34 is a protein called Guanine nucleotide-binding protein subunit beta-like protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	SR	318	Total	C	N	O	S	0	0	0
			2441	1544	419	470	8			
34	sR	318	Total	C	N	O	S	0	0	0
			2442	1544	418	472	8			

- Molecule 35 is a protein called Suppressor protein STM1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	SM	159	Total	C	N	O		0	0	0
			1104	652	221	231				
35	sM	104	Total	C	N	O		0	0	0
			679	402	140	137				

- Molecule 36 is a RNA chain called 25S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	1	3149	Total	C	N	O	P	0	0	0
			67355	30086	12142	21978	3149			
36	5	3150	Total	C	N	O	P	0	0	0
			67376	30095	12145	21987	3149			

- Molecule 37 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	3	121	Total	C	N	O	P	0	0	0
			2579	1152	461	845	121			
37	7	121	Total	C	N	O	P	0	0	0
			2579	1152	461	845	121			

- Molecule 38 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	4	158	Total	C	N	O	P	0	0	0
			3353	1500	586	1109	158			
38	8	158	Total	C	N	O	P	0	0	0
			3353	1500	586	1109	158			

- Molecule 39 is a protein called 60S ribosomal protein L2-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	L2	252	Total	C	N	O	S	0	0	0
			1914	1191	388	334	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	l2	252	Total	C	N	O	S	0	0	0
			1912	1190	388	333	1			

- Molecule 40 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	L3	386	Total	C	N	O	S	0	0	0
			3075	1950	584	533	8			
40	l3	386	Total	C	N	O	S	0	0	0
			3075	1950	584	533	8			

- Molecule 41 is a protein called 60S ribosomal protein L4-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	L4	361	Total	C	N	O	S	0	0	0
			2748	1729	522	494	3			
41	l4	361	Total	C	N	O	S	0	0	0
			2748	1729	522	494	3			

- Molecule 42 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	L5	296	Total	C	N	O	S	0	0	0
			2375	1501	414	458	2			
42	l5	294	Total	C	N	O	S	0	0	0
			2359	1489	412	456	2			

- Molecule 43 is a protein called 60S ribosomal protein L6-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	L6	156	Total	C	N	O	S	0	0	0
			1239	800	222	216	1			
43	l6	157	Total	C	N	O	S	0	0	0
			1248	806	224	217	1			

- Molecule 44 is a protein called 60S ribosomal protein L7-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	L7	222	Total	C	N	O	S	0	0	0
			1784	1151	324	308	1			
44	l7	223	Total	C	N	O	S	0	0	0
			1791	1155	325	310	1			

- Molecule 45 is a protein called 60S ribosomal protein L8-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	L8	233	Total	C	N	O	S	0	0	0
			1804	1151	323	327	3			
45	l8	231	Total	C	N	O	S	0	0	0
			1763	1130	316	314	3			

- Molecule 46 is a protein called 60S ribosomal protein L9-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	L9	191	Total	C	N	O	S	0	0	0
			1518	963	274	277	4			
46	l9	191	Total	C	N	O	S	0	0	0
			1518	963	274	277	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	M0	211	Total	C	N	O	S	0	0	0
			1705	1083	322	294	6			
47	m0	213	Total	C	N	O	S	0	0	0
			1722	1094	325	297	6			

- Molecule 48 is a protein called 60S ribosomal protein L11-B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	M1	169	Total	C	N	O	S	0	0	0
			1353	847	253	249	4			
48	m1	169	Total	C	N	O	S	0	0	0
			1353	847	253	249	4			

- Molecule 49 is a protein called 60S ribosomal protein L13-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	M3	193	Total	C	N	O	0	0	0
			1543	962	315	266			
49	m3	194	Total	C	N	O	0	0	0
			1548	965	316	267			

- Molecule 50 is a protein called 60S ribosomal protein L14-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	M4	136	Total	C	N	O	S	0	0	0
			1053	675	199	177	2			
50	m4	137	Total	C	N	O	S	0	0	0
			1059	678	200	179	2			

- Molecule 51 is a protein called 60S ribosomal protein L15-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	M5	203	Total	C	N	O	S	0	0	0
			1720	1077	361	281	1			
51	m5	203	Total	C	N	O	S	0	0	0
			1720	1077	361	281	1			

- Molecule 52 is a protein called 60S ribosomal protein L16-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	M6	197	Total	C	N	O	S	0	0	0
			1555	1003	289	262	1			
52	m6	197	Total	C	N	O	S	0	0	0
			1555	1003	289	262	1			

- Molecule 53 is a protein called 60S ribosomal protein L17-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	M7	183	Total	C	N	O		0	0	0
			1420	882	281	257				
53	m7	155	Total	C	N	O		0	0	0
			1227	764	238	225				

- Molecule 54 is a protein called 60S ribosomal protein L18-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	M8	185	Total	C	N	O	S	0	0	0
			1441	908	290	241	2			
54	m8	185	Total	C	N	O	S	0	0	0
			1441	908	290	241	2			

- Molecule 55 is a protein called 60S ribosomal protein L19-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	M9	188	Total	C	N	O		0	0	0
			1521	935	326	260				

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
55	m9	188	Total	C	N	O			
			1521	935	326	260	0	0	0

- Molecule 56 is a protein called 60S ribosomal protein L20-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	N0	172	Total	C	N	O	S			
			1445	930	267	244	4	0	0	0
56	n0	172	Total	C	N	O	S			
			1445	930	267	244	4	0	0	0

- Molecule 57 is a protein called 60S ribosomal protein L21-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
57	N1	159	Total	C	N	O	S			
			1276	805	246	221	4	0	0	0
57	n1	159	Total	C	N	O	S			
			1276	805	246	221	4	0	0	0

- Molecule 58 is a protein called 60S ribosomal protein L22-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
58	N2	100	Total	C	N	O			
			796	516	131	149	0	0	0
58	n2	98	Total	C	N	O			
			778	505	127	146	0	0	0

- Molecule 59 is a protein called 60S ribosomal protein L23-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
59	N3	136	Total	C	N	O	S			
			1003	628	189	179	7	0	0	0
59	n3	136	Total	C	N	O	S			
			1003	628	189	179	7	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
60	N4	98	Total	C	N	O	S			
			699	443	137	118	1	0	0	0
60	n4	135	Total	C	N	O	S			
			1038	651	206	180	1	0	0	0

- Molecule 61 is a protein called 60S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
61	N5	121	Total	C	N	O	S	0	0	0
			964	620	169	173	2			
61	n5	120	Total	C	N	O	S	0	0	0
			959	617	168	172	2			

- Molecule 62 is a protein called 60S ribosomal protein L26-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
62	N6	126	Total	C	N	O	0	0	0
			993	625	192	176			
62	n6	126	Total	C	N	O	0	0	0
			993	625	192	176			

- Molecule 63 is a protein called 60S ribosomal protein L27-A.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
63	N7	135	Total	C	N	O	0	0	0
			1092	710	202	180			
63	n7	135	Total	C	N	O	0	0	0
			1092	710	202	180			

- Molecule 64 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
64	N8	148	Total	C	N	O	S	0	0	0
			1173	749	231	190	3			
64	n8	148	Total	C	N	O	S	0	0	0
			1173	749	231	190	3			

- Molecule 65 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
65	N9	58	Total	C	N	O	0	0	0
			462	289	100	73			
65	n9	58	Total	C	N	O	0	0	0
			462	289	100	73			

- Molecule 66 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
66	O0	97	Total	C	N	O	S	0	0	0
			743	479	124	139	1			
66	o0	100	Total	C	N	O	S	0	0	0
			767	492	128	146	1			

- Molecule 67 is a protein called 60S ribosomal protein L31-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
67	O1	109	Total	C	N	O	S	0	0	0
			876	556	167	152	1			
67	o1	109	Total	C	N	O	S	0	0	0
			883	559	167	156	1			

- Molecule 68 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
68	O2	127	Total	C	N	O	S	0	0	0
			1020	647	205	167	1			
68	o2	127	Total	C	N	O	S	0	0	0
			1020	647	205	167	1			

- Molecule 69 is a protein called 60S ribosomal protein L33-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
69	O3	106	Total	C	N	O	S	0	0	0
			850	540	165	144	1			
69	o3	106	Total	C	N	O	S	0	0	0
			850	540	165	144	1			

- Molecule 70 is a protein called 60S ribosomal protein L34-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
70	O4	112	Total	C	N	O	S	0	0	0
			880	545	179	152	4			
70	o4	112	Total	C	N	O	S	0	0	0
			880	545	179	152	4			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
O4	121	LYS	-	expression tag	UNP P87262
o4	121	LYS	-	expression tag	UNP P87262

- Molecule 71 is a protein called 60S ribosomal protein L35-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
71	O5	119	Total	C	N	O	S	0	0	0
			969	615	186	167	1			
71	o5	119	Total	C	N	O	S	0	0	0
			965	612	185	167	1			

- Molecule 72 is a protein called 60S ribosomal protein L36-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
72	O6	99	Total	C	N	O	S	0	0	0
			771	481	156	132	2			
72	o6	99	Total	C	N	O	S	0	0	0
			770	481	156	131	2			

- Molecule 73 is a protein called 60S ribosomal protein L37-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
73	O7	87	Total	C	N	O	S	0	0	0
			681	414	148	114	5			
73	o7	87	Total	C	N	O	S	0	0	0
			681	414	148	114	5			

- Molecule 74 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
74	O8	77	Total	C	N	O	0	0	0
			612	391	115	106			
74	o8	77	Total	C	N	O	0	0	0
			608	388	114	106			

- Molecule 75 is a protein called 60S ribosomal protein L39.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
75	O9	50	Total	C	N	O	S	0	0	0
			436	272	97	65	2			
75	o9	50	Total	C	N	O	S	0	0	0
			436	272	97	65	2			

- Molecule 76 is a protein called Ubiquitin-60S ribosomal protein L40.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
76	Q0	52	Total	C	N	O	S	0	0	0
			417	259	86	67	5			
76	q0	52	Total	C	N	O	S	0	0	0
			417	259	86	67	5			

- Molecule 77 is a protein called 60S ribosomal protein L41-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
77	Q1	25	Total	C	N	O	S	0	0	0
			233	142	63	27	1			
77	q1	25	Total	C	N	O	S	0	0	0
			233	142	63	27	1			

- Molecule 78 is a protein called 60S ribosomal protein L42-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
78	Q2	105	Total	C	N	O	S	0	0	0
			847	534	170	138	5			
78	q2	105	Total	C	N	O	S	0	0	0
			847	534	170	138	5			

- Molecule 79 is a protein called 60S ribosomal protein L43-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
79	Q3	91	Total	C	N	O	S	0	0	0
			694	429	138	121	6			
79	q3	91	Total	C	N	O	S	0	0	0
			694	429	138	121	6			

- Molecule 80 is a protein called 40S ribosomal protein S30-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
80	e0	62	Total	C	N	O	S	0	0	0
			491	309	101	80	1			

- Molecule 81 is a protein called 60S acidic ribosomal protein P0.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
81	p0	143	Total	C	N	O	S	0	0	0
			1076	686	192	195	3			

- Molecule 82 is a protein called Unknown protein chain m2.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
82	m2	150	Total	C	N	O	0	0	0
			750	450	150	150			

- Molecule 83 is a protein called Unknown protein chain p1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
83	p1	47	Total	C	N	O	0	0	0
			235	141	47	47			

- Molecule 84 is a protein called Unknown protein chain p2.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
84	p2	46	Total	C	N	O	0	0	0
			230	138	46	46			

- Molecule 85 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	L7	3	Total	Mg	0	0
			3	3		
85	m6	1	Total	Mg	0	0
			1	1		
85	n8	4	Total	Mg	0	0
			4	4		
85	q3	1	Total	Mg	0	0
			1	1		
85	o1	1	Total	Mg	0	0
			1	1		
85	N5	1	Total	Mg	0	0
			1	1		
85	6	148	Total	Mg	0	0
			148	148		
85	sM	2	Total	Mg	0	0
			2	2		
85	O4	1	Total	Mg	0	0
			1	1		
85	m5	2	Total	Mg	0	0
			2	2		
85	l3	1	Total	Mg	0	0
			1	1		
85	M1	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	d6	1	Total 1	Mg 1	0	0
85	2	125	Total 125	Mg 125	0	0
85	n0	2	Total 2	Mg 2	0	0
85	L4	1	Total 1	Mg 1	0	0
85	l7	1	Total 1	Mg 1	0	0
85	M5	1	Total 1	Mg 1	0	0
85	c9	1	Total 1	Mg 1	0	0
85	L8	1	Total 1	Mg 1	0	0
85	D3	1	Total 1	Mg 1	0	0
85	o4	2	Total 2	Mg 2	0	0
85	M9	1	Total 1	Mg 1	0	0
85	q0	1	Total 1	Mg 1	0	0
85	SM	1	Total 1	Mg 1	0	0
85	c8	1	Total 1	Mg 1	0	0
85	M0	3	Total 3	Mg 3	0	0
85	c1	1	Total 1	Mg 1	0	0
85	5	505	Total 505	Mg 505	0	0
85	L5	2	Total 2	Mg 2	0	0
85	O7	3	Total 3	Mg 3	0	0
85	s6	1	Total 1	Mg 1	0	0
85	Q2	1	Total 1	Mg 1	0	0

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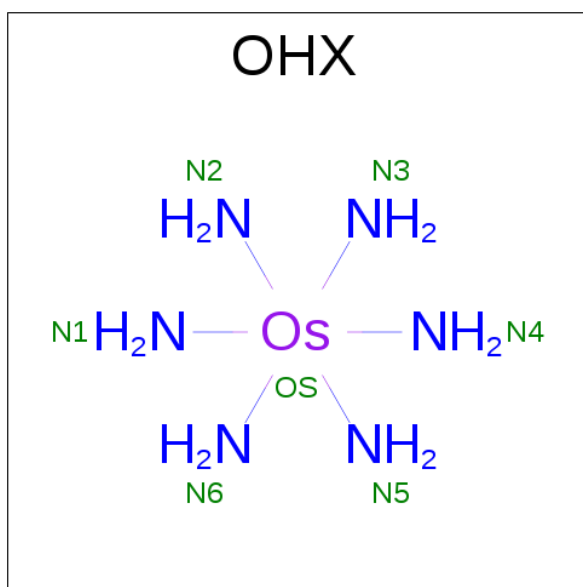
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	d4	1	Total 1	Mg 1	0	0
85	n9	1	Total 1	Mg 1	0	0
85	1	469	Total 469	Mg 469	0	0
85	D0	1	Total 1	Mg 1	0	0
85	S8	1	Total 1	Mg 1	0	0
85	l2	1	Total 1	Mg 1	0	0
85	O2	1	Total 1	Mg 1	0	0
85	o7	1	Total 1	Mg 1	0	0
85	o3	1	Total 1	Mg 1	0	0
85	d3	1	Total 1	Mg 1	0	0
85	M3	3	Total 3	Mg 3	0	0
85	N3	2	Total 2	Mg 2	0	0
85	4	21	Total 21	Mg 21	0	0
85	n6	1	Total 1	Mg 1	0	0
85	S4	1	Total 1	Mg 1	0	0
85	L2	1	Total 1	Mg 1	0	0
85	m1	1	Total 1	Mg 1	0	0
85	l5	2	Total 2	Mg 2	0	0
85	m7	5	Total 5	Mg 5	0	0
85	M7	5	Total 5	Mg 5	0	0
85	N8	5	Total 5	Mg 5	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	s1	1	Total 1	Mg 1	0	0
85	l9	1	Total 1	Mg 1	0	0
85	s8	2	Total 2	Mg 2	0	0
85	c7	1	Total 1	Mg 1	0	0
85	7	17	Total 17	Mg 17	0	0
85	n3	2	Total 2	Mg 2	0	0
85	q1	1	Total 1	Mg 1	0	0
85	L3	3	Total 3	Mg 3	0	0
85	O5	1	Total 1	Mg 1	0	0
85	N6	2	Total 2	Mg 2	0	0
85	8	14	Total 14	Mg 14	0	0
85	l4	1	Total 1	Mg 1	0	0
85	M6	1	Total 1	Mg 1	0	0
85	N0	1	Total 1	Mg 1	0	0
85	m0	1	Total 1	Mg 1	0	0
85	3	14	Total 14	Mg 14	0	0

- Molecule 86 is osmium (III) hexammine (three-letter code: OHX) (formula: H<sub>12</sub>N<sub>6</sub>Os).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	S8	1	Total	N	Os	0	0
			7	6	1		
86	C1	1	Total	N	Os	0	0
			7	6	1		
86	C3	1	Total	N	Os	0	0
			7	6	1		
86	C5	1	Total	N	Os	0	0
			7	6	1		
86	C8	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	D9	1	Total	N	Os	0	0
			7	6	1		
86	SR	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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86	1	1	Total	N	Os	0	0
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86	3	1	Total	N	Os	0	0
			7	6	1		
86	3	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	4	1	Total	N	Os	0	0
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86	4	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	L3	1	Total 7	N 6	Os 1	0	0
86	L3	1	Total 7	N 6	Os 1	0	0
86	L4	1	Total 7	N 6	Os 1	0	0
86	M0	1	Total 7	N 6	Os 1	0	0
86	M5	1	Total 7	N 6	Os 1	0	0
86	M7	1	Total 7	N 6	Os 1	0	0
86	M7	1	Total 7	N 6	Os 1	0	0
86	M8	1	Total 7	N 6	Os 1	0	0
86	M9	1	Total 7	N 6	Os 1	0	0
86	N1	1	Total 7	N 6	Os 1	0	0
86	N9	1	Total 7	N 6	Os 1	0	0
86	O1	1	Total 7	N 6	Os 1	0	0
86	O2	1	Total 7	N 6	Os 1	0	0
86	O3	1	Total 7	N 6	Os 1	0	0
86	O7	1	Total 7	N 6	Os 1	0	0
86	O7	1	Total 7	N 6	Os 1	0	0
86	O9	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	s1	1	Total	N	Os	0	0
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86	s4	1	Total	N	Os	0	0
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86	s8	1	Total	N	Os	0	0
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86	s9	1	Total	N	Os	0	0
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86	c3	1	Total	N	Os	0	0
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86	c5	1	Total	N	Os	0	0
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86	c8	1	Total	N	Os	0	0
			7	6	1		
86	d4	1	Total	N	Os	0	0
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86	d9	1	Total	N	Os	0	0
			7	6	1		
86	sR	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
			7	6	1		
86	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	5	1	Total	N	Os	0	0
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86	5	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	8	1	Total	N	Os	0	0
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86	8	1	Total	N	Os	0	0
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86	8	1	Total	N	Os	0	0
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86	8	1	Total	N	Os	0	0
			7	6	1		
86	8	1	Total	N	Os	0	0
			7	6	1		

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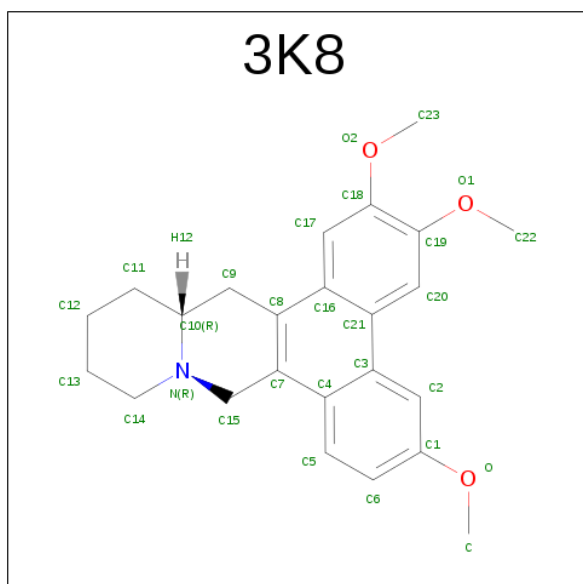
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	8	1	Total	N	Os	0	0
			7	6	1		
86	l3	1	Total	N	Os	0	0
			7	6	1		
86	l3	1	Total	N	Os	0	0
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			7	6	1		
86	l5	1	Total	N	Os	0	0
			7	6	1		
86	l5	1	Total	N	Os	0	0
			7	6	1		
86	l5	1	Total	N	Os	0	0
			7	6	1		
86	l9	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
86	m1	1	Total	N	Os	0	0
			7	6	1		
86	m4	1	Total	N	Os	0	0
			7	6	1		
86	m5	1	Total	N	Os	0	0
			7	6	1		
86	m6	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
86	m8	1	Total	N	Os	0	0
			7	6	1		
86	m9	1	Total	N	Os	0	0
			7	6	1		
86	n1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
86	n9	1	Total	N	Os	0	0
			7	6	1		
86	o3	1	Total	N	Os	0	0
			7	6	1		
86	q2	1	Total	N	Os	0	0
			7	6	1		

- Molecule 87 is (14aR)-2,3,6-trimethoxy-11,12,13,14,14a,15-hexahydro-9H-dibenzo[f,h]pyrido [1,2-b]isoquinoline (three-letter code: 3K8) (formula: C<sub>24</sub>H<sub>27</sub>NO<sub>3</sub>).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
87	2	1	Total	C	N	O	0	0
			28	24	1	3		
87	6	1	Total	C	N	O	0	0
			28	24	1	3		

- Molecule 88 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
88	q0	1	Total	Zn	0	0
			1	1		
88	D6	1	Total	Zn	0	0
			1	1		
88	Q2	1	Total	Zn	0	0
			1	1		

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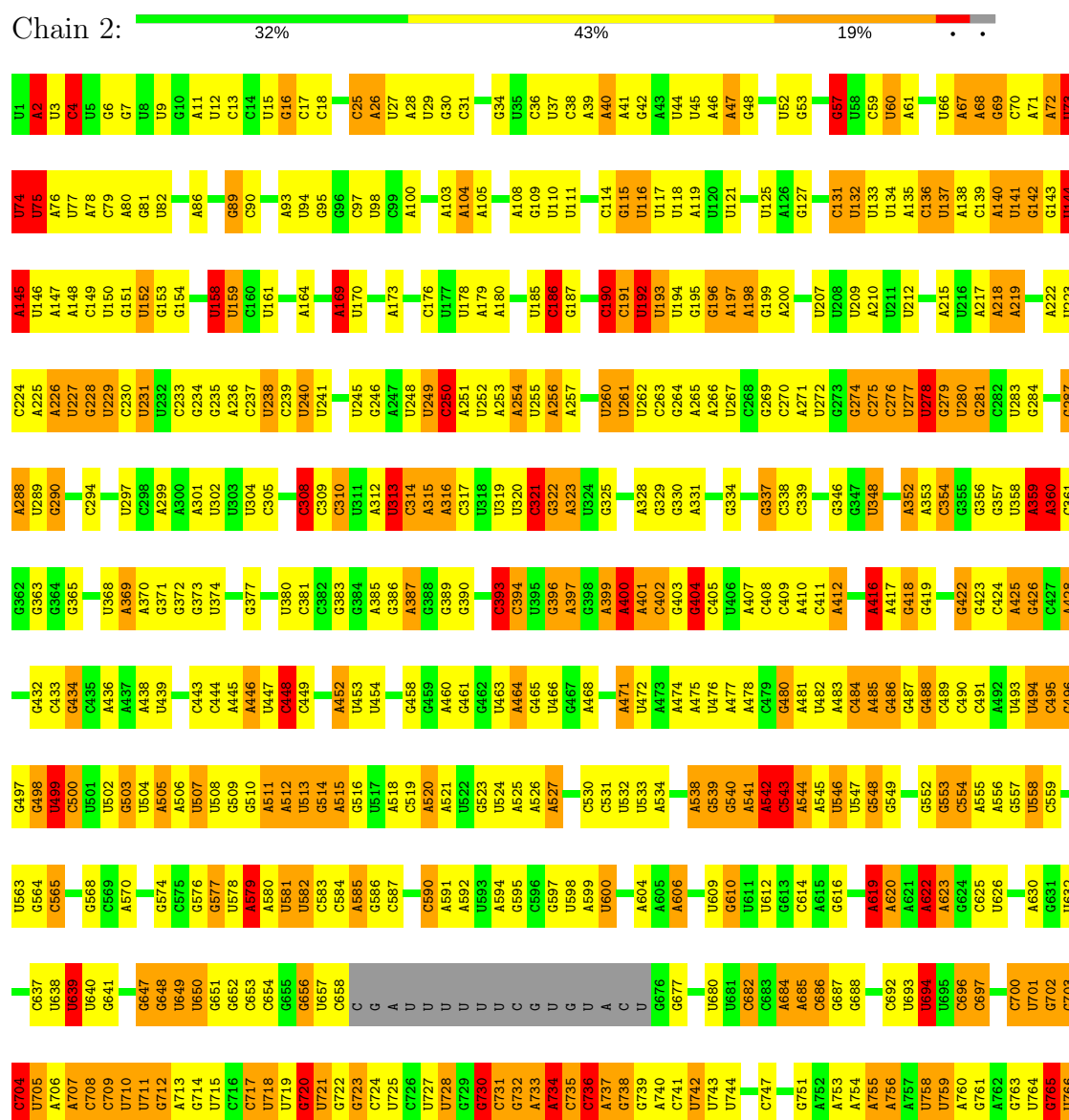
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
88	e1	1	Total 1	Zn 1	0	0
88	Q3	1	Total 1	Zn 1	0	0
88	D9	1	Total 1	Zn 1	0	0
88	E1	1	Total 1	Zn 1	0	0
88	Q0	1	Total 1	Zn 1	0	0
88	d7	1	Total 1	Zn 1	0	0
88	q3	1	Total 1	Zn 1	0	0
88	d9	1	Total 1	Zn 1	0	0
88	D7	1	Total 1	Zn 1	0	0
88	d6	1	Total 1	Zn 1	0	0
88	o7	1	Total 1	Zn 1	0	0
88	O7	1	Total 1	Zn 1	0	0
88	q2	1	Total 1	Zn 1	0	0

### 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 and electron density. 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. A red dot above a residue indicates a poor fit to the electron density ( $RSRZ > 2$ ). 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.

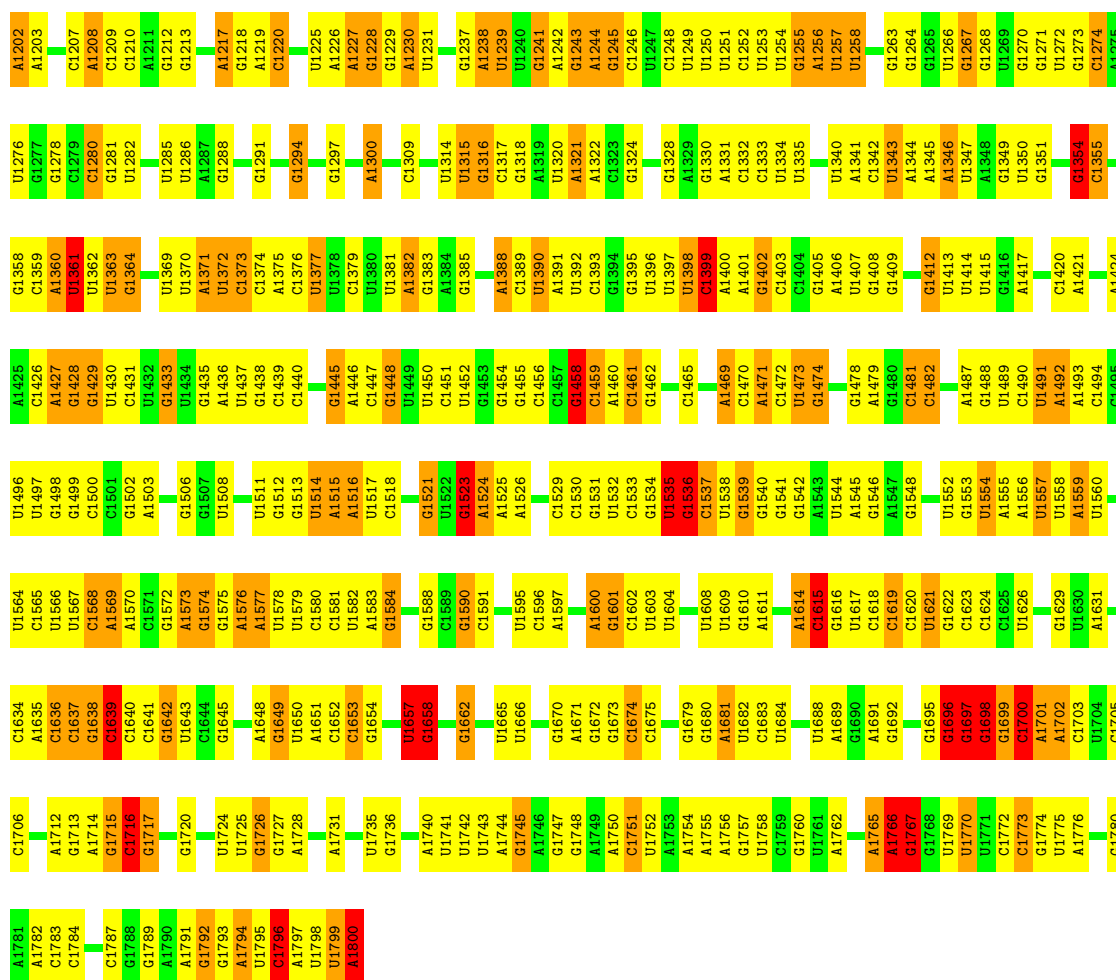
Note EDS failed to run properly.

- Molecule 1: 18S ribosomal RNA



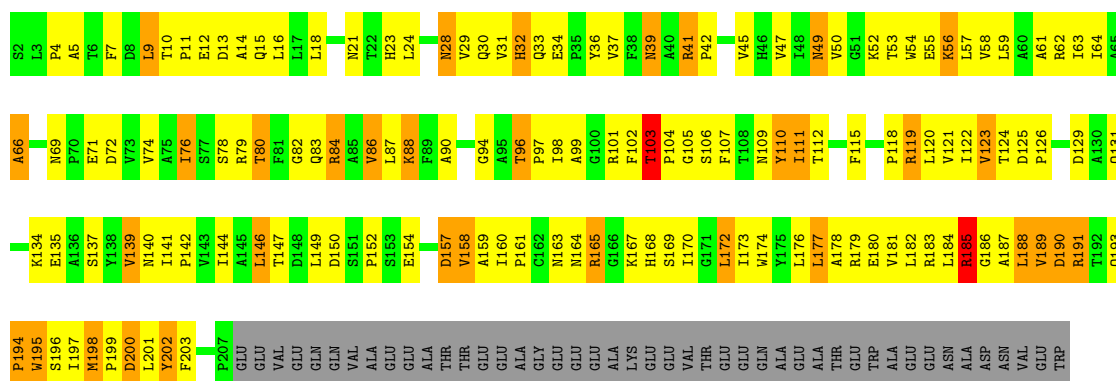
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A1744	C1674	G1601	U1534	U1472	A1400	U1334	U1254	A1189	G1119	U1038	C975	A900	U833	A769
A1746	U1676	U1603	G1536	U1473	A1401	U1335	G1255	U1190	G1120	A1039	C976	G901	U834	A770
G1747	U1677	U1604	G1537	A1474	C1404	U1338	U1258	U1191	C1121	G1040	A977	G902	U835	A771
G1748	A1678	G1605	U1538	C1476	G1405	C1339	U1259	U1192	A1124	G1041	A978	A906	U836	G772
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A1750	A1681	G1607	G1540	U1478	G1407	U1341	U1261	A1194	A1126	A1043	U982	A911	U838	A774
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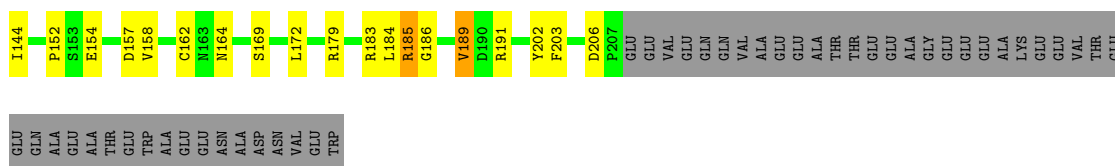
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G1140	U1063	U999	C927	A856	A791	U719	G651	U582	A511	U439	A370	U150	U74	G7
G1141	G1064	U1000	A930	U857	A792	U720	G652	C883	A512	U440	G371	U152	U75	U8
A1142	C1068	G1001	A933	A858	A793	G721	G653	G586	A514	U447	G372	U153	A76	U9
A1143	A1069	G1002	A934	A859	A794	G722	G654	C587	A515	C448	U374	U156	A77	G10
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U1145	U1004	U1004	U935	A863	A796	G724	G656	U589	U517	C450	U376	U158	C79	U12
G1146	U1005	A1005	G936	U864	A797	U725	A651	C590	A518	U450	C381	U159	C78	C13
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A1160	A1092	A1019	A951	C880	U821	U738	U664	A604	A534	U468	A324	A173	A89	A28
C1161	A1093	A1020	A952	C881	U822	U739	U665	A605	A535	C469	U325	U100	U101	U29
C1162	U882	C1021	A953	C882	G823	U740	U666	A606	A536	C470	U326	U102	U102	G30
C1163	C1096	C1022	C956	C883	G824	U741	U667	A607	C536	A471	U327	U103	U103	C31
G1164	U1097	A1023	G957	C884	U825	U742	U668	U608	G537	U475	A328	U176	A104	U32
G1165	U1098	U1024	C958	C885	U826	U743	U669	U609	U538	U476	A329	U177	A105	U33
G1166	U1099	A1025	U958	C886	U827	U744	U670	U610	U539	U477	A330	A179	U106	G34
G1167	A1100	A1026	U959	C887	U828	U745	U671	G611	G540	A478	A331	A181	C107	
A1171	C1101	G1027	U960	C888	G829	U746	U672	G612	A541	C479	A332	U185	U111	A41
G1172	G1102	C1028	U961	C889	U830	U747	U673	G613	A542	C480	A333	U186	U112	G42
C1173	U1103	U1029	C962	C890	U831	U748	U674	G614	C543	G481	A334	C186	U113	A43
C1174	U1104	A1030	A963	C891	U832	U749	U675	G615	A544	U482	G337	G187	U114	U44
U1175	U1106	U1031	U964	C892	U833	U750	U676	G616	A545	C483	C338	C188	U115	U45
G1176	G1107	C1033	U965	C893	U834	U751	U677	A619	G548	C484	C339	C189	U116	A46
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A1184	U1119	U1041	A977	C899	U840	U757	U683	G825	A557	C490	U345	G195	U125	U52
U1185	U1120	G1042	U978	C900	U841	U758	U684	U826	U558	C491	G346	G196	C53	C53
C1192	C1121	G1046	A979	C901	U842	U759	U685	G827	C559	C492	G347	A197	G127	C54
A1193	U1122	U1047	U982	C902	U843	U760	U686	G828	U563	C493	U350	U198	U128	A55
C1194	C1123	G1048	U983	C903	U844	U761	U687	A630	G564	C494	C351	U199	U129	U56
C1195	G1126	U1050	A983	C904	U845	U762	U688	G831	C565	C495	A352	U277	G57	G57
C1196	U1127	U1052	U984	C905	U846	U763	U689	G832	C566	C496	A353	U278	C59	U58
C1197	G1128	G1053	G986	C906	U847	U764	U690	U833	C567	C497	C354	U279	C59	U59
C1198	U1129	U1054	G987	C907	U848	U765	U691	U834	C568	C498	G426	G280	U60	U60
G1199	G1200	U1055	U988	C908	U849	U766	U692	U835	C569	C499	G427	G281	A61	A61
G1201	G1201	U1056	C990	C909	U850	U767	U693	A636	C570	C500	G428	G282	C136	A62
					U851	U768	U694	U837	C571	U501	G429	G283	U137	G63
					U852	U769	U695	U838	C572	U502	G430	G284	U138	U64
					U853	U770	U696	U839	C573	U503	G431	G285	A139	A65
					U854	U771	U697	U840	C574	U504	G432	G286	C139	G66
					U855	U772	U698	U841	C575		G433	G287	A140	U66



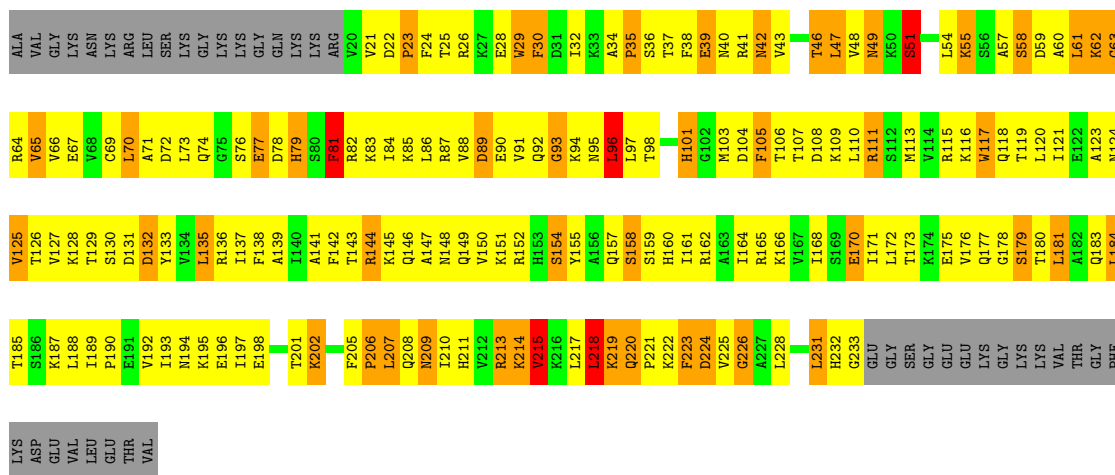
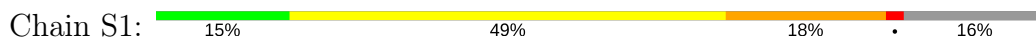
• Molecule 2: 40S ribosomal protein S0-A

Chain S0: 25% 43% 14% 18%

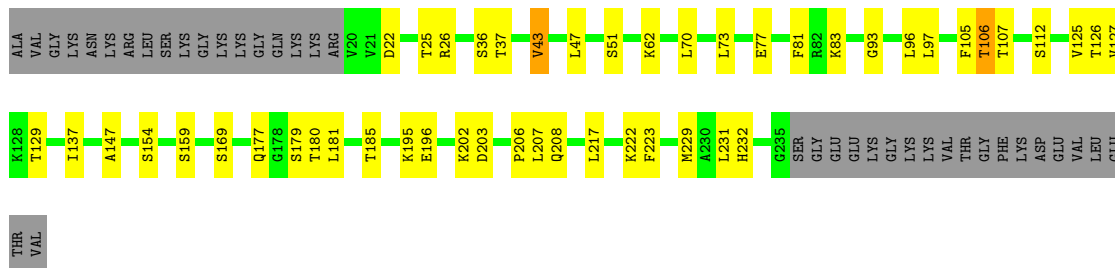




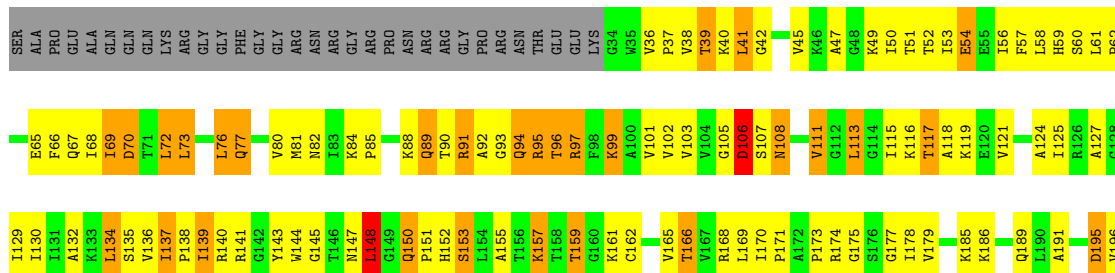
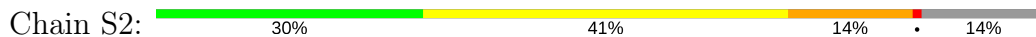
- Molecule 3: 40S ribosomal protein S1-A



- Molecule 3: 40S ribosomal protein S1-A



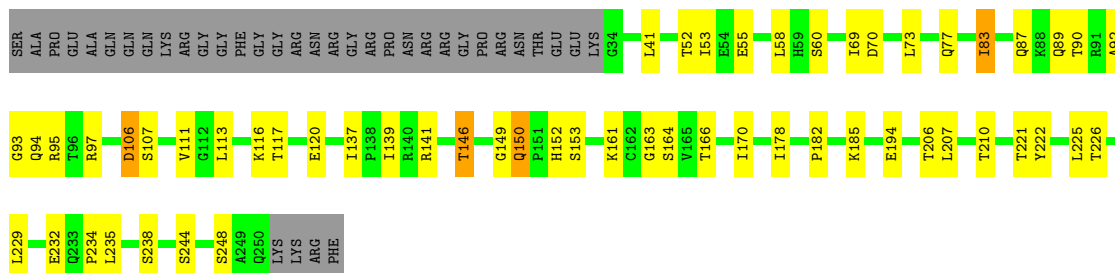
- Molecule 4: 40S ribosomal protein S2





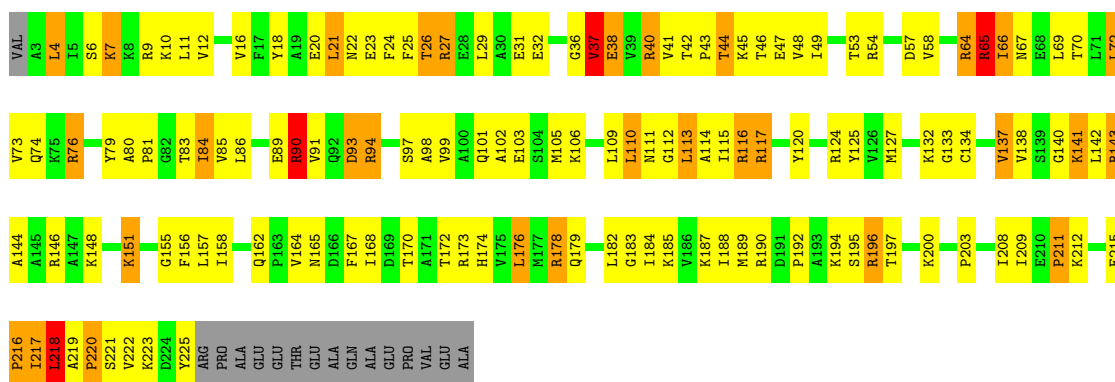
• Molecule 4: 40S ribosomal protein S2

Chain s2: 63% 21% 14%



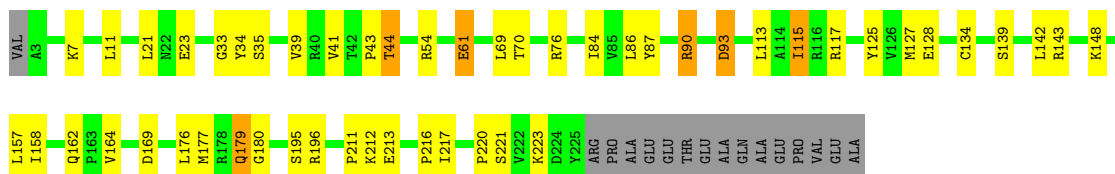
• Molecule 5: 40S ribosomal protein S3

Chain S3: 36% 44% 13% 7%



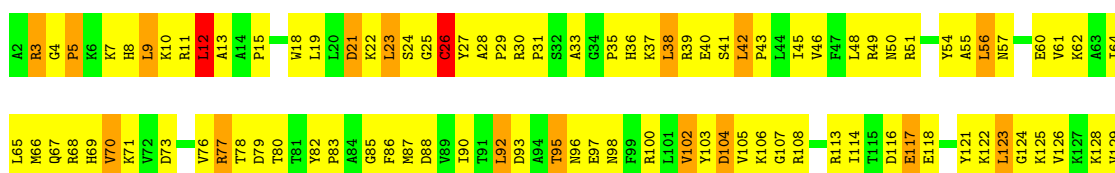
• Molecule 5: 40S ribosomal protein S3

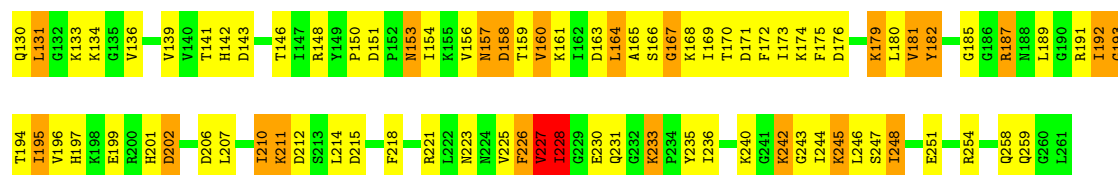
Chain s3: 72% 19% 7%

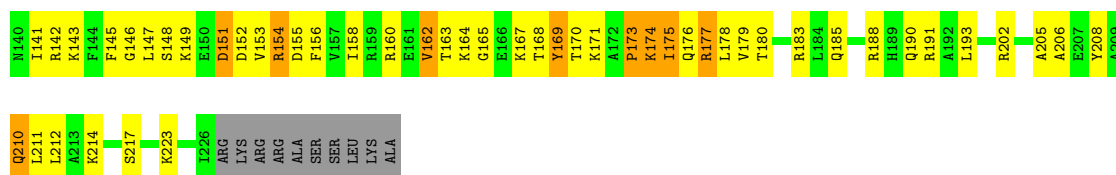


• Molecule 6: 40S ribosomal protein S4-A

Chain S4: 32% 52% 15%

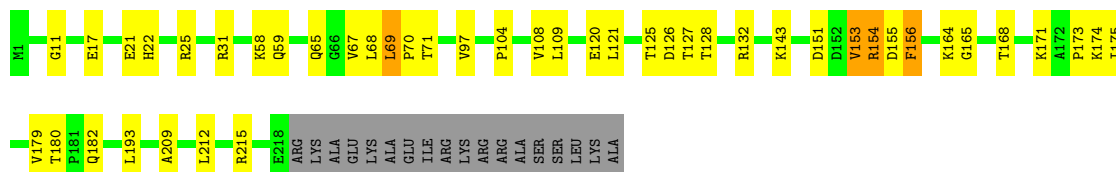






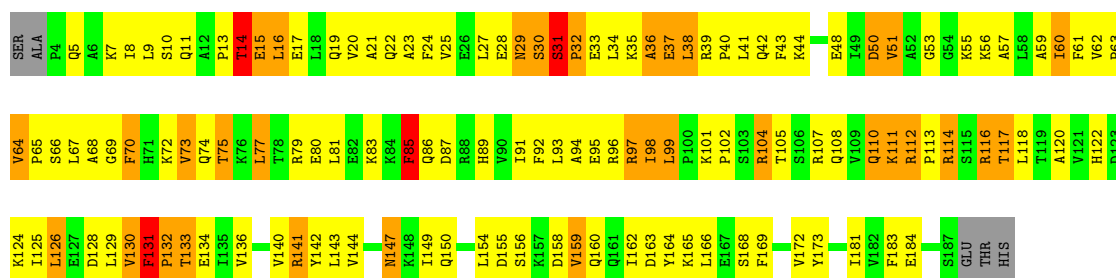
• Molecule 8: 40S ribosomal protein S6-A

Chain s6: 73% 17% 8%



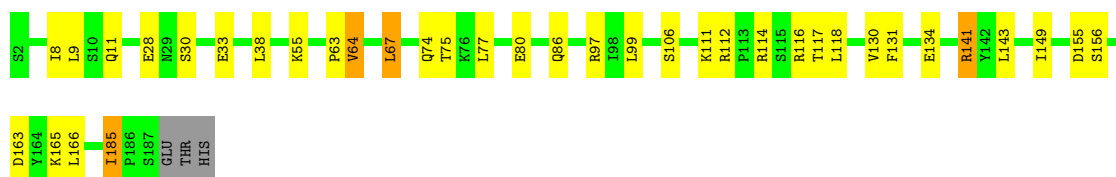
• Molecule 9: 40S ribosomal protein S7-A

Chain S7: 29% 49% 17%



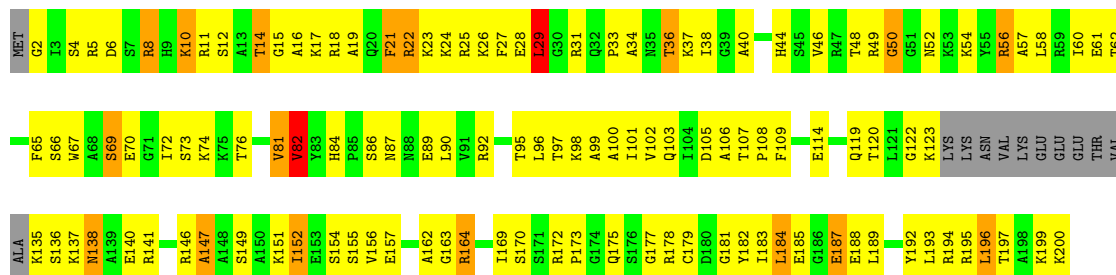
• Molecule 9: 40S ribosomal protein S7-A

Chain s7: 79% 17% 4%

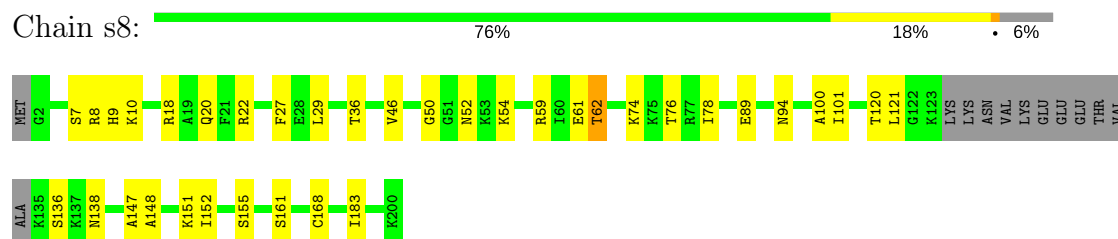


• Molecule 10: 40S ribosomal protein S8-A

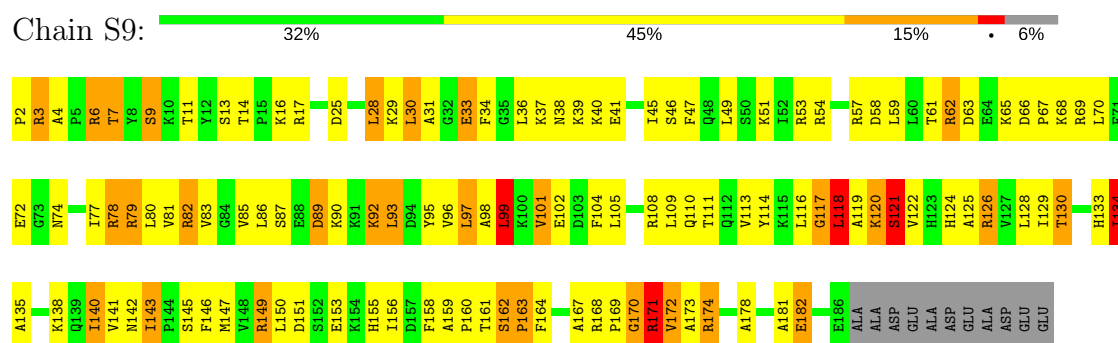
Chain S8: 34% 51% 9% 6%



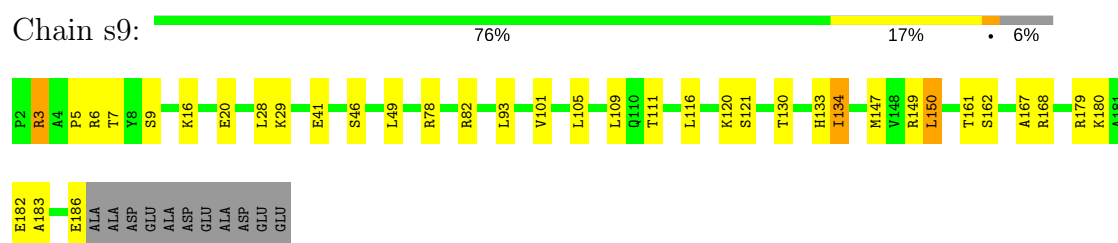
- Molecule 10: 40S ribosomal protein S8-A



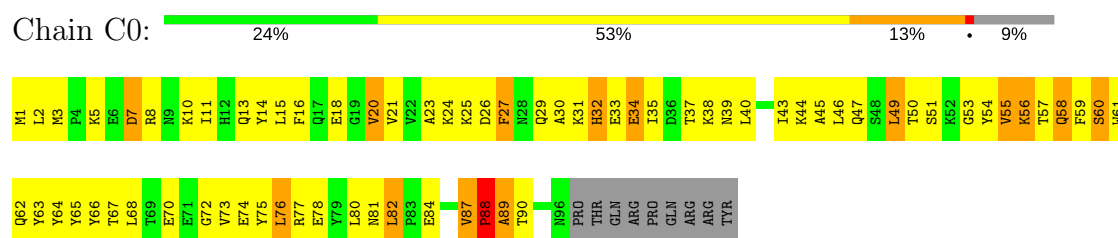
- Molecule 11: 40S ribosomal protein S9-A



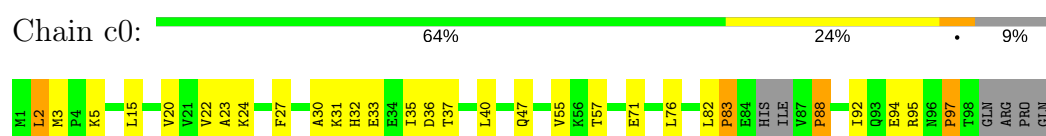
- Molecule 11: 40S ribosomal protein S9-A



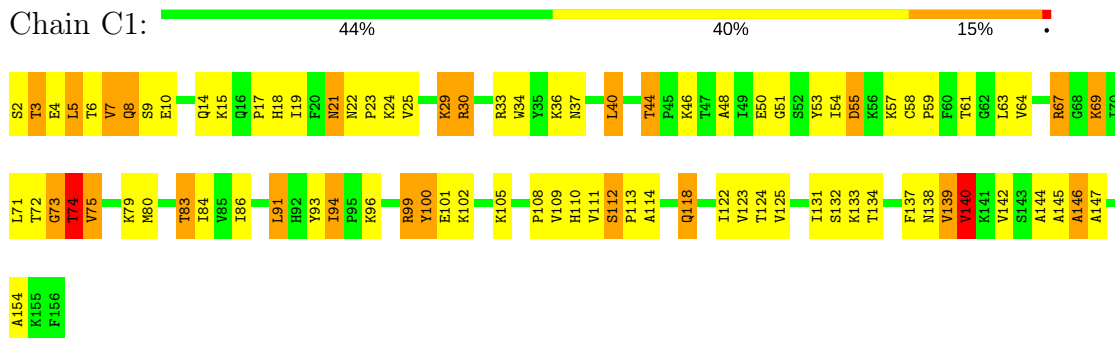
- Molecule 12: 40S ribosomal protein S10-A



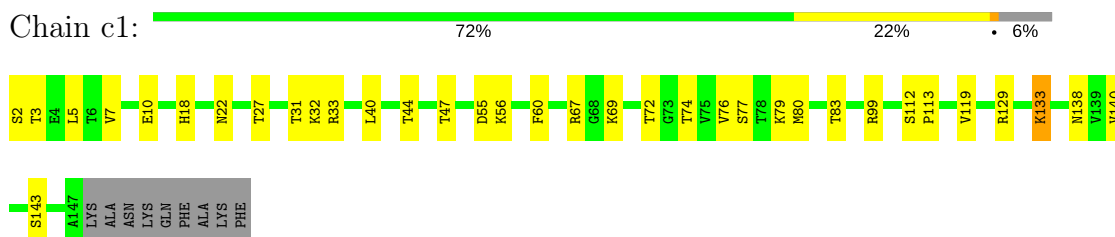
- Molecule 12: 40S ribosomal protein S10-A



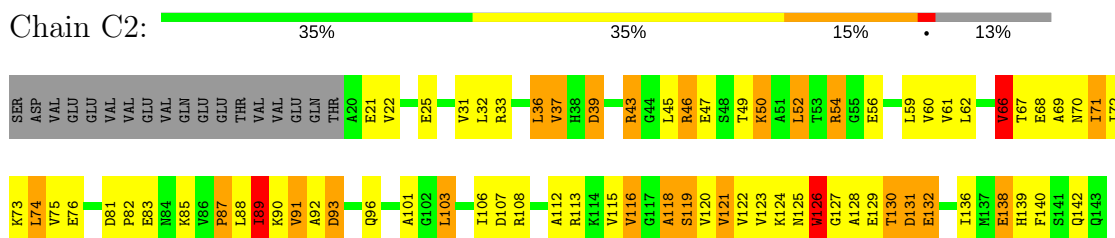
- Molecule 13: 40S ribosomal protein S11-A



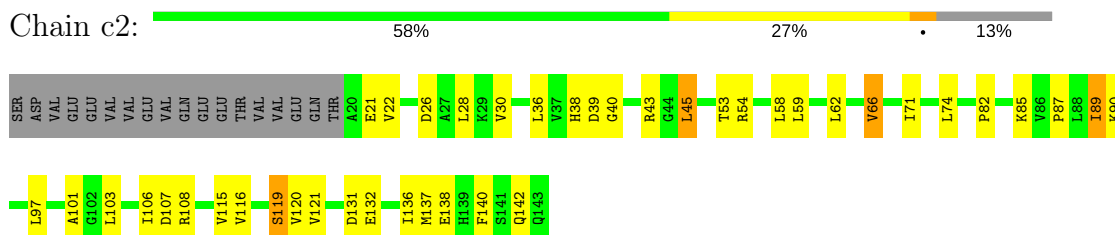
- Molecule 13: 40S ribosomal protein S11-A



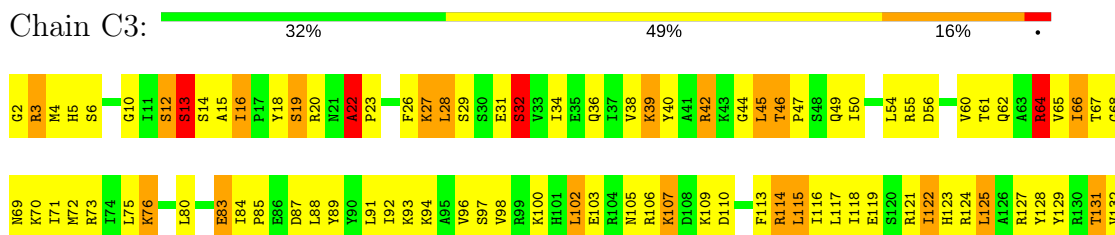
- Molecule 14: 40S ribosomal protein S12

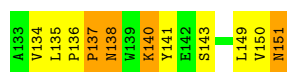


- Molecule 14: 40S ribosomal protein S12



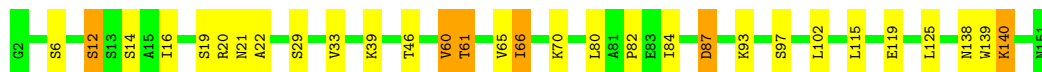
- Molecule 15: 40S ribosomal protein S13





- Molecule 15: 40S ribosomal protein S13

Chain c3: 80% 16%



- Molecule 16: 40S ribosomal protein S14-A

Chain C4: 32% 40% 16% 7%



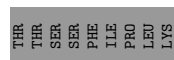
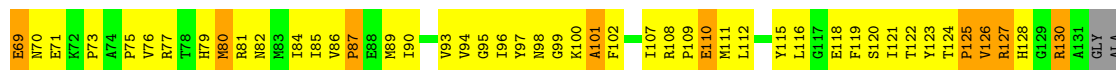
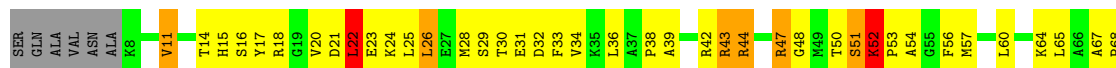
- Molecule 16: 40S ribosomal protein S14-A

Chain c4: 76% 15% 6%



- Molecule 17: 40S ribosomal protein S15

Chain C5: 26% 50% 11% 12%



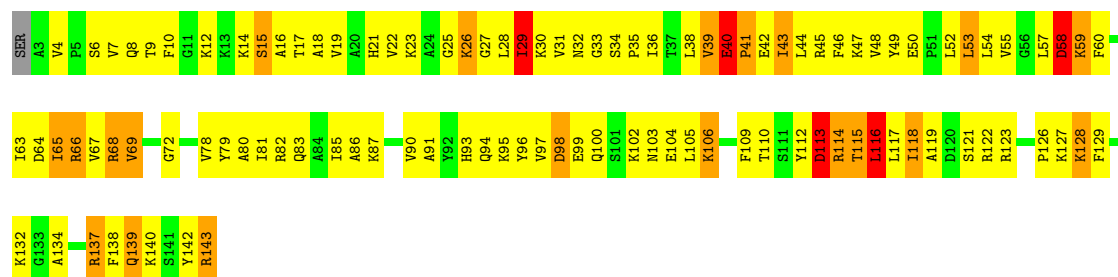
- Molecule 17: 40S ribosomal protein S15

Chain c5: 73% 21% 6%



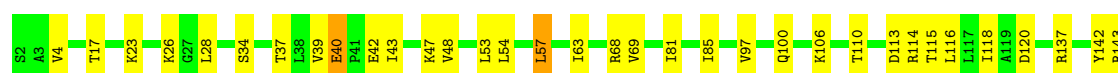
- Molecule 18: 40S ribosomal protein S16-A

Chain C6:  25% 57% 14% 4%



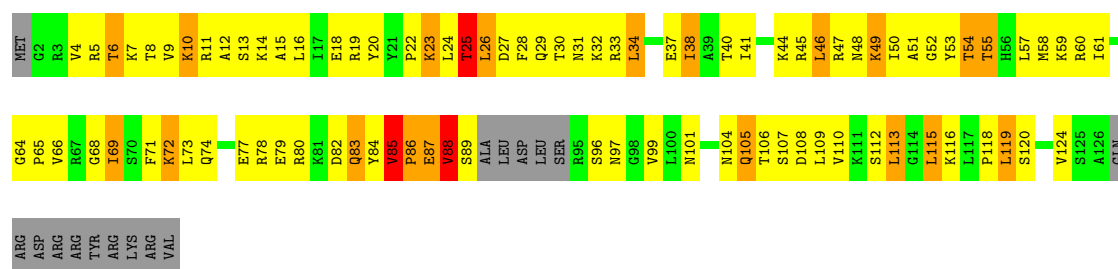
- Molecule 18: 40S ribosomal protein S16-A

Chain c6:  76% 23%



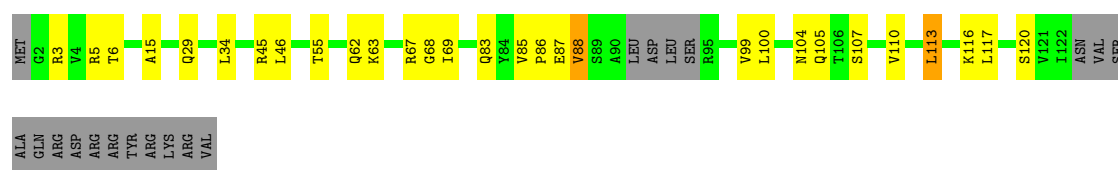
- Molecule 19: 40S ribosomal protein S17-A

Chain C7:  22% 50% 14% • 12%



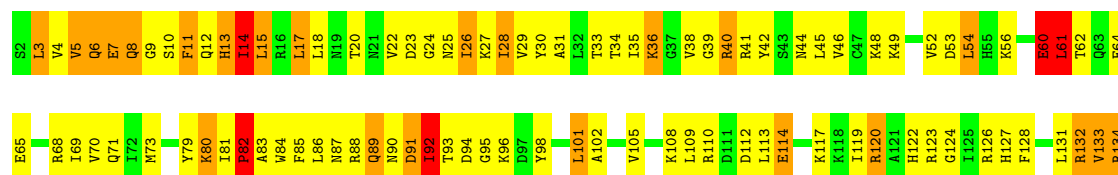
- Molecule 19: 40S ribosomal protein S17-A

Chain c7:  65% 20% • 14%



- Molecule 20: 40S ribosomal protein S18-A

Chain C8:  27% 50% 19% .

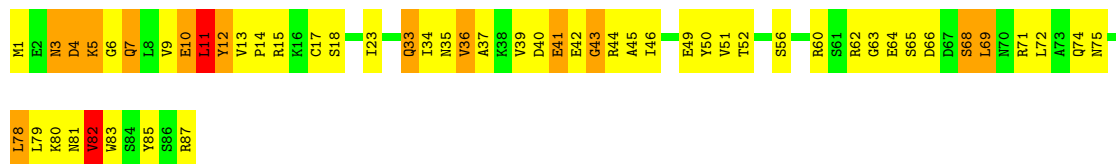






- Molecule 23: 40S ribosomal protein S21-A

Chain D1: 38% 45% 15% •



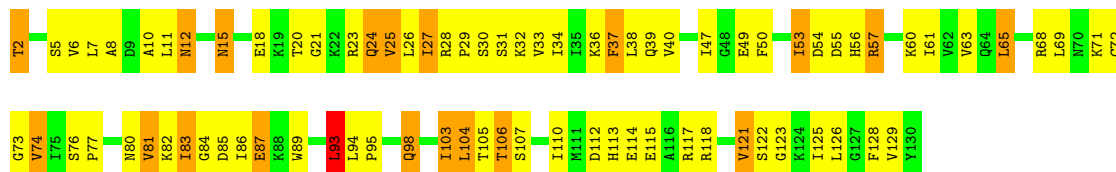
- Molecule 23: 40S ribosomal protein S21-A

Chain d1: 74% 23% •



- Molecule 24: 40S ribosomal protein S22-A

Chain D2: 37% 47% 15% •



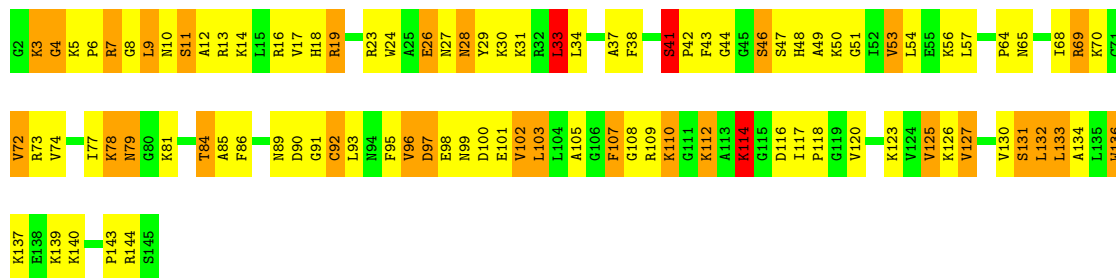
- Molecule 24: 40S ribosomal protein S22-A

Chain d2: 88% 11% •



- Molecule 25: 40S ribosomal protein S23-A

Chain D3: 33% 45% 20% •



- Molecule 25: 40S ribosomal protein S23-A

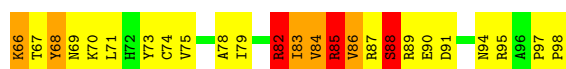
- Molecule 26: 40S ribosomal protein S24-A

- Molecule 26: 40S ribosomal protein S24-A

- Molecule 27: 40S ribosomal protein S25-A

- Molecule 27: 40S ribosomal protein S25-A

- Molecule 28: 40S ribosomal protein S26-B



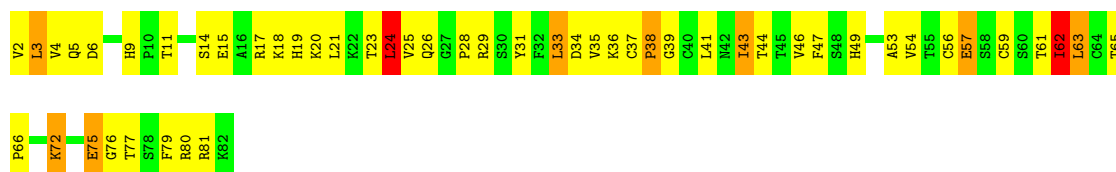
- Molecule 28: 40S ribosomal protein S26-B

Chain d6: 82% 16% .



- Molecule 29: 40S ribosomal protein S27-A

Chain D7: 37% 51% 10% .



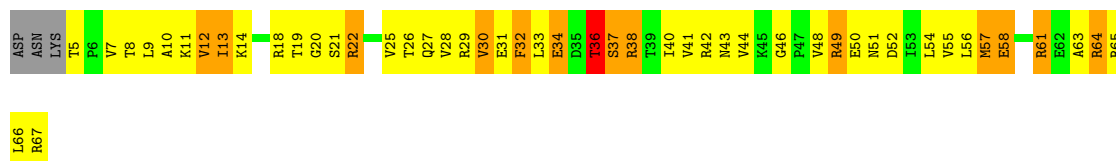
- Molecule 29: 40S ribosomal protein S27-A

Chain d7: 83% 16% .



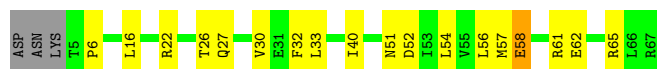
- Molecule 30: 40S ribosomal protein S28-A

Chain D8: 21% 53% 20% 5% .



- Molecule 30: 40S ribosomal protein S28-A

Chain d8: 68% 26% 5% .



- Molecule 31: 40S ribosomal protein S29-A

Chain D9: 25% 55% 15% . .



- Molecule 31: 40S ribosomal protein S29-A

Chain d9:  69% 24%

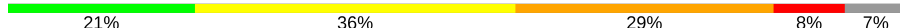


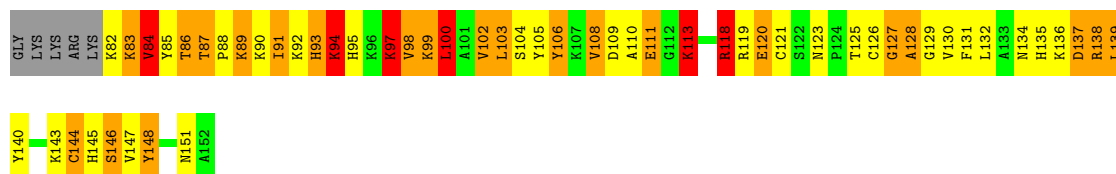
- Molecule 32: 40S ribosomal protein S30-A

Chain E0:  40% 52% 7%



- Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain E1:  21% 36% 29% 8% 7%



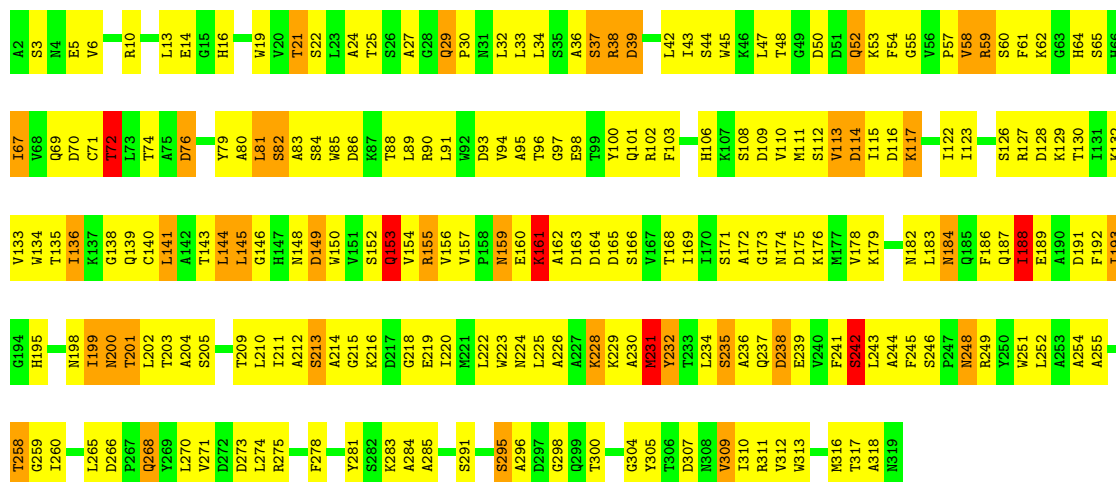
- Molecule 33: Ubiquitin-40S ribosomal protein S31

Chain e1:  57% 38%



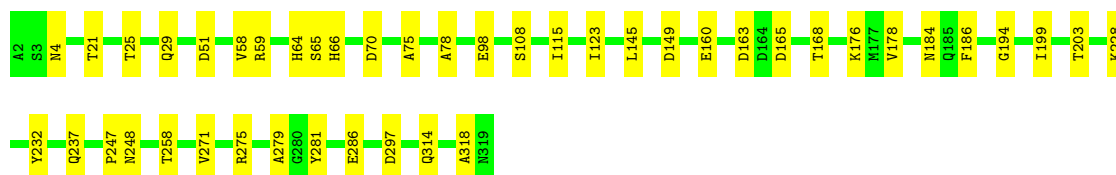
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

Chain SR:  31% 55% 12%



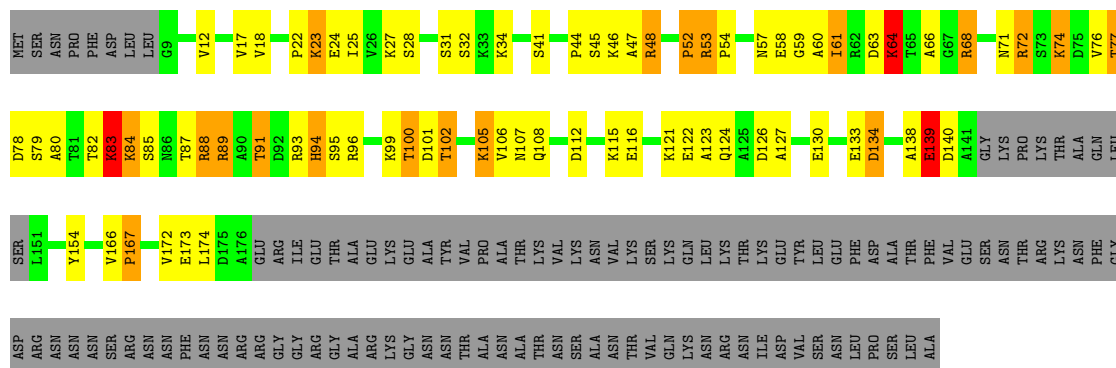
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

Chain sR:  86% 14%



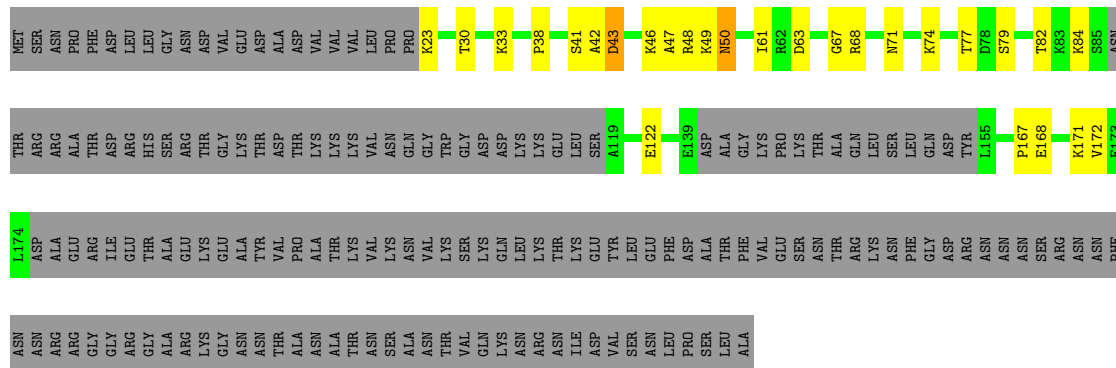
### • Molecule 35: Suppressor protein STM1

Chain SM: 29% 21% 7% 42%



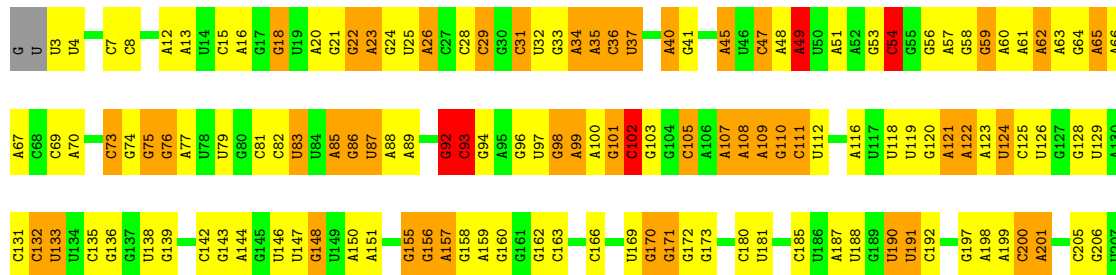
### • Molecule 35: Suppressor protein STM1

Chain sM: 28% 9% 62%



### • Molecule 36: 25S ribosomal RNA

Chain 1: 26% 41% 22% 7%





U2336	G2272	G2206	A2139	C	U1955	U1877	A1806	G1733	G1668	G1591	G1527			C1397	A1332
C2337	G2273	A2207	U2140	G	A	G1876	G1807	G1734	U1659	G1592	G1528	A1461		U1398	C1333
C2338	U2274	A2208	U2141	U	G	U1879	G1808	G1735	G1660	A1529				U1399	U1334
C2339	A2275	U2209	A2142	C	U	U1880	A1809		G1661	A1593	G1466			G1400	C1335
U2340	G2276	G2210	G2143	C	G	A1881	A1810	U1739	C1662	C1531	A1467			C1401	U1336
A2341	G2277	U2211	A2144	U	G	U1882	A1883	U1740	C1663	C1595	U1532			C1402	
U2342	G2278	C2212	A2145	G	C	A1883		A1741		U1597	U1533	C1463		C1403	C1339
C2343	A2279	A2213	A2146	G	G	U1884	A1815	U1742	A1667	A1534	U1470			G1404	G1340
U2344	U2280	A2214	A2147	C	C	A1886	A1817	G1743	U1668	A1535	U1471			U1405	
A2345	G2281	C2215	A2148	G	C		A1818	G1744	C1669	U1536	U1472			A1406	A1343
C2346	U2282	U2149	U2149	U	G	A1891	U1819	G1745	C1670	A1603	A1474			G1407	G1344
	G2283	C2216	G2150	A	U	U1894	U1820	G1746	G1674	G1603	A1475			G1408	G1345
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A2352	C2285	A2219	A2152	C	G	A1898	A1822	G1748	A1676	U1607				C1411	U1347
U2353	U2286	A2220	U2153	U	G	U1899	A1823	G1749	G1677	U1608	U1540			U1348	U1349
G2354	G2287	G2221	U2154	A	C	A1900	U1824	A1750	A1681	G1543				G1412	G1349
C2355	U2288	U2222	G2155	U	C	U1901	U1827	G1751	G1680	C1608	U1544			G1413	U1350
A2356	G2289	A2223	C2156	U	A	G1902		A1752	U1682	C1609	A1545			U1414	U1351
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A2358		U2225	A2158	C	A	U1904			U1683	A1611	U1547			G1416	U1353
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A2361	A2295	U2227	U2162	U	C	C1907			U1686	C1614				A1419	U1356
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	A2297	A2232	A2165	C	C	U1909			U1688	U1616				G1421	
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C2373	U2307	A2242	G2177	C	C	U1919			U1702	U1627	A1498			G1431	G1371
G2374	C2308	C2243	A2178	U	U					C1628	C1499			C1432	C1372
C2375	A2309	A2244	G2179	C	G	U1920			G1706	U1629	A1500			A1433	G1373
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C2377	G2311	G2246	C2181	C	G	U1922			C1708	C1631	C1502			A1435	G1375
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U2380	U2314	G2249	G2185	G	C	U1931			G1711	G1634	C1505			U1438	G1378
	G2315	G2250	G2185	G	G	A1932			G1712	U1635	A1506			G1379	G1379
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A2384	A2317	U2254	A2188	A	U	G1934				A1637	C1508			G1441	A1381
G2385	U2318	A2255	U2189	G	U	U1935			U1716	C1638	A1509			U1442	G1382
C2389	U2319	A2256	U2190	G	U	G1940			U1717	A1639	G1575			G1443	G1383
A2390	A2320	C2257	U2191	U	C	C1941			G1718	U1642	G1577			U1444	U1384
C2391		U2258	C2192	G	G	U1942			G1719	A1643	C1579			U1445	C1385
C2392	A2324	A2259	U2193	C	U	U1943			U1720	G1643	A1580			A1446	A1386
G2393	G2325	U2260	C2194	U	G	C1943			G1721	G1644	U1518			G1447	G1387
U2394	A2326	G2261	C2195	C	G	A1946			U1722	U1645	G1519			U1448	U1388
G2395		A2262	U2196	U	G	U1947			A1723	G1646	C1582			G1450	A1389
C2396	C2329	C2263	C2197	U	G	U1948			U1724		A1583			C1391	C1390
A2397	U2330	U2264	U2198	G	C	G1949			U1725	G1650	U1522			A1451	G1392
	C2331		U2200	U	U	U1950			C1726		U1523			A1452	A1393
G2400	A2332	C2267	G2201	A	U	C1951				A1654	A1587			A1453	A1394
A2401	U2333	U2268	C2202	G	C	G1952			A1731	G1655	A1588			A1454	A1395
U2402	U2334	U2269	U2137	A	G	G1953				A1656	U1589			U1455	U1396
G2403	G2335		U2205	C	U	U1954			U1732	G1657	G1590			A1456	C1396

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A3209	C3278	A3279	C3212	U3281	U3282	U3283	G3284	G3285	G3286	U3287	G3288	G3289	G3290	G3291	G3292	U3293	U3294	U3295	U3296	U3297	C3298	U3303	U3304	A3305	U3306	U3307	U3308	U3309	U3310	U3311	U3312	U3313	U3316	U3317	U3318	U3319	U3320	U3321	U3322	U3323	U3324	U3327	U3328	U3329	U3330	U3331	U3332	U3333	U3334	U3335	U3336	U3337	U3338	U3341	U3342	U3343	U3344	U3345	U3346	U3347	U3348	U3349	U3350	U3351	U3352	U3353	U3354	U3355	U3356	U3357	U3358	U3359	U3360	U3361	U3362	U3363	U3366	U3367	U3368	U3369	U3376	U3377	U3378	U3382	U3383	U3384	U3385	U3389	U3392	U3393	U3394	U3395	U3396																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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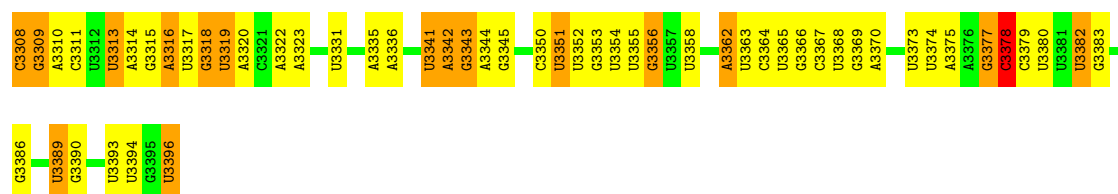
• Molecule 36: 25S ribosomal RNA

Chain 5:  27% 41% 20% 7%

U1088	G1017	U954	U982	C818	A744	G680	G617	C546	C	U414	C346	U275	C135	A65	G
G1089	G1018	U955	C893	U819	A747	U681	C618	G547	U	G415	G547	U276	G136	A66	U
G1090	G1019	U956	C894	A820	U748	U682	C619	G548	C	A416	A348	G277	G137	A71	U3
	G1021	C957	A895	U821	U749	U683	A619	U549	G	A417	A349	U278	C138	C72	C8
A1093		C958	A896	G823	G749	G684	U620	A550	C	A418	C350	U279	G139	G73	C7
U1094	G1024	C959	U897	G824	G750	G685	A621	A551	A	G419	A351	U280		G74	U9
U1095	A1025	U960	U898	U825	A751	G686	A622		U	G420	A352	G281	C142	G75	
U1096	A1026	G963	G900	G826	C752	U887	U623	U555	U	G421	G353	G282		G76	A13
G1097	A1027	G964	U903		C753	G688		U556	U	G422	U354	G283	G148	A77	U14
A1098	U1028	A965	U904	G831	U756	U689	U629	U557	A	A423	A355	U217	A150		C15
U1099	G1029	A966	U905	G832	C757	A691	A630	U558		G424	C356	U218	A151	C81	A16
G1101		A967	U906	G833	C758	U692	U631	A559	A	G425	A357	U219	A152	G82	G17
A1102	U1033	G968	A906	G834	U764	A693	C632	C561		G426	G358	G220	U153	U83	G18
A1103	U1034	C969	G907	U834	C765	C894	C633	C562		G427	U359	G221	U154	U84	U19
G1104	U1035	A970	U908	G835	U766	C895	C634	C563	U	A428	A361	G222	G155	A85	A20
A1105	G1036	G971	U909	A836	U767	C896	C635	G564				G223	G156	G86	
G1106	U1037	A972	U910	A837	U768	A697	C636	U565		A436	G364	A295	A157		G22
G1107	C1038	G973	U911	G838	C769	U698	C637	G566		G437	A365	A296		A89	A23
U1108		G974	U912	C839	U770	A699	C638	G567		A438	A366	G297	G160	C90	G24
U1109	U1039		A913	C840	G771	C500	G639	G568		A439	A367	U298	G161	G91	U25
U1110	A1040	U976	U914	A841	U772	U640	U640	A569		A440	G368	G299	G162	G92	A26
U1111	U1041	C977	A915		U773	C702	C641	A570		U441	A369	G300	G163	C93	C27
		G978	U916	A847	U774	G703	U642	U571		G443	U370	G301	A164	G94	C28
U1112	G1045	U979	A917	A848	U775	U704	U643			U	G371	U302	A165	A95	C29
G1113	A1046	A980	C918	C849	U776	A705	G644	U574		G	A372	A235	C166	G96	G30
U1114	A1047	U981	U919		U777	A706	A645	G575		U	A373	G304	U167	U97	C31
G1115	U1048	C982	U920	G856	U778	U707	A646	G576		U	A374	A238	U168	G98	U32
G1116	C1049	A983	A921	G857	U779	G708	A647	C577		U	A375	G239	U169	A99	G33
G1117		G984	U922	A858	U780	A709	C648	A578		U	A376	U240	G170	G102	A34
G1118	U1052	U985	C923	G859	U781	A710	C649	G579		U	A377	G241	G171	G103	A35
G1119	A1053	U986	C924	G860	U782	A711	C650			G	A378	C242	G172	G104	C36
A1120	U1054		A925	C861	U783	G712	G651	A585		U	A379	G243	G173	G105	U37
U1121	A1055	A989	U926	G862	U784	U713	G652	C586		C	U380	G244	C174	C105	U38
U1122	U1056	U990	C927	C863	U785	G714	A653	C587		C	U381	U245	C175	A39	
U1123		G991	C928	G864	U786	A715	C654	G588		C	U382	U246	G176	A109	A40
U1124	U1060	A992	A929	U865	U787	A716	C655	A589		C	U383	G247	U177	G41	G41
U1125	A1061	G993	U930		U788	C717	A656	G590		C		U248	U178	G42	G42
G1126	U1062	G994	C931	G869	U789	G718	A657	G591		U	A391	U249	C179	C111	A43
G1127	G1063	U995	U932	G870	U790	U719	G658	A592		G	G392	U250	C180	U112	A44
U1128	A1064	A996	U934	U871	A791	A720	U659	C593		U	U401	G251	U181	A114	A45
A1129	U1065	A997	U935	U872	G792	A721	A660	U594		C	U393	G252	U186	U46	U46
G1130	G1066	A998	U936	C873	G793	U794	G661	G595		C	A394	A253	A186	C47	C47
A1131		G999	A937	U874	U794	G725	U662	C596		C	A395	A254	A187	U48	A48
G1132	C1069	C1000	C938	G875	U796	G727	C663			U	A397	A255	U188	U117	U49
A1133	U1070	G1001	U939	A876		G728	U664	C599		G	A398	G256	G189	U118	A50
G1134	U1071	A1002	U940	C877	G800	C729	A665	G600		U	A399		U190	U119	U50
A1135	G1072	A1003	U941	U878	A801	U730	A666	U601		G	G400	A334	U191	G120	A51
A1136	U1073	U1004	U942	U879	C802	U731	C667	A602		U	U401	G335	U192	G121	G58
C1137	U1074	G1005	U943	G880	C803	C732	G668	A603		G	A402	A336	C192	A122	G59
	A1075	A1006	C944	C881	C804	G733	U669	G604		G	G403	G337	C193	A123	C54
G1142			C945	A882	G805	C734	C670	U605		U	G404		G196	U126	G55
A1143	U1078	A1009	U946	A883	A806	A735	U671	C533		G	U405	A338	G197	G127	G56
U1144	A1079	G1010	U947	A884	A807	A736	A672	U534		A	G406	C339	A198	G128	A57
G1145	A1080	A1011	C948			G737	U673	U535		G	A407	G340	A199	U129	G58
C1146	U1081	G1012	C949	G887	U811			G538		G	A408	G341	C200	A130	G59
G1147	U1082	G1013	G950	A888		G740		C610		G	A409	A342	A201	G131	A61
G1148	G1083	U1014	A951	U889	G815	U741	A677	G610		G	U410	U343	G271	C132	A62
G1149	A1084	A1015	A952	C890	A816	G742	G678	A611		A	U411	A344	A204	U133	A63
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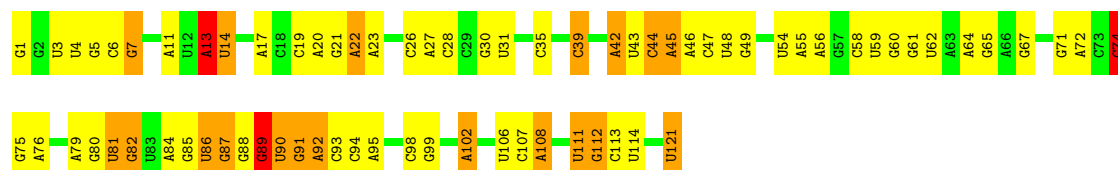


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G3239	A3172	A3106	A3035	A2910	U2781	U2719	U2652	G2584	G2517	A	G2389	G3233	A2254
G3240	G3173	U3107	U3038	A2911	G2850	G2720	U2653	G2585	C2390	G	A2390	A2255	A2255
G3241	A3174	U3107	G2912	C2912	U2782	A2721	C2654	G2586	A2519	A	A2391	A2326	A2256
G3242	U3175	U3074	C2913	C2913	U2783	U2722	G2655	U2587	A2520	A	C2392	U2327	C2257
A3243	G3176	G3112	A3040	G2914	U2783	U2723	U2656	U2588	U2521	U	G2393	U2258	U2258
A3244	G3177	A3113	U3041	U2915	G2786	U2724	A2656	G2589	G2522	A	C2394	C2330	G2261
A3245	A3178	A3114	U3042	U2916	G2787	U2725	A2657	U2590	A2523	A	G2395	G2333	A2262
G3246	U3179	G3115	C3043	G2917	U2787	C2726	G2658	A2591	A2524	G	A2396	C2334	A2263
G3247	A3180	G3116	G3044	G2918	A2790	A2727	G2659	G2592	G2525	U	A2397	U2334	U2264
G3248	C3181	G3117	G3045	U2919	G2791	U2728	G2660	A2593	G2526	G	A2398	U2335	U2265
G3249	G3182	U3119	A3046	A2920	A2792	U2729	G2661	C2594	G2527	G	A2399	U2336	G2265
G3250	A3183	C3120	U3047	U2921	G2793	G2730	C2664	A2595	G2528	G	G2400	G2337	U2266
G3251	A3184	U3121	A3048	G2922	G2794	U2731	U2665	U2596	A2529	A	A2401	C2338	G2267
G3252	U3185	A3122	C3049	U2923	U2795	G2732	U2666	U2597	G2530	G	A2402	C2339	A2270
G3253	A3186	A3123	U3050	G2924	G2796	A2733	C2667	G2598	G2531	C	G2403	U2340	A2271
G3254	A3187	G3124	U3051	C2925	G2797	A2734	C2668	U2599	U2532	U	A2404	A2341	G2272
G3255	A3188	U3125	G3052	U2926	G2798	U2735	C2669	C2600	G2533	C	A2405	U2342	G2273
G3256	A3189	G3126	G3053	C2927	A2799	A2736	A2671	G2601	G2534	U	C2406	G2343	U2274
G3257	C3190	A3128	U3054	U2928	G2800	U2737	A2672	G2605	G2535	G	C2407	U2344	U2275
G3258	G3191	G3129	U3055	C2929	A2801	A2738	A2673	G2606	A2536	G	U2408	G2345	G2276
G3259	U3192	A3130	U3056	A2930	G2802	A2739	A2674	G2607	U2537	C	G2409	G2346	C2277
G3260	C3193	C3132	U3057	C2931	G2803	A2740	G2677	G2608	U2538	C	U2410	U2349	C2278
G3261	A3194	G3133	U3058	U2932	G2804	A2741	C2678	G2609	A2539	C	U2411	C2350	A2279
G3262	U3195	A3134	G3059	A2933	G2805	C2742	A2680	G2610	A2540	C	G2412	U2351	A2280
G3263	U3196	U3135	C3060	A2934	C2806	G2743	U2681	U2611	U2541	A	G2413	A2352	A2281
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A3298	G3305	U3169	A3032		A2903	C2778	U2719				U2505		
A3299	G3306				U2904	C2779	U2720				U2506		
A3300	A3307				U2905	C2780	U2721				U2507		
A3301					U2906	C2781	U2722				U2508		
A3302					G2907	C2782	U2723				U2509		
A3303						C2783	U2724				U2510		
A3304						C2784	U2725				A2511		
A3305						C2785	U2726				U2512		
A3306						C2786	U2727						
A3307						C2787	U2728						



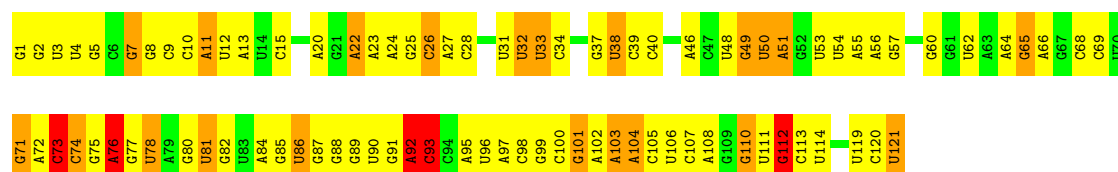
• Molecule 37: 5S ribosomal RNA

Chain 3: 40% 42% 16%



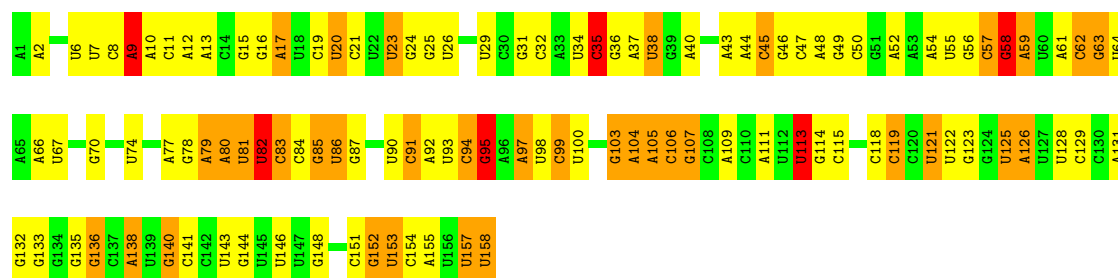
• Molecule 37: 5S ribosomal RNA

Chain 7: 26% 52% 17%



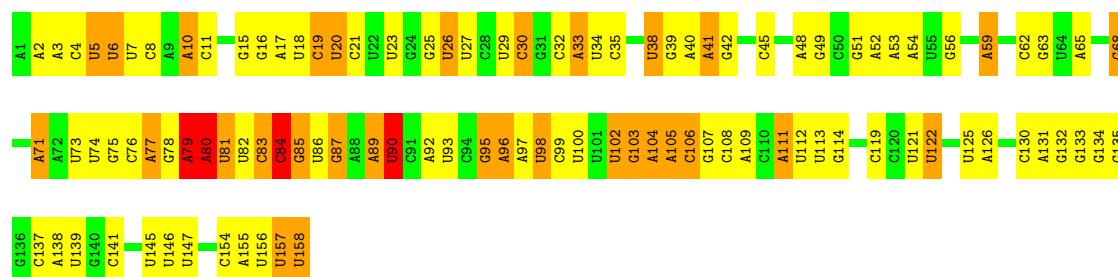
• Molecule 38: 5.8S ribosomal RNA

Chain 4: 30% 44% 22%

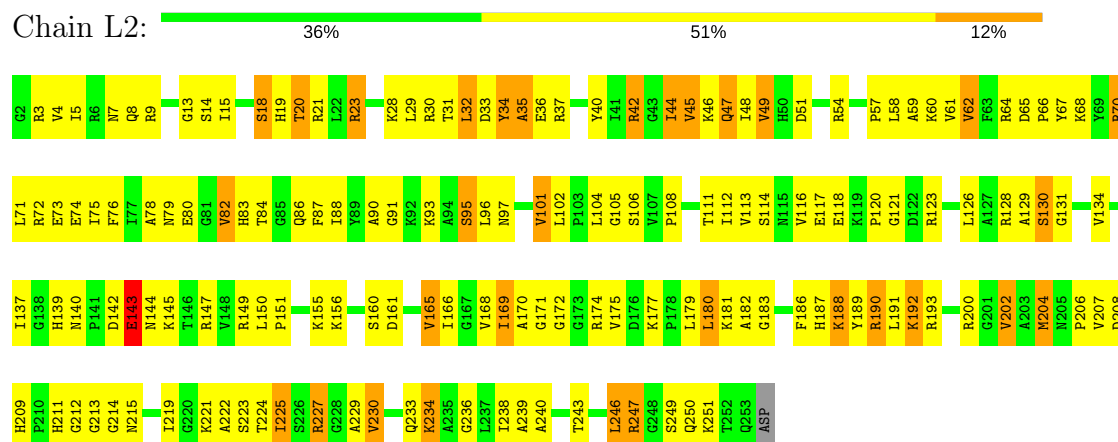


• Molecule 38: 5.8S ribosomal RNA

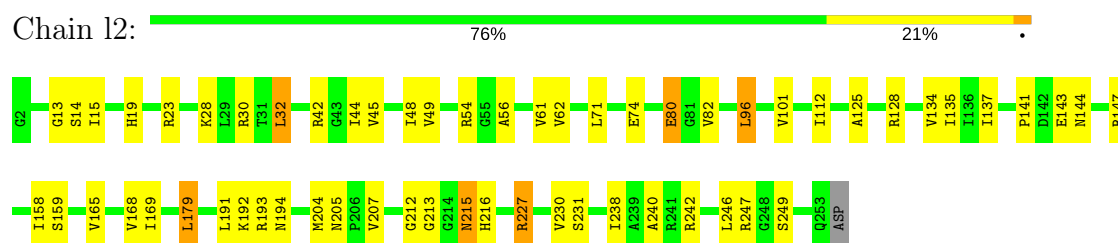
Chain 8: 34% 44% 20%



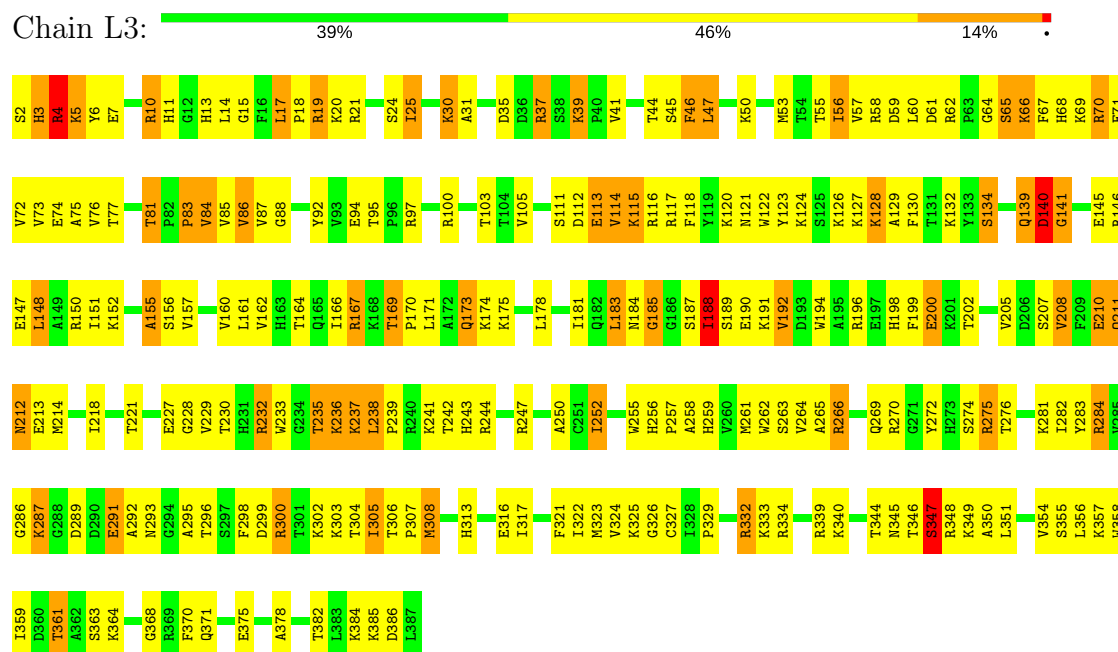
- Molecule 39: 60S ribosomal protein L2-A



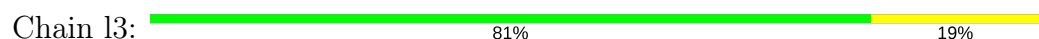
- Molecule 39: 60S ribosomal protein L2-A

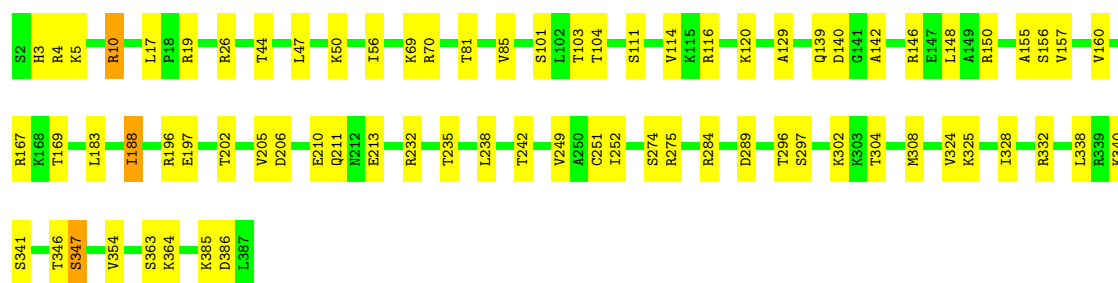


- Molecule 40: 60S ribosomal protein L3

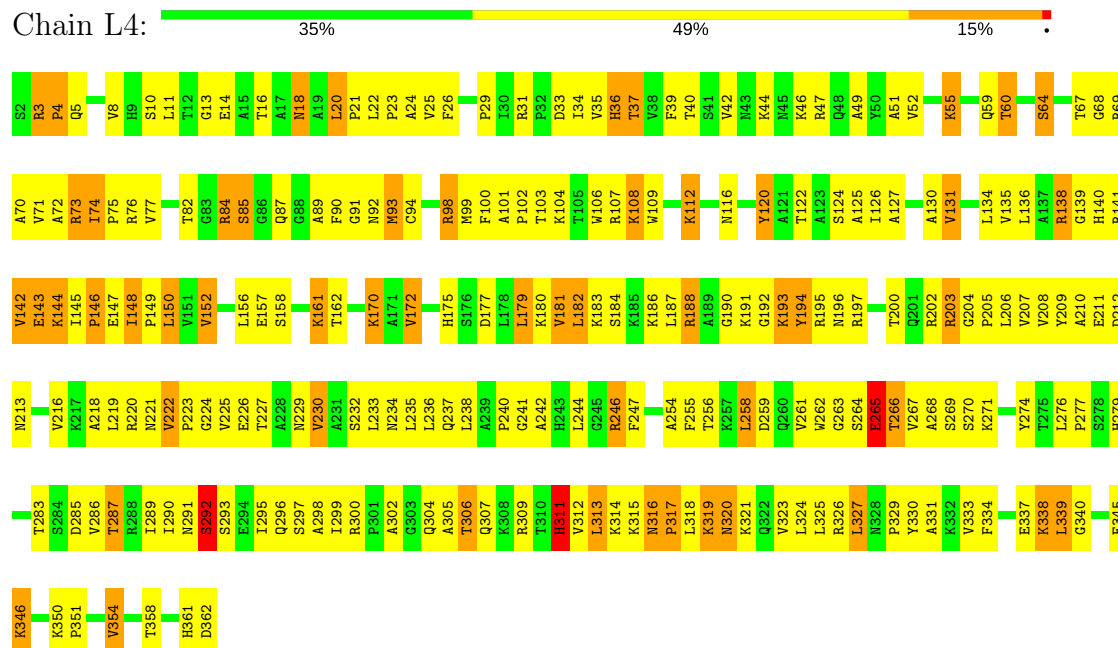


- Molecule 40: 60S ribosomal protein L3

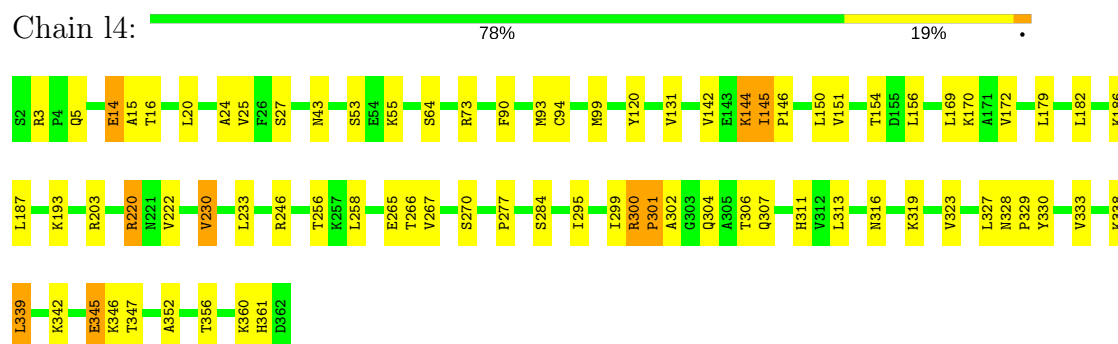




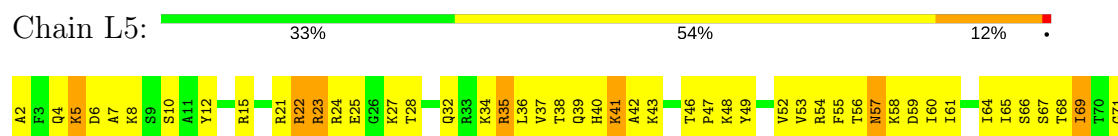
- Molecule 41: 60S ribosomal protein L4-A

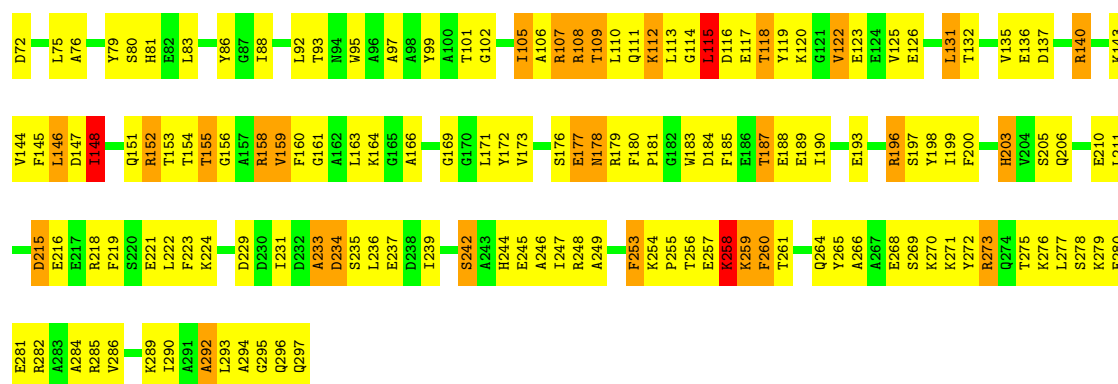


- Molecule 41: 60S ribosomal protein L4-A

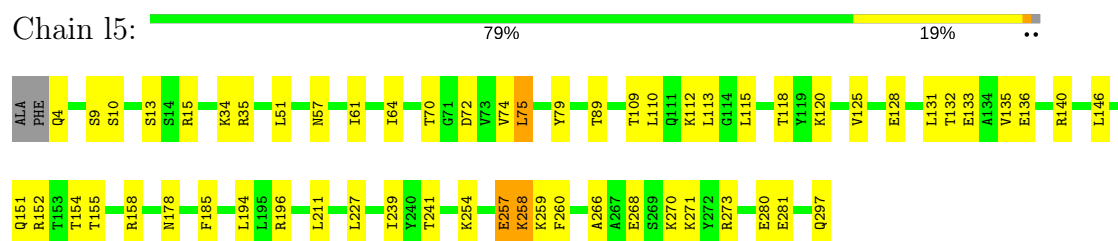


- Molecule 42: 60S ribosomal protein L5

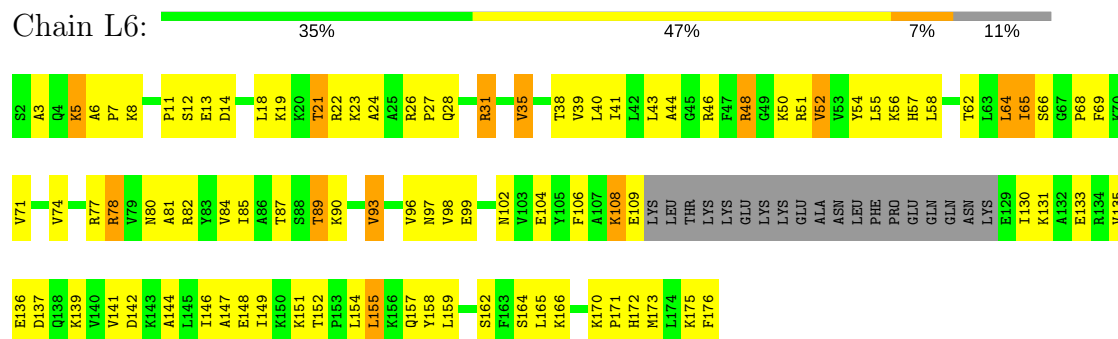




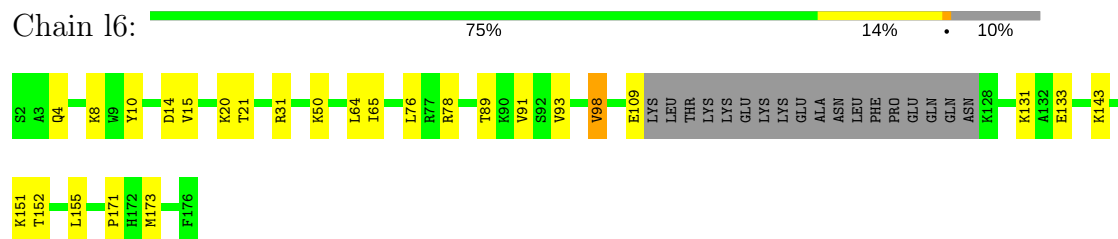
• Molecule 42: 60S ribosomal protein L5



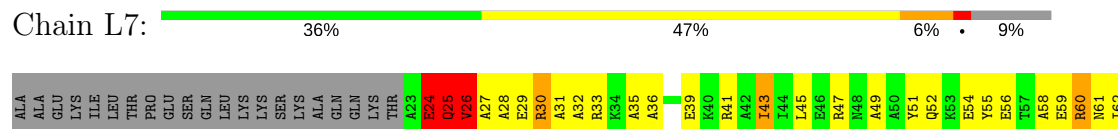
• Molecule 43: 60S ribosomal protein L6-A

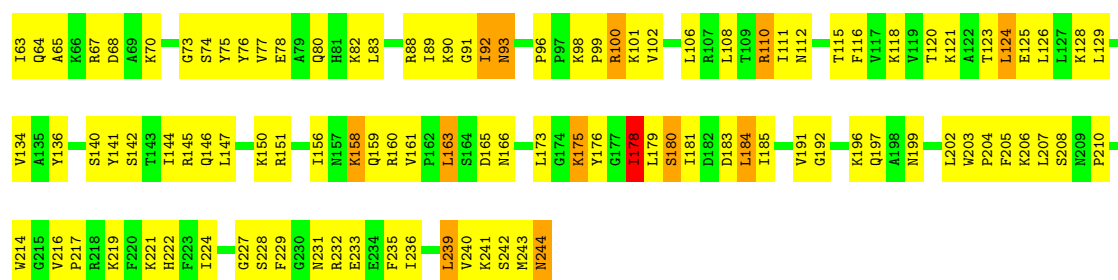


• Molecule 43: 60S ribosomal protein L6-A



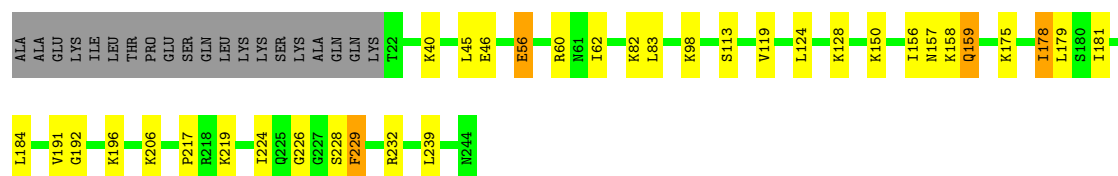
• Molecule 44: 60S ribosomal protein L7-A





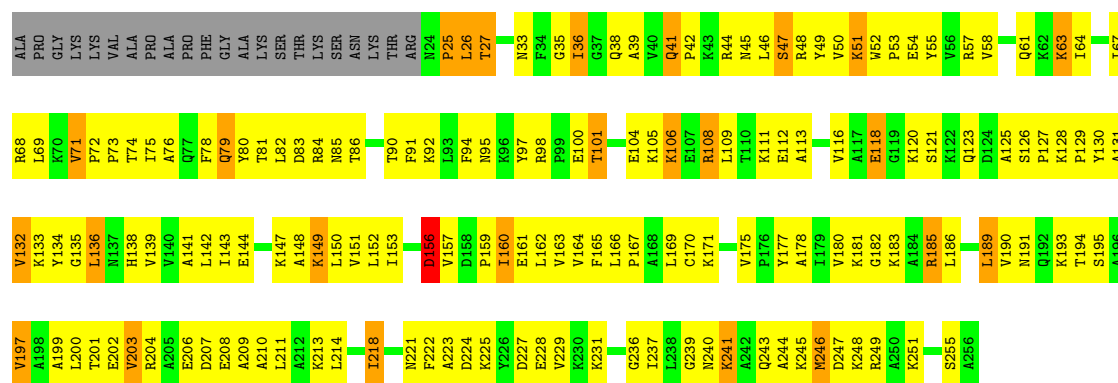
• Molecule 44: 60S ribosomal protein L7-A

Chain I7: 77% 13% 8%



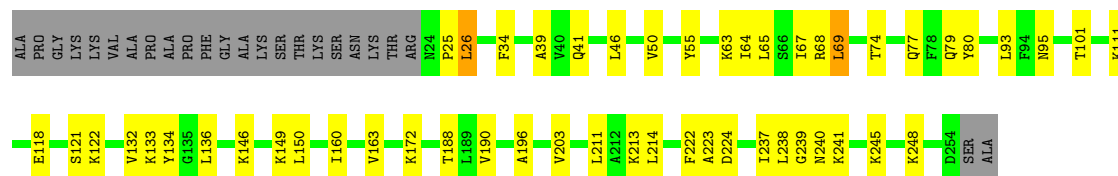
• Molecule 45: 60S ribosomal protein L8-A

Chain L8: 29% 53% 10% 9%



• Molecule 45: 60S ribosomal protein L8-A

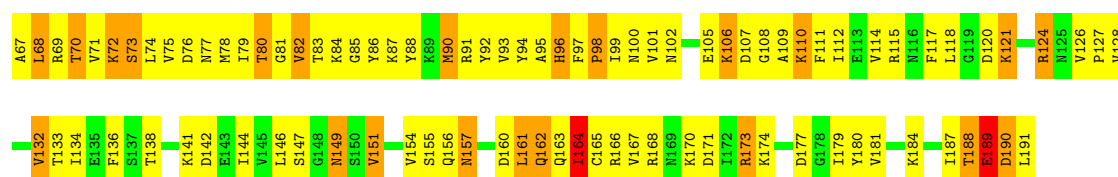
Chain I8: 70% 20% 9%



• Molecule 46: 60S ribosomal protein L9-A

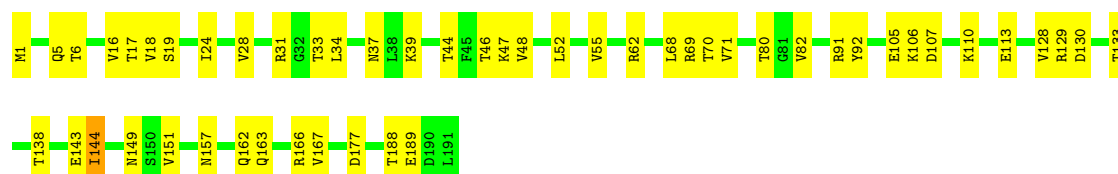
Chain L9: 28% 53% 17%





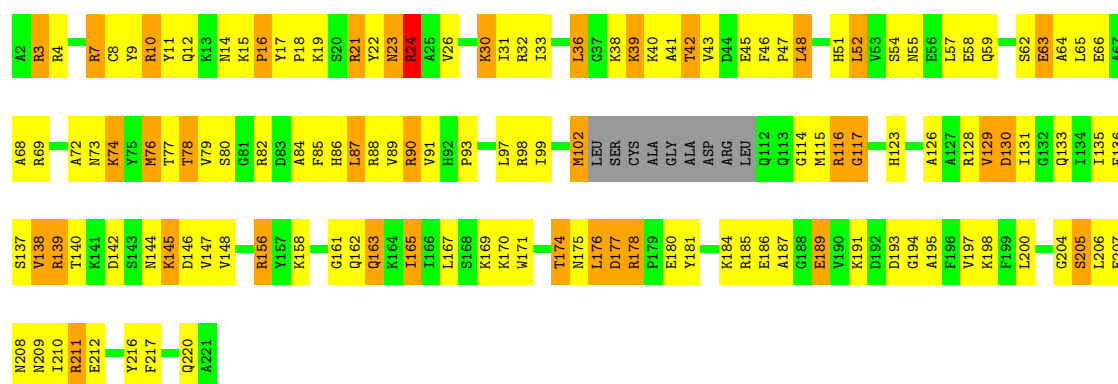
• Molecule 46: 60S ribosomal protein L9-A

Chain I9: 73% 26%



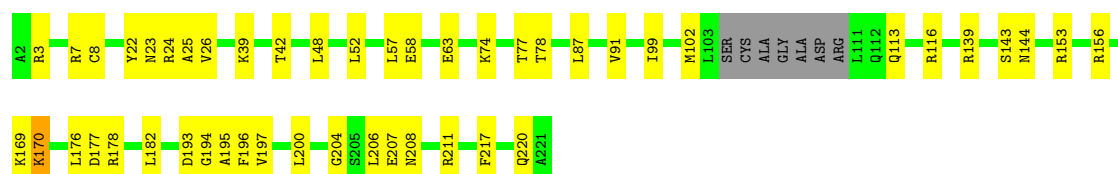
• Molecule 47: 60S ribosomal protein L10

Chain M0: 35% 44% 16%



• Molecule 47: 60S ribosomal protein L10

Chain m0: 75% 21%



• Molecule 48: 60S ribosomal protein L11-B

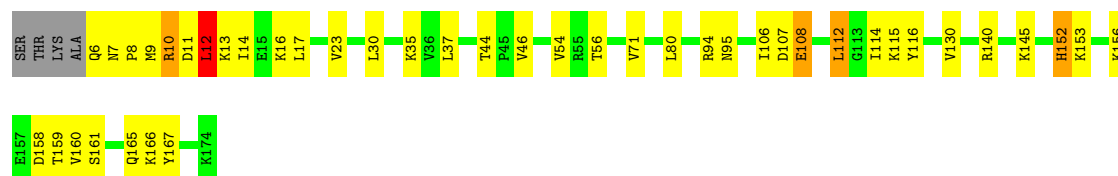
Chain M1: 31% 51% 12%





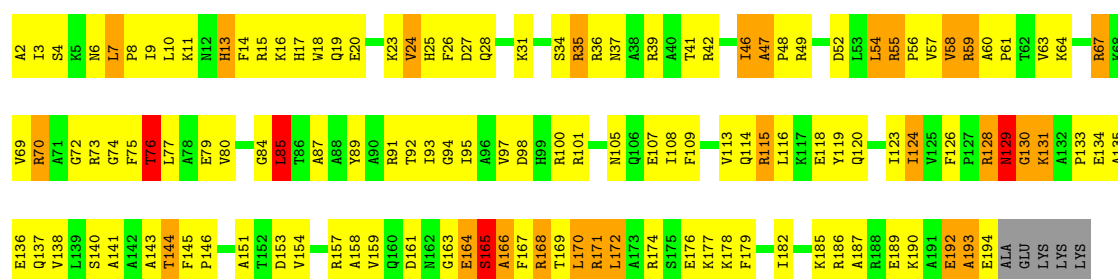
• Molecule 48: 60S ribosomal protein L11-B

Chain m1: 73% 22% ...



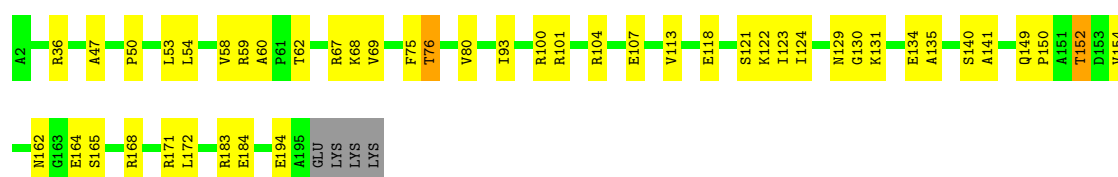
• Molecule 49: 60S ribosomal protein L13-A

Chain M3: 31% 51% 13% ..



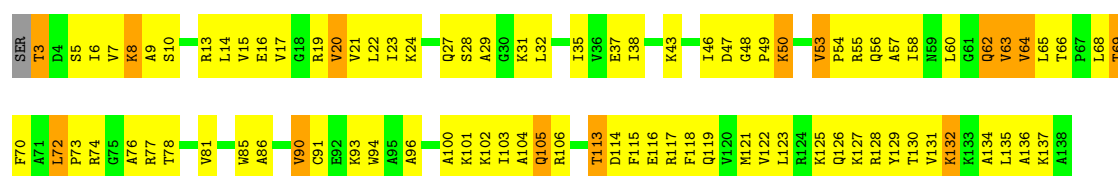
• Molecule 49: 60S ribosomal protein L13-A

Chain m3: 75% 22% ..



• Molecule 50: 60S ribosomal protein L14-A

Chain M4: 34% 55% 10% .



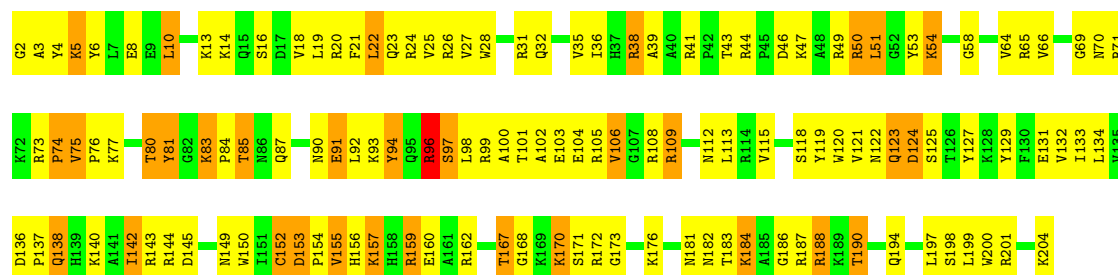
• Molecule 50: 60S ribosomal protein L14-A

Chain m4: 79% 20% .



• Molecule 51: 60S ribosomal protein L15-A

Chain M5: 35% 48% 16%



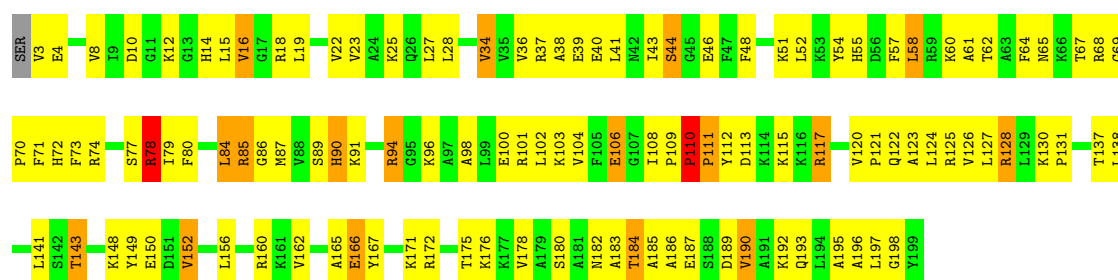
• Molecule 51: 60S ribosomal protein L15-A

Chain m5: 80% 18%



• Molecule 52: 60S ribosomal protein L16-A

Chain M6: 40% 50% 9%

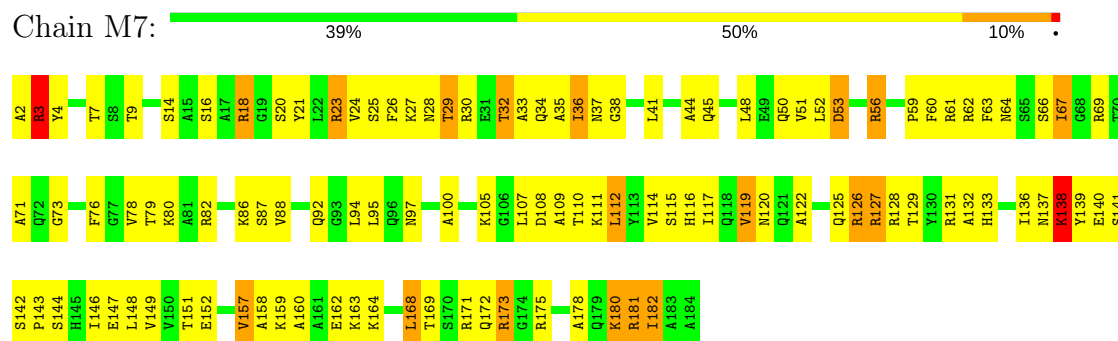


• Molecule 52: 60S ribosomal protein L16-A

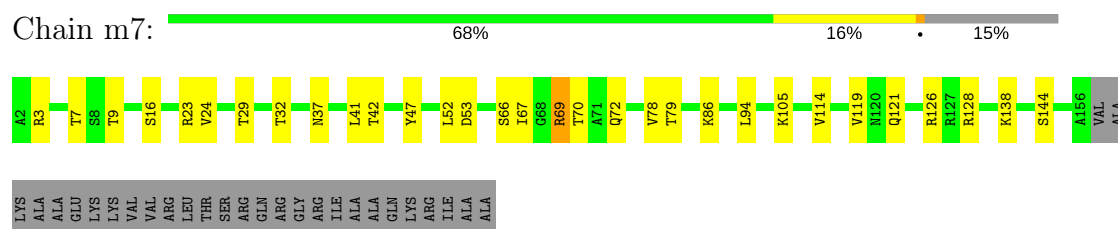
Chain m6: 79% 19%



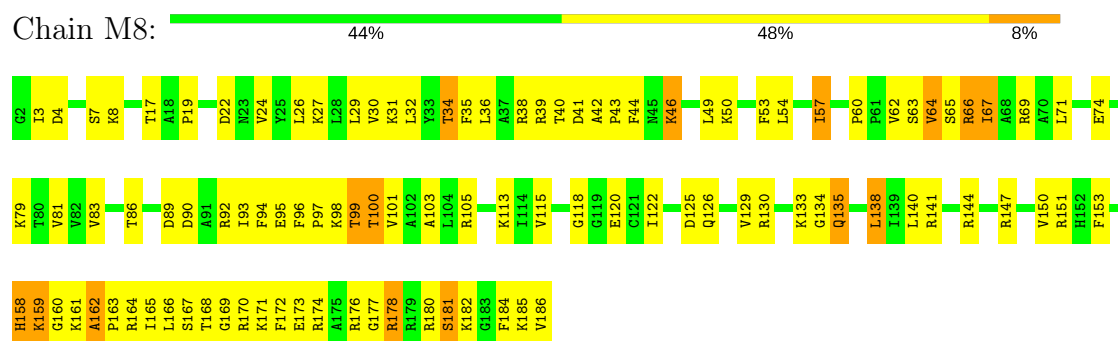
• Molecule 53: 60S ribosomal protein L17-A



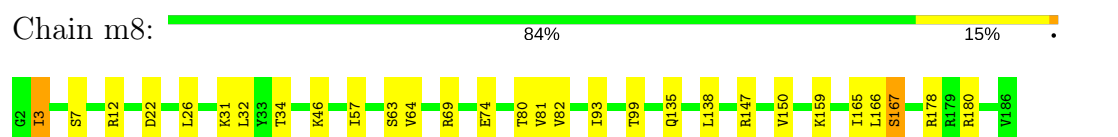
- Molecule 53: 60S ribosomal protein L17-A



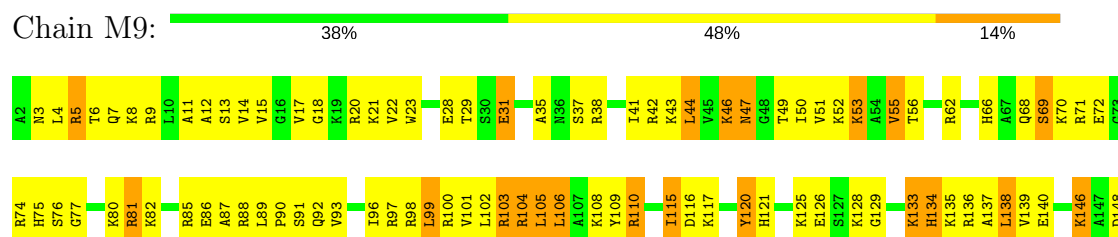
- Molecule 54: 60S ribosomal protein L18-A



- Molecule 54: 60S ribosomal protein L18-A



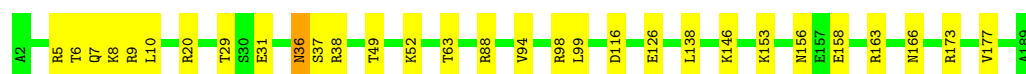
- Molecule 55: 60S ribosomal protein L19-A





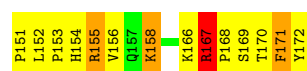
- Molecule 55: 60S ribosomal protein L19-A

Chain m9: 84% 15% .



- Molecule 56: 60S ribosomal protein L20-A

Chain N0: 44% 41% 15% .



- Molecule 56: 60S ribosomal protein L20-A

Chain n0: 78% 21% .



- Molecule 57: 60S ribosomal protein L21-A

Chain N1: 47% 40% 13% .

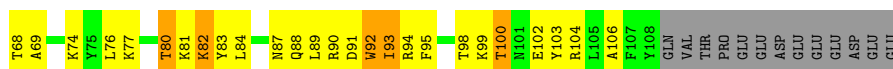


- Molecule 57: 60S ribosomal protein L21-A

Chain n1: 82% 16% .



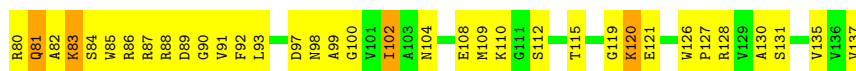
- Molecule 58: 60S ribosomal protein L22-A



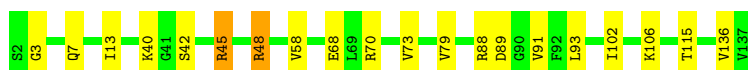
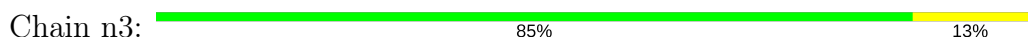
- Molecule 58: 60S ribosomal protein L22-A



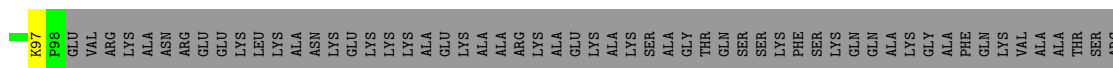
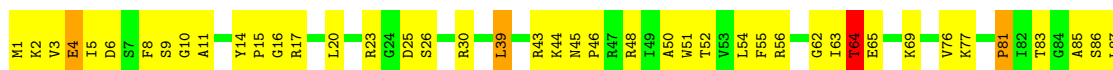
- Molecule 59: 60S ribosomal protein L23-A



- Molecule 59: 60S ribosomal protein L23-A



- Molecule 60: 60S ribosomal protein L24-A



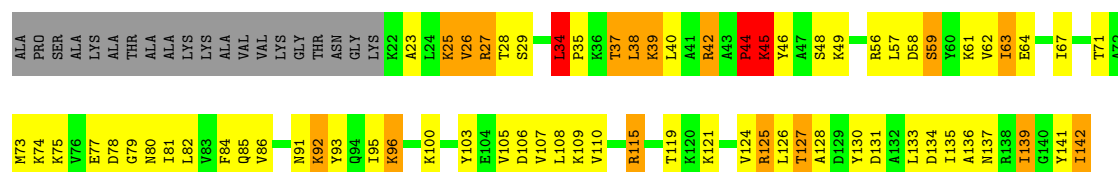
- Molecule 60: 60S ribosomal protein L24-A





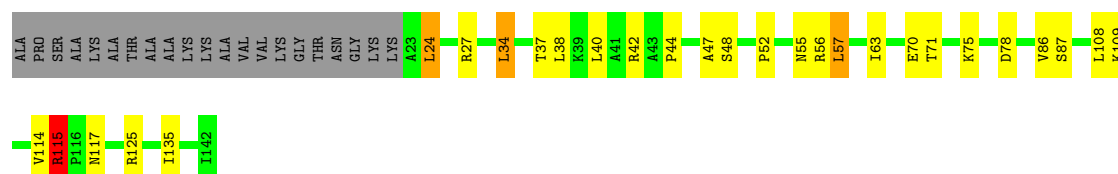
- Molecule 61: 60S ribosomal protein L25

Chain N5: 35% 37% 11% 14%



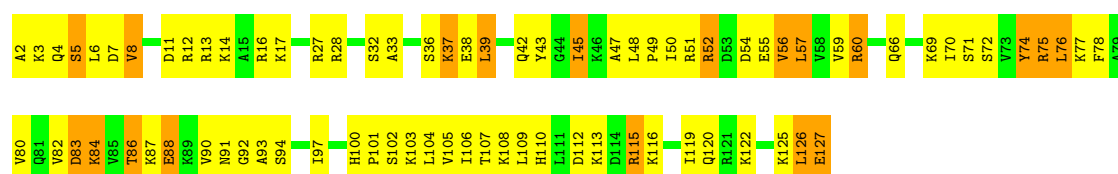
- Molecule 61: 60S ribosomal protein L25

Chain n5: 65% 17% 15%



- Molecule 62: 60S ribosomal protein L26-A

Chain N6: 37% 48% 15%



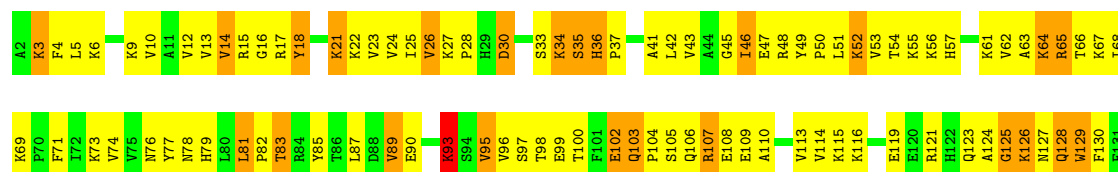
- Molecule 62: 60S ribosomal protein L26-A

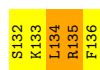
Chain n6: 78% 21%



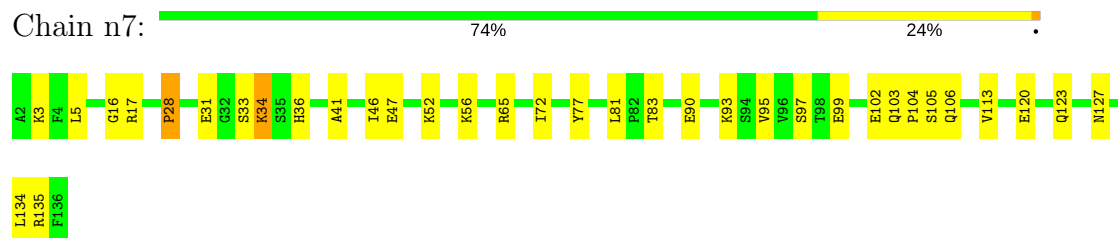
- Molecule 63: 60S ribosomal protein L27-A

Chain N7: 25% 55% 19%

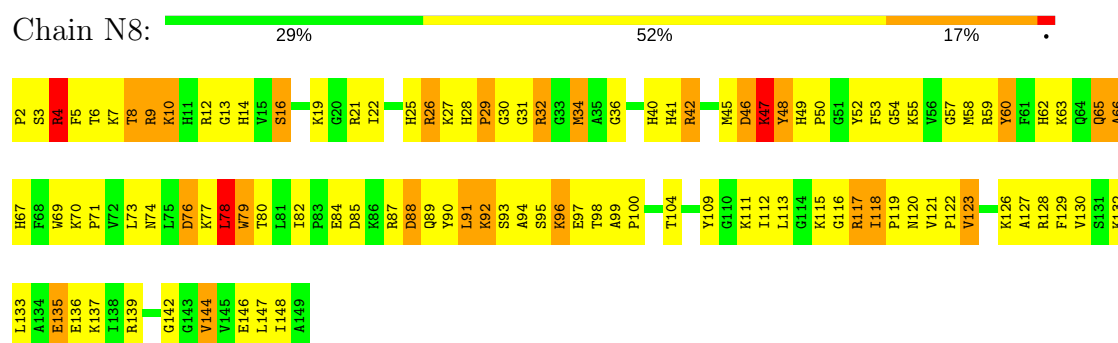




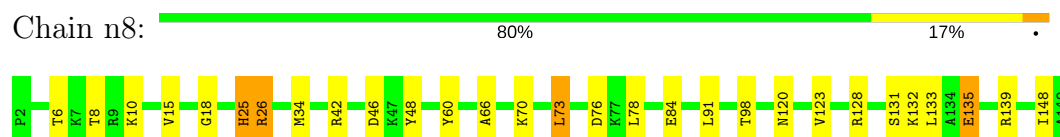
• Molecule 63: 60S ribosomal protein L27-A



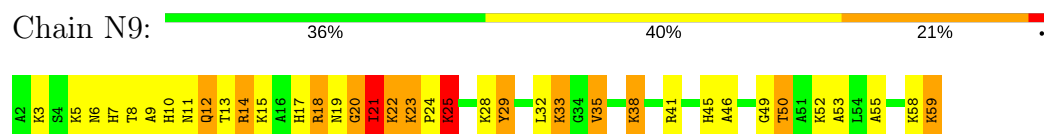
• Molecule 64: 60S ribosomal protein L28



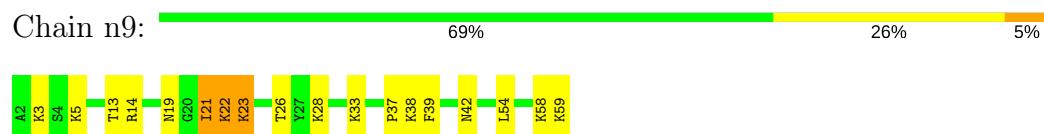
• Molecule 64: 60S ribosomal protein L28



• Molecule 65: 60S ribosomal protein L29

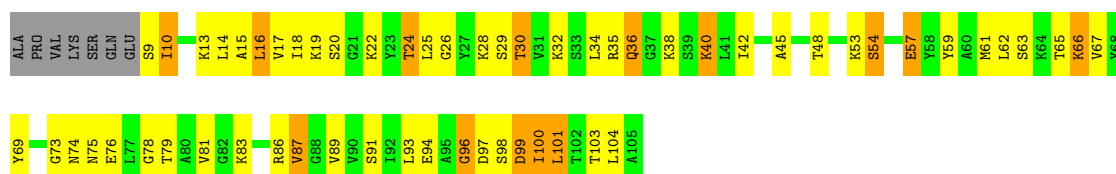


• Molecule 65: 60S ribosomal protein L29



• Molecule 66: 60S ribosomal protein L30





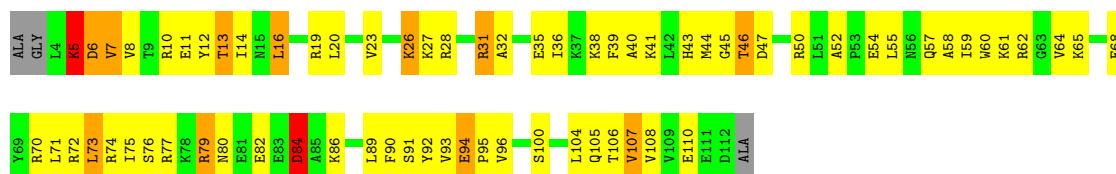
- Molecule 66: 60S ribosomal protein L30

Chain o0: 79% 17%



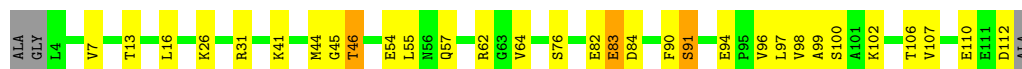
- Molecule 67: 60S ribosomal protein L31-A

Chain O1: 35% 51% 10%



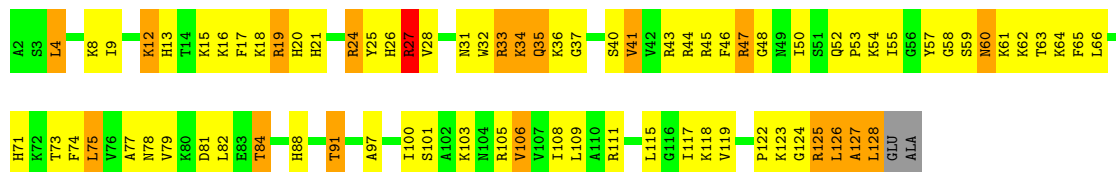
- Molecule 67: 60S ribosomal protein L31-A

Chain o1: 70% 25%



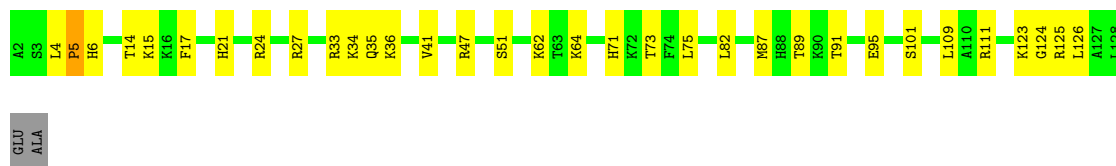
- Molecule 68: 60S ribosomal protein L32

Chain O2: 37% 47% 14%

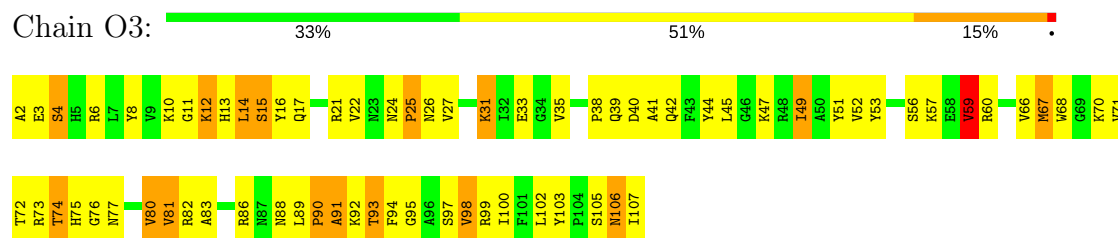


- Molecule 68: 60S ribosomal protein L32

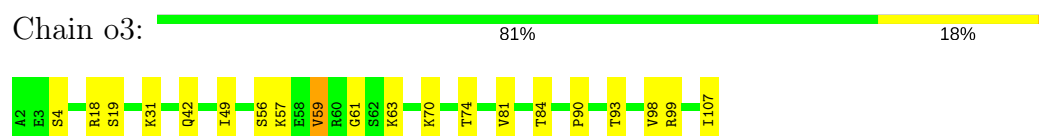
Chain o2: 73% 25%



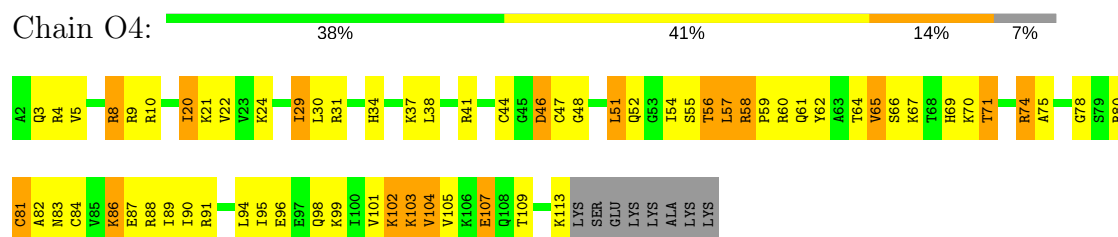
- Molecule 69: 60S ribosomal protein L33-A



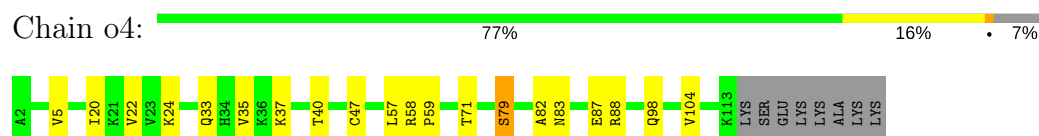
- Molecule 69: 60S ribosomal protein L33-A



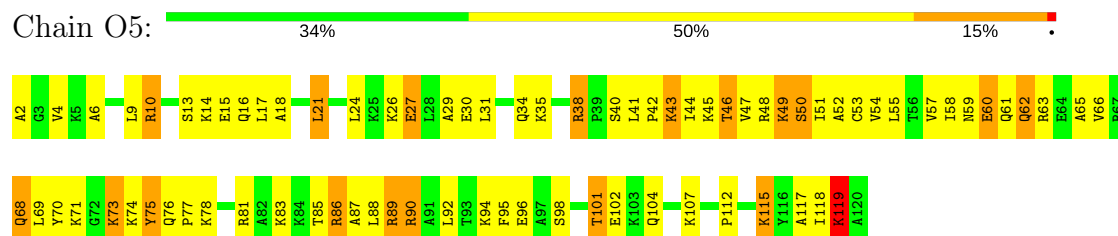
- Molecule 70: 60S ribosomal protein L34-A



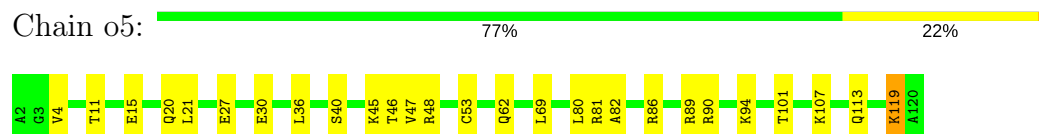
- Molecule 70: 60S ribosomal protein L34-A



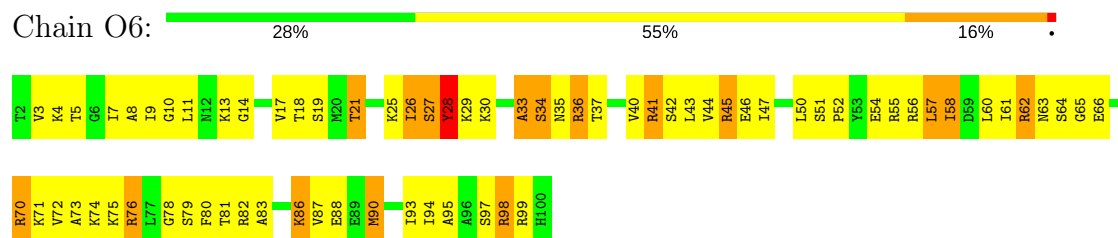
- Molecule 71: 60S ribosomal protein L35-A



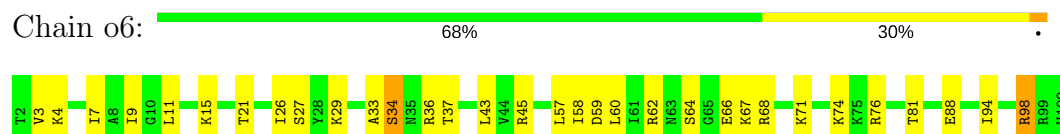
- Molecule 71: 60S ribosomal protein L35-A



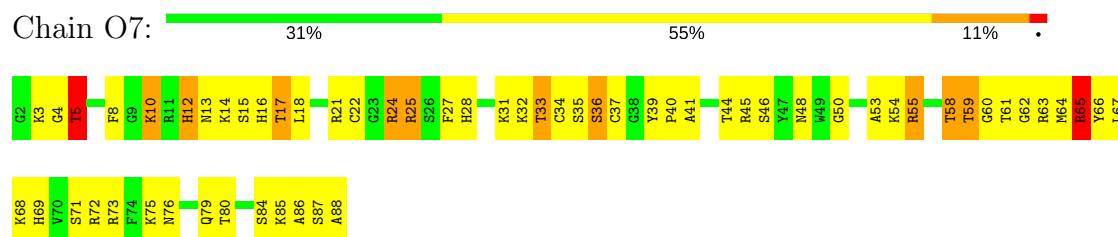
- Molecule 72: 60S ribosomal protein L36-A



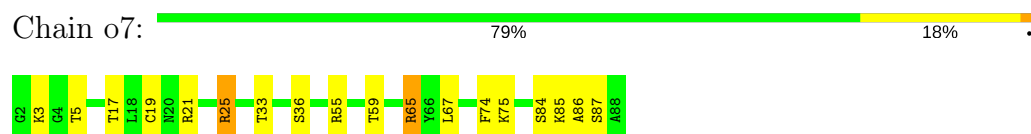
- Molecule 72: 60S ribosomal protein L36-A



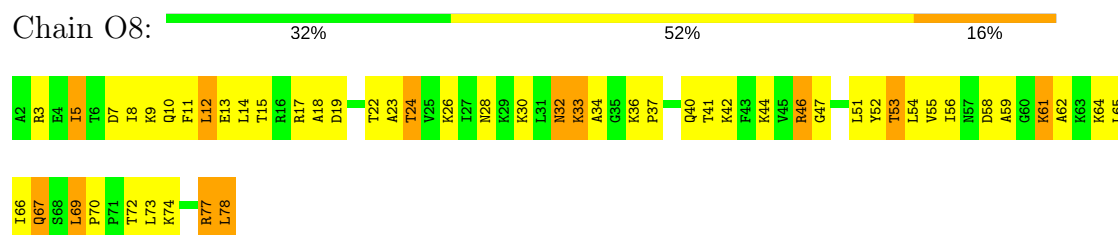
- Molecule 73: 60S ribosomal protein L37-A



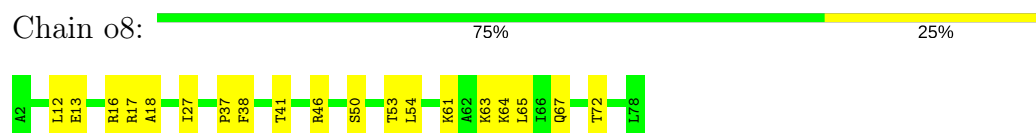
- Molecule 73: 60S ribosomal protein L37-A



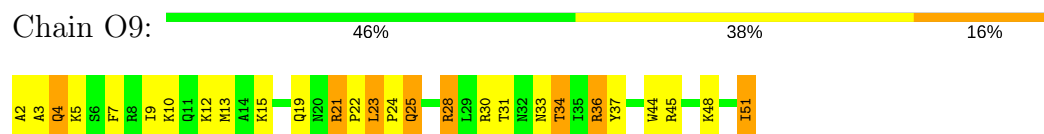
- Molecule 74: 60S ribosomal protein L38



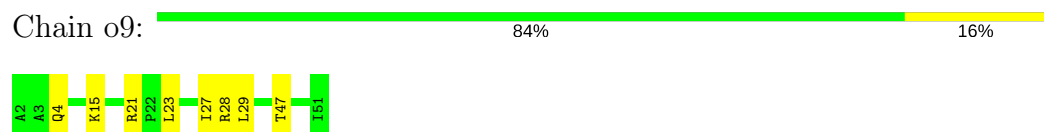
- Molecule 74: 60S ribosomal protein L38



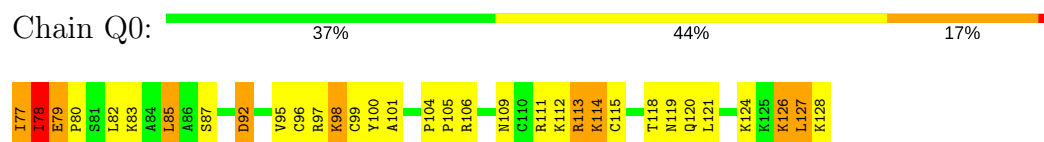
- Molecule 75: 60S ribosomal protein L39



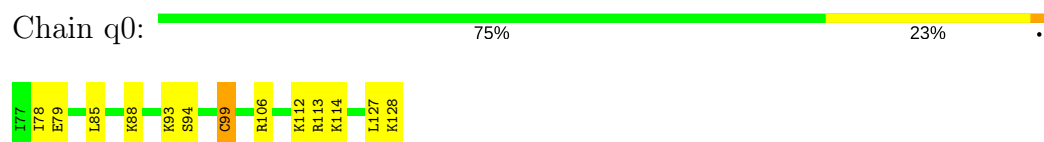
- Molecule 75: 60S ribosomal protein L39



- Molecule 76: Ubiquitin-60S ribosomal protein L40



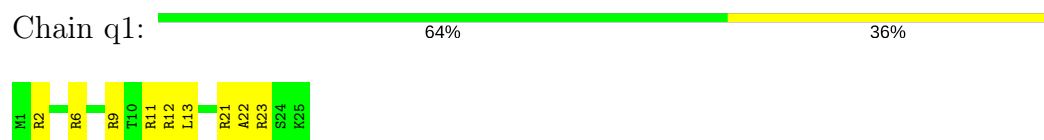
- Molecule 76: Ubiquitin-60S ribosomal protein L40



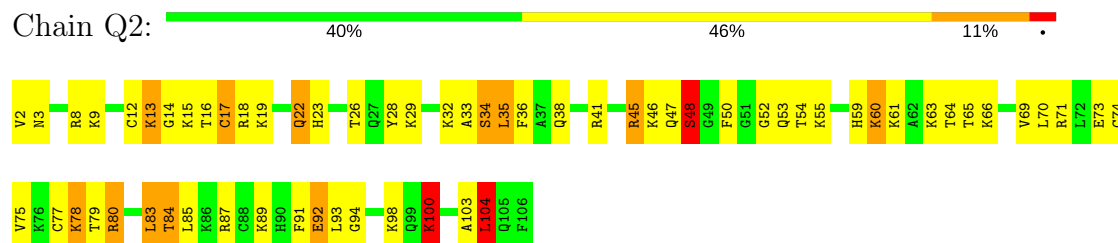
- Molecule 77: 60S ribosomal protein L41-A



- Molecule 77: 60S ribosomal protein L41-A



- Molecule 78: 60S ribosomal protein L42-A

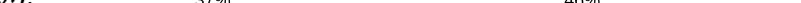


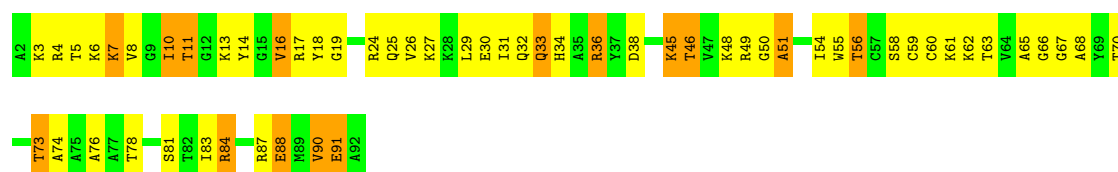
- Molecule 78: 60S ribosomal protein L42-A

Chain q2:  82% 16%



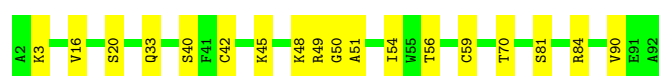
- Molecule 79: 60S ribosomal protein L43-A

Chain Q3: 



- Molecule 79: 60S ribosomal protein L43-A

Chain q3:  80% 20%

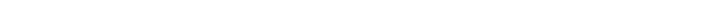


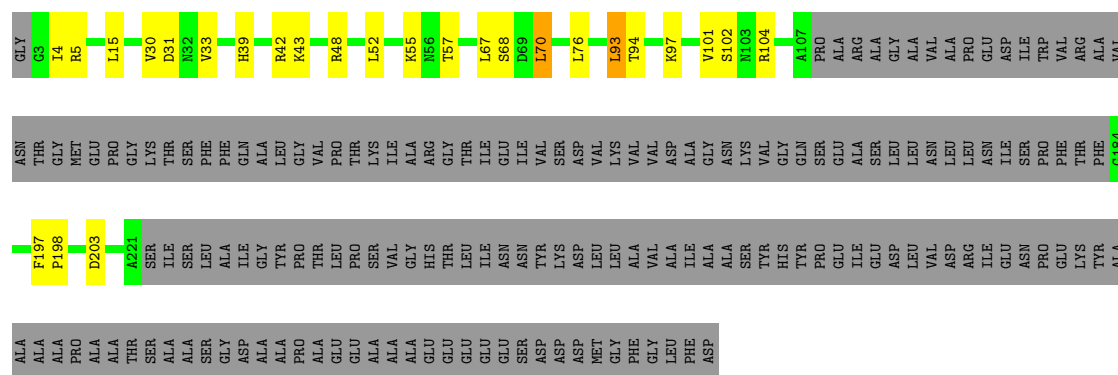
- Molecule 80: 40S ribosomal protein S30-A

Chain e0:  68% 29% .



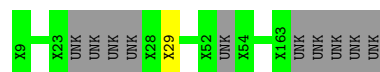
- Molecule 81: 60S acidic ribosomal protein P0

Chain p0:  38% 8% 54%



- Molecule 82: Unknown protein chain m2

Chain m2:  93% • 6%



- Molecule 83: Unknown protein chain p1

Chain p1:  100%

There are no outlier residues recorded for this chain.

- Molecule 84: Unknown protein chain p2

Chain p2:  100%

There are no outlier residues recorded for this chain.

## 4 Data and refinement statistics

EDS failed to run properly - this section is therefore incomplete.

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	435.15Å 287.07Å 303.24Å 90.00° 98.87° 90.00°	Depositor
Resolution (Å)	99.87 – 3.20	Depositor
% Data completeness (in resolution range)	100.0 (99.87-3.20)	Depositor
$R_{merge}$	0.37	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.28 (at 3.19Å)	Xtriage
Refinement program	PHENIX (phenix.refine: dev_1702)	Depositor
R, $R_{free}$	0.194 , 0.246	Depositor
Wilson B-factor (Å <sup>2</sup> )	88.0	Xtriage
Anisotropy	0.117	Xtriage
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.48$ , $\langle L^2 \rangle = 0.31$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
Total number of atoms	411206	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	76.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.63% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: MG, OHX, ZN, 3K8

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	$\# Z  > 5$	RMSZ	$\# Z  > 5$
1	2	0.79	5/41698 (0.0%)	1.34	378/64972 (0.6%)
1	6	0.90	17/42765 (0.0%)	1.39	452/66634 (0.7%)
2	S0	0.48	0/1617	0.67	0/2215
2	s0	0.47	0/1623	0.71	0/2222
3	S1	0.41	0/1735	0.68	2/2335 (0.1%)
3	s1	0.53	0/1748	0.70	0/2352
4	S2	0.52	0/1665	0.65	0/2263
4	s2	0.59	0/1665	0.74	0/2263
5	S3	0.50	0/1759	0.69	0/2368
5	s3	0.44	0/1759	0.59	0/2368
6	S4	0.51	0/2109	0.74	1/2839 (0.0%)
6	s4	0.55	0/2109	0.78	0/2839
7	S5	0.41	0/1629	0.62	0/2202
7	s5	0.46	0/1629	0.66	0/2202
8	S6	0.50	0/1823	0.67	0/2439
8	s6	0.59	0/1779	0.73	0/2379
9	S7	0.46	0/1506	0.69	0/2028
9	s7	0.47	0/1516	0.70	1/2043 (0.0%)
10	S8	0.59	0/1514	0.78	1/2021 (0.0%)
10	s8	0.64	0/1514	0.70	0/2021
11	S9	0.48	0/1519	0.69	0/2035
11	s9	0.57	0/1519	0.76	2/2035 (0.1%)
12	C0	0.44	0/790	0.67	1/1069 (0.1%)
12	c0	0.38	0/777	0.67	3/1049 (0.3%)
13	C1	0.62	0/1240	0.76	0/1675
13	c1	0.67	0/1194	0.77	0/1610
14	C2	0.37	0/900	0.64	0/1224
14	c2	0.29	0/900	0.56	0/1224
15	C3	0.51	0/1215	0.70	2/1638 (0.1%)
15	c3	0.61	0/1215	0.69	0/1638
16	C4	0.43	0/901	0.70	0/1217
16	c4	0.56	0/960	0.75	0/1290

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
17	C5	0.48	0/998	0.69	0/1341
17	c5	0.50	0/1060	0.69	0/1426
18	C6	0.46	0/1125	0.71	2/1510 (0.1%)
18	c6	0.49	0/1131	0.70	0/1518
19	C7	0.46	0/935	0.64	0/1254
19	c7	0.51	0/914	0.70	0/1224
20	C8	0.47	0/1211	0.65	1/1628 (0.1%)
20	c8	0.51	0/1211	0.73	2/1628 (0.1%)
21	C9	0.45	0/1130	0.66	0/1517
21	c9	0.52	0/1130	0.68	0/1517
22	D0	0.49	0/865	0.65	0/1169
22	d0	0.47	0/892	0.65	0/1205
23	D1	0.49	0/693	0.68	0/935
23	d1	0.52	0/693	0.69	0/935
24	D2	0.53	0/1038	0.74	2/1395 (0.1%)
24	d2	0.62	0/1038	0.78	1/1395 (0.1%)
25	D3	0.64	0/1139	0.80	2/1518 (0.1%)
25	d3	0.72	0/1139	0.85	2/1518 (0.1%)
26	D4	0.50	0/1087	0.64	0/1449
26	d4	0.54	0/1087	0.73	0/1449
27	D5	0.40	0/571	0.73	1/768 (0.1%)
27	d5	0.46	0/566	0.71	0/761
28	D6	0.51	0/782	0.69	0/1047
28	d6	0.56	0/782	0.69	0/1047
29	D7	0.47	0/620	0.66	0/838
29	d7	0.49	0/620	0.71	0/838
30	D8	0.37	0/499	0.58	0/670
30	d8	0.45	0/499	0.64	0/670
31	D9	0.56	0/452	0.73	1/600 (0.2%)
31	d9	0.51	0/452	0.68	0/600
32	E0	0.51	0/483	0.66	0/643
33	E1	0.47	0/577	0.81	0/770
33	e1	0.42	0/619	0.73	0/822
34	SR	0.41	0/2494	0.64	1/3393 (0.0%)
34	sR	0.38	0/2495	0.57	0/3395
35	SM	0.54	0/1113	0.75	2/1502 (0.1%)
35	sM	0.48	0/682	0.68	1/921 (0.1%)
36	1	1.25	247/75394 (0.3%)	1.73	2232/117545 (1.9%)
36	5	1.26	266/75414 (0.4%)	1.73	2109/117575 (1.8%)
37	3	1.02	0/2883	1.46	30/4491 (0.7%)
37	7	1.20	8/2883 (0.3%)	1.73	86/4491 (1.9%)
38	4	1.17	3/3746 (0.1%)	1.69	85/5832 (1.5%)
38	8	1.07	4/3746 (0.1%)	1.54	64/5832 (1.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
39	L2	0.81	0/1948	0.86	0/2617
39	l2	0.72	0/1946	0.88	3/2614 (0.1%)
40	L3	0.80	1/3146 (0.0%)	0.83	1/4228 (0.0%)
40	l3	0.90	1/3146 (0.0%)	0.89	2/4228 (0.0%)
41	L4	0.86	0/2800	0.94	7/3790 (0.2%)
41	l4	0.82	1/2800 (0.0%)	0.93	2/3790 (0.1%)
42	L5	0.58	0/2425	0.71	0/3271
42	l5	0.74	1/2408 (0.0%)	0.81	1/3248 (0.0%)
43	L6	0.82	0/1260	0.82	0/1694
43	l6	0.84	0/1269	0.88	1/1705 (0.1%)
44	L7	0.85	0/1821	0.92	3/2451 (0.1%)
44	l7	0.95	1/1828 (0.1%)	0.93	3/2461 (0.1%)
45	L8	0.60	0/1836	0.72	1/2481 (0.0%)
45	l8	0.54	0/1795	0.70	1/2429 (0.0%)
46	L9	0.73	0/1539	0.82	2/2073 (0.1%)
46	l9	0.84	0/1539	0.86	0/2073
47	M0	0.78	1/1741 (0.1%)	0.86	3/2335 (0.1%)
47	m0	0.80	1/1758 (0.1%)	0.88	0/2358
48	M1	0.53	0/1374	0.71	1/1842 (0.1%)
48	m1	0.69	0/1374	0.82	2/1842 (0.1%)
49	M3	0.81	0/1568	0.90	3/2106 (0.1%)
49	m3	0.73	0/1573	0.85	0/2113
50	M4	0.84	0/1068	0.86	0/1438
50	m4	0.92	0/1074	0.90	2/1446 (0.1%)
51	M5	0.83	1/1757 (0.1%)	0.89	2/2354 (0.1%)
51	m5	0.72	0/1757	0.86	4/2354 (0.2%)
52	M6	0.96	2/1585 (0.1%)	0.97	4/2128 (0.2%)
52	m6	1.04	2/1585 (0.1%)	0.96	4/2128 (0.2%)
53	M7	0.84	1/1443 (0.1%)	0.87	3/1944 (0.2%)
53	m7	0.97	1/1250 (0.1%)	0.93	1/1683 (0.1%)
54	M8	0.84	0/1465	0.88	0/1965
54	m8	0.78	0/1465	0.90	1/1965 (0.1%)
55	M9	0.61	0/1538	0.70	0/2050
55	m9	0.65	0/1538	0.71	0/2050
56	N0	0.86	0/1481	0.86	1/1990 (0.1%)
56	n0	0.93	0/1481	0.93	3/1990 (0.2%)
57	N1	0.84	0/1300	0.85	1/1743 (0.1%)
57	n1	0.93	3/1300 (0.2%)	0.85	1/1743 (0.1%)
58	N2	0.44	0/812	0.62	0/1099
58	n2	0.54	0/794	0.74	0/1076
59	N3	0.79	0/1018	0.87	0/1369
59	n3	0.90	0/1018	0.92	3/1369 (0.2%)
60	N4	0.64	0/712	0.74	0/958

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
60	n4	0.69	0/1052	0.76	0/1398
61	N5	0.69	0/979	0.83	1/1321 (0.1%)
61	n5	0.68	0/974	0.79	2/1314 (0.2%)
62	N6	0.77	0/1004	0.89	1/1341 (0.1%)
62	n6	0.71	0/1004	0.89	1/1341 (0.1%)
63	N7	0.59	0/1118	0.71	0/1497
63	n7	0.53	0/1118	0.67	0/1497
64	N8	0.83	1/1204 (0.1%)	0.95	3/1612 (0.2%)
64	n8	0.78	0/1204	0.90	3/1612 (0.2%)
65	N9	0.74	0/473	0.88	1/629 (0.2%)
65	n9	0.85	0/473	1.01	1/629 (0.2%)
66	O0	0.55	0/751	0.68	0/1008
66	o0	0.53	0/775	0.69	0/1040
67	O1	0.70	0/890	0.78	1/1196 (0.1%)
67	o1	0.78	0/897	0.88	0/1205
68	O2	0.90	0/1041	0.91	3/1394 (0.2%)
68	o2	0.89	0/1041	0.94	2/1394 (0.1%)
69	O3	0.97	0/868	0.91	0/1168
69	o3	1.01	1/868 (0.1%)	0.94	2/1168 (0.2%)
70	O4	0.68	0/890	0.83	1/1189 (0.1%)
70	o4	0.63	0/890	0.78	0/1189
71	O5	0.78	0/978	0.85	0/1301
71	o5	0.61	0/974	0.75	0/1297
72	O6	0.67	0/778	0.86	0/1034
72	o6	0.63	0/777	0.77	0/1033
73	O7	0.90	0/696	1.01	3/923 (0.3%)
73	o7	0.75	0/696	0.86	2/923 (0.2%)
74	O8	0.59	0/618	0.70	0/826
74	o8	0.50	0/614	0.69	0/822
75	O9	0.81	0/443	0.93	0/588
75	o9	0.74	0/443	0.91	0/588
76	Q0	0.78	0/423	0.89	0/562
76	q0	0.93	1/423 (0.2%)	0.92	0/562
77	Q1	0.65	0/234	0.82	0/300
77	q1	0.81	0/234	1.10	1/300 (0.3%)
78	Q2	0.91	1/860 (0.1%)	0.84	0/1136
78	q2	0.89	2/860 (0.2%)	0.82	0/1136
79	Q3	0.80	0/701	0.83	0/934
79	q3	0.80	0/701	0.85	1/934 (0.1%)
80	e0	0.57	0/499	0.74	0/665
81	p0	0.46	0/1091	0.62	0/1472
All	All	0.96	573/430072 (0.1%)	1.35	5562/631360 (0.9%)

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
2	s0	0	1
7	S5	0	1
7	s5	0	2
9	S7	0	2
9	s7	0	1
10	S8	0	1
16	C4	0	3
16	c4	0	1
17	c5	0	1
18	C6	0	1
18	c6	0	1
19	C7	0	1
24	d2	0	1
26	d4	0	1
27	D5	0	3
28	D6	0	1
39	L2	0	1
39	l2	0	4
44	l7	0	2
46	L9	0	1
48	M1	0	1
52	M6	0	1
52	m6	0	1
56	N0	0	1
56	n0	0	1
57	N1	0	1
59	n3	0	1
64	N8	0	2
64	n8	0	3
65	N9	0	1
67	O1	0	1
80	e0	0	1
82	m2	0	1
All	All	0	46

All (573) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	q2	17	CYS	CB-SG	14.54	2.06	1.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	Q2	17	CYS	CB-SG	14.44	2.06	1.82
36	5	1152	G	N9-C4	-12.25	1.28	1.38
36	5	2971	A	N9-C4	9.75	1.43	1.37
36	5	1152	G	N9-C8	9.62	1.44	1.37
36	1	2983	C	N3-C4	-8.85	1.27	1.33
36	1	3181	C	N3-C4	-8.65	1.27	1.33
36	1	2875	U	C2-N3	8.47	1.43	1.37
36	5	1152	G	C2-N3	-8.31	1.26	1.32
36	5	1152	G	N3-C4	-8.18	1.29	1.35
36	5	2726	C	N3-C4	-8.17	1.28	1.33
36	5	1152	G	C5-C6	-8.12	1.34	1.42
36	1	804	C	N1-C6	-8.07	1.32	1.37
36	1	2714	G	N9-C4	-8.00	1.31	1.38
36	5	2996	U	N1-C2	7.91	1.45	1.38
36	5	2138	A	N7-C5	-7.90	1.34	1.39
36	5	1592	G	C6-O6	7.89	1.31	1.24
36	5	1195	A	N9-C4	-7.83	1.33	1.37
36	5	1143	A	N9-C4	-7.78	1.33	1.37
36	1	1394	A	N9-C4	-7.75	1.33	1.37
36	1	2409	G	C5-C4	-7.73	1.32	1.38
36	5	2626	A	N9-C4	-7.59	1.33	1.37
36	1	2377	G	N3-C4	-7.58	1.30	1.35
36	1	931	C	N1-C6	-7.51	1.32	1.37
36	5	2138	A	N9-C4	-7.46	1.33	1.37
36	1	343	U	C2-N3	-7.46	1.32	1.37
36	5	2627	C	N1-C6	-7.44	1.32	1.37
36	5	3106	A	N7-C5	-7.42	1.34	1.39
36	5	2381	G	C5-C4	-7.38	1.33	1.38
36	5	706	A	N9-C4	-7.28	1.33	1.37
36	1	2419	A	N9-C4	-7.27	1.33	1.37
36	5	3362	A	N9-C4	-7.27	1.33	1.37
36	1	61	A	C6-N1	-7.23	1.30	1.35
36	1	1547	G	C5-C4	-7.17	1.33	1.38
36	5	1908	A	N3-C4	-7.11	1.30	1.34
36	1	2333	C	N1-C6	-7.10	1.32	1.37
36	5	3084	C	N1-C6	-7.10	1.32	1.37
36	5	2280	A	N9-C4	-7.10	1.33	1.37
36	1	2404	A	N3-C4	7.00	1.39	1.34
36	5	1188	U	C2-N3	-6.97	1.32	1.37
36	5	3245	A	C5-C6	-6.95	1.34	1.41
36	1	1335	C	N3-C4	-6.95	1.29	1.33
36	1	3306	U	N3-C4	-6.95	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	343	U	N3-C4	-6.94	1.32	1.38
36	5	882	A	N3-C4	-6.92	1.30	1.34
36	1	1154	A	N7-C5	-6.90	1.35	1.39
36	1	342	A	N9-C4	-6.86	1.33	1.37
1	6	1537	C	C2-N3	6.85	1.41	1.35
36	1	895	A	C5-C6	-6.84	1.34	1.41
36	1	925	A	N3-C4	-6.80	1.30	1.34
57	n1	104	GLU	CB-CG	6.78	1.65	1.52
36	1	1147	G	N9-C8	-6.76	1.33	1.37
36	1	1364	C	N1-C6	-6.75	1.33	1.37
36	1	3054	U	C4-O4	6.74	1.29	1.23
36	5	1189	C	N1-C6	-6.74	1.33	1.37
36	1	667	C	N3-C4	-6.72	1.29	1.33
36	1	2946	A	N7-C5	-6.71	1.35	1.39
36	5	924	G	C2-N3	-6.71	1.27	1.32
36	5	2138	A	N3-C4	-6.71	1.30	1.34
36	1	1367	G	N7-C5	-6.71	1.35	1.39
1	6	623	A	N9-C4	-6.66	1.33	1.37
36	5	1844	C	N3-C4	-6.66	1.29	1.33
36	1	884	A	N7-C5	-6.64	1.35	1.39
36	5	1189	C	N1-C2	-6.62	1.33	1.40
36	5	2243	A	N3-C4	-6.62	1.30	1.34
36	1	2645	G	N9-C8	-6.61	1.33	1.37
36	5	2917	G	N7-C5	-6.60	1.35	1.39
36	5	639	G	N9-C8	-6.58	1.33	1.37
36	1	638	C	N1-C6	-6.58	1.33	1.37
40	l3	251	CYS	CB-SG	-6.58	1.71	1.82
36	1	2138	A	N3-C4	-6.56	1.30	1.34
36	1	338	A	N7-C5	-6.56	1.35	1.39
36	1	2986	U	N1-C2	-6.54	1.32	1.38
36	5	1200	A	N3-C4	-6.54	1.30	1.34
36	1	1103	A	N7-C5	6.52	1.43	1.39
36	1	2169	G	C5-C6	6.52	1.48	1.42
36	1	92	G	N1-C2	-6.52	1.32	1.37
36	1	701	G	N3-C4	-6.51	1.30	1.35
36	1	423	A	N3-C4	-6.50	1.30	1.34
36	1	2404	A	N9-C4	6.49	1.41	1.37
36	1	1308	A	N3-C4	-6.48	1.30	1.34
36	1	1116	G	C5-C4	-6.47	1.33	1.38
36	1	1103	A	N9-C4	6.47	1.41	1.37
36	1	2977	G	C5-C4	-6.46	1.33	1.38
1	6	1800	A	N9-C4	6.45	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2970	C	N1-C6	-6.44	1.33	1.37
36	1	661	G	N1-C2	-6.42	1.32	1.37
36	1	34	A	N9-C4	-6.41	1.34	1.37
36	1	2619	G	C5-C4	-6.41	1.33	1.38
44	17	56	GLU	CG-CD	6.41	1.61	1.51
36	5	367	A	N9-C4	-6.40	1.34	1.37
47	m0	8	CYS	CB-SG	-6.39	1.71	1.82
36	5	883	A	C6-N1	-6.39	1.31	1.35
36	5	2875	U	C2-N3	6.39	1.42	1.37
36	1	919	U	C2-N3	-6.39	1.33	1.37
36	1	2396	G	N9-C8	-6.38	1.33	1.37
36	1	2138	A	N7-C5	-6.37	1.35	1.39
36	5	2954	U	N1-C2	6.37	1.44	1.38
36	1	2977	G	N1-C2	-6.37	1.32	1.37
36	5	2243	A	N9-C4	-6.37	1.34	1.37
36	5	523	A	N3-C4	-6.36	1.31	1.34
36	1	345	G	N9-C8	-6.35	1.33	1.37
36	5	804	C	N1-C6	-6.35	1.33	1.37
36	1	2326	A	N9-C4	-6.34	1.34	1.37
36	1	1371	G	C5-C4	-6.34	1.33	1.38
36	5	2704	A	N9-C4	-6.33	1.34	1.37
36	1	2357	A	N7-C5	-6.32	1.35	1.39
36	5	1331	U	C4-O4	-6.30	1.18	1.23
36	1	3273	A	N3-C4	-6.30	1.31	1.34
52	M6	100	GLU	CG-CD	6.29	1.61	1.51
36	1	2616	C	N1-C6	-6.29	1.33	1.37
41	14	94	CYS	CB-SG	-6.28	1.71	1.82
36	5	1159	A	N9-C4	-6.27	1.34	1.37
51	M5	152	CYS	CB-SG	-6.27	1.71	1.82
36	1	1369	A	N7-C5	-6.27	1.35	1.39
36	5	2881	C	C2-N3	-6.26	1.30	1.35
36	5	2943	G	N7-C5	-6.25	1.35	1.39
36	1	1116	G	N9-C8	-6.24	1.33	1.37
36	1	1142	G	C6-N1	-6.24	1.35	1.39
36	5	576	C	N1-C6	-6.24	1.33	1.37
36	1	716	A	N9-C4	-6.23	1.34	1.37
1	6	1744	A	N9-C4	-6.22	1.34	1.37
36	5	1061	A	N9-C4	-6.21	1.34	1.37
36	5	1177	G	C6-N1	-6.20	1.35	1.39
36	5	2872	A	N9-C4	-6.19	1.34	1.37
36	5	3218	A	C5-C6	-6.18	1.35	1.41
36	5	424	G	C5-C6	-6.16	1.36	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2855	U	C2-N3	-6.15	1.33	1.37
36	1	919	U	C4-O4	-6.15	1.18	1.23
36	1	1399	A	N9-C4	-6.15	1.34	1.37
36	1	716	A	C5-C6	-6.13	1.35	1.41
36	1	874	U	C2-N3	-6.13	1.33	1.37
36	1	1518	U	C4-O4	6.13	1.28	1.23
36	5	420	G	N9-C8	-6.12	1.33	1.37
36	1	3178	A	N7-C5	-6.12	1.35	1.39
36	1	653	A	C5-C6	-6.12	1.35	1.41
36	5	3107	U	C2-N3	-6.11	1.33	1.37
36	1	2893	C	N3-C4	-6.11	1.29	1.33
36	1	2640	A	C6-N6	-6.10	1.29	1.33
36	1	2333	C	N3-C4	-6.09	1.29	1.33
36	1	2939	G	N9-C8	-6.08	1.33	1.37
36	1	2986	U	C2-N3	-6.08	1.33	1.37
36	1	1405	U	N3-C4	-6.08	1.32	1.38
36	5	1904	C	N1-C6	-6.07	1.33	1.37
38	8	41	A	N7-C5	-6.06	1.35	1.39
36	1	646	A	C6-N1	-6.06	1.31	1.35
57	n1	104	GLU	CG-CD	6.06	1.61	1.51
36	1	35	A	C5-C6	-6.06	1.35	1.41
36	1	34	A	N3-C4	-6.05	1.31	1.34
36	1	656	A	N7-C5	-6.04	1.35	1.39
36	5	960	U	C4-O4	6.03	1.28	1.23
36	5	2334	U	C4-O4	-6.03	1.18	1.23
36	5	2620	G	C2-N3	-6.03	1.27	1.32
36	5	2986	U	N1-C6	-6.02	1.32	1.38
36	1	1114	U	C2-N3	-6.02	1.33	1.37
36	5	2943	G	N9-C8	-6.02	1.33	1.37
36	1	695	C	N1-C6	-6.01	1.33	1.37
36	5	1308	A	C6-N1	-6.00	1.31	1.35
36	5	2401	A	N3-C4	5.99	1.38	1.34
36	1	1103	A	N3-C4	5.98	1.38	1.34
36	5	2851	A	N3-C4	-5.97	1.31	1.34
36	5	1843	C	N1-C6	-5.96	1.33	1.37
36	1	1367	G	N9-C8	-5.96	1.33	1.37
36	1	2818	U	C2-N3	-5.96	1.33	1.37
36	1	2969	A	N7-C5	-5.95	1.35	1.39
36	5	793	C	N1-C6	-5.94	1.33	1.37
36	1	1417	G	N9-C4	-5.94	1.33	1.38
36	1	2357	A	C5-C6	-5.92	1.35	1.41
36	5	1148	G	N7-C5	-5.92	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	945	C	N3-C4	-5.92	1.29	1.33
36	1	636	C	C4-C5	-5.91	1.38	1.43
36	5	1858	A	N3-C4	-5.90	1.31	1.34
36	5	2987	A	N7-C5	-5.90	1.35	1.39
36	1	3142	A	N3-C4	-5.89	1.31	1.34
36	5	2394	G	N7-C5	-5.89	1.35	1.39
36	5	970	A	N9-C4	-5.88	1.34	1.37
36	5	1872	C	N3-C4	-5.87	1.29	1.33
36	1	2406	C	N1-C6	-5.86	1.33	1.37
36	5	2879	C	N1-C6	-5.86	1.33	1.37
1	6	17	C	N3-C4	-5.86	1.29	1.33
36	5	2855	U	N3-C4	-5.86	1.33	1.38
36	1	36	C	N1-C6	-5.85	1.33	1.37
36	5	2937	G	C5-C4	-5.85	1.34	1.38
36	5	1049	C	C4-C5	-5.84	1.38	1.43
36	5	2917	G	C5-C4	-5.84	1.34	1.38
36	5	895	A	N3-C4	-5.84	1.31	1.34
36	5	2358	A	N9-C4	-5.84	1.34	1.37
36	5	2818	U	C2-N3	-5.84	1.33	1.37
36	5	1874	A	N9-C4	-5.84	1.34	1.37
36	5	2910	A	N9-C4	-5.83	1.34	1.37
47	M0	8	CYS	CB-SG	-5.83	1.72	1.81
36	1	2939	G	C5-C4	-5.83	1.34	1.38
36	5	344	A	N7-C5	-5.83	1.35	1.39
36	1	2396	G	N3-C4	-5.83	1.31	1.35
36	5	1302	A	N7-C5	-5.83	1.35	1.39
36	5	1159	A	C5-C6	-5.82	1.35	1.41
36	5	2755	C	N3-C4	-5.82	1.29	1.33
36	5	2393	G	C5-C4	-5.81	1.34	1.38
36	1	886	C	N1-C6	-5.81	1.33	1.37
36	1	402	A	N3-C4	-5.80	1.31	1.34
36	5	523	A	N9-C4	-5.79	1.34	1.37
36	5	3374	U	C4-O4	-5.79	1.19	1.23
36	1	943	U	C2-N3	-5.79	1.33	1.37
36	1	3180	A	N7-C5	-5.79	1.35	1.39
36	5	1149	G	N9-C8	-5.78	1.33	1.37
36	5	2816	G	C5-C4	-5.78	1.34	1.38
36	1	2401	A	C5-C4	5.78	1.42	1.38
36	1	2620	G	N9-C4	-5.77	1.33	1.38
36	1	1153	A	N7-C5	-5.77	1.35	1.39
37	7	98	C	N1-C6	-5.77	1.33	1.37
36	5	653	A	C6-N6	-5.75	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	7	73	C	N1-C6	5.75	1.40	1.37
36	5	2876	C	N3-C4	-5.75	1.29	1.33
36	5	424	G	C5-C4	-5.75	1.34	1.38
36	1	92	G	C6-N1	-5.74	1.35	1.39
36	1	1371	G	N9-C8	-5.74	1.33	1.37
36	1	1891	A	N9-C4	-5.73	1.34	1.37
36	5	635	G	C5-C6	-5.73	1.36	1.42
36	5	2360	C	C4-C5	-5.73	1.38	1.43
36	5	2386	A	N7-C5	-5.73	1.35	1.39
1	2	1750	A	N7-C5	-5.73	1.35	1.39
36	1	1340	G	N9-C8	-5.73	1.33	1.37
36	1	2358	A	N3-C4	-5.73	1.31	1.34
36	1	2426	U	C2-N3	-5.73	1.33	1.37
36	1	1429	G	N9-C8	-5.72	1.33	1.37
36	5	3137	C	N3-C4	-5.72	1.29	1.33
36	5	957	C	N3-C4	-5.72	1.29	1.33
36	5	2375	G	C6-N1	-5.72	1.35	1.39
36	5	642	U	C2-N3	-5.71	1.33	1.37
36	1	1116	G	N3-C4	-5.71	1.31	1.35
36	5	2139	A	N3-C4	-5.71	1.31	1.34
36	5	3323	A	N9-C4	-5.71	1.34	1.37
1	6	317	C	N3-C4	-5.70	1.29	1.33
36	5	2819	A	N3-C4	-5.70	1.31	1.34
36	5	1432	C	N3-C4	-5.70	1.29	1.33
36	5	1137	C	N1-C6	-5.69	1.33	1.37
36	1	2869	U	N1-C2	-5.69	1.33	1.38
36	1	2138	A	N9-C4	-5.68	1.34	1.37
36	1	100	A	N3-C4	-5.68	1.31	1.34
36	1	2147	A	N9-C4	-5.67	1.34	1.37
36	1	2875	U	N3-C4	5.67	1.43	1.38
36	5	1307	G	P-O5'	-5.67	1.54	1.59
36	5	941	G	C6-N1	-5.67	1.35	1.39
36	5	943	U	C2-N3	-5.67	1.33	1.37
36	5	1902	G	N3-C4	-5.66	1.31	1.35
36	1	743	C	N1-C2	-5.66	1.34	1.40
36	1	1538	G	C6-N1	-5.65	1.35	1.39
36	5	1205	A	N7-C5	-5.65	1.35	1.39
36	1	1835	A	N9-C4	-5.65	1.34	1.37
36	5	3060	C	C4-C5	-5.64	1.38	1.43
36	1	635	G	C5-C4	-5.63	1.34	1.38
36	5	1146	C	N1-C6	-5.63	1.33	1.37
36	5	3207	U	C2-N3	5.63	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1313	G	C5-C6	-5.63	1.36	1.42
36	5	2939	G	N9-C8	-5.63	1.33	1.37
36	1	1371	G	N7-C5	-5.62	1.35	1.39
36	5	577	C	N1-C6	-5.62	1.33	1.37
36	1	2130	G	C6-N1	-5.62	1.35	1.39
36	1	2396	G	C5-C4	-5.62	1.34	1.38
36	5	960	U	N1-C2	5.62	1.43	1.38
36	5	1199	C	N1-C6	-5.62	1.33	1.37
36	5	3218	A	N9-C4	-5.61	1.34	1.37
36	1	1373	A	C6-N1	-5.61	1.31	1.35
36	5	2363	A	N7-C5	-5.60	1.35	1.39
36	5	3047	U	N1-C6	-5.60	1.32	1.38
36	1	1429	G	C8-N7	-5.60	1.27	1.30
36	5	934	G	C5-C6	-5.60	1.36	1.42
1	6	1137	A	C5-C4	-5.60	1.34	1.38
36	1	940	G	C6-N1	-5.59	1.35	1.39
36	5	2401	A	N9-C4	5.59	1.41	1.37
36	1	2838	A	N9-C4	-5.59	1.34	1.37
36	5	967	A	C5-C4	-5.58	1.34	1.38
36	5	957	C	N1-C6	-5.58	1.33	1.37
36	5	793	C	C4-C5	-5.58	1.38	1.43
36	1	931	C	N3-C4	-5.57	1.30	1.33
36	1	2404	A	N7-C5	5.56	1.42	1.39
36	5	406	G	N1-C2	-5.56	1.33	1.37
52	M6	100	GLU	CD-OE2	5.56	1.31	1.25
36	1	1149	G	C6-O6	5.55	1.29	1.24
1	6	359	A	N9-C4	-5.55	1.34	1.37
36	5	820	A	N7-C5	-5.55	1.35	1.39
36	5	3206	C	N3-C4	-5.55	1.30	1.33
36	1	659	G	N3-C4	-5.55	1.31	1.35
36	5	2244	A	N9-C4	-5.54	1.34	1.37
36	1	1164	G	N7-C5	-5.54	1.35	1.39
36	5	3106	A	C5-C6	-5.54	1.36	1.41
36	5	2799	A	C6-N1	-5.53	1.31	1.35
36	1	919	U	N3-C4	-5.53	1.33	1.38
36	1	661	G	N7-C5	-5.52	1.35	1.39
36	5	3083	G	N1-C2	-5.52	1.33	1.37
1	6	1537	C	N1-C6	5.52	1.40	1.37
36	5	3183	A	C5-C6	-5.51	1.36	1.41
36	1	960	U	C2-N3	5.51	1.41	1.37
36	1	1886	A	N9-C4	-5.51	1.34	1.37
36	5	2814	G	C5-C4	-5.51	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2338	C	N1-C6	-5.50	1.33	1.37
36	5	2913	C	N1-C6	-5.50	1.33	1.37
1	6	1119	G	C6-N1	-5.50	1.35	1.39
36	5	903	U	C2-N3	-5.50	1.33	1.37
36	1	2281	A	N9-C4	-5.49	1.34	1.37
36	1	2169	G	N7-C5	5.49	1.42	1.39
36	5	2287	C	N3-C4	-5.49	1.30	1.33
36	5	659	G	C5-C4	-5.48	1.34	1.38
36	1	913	A	N7-C5	-5.48	1.35	1.39
76	q0	99	CYS	CB-SG	-5.48	1.72	1.81
36	5	650	C	N3-C4	-5.48	1.30	1.33
36	1	2396	G	N7-C5	-5.48	1.35	1.39
1	6	1765	A	N9-C4	-5.48	1.34	1.37
36	1	402	A	C5-C4	-5.47	1.34	1.38
36	5	2591	A	N9-C4	-5.47	1.34	1.37
53	M7	138	LYS	CD-CE	5.46	1.64	1.51
64	N8	48	TYR	CD1-CE1	-5.46	1.31	1.39
36	1	2409	G	N7-C5	-5.46	1.35	1.39
36	1	1116	G	N7-C5	-5.45	1.35	1.39
1	6	163	G	N9-C4	-5.45	1.33	1.38
36	1	938	C	C4-N4	-5.44	1.29	1.33
36	5	1178	G	N3-C4	-5.44	1.31	1.35
52	m6	16	VAL	CB-CG2	-5.44	1.41	1.52
36	1	1304	A	N9-C4	-5.44	1.34	1.37
38	4	138	A	N3-C4	-5.44	1.31	1.34
36	1	659	G	N9-C4	-5.44	1.33	1.38
36	5	1411	C	N1-C6	-5.44	1.33	1.37
36	1	2627	C	N1-C6	-5.44	1.33	1.37
36	5	924	G	N3-C4	-5.44	1.31	1.35
1	2	992	A	N9-C4	-5.43	1.34	1.37
36	5	1304	A	N7-C5	-5.43	1.35	1.39
36	1	206	G	C5-C4	-5.42	1.34	1.38
36	1	960	U	N3-C4	5.42	1.43	1.38
36	1	1593	A	N7-C5	-5.42	1.35	1.39
38	4	50	C	N1-C6	-5.42	1.33	1.37
36	5	2874	G	P-O5'	5.42	1.65	1.59
36	5	1061	A	N3-C4	-5.41	1.31	1.34
36	1	2714	G	N9-C8	5.40	1.41	1.37
36	5	1868	G	C5-C6	-5.40	1.36	1.42
36	1	1156	C	N3-C4	-5.39	1.30	1.33
36	1	2902	A	N3-C4	-5.39	1.31	1.34
36	1	1365	G	N7-C5	-5.39	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2640	A	C6-N1	-5.39	1.31	1.35
36	5	1295	G	N3-C4	-5.39	1.31	1.35
37	7	96	U	N1-C2	-5.39	1.33	1.38
36	1	1375	G	N7-C5	-5.39	1.36	1.39
36	5	1142	G	N3-C4	-5.38	1.31	1.35
36	5	1327	C	N1-C6	-5.38	1.33	1.37
36	5	3039	C	N1-C6	-5.38	1.33	1.37
36	1	2410	U	N1-C2	-5.38	1.33	1.38
36	1	3216	G	C5-C4	-5.38	1.34	1.38
36	5	2910	A	N3-C4	-5.38	1.31	1.34
36	1	609	G	C5-C4	-5.38	1.34	1.38
36	1	1369	A	C5-C4	-5.38	1.34	1.38
36	5	795	G	C5-C4	-5.38	1.34	1.38
36	1	282	G	N1-C2	-5.38	1.33	1.37
38	8	39	G	N7-C5	-5.37	1.36	1.39
36	5	1451	C	N1-C6	-5.37	1.33	1.37
36	1	668	G	C6-N1	-5.35	1.35	1.39
36	5	1195	A	N7-C5	-5.35	1.36	1.39
36	5	1348	U	N1-C2	5.35	1.43	1.38
36	5	2823	G	N7-C5	-5.35	1.36	1.39
1	2	1749	A	N9-C4	-5.35	1.34	1.37
36	5	2957	G	C8-N7	-5.35	1.27	1.30
36	1	1403	C	N1-C6	-5.34	1.33	1.37
36	1	3142	A	N9-C4	-5.34	1.34	1.37
36	5	2860	U	C2-O2	5.34	1.27	1.22
36	1	1395	G	C5-C4	-5.33	1.34	1.38
36	1	2276	G	N7-C5	-5.33	1.36	1.39
36	5	967	A	N3-C4	-5.33	1.31	1.34
36	5	1847	A	N9-C4	-5.33	1.34	1.37
36	5	3130	A	N3-C4	-5.33	1.31	1.34
36	5	3106	A	C5-C4	-5.33	1.35	1.38
37	7	73	C	N3-C4	5.33	1.37	1.33
38	8	96	A	N9-C4	-5.32	1.34	1.37
36	5	2400	G	N9-C4	-5.31	1.33	1.38
36	1	356	C	N1-C6	-5.31	1.33	1.37
36	5	2401	A	N7-C5	5.31	1.42	1.39
36	1	1116	G	N1-C2	-5.31	1.33	1.37
36	5	3120	C	N3-C4	-5.31	1.30	1.33
36	1	661	G	C6-N1	-5.30	1.35	1.39
36	1	1416	C	N3-C4	-5.30	1.30	1.33
36	5	1432	C	C4-C5	-5.30	1.38	1.43
36	5	424	G	N7-C5	-5.30	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1912	U	N1-C2	-5.30	1.33	1.38
36	1	3245	A	N9-C4	-5.30	1.34	1.37
36	1	854	G	N9-C8	-5.30	1.34	1.37
36	5	1320	C	N3-C4	-5.30	1.30	1.33
36	5	1843	C	C4-C5	-5.30	1.38	1.43
36	1	2380	U	C4-O4	-5.29	1.19	1.23
36	1	2818	U	C2-O2	-5.29	1.17	1.22
36	1	2373	A	N7-C5	-5.29	1.36	1.39
36	5	2627	C	N3-C4	-5.29	1.30	1.33
36	1	3000	A	N9-C4	-5.29	1.34	1.37
36	5	657	A	C5-C6	-5.29	1.36	1.41
36	1	908	G	N9-C8	-5.29	1.34	1.37
36	5	1366	A	N3-C4	-5.29	1.31	1.34
36	1	636	C	N1-C6	-5.28	1.33	1.37
36	5	1211	U	C4-O4	-5.28	1.19	1.23
78	q2	74	CYS	CB-SG	5.28	1.91	1.82
36	1	1143	A	N9-C4	-5.28	1.34	1.37
36	1	1148	G	N9-C8	-5.28	1.34	1.37
37	7	89	G	C5-C4	-5.28	1.34	1.38
36	5	646	A	C6-N1	-5.28	1.31	1.35
36	5	1174	G	C5-C4	-5.28	1.34	1.38
36	1	912	G	N9-C8	-5.27	1.34	1.37
36	1	2337	C	N3-C4	-5.27	1.30	1.33
36	1	3173	G	C8-N7	-5.27	1.27	1.30
36	1	1883	A	N9-C4	-5.27	1.34	1.37
36	1	2923	U	N1-C6	-5.27	1.33	1.38
36	5	653	A	C6-N1	-5.27	1.31	1.35
36	1	2910	A	N9-C4	-5.27	1.34	1.37
36	1	33	G	N7-C5	-5.26	1.36	1.39
36	5	3129	A	C5-C6	-5.26	1.36	1.41
36	5	2860	U	N1-C2	5.25	1.43	1.38
36	1	630	A	N7-C5	-5.25	1.36	1.39
1	6	1537	C	C5-C6	5.25	1.38	1.34
69	o3	81	VAL	CB-CG2	-5.25	1.41	1.52
36	5	2128	C	N1-C6	-5.25	1.33	1.37
36	1	591	G	N7-C5	-5.25	1.36	1.39
36	5	1327	C	N3-C4	-5.25	1.30	1.33
36	1	900	G	N9-C8	-5.24	1.34	1.37
36	5	2296	A	C6-N6	-5.24	1.29	1.33
36	1	719	U	N1-C2	5.24	1.43	1.38
36	1	1467	A	N3-C4	-5.24	1.31	1.34
36	1	658	G	C8-N7	-5.23	1.27	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2362	C	N3-C4	-5.23	1.30	1.33
36	5	2368	A	N7-C5	-5.23	1.36	1.39
36	5	658	G	C6-N1	-5.22	1.35	1.39
57	n1	101	CYS	CB-SG	5.22	1.91	1.82
36	5	425	G	N9-C8	-5.22	1.34	1.37
36	1	426	G	N1-C2	-5.22	1.33	1.37
37	7	84	A	C6-N1	-5.22	1.31	1.35
36	5	2375	G	N9-C8	-5.21	1.34	1.37
36	5	2404	A	C5-C6	5.21	1.45	1.41
36	1	653	A	N9-C4	-5.21	1.34	1.37
36	5	971	G	C5-C4	-5.21	1.34	1.38
36	5	2639	G	N7-C5	-5.21	1.36	1.39
36	1	2616	C	C2-N3	-5.21	1.31	1.35
36	1	107	A	C5-C6	-5.20	1.36	1.41
36	1	2762	A	N3-C4	-5.20	1.31	1.34
36	1	1369	A	N9-C4	-5.20	1.34	1.37
36	5	1174	G	N1-C2	-5.20	1.33	1.37
36	5	2893	C	N3-C4	-5.20	1.30	1.33
36	1	653	A	N7-C5	-5.20	1.36	1.39
36	1	2377	G	C5-C4	-5.20	1.34	1.38
36	1	2864	A	C5-C6	-5.20	1.36	1.41
36	5	955	U	C2-N3	-5.20	1.34	1.37
36	5	657	A	C5-C4	-5.20	1.35	1.38
36	5	1148	G	N9-C8	-5.20	1.34	1.37
36	5	2385	G	N9-C4	-5.19	1.33	1.38
36	5	2393	G	C5-C6	-5.19	1.37	1.42
1	6	384	G	N9-C8	-5.19	1.34	1.37
36	5	2167	A	N3-C4	-5.19	1.31	1.34
36	5	94	G	C6-N1	-5.18	1.35	1.39
36	5	2421	U	N3-C4	-5.18	1.33	1.38
36	1	1606	U	N1-C2	-5.18	1.33	1.38
36	5	1103	A	N9-C4	5.18	1.41	1.37
36	1	1379	G	C6-N1	-5.18	1.35	1.39
36	5	3183	A	N7-C5	-5.18	1.36	1.39
1	2	863	A	N9-C4	-5.17	1.34	1.37
36	5	2903	A	N9-C4	-5.17	1.34	1.37
36	1	1326	A	N9-C4	-5.17	1.34	1.37
36	5	2399	A	N9-C4	-5.17	1.34	1.37
36	5	2743	A	N7-C5	-5.17	1.36	1.39
36	1	2811	A	N9-C4	-5.17	1.34	1.37
1	6	397	A	N9-C4	-5.17	1.34	1.37
36	5	227	G	C6-O6	5.17	1.28	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1402	C	N3-C4	-5.17	1.30	1.33
36	1	1192	C	N3-C4	5.16	1.37	1.33
36	5	645	A	C5-C6	5.16	1.45	1.41
36	5	2908	G	C5-C4	-5.16	1.34	1.38
36	5	428	A	N7-C5	-5.16	1.36	1.39
36	1	2923	U	C5-C6	-5.16	1.29	1.34
36	1	424	G	C5-C4	-5.15	1.34	1.38
36	5	1476	G	N3-C4	-5.15	1.31	1.35
36	5	2851	A	N9-C4	-5.15	1.34	1.37
36	5	636	C	N1-C6	-5.15	1.34	1.37
36	5	1328	C	N1-C6	-5.15	1.34	1.37
36	5	941	G	N1-C2	-5.15	1.33	1.37
36	5	2848	G	N3-C4	-5.15	1.31	1.35
36	5	2430	A	N7-C5	-5.15	1.36	1.39
36	1	1509	A	N9-C4	-5.14	1.34	1.37
36	5	924	G	N9-C4	-5.14	1.33	1.38
36	1	99	A	N7-C5	-5.14	1.36	1.39
36	1	665	A	C6-N1	-5.14	1.31	1.35
36	1	1394	A	N3-C4	-5.14	1.31	1.34
36	1	827	A	C6-N1	-5.14	1.31	1.35
36	5	2881	C	N3-C4	-5.14	1.30	1.33
36	5	636	C	C2-N3	-5.13	1.31	1.35
36	1	958	C	N3-C4	-5.13	1.30	1.33
38	4	23	U	C2-N3	5.13	1.41	1.37
36	1	1308	A	C6-N1	-5.12	1.31	1.35
36	1	790	U	C2-N3	-5.12	1.34	1.37
37	7	86	U	C2-N3	-5.12	1.34	1.37
36	5	416	A	N7-C5	-5.12	1.36	1.39
36	5	397	A	N3-C4	-5.12	1.31	1.34
36	5	2134	G	N1-C2	-5.12	1.33	1.37
36	5	3209	A	N3-C4	5.12	1.38	1.34
36	5	2911	A	C5-C6	-5.12	1.36	1.41
36	5	2950	G	C5-C6	-5.12	1.37	1.42
36	5	2290	C	N1-C6	-5.12	1.34	1.37
38	8	111	A	N7-C5	-5.12	1.36	1.39
36	1	1377	G	N9-C4	-5.11	1.33	1.38
36	5	367	A	C5-C4	-5.11	1.35	1.38
36	5	1889	G	N7-C5	-5.11	1.36	1.39
36	1	2931	C	N1-C6	-5.11	1.34	1.37
36	5	795	G	N3-C4	-5.11	1.31	1.35
36	5	2755	C	C4-C5	-5.11	1.38	1.43
36	1	636	C	N3-C4	-5.11	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	6	102	U	C2-N3	-5.11	1.34	1.37
36	5	2636	A	C6-N1	-5.10	1.31	1.35
36	5	922	U	C2-N3	-5.10	1.34	1.37
52	m6	80	PHE	CB-CG	-5.10	1.42	1.51
36	5	2379	U	C2-N3	-5.10	1.34	1.37
36	1	2657	A	N9-C4	-5.09	1.34	1.37
36	1	2313	A	N7-C5	-5.09	1.36	1.39
36	5	2389	C	N1-C6	-5.09	1.34	1.37
36	1	970	A	N3-C4	-5.09	1.31	1.34
1	6	317	C	N1-C6	-5.09	1.34	1.37
36	5	3040	A	N9-C4	-5.09	1.34	1.37
53	m7	126	ARG	CG-CD	5.09	1.64	1.51
36	1	21	G	N3-C4	-5.09	1.31	1.35
36	1	3139	A	P-O5'	-5.08	1.54	1.59
1	2	1762	A	N9-C4	-5.08	1.34	1.37
36	1	420	G	N9-C8	-5.08	1.34	1.37
36	5	981	U	N1-C2	5.08	1.43	1.38
36	5	2635	A	C6-N1	-5.08	1.31	1.35
36	5	2944	U	C2-N3	-5.08	1.34	1.37
36	1	933	A	C6-N1	-5.08	1.31	1.35
36	5	3005	A	N7-C5	-5.08	1.36	1.39
36	5	2954	U	C4-O4	5.07	1.27	1.23
36	5	884	A	N9-C4	-5.07	1.34	1.37
36	5	3138	U	C2-N3	-5.07	1.34	1.37
36	1	1119	C	N1-C6	-5.07	1.34	1.37
36	1	2358	A	C6-N1	-5.07	1.32	1.35
36	5	668	G	C6-N1	-5.07	1.36	1.39
36	5	2813	A	N7-C5	-5.07	1.36	1.39
36	5	2134	G	C6-N1	-5.06	1.36	1.39
36	5	2954	U	N3-C4	5.06	1.43	1.38
36	1	2401	A	C6-N1	5.05	1.39	1.35
36	5	3086	A	N3-C4	-5.05	1.31	1.34
36	1	2188	A	N9-C4	-5.05	1.34	1.37
36	1	2816	G	C5-C4	-5.05	1.34	1.38
36	1	884	A	N9-C4	-5.04	1.34	1.37
36	1	2986	U	C2-O2	-5.04	1.17	1.22
36	1	3147	G	C6-N1	-5.04	1.36	1.39
36	5	1311	G	C5-C4	-5.04	1.34	1.38
36	5	2860	U	C2-N3	5.04	1.41	1.37
36	1	826	G	C5-C4	-5.04	1.34	1.38
36	1	2797	C	N1-C6	-5.04	1.34	1.37
36	1	744	A	N9-C4	-5.04	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	930	U	C4-O4	-5.04	1.19	1.23
36	1	2355	G	N7-C5	-5.04	1.36	1.39
36	1	2968	G	N3-C4	-5.04	1.31	1.35
36	5	2409	G	C5-C4	-5.04	1.34	1.38
36	1	144	A	N9-C4	-5.03	1.34	1.37
36	1	651	G	N9-C4	5.03	1.42	1.38
36	5	1445	U	N1-C2	-5.03	1.34	1.38
36	5	967	A	C6-N1	-5.03	1.32	1.35
36	5	2792	A	N9-C4	5.03	1.40	1.37
36	5	2811	A	C6-N1	-5.03	1.32	1.35
36	5	2937	G	N9-C8	-5.03	1.34	1.37
36	5	1163	A	C6-N1	-5.03	1.32	1.35
36	5	3197	G	N9-C8	5.03	1.41	1.37
36	5	295	A	N9-C4	-5.02	1.34	1.37
36	1	206	G	N1-C2	-5.02	1.33	1.37
36	1	1660	C	C2-N3	-5.02	1.31	1.35
36	1	3209	A	C5-C4	5.02	1.42	1.38
36	5	2934	A	C6-N1	-5.02	1.32	1.35
37	7	11	A	C5-C6	-5.02	1.36	1.41
36	5	924	G	C5-C4	-5.01	1.34	1.38
36	5	2412	G	N7-C5	-5.01	1.36	1.39
36	1	2605	G	N9-C4	-5.01	1.33	1.38
36	1	805	G	N9-C8	-5.01	1.34	1.37
40	L3	200	GLU	CG-CD	5.01	1.59	1.51
36	5	2326	A	N3-C4	-5.01	1.31	1.34
42	15	257	GLU	CG-CD	5.01	1.59	1.51

All (5562) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1152	G	N3-C4-C5	28.50	142.85	128.60
36	5	1152	G	N3-C4-N9	-25.34	110.80	126.00
36	5	1152	G	C2-N3-C4	-23.17	100.31	111.90
36	5	424	G	C5-C6-O6	-17.79	117.92	128.60
36	5	1152	G	C5-N7-C8	-14.52	97.04	104.30
36	1	1495	U	C5-C6-N1	-14.28	115.56	122.70
36	1	2714	G	N3-C4-C5	14.15	135.67	128.60
36	1	1149	G	N1-C6-O6	14.12	128.37	119.90
36	5	3183	A	N1-C6-N6	13.96	126.97	118.60
36	1	2714	G	N3-C4-N9	-13.57	117.86	126.00
36	1	3306	U	C5-C4-O4	13.38	133.93	125.90
36	5	1152	G	C4-C5-N7	13.26	116.11	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	922	U	N3-C2-O2	-13.25	112.92	122.20
36	5	1152	G	C8-N9-C1'	13.12	144.06	127.00
36	1	3306	U	N3-C4-O4	-13.08	110.25	119.40
36	5	3245	A	C2-N3-C4	-12.91	104.14	110.60
36	1	2617	U	N1-C2-N3	12.84	122.61	114.90
36	5	2199	G	N1-C6-O6	12.78	127.57	119.90
1	2	553	G	N1-C6-O6	12.67	127.50	119.90
36	5	2954	U	C2-N1-C1'	12.63	132.85	117.70
1	6	163	G	N3-C4-N9	-12.61	118.43	126.00
36	1	1849	C	O5'-P-OP1	-12.61	94.35	105.70
36	1	1367	G	N1-C6-O6	12.56	127.44	119.90
36	1	2355	G	N1-C6-O6	12.50	127.40	119.90
36	5	672	A	N1-C6-N6	12.49	126.10	118.60
36	5	776	U	C5-C6-N1	-12.38	116.51	122.70
36	1	282	G	O5'-P-OP1	-12.31	94.62	105.70
36	5	3245	A	C5-N7-C8	-12.22	97.79	103.90
1	6	1773	C	N3-C4-C5	-12.14	117.05	121.90
36	1	2884	C	N3-C4-C5	12.12	126.75	121.90
36	5	2364	G	C5-C6-O6	12.12	135.87	128.60
36	1	1149	G	N3-C2-N2	-11.92	111.55	119.90
36	5	861	C	C6-N1-C2	11.90	125.06	120.30
36	5	96	G	O5'-P-OP2	-11.87	95.01	105.70
36	5	3245	A	N1-C6-N6	11.86	125.72	118.60
36	1	3278	C	N1-C2-O2	11.84	126.00	118.90
1	6	1657	U	O5'-P-OP2	-11.80	95.08	105.70
36	5	1152	G	C4-N9-C1'	-11.80	111.16	126.50
36	5	3183	A	C5-C6-N6	-11.76	114.29	123.70
36	5	398	A	O5'-P-OP2	-11.76	95.12	105.70
37	7	93	C	O5'-P-OP2	-11.65	95.22	105.70
36	1	1846	C	O5'-P-OP1	-11.50	95.35	105.70
36	5	2400	G	C5-C6-O6	-11.46	121.72	128.60
36	5	424	G	N1-C6-O6	11.45	126.77	119.90
36	5	2726	C	C5-C4-N4	11.43	128.20	120.20
36	5	2400	G	N1-C6-O6	11.37	126.72	119.90
36	1	1001	G	N1-C6-O6	11.34	126.70	119.90
36	5	2899	C	C6-N1-C2	-11.34	115.77	120.30
36	5	2818	U	O5'-P-OP1	-11.33	95.50	105.70
36	5	3218	A	N1-C6-N6	11.26	125.36	118.60
36	5	216	G	N1-C6-O6	11.25	126.65	119.90
36	5	220	G	O5'-P-OP2	-11.13	95.68	105.70
36	1	1891	A	C8-N9-C4	11.13	110.25	105.80
36	5	2372	A	C8-N9-C4	-11.10	101.36	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	80	A	C8-N9-C4	-11.10	101.36	105.80
36	1	2846	U	N3-C2-O2	-11.09	114.43	122.20
36	5	1116	G	O5'-P-OP1	-11.08	95.73	105.70
36	1	888	A	N1-C6-N6	11.06	125.24	118.60
1	6	1473	U	N3-C2-O2	-11.04	114.47	122.20
36	1	1182	A	O5'-P-OP1	-11.03	95.78	105.70
36	1	716	A	N1-C6-N6	11.01	125.21	118.60
36	5	2700	G	C5-C6-O6	-11.01	121.99	128.60
36	5	877	C	N3-C4-C5	11.00	126.30	121.90
36	1	1838	G	N1-C6-O6	10.98	126.49	119.90
36	5	2726	C	C6-N1-C2	-10.86	115.96	120.30
37	3	94	C	N1-C2-O2	-10.85	112.39	118.90
36	1	1152	G	O5'-P-OP1	-10.82	95.96	105.70
36	5	2935	U	O5'-P-OP2	-10.81	95.97	105.70
1	2	1200	G	N1-C6-O6	10.78	126.37	119.90
36	5	3245	A	N7-C8-N9	10.78	119.19	113.80
36	1	2617	U	C4-C5-C6	10.72	126.13	119.70
1	2	137	U	O5'-P-OP1	-10.71	96.06	105.70
36	1	2870	C	C2-N1-C1'	-10.67	107.06	118.80
36	1	776	U	C4-C5-C6	10.67	126.10	119.70
36	1	639	G	N1-C6-O6	10.66	126.30	119.90
36	1	938	C	C5-C4-N4	-10.65	112.74	120.20
36	5	205	C	O5'-P-OP1	-10.64	96.12	105.70
36	5	2393	G	C5-C6-O6	-10.58	122.25	128.60
38	4	94	C	C6-N1-C2	10.55	124.52	120.30
36	1	1381	A	O5'-P-OP2	10.54	123.34	110.70
36	5	3245	A	C6-C5-N7	-10.53	124.93	132.30
36	5	2373	A	O5'-P-OP1	-10.51	96.24	105.70
36	5	1184	A	N1-C6-N6	-10.43	112.34	118.60
36	5	1117	G	O5'-P-OP1	-10.36	96.37	105.70
36	1	304	G	C4-C5-N7	-10.34	106.67	110.80
36	1	2714	G	C2-N3-C4	-10.34	106.73	111.90
36	1	1303	A	C8-N9-C4	10.33	109.93	105.80
36	1	1790	G	N1-C6-O6	10.32	126.09	119.90
36	1	939	U	O5'-P-OP2	-10.28	96.45	105.70
36	5	2971	A	C2-N3-C4	10.26	115.73	110.60
1	2	577	G	N1-C6-O6	10.24	126.05	119.90
36	1	2337	C	C6-N1-C2	-10.24	116.20	120.30
36	5	645	A	C6-N1-C2	-10.23	112.46	118.60
36	5	3141	A	O5'-P-OP1	-10.21	96.51	105.70
36	5	424	G	C4-C5-N7	10.20	114.88	110.80
36	5	2385	G	N3-C4-C5	10.20	133.70	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2624	G	C8-N9-C4	-10.19	102.32	106.40
36	5	2199	G	C6-C5-N7	-10.17	124.30	130.40
36	1	895	A	N1-C6-N6	10.16	124.70	118.60
36	1	957	C	N1-C2-O2	-10.16	112.80	118.90
36	1	1166	G	N1-C6-O6	10.09	125.95	119.90
36	5	1373	A	N1-C6-N6	10.08	124.65	118.60
36	5	1592	G	C5-C6-N1	-10.06	106.47	111.50
36	1	940	G	N1-C6-O6	-10.03	113.88	119.90
1	2	1039	A	O4'-C1'-N9	10.02	116.21	108.20
36	5	889	U	N3-C4-C5	9.97	120.58	114.60
36	5	3362	A	C2-N3-C4	-9.96	105.62	110.60
36	1	1433	A	C8-N9-C4	-9.96	101.82	105.80
36	5	2199	G	C5-C6-O6	-9.96	122.63	128.60
36	5	973	A	N1-C6-N6	9.94	124.57	118.60
36	5	1152	G	N3-C2-N2	-9.94	112.94	119.90
36	5	1912	U	N3-C2-O2	9.92	129.14	122.20
36	5	1897	G	N1-C6-O6	9.91	125.85	119.90
36	1	1495	U	C4-C5-C6	9.90	125.64	119.70
36	1	2983	C	C5-C6-N1	-9.90	116.05	121.00
1	2	577	G	C4-C5-N7	9.89	114.76	110.80
36	1	3181	C	C5-C4-N4	9.89	127.13	120.20
36	1	2760	C	N1-C2-O2	-9.89	112.97	118.90
36	1	1838	G	C5-C6-O6	-9.88	122.67	128.60
36	5	2136	C	C5-C6-N1	-9.88	116.06	121.00
36	5	630	A	C2-N3-C4	-9.87	105.66	110.60
36	1	2831	G	N1-C6-O6	9.87	125.82	119.90
36	1	2374	C	C6-N1-C2	-9.86	116.36	120.30
36	1	1329	U	C2-N1-C1'	9.86	129.53	117.70
36	1	406	G	O4'-C1'-N9	9.85	116.08	108.20
36	5	1416	C	N3-C4-C5	9.84	125.83	121.90
36	5	2857	C	N3-C4-C5	9.83	125.83	121.90
1	2	542	A	O4'-C1'-N9	9.81	116.05	108.20
36	5	948	C	C6-N1-C2	9.81	124.23	120.30
36	1	2693	C	C6-N1-C2	9.81	124.22	120.30
36	1	3344	A	N7-C8-N9	9.78	118.69	113.80
1	6	1773	C	N1-C2-O2	-9.78	113.03	118.90
36	1	2395	G	O5'-P-OP2	-9.77	96.91	105.70
36	5	1372	C	C6-N1-C2	9.77	124.21	120.30
36	5	2395	G	O5'-P-OP2	-9.76	96.91	105.70
36	1	1403	C	C6-N1-C2	9.75	124.20	120.30
36	5	1308	A	C8-N9-C4	-9.74	101.90	105.80
36	1	304	G	N9-C4-C5	9.73	109.29	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2405	C	C6-N1-C2	-9.73	116.41	120.30
36	5	1592	G	C8-N9-C4	-9.72	102.51	106.40
36	5	1149	G	N1-C6-O6	9.71	125.73	119.90
36	1	2121	G	N3-C2-N2	9.70	126.69	119.90
36	1	439	C	N1-C2-O2	9.68	124.70	118.90
36	1	635	G	C5-C6-O6	-9.67	122.80	128.60
36	5	938	C	N3-C4-C5	9.67	125.77	121.90
36	5	1592	G	C5-C6-O6	9.67	134.40	128.60
36	1	895	A	C2-N3-C4	-9.64	105.78	110.60
36	1	1367	G	C5-C6-O6	-9.64	122.82	128.60
36	5	3245	A	C4-C5-N7	9.64	115.52	110.70
36	5	1173	U	O5'-P-OP2	-9.62	97.04	105.70
1	6	163	G	N3-C4-C5	9.61	133.41	128.60
36	5	693	A	O5'-P-OP1	-9.61	97.06	105.70
36	5	957	C	N3-C2-O2	-9.60	115.18	121.90
36	1	2379	U	N1-C2-O2	-9.60	116.08	122.80
36	1	67	A	O5'-P-OP1	-9.59	97.07	105.70
36	1	1192	C	C2-N1-C1'	9.57	129.32	118.80
1	2	553	G	C5-C6-O6	-9.56	122.86	128.60
38	8	80	A	N7-C8-N9	9.56	118.58	113.80
36	5	1152	G	N1-C6-O6	9.54	125.62	119.90
36	5	2700	G	N1-C6-O6	9.53	125.62	119.90
36	5	2868	U	N1-C2-O2	9.52	129.47	122.80
36	1	1116	G	N3-C4-C5	-9.52	123.84	128.60
36	1	49	A	N1-C6-N6	9.52	124.31	118.60
36	1	3143	C	N3-C2-O2	9.51	128.55	121.90
36	1	2310	U	O5'-P-OP1	-9.49	97.16	105.70
36	1	2169	G	C4-C5-N7	-9.49	107.00	110.80
36	1	1949	G	O5'-P-OP1	-9.47	97.18	105.70
36	1	2987	A	N1-C6-N6	9.46	124.28	118.60
36	5	882	A	N1-C2-N3	9.46	134.03	129.30
36	5	835	G	N1-C6-O6	-9.45	114.23	119.90
36	5	2726	C	N3-C4-N4	-9.44	111.39	118.00
36	1	1454	A	O5'-P-OP1	-9.43	97.21	105.70
36	1	1556	C	N1-C2-O2	9.43	124.56	118.90
36	1	3181	C	N3-C4-N4	-9.41	111.41	118.00
36	5	2400	G	C4-C5-N7	9.40	114.56	110.80
36	1	2621	G	N3-C2-N2	-9.40	113.32	119.90
36	1	969	C	N1-C2-O2	-9.40	113.26	118.90
36	1	716	A	N9-C4-C5	-9.39	102.05	105.80
36	5	2899	C	N1-C2-N3	9.37	125.76	119.20
36	1	422	A	N1-C6-N6	-9.35	112.99	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	645	A	C6-N1-C2	-9.35	112.99	118.60
36	1	1556	C	C6-N1-C2	-9.35	116.56	120.30
38	4	38	U	N3-C2-O2	-9.35	115.66	122.20
36	1	895	A	O5'-P-OP1	-9.35	97.29	105.70
36	5	2726	C	N1-C2-N3	9.35	125.74	119.20
36	5	922	U	N1-C2-O2	9.34	129.34	122.80
36	1	933	A	O5'-P-OP2	-9.34	97.30	105.70
36	5	966	U	N3-C2-O2	-9.34	115.66	122.20
1	6	119	A	C2-N3-C4	-9.33	105.94	110.60
36	5	1316	C	N1-C2-O2	-9.33	113.30	118.90
36	1	1556	C	N3-C2-O2	-9.32	115.38	121.90
36	5	2278	C	C5-C6-N1	9.32	125.66	121.00
36	1	2873	U	C5-C4-O4	9.31	131.49	125.90
36	1	86	G	O5'-P-OP2	-9.30	97.33	105.70
36	1	3269	U	O5'-P-OP2	-9.30	97.33	105.70
36	1	1001	G	C5-C6-O6	-9.26	123.05	128.60
36	1	1116	G	O5'-P-OP1	-9.25	97.37	105.70
36	5	672	A	C6-C5-N7	-9.24	125.83	132.30
36	1	2298	U	N3-C4-O4	-9.23	112.94	119.40
36	5	1306	G	N1-C6-O6	9.23	125.44	119.90
36	1	1306	G	C5-C6-O6	-9.22	123.07	128.60
36	1	2121	G	N1-C6-O6	-9.21	114.37	119.90
36	1	49	A	C8-N9-C4	9.21	109.48	105.80
36	1	2827	U	N3-C2-O2	-9.20	115.76	122.20
36	5	1116	G	N3-C4-C5	-9.20	124.00	128.60
36	1	2343	C	N3-C4-C5	9.19	125.58	121.90
36	5	3197	G	N3-C2-N2	-9.18	113.47	119.90
36	5	437	G	N3-C2-N2	-9.18	113.48	119.90
1	6	1537	C	C6-N1-C2	-9.17	116.63	120.30
37	7	11	A	N1-C6-N6	9.17	124.10	118.60
36	1	639	G	C5-C6-O6	-9.16	123.10	128.60
36	5	2917	G	C5-C6-O6	-9.16	123.11	128.60
36	1	808	A	N1-C2-N3	9.15	133.88	129.30
36	1	933	A	N1-C2-N3	9.15	133.88	129.30
36	1	2833	A	O5'-P-OP2	-9.15	97.46	105.70
36	1	610	G	O5'-P-OP2	-9.14	97.47	105.70
36	1	949	C	C4-C5-C6	9.13	121.97	117.40
36	5	2117	A	N1-C6-N6	-9.13	113.12	118.60
36	1	2870	C	C6-N1-C1'	9.12	131.74	120.80
36	5	2849	C	N3-C2-O2	9.11	128.28	121.90
1	2	453	U	N3-C2-O2	-9.10	115.83	122.20
36	1	304	G	N1-C6-O6	-9.10	114.44	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3344	A	C8-N9-C4	-9.10	102.16	105.80
36	5	1891	A	O5'-P-OP2	-9.09	97.52	105.70
36	5	2893	C	C4-C5-C6	9.09	121.95	117.40
36	5	2364	G	N1-C6-O6	-9.08	114.45	119.90
36	5	2403	G	O5'-P-OP2	-9.08	97.53	105.70
36	1	1846	C	N1-C2-O2	-9.08	113.45	118.90
1	6	453	U	N3-C2-O2	-9.08	115.84	122.20
36	5	938	C	C5-C4-N4	-9.07	113.85	120.20
36	1	895	A	C4-C5-N7	9.07	115.24	110.70
36	1	1901	A	N1-C6-N6	-9.07	113.16	118.60
36	1	397	A	N1-C6-N6	-9.06	113.16	118.60
36	1	2412	G	C5-C6-O6	-9.06	123.17	128.60
36	1	2617	U	N3-C2-O2	-9.05	115.86	122.20
36	5	585	A	O5'-P-OP2	-9.06	97.55	105.70
36	1	3107	U	O5'-P-OP2	-9.05	97.56	105.70
36	5	1161	G	C5-C6-O6	-9.04	123.17	128.60
36	1	2831	G	C5-C6-O6	-9.04	123.18	128.60
36	5	63	A	N1-C6-N6	9.04	124.02	118.60
1	6	957	G	N1-C6-O6	9.03	125.32	119.90
36	1	1329	U	N3-C2-O2	-9.02	115.89	122.20
1	6	1634	C	C2-N1-C1'	9.02	128.72	118.80
36	1	3278	C	N3-C2-O2	-9.02	115.59	121.90
36	1	3122	A	O5'-P-OP1	-9.01	97.59	105.70
36	1	1838	G	C6-C5-N7	-8.99	125.00	130.40
36	5	227	G	O5'-P-OP2	-8.99	97.61	105.70
36	5	1149	G	C5-C6-O6	-8.99	123.20	128.60
36	1	1308	A	C8-N9-C4	-8.99	102.20	105.80
36	1	958	C	N3-C4-C5	8.98	125.49	121.90
36	1	1556	C	C2-N1-C1'	8.98	128.68	118.80
36	1	2148	U	N3-C2-O2	8.97	128.48	122.20
36	1	2624	G	N7-C8-N9	8.97	117.58	113.10
36	5	41	G	C4-C5-N7	8.96	114.38	110.80
36	5	3084	C	O5'-P-OP1	-8.96	97.64	105.70
36	5	1335	C	N1-C2-O2	-8.96	113.53	118.90
36	1	3209	A	N1-C6-N6	8.95	123.97	118.60
36	5	2954	U	C6-N1-C1'	-8.94	108.69	121.20
48	m1	112	LEU	CA-CB-CG	8.93	135.84	115.30
36	5	3218	A	C4-C5-N7	8.92	115.16	110.70
36	1	2983	C	N3-C4-N4	-8.92	111.76	118.00
36	5	2234	G	C5-C6-O6	-8.90	123.26	128.60
36	1	1495	U	C2-N1-C1'	-8.90	107.03	117.70
36	5	2345	A	N1-C6-N6	8.90	123.94	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	653	A	O5'-P-OP1	-8.89	97.69	105.70
36	5	1373	A	C5-C6-N6	-8.89	116.59	123.70
36	5	1476	G	O5'-P-OP2	-8.89	97.70	105.70
36	1	901	G	N1-C6-O6	8.88	125.23	119.90
36	5	1556	C	C6-N1-C2	-8.88	116.75	120.30
36	5	3137	C	N3-C4-N4	-8.88	111.79	118.00
36	1	895	A	C6-C5-N7	-8.87	126.09	132.30
36	5	1208	U	C5-C4-O4	8.87	131.22	125.90
36	1	1362	G	C8-N9-C4	8.86	109.94	106.40
1	6	163	G	C2-N3-C4	-8.86	107.47	111.90
36	5	337	G	N3-C4-C5	-8.86	124.17	128.60
36	5	1110	U	N1-C2-O2	8.86	129.00	122.80
36	5	1473	G	C8-N9-C4	8.86	109.94	106.40
36	1	2169	G	N1-C6-O6	-8.85	114.59	119.90
36	5	895	A	N1-C2-N3	8.85	133.72	129.30
36	5	3197	G	N3-C4-N9	-8.83	120.70	126.00
36	5	56	G	O5'-P-OP2	-8.82	97.76	105.70
36	5	1142	G	C8-N9-C4	-8.82	102.87	106.40
36	5	963	G	O5'-P-OP2	-8.81	97.77	105.70
36	5	3374	U	N3-C4-O4	-8.80	113.24	119.40
36	1	2816	G	C8-N9-C4	8.80	109.92	106.40
36	5	2400	G	N9-C4-C5	-8.80	101.88	105.40
1	2	334	G	C2-N3-C4	-8.80	107.50	111.90
36	1	608	A	N1-C6-N6	8.79	123.88	118.60
1	2	639	U	N3-C2-O2	-8.79	116.05	122.20
36	5	2400	G	C8-N9-C4	8.79	109.91	106.40
36	5	3209	A	O4'-C1'-N9	8.78	115.23	108.20
36	5	2234	G	C8-N9-C4	8.78	109.91	106.40
36	1	1060	U	C5-C6-N1	-8.77	118.31	122.70
36	5	630	A	C8-N9-C4	8.77	109.31	105.80
36	1	699	A	O5'-P-OP2	-8.76	97.82	105.70
36	5	1879	A	N1-C6-N6	8.76	123.86	118.60
36	5	2205	U	O4'-C1'-N1	8.75	115.20	108.20
36	1	1190	A	N1-C6-N6	8.74	123.84	118.60
36	1	1520	G	N7-C8-N9	-8.74	108.73	113.10
36	1	2996	U	C2-N1-C1'	8.74	128.19	117.70
36	5	2392	C	N3-C4-C5	8.74	125.39	121.90
36	1	1883	A	C8-N9-C4	8.73	109.29	105.80
36	1	2726	C	N3-C4-N4	-8.73	111.89	118.00
36	1	1495	U	N1-C2-N3	8.72	120.14	114.90
36	5	2280	A	C2-N3-C4	-8.72	106.24	110.60
36	1	912	G	C6-N1-C2	-8.71	119.87	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1520	G	C5-N7-C8	8.71	108.66	104.30
36	1	2357	A	N1-C6-N6	8.71	123.83	118.60
36	1	2620	G	N1-C6-O6	8.71	125.12	119.90
36	5	2272	G	O4'-C1'-N9	8.70	115.16	108.20
36	5	3184	A	N1-C6-N6	8.70	123.82	118.60
1	6	435	C	N1-C2-O2	8.69	124.12	118.90
36	5	1879	A	C4-C5-N7	8.69	115.05	110.70
36	5	1208	U	N3-C2-O2	-8.69	116.12	122.20
36	1	3264	G	C8-N9-C4	8.68	109.87	106.40
36	1	2923	U	O5'-P-OP1	-8.66	97.90	105.70
36	5	672	A	C5-C6-N6	-8.66	116.77	123.70
36	1	648	C	O5'-P-OP1	-8.66	97.91	105.70
36	1	2873	U	N3-C2-O2	-8.66	116.14	122.20
36	1	716	A	C4-C5-N7	8.65	115.03	110.70
38	4	47	C	C5-C6-N1	-8.65	116.67	121.00
36	1	2617	U	C5-C6-N1	-8.65	118.38	122.70
36	1	2868	U	N3-C2-O2	-8.64	116.15	122.20
36	1	3057	U	N3-C4-O4	-8.64	113.35	119.40
1	6	1767	G	C8-N9-C4	8.64	109.86	106.40
36	5	3184	A	C8-N9-C4	8.64	109.25	105.80
36	1	716	A	C2-N3-C4	-8.63	106.28	110.60
36	5	1889	G	C5-C6-O6	-8.63	123.42	128.60
36	1	2344	U	O5'-P-OP2	-8.61	97.95	105.70
36	5	1908	A	N9-C4-C5	8.61	109.25	105.80
36	1	1001	G	C6-C5-N7	-8.61	125.24	130.40
1	6	308	C	C5-C6-N1	-8.61	116.70	121.00
36	1	611	A	O5'-P-OP2	-8.60	97.96	105.70
36	1	1313	G	N1-C6-O6	8.60	125.06	119.90
36	1	2937	G	C8-N9-C4	8.60	109.84	106.40
1	2	1096	C	N1-C2-O2	8.59	124.05	118.90
36	5	2315	G	O5'-P-OP1	-8.58	97.98	105.70
36	5	2939	G	C8-N9-C4	8.57	109.83	106.40
36	1	229	G	N3-C2-N2	-8.57	113.90	119.90
36	1	979	U	C6-N1-C2	-8.57	115.86	121.00
1	6	421	A	C8-N9-C4	8.57	109.23	105.80
36	5	3308	C	N1-C2-O2	-8.57	113.76	118.90
1	2	1600	A	C2-N3-C4	-8.57	106.32	110.60
36	1	2606	G	C6-C5-N7	-8.55	125.27	130.40
1	6	1473	U	N1-C2-O2	8.55	128.79	122.80
36	1	972	A	C8-N9-C4	8.55	109.22	105.80
36	1	1326	A	O5'-P-OP1	8.54	120.95	110.70
36	1	897	U	O5'-P-OP1	-8.54	98.01	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1481	A	C8-N9-C4	-8.54	102.38	105.80
36	1	2868	U	N1-C2-O2	8.54	128.78	122.80
73	O7	65	ARG	NE-CZ-NH1	8.54	124.57	120.30
36	5	1910	A	O5'-P-OP1	-8.54	98.02	105.70
36	5	929	A	O5'-P-OP2	-8.53	98.02	105.70
36	1	85	A	O5'-P-OP2	-8.53	98.02	105.70
36	1	2867	C	C2-N3-C4	-8.53	115.64	119.90
36	1	1389	G	C4-C5-N7	8.52	114.21	110.80
36	1	950	G	C4-C5-N7	8.52	114.21	110.80
36	1	2209	U	C5-C6-N1	8.52	126.96	122.70
36	1	143	G	N1-C6-O6	-8.51	114.79	119.90
36	5	358	G	N1-C6-O6	8.50	125.00	119.90
1	2	73	U	O4'-C1'-N1	8.50	115.00	108.20
37	7	101	G	N1-C6-O6	8.50	125.00	119.90
36	5	2953	U	N3-C4-O4	8.49	125.34	119.40
36	1	2808	A	O4'-C1'-N9	-8.47	101.42	108.20
36	5	1156	C	C6-N1-C2	-8.47	116.91	120.30
36	1	1365	G	N3-C4-C5	-8.47	124.37	128.60
36	1	1477	A	O5'-P-OP1	-8.47	98.08	105.70
36	5	934	G	C5-C6-O6	-8.46	123.52	128.60
36	5	2873	U	C5-C6-N1	-8.46	118.47	122.70
36	5	2968	G	C8-N9-C4	8.46	109.78	106.40
36	5	1482	A	O5'-P-OP2	-8.46	98.08	105.70
1	6	1473	U	C5-C4-O4	8.46	130.97	125.90
36	5	216	G	C5-C6-O6	-8.46	123.53	128.60
36	5	706	A	C8-N9-C4	8.46	109.18	105.80
36	5	1851	G	N1-C6-O6	8.45	124.97	119.90
36	1	925	A	N1-C2-N3	8.44	133.52	129.30
36	1	776	U	N1-C2-N3	8.43	119.96	114.90
1	2	453	U	C2-N1-C1'	8.43	127.81	117.70
36	1	2121	G	N1-C2-N2	-8.43	108.62	116.20
36	1	646	A	O5'-P-OP2	-8.42	98.12	105.70
36	5	1710	C	C6-N1-C2	8.42	123.67	120.30
36	5	1143	A	C2-N3-C4	-8.41	106.39	110.60
36	5	1848	G	C5-C6-N1	8.41	115.71	111.50
36	1	1377	G	C4-C5-N7	8.41	114.16	110.80
1	2	447	U	C6-N1-C2	-8.41	115.96	121.00
1	2	1600	A	N1-C6-N6	8.40	123.64	118.60
36	1	3079	U	C2-N1-C1'	-8.40	107.62	117.70
36	5	2796	G	O5'-P-OP2	-8.39	98.14	105.70
36	1	672	A	N1-C6-N6	8.39	123.64	118.60
36	5	518	G	N1-C6-O6	-8.39	114.87	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1192	C	N3-C2-O2	-8.39	116.03	121.90
36	1	1313	G	C5-C6-O6	-8.38	123.57	128.60
1	6	17	C	N1-C2-O2	8.38	123.93	118.90
36	1	1480	G	C4-C5-N7	8.37	114.15	110.80
36	5	2412	G	N3-C4-C5	-8.36	124.42	128.60
36	5	2145	A	C6-N1-C2	-8.36	113.58	118.60
36	5	960	U	N1-C2-O2	8.35	128.65	122.80
36	5	2234	G	N9-C4-C5	-8.35	102.06	105.40
1	2	577	G	C5-C6-O6	-8.34	123.59	128.60
36	1	1177	G	O5'-P-OP2	-8.33	98.20	105.70
36	1	1405	U	N3-C4-O4	-8.33	113.57	119.40
36	5	939	U	C5-C4-O4	-8.32	120.91	125.90
37	7	120	C	C6-N1-C2	8.32	123.63	120.30
36	1	206	G	N1-C6-O6	-8.31	114.91	119.90
36	1	1306	G	N1-C6-O6	8.31	124.89	119.90
36	1	917	A	N1-C6-N6	-8.31	113.62	118.60
36	1	2169	G	C6-C5-N7	8.31	135.38	130.40
36	5	2954	U	O4'-C1'-N1	8.31	114.84	108.20
36	1	2893	C	N3-C4-N4	-8.30	112.19	118.00
38	4	32	C	N3-C4-C5	8.30	125.22	121.90
1	6	542	A	O5'-P-OP1	-8.30	98.23	105.70
36	5	2996	U	N1-C2-O2	8.30	128.61	122.80
36	1	358	G	N1-C6-O6	8.29	124.87	119.90
36	1	1433	A	N9-C4-C5	8.29	109.11	105.80
36	1	2920	U	C5-C6-N1	-8.28	118.56	122.70
36	1	1001	G	C4-C5-N7	8.28	114.11	110.80
36	1	1187	C	C6-N1-C2	8.28	123.61	120.30
36	1	2625	C	N1-C2-O2	-8.28	113.93	118.90
36	1	811	U	N3-C2-O2	-8.28	116.41	122.20
36	5	2849	C	N1-C2-O2	-8.28	113.93	118.90
36	1	640	U	C5-C4-O4	-8.27	120.94	125.90
36	1	2379	U	C5-C4-O4	-8.27	120.94	125.90
36	1	1797	A	O5'-P-OP1	-8.27	98.26	105.70
36	5	2944	U	N1-C2-O2	8.27	128.59	122.80
36	1	2373	A	O5'-P-OP1	-8.26	98.27	105.70
37	7	90	U	C5-C6-N1	-8.26	118.57	122.70
36	1	2418	G	N3-C4-C5	-8.25	124.47	128.60
1	2	992	A	C2-N3-C4	-8.25	106.47	110.60
36	5	1292	C	C6-N1-C2	8.25	123.60	120.30
36	1	1151	U	C6-N1-C2	-8.24	116.05	121.00
36	5	1481	A	O4'-C1'-N9	8.24	114.80	108.20
36	1	880	G	N1-C6-O6	-8.24	114.96	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2197	C	C6-N1-C2	8.24	123.60	120.30
36	1	2379	U	N3-C4-O4	8.24	125.17	119.40
36	1	2308	C	N1-C2-O2	-8.24	113.96	118.90
36	1	2987	A	C4-C5-C6	8.24	121.12	117.00
36	5	960	U	N3-C2-O2	-8.24	116.43	122.20
36	1	2964	G	O5'-P-OP2	-8.23	98.29	105.70
36	5	776	U	C4-C5-C6	8.23	124.64	119.70
36	5	1154	A	C2-N3-C4	8.23	114.72	110.60
1	2	1761	U	C6-N1-C2	-8.23	116.06	121.00
36	1	2351	U	O5'-P-OP2	8.23	120.57	110.70
36	5	2372	A	N7-C8-N9	8.23	117.91	113.80
36	1	645	A	C5-C6-N1	8.22	121.81	117.70
36	5	3183	A	C6-C5-N7	-8.22	126.55	132.30
36	5	2385	G	C2-N3-C4	-8.21	107.79	111.90
36	5	522	A	O5'-P-OP1	-8.21	98.31	105.70
1	6	453	U	C2-N1-C1'	8.21	127.55	117.70
36	5	2283	G	O5'-P-OP2	-8.21	98.31	105.70
36	5	216	G	C4-C5-N7	8.20	114.08	110.80
36	1	2400	G	C6-C5-N7	-8.20	125.48	130.40
36	1	1313	G	C4-C5-N7	8.20	114.08	110.80
36	5	424	G	N9-C4-C5	-8.19	102.12	105.40
36	1	358	G	C5-C6-O6	-8.19	123.69	128.60
36	5	1592	G	N9-C4-C5	8.18	108.67	105.40
36	1	1367	G	C6-C5-N7	-8.18	125.49	130.40
36	1	3217	C	C2-N1-C1'	8.18	127.80	118.80
1	2	404	G	C8-N9-C4	8.17	109.67	106.40
36	5	1552	G	C5-C6-O6	-8.17	123.70	128.60
36	5	2875	U	N3-C4-O4	8.17	125.12	119.40
36	1	709	A	C8-N9-C4	8.16	109.07	105.80
36	1	2818	U	O5'-P-OP1	-8.16	98.36	105.70
36	1	1175	C	C2-N3-C4	-8.15	115.82	119.90
36	1	2286	U	O5'-P-OP2	-8.14	98.37	105.70
36	5	2572	C	N1-C2-O2	8.14	123.78	118.90
1	2	1274	C	C2-N1-C1'	8.14	127.75	118.80
1	6	1773	C	N3-C4-N4	8.13	123.69	118.00
36	1	339	C	N3-C4-N4	-8.13	112.31	118.00
36	5	2930	A	C5-C6-N1	8.12	121.76	117.70
36	1	2983	C	C5-C4-N4	8.12	125.89	120.20
36	5	2709	C	C6-N1-C2	8.11	123.55	120.30
36	1	1518	U	C4-C5-C6	8.11	124.57	119.70
36	5	800	G	N3-C2-N2	-8.11	114.22	119.90
36	5	1300	G	C5-C6-O6	-8.11	123.73	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	701	G	N1-C6-O6	8.11	124.76	119.90
36	1	2865	U	N3-C4-C5	8.11	119.46	114.60
36	1	1552	G	C5-C6-O6	-8.10	123.74	128.60
36	5	2412	G	N3-C4-N9	8.10	130.86	126.00
36	1	651	G	N3-C4-C5	-8.09	124.55	128.60
36	1	327	A	C8-N9-C4	8.09	109.03	105.80
36	5	2619	G	C5-C6-O6	-8.09	123.75	128.60
36	1	933	A	O5'-P-OP1	-8.09	98.42	105.70
40	l3	26	ARG	NE-CZ-NH1	-8.09	116.26	120.30
36	1	2418	G	N3-C4-N9	8.08	130.85	126.00
36	5	804	C	C4-C5-C6	8.08	121.44	117.40
36	5	1316	C	N3-C4-N4	8.08	123.66	118.00
36	1	721	G	C8-N9-C4	-8.07	103.17	106.40
56	n0	13	ARG	NE-CZ-NH1	8.07	124.34	120.30
36	5	1389	G	C5-C6-O6	-8.07	123.76	128.60
36	5	3183	A	N9-C4-C5	-8.07	102.57	105.80
1	6	1634	C	N1-C2-O2	8.07	123.74	118.90
1	2	1773	C	N3-C4-N4	8.06	123.64	118.00
36	5	1513	G	C8-N9-C4	-8.06	103.18	106.40
36	5	642	U	O5'-P-OP2	-8.06	98.45	105.70
36	5	2700	G	N9-C4-C5	-8.05	102.18	105.40
1	6	863	A	C8-N9-C4	8.05	109.02	105.80
38	4	12	A	O5'-P-OP2	-8.04	98.46	105.70
36	1	1114	U	C4-C5-C6	-8.04	114.88	119.70
36	1	2355	G	C5-C6-N1	-8.04	107.48	111.50
1	6	317	C	C2-N3-C4	-8.03	115.88	119.90
36	1	1896	A	O5'-P-OP1	-8.03	98.47	105.70
36	1	3362	A	N7-C8-N9	8.03	117.82	113.80
36	5	2211	U	N3-C2-O2	-8.03	116.58	122.20
36	1	2142	A	C6-N1-C2	-8.02	113.79	118.60
38	8	96	A	C8-N9-C4	8.02	109.01	105.80
1	2	1114	G	C5-C6-O6	-8.02	123.79	128.60
36	1	2893	C	N3-C4-C5	8.01	125.11	121.90
36	1	2130	G	N1-C2-N2	-8.01	108.99	116.20
36	1	2643	A	N1-C6-N6	8.01	123.41	118.60
36	5	708	G	C8-N9-C4	-8.01	103.20	106.40
36	5	2978	U	C5-C6-N1	-8.01	118.70	122.70
36	5	3099	C	N1-C2-O2	-8.01	114.10	118.90
36	1	1149	G	C5-C6-N1	-8.00	107.50	111.50
36	1	3048	A	O5'-P-OP2	-8.00	98.50	105.70
36	5	2323	G	O5'-P-OP2	8.00	120.30	110.70
36	1	1313	G	C6-C5-N7	-8.00	125.60	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	874	U	O5'-P-OP1	-8.00	98.50	105.70
1	2	1114	G	N1-C6-O6	8.00	124.70	119.90
36	1	1365	G	N3-C4-N9	8.00	130.80	126.00
36	1	3181	C	N3-C2-O2	-8.00	116.30	121.90
36	1	3057	U	C5-C4-O4	7.99	130.69	125.90
36	5	973	A	C6-C5-N7	-7.99	126.71	132.30
36	5	1869	C	C6-N1-C2	7.99	123.50	120.30
36	1	2846	U	C5-C4-O4	7.99	130.69	125.90
36	5	2758	A	N9-C4-C5	7.98	108.99	105.80
36	5	2726	C	N3-C2-O2	-7.98	116.32	121.90
36	5	636	C	C6-N1-C2	7.98	123.49	120.30
36	1	2608	G	N1-C6-O6	7.97	124.68	119.90
36	1	2422	C	N3-C4-N4	-7.97	112.42	118.00
36	1	1343	A	N1-C6-N6	7.96	123.38	118.60
38	4	100	U	O5'-P-OP2	-7.96	98.54	105.70
1	2	576	G	C5-C6-O6	-7.96	123.83	128.60
36	1	859	G	N9-C4-C5	-7.96	102.22	105.40
1	2	75	U	N1-C2-O2	7.95	128.37	122.80
36	1	2417	U	N1-C2-O2	-7.95	117.23	122.80
36	1	635	G	C6-N1-C2	-7.95	120.33	125.10
36	5	2306	C	N1-C2-O2	7.95	123.67	118.90
36	5	939	U	N3-C2-O2	7.94	127.76	122.20
36	5	2356	A	C5-C6-N1	-7.94	113.73	117.70
36	1	609	G	C2-N3-C4	7.94	115.87	111.90
36	1	2693	C	N3-C4-C5	7.93	125.07	121.90
36	5	3374	U	C5-C6-N1	-7.93	118.73	122.70
36	1	2945	G	O5'-P-OP1	-7.93	98.56	105.70
36	1	1192	C	C5-C6-N1	7.93	124.96	121.00
36	1	2714	G	C5-N7-C8	-7.93	100.34	104.30
36	1	955	U	C5-C6-N1	-7.92	118.74	122.70
36	1	2726	C	N3-C2-O2	-7.92	116.36	121.90
36	5	1152	G	C5-C6-N1	-7.92	107.54	111.50
36	1	668	G	N1-C6-O6	-7.91	115.15	119.90
36	1	2177	G	C5-C6-N1	7.90	115.45	111.50
36	5	651	G	N3-C4-C5	-7.90	124.65	128.60
36	5	1306	G	C6-C5-N7	-7.90	125.66	130.40
36	1	328	U	N3-C2-O2	-7.90	116.67	122.20
36	5	1306	G	C5-C6-O6	-7.90	123.86	128.60
1	6	609	U	N3-C2-O2	-7.90	116.67	122.20
36	5	636	C	N3-C4-C5	7.89	125.06	121.90
36	1	1586	G	O5'-P-OP2	-7.89	98.60	105.70
36	5	337	G	N1-C6-O6	-7.88	115.17	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	S8	29	LEU	CA-CB-CG	7.88	133.42	115.30
36	5	3144	G	C8-N9-C4	-7.88	103.25	106.40
36	1	1435	A	O5'-P-OP2	7.88	120.15	110.70
36	1	1495	U	N1-C2-O2	-7.88	117.29	122.80
36	5	3092	C	N1-C2-O2	7.88	123.62	118.90
36	1	2550	U	N3-C2-O2	-7.87	116.69	122.20
36	1	651	G	N3-C4-N9	7.86	130.72	126.00
1	2	348	U	O5'-P-OP2	-7.86	98.63	105.70
37	7	110	G	O5'-P-OP2	-7.86	98.63	105.70
36	1	1432	C	C6-N1-C2	-7.86	117.16	120.30
36	5	1160	C	N1-C2-O2	-7.86	114.19	118.90
36	5	3331	U	C5-C6-N1	-7.86	118.77	122.70
36	1	2345	A	N1-C6-N6	7.85	123.31	118.60
36	5	105	C	C6-N1-C2	7.85	123.44	120.30
37	7	101	G	N9-C4-C5	-7.85	102.26	105.40
36	5	1868	G	C6-C5-N7	-7.85	125.69	130.40
36	1	2618	G	N1-C6-O6	-7.84	115.19	119.90
36	1	2946	A	N1-C6-N6	7.84	123.31	118.60
36	1	2871	G	O5'-P-OP2	-7.84	98.64	105.70
38	4	109	A	C5-C6-N6	-7.84	117.43	123.70
36	5	1307	G	P-O3'-C3'	7.84	129.10	119.70
36	5	1912	U	C6-N1-C2	7.83	125.70	121.00
36	5	2816	G	C5-C6-O6	-7.83	123.90	128.60
1	2	553	G	C6-C5-N7	-7.83	125.70	130.40
36	5	3035	A	C8-N9-C4	7.83	108.93	105.80
36	1	940	G	O5'-P-OP1	-7.82	98.66	105.70
36	1	2245	C	N3-C4-C5	-7.82	118.77	121.90
36	5	1187	C	C6-N1-C2	7.82	123.43	120.30
36	5	2317	A	O5'-P-OP2	-7.81	98.67	105.70
36	1	1442	U	N3-C2-O2	7.81	127.67	122.20
36	1	2302	G	C5-C6-O6	7.81	133.29	128.60
1	6	1001	A	N1-C6-N6	7.81	123.29	118.60
36	1	2884	C	C6-N1-C2	7.81	123.42	120.30
36	1	1417	G	N3-C4-C5	7.81	132.50	128.60
36	5	1110	U	N3-C2-O2	-7.80	116.74	122.20
36	5	2924	U	O5'-P-OP1	-7.80	98.68	105.70
36	1	895	A	C5-N7-C8	-7.80	100.00	103.90
36	1	107	A	N1-C6-N6	7.79	123.28	118.60
36	1	1001	G	N9-C4-C5	-7.79	102.28	105.40
36	5	957	C	N1-C2-N3	7.79	124.66	119.20
36	1	1723	A	C2-N3-C4	7.79	114.49	110.60
38	4	94	C	N3-C4-C5	7.79	125.01	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1305	U	O5'-P-OP1	-7.79	98.69	105.70
36	5	1308	A	OP1-P-OP2	-7.79	107.92	119.60
36	5	395	A	O5'-P-OP2	-7.78	98.70	105.70
11	s9	3	ARG	NE-CZ-NH2	7.77	124.19	120.30
36	5	3026	G	C5-C6-O6	-7.77	123.94	128.60
36	1	1741	A	C2-N3-C4	-7.77	106.71	110.60
1	2	647	G	N3-C4-N9	-7.77	121.34	126.00
36	1	2936	A	O5'-P-OP1	-7.77	98.71	105.70
36	1	3103	A	O5'-P-OP2	-7.77	98.71	105.70
36	5	641	C	O5'-P-OP1	-7.76	98.71	105.70
36	5	3084	C	C6-N1-C2	7.76	123.41	120.30
36	1	2371	G	C4-C5-N7	7.76	113.91	110.80
36	1	1405	U	C2-N1-C1'	-7.76	108.39	117.70
36	1	1137	C	O5'-P-OP2	-7.76	98.72	105.70
36	5	1592	G	C4-C5-C6	7.76	123.45	118.80
3	S1	218	LEU	CA-CB-CG	7.76	133.14	115.30
36	1	2643	A	N9-C4-C5	-7.76	102.70	105.80
36	5	2727	A	O5'-P-OP2	-7.76	98.72	105.70
36	1	979	U	N1-C2-N3	7.75	119.55	114.90
36	1	1296	C	N3-C4-C5	-7.75	118.80	121.90
36	5	1127	G	O5'-P-OP2	-7.74	98.73	105.70
36	5	361	A	N1-C6-N6	-7.74	113.95	118.60
36	5	437	G	N3-C4-N9	-7.74	121.36	126.00
36	1	2617	U	C5-C4-O4	7.74	130.54	125.90
38	4	23	U	O5'-P-OP1	-7.74	98.74	105.70
36	1	3362	A	O4'-C1'-N9	7.73	114.38	108.20
36	5	706	A	C2-N3-C4	-7.73	106.73	110.60
36	5	2848	G	N1-C6-O6	7.73	124.54	119.90
36	1	2316	G	N1-C6-O6	7.72	124.53	119.90
36	5	576	C	O5'-P-OP2	-7.72	98.75	105.70
36	5	3154	C	N1-C2-O2	7.72	123.53	118.90
36	1	2410	U	N3-C2-O2	7.72	127.60	122.20
36	5	2376	G	C5-C6-O6	-7.72	123.97	128.60
1	6	901	G	C4-C5-N7	7.72	113.89	110.80
36	1	776	U	C5-C6-N1	-7.71	118.84	122.70
36	5	776	U	N1-C2-N3	7.71	119.53	114.90
36	1	2867	C	C5-C6-N1	-7.71	117.14	121.00
36	5	2186	U	O5'-P-OP2	-7.71	98.76	105.70
36	1	1429	G	N3-C4-N9	7.71	130.63	126.00
36	5	1912	U	N1-C2-O2	-7.71	117.40	122.80
36	5	1194	G	C5-C6-N1	7.71	115.35	111.50
62	n6	76	LEU	CA-CB-CG	7.70	133.02	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3306	U	N3-C2-O2	-7.70	116.81	122.20
36	5	1300	G	N1-C6-O6	7.70	124.52	119.90
36	5	1429	G	N1-C6-O6	-7.70	115.28	119.90
36	5	2364	G	N9-C4-C5	7.70	108.48	105.40
36	1	2818	U	N3-C2-O2	-7.70	116.81	122.20
36	5	1308	A	N9-C4-C5	7.70	108.88	105.80
36	5	2643	A	C8-N9-C4	7.69	108.88	105.80
36	5	2848	G	C6-C5-N7	-7.69	125.78	130.40
36	5	834	U	N3-C4-C5	7.69	119.21	114.60
36	1	639	G	C8-N9-C4	7.68	109.47	106.40
36	1	2142	A	C5-C6-N1	7.68	121.54	117.70
36	5	2849	C	N3-C4-N4	7.68	123.38	118.00
36	1	2148	U	C6-N1-C2	7.68	125.61	121.00
1	6	448	C	C6-N1-C2	-7.68	117.23	120.30
36	5	1128	U	C5-C6-N1	-7.68	118.86	122.70
36	5	2700	G	C4-C5-N7	7.68	113.87	110.80
36	5	3245	A	C5-C6-N1	-7.68	113.86	117.70
1	6	1653	C	C6-N1-C2	-7.67	117.23	120.30
36	5	2994	A	N1-C2-N3	7.67	133.14	129.30
36	1	2634	U	C2-N3-C4	-7.67	122.40	127.00
36	1	3178	A	C5-C6-N1	-7.67	113.86	117.70
36	5	3142	A	O5'-P-OP1	-7.67	98.80	105.70
36	1	1043	C	N3-C4-C5	7.67	124.97	121.90
25	d3	33	LEU	CA-CB-CG	-7.66	97.67	115.30
1	2	1274	C	N3-C2-O2	-7.66	116.54	121.90
36	1	3344	A	C5-N7-C8	-7.66	100.07	103.90
36	5	719	U	N1-C2-O2	7.66	128.16	122.80
36	5	776	U	C2-N3-C4	-7.66	122.41	127.00
36	1	2278	C	N3-C4-C5	7.65	124.96	121.90
36	1	92	G	C5-C6-N1	7.64	115.32	111.50
36	1	1335	C	N3-C4-N4	-7.64	112.65	118.00
36	1	859	G	C6-C5-N7	-7.64	125.82	130.40
36	1	859	G	C8-N9-C1'	-7.63	117.08	127.00
36	5	959	C	O5'-P-OP2	-7.63	98.83	105.70
36	1	2773	C	O5'-P-OP2	-7.63	98.83	105.70
36	5	1897	G	C4-C5-N7	7.63	113.85	110.80
1	2	1658	G	C4-C5-N7	7.63	113.85	110.80
36	1	2368	A	N1-C6-N6	-7.62	114.03	118.60
36	1	919	U	O5'-P-OP1	7.62	119.85	110.70
36	1	1484	U	P-O3'-C3'	7.62	128.85	119.70
36	1	2764	C	N3-C4-C5	-7.62	118.85	121.90
36	1	2695	A	O5'-P-OP1	-7.62	98.84	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2857	C	C6-N1-C2	7.62	123.35	120.30
36	1	636	C	C5-C4-N4	-7.62	114.87	120.20
1	6	29	U	C5-C4-O4	7.62	130.47	125.90
36	1	770	G	O4'-C1'-N9	7.61	114.29	108.20
36	1	1119	C	C6-N1-C2	7.61	123.34	120.30
36	1	1116	G	C2-N3-C4	7.61	115.71	111.90
36	1	2410	U	N1-C2-O2	-7.61	117.47	122.80
36	5	2183	A	N1-C6-N6	7.61	123.17	118.60
36	1	2355	G	C6-C5-N7	-7.61	125.83	130.40
1	6	1537	C	N3-C4-C5	-7.61	118.86	121.90
36	1	652	G	N1-C2-N2	-7.61	109.36	116.20
1	2	1212	G	C5-C6-O6	-7.60	124.04	128.60
36	1	1310	G	C5-C6-O6	7.60	133.16	128.60
53	M7	138	LYS	CD-CE-NZ	7.60	129.18	111.70
36	5	424	G	C5-C6-N1	7.60	115.30	111.50
36	5	2889	C	N3-C2-O2	-7.60	116.58	121.90
36	1	1190	A	C6-C5-N7	-7.60	126.98	132.30
36	1	2308	C	C2-N3-C4	-7.60	116.10	119.90
36	1	2405	C	N3-C4-C5	-7.60	118.86	121.90
36	1	1414	G	N1-C6-O6	7.59	124.46	119.90
36	1	1530	U	C6-N1-C2	7.59	125.56	121.00
36	1	2724	U	N1-C2-O2	-7.59	117.49	122.80
36	5	3136	G	C2-N3-C4	-7.59	108.10	111.90
36	5	3218	A	C5-N7-C8	-7.59	100.11	103.90
36	1	85	A	C2-N3-C4	-7.59	106.81	110.60
36	5	424	G	C6-C5-N7	-7.58	125.85	130.40
36	5	3184	A	N9-C4-C5	-7.58	102.77	105.80
38	4	54	A	N1-C6-N6	7.58	123.15	118.60
36	5	2421	U	N1-C2-N3	7.58	119.45	114.90
1	2	145	A	C8-N9-C4	-7.58	102.77	105.80
36	5	889	U	C6-N1-C2	7.58	125.55	121.00
36	5	1163	A	N1-C6-N6	-7.58	114.06	118.60
37	7	92	A	C8-N9-C4	7.57	108.83	105.80
36	5	287	G	O5'-P-OP1	-7.57	98.89	105.70
36	1	282	G	C8-N9-C4	-7.57	103.37	106.40
1	6	1600	A	O4'-C1'-N9	7.57	114.26	108.20
1	2	499	U	C2-N1-C1'	7.57	126.78	117.70
36	5	607	A	N1-C6-N6	-7.56	114.06	118.60
36	5	2794	G	C5-C6-O6	-7.56	124.06	128.60
36	1	999	G	O5'-P-OP1	-7.56	98.90	105.70
36	5	1803	C	N3-C4-C5	7.56	124.92	121.90
1	6	1634	C	C6-N1-C2	-7.56	117.28	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2191	U	N1-C2-O2	7.55	128.09	122.80
36	5	2306	C	N3-C2-O2	-7.54	116.62	121.90
36	1	949	C	C6-N1-C2	-7.54	117.28	120.30
36	1	1148	G	N1-C6-O6	7.54	124.43	119.90
36	5	835	G	C5-C6-O6	7.54	133.13	128.60
36	1	339	C	OP1-P-OP2	-7.54	108.29	119.60
36	5	437	G	N9-C4-C5	7.54	108.42	105.40
1	2	554	C	N1-C2-O2	7.53	123.42	118.90
36	1	2658	G	O5'-P-OP2	-7.53	98.92	105.70
36	5	2434	U	O5'-P-OP2	-7.53	98.92	105.70
36	5	948	C	C5-C4-N4	-7.53	114.93	120.20
36	5	2192	C	O5'-P-OP2	-7.53	98.92	105.70
36	1	1507	G	N3-C4-N9	7.53	130.52	126.00
36	5	3183	A	C4-C5-N7	7.53	114.46	110.70
36	1	33	G	O5'-P-OP1	-7.52	98.93	105.70
36	5	1710	C	N3-C4-C5	7.52	124.91	121.90
36	1	1153	A	O5'-P-OP1	-7.52	98.93	105.70
1	6	639	U	N3-C2-O2	-7.52	116.94	122.20
36	5	2385	G	N1-C6-O6	7.52	124.41	119.90
36	1	907	G	O5'-P-OP2	-7.52	98.93	105.70
37	7	98	C	C6-N1-C2	7.52	123.31	120.30
36	1	1820	U	N3-C2-O2	-7.52	116.94	122.20
36	1	1315	U	C5-C6-N1	-7.51	118.94	122.70
44	17	229	PHE	CB-CG-CD1	7.51	126.06	120.80
36	1	1334	U	N3-C4-C5	-7.51	110.09	114.60
36	5	1592	G	C4-C5-N7	-7.51	107.80	110.80
1	2	1600	A	C5-C6-N1	-7.51	113.95	117.70
36	5	2326	A	C8-N9-C4	7.51	108.80	105.80
36	1	1303	A	N7-C8-N9	-7.51	110.05	113.80
36	1	1489	A	N1-C6-N6	7.50	123.10	118.60
36	1	2333	C	C5-C6-N1	-7.50	117.25	121.00
36	5	632	G	C5-C6-N1	7.50	115.25	111.50
36	1	1419	A	N1-C6-N6	7.50	123.10	118.60
36	1	3057	U	N3-C2-O2	-7.50	116.95	122.20
36	5	2134	G	C5-C6-O6	7.50	133.10	128.60
36	1	662	U	O5'-P-OP2	-7.49	98.96	105.70
36	5	2811	A	N1-C6-N6	-7.49	114.10	118.60
1	2	190	C	O4'-C1'-N1	7.49	114.19	108.20
36	5	2572	C	C2-N1-C1'	7.49	127.04	118.80
12	C0	88	PRO	N-CA-CB	7.49	112.28	103.30
36	5	2327	U	C5-C6-N1	-7.49	118.96	122.70
36	1	896	A	C8-N9-C4	-7.49	102.81	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2142	A	C2-N3-C4	7.49	114.34	110.60
36	1	2191	U	N3-C2-O2	-7.48	116.96	122.20
36	1	2983	C	C4-C5-C6	7.48	121.14	117.40
36	1	950	G	N9-C4-C5	-7.48	102.41	105.40
36	5	1128	U	C2-N3-C4	-7.48	122.51	127.00
36	1	912	G	N1-C2-N3	7.48	128.38	123.90
36	5	337	G	C8-N9-C4	-7.48	103.41	106.40
36	5	2158	A	N1-C6-N6	-7.48	114.11	118.60
36	1	1149	G	C5-C6-O6	-7.47	124.11	128.60
70	O4	51	LEU	CA-CB-CG	7.47	132.49	115.30
36	5	1348	U	C6-N1-C2	-7.47	116.52	121.00
36	1	924	G	N3-C2-N2	7.47	125.13	119.90
1	6	1700	C	C2-N1-C1'	7.47	127.02	118.80
36	1	1156	C	N3-C2-O2	-7.47	116.67	121.90
36	1	2726	C	C6-N1-C2	-7.47	117.31	120.30
24	d2	93	LEU	CA-CB-CG	7.47	132.48	115.30
36	5	668	G	N1-C6-O6	-7.47	115.42	119.90
36	5	1124	U	N3-C4-C5	7.47	119.08	114.60
36	1	398	A	C8-N9-C4	7.47	108.79	105.80
36	1	703	G	N3-C4-N9	-7.47	121.52	126.00
36	1	2795	U	O5'-P-OP1	-7.47	98.98	105.70
36	1	2884	C	C4-C5-C6	-7.46	113.67	117.40
1	6	1643	U	C2-N3-C4	-7.46	122.52	127.00
36	5	2954	U	N1-C2-O2	7.46	128.02	122.80
1	6	1100	G	N3-C4-C5	-7.46	124.87	128.60
1	2	1340	U	N3-C2-O2	-7.45	116.98	122.20
36	5	3245	A	C8-N9-C4	-7.45	102.82	105.80
36	5	1004	U	C6-N1-C2	-7.45	116.53	121.00
36	5	2933	A	N1-C6-N6	7.45	123.07	118.60
36	5	3218	A	N9-C4-C5	-7.45	102.82	105.80
1	6	1582	U	C5-C6-N1	-7.45	118.98	122.70
36	5	2323	G	OP1-P-OP2	-7.45	108.43	119.60
36	5	3303	G	N1-C6-O6	-7.45	115.43	119.90
1	6	144	U	N3-C2-O2	-7.44	116.99	122.20
1	6	1000	C	C2-N1-C1'	7.44	126.99	118.80
36	1	1165	A	C8-N9-C4	7.44	108.78	105.80
36	1	282	G	O5'-P-OP2	7.44	119.63	110.70
1	6	1022	C	N1-C2-O2	-7.44	114.44	118.90
36	1	304	G	C6-C5-N7	7.44	134.86	130.40
36	1	968	G	N3-C4-C5	-7.44	124.88	128.60
36	5	227	G	N1-C6-O6	7.44	124.36	119.90
36	1	929	A	N1-C6-N6	7.43	123.06	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3243	A	N1-C6-N6	7.43	123.06	118.60
36	5	2951	G	N3-C4-N9	7.43	130.46	126.00
36	5	1129	A	O5'-P-OP2	-7.43	99.01	105.70
36	1	2646	C	C6-N1-C2	7.43	123.27	120.30
36	1	967	A	OP2-P-O3'	7.43	121.54	105.20
36	5	1329	U	N1-C1'-C2'	-7.43	103.83	112.00
36	5	3154	C	C2-N1-C1'	7.43	126.97	118.80
36	1	3362	A	C6-C5-N7	-7.42	127.10	132.30
36	5	2231	C	C2-N1-C1'	7.42	126.97	118.80
1	2	359	A	C4-C5-C6	-7.42	113.29	117.00
36	1	2634	U	C5-C6-N1	-7.42	118.99	122.70
36	5	1366	A	N9-C4-C5	7.42	108.77	105.80
36	5	1302	A	OP2-P-O3'	7.42	121.52	105.20
36	1	496	C	O5'-P-OP2	7.42	119.60	110.70
36	5	2211	U	C5-C4-O4	7.42	130.35	125.90
36	5	776	U	N3-C2-O2	-7.41	117.01	122.20
36	5	3093	C	C2-N3-C4	-7.41	116.19	119.90
36	1	3326	G	C8-N9-C4	7.41	109.36	106.40
36	5	1879	A	C6-C5-N7	-7.41	127.11	132.30
36	5	2875	U	C5-C4-O4	-7.41	121.45	125.90
36	5	2954	U	N3-C4-O4	7.41	124.58	119.40
36	5	3047	U	C4-C5-C6	7.41	124.14	119.70
36	1	2617	U	C2-N3-C4	-7.41	122.56	127.00
37	3	75	G	O5'-P-OP1	-7.40	99.04	105.70
36	5	1516	C	N3-C4-C5	7.40	124.86	121.90
36	5	2616	C	O5'-P-OP1	-7.40	99.04	105.70
36	5	2142	A	C5-C6-N1	7.40	121.40	117.70
36	5	2290	C	C6-N1-C2	7.40	123.26	120.30
36	1	2162	U	O5'-P-OP2	-7.39	99.05	105.70
36	1	346	C	C5-C6-N1	-7.39	117.31	121.00
36	1	1581	C	N1-C2-O2	7.38	123.33	118.90
36	1	2633	U	N1-C2-N3	7.38	119.33	114.90
36	5	38	U	C6-N1-C2	7.38	125.43	121.00
38	4	57	C	C6-N1-C2	7.38	123.25	120.30
38	4	114	G	O5'-P-OP1	-7.38	99.06	105.70
36	5	3143	C	N3-C4-N4	7.38	123.16	118.00
36	1	1192	C	N1-C2-O2	7.37	123.32	118.90
1	6	438	A	O5'-P-OP1	-7.37	99.06	105.70
1	2	507	U	N3-C2-O2	-7.37	117.04	122.20
1	2	1114	G	C4-C5-N7	7.37	113.75	110.80
36	1	3016	A	N1-C6-N6	7.37	123.02	118.60
36	1	3217	C	N3-C2-O2	-7.37	116.74	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	830	U	N3-C2-O2	-7.37	117.04	122.20
36	1	2688	U	N1-C2-N3	-7.37	110.48	114.90
36	5	216	G	C6-C5-N7	-7.37	125.98	130.40
36	5	2761	G	C5-C6-O6	-7.36	124.18	128.60
36	5	2400	G	N3-C4-C5	7.36	132.28	128.60
36	5	2870	C	C2-N1-C1'	-7.36	110.71	118.80
36	1	888	A	C5-C6-N6	-7.35	117.82	123.70
36	1	2352	A	O5'-P-OP2	-7.35	99.08	105.70
35	SM	167	PRO	N-CA-CB	7.35	112.12	103.30
36	1	2183	A	C2-N3-C4	-7.35	106.93	110.60
36	1	2823	G	N3-C2-N2	-7.35	114.76	119.90
36	5	878	G	C8-N9-C4	-7.35	103.46	106.40
38	4	61	A	C5-C6-N1	7.35	121.37	117.70
36	1	2647	A	C6-N1-C2	-7.34	114.19	118.60
1	6	1137	A	N7-C8-N9	-7.34	110.13	113.80
36	1	1114	U	N1-C2-O2	7.34	127.94	122.80
1	6	337	G	N3-C2-N2	7.34	125.04	119.90
37	7	11	A	C6-C5-N7	-7.34	127.16	132.30
36	5	2363	A	C5-C6-N6	-7.34	117.83	123.70
1	2	1560	U	C5-C4-O4	7.34	130.30	125.90
36	5	2757	U	N1-C2-N3	7.34	119.30	114.90
36	1	1417	G	C8-N9-C4	7.33	109.33	106.40
1	6	44	U	N1-C2-O2	-7.33	117.67	122.80
36	5	1181	U	N1-C2-N3	7.33	119.30	114.90
36	1	1509	A	C2-N3-C4	-7.33	106.94	110.60
36	5	437	G	C8-N9-C4	-7.33	103.47	106.40
36	1	859	G	N3-C4-N9	7.32	130.39	126.00
1	6	416	A	C2-N3-C4	-7.32	106.94	110.60
36	5	1657	C	N1-C2-O2	7.32	123.29	118.90
1	2	334	G	N3-C4-C5	7.32	132.26	128.60
36	1	2627	C	N1-C2-O2	-7.31	114.51	118.90
36	1	47	C	C6-N1-C2	7.31	123.22	120.30
36	5	52	A	C5-C6-N1	-7.31	114.04	117.70
36	1	1858	A	C8-N9-C4	-7.31	102.88	105.80
36	5	776	U	C5-C4-O4	7.31	130.28	125.90
38	8	79	A	C8-N9-C4	-7.31	102.88	105.80
36	5	3374	U	N3-C4-C5	7.30	118.98	114.60
36	5	393	U	C6-N1-C2	-7.30	116.62	121.00
36	1	2624	G	N1-C6-O6	7.30	124.28	119.90
36	5	2136	C	C2-N3-C4	-7.30	116.25	119.90
36	5	3040	A	C8-N9-C4	7.30	108.72	105.80
36	5	1908	A	N1-C6-N6	-7.30	114.22	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3092	C	N3-C2-O2	-7.30	116.79	121.90
36	1	767	U	O4'-C1'-N1	7.29	114.03	108.20
36	1	25	U	N3-C4-O4	7.29	124.50	119.40
36	1	1433	A	N1-C6-N6	-7.28	114.23	118.60
52	M6	78	ARG	NE-CZ-NH2	-7.28	116.66	120.30
36	5	2310	U	C5-C4-O4	7.28	130.27	125.90
36	1	87	U	C2-N1-C1'	7.28	126.44	117.70
36	5	922	U	N3-C4-O4	-7.28	114.31	119.40
36	1	1364	C	OP2-P-O3'	7.28	121.20	105.20
36	5	586	C	N3-C4-C5	7.28	124.81	121.90
36	5	2697	A	N1-C6-N6	7.28	122.97	118.60
36	5	2278	C	C6-N1-C2	-7.27	117.39	120.30
36	1	2816	G	N7-C8-N9	-7.27	109.46	113.10
36	1	979	U	O4'-C1'-N1	7.27	114.02	108.20
1	2	507	U	N1-C2-O2	7.27	127.89	122.80
36	1	102	C	N1-C2-O2	-7.27	114.54	118.90
36	1	2624	G	C4-C5-N7	7.27	113.71	110.80
36	1	2918	G	N1-C6-O6	7.27	124.26	119.90
36	5	1194	G	N1-C6-O6	-7.27	115.54	119.90
36	5	822	G	O5'-P-OP1	-7.26	99.16	105.70
36	1	211	A	O5'-P-OP1	-7.26	99.17	105.70
36	1	1445	U	N1-C2-O2	-7.25	117.72	122.80
36	5	437	G	N1-C2-N2	7.25	122.73	116.20
36	5	2821	C	N1-C2-O2	-7.25	114.55	118.90
36	5	1897	G	C6-C5-N7	-7.25	126.05	130.40
36	5	3374	U	C6-N1-C2	7.25	125.35	121.00
36	5	2140	U	N1-C2-N3	7.25	119.25	114.90
1	2	1560	U	N3-C2-O2	-7.25	117.13	122.20
36	5	969	C	C5-C6-N1	-7.25	117.38	121.00
36	5	2393	G	C5-C6-N1	7.25	115.12	111.50
36	1	2606	G	N3-C4-N9	7.25	130.35	126.00
38	4	109	A	N1-C6-N6	7.25	122.95	118.60
36	1	1314	C	C6-N1-C2	-7.25	117.40	120.30
36	1	2358	A	C2-N3-C4	-7.25	106.98	110.60
36	1	1329	U	C6-N1-C2	-7.24	116.65	121.00
36	5	2283	G	C5-C6-O6	-7.24	124.25	128.60
36	1	1373	A	C6-N1-C2	-7.24	114.25	118.60
1	2	48	G	O5'-P-OP2	-7.24	99.18	105.70
36	1	116	A	O4'-C1'-N9	7.24	113.99	108.20
36	1	1151	U	N3-C4-O4	7.24	124.47	119.40
36	5	38	U	C5-C6-N1	-7.24	119.08	122.70
1	2	1114	G	N9-C4-C5	-7.24	102.51	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	410	U	N1-C2-O2	-7.24	117.73	122.80
36	5	3220	G	N1-C6-O6	-7.24	115.56	119.90
36	1	1525	G	O5'-P-OP2	-7.23	99.19	105.70
38	8	4	C	N3-C2-O2	-7.23	116.84	121.90
36	1	1367	G	N9-C4-C5	-7.23	102.51	105.40
36	1	1897	G	C5-C6-O6	-7.23	124.26	128.60
1	6	1535	U	N3-C2-O2	-7.23	117.14	122.20
65	n9	23	LYS	C-N-CD	7.23	143.59	128.40
36	1	1475	A	C8-N9-C4	7.23	108.69	105.80
36	5	2983	C	C4-C5-C6	7.23	121.01	117.40
36	1	1897	G	C6-C5-N7	-7.22	126.07	130.40
36	1	972	A	N7-C8-N9	-7.22	110.19	113.80
36	1	2610	G	N1-C6-O6	7.22	124.23	119.90
36	5	2186	U	C5-C4-O4	7.22	130.23	125.90
36	1	1381	A	O5'-P-OP1	-7.22	99.20	105.70
36	5	426	G	O5'-P-OP2	-7.22	99.20	105.70
36	5	942	U	N3-C4-O4	7.22	124.45	119.40
36	1	496	C	O5'-P-OP1	-7.22	99.20	105.70
38	4	32	C	O5'-P-OP2	-7.22	99.20	105.70
36	1	3221	C	O5'-P-OP1	-7.21	99.21	105.70
36	5	645	A	N1-C2-N3	7.21	132.91	129.30
36	5	805	G	C8-N9-C4	7.21	109.28	106.40
36	5	2341	A	C8-N9-C4	7.21	108.69	105.80
36	1	2978	U	O4'-C1'-N1	7.21	113.97	108.20
36	5	2921	U	N1-C2-O2	-7.21	117.75	122.80
36	5	635	G	C6-C5-N7	-7.21	126.08	130.40
36	1	993	G	C5-C6-N1	7.20	115.10	111.50
36	5	1373	A	C6-C5-N7	-7.20	127.26	132.30
36	5	2359	C	C6-N1-C2	7.20	123.18	120.30
1	2	973	A	N1-C2-N3	7.20	132.90	129.30
36	1	588	G	C4-C5-N7	-7.20	107.92	110.80
36	5	1142	G	N9-C4-C5	7.20	108.28	105.40
36	5	2287	C	C6-N1-C2	-7.20	117.42	120.30
36	1	959	C	N3-C4-C5	7.19	124.78	121.90
36	1	430	U	N3-C2-O2	-7.19	117.17	122.20
36	5	1429	G	N3-C2-N2	7.19	124.93	119.90
1	6	1642	G	C5-C6-O6	-7.19	124.29	128.60
1	2	1600	A	N9-C4-C5	-7.18	102.93	105.80
36	1	910	G	C8-N9-C4	-7.18	103.53	106.40
36	5	1307	G	C2'-C3'-O3'	7.18	125.30	109.50
37	7	101	G	C6-C5-N7	-7.18	126.09	130.40
36	1	1520	G	C8-N9-C4	7.18	109.27	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2426	U	C5-C4-O4	7.18	130.21	125.90
36	5	1064	A	P-O3'-C3'	7.18	128.31	119.70
36	5	1834	U	N3-C4-C5	-7.18	110.30	114.60
36	1	2402	A	O5'-P-OP2	-7.17	99.24	105.70
36	1	2726	C	C5-C4-N4	7.17	125.22	120.20
36	1	2944	U	N3-C4-C5	7.17	118.91	114.60
36	1	86	G	O4'-C1'-N9	7.17	113.94	108.20
36	1	788	C	C2-N1-C1'	-7.17	110.91	118.80
36	1	1196	C	C6-N1-C2	7.17	123.17	120.30
36	1	765	C	N1-C2-O2	7.17	123.20	118.90
36	1	1148	G	C5-C6-O6	-7.17	124.30	128.60
36	5	727	G	O5'-P-OP1	-7.17	99.25	105.70
36	1	938	C	N3-C4-C5	7.17	124.77	121.90
36	5	1592	G	N3-C4-C5	-7.17	125.02	128.60
36	1	2996	U	C6-N1-C1'	-7.16	111.17	121.20
36	1	706	A	C8-N9-C4	7.16	108.66	105.80
36	1	2987	A	C6-C5-N7	-7.16	127.29	132.30
1	6	1288	G	O5'-P-OP2	-7.16	99.25	105.70
36	5	676	G	C8-N9-C4	-7.16	103.54	106.40
36	5	3308	C	C2-N3-C4	-7.16	116.32	119.90
36	1	701	G	N3-C2-N2	-7.16	114.89	119.90
36	1	2130	G	N1-C2-N3	7.16	128.19	123.90
36	5	796	U	N1-C2-N3	7.16	119.19	114.90
36	5	1184	A	N9-C4-C5	7.15	108.66	105.80
1	2	1291	G	N1-C2-N3	7.15	128.19	123.90
36	1	2915	U	N1-C2-O2	-7.15	117.79	122.80
1	6	13	C	N3-C4-C5	-7.15	119.04	121.90
36	5	1825	G	O5'-P-OP2	-7.15	99.26	105.70
36	1	2238	G	N1-C6-O6	7.15	124.19	119.90
1	6	1536	G	O5'-P-OP1	-7.15	99.27	105.70
1	6	13	C	C6-N1-C2	-7.14	117.44	120.30
36	5	2278	C	N1-C2-O2	7.14	123.19	118.90
36	5	2626	A	C2-N3-C4	-7.14	107.03	110.60
36	1	2836	C	C5-C4-N4	7.14	125.20	120.20
36	1	2875	U	N3-C4-O4	7.14	124.40	119.40
36	5	339	C	O5'-P-OP1	-7.14	99.28	105.70
36	5	957	C	C6-N1-C2	-7.14	117.44	120.30
36	5	1153	A	N1-C6-N6	7.13	122.88	118.60
36	5	2758	A	C8-N9-C4	-7.13	102.95	105.80
36	5	227	G	N9-C4-C5	-7.13	102.55	105.40
36	5	2358	A	C8-N9-C4	7.13	108.65	105.80
36	1	1820	U	P-O3'-C3'	7.13	128.26	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2642	A	C6-N1-C2	7.13	122.88	118.60
36	5	1368	U	C5-C4-O4	-7.13	121.62	125.90
1	6	1634	C	N3-C2-O2	-7.13	116.91	121.90
36	1	950	G	N3-C2-N2	7.13	124.89	119.90
36	5	1412	G	C8-N9-C4	-7.13	103.55	106.40
36	1	2184	U	C5-C6-N1	7.12	126.26	122.70
36	5	2887	A	N1-C6-N6	7.12	122.87	118.60
36	1	1425	U	N1-C2-N3	7.12	119.17	114.90
38	8	3	A	C5-C6-N1	7.12	121.26	117.70
36	1	919	U	O5'-P-OP2	-7.12	99.29	105.70
36	1	1190	A	C4-C5-N7	7.12	114.26	110.70
36	1	2836	C	N3-C2-O2	-7.12	116.92	121.90
36	1	1190	A	C5-N7-C8	-7.11	100.34	103.90
36	5	1187	C	O5'-P-OP2	-7.11	99.30	105.70
36	1	2946	A	C5-C6-N1	-7.11	114.14	117.70
1	6	402	C	O5'-P-OP2	-7.11	99.30	105.70
36	5	2353	G	C5-C6-O6	-7.11	124.33	128.60
36	5	1452	A	N1-C6-N6	7.11	122.86	118.60
36	5	2136	C	C4-C5-C6	7.11	120.95	117.40
1	2	1642	G	N1-C6-O6	7.10	124.16	119.90
36	5	973	A	C5-C6-N6	-7.10	118.02	123.70
38	4	113	U	C5-C6-N1	-7.09	119.15	122.70
36	5	3200	G	N1-C6-O6	7.09	124.16	119.90
36	1	1375	G	C5-C6-N1	-7.09	107.95	111.50
36	1	2731	U	N3-C4-O4	7.09	124.36	119.40
36	1	2912	G	C5-C6-N1	7.09	115.05	111.50
36	5	3014	U	C5-C6-N1	-7.09	119.16	122.70
36	1	2142	A	N3-C4-C5	-7.09	121.84	126.80
36	5	974	G	C8-N9-C4	-7.09	103.56	106.40
36	5	1307	G	C5-C6-N1	7.09	115.04	111.50
36	5	630	A	C5-C6-N1	-7.08	114.16	117.70
36	5	718	G	O4'-C1'-N9	7.08	113.87	108.20
36	1	2827	U	N1-C2-N3	7.08	119.15	114.90
36	5	2825	C	C5-C4-N4	-7.08	115.24	120.20
1	6	92	A	N1-C6-N6	7.08	122.85	118.60
36	5	668	G	N3-C4-C5	-7.08	125.06	128.60
36	5	693	A	O5'-P-OP2	7.08	119.20	110.70
36	5	1483	G	O4'-C1'-N9	7.08	113.86	108.20
1	2	416	A	C8-N9-C4	7.08	108.63	105.80
36	1	810	A	C6-N1-C2	-7.08	114.36	118.60
36	1	938	C	N1-C2-O2	-7.08	114.65	118.90
36	1	2827	U	C5-C4-O4	7.08	130.15	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	699	A	C2-N3-C4	-7.08	107.06	110.60
36	5	882	A	C6-N1-C2	-7.08	114.36	118.60
36	5	1897	G	C5-N7-C8	-7.08	100.76	104.30
36	1	2700	G	C5-C6-O6	-7.07	124.36	128.60
36	1	2643	A	C8-N9-C4	7.07	108.63	105.80
36	5	2356	A	C2-N3-C4	-7.07	107.06	110.60
36	5	3144	G	N7-C8-N9	7.07	116.64	113.10
1	2	639	U	N1-C2-O2	7.07	127.75	122.80
36	1	343	U	N1-C2-N3	7.07	119.14	114.90
36	1	717	C	N1-C2-O2	-7.07	114.66	118.90
44	L7	83	LEU	CA-CB-CG	7.07	131.56	115.30
36	5	927	C	N1-C2-O2	-7.07	114.66	118.90
1	2	1745	G	C5-C6-O6	-7.06	124.36	128.60
36	5	3137	C	C5-C6-N1	-7.06	117.47	121.00
36	5	1149	G	C6-C5-N7	-7.06	126.16	130.40
36	5	2185	G	C5-C6-N1	-7.06	107.97	111.50
36	1	59	G	N1-C6-O6	7.06	124.14	119.90
36	1	2572	C	N1-C2-O2	7.06	123.13	118.90
36	5	41	G	N9-C4-C5	-7.06	102.58	105.40
36	5	3216	G	C5-C6-O6	-7.06	124.37	128.60
36	5	1200	A	C4-C5-C6	7.06	120.53	117.00
36	1	961	C	C6-N1-C2	7.05	123.12	120.30
36	5	2857	C	N1-C2-O2	7.05	123.13	118.90
36	5	2983	C	O5'-P-OP1	-7.05	99.35	105.70
45	l8	69	LEU	CA-CB-CG	7.05	131.53	115.30
36	1	646	A	C8-N9-C4	-7.05	102.98	105.80
36	1	919	U	N3-C4-O4	-7.05	114.46	119.40
36	5	2186	U	N3-C2-O2	-7.05	117.26	122.20
36	1	778	U	C5-C4-O4	7.05	130.13	125.90
36	1	2130	G	C2-N3-C4	-7.05	108.38	111.90
36	1	347	G	C4-C5-N7	7.05	113.62	110.80
36	1	2912	G	N1-C6-O6	-7.05	115.67	119.90
38	4	25	G	C4-C5-N7	-7.05	107.98	110.80
36	1	2811	A	C6-N1-C2	-7.04	114.38	118.60
36	5	646	A	C5-C6-N6	7.04	129.33	123.70
36	5	1174	G	C5-C6-N1	7.04	115.02	111.50
36	1	637	C	P-O3'-C3'	7.04	128.15	119.70
36	5	523	A	N1-C6-N6	-7.04	114.38	118.60
36	1	1655	G	N3-C4-N9	7.04	130.22	126.00
36	1	2177	G	N3-C4-N9	7.04	130.22	126.00
36	5	1189	C	N1-C2-O2	-7.04	114.68	118.90
36	5	1148	G	C5-C6-O6	-7.04	124.38	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2353	G	N1-C6-O6	7.04	124.12	119.90
36	1	2406	C	C5-C4-N4	-7.03	115.28	120.20
36	1	3270	U	C2-N1-C1'	-7.03	109.26	117.70
36	5	1366	A	C8-N9-C4	-7.03	102.99	105.80
36	5	2364	G	C4-C5-N7	-7.03	107.99	110.80
38	8	95	G	C4-N9-C1'	-7.03	117.36	126.50
36	5	1208	U	N3-C4-O4	-7.03	114.48	119.40
36	5	2290	C	C5-C6-N1	-7.03	117.48	121.00
36	1	2700	G	C6-C5-N7	-7.03	126.18	130.40
36	5	2940	A	C5-C6-N1	7.03	121.22	117.70
36	1	2983	C	N3-C2-O2	-7.03	116.98	121.90
1	6	85	A	C8-N9-C4	-7.03	102.99	105.80
36	5	410	U	N1-C2-O2	-7.03	117.88	122.80
36	5	2796	G	C5-C6-O6	7.03	132.82	128.60
36	1	589	A	O5'-P-OP1	-7.03	99.38	105.70
36	1	608	A	C4-C5-C6	7.02	120.51	117.00
36	5	229	G	N3-C2-N2	-7.02	114.98	119.90
36	1	2376	G	C8-N9-C4	-7.02	103.59	106.40
36	5	817	A	O5'-P-OP1	-7.02	99.38	105.70
36	1	2986	U	N1-C2-N3	7.02	119.11	114.90
36	1	1279	C	C6-N1-C2	-7.02	117.49	120.30
36	5	2996	U	O5'-P-OP2	-7.02	99.39	105.70
36	5	1367	G	C5-C6-N1	-7.01	107.99	111.50
37	7	49	G	N1-C6-O6	7.01	124.11	119.90
50	m4	72	LEU	CA-CB-CG	7.01	131.42	115.30
36	5	939	U	O5'-P-OP2	-7.01	99.39	105.70
1	2	1241	G	O4'-C1'-N9	7.00	113.80	108.20
36	1	806	A	C8-N9-C4	7.00	108.60	105.80
1	6	647	G	N3-C4-N9	-7.00	121.80	126.00
36	1	1369	A	O5'-P-OP1	-7.00	99.40	105.70
1	6	609	U	C5-C4-O4	7.00	130.10	125.90
36	5	1311	G	O5'-P-OP2	-7.00	99.40	105.70
36	1	943	U	N1-C2-N3	7.00	119.10	114.90
36	5	1388	U	O5'-P-OP2	-7.00	99.40	105.70
36	1	2973	G	N1-C6-O6	7.00	124.10	119.90
36	5	2608	G	OP2-P-O3'	7.00	120.59	105.20
36	1	1151	U	C5-C6-N1	6.99	126.20	122.70
36	5	2857	C	C6-N1-C1'	-6.99	112.41	120.80
36	5	1169	A	O5'-P-OP2	-6.99	99.41	105.70
36	1	3041	U	N1-C2-O2	-6.99	117.91	122.80
36	1	2876	C	C6-N1-C2	-6.99	117.50	120.30
36	5	964	G	C8-N9-C4	-6.99	103.61	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3105	U	N1-C2-N3	6.99	119.09	114.90
36	1	53	G	N1-C6-O6	-6.98	115.71	119.90
36	5	2327	U	C6-N1-C2	6.98	125.19	121.00
36	5	82	C	C4-C5-C6	6.98	120.89	117.40
36	5	2920	U	C5-C4-O4	-6.98	121.71	125.90
36	1	2365	C	C6-N1-C2	6.98	123.09	120.30
36	1	2640	A	C5-C6-N1	6.98	121.19	117.70
36	5	350	C	N3-C2-O2	-6.97	117.02	121.90
36	5	1192	C	N1-C2-O2	6.97	123.08	118.90
36	5	1300	G	C4-C5-N7	6.97	113.59	110.80
36	1	2846	U	N3-C4-O4	-6.97	114.52	119.40
36	5	2961	G	C8-N9-C4	-6.97	103.61	106.40
1	2	1761	U	P-O3'-C3'	6.97	128.06	119.70
36	1	2121	G	C5-C6-O6	6.97	132.78	128.60
36	5	61	A	C5-C6-N6	6.96	129.27	123.70
36	1	2176	U	N3-C2-O2	-6.96	117.33	122.20
36	1	1495	U	C2-N3-C4	-6.96	122.82	127.00
36	1	2374	C	N3-C2-O2	-6.96	117.03	121.90
36	1	3266	G	N9-C4-C5	6.96	108.18	105.40
36	1	1365	G	C6-C5-N7	-6.96	126.23	130.40
36	1	1411	C	C2-N3-C4	-6.95	116.42	119.90
36	5	1198	C	C6-N1-C2	-6.95	117.52	120.30
1	6	1700	C	N1-C2-O2	6.95	123.07	118.90
36	5	1149	G	C4-C5-C6	6.95	122.97	118.80
36	5	2278	C	C4-C5-C6	-6.95	113.92	117.40
51	m5	187	ARG	NE-CZ-NH1	-6.95	116.83	120.30
1	2	404	G	O5'-P-OP2	-6.95	99.45	105.70
36	1	423	A	C4-C5-C6	6.95	120.47	117.00
36	1	919	U	N3-C4-C5	6.95	118.77	114.60
36	5	877	C	C4-C5-C6	-6.95	113.93	117.40
1	6	75	U	N1-C2-O2	6.95	127.66	122.80
36	5	562	C	N3-C4-C5	6.95	124.68	121.90
36	5	2255	A	O5'-P-OP1	-6.95	99.45	105.70
36	5	3123	A	C8-N9-C4	6.95	108.58	105.80
38	4	32	C	C2-N1-C1'	-6.94	111.16	118.80
36	1	1329	U	C5-C6-N1	6.94	126.17	122.70
36	1	2124	G	C5-C6-O6	-6.94	124.44	128.60
36	5	2295	A	C5-C6-N6	-6.94	118.15	123.70
36	5	2399	A	C2-N3-C4	-6.94	107.13	110.60
36	5	1879	A	N9-C4-C5	-6.94	103.03	105.80
36	5	2682	C	C6-N1-C2	6.94	123.08	120.30
36	5	3351	U	N3-C2-O2	-6.94	117.34	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	122	A	OP1-P-OP2	-6.93	109.20	119.60
36	1	1113	G	N1-C6-O6	6.93	124.06	119.90
36	1	1433	A	O5'-P-OP1	-6.93	99.46	105.70
1	6	17	C	N3-C2-O2	-6.93	117.05	121.90
36	5	1897	G	C5-C6-O6	-6.93	124.44	128.60
36	5	2954	U	C5-C6-N1	6.93	126.16	122.70
36	1	2878	G	C8-N9-C4	6.93	109.17	106.40
36	1	2379	U	N3-C2-O2	6.92	127.05	122.20
36	1	2859	U	C5-C6-N1	-6.92	119.24	122.70
36	5	706	A	N3-C4-C5	6.92	131.65	126.80
36	1	3316	A	C2-N3-C4	-6.92	107.14	110.60
36	1	1133	A	N1-C6-N6	6.92	122.75	118.60
36	1	2700	G	N1-C6-O6	6.92	124.05	119.90
36	5	2411	U	N3-C4-C5	6.92	118.75	114.60
36	5	3218	A	C6-C5-N7	-6.92	127.45	132.30
1	2	1100	G	C6-C5-N7	-6.92	126.25	130.40
36	5	3050	U	C5-C4-O4	6.92	130.05	125.90
36	1	105	C	C5-C4-N4	-6.92	115.36	120.20
1	2	1200	G	C6-C5-N7	-6.91	126.25	130.40
1	6	696	C	O4'-C1'-N1	6.91	113.73	108.20
1	2	1671	A	O5'-P-OP1	-6.91	99.48	105.70
36	1	2756	C	C6-N1-C2	-6.91	117.54	120.30
1	6	1028	C	N1-C2-O2	6.91	123.05	118.90
36	1	93	C	C6-N1-C2	-6.91	117.54	120.30
36	5	2249	G	C8-N9-C4	-6.91	103.64	106.40
37	7	74	C	N3-C2-O2	6.91	126.73	121.90
36	1	1216	C	O5'-P-OP2	-6.91	99.48	105.70
36	1	1792	C	N1-C2-O2	-6.91	114.76	118.90
36	1	3362	A	C5-N7-C8	-6.91	100.45	103.90
36	1	2949	U	N1-C2-N3	-6.90	110.76	114.90
36	1	343	U	O5'-P-OP2	-6.90	99.49	105.70
36	1	818	C	N3-C4-C5	-6.90	119.14	121.90
41	L4	98	ARG	NE-CZ-NH1	-6.90	116.85	120.30
1	2	448	C	C6-N1-C2	-6.90	117.54	120.30
36	1	1139	G	C2-N3-C4	-6.90	108.45	111.90
1	6	163	G	N9-C4-C5	6.89	108.16	105.40
36	1	1182	A	C8-N9-C4	6.89	108.56	105.80
36	1	2639	G	C6-C5-N7	-6.89	126.27	130.40
36	5	834	U	C6-N1-C2	6.89	125.13	121.00
36	1	1510	G	C4-C5-N7	6.88	113.55	110.80
36	1	1518	U	N1-C2-N3	6.88	119.03	114.90
36	1	2298	U	C5-C4-O4	6.88	130.03	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3212	C	C6-N1-C2	6.88	123.05	120.30
1	2	1033	C	N3-C2-O2	-6.88	117.08	121.90
36	1	2988	C	N1-C2-O2	-6.88	114.77	118.90
1	2	577	G	C6-C5-N7	-6.88	126.27	130.40
1	6	777	C	C5-C6-N1	6.88	124.44	121.00
36	1	676	G	C8-N9-C4	-6.88	103.65	106.40
1	6	65	A	C2-N3-C4	-6.87	107.16	110.60
36	5	2618	G	N3-C4-C5	-6.87	125.16	128.60
36	5	2816	G	C8-N9-C4	6.87	109.15	106.40
36	5	2925	C	C6-N1-C2	-6.87	117.55	120.30
38	8	40	A	C8-N9-C4	-6.87	103.05	105.80
36	1	3248	C	C6-N1-C2	-6.87	117.55	120.30
36	5	998	A	OP2-P-O3'	6.87	120.30	105.20
36	5	952	A	N1-C6-N6	6.86	122.72	118.60
38	8	3	A	C2-N3-C4	6.86	114.03	110.60
36	1	743	C	N1-C2-O2	-6.86	114.78	118.90
36	1	2397	A	O5'-P-OP2	-6.86	99.53	105.70
36	1	2406	C	C6-N1-C2	6.86	123.04	120.30
1	6	1137	A	C8-N9-C4	6.86	108.54	105.80
37	7	37	G	C5-C6-O6	-6.86	124.49	128.60
73	o7	65	ARG	NE-CZ-NH1	6.86	123.73	120.30
36	5	645	A	N3-C4-C5	-6.86	122.00	126.80
36	5	2345	A	C5-C6-N6	-6.86	118.22	123.70
36	5	2700	G	C6-C5-N7	-6.86	126.29	130.40
36	5	2856	G	OP1-P-OP2	6.86	129.88	119.60
36	5	2339	C	OP1-P-OP2	6.85	129.88	119.60
36	5	2400	G	C2-N3-C4	-6.85	108.47	111.90
36	5	2993	G	C4-C5-N7	6.85	113.54	110.80
36	5	3362	A	N3-C4-C5	6.85	131.60	126.80
36	1	2357	A	C6-C5-N7	-6.85	127.51	132.30
38	8	95	G	N3-C4-C5	6.85	132.02	128.60
36	1	229	G	N1-C6-O6	6.85	124.01	119.90
36	1	1148	G	C8-N9-C4	6.85	109.14	106.40
36	5	939	U	N1-C2-O2	-6.85	118.01	122.80
36	5	1909	A	O5'-P-OP2	-6.85	99.54	105.70
36	5	2661	G	N3-C4-N9	6.85	130.11	126.00
1	2	1274	C	C6-N1-C2	-6.84	117.56	120.30
36	1	667	C	N3-C4-N4	-6.84	113.21	118.00
36	1	1838	G	N9-C4-C5	-6.84	102.66	105.40
37	3	82	G	N1-C2-N2	-6.84	110.04	116.20
1	2	42	G	N1-C6-O6	-6.84	115.79	119.90
36	1	1475	A	N7-C8-N9	-6.84	110.38	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	908	G	C8-N9-C1'	-6.84	118.11	127.00
1	6	1614	A	C2-N3-C4	-6.84	107.18	110.60
36	5	1628	C	C6-N1-C2	-6.84	117.56	120.30
36	1	2698	G	O5'-P-OP1	-6.83	99.55	105.70
36	5	925	A	C8-N9-C4	6.83	108.53	105.80
36	5	2957	G	O5'-P-OP1	-6.83	99.55	105.70
36	5	1116	G	C4-C5-C6	6.83	122.90	118.80
36	5	2980	U	N3-C2-O2	-6.83	117.42	122.20
36	1	3361	G	N3-C4-N9	6.83	130.10	126.00
36	5	3214	U	N3-C2-O2	-6.83	117.42	122.20
1	2	728	U	C2-N1-C1'	6.82	125.89	117.70
36	5	1151	U	N3-C4-O4	6.82	124.18	119.40
36	1	880	G	C5-C6-O6	6.82	132.69	128.60
1	6	1773	C	C4-C5-C6	6.82	120.81	117.40
36	1	2633	U	N3-C2-O2	-6.82	117.43	122.20
1	6	432	G	C5-C6-O6	-6.82	124.51	128.60
36	5	2121	G	N9-C4-C5	-6.82	102.67	105.40
1	2	75	U	C2-N1-C1'	6.81	125.87	117.70
69	o3	99	ARG	NE-CZ-NH1	-6.81	116.89	120.30
36	5	2758	A	N1-C6-N6	-6.81	114.51	118.60
36	1	1160	C	C6-N1-C2	6.81	123.02	120.30
36	1	2899	C	C4-C5-C6	6.81	120.80	117.40
36	5	3154	C	C6-N1-C2	-6.81	117.58	120.30
36	5	1452	A	C5-C6-N6	-6.81	118.25	123.70
36	5	1879	A	C5-N7-C8	-6.81	100.50	103.90
36	5	2917	G	C6-C5-N7	-6.81	126.32	130.40
36	5	971	G	N7-C8-N9	-6.81	109.70	113.10
36	5	2635	A	C8-N9-C4	-6.80	103.08	105.80
36	5	894	G	C8-N9-C4	6.80	109.12	106.40
36	1	2620	G	C2-N3-C4	-6.80	108.50	111.90
1	6	163	G	C8-N9-C1'	6.80	135.84	127.00
36	1	397	A	C5-C6-N1	6.80	121.10	117.70
36	5	2375	G	C5-C6-O6	6.80	132.68	128.60
36	1	35	A	C4-C5-N7	6.79	114.10	110.70
1	2	831	U	C5-C6-N1	6.79	126.10	122.70
36	1	1300	G	C5-C6-O6	-6.79	124.52	128.60
36	1	1349	G	N3-C4-C5	-6.79	125.20	128.60
36	1	2645	G	C8-N9-C4	6.79	109.12	106.40
36	5	577	C	C5-C4-N4	-6.79	115.45	120.20
36	1	100	A	C4-C5-C6	6.79	120.39	117.00
36	1	201	A	C2-N3-C4	-6.79	107.21	110.60
36	1	2687	G	N1-C6-O6	-6.79	115.83	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	11	A	C5-N7-C8	-6.79	100.51	103.90
1	2	966	A	N1-C6-N6	6.78	122.67	118.60
36	5	2296	A	O5'-P-OP2	6.78	118.84	110.70
36	5	3067	C	C6-N1-C2	6.78	123.01	120.30
36	1	639	G	N9-C4-C5	-6.78	102.69	105.40
47	M0	10	ARG	NE-CZ-NH1	-6.78	116.91	120.30
36	5	1496	C	C2-N1-C1'	6.78	126.25	118.80
36	1	347	G	N9-C4-C5	-6.78	102.69	105.40
1	6	308	C	C2-N1-C1'	-6.78	111.35	118.80
36	5	645	A	N9-C4-C5	6.78	108.51	105.80
36	5	3097	C	O5'-P-OP1	6.78	118.83	110.70
36	1	1435	A	N1-C2-N3	-6.77	125.91	129.30
36	1	2249	G	N3-C4-N9	6.77	130.06	126.00
36	1	2619	G	O5'-P-OP1	-6.77	99.61	105.70
37	3	13	A	O5'-P-OP1	-6.77	99.61	105.70
38	8	79	A	N7-C8-N9	6.77	117.19	113.80
36	5	1524	A	C8-N9-C4	6.77	108.51	105.80
1	2	1426	C	C4-C5-C6	-6.76	114.02	117.40
36	1	402	A	C8-N9-C4	6.76	108.50	105.80
36	5	1906	G	O5'-P-OP1	-6.76	99.61	105.70
1	2	360	A	C8-N9-C4	6.76	108.50	105.80
36	1	900	G	C8-N9-C4	6.76	109.10	106.40
36	5	1868	G	C4-C5-N7	6.76	113.50	110.80
36	5	3153	U	N1-C2-O2	6.76	127.53	122.80
36	1	3057	U	N1-C2-N3	6.76	118.95	114.90
61	N5	34	LEU	CA-CB-CG	6.76	130.84	115.30
36	5	297	G	C4-N9-C1'	6.76	135.28	126.50
36	5	2704	A	O5'-P-OP1	-6.76	99.62	105.70
37	3	82	G	N1-C2-N3	6.75	127.95	123.90
36	1	1136	A	C6-N1-C2	-6.75	114.55	118.60
36	1	2177	G	N3-C4-C5	-6.75	125.22	128.60
36	5	640	U	N1-C2-O2	-6.75	118.07	122.80
36	5	776	U	N3-C4-O4	-6.75	114.67	119.40
36	1	3243	A	C5-C6-N6	-6.75	118.30	123.70
36	5	2231	C	O4'-C1'-N1	6.75	113.60	108.20
36	5	2951	G	O5'-P-OP1	-6.75	99.62	105.70
36	1	2301	U	O5'-P-OP2	-6.75	99.62	105.70
36	1	1377	G	C5-N7-C8	-6.75	100.93	104.30
37	3	35	C	N1-C2-O2	6.75	122.95	118.90
36	5	1203	A	N1-C6-N6	6.75	122.65	118.60
36	5	1886	A	N1-C2-N3	-6.75	125.92	129.30
36	1	2243	A	O5'-P-OP2	-6.75	99.63	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1349	G	N3-C4-N9	6.75	130.05	126.00
36	5	3137	C	C2-N1-C1'	-6.75	111.38	118.80
36	1	1303	A	N9-C4-C5	-6.74	103.10	105.80
36	1	2869	U	O5'-P-OP1	-6.74	99.63	105.70
36	1	2403	G	OP1-P-O3'	6.74	120.03	105.20
36	1	3214	U	N3-C2-O2	-6.74	117.48	122.20
36	1	1431	G	N1-C6-O6	-6.74	115.86	119.90
36	5	880	G	C8-N9-C4	6.74	109.10	106.40
38	8	54	A	C2-N3-C4	-6.74	107.23	110.60
36	1	2378	C	C5-C4-N4	-6.74	115.48	120.20
36	5	43	A	C5-N7-C8	-6.74	100.53	103.90
36	5	1506	A	N1-C6-N6	-6.73	114.56	118.60
36	5	2376	G	N1-C6-O6	6.73	123.94	119.90
36	5	3382	U	N3-C2-O2	-6.73	117.49	122.20
36	5	3382	U	C2-N1-C1'	6.73	125.78	117.70
36	1	498	A	O5'-P-OP2	-6.73	99.64	105.70
36	5	2323	G	C8-N9-C4	-6.73	103.71	106.40
40	l3	275	ARG	NE-CZ-NH1	-6.73	116.94	120.30
59	n3	89	ASP	CB-CG-OD1	-6.73	112.24	118.30
36	1	586	C	C6-N1-C2	6.73	122.99	120.30
36	1	2937	G	N7-C8-N9	-6.73	109.73	113.10
36	5	2972	G	C5-C6-O6	6.73	132.64	128.60
36	5	3060	C	C5-C6-N1	6.73	124.36	121.00
36	5	3317	U	C5-C4-O4	6.72	129.93	125.90
36	1	2624	G	C5-N7-C8	-6.72	100.94	104.30
36	1	1148	G	N9-C4-C5	-6.72	102.71	105.40
37	3	82	G	N3-C4-N9	6.72	130.03	126.00
36	5	646	A	N1-C6-N6	-6.72	114.57	118.60
36	5	2400	G	C6-C5-N7	-6.72	126.37	130.40
37	7	73	C	C5-C6-N1	6.72	124.36	121.00
36	1	931	C	C6-N1-C2	6.71	122.99	120.30
1	2	1258	U	N3-C2-O2	-6.71	117.50	122.20
36	1	372	A	O5'-P-OP2	-6.71	99.66	105.70
36	1	895	A	C5-C6-N6	-6.71	118.33	123.70
36	1	3382	U	N1-C2-O2	6.71	127.50	122.80
36	5	3128	G	C4-C5-N7	6.71	113.48	110.80
1	6	1747	G	C8-N9-C4	6.71	109.08	106.40
36	5	2635	A	N9-C4-C5	6.71	108.48	105.80
36	5	2885	C	N3-C4-N4	6.71	122.70	118.00
36	1	2797	C	O5'-P-OP1	-6.71	99.66	105.70
36	5	1941	C	N1-C2-O2	-6.71	114.88	118.90
36	5	337	G	N9-C4-C5	6.71	108.08	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1160	C	C2-N1-C1'	-6.71	111.42	118.80
36	1	808	A	C6-N1-C2	-6.70	114.58	118.60
36	1	2408	U	O5'-P-OP1	-6.70	99.67	105.70
36	1	936	A	O5'-P-OP2	-6.70	99.67	105.70
36	1	2819	A	O5'-P-OP2	-6.70	99.67	105.70
36	5	869	G	C5-C6-N1	6.70	114.85	111.50
36	5	3313	U	O5'-P-OP2	-6.70	99.67	105.70
36	1	716	A	C6-C5-N7	-6.70	127.61	132.30
36	5	2944	U	N3-C2-O2	-6.70	117.51	122.20
1	2	465	G	O5'-P-OP1	-6.70	99.67	105.70
1	2	1740	A	N1-C6-N6	6.70	122.62	118.60
36	1	884	A	N1-C6-N6	6.70	122.62	118.60
36	5	3197	G	N3-C4-C5	6.69	131.95	128.60
36	1	2358	A	C8-N9-C4	6.69	108.48	105.80
53	M7	3	ARG	NE-CZ-NH2	-6.69	116.95	120.30
1	6	1600	A	N9-C1'-C2'	6.69	122.70	114.00
36	5	518	G	C5-C6-O6	6.69	132.62	128.60
36	5	2385	G	O5'-P-OP1	-6.69	99.68	105.70
36	1	968	G	C5-C6-O6	-6.69	124.58	128.60
36	1	2356	A	N1-C6-N6	6.69	122.61	118.60
36	1	2422	C	N3-C4-C5	6.69	124.58	121.90
36	5	957	C	C4-C5-C6	6.69	120.75	117.40
36	5	1433	A	N9-C4-C5	6.69	108.48	105.80
36	5	2383	C	N3-C4-N4	6.69	122.68	118.00
1	2	577	G	N9-C4-C5	-6.69	102.72	105.40
1	6	29	U	N3-C2-O2	-6.69	117.52	122.20
37	7	101	G	C8-N9-C4	6.69	109.08	106.40
36	5	1912	U	C5-C4-O4	-6.69	121.89	125.90
36	1	802	C	O5'-P-OP2	6.68	118.72	110.70
36	1	2168	A	N1-C6-N6	-6.68	114.59	118.60
36	5	1878	G	C4-N9-C1'	6.68	135.19	126.50
36	1	1379	G	N1-C2-N3	6.68	127.91	123.90
36	1	2811	A	N1-C6-N6	-6.68	114.59	118.60
36	5	3382	U	N1-C2-O2	6.68	127.47	122.80
36	5	1116	G	N9-C4-C5	6.67	108.07	105.40
77	q1	12	ARG	NE-CZ-NH1	-6.67	116.97	120.30
64	N8	4	ARG	NE-CZ-NH1	-6.67	116.97	120.30
1	6	432	G	N1-C6-O6	6.67	123.90	119.90
36	1	1149	G	C4-C5-C6	6.67	122.80	118.80
36	1	2247	G	N1-C6-O6	6.67	123.90	119.90
36	1	2731	U	N1-C2-O2	-6.67	118.13	122.80
36	5	587	U	N3-C2-O2	6.67	126.87	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2371	G	C5-N7-C8	-6.66	100.97	104.30
36	5	2870	C	C6-N1-C1'	6.66	128.80	120.80
1	2	1096	C	C2-N1-C1'	6.66	126.13	118.80
36	1	1116	G	OP2-P-O3'	6.66	119.85	105.20
36	5	200	C	N3-C4-N4	6.66	122.66	118.00
36	1	54	C	C2-N3-C4	-6.66	116.57	119.90
37	7	104	A	C8-N9-C4	6.66	108.46	105.80
53	m7	69	ARG	NE-CZ-NH2	-6.66	116.97	120.30
36	1	2879	C	N1-C2-O2	-6.66	114.91	118.90
38	8	32	C	C6-N1-C2	6.66	122.96	120.30
51	m5	197	LEU	CA-CB-CG	-6.66	99.99	115.30
36	1	585	A	N7-C8-N9	-6.65	110.47	113.80
36	1	934	G	C4-N9-C1'	6.65	135.15	126.50
36	1	1472	U	C6-N1-C2	6.65	124.99	121.00
36	1	1190	A	N7-C8-N9	6.65	117.12	113.80
36	5	2371	G	C4-C5-N7	6.65	113.46	110.80
36	5	2860	U	O5'-P-OP1	-6.65	99.72	105.70
37	7	11	A	C4-C5-N7	6.65	114.03	110.70
36	1	3266	G	N3-C4-N9	-6.65	122.01	126.00
36	1	2897	A	C8-N9-C4	6.65	108.46	105.80
36	5	2211	U	N1-C2-N3	6.65	118.89	114.90
36	1	1520	G	C4-C5-N7	-6.65	108.14	110.80
36	1	86	G	O5'-P-OP1	6.64	118.67	110.70
36	1	1136	A	C5-C6-N1	6.64	121.02	117.70
36	1	2309	A	N1-C6-N6	6.64	122.59	118.60
36	1	969	C	C2-N3-C4	-6.64	116.58	119.90
1	6	317	C	C5-C6-N1	-6.64	117.68	121.00
36	1	908	G	C4-N9-C1'	6.64	135.13	126.50
36	1	3378	C	C6-N1-C2	6.64	122.96	120.30
36	5	2338	C	N1-C2-O2	-6.64	114.92	118.90
36	1	1901	A	C5-C6-N1	6.64	121.02	117.70
36	5	924	G	N3-C4-C5	6.64	131.92	128.60
36	1	1269	U	C2-N1-C1'	6.64	125.67	117.70
36	5	1390	A	C8-N9-C4	-6.64	103.14	105.80
1	2	779	U	O4'-C1'-N1	6.64	113.51	108.20
36	1	2987	A	C5-C6-N6	-6.64	118.39	123.70
36	5	1300	G	C6-C5-N7	-6.64	126.42	130.40
36	5	656	A	C8-N9-C4	6.63	108.45	105.80
36	1	2961	G	C6-C5-N7	-6.63	126.42	130.40
37	3	98	C	N1-C2-O2	-6.63	114.92	118.90
36	1	1429	G	C8-N9-C1'	-6.63	118.38	127.00
36	1	2130	G	C5-C6-O6	6.63	132.58	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	11	C	OP2-P-O3'	6.63	119.79	105.20
36	5	2953	U	N3-C2-O2	6.63	126.84	122.20
36	5	840	C	O5'-P-OP2	-6.63	99.73	105.70
36	1	1396	C	C6-N1-C2	6.63	122.95	120.30
36	5	2815	G	C5-C6-O6	-6.63	124.62	128.60
1	2	158	U	C2-N1-C1'	6.63	125.65	117.70
1	6	1568	C	P-O3'-C3'	6.63	127.65	119.70
36	5	1115	G	C4-N9-C1'	6.63	135.11	126.50
36	1	2906	C	C2-N3-C4	-6.62	116.59	119.90
36	5	2354	C	N3-C2-O2	6.62	126.54	121.90
36	1	2886	U	C5-C4-O4	-6.62	121.93	125.90
36	5	948	C	N3-C2-O2	6.62	126.53	121.90
36	1	1192	C	C6-N1-C1'	-6.62	112.86	120.80
36	1	2550	U	C5-C4-O4	6.62	129.87	125.90
1	6	1000	C	N3-C2-O2	-6.62	117.27	121.90
36	5	1908	A	C5-C6-N6	6.62	128.99	123.70
36	5	2402	A	O4'-C1'-N9	6.62	113.49	108.20
36	5	2832	C	C6-N1-C2	6.62	122.95	120.30
36	1	983	A	N1-C2-N3	6.61	132.61	129.30
36	5	2836	C	C4-C5-C6	6.61	120.71	117.40
36	5	895	A	C4-C5-C6	6.61	120.31	117.00
36	5	1868	G	N1-C6-O6	6.61	123.87	119.90
1	2	4	C	N1-C2-O2	-6.61	114.93	118.90
36	5	1889	G	C4-C5-N7	6.61	113.44	110.80
36	1	2194	G	C6-C5-N7	-6.61	126.44	130.40
36	1	2620	G	N3-C4-C5	6.61	131.90	128.60
36	1	2979	U	C5-C6-N1	-6.61	119.40	122.70
36	5	1152	G	C4-C5-C6	-6.61	114.83	118.80
36	5	2709	C	N3-C4-C5	6.61	124.54	121.90
1	2	1749	A	C8-N9-C4	6.61	108.44	105.80
36	1	2238	G	C4-C5-N7	6.61	113.44	110.80
36	1	1094	U	C5-C6-N1	6.60	126.00	122.70
36	1	1307	G	P-O3'-C3'	6.60	127.62	119.70
36	1	2920	U	C2-N3-C4	-6.60	123.04	127.00
36	5	43	A	N1-C6-N6	6.60	122.56	118.60
36	5	2403	G	O5'-P-OP1	6.60	118.62	110.70
36	5	3128	G	N9-C4-C5	-6.60	102.76	105.40
36	1	1790	G	C5-C6-N1	-6.60	108.20	111.50
36	1	2975	U	N1-C2-O2	6.60	127.42	122.80
38	4	24	G	C4-C5-N7	6.60	113.44	110.80
36	5	2147	A	N1-C6-N6	6.60	122.56	118.60
36	5	2635	A	N1-C6-N6	-6.60	114.64	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2283	G	C8-N9-C4	6.60	109.04	106.40
36	5	2643	A	N9-C4-C5	-6.59	103.16	105.80
36	5	3050	U	N3-C2-O2	-6.59	117.58	122.20
36	5	3184	A	C5-C6-N6	-6.59	118.42	123.70
36	1	967	A	C2-N3-C4	-6.59	107.31	110.60
36	5	672	A	C4-C5-N7	6.59	114.00	110.70
36	5	2870	C	C2-N3-C4	-6.59	116.61	119.90
36	1	1175	C	N3-C4-C5	6.59	124.54	121.90
36	1	3361	G	N3-C4-C5	-6.59	125.31	128.60
36	1	810	A	C5-C6-N1	6.59	120.99	117.70
36	5	2849	C	C5-C6-N1	6.59	124.29	121.00
36	5	610	G	C8-N9-C4	-6.58	103.77	106.40
36	5	2816	G	N7-C8-N9	-6.58	109.81	113.10
36	1	2627	C	C6-N1-C2	6.58	122.93	120.30
36	1	2836	C	C6-N1-C2	-6.58	117.67	120.30
1	6	901	G	C5-C6-O6	-6.58	124.65	128.60
36	5	2879	C	O5'-P-OP2	-6.58	99.78	105.70
36	5	3041	U	O5'-P-OP2	-6.58	99.78	105.70
36	1	1897	G	C4-C5-N7	6.58	113.43	110.80
36	5	3218	A	C5-C6-N6	-6.58	118.44	123.70
36	1	54	C	N3-C4-C5	6.58	124.53	121.90
1	6	523	G	C8-N9-C4	6.58	109.03	106.40
36	5	1213	G	C5-C6-N1	6.58	114.79	111.50
1	6	453	U	C6-N1-C2	-6.58	117.05	121.00
36	5	3362	A	C5-N7-C8	-6.58	100.61	103.90
36	1	1153	A	N1-C6-N6	6.58	122.55	118.60
36	1	1405	U	C5-C6-N1	-6.58	119.41	122.70
36	1	3183	A	N1-C6-N6	6.58	122.55	118.60
36	5	1433	A	C8-N9-C4	-6.58	103.17	105.80
36	5	2699	G	C5-C6-O6	-6.58	124.65	128.60
36	5	1124	U	N3-C4-O4	-6.57	114.80	119.40
36	1	1151	U	N3-C4-C5	-6.57	110.66	114.60
1	2	1773	C	N3-C4-C5	-6.57	119.27	121.90
36	1	292	U	N1-C2-N3	6.57	118.84	114.90
36	1	589	A	N7-C8-N9	-6.57	110.52	113.80
36	1	974	G	N3-C4-C5	-6.57	125.31	128.60
36	1	2624	G	C5-C6-O6	-6.57	124.66	128.60
36	1	3092	C	C6-N1-C2	6.57	122.93	120.30
36	5	2661	G	C6-N1-C2	-6.57	121.16	125.10
38	8	33	A	C8-N9-C4	6.57	108.43	105.80
36	5	1892	G	O5'-P-OP2	-6.57	99.79	105.70
1	2	1762	A	O5'-P-OP1	-6.57	99.79	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	797	U	OP2-P-O3'	6.57	119.64	105.20
36	1	2615	G	C5-C6-O6	-6.57	124.66	128.60
36	1	2627	C	C5-C6-N1	-6.57	117.72	121.00
36	1	1904	C	N3-C4-N4	6.56	122.59	118.00
36	1	3275	U	C5-C6-N1	6.56	125.98	122.70
36	5	1060	U	N3-C4-O4	-6.56	114.81	119.40
36	5	1190	A	C8-N9-C4	-6.56	103.17	105.80
36	5	2994	A	C6-N1-C2	-6.56	114.66	118.60
1	6	863	A	N1-C6-N6	6.56	122.54	118.60
36	5	297	G	N3-C4-N9	6.56	129.94	126.00
36	1	3362	A	C8-N9-C4	-6.56	103.18	105.80
36	5	2685	C	C2-N3-C4	-6.56	116.62	119.90
36	5	2830	G	C4-C5-N7	-6.56	108.18	110.80
36	1	3209	A	C5-N7-C8	-6.56	100.62	103.90
36	5	2211	U	C4-C5-C6	6.56	123.64	119.70
36	1	3079	U	N1-C2-O2	-6.56	118.21	122.80
1	6	558	U	N1-C2-O2	6.55	127.39	122.80
36	5	645	A	C8-N9-C4	-6.55	103.18	105.80
36	5	2349	U	OP1-P-O3'	6.55	119.62	105.20
36	5	2366	C	N3-C4-N4	6.55	122.59	118.00
36	5	3294	A	C8-N9-C4	-6.55	103.18	105.80
36	5	1329	U	C5-C4-O4	-6.55	121.97	125.90
36	5	2661	G	N3-C4-C5	-6.55	125.32	128.60
1	2	499	U	C6-N1-C1'	-6.55	112.03	121.20
36	1	99	A	O4'-C1'-N9	6.55	113.44	108.20
36	5	640	U	C5-C4-O4	-6.55	121.97	125.90
37	7	37	G	C6-C5-N7	-6.54	126.47	130.40
36	5	3245	A	N1-C2-N3	6.54	132.57	129.30
36	1	697	A	C8-N9-C4	6.54	108.42	105.80
36	1	1373	A	N1-C2-N3	6.54	132.57	129.30
36	1	2378	C	N3-C4-C5	6.54	124.52	121.90
1	6	1776	A	N1-C6-N6	6.54	122.52	118.60
36	5	1420	C	N1-C2-O2	-6.53	114.98	118.90
36	5	2405	C	N1-C2-N3	6.53	123.77	119.20
36	1	369	A	C8-N9-C4	-6.53	103.19	105.80
36	1	54	C	C6-N1-C2	6.53	122.91	120.30
36	1	1324	U	O5'-P-OP2	-6.53	99.83	105.70
36	1	1484	U	OP2-P-O3'	6.53	119.56	105.20
36	5	1581	C	C2-N3-C4	6.53	123.16	119.90
36	5	2600	C	C6-N1-C2	-6.53	117.69	120.30
36	1	716	A	C5-C6-N6	-6.53	118.48	123.70
36	1	3344	A	O4'-C1'-N9	6.53	113.42	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	378	A	N1-C6-N6	6.53	122.52	118.60
36	5	1424	C	N3-C2-O2	6.53	126.47	121.90
36	1	847	A	N1-C6-N6	6.52	122.51	118.60
1	2	359	A	C6-C5-N7	6.52	136.87	132.30
36	5	414	U	N3-C4-O4	6.52	123.97	119.40
36	5	2759	U	N1-C2-O2	-6.52	118.23	122.80
47	M0	24	ARG	NE-CZ-NH1	6.52	123.56	120.30
36	5	1153	A	C5-C6-N6	-6.52	118.48	123.70
36	5	2351	U	C6-N1-C2	-6.52	117.09	121.00
36	5	2403	G	C2-N3-C4	6.52	115.16	111.90
36	1	589	A	C8-N9-C4	6.52	108.41	105.80
36	1	608	A	C6-C5-N7	-6.52	127.74	132.30
36	1	787	G	N3-C4-N9	6.52	129.91	126.00
1	2	380	U	N1-C2-O2	6.52	127.36	122.80
36	1	934	G	C8-N9-C1'	-6.52	118.53	127.00
36	5	706	A	N1-C6-N6	6.52	122.51	118.60
36	5	2299	A	C5-C6-N1	-6.52	114.44	117.70
36	5	2395	G	C8-N9-C4	6.52	109.01	106.40
1	2	1462	G	N1-C6-O6	6.51	123.81	119.90
36	1	3081	C	C5-C6-N1	-6.51	117.74	121.00
36	5	1286	A	C8-N9-C4	6.51	108.41	105.80
36	5	3014	U	C2-N3-C4	-6.51	123.09	127.00
1	6	1472	C	N1-C2-O2	-6.51	115.00	118.90
36	5	2988	C	C2-N3-C4	-6.51	116.64	119.90
36	5	882	A	C4-C5-C6	6.51	120.25	117.00
36	1	949	C	N1-C2-N3	6.50	123.75	119.20
36	1	968	G	C6-N1-C2	-6.50	121.20	125.10
1	6	1058	U	OP1-P-O3'	6.50	119.51	105.20
1	6	1614	A	O4'-C1'-N9	6.50	113.40	108.20
36	5	1882	G	C8-N9-C4	6.50	109.00	106.40
36	5	2117	A	C5-C6-N6	6.50	128.90	123.70
36	1	1907	C	N3-C4-C5	-6.50	119.30	121.90
36	1	2932	U	C5-C6-N1	-6.50	119.45	122.70
36	5	577	C	N3-C4-N4	6.50	122.55	118.00
36	5	3243	A	O4'-C1'-N9	-6.50	103.00	108.20
36	1	689	U	N1-C2-N3	6.50	118.80	114.90
36	5	61	A	N1-C6-N6	-6.50	114.70	118.60
36	5	2388	U	OP2-P-O3'	6.50	119.49	105.20
1	2	287	G	O4'-C1'-N9	6.49	113.39	108.20
36	1	645	A	O5'-P-OP1	-6.49	99.86	105.70
36	1	3178	A	C4-C5-C6	6.49	120.25	117.00
37	7	100	C	C6-N1-C2	6.49	122.90	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	659	G	C5-N7-C8	-6.49	101.05	104.30
36	1	2852	C	C6-N1-C2	6.49	122.90	120.30
36	1	188	U	N1-C2-O2	-6.49	118.26	122.80
36	1	2305	G	C6-C5-N7	-6.49	126.51	130.40
36	1	2333	C	C4-C5-C6	6.49	120.64	117.40
36	1	1385	C	N3-C2-O2	6.49	126.44	121.90
36	1	2132	C	O5'-P-OP2	-6.49	99.86	105.70
36	5	1041	U	O5'-P-OP2	-6.49	99.86	105.70
36	5	1187	C	C5-C6-N1	-6.49	117.76	121.00
15	C3	22	ALA	C-N-CD	-6.48	106.33	120.60
36	1	101	G	N3-C2-N2	-6.48	115.36	119.90
36	5	666	A	C6-N1-C2	-6.48	114.71	118.60
36	5	2825	C	N3-C2-O2	6.48	126.44	121.90
1	2	1746	A	O5'-P-OP1	-6.48	99.87	105.70
36	1	2794	G	N3-C4-C5	-6.48	125.36	128.60
36	1	3079	U	C6-N1-C1'	6.48	130.27	121.20
36	5	2917	G	O5'-P-OP2	-6.48	99.87	105.70
1	2	453	U	N1-C2-O2	6.48	127.33	122.80
36	1	979	U	N3-C2-O2	-6.48	117.67	122.20
1	6	1791	A	N1-C6-N6	6.48	122.49	118.60
36	5	3154	C	C5-C6-N1	6.48	124.24	121.00
37	7	92	A	N9-C4-C5	-6.48	103.21	105.80
36	1	35	A	N1-C6-N6	6.47	122.48	118.60
36	5	2156	C	C6-N1-C2	6.47	122.89	120.30
36	1	2293	C	N1-C2-O2	6.47	122.78	118.90
36	5	2942	C	C5-C4-N4	-6.47	115.67	120.20
1	2	1745	G	N3-C4-N9	6.47	129.88	126.00
36	5	2899	C	C4-C5-C6	6.47	120.63	117.40
36	1	3266	G	C8-N9-C4	-6.47	103.81	106.40
36	5	1474	A	C8-N9-C4	6.47	108.39	105.80
36	5	2354	C	N1-C2-O2	-6.47	115.02	118.90
36	1	1128	U	N3-C4-C5	6.46	118.48	114.60
1	6	630	A	C2-N3-C4	-6.46	107.37	110.60
36	1	644	G	C8-N9-C4	-6.46	103.81	106.40
36	1	1124	U	C5-C6-N1	6.46	125.93	122.70
36	1	2954	U	OP1-P-O3'	6.46	119.41	105.20
36	5	2851	A	N1-C2-N3	6.46	132.53	129.30
37	7	37	G	N9-C4-C5	-6.46	102.81	105.40
36	1	394	G	N3-C4-N9	-6.46	122.12	126.00
36	1	2621	G	N1-C2-N2	6.46	122.01	116.20
36	5	1885	U	C2-N1-C1'	-6.46	109.95	117.70
37	7	48	U	N3-C4-O4	6.46	123.92	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1761	U	C5-C4-O4	6.46	129.77	125.90
36	5	793	C	N3-C4-N4	6.46	122.52	118.00
36	1	206	G	C2-N3-C4	6.46	115.13	111.90
1	2	404	G	N9-C4-C5	-6.45	102.82	105.40
36	1	914	A	N1-C6-N6	-6.45	114.73	118.60
36	1	1518	U	N3-C4-O4	6.45	123.92	119.40
36	1	2996	U	N1-C2-O2	6.45	127.32	122.80
36	1	286	U	N3-C2-O2	-6.45	117.68	122.20
36	5	1006	A	O5'-P-OP2	-6.45	99.89	105.70
36	5	2350	C	O5'-P-OP1	6.45	118.44	110.70
36	5	895	A	C6-N1-C2	-6.45	114.73	118.60
36	5	2895	G	C4-C5-C6	6.45	122.67	118.80
1	2	1198	G	C8-N9-C4	-6.45	103.82	106.40
36	5	2140	U	N1-C2-O2	-6.45	118.29	122.80
36	5	3380	U	C5-C4-O4	6.45	129.77	125.90
36	1	37	U	C4-C5-C6	6.44	123.57	119.70
36	1	1450	G	C8-N9-C4	6.44	108.98	106.40
36	1	1385	C	N1-C2-O2	-6.44	115.03	118.90
1	6	1112	G	N3-C4-N9	6.44	129.87	126.00
36	5	1299	U	C5-C4-O4	-6.44	122.03	125.90
36	5	1367	G	C8-N9-C1'	-6.44	118.62	127.00
36	5	2874	G	C8-N9-C4	-6.44	103.82	106.40
36	1	948	C	N1-C2-O2	-6.44	115.04	118.90
1	6	1481	C	C6-N1-C2	-6.44	117.72	120.30
36	1	1405	U	N3-C4-C5	6.44	118.46	114.60
36	1	3201	C	C6-N1-C2	-6.44	117.72	120.30
1	6	371	G	C4-N9-C1'	6.44	134.87	126.50
1	2	1057	U	C2-N1-C1'	6.44	125.42	117.70
36	1	952	A	N1-C6-N6	6.44	122.46	118.60
36	1	1104	G	O5'-P-OP1	-6.44	99.91	105.70
1	6	609	U	N1-C2-N3	6.43	118.76	114.90
36	1	62	A	O5'-P-OP2	-6.43	99.91	105.70
36	1	155	G	N3-C4-N9	6.43	129.86	126.00
36	1	439	C	C2-N1-C1'	6.43	125.88	118.80
36	1	1822	C	C6-N1-C2	-6.43	117.73	120.30
36	1	2283	G	N1-C6-O6	6.43	123.76	119.90
36	1	954	U	C5-C6-N1	6.43	125.91	122.70
36	1	2400	G	N9-C4-C5	-6.43	102.83	105.40
36	1	2924	U	C5-C6-N1	-6.43	119.49	122.70
36	5	1124	U	C4-C5-C6	-6.43	115.84	119.70
36	5	2402	A	N9-C4-C5	6.43	108.37	105.80
1	2	394	C	N1-C2-O2	6.42	122.75	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3277	U	N3-C2-O2	-6.42	117.70	122.20
36	5	3119	U	O5'-P-OP1	-6.42	99.92	105.70
1	2	1633	A	N1-C6-N6	-6.42	114.75	118.60
1	2	1462	G	N9-C4-C5	-6.42	102.83	105.40
36	1	2869	U	N1-C2-O2	-6.42	118.31	122.80
36	1	2906	C	N3-C2-O2	-6.42	117.41	121.90
1	6	965	U	C2-N1-C1'	6.42	125.40	117.70
36	1	1411	C	O5'-P-OP2	-6.42	99.92	105.70
36	1	2334	U	O5'-P-OP2	-6.42	99.92	105.70
36	1	2975	U	N3-C2-O2	-6.42	117.71	122.20
1	2	1280	C	N3-C4-C5	-6.42	119.33	121.90
36	1	2642	A	C5-C6-N1	-6.42	114.49	117.70
36	5	2135	U	C5-C4-O4	-6.42	122.05	125.90
1	2	1082	C	N3-C2-O2	-6.41	117.41	121.90
36	1	938	C	N3-C4-N4	6.41	122.49	118.00
36	1	1307	G	C2'-C3'-O3'	6.41	123.96	113.70
38	4	48	A	C5-C6-N6	-6.41	118.57	123.70
36	1	788	C	C5-C6-N1	-6.41	117.79	121.00
1	6	936	G	C5-C6-O6	-6.41	124.75	128.60
1	6	1113	A	C2-N3-C4	-6.41	107.40	110.60
36	5	1716	U	P-O3'-C3'	6.41	127.39	119.70
37	7	87	G	N3-C2-N2	-6.41	115.42	119.90
36	1	3143	C	C6-N1-C2	6.41	122.86	120.30
36	5	1126	G	C8-N9-C4	-6.41	103.84	106.40
36	1	28	C	N3-C4-C5	6.40	124.46	121.90
36	1	47	C	C5-C6-N1	-6.40	117.80	121.00
36	1	716	A	C5-N7-C8	-6.40	100.70	103.90
36	1	1155	C	C6-N1-C2	-6.40	117.74	120.30
36	1	2283	G	C5-C6-O6	-6.40	124.76	128.60
36	1	609	G	O5'-P-OP2	-6.40	99.94	105.70
36	1	915	A	N1-C6-N6	-6.40	114.76	118.60
36	1	2620	G	C5-C6-O6	-6.40	124.76	128.60
1	6	795	U	N3-C2-O2	-6.40	117.72	122.20
52	m6	69	GLY	N-CA-C	-6.40	97.09	113.10
36	1	1505	C	N3-C4-C5	6.40	124.46	121.90
1	6	85	A	N9-C4-C5	6.40	108.36	105.80
1	6	1662	G	N1-C6-O6	-6.40	116.06	119.90
36	5	2904	U	N1-C2-N3	6.40	118.74	114.90
36	1	2885	C	C6-N1-C2	6.40	122.86	120.30
1	6	577	G	C8-N9-C4	-6.40	103.84	106.40
36	5	2864	A	C5-C6-N6	-6.40	118.58	123.70
37	7	81	U	N3-C4-C5	6.40	118.44	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1782	A	C8-N9-C4	-6.40	103.24	105.80
37	3	89	G	N3-C4-N9	6.39	129.84	126.00
36	5	1307	G	OP1-P-O3'	6.39	119.27	105.20
36	5	2134	G	C8-N9-C4	6.39	108.96	106.40
36	5	2338	C	N3-C4-C5	-6.39	119.34	121.90
36	5	2396	G	OP1-P-OP2	-6.39	110.01	119.60
36	5	2796	G	OP2-P-O3'	6.39	119.27	105.20
36	1	2830	G	O5'-P-OP1	6.39	118.37	110.70
1	6	1748	G	N9-C4-C5	-6.39	102.84	105.40
36	5	2873	U	C6-N1-C2	6.39	124.83	121.00
1	2	1370	U	P-O3'-C3'	6.39	127.37	119.70
36	1	1838	G	N3-C4-N9	6.39	129.83	126.00
36	1	2406	C	N3-C2-O2	6.39	126.37	121.90
1	6	1666	U	C5-C6-N1	-6.39	119.50	122.70
36	5	645	A	C4-C5-N7	-6.39	107.50	110.70
36	5	1160	C	C6-N1-C1'	6.39	128.47	120.80
36	5	2531	C	C2-N1-C1'	6.39	125.83	118.80
38	8	4	C	N1-C2-O2	6.39	122.73	118.90
1	6	21	U	N3-C4-O4	6.39	123.87	119.40
36	5	1308	A	N1-C6-N6	-6.39	114.77	118.60
1	2	316	A	C8-N9-C4	6.39	108.36	105.80
36	1	2231	C	N3-C2-O2	6.39	126.37	121.90
36	5	1149	G	N3-C4-N9	6.39	129.83	126.00
36	5	1181	U	C4-C5-C6	6.39	123.53	119.70
36	5	3136	G	N1-C2-N2	-6.39	110.45	116.20
1	6	542	A	O4'-C1'-N9	6.38	113.31	108.20
1	6	597	G	O5'-P-OP2	-6.38	99.95	105.70
36	5	2759	U	N1-C2-N3	6.38	118.73	114.90
36	1	69	C	C4-C5-C6	6.38	120.59	117.40
36	5	3319	U	C5-C6-N1	6.38	125.89	122.70
36	1	779	G	O5'-P-OP2	-6.38	99.96	105.70
1	6	1634	C	C5-C6-N1	6.38	124.19	121.00
36	5	3092	C	N3-C4-N4	-6.38	113.53	118.00
37	7	37	G	N3-C4-N9	6.38	129.83	126.00
36	1	2620	G	N3-C2-N2	-6.38	115.44	119.90
36	5	820	A	N1-C6-N6	6.38	122.43	118.60
36	5	1189	C	OP1-P-OP2	-6.38	110.03	119.60
36	5	2727	A	C5-C6-N1	6.38	120.89	117.70
36	5	3179	U	O5'-P-OP1	-6.38	99.96	105.70
36	1	2809	C	N3-C2-O2	-6.38	117.44	121.90
1	6	426	G	N1-C6-O6	-6.38	116.07	119.90
36	1	869	G	C5-C6-O6	-6.38	124.78	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	668	G	N3-C4-N9	6.38	129.82	126.00
36	1	59	G	C6-C5-N7	-6.37	126.58	130.40
36	1	350	C	N1-C2-O2	6.37	122.72	118.90
36	5	2134	G	N7-C8-N9	-6.37	109.91	113.10
37	7	112	G	C8-N9-C4	-6.37	103.85	106.40
36	1	406	G	O5'-P-OP2	-6.37	99.97	105.70
36	1	3135	U	C5-C6-N1	-6.37	119.52	122.70
52	M6	78	ARG	NE-CZ-NH1	6.37	123.48	120.30
36	5	2186	U	N1-C2-O2	6.37	127.26	122.80
1	6	272	U	P-O3'-C3'	6.37	127.34	119.70
36	5	2134	G	N1-C6-O6	-6.36	116.08	119.90
36	5	2183	A	C5-C6-N6	-6.36	118.61	123.70
36	5	2385	G	C8-N9-C4	6.36	108.94	106.40
36	1	63	A	C8-N9-C4	-6.36	103.25	105.80
36	1	1351	U	N1-C2-O2	6.36	127.25	122.80
36	1	1000	C	C6-N1-C2	6.36	122.84	120.30
36	1	2965	U	C2-N3-C4	-6.36	123.19	127.00
1	2	359	A	C8-N9-C4	6.36	108.34	105.80
36	5	3103	A	C5-C6-N1	6.36	120.88	117.70
36	1	424	G	N3-C4-N9	6.36	129.81	126.00
36	1	860	G	N1-C6-O6	6.36	123.71	119.90
36	1	1804	A	C8-N9-C4	6.35	108.34	105.80
36	1	805	G	C8-N9-C4	6.35	108.94	106.40
36	1	2916	U	C5-C4-O4	-6.35	122.09	125.90
36	1	2917	G	C2-N3-C4	6.35	115.08	111.90
36	5	2950	G	O4'-C1'-N9	6.35	113.28	108.20
36	5	3218	A	C2-N3-C4	-6.35	107.42	110.60
36	5	424	G	N3-C4-N9	6.35	129.81	126.00
36	1	1102	A	OP1-P-O3'	6.35	119.17	105.20
38	4	48	A	N1-C6-N6	6.35	122.41	118.60
1	2	158	U	N3-C2-O2	-6.35	117.76	122.20
1	2	577	G	C5-N7-C8	-6.35	101.13	104.30
36	1	2816	G	O4'-C1'-N9	6.35	113.28	108.20
36	5	2950	G	C4-C5-N7	6.35	113.34	110.80
36	1	676	G	C6-C5-N7	-6.35	126.59	130.40
36	1	885	U	O5'-P-OP1	-6.34	99.99	105.70
36	1	2987	A	N3-C4-N9	6.34	132.48	127.40
36	5	2865	U	N1-C2-O2	6.34	127.24	122.80
36	1	51	A	O5'-P-OP2	-6.34	99.99	105.70
36	1	2942	C	N3-C4-C5	6.34	124.44	121.90
1	2	321	C	N1-C2-O2	6.34	122.70	118.90
36	1	2357	A	C5-C6-N6	-6.34	118.63	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2572	C	C2-N1-C1'	6.34	125.78	118.80
36	5	1193	A	C2-N3-C4	-6.34	107.43	110.60
68	o2	47	ARG	NE-CZ-NH2	-6.34	117.13	120.30
36	1	3184	A	C8-N9-C4	6.34	108.34	105.80
36	1	3209	A	C4-C5-N7	6.34	113.87	110.70
36	5	726	G	N1-C6-O6	6.34	123.70	119.90
36	5	2792	A	N3-C4-C5	-6.34	122.36	126.80
36	5	2965	U	N3-C4-O4	6.34	123.84	119.40
36	1	2899	C	N3-C2-O2	-6.34	117.46	121.90
36	5	1851	G	C4-C5-N7	6.34	113.33	110.80
1	2	1212	G	N1-C6-O6	6.33	123.70	119.90
36	1	1303	A	C5-C6-N6	-6.33	118.63	123.70
36	5	2978	U	C4-C5-C6	6.33	123.50	119.70
36	1	1365	G	C8-N9-C4	-6.33	103.87	106.40
36	1	2425	G	C4-C5-N7	6.33	113.33	110.80
37	3	90	U	C2-N3-C4	-6.33	123.20	127.00
36	5	672	A	C4-C5-C6	6.33	120.17	117.00
36	1	143	G	C5-C6-O6	6.33	132.40	128.60
36	1	1503	A	C2-N3-C4	-6.33	107.44	110.60
1	6	305	C	N1-C2-O2	-6.33	115.10	118.90
1	2	973	A	C2-N3-C4	-6.33	107.44	110.60
36	1	2417	U	N1-C2-N3	6.33	118.70	114.90
1	6	1119	G	C5-C6-O6	6.33	132.40	128.60
36	5	568	G	C5-C6-O6	-6.33	124.80	128.60
36	5	650	C	N3-C4-C5	6.33	124.43	121.90
36	5	951	A	C6-N1-C2	6.33	122.40	118.60
36	1	217	U	OP1-P-O3'	6.33	119.12	105.20
36	1	3201	C	N3-C4-C5	-6.33	119.37	121.90
36	1	3228	C	N3-C2-O2	-6.33	117.47	121.90
1	6	1776	A	C5-C6-N6	-6.33	118.64	123.70
36	1	36	C	N3-C4-N4	6.32	122.43	118.00
36	1	499	G	N3-C2-N2	-6.32	115.47	119.90
36	1	3178	A	C2-N3-C4	-6.32	107.44	110.60
36	5	975	C	C6-N1-C2	-6.32	117.77	120.30
36	5	1107	C	N1-C2-O2	-6.32	115.11	118.90
36	5	1170	A	OP1-P-OP2	6.32	129.08	119.60
36	5	2145	A	N1-C2-N3	6.32	132.46	129.30
36	1	1308	A	C4-C5-C6	6.32	120.16	117.00
36	5	2113	A	O4'-C1'-N9	-6.32	103.14	108.20
1	6	1150	G	C2-N3-C4	-6.32	108.74	111.90
36	1	107	A	C5-C6-N6	-6.32	118.64	123.70
36	1	960	U	O5'-P-OP2	-6.32	100.01	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	45	C	O5'-P-OP2	-6.32	100.01	105.70
36	5	1858	A	N1-C2-N3	6.32	132.46	129.30
36	5	561	C	C5-C6-N1	6.32	124.16	121.00
36	5	806	A	C2-N3-C4	-6.32	107.44	110.60
37	7	87	G	N1-C6-O6	6.32	123.69	119.90
36	1	281	G	C6-N1-C2	-6.32	121.31	125.10
36	5	1837	U	O5'-P-OP1	-6.32	100.02	105.70
36	5	1843	C	C5-C4-N4	-6.32	115.78	120.20
41	14	300	ARG	NE-CZ-NH1	6.31	123.46	120.30
37	7	11	A	C5-C6-N6	-6.31	118.65	123.70
36	1	3143	C	N1-C2-O2	-6.31	115.11	118.90
36	5	3212	C	C5-C6-N1	-6.31	117.84	121.00
1	2	1300	A	N1-C6-N6	-6.31	114.81	118.60
1	2	1654	G	N3-C4-N9	6.31	129.79	126.00
36	1	1943	C	C6-N1-C2	-6.31	117.78	120.30
36	1	2827	U	C5-C6-N1	-6.31	119.55	122.70
1	2	1761	U	N1-C2-N3	6.31	118.68	114.90
36	1	1513	G	N3-C4-C5	-6.31	125.45	128.60
36	5	1426	C	N3-C4-C5	6.31	124.42	121.90
36	5	111	C	O5'-P-OP2	-6.31	100.03	105.70
36	1	1113	G	C8-N9-C4	-6.30	103.88	106.40
36	1	1437	C	C6-N1-C2	-6.30	117.78	120.30
35	sM	167	PRO	N-CA-CB	6.30	110.86	103.30
36	5	957	C	C2-N3-C4	-6.30	116.75	119.90
36	5	2917	G	N3-C4-N9	6.30	129.78	126.00
36	1	1049	C	O5'-P-OP2	-6.30	100.03	105.70
36	5	297	G	N3-C4-C5	-6.30	125.45	128.60
36	1	650	C	OP2-P-O3'	6.30	119.06	105.20
1	6	1031	U	C6-N1-C2	6.30	124.78	121.00
36	5	2403	G	N3-C4-C5	-6.30	125.45	128.60
36	5	3143	C	N1-C2-O2	-6.30	115.12	118.90
1	2	1762	A	C2-N3-C4	-6.30	107.45	110.60
36	5	719	U	N3-C2-O2	-6.30	117.79	122.20
36	1	295	A	O5'-P-OP1	-6.30	100.03	105.70
36	1	585	A	C8-N9-C4	6.30	108.32	105.80
36	1	2764	C	N3-C4-N4	6.30	122.41	118.00
36	1	1154	A	C6-C5-N7	-6.30	127.89	132.30
36	1	1407	A	C8-N9-C4	6.30	108.32	105.80
36	1	2760	C	N3-C2-O2	6.30	126.31	121.90
37	7	20	A	C8-N9-C4	6.30	108.32	105.80
36	1	718	G	N7-C8-N9	6.29	116.25	113.10
36	1	1405	U	OP1-P-OP2	6.29	129.04	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	74	U	N1-C2-O2	-6.29	118.39	122.80
20	c8	15	LEU	CA-CB-CG	6.29	129.78	115.30
36	5	587	U	C6-N1-C2	6.29	124.78	121.00
36	1	2356	A	C5-N7-C8	-6.29	100.75	103.90
36	1	3228	C	N1-C2-O2	6.29	122.67	118.90
36	5	394	G	C4-C5-N7	-6.29	108.28	110.80
36	5	2959	C	OP2-P-O3'	6.29	119.04	105.20
36	1	1166	G	C5-C6-O6	-6.29	124.83	128.60
36	5	2965	U	C5-C4-O4	-6.29	122.13	125.90
1	2	1426	C	C5-C6-N1	6.29	124.14	121.00
36	1	1000	C	C5-C4-N4	-6.29	115.80	120.20
36	1	1617	G	N3-C4-C5	6.29	131.74	128.60
36	1	681	U	C2-N3-C4	-6.29	123.23	127.00
36	1	808	A	N9-C4-C5	6.29	108.31	105.80
36	5	2406	C	N1-C2-O2	-6.29	115.13	118.90
36	1	2870	C	N3-C4-N4	-6.28	113.60	118.00
65	N9	20	GLY	N-CA-C	6.28	128.81	113.10
36	5	2709	C	C2-N3-C4	-6.28	116.76	119.90
36	5	3075	G	N1-C6-O6	6.28	123.67	119.90
1	2	169	A	N1-C6-N6	6.28	122.37	118.60
1	6	1123	C	O5'-P-OP1	-6.28	100.05	105.70
36	1	2137	U	C2-N1-C1'	6.28	125.24	117.70
36	1	2815	G	C8-N9-C4	6.28	108.91	106.40
36	5	710	A	C8-N9-C4	-6.28	103.29	105.80
36	1	968	G	N3-C4-N9	6.28	129.77	126.00
36	1	1386	A	C6-N1-C2	-6.28	114.83	118.60
36	1	1520	G	C2-N3-C4	6.28	115.04	111.90
1	6	606	A	N9-C4-C5	-6.28	103.29	105.80
36	1	1192	C	C6-N1-C2	-6.28	117.79	120.30
36	1	2859	U	C4-C5-C6	6.28	123.47	119.70
36	5	1206	G	N1-C6-O6	-6.28	116.14	119.90
36	1	859	G	C4-N9-C1'	6.27	134.66	126.50
36	1	2148	U	C5-C4-O4	-6.27	122.14	125.90
1	2	144	U	N3-C2-O2	-6.27	117.81	122.20
36	1	1308	A	O5'-P-OP2	-6.27	100.06	105.70
36	1	1377	G	C5-C6-O6	-6.27	124.84	128.60
36	5	1858	A	C8-N9-C4	-6.27	103.29	105.80
1	2	1100	G	N1-C6-O6	6.27	123.66	119.90
1	6	1796	C	N3-C4-N4	-6.27	113.61	118.00
36	5	1239	C	C2-N1-C1'	6.27	125.70	118.80
36	1	2817	A	C5-C6-N1	6.27	120.83	117.70
36	5	302	U	N3-C4-O4	-6.27	115.01	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	29	C	C6-N1-C2	6.27	122.81	120.30
36	5	3128	G	C5-C6-O6	-6.27	124.84	128.60
36	1	935	U	N1-C2-N3	6.27	118.66	114.90
1	6	351	C	C5-C4-N4	-6.27	115.81	120.20
36	5	2351	U	N1-C2-N3	6.27	118.66	114.90
36	1	2846	U	N1-C2-N3	6.26	118.66	114.90
36	1	2231	C	N1-C2-O2	-6.26	115.14	118.90
36	1	2761	G	N1-C6-O6	6.26	123.66	119.90
36	1	2967	A	C8-N9-C4	6.26	108.30	105.80
36	1	3248	C	C5-C6-N1	6.26	124.13	121.00
38	4	109	A	C4-C5-N7	6.26	113.83	110.70
37	3	88	G	N3-C4-C5	-6.26	125.47	128.60
1	6	1629	G	OP2-P-O3'	6.26	118.97	105.20
1	2	864	U	N3-C2-O2	-6.26	117.82	122.20
36	1	1367	G	C4-C5-N7	6.26	113.30	110.80
1	6	1539	G	N3-C4-N9	-6.26	122.25	126.00
1	6	1744	A	N1-C6-N6	6.26	122.35	118.60
36	5	1178	G	C6-C5-N7	-6.26	126.65	130.40
36	5	973	A	C4-C5-C6	6.25	120.13	117.00
1	2	1273	G	N1-C6-O6	-6.25	116.15	119.90
36	1	49	A	N9-C4-C5	-6.25	103.30	105.80
36	1	386	A	N1-C6-N6	6.25	122.35	118.60
36	1	2781	U	N1-C2-O2	-6.25	118.42	122.80
38	4	49	G	C5-C6-O6	-6.25	124.85	128.60
36	5	334	A	C8-N9-C4	6.25	108.30	105.80
36	5	337	G	C2-N3-C4	6.25	115.03	111.90
1	2	402	C	O5'-P-OP1	-6.25	100.07	105.70
36	1	1374	G	N3-C2-N2	6.25	124.28	119.90
12	c0	97	PRO	N-CA-CB	6.25	110.80	103.30
36	5	1908	A	C8-N9-C4	-6.25	103.30	105.80
36	5	3128	G	C8-N9-C4	6.25	108.90	106.40
36	1	2609	A	O5'-P-OP1	6.25	118.20	110.70
36	1	2961	G	C4-C5-N7	6.25	113.30	110.80
36	5	787	G	C2-N3-C4	-6.25	108.78	111.90
36	1	1351	U	C2-N1-C1'	6.25	125.20	117.70
38	4	29	U	C5-C4-O4	-6.25	122.15	125.90
1	6	1662	G	O5'-P-OP2	-6.25	100.08	105.70
36	5	1116	G	N1-C2-N3	6.25	127.65	123.90
1	2	294	C	C6-N1-C2	6.25	122.80	120.30
36	1	836	A	C6-N1-C2	-6.25	114.85	118.60
36	1	2585	G	N3-C4-C5	-6.25	125.48	128.60
36	1	801	A	N1-C6-N6	6.25	122.35	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	681	U	C5-C4-O4	-6.24	122.15	125.90
36	1	2356	A	C4-C5-N7	6.24	113.82	110.70
36	1	2979	U	C5-C4-O4	-6.24	122.15	125.90
36	5	2913	C	O5'-P-OP1	-6.24	100.08	105.70
36	1	1310	G	N1-C2-N2	-6.24	110.58	116.20
1	6	308	C	N3-C4-N4	-6.24	113.63	118.00
36	1	973	A	C6-N1-C2	-6.24	114.86	118.60
36	1	2794	G	O5'-P-OP2	-6.24	100.08	105.70
36	1	2932	U	C2-N3-C4	-6.24	123.26	127.00
36	1	3054	U	N3-C4-C5	-6.24	110.86	114.60
1	6	1513	G	C8-N9-C4	-6.24	103.91	106.40
36	5	1308	A	C5-C6-N6	6.24	128.69	123.70
36	5	1790	G	C5-C6-N1	-6.24	108.38	111.50
36	1	158	G	N1-C6-O6	6.24	123.64	119.90
1	6	1180	C	C6-N1-C2	-6.24	117.81	120.30
1	2	400	A	N1-C6-N6	6.24	122.34	118.60
36	1	1399	A	C2-N3-C4	-6.24	107.48	110.60
36	1	3000	A	C8-N9-C4	6.24	108.30	105.80
38	4	109	A	N9-C4-C5	-6.24	103.31	105.80
36	5	3107	U	C2-N3-C4	-6.24	123.26	127.00
36	5	804	C	N3-C4-C5	-6.23	119.41	121.90
36	5	1850	A	O5'-P-OP1	-6.23	100.09	105.70
36	1	908	G	O4'-C1'-N9	-6.23	103.22	108.20
1	6	863	A	N9-C4-C5	-6.23	103.31	105.80
1	6	1026	A	O5'-P-OP1	-6.23	100.09	105.70
1	6	1745	G	C5-C6-O6	-6.23	124.86	128.60
36	5	720	A	N1-C6-N6	6.23	122.34	118.60
36	5	2120	A	N1-C6-N6	-6.23	114.86	118.60
36	1	304	G	C5-C6-O6	6.23	132.34	128.60
1	6	1639	C	N3-C4-C5	6.23	124.39	121.90
36	5	104	G	N1-C6-O6	6.23	123.64	119.90
36	5	1335	C	N3-C2-O2	6.23	126.26	121.90
36	1	1408	G	C5-C6-O6	-6.23	124.86	128.60
36	1	3104	U	N3-C2-O2	-6.23	117.84	122.20
36	5	2913	C	N3-C4-C5	-6.23	119.41	121.90
36	1	2417	U	C2-N3-C4	-6.22	123.27	127.00
36	1	2647	A	N1-C2-N3	6.22	132.41	129.30
36	1	34	A	C5-N7-C8	-6.22	100.79	103.90
36	5	1480	G	O4'-C1'-N9	6.22	113.18	108.20
36	1	82	C	N1-C2-O2	-6.22	115.17	118.90
36	1	131	C	C6-N1-C2	-6.22	117.81	120.30
36	1	1303	A	O5'-P-OP1	-6.22	100.10	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	632	G	N1-C6-O6	-6.22	116.17	119.90
36	5	890	C	C5-C4-N4	-6.22	115.85	120.20
36	5	2801	A	N7-C8-N9	-6.22	110.69	113.80
1	2	992	A	C5-N7-C8	-6.22	100.79	103.90
36	1	1332	A	O5'-P-OP2	6.22	118.16	110.70
36	5	650	C	N3-C4-N4	-6.22	113.65	118.00
36	5	1367	G	C4-N9-C1'	6.22	134.58	126.50
36	5	2383	C	C6-N1-C2	-6.22	117.81	120.30
36	1	1329	U	C6-N1-C1'	-6.22	112.50	121.20
36	1	2345	A	C5-C6-N6	-6.22	118.73	123.70
36	1	2813	A	N1-C2-N3	6.22	132.41	129.30
36	5	3105	U	N1-C2-O2	-6.22	118.45	122.80
1	2	758	U	N3-C2-O2	-6.21	117.85	122.20
1	6	416	A	N1-C6-N6	6.21	122.33	118.60
36	5	1329	U	C2-N3-C4	-6.21	123.27	127.00
36	1	2875	U	C5-C4-O4	-6.21	122.17	125.90
36	1	683	U	C5-C6-N1	-6.21	119.59	122.70
36	1	2414	G	N1-C2-N3	6.21	127.63	123.90
36	1	3178	A	N1-C6-N6	6.21	122.33	118.60
1	6	874	C	C2-N1-C1'	6.21	125.63	118.80
25	D3	33	LEU	CA-CB-CG	-6.21	101.02	115.30
36	1	1331	U	C5-C6-N1	-6.21	119.60	122.70
36	1	1474	A	O5'-P-OP2	6.21	118.15	110.70
36	1	1495	U	C5-C4-O4	6.21	129.62	125.90
1	6	1046	G	C8-N9-C4	6.21	108.88	106.40
37	7	26	C	C4-C5-C6	6.21	120.50	117.40
36	1	105	C	N3-C2-O2	6.20	126.24	121.90
36	1	2605	G	C5-C6-O6	-6.20	124.88	128.60
36	5	640	U	N3-C4-O4	6.20	123.74	119.40
36	5	646	A	C4-C5-N7	-6.20	107.60	110.70
36	5	2280	A	C5-C6-N1	-6.20	114.60	117.70
36	5	2798	C	N3-C4-N4	-6.20	113.66	118.00
37	7	66	A	C8-N9-C4	6.20	108.28	105.80
37	7	105	C	C6-N1-C2	-6.20	117.82	120.30
1	2	321	C	N3-C2-O2	-6.20	117.56	121.90
36	1	627	U	N3-C2-O2	6.20	126.54	122.20
36	1	2344	U	C5-C6-N1	-6.20	119.60	122.70
1	6	541	A	P-O3'-C3'	-6.20	112.26	119.70
36	1	958	C	N3-C4-N4	-6.20	113.66	118.00
36	1	1124	U	N1-C2-O2	6.20	127.14	122.80
36	1	2434	U	N3-C2-O2	-6.20	117.86	122.20
36	5	2885	C	C5-C4-N4	-6.20	115.86	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	69	C	C6-N1-C2	6.20	122.78	120.30
1	2	1606	C	O5'-P-OP2	-6.20	100.12	105.70
36	1	721	G	N7-C8-N9	6.20	116.20	113.10
36	1	905	U	N1-C2-N3	6.20	118.62	114.90
36	1	1507	G	C6-C5-N7	-6.20	126.68	130.40
36	5	590	G	C5-C6-O6	-6.20	124.88	128.60
36	5	1366	A	N1-C6-N6	-6.20	114.88	118.60
36	5	1374	G	N3-C2-N2	6.20	124.24	119.90
36	1	612	U	C2-N3-C4	-6.20	123.28	127.00
38	4	47	C	C2-N3-C4	-6.20	116.80	119.90
36	5	2895	G	C6-C5-N7	-6.20	126.68	130.40
36	1	284	A	O4'-C1'-N9	6.20	113.16	108.20
36	1	640	U	N3-C4-O4	6.20	123.74	119.40
36	1	1494	U	C5-C4-O4	6.20	129.62	125.90
1	6	350	U	N1-C2-N3	6.20	118.62	114.90
36	5	1431	G	C4-C5-N7	-6.20	108.32	110.80
36	1	3183	A	OP2-P-O3'	6.19	118.83	105.20
36	1	804	C	N3-C4-C5	-6.19	119.42	121.90
36	1	1560	G	C4-N9-C1'	-6.19	118.45	126.50
36	1	3362	A	N1-C6-N6	6.19	122.31	118.60
37	3	86	U	N3-C4-C5	6.19	118.31	114.60
1	6	362	G	N3-C4-N9	6.19	129.72	126.00
36	5	2763	U	C5-C4-O4	-6.19	122.19	125.90
36	1	858	A	C8-N9-C4	-6.19	103.32	105.80
36	1	2374	C	N1-C2-N3	6.19	123.53	119.20
1	2	1658	G	C6-C5-N7	-6.19	126.69	130.40
36	1	1733	G	N3-C4-C5	-6.19	125.51	128.60
36	1	2404	A	C2-N3-C4	6.19	113.69	110.60
1	6	259	U	N1-C2-O2	-6.19	118.47	122.80
1	6	1614	A	N1-C6-N6	6.19	122.31	118.60
36	1	339	C	C2-N3-C4	-6.18	116.81	119.90
36	5	2874	G	C5-C6-O6	6.18	132.31	128.60
36	5	1513	G	N7-C8-N9	6.18	116.19	113.10
36	5	873	C	OP2-P-O3'	6.18	118.80	105.20
36	5	3115	C	C6-N1-C2	-6.18	117.83	120.30
1	2	1142	A	O5'-P-OP2	-6.18	100.14	105.70
36	5	1324	U	O5'-P-OP2	-6.18	100.14	105.70
36	5	2909	U	N1-C2-N3	6.18	118.61	114.90
38	8	95	G	C8-N9-C1'	6.18	135.03	127.00
36	1	2646	C	C5-C6-N1	-6.18	117.91	121.00
36	1	105	C	N1-C2-O2	-6.18	115.19	118.90
1	6	1013	A	C5-C6-N6	-6.18	118.76	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2821	C	N3-C2-O2	6.18	126.22	121.90
1	6	75	U	C2-N1-C1'	6.17	125.11	117.70
36	5	2132	C	C6-N1-C2	-6.17	117.83	120.30
73	o7	5	THR	C-N-CD	6.17	141.37	128.40
1	6	1000	C	C2-N3-C4	-6.17	116.81	119.90
1	2	736	C	C5-C6-N1	6.17	124.09	121.00
36	1	515	C	C2-N3-C4	6.17	122.98	119.90
36	1	1160	C	N1-C2-N3	-6.17	114.88	119.20
36	5	1137	C	C4-C5-C6	6.17	120.48	117.40
36	5	1303	A	C5-C6-N6	-6.17	118.76	123.70
36	5	2913	C	N1-C2-O2	-6.17	115.20	118.90
36	5	2988	C	C5-C6-N1	-6.17	117.91	121.00
36	5	3137	C	C5-C4-N4	6.17	124.52	120.20
36	1	1421	G	OP2-P-O3'	6.17	118.77	105.20
1	6	543	C	C5-C6-N1	6.17	124.08	121.00
36	5	635	G	C5-C6-N1	-6.17	108.42	111.50
36	1	2643	A	C5-C6-N6	-6.17	118.77	123.70
36	5	1833	G	C2-N3-C4	6.17	114.98	111.90
36	5	3225	C	N3-C2-O2	-6.17	117.58	121.90
36	1	1187	C	N3-C4-C5	6.16	124.36	121.90
36	1	1402	C	N3-C2-O2	-6.16	117.59	121.90
1	6	1657	U	O5'-P-OP1	6.16	118.10	110.70
36	5	2149	A	N1-C6-N6	6.16	122.30	118.60
36	1	274	G	C5-C6-N1	-6.16	108.42	111.50
36	1	994	G	N1-C6-O6	-6.16	116.20	119.90
36	1	1518	U	C5-C6-N1	-6.16	119.62	122.70
36	1	2627	C	C2-N3-C4	-6.16	116.82	119.90
36	1	877	C	N1-C2-O2	-6.16	115.20	118.90
38	8	68	G	C6-C5-N7	-6.16	126.70	130.40
36	1	639	G	C6-C5-N7	-6.16	126.71	130.40
36	1	2124	G	N1-C6-O6	6.16	123.59	119.90
36	1	3221	C	O5'-P-OP2	6.16	118.09	110.70
36	5	2199	G	C4-C5-C6	6.16	122.49	118.80
36	1	1296	C	C4-C5-C6	6.16	120.48	117.40
36	1	1437	C	N3-C2-O2	-6.16	117.59	121.90
36	1	281	G	C5-C6-O6	-6.15	124.91	128.60
36	1	1296	C	C6-N1-C2	-6.15	117.84	120.30
1	6	1112	G	C5-C6-N1	6.15	114.58	111.50
36	5	2965	U	N1-C2-O2	-6.15	118.49	122.80
1	2	1291	G	C2-N3-C4	-6.15	108.82	111.90
1	2	1782	A	C5-C6-N6	6.15	128.62	123.70
36	1	1343	A	C5-C6-N6	-6.15	118.78	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	686	G	OP1-P-OP2	-6.15	110.37	119.60
36	5	2972	G	N1-C6-O6	-6.15	116.21	119.90
36	1	614	C	C6-N1-C2	6.15	122.76	120.30
36	1	2416	U	C6-N1-C2	-6.15	117.31	121.00
18	C6	40	GLU	C-N-CD	-6.15	107.07	120.60
36	1	2979	U	C2-N3-C4	-6.15	123.31	127.00
36	5	2371	G	N3-C2-N2	6.15	124.20	119.90
36	1	25	U	N1-C2-O2	-6.15	118.50	122.80
36	1	366	A	O5'-P-OP2	-6.15	100.17	105.70
1	6	967	A	C2-N3-C4	6.15	113.67	110.60
36	5	2917	G	N1-C6-O6	6.15	123.59	119.90
36	1	718	G	C5-N7-C8	-6.15	101.23	104.30
36	5	1367	G	C6-C5-N7	-6.15	126.71	130.40
38	4	113	U	C4-C5-C6	6.14	123.39	119.70
1	2	1194	A	N1-C6-N6	6.14	122.29	118.60
1	6	398	G	C5-C6-O6	6.14	132.29	128.60
36	5	589	A	O4'-C1'-N9	-6.14	103.29	108.20
36	5	938	C	C4-C5-C6	-6.14	114.33	117.40
36	5	1429	G	N1-C2-N2	-6.14	110.67	116.20
36	1	1421	G	O5'-P-OP2	-6.14	100.17	105.70
36	1	2373	A	C8-N9-C4	-6.14	103.34	105.80
36	5	796	U	C4-C5-C6	6.14	123.38	119.70
36	1	1898	G	N1-C6-O6	6.14	123.58	119.90
36	1	87	U	N3-C4-C5	-6.14	110.92	114.60
36	5	3	U	N3-C2-O2	-6.14	117.90	122.20
36	5	152	U	N1-C2-N3	6.14	118.58	114.90
1	2	1241	G	C4-C5-N7	6.13	113.25	110.80
36	1	1141	C	C4-C5-C6	6.13	120.47	117.40
36	1	1176	C	N3-C2-O2	6.13	126.19	121.90
36	1	1351	U	N3-C2-O2	-6.13	117.91	122.20
36	1	2777	G	C5-C6-O6	6.13	132.28	128.60
36	1	3081	C	C2-N3-C4	-6.13	116.83	119.90
1	6	371	G	C6-C5-N7	-6.13	126.72	130.40
36	5	41	G	OP2-P-O3'	6.13	118.70	105.20
34	SR	161	LYS	N-CA-C	6.13	127.56	111.00
36	1	1507	G	C8-N9-C1'	-6.13	119.03	127.00
36	1	2966	G	C6-C5-N7	-6.13	126.72	130.40
1	6	1775	U	C5-C6-N1	-6.13	119.63	122.70
36	5	515	C	N3-C4-N4	6.13	122.29	118.00
36	1	1917	C	C6-N1-C2	6.13	122.75	120.30
36	5	410	U	N3-C4-C5	-6.13	110.92	114.60
1	2	1145	U	N3-C4-O4	6.13	123.69	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1600	A	C6-C5-N7	-6.13	128.01	132.30
36	1	143	G	C4-C5-N7	-6.13	108.35	110.80
1	6	1640	C	C5-C4-N4	-6.13	115.91	120.20
36	5	1054	A	C8-N9-C4	6.13	108.25	105.80
36	5	1154	A	N1-C6-N6	-6.13	114.92	118.60
36	5	1300	G	N9-C4-C5	-6.13	102.95	105.40
36	5	3177	G	C2-N3-C4	-6.13	108.84	111.90
1	2	458	G	C5-C6-N1	-6.13	108.44	111.50
36	1	611	A	O5'-P-OP1	6.13	118.05	110.70
36	1	1897	G	N1-C6-O6	6.13	123.58	119.90
36	5	36	C	N1-C2-O2	-6.13	115.22	118.90
36	5	803	C	C6-N1-C2	-6.13	117.85	120.30
36	1	2723	U	C6-N1-C2	6.12	124.67	121.00
36	5	1322	U	O5'-P-OP2	-6.12	100.19	105.70
36	5	2234	G	N1-C6-O6	6.12	123.58	119.90
36	5	3026	G	N1-C6-O6	6.12	123.58	119.90
36	1	339	C	N3-C4-C5	6.12	124.35	121.90
36	1	804	C	N3-C2-O2	-6.12	117.61	121.90
36	1	2138	A	C8-N9-C4	-6.12	103.35	105.80
1	6	603	U	N1-C2-O2	-6.12	118.51	122.80
36	5	631	U	C6-N1-C2	6.12	124.67	121.00
36	5	2919	A	N1-C6-N6	-6.12	114.93	118.60
36	5	3204	C	C5-C6-N1	-6.12	117.94	121.00
36	5	3331	U	C6-N1-C2	6.12	124.67	121.00
36	1	940	G	C5-C6-N1	6.12	114.56	111.50
36	1	2144	A	C6-N1-C2	-6.12	114.93	118.60
36	1	2329	C	N3-C2-O2	6.12	126.18	121.90
36	1	2418	G	C4-N9-C1'	6.12	134.45	126.50
1	6	957	G	C5-C6-N1	-6.12	108.44	111.50
36	1	1167	U	C5-C6-N1	-6.12	119.64	122.70
36	5	3143	C	N3-C2-O2	6.12	126.18	121.90
1	6	1129	U	N3-C4-O4	-6.12	115.12	119.40
36	5	2246	G	N3-C4-C5	-6.12	125.54	128.60
1	6	1112	G	N3-C4-C5	-6.11	125.54	128.60
36	5	2996	U	N3-C2-O2	-6.11	117.92	122.20
38	8	56	G	N1-C6-O6	6.11	123.57	119.90
36	1	496	C	C6-N1-C2	-6.11	117.86	120.30
36	1	801	A	N9-C4-C5	-6.11	103.36	105.80
36	1	2889	C	N3-C2-O2	-6.11	117.62	121.90
36	5	2792	A	C8-N9-C4	-6.11	103.36	105.80
36	1	1547	G	N7-C8-N9	-6.11	110.05	113.10
36	1	3050	U	N1-C2-O2	6.11	127.08	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	218	G	N3-C2-N2	6.11	124.18	119.90
36	5	1879	A	O5'-P-OP1	6.11	118.03	110.70
1	2	1749	A	C2-N3-C4	-6.11	107.55	110.60
36	1	656	A	C8-N9-C4	-6.11	103.36	105.80
36	1	2281	A	C2-N3-C4	-6.11	107.55	110.60
36	5	861	C	C5-C6-N1	-6.11	117.95	121.00
36	5	2309	A	N1-C6-N6	-6.11	114.94	118.60
1	6	1026	A	C8-N9-C4	6.11	108.24	105.80
36	5	788	C	OP2-P-O3'	6.11	118.63	105.20
36	5	2941	A	N1-C2-N3	6.11	132.35	129.30
38	8	111	A	C2-N3-C4	-6.11	107.55	110.60
36	5	95	A	C8-N9-C4	6.10	108.24	105.80
1	2	1486	G	C5-N7-C8	-6.10	101.25	104.30
1	2	1773	C	N1-C2-O2	-6.10	115.24	118.90
36	1	1837	U	N1-C2-O2	-6.10	118.53	122.80
36	5	2834	G	O5'-P-OP2	-6.10	100.21	105.70
36	1	1114	U	N1-C2-N3	-6.10	111.24	114.90
1	2	1082	C	C6-N1-C2	-6.10	117.86	120.30
38	4	59	A	C2-N3-C4	6.10	113.65	110.60
36	5	636	C	N3-C4-N4	-6.10	113.73	118.00
36	1	719	U	N1-C2-O2	6.10	127.07	122.80
36	1	797	U	N3-C4-O4	6.10	123.67	119.40
36	1	1386	A	C5-C6-N6	-6.10	118.82	123.70
1	6	352	A	OP2-P-O3'	6.10	118.62	105.20
36	5	2404	A	O5'-P-OP1	6.10	118.02	110.70
36	1	1428	A	N1-C6-N6	6.10	122.26	118.60
36	1	3212	C	C6-N1-C2	6.10	122.74	120.30
36	5	1317	A	N1-C2-N3	-6.10	126.25	129.30
36	1	2118	C	C5-C6-N1	6.09	124.05	121.00
36	5	708	G	N7-C8-N9	6.09	116.15	113.10
36	5	1550	C	O5'-P-OP1	-6.09	100.22	105.70
36	5	2993	G	C5-C6-O6	-6.09	124.94	128.60
36	5	3039	C	O5'-P-OP2	-6.09	100.21	105.70
36	5	2318	U	N1-C2-O2	6.09	127.06	122.80
36	5	1196	C	N1-C2-O2	6.09	122.55	118.90
36	5	2353	G	C6-C5-N7	-6.09	126.75	130.40
36	5	2388	U	N3-C4-C5	-6.09	110.94	114.60
36	5	41	G	C5-C6-O6	-6.09	124.95	128.60
36	5	1445	U	N1-C2-O2	-6.09	118.54	122.80
36	5	1487	G	N3-C4-C5	-6.09	125.56	128.60
36	5	3147	G	C2-N3-C4	-6.09	108.86	111.90
36	1	75	G	C4-C5-N7	6.09	113.23	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1581	C	C5-C6-N1	6.09	124.04	121.00
36	1	922	U	C2-N1-C1'	6.09	125.00	117.70
36	1	1510	G	C6-C5-N7	-6.09	126.75	130.40
36	1	1835	A	C5-C6-N6	6.09	128.57	123.70
1	6	619	A	N1-C6-N6	-6.09	114.95	118.60
1	6	1767	G	O5'-P-OP1	-6.09	100.22	105.70
36	1	2222	A	N9-C4-C5	6.08	108.23	105.80
36	5	924	G	C5-C6-N1	-6.08	108.46	111.50
36	5	2363	A	N1-C6-N6	6.08	122.25	118.60
36	5	2620	G	O5'-P-OP1	6.08	118.00	110.70
36	1	88	A	N1-C6-N6	6.08	122.25	118.60
36	1	214	G	N1-C6-O6	6.08	123.55	119.90
36	1	709	A	N7-C8-N9	-6.08	110.76	113.80
1	6	85	A	N1-C6-N6	-6.08	114.95	118.60
36	1	1495	U	C6-N1-C1'	6.08	129.71	121.20
36	5	1317	A	C8-N9-C4	6.08	108.23	105.80
37	7	101	G	C4-C5-N7	6.08	113.23	110.80
36	1	3307	A	C5-N7-C8	-6.08	100.86	103.90
36	5	2631	U	C5-C4-O4	-6.08	122.25	125.90
1	2	1274	C	N1-C2-O2	6.08	122.55	118.90
36	1	585	A	O5'-P-OP2	-6.08	100.23	105.70
1	6	767	U	N3-C2-O2	-6.08	117.95	122.20
36	5	1172	G	O5'-P-OP1	-6.08	100.23	105.70
36	1	2146	C	OP1-P-OP2	-6.07	110.49	119.60
36	5	2134	G	C5-N7-C8	6.07	107.34	104.30
36	5	786	A	O5'-P-OP2	-6.07	100.23	105.70
36	5	3107	U	N3-C4-C5	6.07	118.24	114.60
36	5	3380	U	N3-C4-O4	-6.07	115.15	119.40
36	5	98	G	C2-N3-C4	-6.07	108.86	111.90
36	5	1052	U	O5'-P-OP2	-6.07	100.24	105.70
37	7	77	G	C5-C6-O6	-6.07	124.96	128.60
36	1	1901	A	C2-N3-C4	6.07	113.63	110.60
38	4	146	U	C5-C6-N1	-6.07	119.67	122.70
36	5	803	C	N3-C4-N4	6.07	122.25	118.00
1	2	610	G	C4-N9-C1'	6.07	134.38	126.50
36	1	1903	U	C5-C6-N1	6.07	125.73	122.70
36	5	1820	U	O4'-C1'-N1	6.07	113.05	108.20
1	6	577	G	N7-C8-N9	6.06	116.13	113.10
36	5	922	U	C5-C6-N1	-6.06	119.67	122.70
36	5	3180	A	N7-C8-N9	-6.06	110.77	113.80
36	1	143	G	N9-C4-C5	6.06	107.83	105.40
36	1	2354	C	O5'-P-OP2	-6.06	100.24	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	3	U	C6-N1-C2	6.06	124.64	121.00
36	5	668	G	N3-C2-N2	6.06	124.14	119.90
36	5	2982	A	C2-N3-C4	6.06	113.63	110.60
1	2	576	G	N1-C6-O6	6.06	123.54	119.90
36	1	3278	C	C2-N1-C1'	6.06	125.47	118.80
1	2	1241	G	C6-C5-N7	-6.06	126.77	130.40
1	6	48	G	O5'-P-OP2	-6.06	100.25	105.70
36	1	399	A	O5'-P-OP1	-6.06	100.25	105.70
36	1	757	C	N1-C2-O2	-6.06	115.27	118.90
36	5	35	A	C2-N3-C4	-6.06	107.57	110.60
36	5	960	U	C2-N1-C1'	6.06	124.97	117.70
36	5	2323	G	N9-C4-C5	6.06	107.82	105.40
1	6	337	G	C4-N9-C1'	6.06	134.37	126.50
36	5	1847	A	C2-N3-C4	-6.06	107.57	110.60
36	5	2694	A	C2-N3-C4	6.06	113.63	110.60
36	1	1290	A	C8-N9-C4	6.05	108.22	105.80
36	1	3016	A	C4-C5-C6	6.05	120.03	117.00
36	1	3181	C	C6-N1-C2	-6.05	117.88	120.30
36	5	2872	A	N3-C4-C5	6.05	131.04	126.80
36	5	2618	G	C6-N1-C2	-6.05	121.47	125.10
1	2	694	U	C2-N1-C1'	6.05	124.96	117.70
36	1	2723	U	C5-C6-N1	-6.05	119.67	122.70
36	5	411	U	N1-C2-O2	-6.05	118.56	122.80
36	5	2619	G	N1-C6-O6	6.05	123.53	119.90
1	2	610	G	C8-N9-C1'	-6.05	119.14	127.00
36	1	1126	G	C6-C5-N7	-6.05	126.77	130.40
1	6	455	C	N3-C4-N4	6.05	122.23	118.00
36	5	2362	C	N3-C4-N4	-6.05	113.77	118.00
1	2	1462	G	C5-C6-O6	-6.05	124.97	128.60
36	5	1481	A	OP1-P-OP2	6.05	128.67	119.60
1	6	390	G	O5'-P-OP2	-6.04	100.26	105.70
1	2	499	U	C5-C6-N1	6.04	125.72	122.70
36	1	2808	A	N1-C6-N6	6.04	122.23	118.60
1	6	1748	G	C8-N9-C4	6.04	108.82	106.40
36	5	656	A	N1-C6-N6	6.04	122.23	118.60
36	5	1433	A	N1-C6-N6	-6.04	114.97	118.60
36	1	395	A	C8-N9-C4	-6.04	103.38	105.80
36	5	1851	G	C6-C5-N7	-6.04	126.78	130.40
38	8	51	G	N1-C6-O6	6.04	123.52	119.90
36	5	888	A	N1-C6-N6	6.04	122.22	118.60
36	5	2342	U	O5'-P-OP2	-6.04	100.26	105.70
36	1	2406	C	N3-C4-N4	6.04	122.23	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	92	A	N1-C6-N6	6.04	122.22	118.60
36	1	2144	A	C5-C6-N1	6.04	120.72	117.70
36	5	2141	U	OP1-P-OP2	-6.04	110.54	119.60
36	5	3145	C	C5-C6-N1	-6.04	117.98	121.00
1	2	600	U	C5-C4-O4	6.04	129.52	125.90
36	1	898	U	N1-C2-O2	6.04	127.03	122.80
38	4	13	A	N1-C6-N6	6.04	122.22	118.60
1	6	515	A	C8-N9-C4	-6.04	103.39	105.80
36	5	841	A	C8-N9-C4	6.04	108.21	105.80
36	5	1198	C	C2-N3-C4	-6.04	116.88	119.90
1	2	320	U	C5-C4-O4	-6.03	122.28	125.90
36	1	1917	C	C5-C6-N1	-6.03	117.98	121.00
36	5	1419	A	O5'-P-OP2	-6.03	100.27	105.70
36	5	2820	A	N7-C8-N9	6.03	116.82	113.80
52	m6	151	ASP	CB-CG-OD1	-6.03	112.87	118.30
36	5	3322	A	O5'-P-OP2	-6.03	100.27	105.70
36	1	2899	C	C2-N3-C4	-6.03	116.88	119.90
36	5	1065	A	C8-N9-C4	6.03	108.21	105.80
1	2	1657	U	O4'-C1'-N1	6.03	113.02	108.20
36	1	107	A	C6-C5-N7	-6.03	128.08	132.30
1	6	901	G	C5-N7-C8	-6.03	101.29	104.30
36	1	1389	G	N9-C4-C5	-6.03	102.99	105.40
36	1	2351	U	N3-C2-O2	-6.03	117.98	122.20
36	5	859	G	O5'-P-OP1	-6.03	100.28	105.70
36	1	703	G	C5-C6-O6	6.02	132.21	128.60
1	6	1796	C	C5-C6-N1	-6.02	117.99	121.00
36	5	3101	G	N1-C6-O6	-6.02	116.29	119.90
36	1	827	A	C8-N9-C4	6.02	108.21	105.80
36	1	1124	U	N3-C2-O2	-6.02	117.99	122.20
36	1	2202	C	C5-C4-N4	-6.02	115.98	120.20
36	5	2631	U	OP1-P-O3'	6.02	118.44	105.20
36	1	805	G	C4-C5-N7	-6.02	108.39	110.80
36	1	2412	G	C2-N3-C4	6.02	114.91	111.90
36	5	2775	U	N3-C4-O4	-6.02	115.19	119.40
36	1	49	A	N7-C8-N9	-6.02	110.79	113.80
36	1	644	G	O5'-P-OP1	-6.02	100.28	105.70
36	5	1367	G	C4-C5-C6	6.02	122.41	118.80
37	7	101	G	C5-C6-O6	-6.02	124.99	128.60
36	5	587	U	C5-C4-O4	-6.02	122.29	125.90
36	1	1408	G	N1-C6-O6	6.01	123.51	119.90
36	1	2888	U	C2-N3-C4	-6.01	123.39	127.00
1	6	426	G	N3-C4-C5	-6.01	125.59	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	963	G	O5'-P-OP1	6.01	117.92	110.70
36	5	974	G	N3-C4-C5	-6.01	125.59	128.60
36	1	1008	U	C5-C6-N1	-6.01	119.69	122.70
36	5	820	A	C6-C5-N7	-6.01	128.09	132.30
1	2	1642	G	C5-C6-O6	-6.01	124.99	128.60
36	1	3016	A	C6-C5-N7	-6.01	128.09	132.30
1	6	1698	G	P-O3'-C3'	6.01	126.91	119.70
36	5	49	A	C8-N9-C4	6.01	108.20	105.80
36	5	1838	G	O5'-P-OP2	-6.01	100.29	105.70
36	5	2288	G	C5-C6-O6	-6.01	124.99	128.60
1	2	499	U	P-O3'-C3'	6.01	126.91	119.70
36	1	2636	A	C8-N9-C4	-6.01	103.40	105.80
36	1	2901	G	N1-C6-O6	6.01	123.51	119.90
1	6	542	A	C6-C5-N7	-6.01	128.09	132.30
36	5	2199	G	C4-C5-N7	6.01	113.20	110.80
37	7	98	C	O5'-P-OP2	-6.01	100.29	105.70
1	2	704	C	N1-C2-O2	6.01	122.50	118.90
36	5	2142	A	OP1-P-OP2	-6.01	110.59	119.60
36	1	64	G	C5-C6-O6	6.01	132.20	128.60
36	1	1157	G	N1-C2-N3	6.01	127.50	123.90
1	6	119	A	C5-C6-N1	-6.01	114.70	117.70
36	5	1545	A	N1-C6-N6	6.01	122.20	118.60
36	1	1188	U	O5'-P-OP2	-6.00	100.30	105.70
36	5	3362	A	O4'-C1'-N9	6.00	113.00	108.20
36	1	2808	A	C6-C5-N7	-6.00	128.10	132.30
36	1	2812	C	O5'-P-OP2	6.00	117.90	110.70
38	4	61	A	O5'-P-OP1	-6.00	100.30	105.70
36	5	3362	A	N3-C4-N9	-6.00	122.60	127.40
37	7	103	A	C2-N3-C4	6.00	113.60	110.60
1	2	581	U	C2-N1-C1'	6.00	124.90	117.70
36	1	2222	A	C8-N9-C4	-6.00	103.40	105.80
38	4	140	G	C8-N9-C4	-6.00	104.00	106.40
36	5	395	A	C5-C6-N1	6.00	120.70	117.70
37	7	78	U	O5'-P-OP2	-6.00	100.30	105.70
38	8	77	A	C8-N9-C4	6.00	108.20	105.80
36	1	105	C	C6-N1-C2	6.00	122.70	120.30
36	1	961	C	C2-N3-C4	-6.00	116.90	119.90
38	4	20	U	C5-C6-N1	-6.00	119.70	122.70
36	5	1082	U	C6-N1-C2	-6.00	117.40	121.00
36	5	1239	C	C5-C6-N1	6.00	124.00	121.00
36	5	2996	U	C2-N1-C1'	6.00	124.90	117.70
1	2	1399	C	C5-C6-N1	6.00	124.00	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2308	C	C5-C6-N1	-6.00	118.00	121.00
1	6	371	G	N3-C4-N9	6.00	129.60	126.00
36	5	2893	C	N3-C4-C5	-6.00	119.50	121.90
36	5	3123	A	O5'-P-OP1	-6.00	100.30	105.70
36	1	925	A	C6-N1-C2	-5.99	115.00	118.60
1	6	364	G	C8-N9-C4	5.99	108.80	106.40
36	5	348	A	C8-N9-C4	5.99	108.20	105.80
1	2	799	A	N1-C6-N6	5.99	122.19	118.60
36	1	41	G	OP2-P-O3'	5.99	118.38	105.20
36	5	969	C	C2-N1-C1'	-5.99	112.21	118.80
1	2	1202	A	C2-N3-C4	5.99	113.59	110.60
36	1	2612	U	C5-C6-N1	-5.99	119.70	122.70
38	4	12	A	C8-N9-C4	5.99	108.20	105.80
1	6	382	C	N3-C4-C5	5.99	124.30	121.90
36	5	297	G	N1-C2-N2	-5.99	110.81	116.20
36	5	656	A	C4-C5-C6	5.99	120.00	117.00
36	5	1131	G	OP2-P-O3'	5.99	118.38	105.20
36	1	53	G	C6-N1-C2	-5.99	121.51	125.10
36	1	345	G	N3-C4-C5	-5.99	125.61	128.60
1	6	371	G	C8-N9-C1'	-5.99	119.22	127.00
1	6	414	C	N1-C2-O2	5.99	122.49	118.90
36	5	865	U	N1-C2-O2	-5.99	118.61	122.80
1	2	1280	C	N3-C4-N4	5.99	122.19	118.00
36	1	1121	U	N1-C2-O2	-5.99	118.61	122.80
36	1	2766	U	N3-C2-O2	-5.99	118.01	122.20
1	2	765	G	O4'-C1'-N9	-5.98	103.41	108.20
1	2	831	U	C6-N1-C2	-5.98	117.41	121.00
36	1	621	A	N7-C8-N9	5.98	116.79	113.80
36	1	1103	A	O5'-P-OP2	5.98	117.88	110.70
36	1	1149	G	N1-C2-N2	5.98	121.58	116.20
36	1	3310	A	C8-N9-C4	5.98	108.19	105.80
49	M3	85	LEU	CA-CB-CG	5.98	129.06	115.30
36	5	966	U	N1-C2-O2	5.98	126.99	122.80
36	1	1883	A	N7-C8-N9	-5.98	110.81	113.80
37	3	94	C	N3-C2-O2	5.98	126.09	121.90
38	4	44	A	N1-C6-N6	5.98	122.19	118.60
1	6	610	G	C8-N9-C1'	-5.98	119.23	127.00
1	6	804	A	N1-C6-N6	5.98	122.19	118.60
1	6	1748	G	N1-C6-O6	5.98	123.49	119.90
36	5	58	G	N1-C6-O6	5.98	123.49	119.90
36	5	1376	C	OP1-P-OP2	5.98	128.57	119.60
36	1	679	U	O5'-P-OP2	-5.98	100.32	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	98	G	C5-C6-O6	5.98	132.19	128.60
36	5	227	G	C8-N9-C4	5.98	108.79	106.40
36	5	350	C	C6-N1-C2	-5.98	117.91	120.30
36	1	424	G	N9-C4-C5	-5.98	103.01	105.40
36	1	2368	A	N9-C4-C5	5.98	108.19	105.80
36	1	2405	C	C4-C5-C6	5.98	120.39	117.40
36	1	2946	A	C6-C5-N7	-5.98	128.12	132.30
36	5	216	G	C5-N7-C8	-5.98	101.31	104.30
36	5	706	A	N9-C4-C5	-5.98	103.41	105.80
36	5	1885	U	N1-C2-O2	-5.98	118.62	122.80
1	6	1570	A	O5'-P-OP1	-5.97	100.32	105.70
36	1	1097	G	C8-N9-C4	-5.97	104.01	106.40
36	1	2192	C	C4-C5-C6	5.97	120.39	117.40
1	6	606	A	C8-N9-C4	5.97	108.19	105.80
38	8	95	G	N3-C4-N9	-5.97	122.42	126.00
36	5	2944	U	C5-C6-N1	5.97	125.69	122.70
37	7	50	U	N1-C2-O2	-5.97	118.62	122.80
1	6	609	U	N3-C4-O4	-5.97	115.22	119.40
36	5	1384	U	C2-N3-C4	5.97	130.58	127.00
36	5	2155	G	C8-N9-C4	5.97	108.79	106.40
36	5	2862	U	C5-C6-N1	-5.97	119.72	122.70
36	1	1496	C	C2-N1-C1'	5.97	125.36	118.80
36	5	635	G	C4-C5-N7	5.97	113.19	110.80
36	5	1348	U	N3-C2-O2	-5.97	118.02	122.20
36	5	1889	G	N9-C4-C5	-5.97	103.01	105.40
36	1	934	G	N3-C2-N2	5.96	124.08	119.90
36	1	1322	U	N1-C2-O2	-5.96	118.62	122.80
36	1	1379	G	N1-C2-N2	-5.96	110.83	116.20
36	1	2422	C	N1-C2-O2	5.96	122.48	118.90
36	5	2759	U	C4-C5-C6	5.96	123.28	119.70
36	1	2942	C	C4-C5-C6	-5.96	114.42	117.40
36	1	3344	A	C6-C5-N7	-5.96	128.13	132.30
36	5	1340	G	C8-N9-C4	5.96	108.78	106.40
36	5	3181	C	O5'-P-OP1	5.96	117.85	110.70
24	D2	93	LEU	CA-CB-CG	5.96	129.01	115.30
38	4	25	G	C5-N7-C8	5.96	107.28	104.30
36	5	2284	C	C6-N1-C1'	-5.96	113.65	120.80
36	5	2375	G	N1-C6-O6	-5.96	116.32	119.90
36	5	636	C	OP1-P-O3'	5.96	118.31	105.20
1	2	1189	A	C8-N9-C4	5.96	108.18	105.80
36	1	2411	U	N3-C4-C5	5.96	118.17	114.60
1	6	687	G	N3-C4-N9	-5.96	122.43	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1280	C	N1-C2-O2	-5.96	115.33	118.90
36	1	3106	A	N1-C2-N3	-5.96	126.32	129.30
36	1	1308	A	N9-C4-C5	5.95	108.18	105.80
36	5	3147	G	N1-C2-N3	5.95	127.47	123.90
31	D9	36	LEU	CA-CB-CG	5.95	128.99	115.30
36	5	577	C	N3-C2-O2	5.95	126.07	121.90
1	2	1200	G	C5-C6-N1	-5.95	108.53	111.50
36	1	98	G	OP2-P-O3'	5.95	118.29	105.20
44	L7	163	LEU	CA-CB-CG	-5.95	101.61	115.30
1	6	19	A	N1-C6-N6	5.95	122.17	118.60
36	5	2610	G	C8-N9-C4	-5.95	104.02	106.40
36	1	394	G	C6-C5-N7	5.95	133.97	130.40
36	1	2412	G	C5-C6-N1	5.95	114.47	111.50
36	5	1124	U	OP2-P-O3'	5.95	118.29	105.20
36	5	3188	G	N1-C6-O6	-5.95	116.33	119.90
36	1	938	C	C2-N1-C1'	5.95	125.34	118.80
36	1	3214	U	C5-C4-O4	5.95	129.47	125.90
1	6	1196	A	C8-N9-C4	5.95	108.18	105.80
36	5	43	A	O4'-C1'-N9	5.95	112.96	108.20
36	5	297	G	C8-N9-C1'	-5.95	119.27	127.00
36	5	3120	C	C6-N1-C2	-5.95	117.92	120.30
36	1	2827	U	C4-C5-C6	5.94	123.27	119.70
36	1	3205	G	N1-C2-N3	5.94	127.47	123.90
38	4	44	A	C8-N9-C4	5.94	108.18	105.80
36	5	1876	U	C5-C6-N1	-5.94	119.73	122.70
36	1	2238	G	C5-C6-O6	-5.94	125.03	128.60
36	1	2624	G	C6-C5-N7	-5.94	126.83	130.40
37	7	37	G	C4-C5-N7	5.94	113.18	110.80
57	n1	88	ARG	NE-CZ-NH1	-5.94	117.33	120.30
36	1	3173	G	O5'-P-OP1	-5.94	100.35	105.70
25	d3	16	ARG	NE-CZ-NH2	-5.94	117.33	120.30
36	5	1373	A	C4-C5-N7	5.94	113.67	110.70
36	5	2735	U	C5-C6-N1	5.94	125.67	122.70
36	5	3307	A	N1-C6-N6	5.94	122.16	118.60
1	2	1212	G	C6-C5-N7	-5.94	126.84	130.40
36	5	2848	G	C4-C5-N7	5.94	113.17	110.80
1	2	570	A	N1-C6-N6	5.94	122.16	118.60
36	1	1182	A	OP1-P-OP2	5.94	128.50	119.60
36	5	1853	U	N1-C2-N3	5.94	118.46	114.90
1	2	169	A	N9-C4-C5	-5.93	103.43	105.80
36	1	652	G	N1-C2-N3	5.93	127.46	123.90
36	1	972	A	N1-C2-N3	-5.93	126.33	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1447	G	C5-C6-N1	5.93	114.47	111.50
36	1	1904	C	C5-C4-N4	-5.93	116.05	120.20
36	5	2801	A	C5-C6-N1	5.93	120.67	117.70
36	1	701	G	C5-C6-N1	-5.93	108.53	111.50
36	1	1408	G	C6-C5-N7	-5.93	126.84	130.40
36	1	1437	C	C4-C5-C6	5.93	120.37	117.40
36	5	3130	A	O5'-P-OP1	-5.93	100.36	105.70
36	1	907	G	N3-C4-N9	5.93	129.56	126.00
36	1	2305	G	N1-C6-O6	5.93	123.46	119.90
36	5	1180	A	C8-N9-C4	-5.93	103.43	105.80
36	5	1657	C	C2-N1-C1'	5.93	125.33	118.80
1	2	1340	U	C5-C4-O4	5.93	129.46	125.90
36	1	34	A	C2-N3-C4	-5.93	107.64	110.60
36	1	864	G	N9-C4-C5	5.93	107.77	105.40
48	M1	112	LEU	CA-CB-CG	5.93	128.94	115.30
1	6	1001	A	C5-C6-N6	-5.93	118.96	123.70
36	5	2909	U	C2-N3-C4	-5.93	123.44	127.00
36	1	1397	C	C2-N3-C4	-5.93	116.94	119.90
36	1	1604	G	N3-C4-C5	-5.93	125.64	128.60
38	4	20	U	C2-N3-C4	-5.93	123.44	127.00
36	5	74	G	C8-N9-C4	-5.93	104.03	106.40
51	m5	24	ARG	NE-CZ-NH1	5.93	123.26	120.30
1	2	507	U	C2-N1-C1'	5.92	124.81	117.70
36	5	3206	C	OP1-P-OP2	5.92	128.49	119.60
1	2	1658	G	N9-C4-C5	-5.92	103.03	105.40
36	1	2216	G	C4-C5-N7	-5.92	108.43	110.80
36	1	2915	U	N3-C2-O2	5.92	126.35	122.20
36	5	439	C	C6-N1-C2	-5.92	117.93	120.30
36	5	1833	G	C6-C5-N7	5.92	133.95	130.40
36	1	418	A	OP2-P-O3'	5.92	118.22	105.20
36	5	2298	U	C5-C6-N1	-5.92	119.74	122.70
36	1	355	A	C2-N3-C4	-5.92	107.64	110.60
36	5	2531	C	O4'-C1'-N1	5.92	112.93	108.20
36	5	3368	U	C2-N1-C1'	-5.92	110.60	117.70
36	1	2779	A	C2-N3-C4	-5.92	107.64	110.60
36	5	3129	A	N1-C6-N6	5.92	122.15	118.60
38	8	32	C	C5-C6-N1	-5.92	118.04	121.00
36	1	92	G	N1-C6-O6	-5.92	116.35	119.90
41	L4	31	ARG	NE-CZ-NH1	-5.92	117.34	120.30
1	6	1772	C	C5-C6-N1	-5.92	118.04	121.00
36	5	659	G	C5-C6-N1	5.92	114.46	111.50
36	1	1171	G	C8-N9-C4	-5.91	104.03	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1838	G	C8-N9-C1'	-5.91	119.31	127.00
36	1	2093	A	C2-N3-C4	5.91	113.56	110.60
36	5	35	A	N1-C2-N3	5.91	132.26	129.30
36	5	1885	U	N3-C2-O2	5.91	126.34	122.20
36	1	1552	G	N1-C6-O6	5.91	123.45	119.90
36	1	716	A	C8-N9-C4	5.91	108.16	105.80
36	1	3368	U	C2-N1-C1'	-5.91	110.61	117.70
36	1	843	A	N1-C6-N6	5.91	122.14	118.60
36	1	1655	G	N9-C4-C5	-5.91	103.04	105.40
36	5	712	G	O5'-P-OP2	-5.91	100.38	105.70
36	5	2613	U	C5-C4-O4	5.91	129.44	125.90
1	6	542	A	N1-C6-N6	5.91	122.14	118.60
36	5	37	U	N1-C2-N3	5.91	118.44	114.90
36	5	705	A	O5'-P-OP2	-5.91	100.38	105.70
36	5	2754	G	N1-C6-O6	-5.91	116.36	119.90
1	2	1273	G	O4'-C1'-N9	5.91	112.92	108.20
1	2	1314	U	N1-C2-N3	5.91	118.44	114.90
36	1	1387	G	C5-C6-O6	5.91	132.14	128.60
36	1	2418	G	OP1-P-O3'	5.91	118.19	105.20
1	6	1743	U	OP2-P-O3'	5.91	118.19	105.20
36	5	2191	U	N3-C4-O4	-5.91	115.27	119.40
36	5	2611	U	C4-C5-C6	5.91	123.24	119.70
36	5	1829	G	C4-C5-N7	-5.90	108.44	110.80
1	2	734	A	OP1-P-O3'	5.90	118.19	105.20
36	1	1604	G	C4-N9-C1'	5.90	134.17	126.50
36	1	1854	C	N3-C4-C5	5.90	124.26	121.90
36	5	807	A	C5-C6-N1	5.90	120.65	117.70
36	5	923	C	N3-C4-N4	5.90	122.13	118.00
1	2	542	A	N7-C8-N9	5.90	116.75	113.80
36	1	1332	A	O5'-P-OP1	-5.90	100.39	105.70
1	6	1361	U	C2-N1-C1'	5.90	124.78	117.70
36	5	1466	G	OP1-P-OP2	-5.90	110.75	119.60
36	5	2877	G	C4-C5-N7	-5.90	108.44	110.80
1	2	564	G	C6-C5-N7	5.90	133.94	130.40
36	5	1152	G	O5'-P-OP1	-5.90	100.39	105.70
36	5	1914	G	C4-N9-C1'	5.90	134.17	126.50
36	5	2854	U	O5'-P-OP1	-5.90	100.39	105.70
36	1	171	G	N3-C4-C5	5.89	131.55	128.60
36	1	1437	C	C2-N1-C1'	5.89	125.28	118.80
36	5	2199	G	C4-N9-C1'	5.89	134.16	126.50
36	1	339	C	O5'-P-OP2	5.89	117.77	110.70
36	1	955	U	C6-N1-C2	5.89	124.53	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1159	A	OP1-P-O3'	5.89	118.17	105.20
36	1	2163	C	C5-C4-N4	5.89	124.33	120.20
36	1	2376	G	N7-C8-N9	5.89	116.05	113.10
36	5	1296	C	N1-C2-O2	-5.89	115.36	118.90
36	5	1803	C	C6-N1-C2	5.89	122.66	120.30
36	5	2805	G	C5-C6-O6	-5.89	125.06	128.60
36	1	948	C	C2-N3-C4	-5.89	116.95	119.90
38	4	38	U	N1-C2-O2	5.89	126.92	122.80
36	5	948	C	N3-C4-C5	5.89	124.26	121.90
36	1	866	A	C8-N9-C4	5.89	108.16	105.80
36	5	942	U	N1-C2-O2	-5.89	118.68	122.80
1	2	1600	A	C4-C5-N7	5.89	113.64	110.70
36	1	2168	A	C2-N3-C4	5.89	113.54	110.60
36	1	2278	C	N1-C2-O2	5.89	122.43	118.90
36	1	2966	G	N3-C4-N9	5.89	129.53	126.00
36	5	1701	C	N3-C4-C5	-5.89	119.55	121.90
36	1	2137	U	C6-N1-C1'	-5.88	112.96	121.20
38	4	9	A	N1-C6-N6	-5.88	115.07	118.60
36	5	606	C	C6-N1-C2	5.88	122.65	120.30
36	5	2371	G	O5'-P-OP2	-5.88	100.40	105.70
36	5	76	G	C2-N3-C4	-5.88	108.96	111.90
79	q3	50	GLY	N-CA-C	-5.88	98.39	113.10
1	2	1422	A	C8-N9-C4	5.88	108.15	105.80
36	1	891	G	N1-C6-O6	-5.88	116.37	119.90
36	1	1153	A	C6-C5-N7	-5.88	128.18	132.30
36	1	1340	G	N3-C4-N9	5.88	129.53	126.00
36	1	1548	C	N1-C2-O2	-5.88	115.37	118.90
36	5	1372	C	N3-C4-C5	5.88	124.25	121.90
36	5	2728	G	O5'-P-OP2	-5.88	100.41	105.70
36	1	1606	U	N1-C2-O2	-5.88	118.68	122.80
36	1	2679	A	O4'-C1'-N9	5.88	112.90	108.20
36	5	1055	A	O5'-P-OP2	-5.88	100.41	105.70
36	5	1745	C	O5'-P-OP2	-5.88	100.41	105.70
36	1	327	A	N7-C8-N9	-5.88	110.86	113.80
36	1	2169	G	C5-C6-O6	5.88	132.13	128.60
36	1	2610	G	C5-C6-O6	-5.88	125.07	128.60
36	5	61	A	N9-C4-C5	5.88	108.15	105.80
1	2	1164	G	N1-C6-O6	5.88	123.43	119.90
36	1	28	C	C6-N1-C2	5.88	122.65	120.30
36	1	432	G	C5-C6-N1	-5.88	108.56	111.50
36	5	342	A	O5'-P-OP2	-5.88	100.41	105.70
36	5	966	U	C2-N1-C1'	5.88	124.75	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1548	C	N1-C2-O2	-5.88	115.38	118.90
36	5	2376	G	C6-C5-N7	-5.88	126.87	130.40
1	2	89	G	C8-N9-C4	5.88	108.75	106.40
36	1	2168	A	O5'-P-OP2	-5.88	100.41	105.70
1	6	1700	C	C6-N1-C1'	-5.88	113.75	120.80
36	5	800	G	C6-N1-C2	-5.88	121.58	125.10
36	5	1137	C	C5-C6-N1	-5.88	118.06	121.00
36	1	1000	C	N1-C2-N3	-5.87	115.09	119.20
36	1	1154	A	C4-C5-C6	5.87	119.94	117.00
36	1	2146	C	O5'-P-OP1	5.87	117.75	110.70
36	1	2343	C	C5-C4-N4	-5.87	116.09	120.20
36	1	2872	A	OP2-P-O3'	5.87	118.12	105.20
1	6	1112	G	C6-N1-C2	-5.87	121.58	125.10
36	5	63	A	C5-C6-N6	-5.87	119.00	123.70
36	5	2117	A	N9-C4-C5	5.87	108.15	105.80
36	1	636	C	C5-C6-N1	-5.87	118.06	121.00
38	8	85	G	N7-C8-N9	5.87	116.04	113.10
1	2	370	A	N1-C6-N6	-5.87	115.08	118.60
1	2	734	A	P-O3'-C3'	5.87	126.74	119.70
1	2	1145	U	N1-C2-O2	-5.87	118.69	122.80
36	1	1116	G	N9-C4-C5	5.87	107.75	105.40
36	1	2355	G	C4-C5-C6	5.87	122.32	118.80
36	5	2402	A	C8-N9-C4	-5.87	103.45	105.80
37	7	90	U	C6-N1-C2	5.87	124.52	121.00
36	1	2619	G	N7-C8-N9	-5.87	110.17	113.10
36	1	2846	U	N1-C2-O2	5.87	126.91	122.80
1	2	142	G	N3-C2-N2	-5.87	115.80	119.90
1	2	1340	U	N1-C2-O2	5.87	126.91	122.80
36	5	815	G	N3-C4-C5	-5.87	125.67	128.60
36	5	1149	G	O5'-P-OP2	-5.87	100.42	105.70
36	5	1384	U	C5-C6-N1	5.87	125.63	122.70
36	1	89	A	N3-C4-C5	-5.86	122.70	126.80
36	1	132	C	N1-C2-O2	-5.86	115.38	118.90
36	1	2869	U	OP2-P-O3'	5.86	118.10	105.20
37	7	88	G	N1-C2-N2	-5.86	110.92	116.20
36	1	2345	A	N9-C4-C5	-5.86	103.45	105.80
36	5	1592	G	C4-N9-C1'	5.86	134.12	126.50
36	1	1384	U	N3-C2-O2	5.86	126.30	122.20
36	1	2761	G	C5-C6-O6	-5.86	125.08	128.60
1	6	543	C	C6-N1-C2	-5.86	117.96	120.30
1	6	1535	U	N1-C2-O2	5.86	126.90	122.80
36	5	2661	G	C5-C6-O6	-5.86	125.08	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1389	G	N1-C6-O6	5.86	123.42	119.90
36	5	2825	C	N1-C2-O2	-5.86	115.38	118.90
37	7	81	U	C4-C5-C6	-5.86	116.19	119.70
1	2	1212	G	C4-C5-N7	5.86	113.14	110.80
36	1	1365	G	C4-N9-C1'	5.86	134.11	126.50
36	1	1419	A	O5'-P-OP2	-5.86	100.43	105.70
36	1	2621	G	N1-C6-O6	5.86	123.41	119.90
36	1	2942	C	C6-N1-C2	5.86	122.64	120.30
36	1	1466	G	N9-C4-C5	-5.86	103.06	105.40
36	1	2608	G	C5-C6-O6	-5.86	125.09	128.60
36	5	653	A	C2-N3-C4	-5.86	107.67	110.60
36	5	870	G	N1-C2-N2	-5.86	110.93	116.20
36	5	1122	U	C5-C4-O4	5.86	129.41	125.90
36	5	2813	A	C4-C5-C6	5.86	119.93	117.00
38	8	30	C	N1-C2-O2	-5.86	115.39	118.90
36	1	816	A	N1-C6-N6	-5.85	115.09	118.60
36	1	2924	U	C2-N3-C4	-5.85	123.49	127.00
36	5	925	A	N7-C8-N9	-5.85	110.87	113.80
36	5	2394	G	N1-C6-O6	5.85	123.41	119.90
38	8	106	C	C6-N1-C2	5.85	122.64	120.30
1	2	1119	G	C8-N9-C4	-5.85	104.06	106.40
36	1	56	G	C5-C6-N1	5.85	114.43	111.50
1	6	453	U	N1-C2-O2	5.85	126.90	122.80
1	6	1658	G	N1-C6-O6	-5.85	116.39	119.90
36	5	1853	U	N1-C2-O2	-5.85	118.70	122.80
36	5	2626	A	C5-C6-N1	-5.85	114.77	117.70
36	1	357	A	C5-C6-N6	-5.85	119.02	123.70
36	1	878	G	N1-C2-N3	5.85	127.41	123.90
36	1	1419	A	C5'-C4'-O4'	5.85	116.12	109.10
36	5	2396	G	C5-N7-C8	-5.85	101.38	104.30
36	1	1154	A	N1-C6-N6	5.85	122.11	118.60
38	4	64	U	N3-C2-O2	-5.85	118.11	122.20
1	6	173	A	N1-C6-N6	5.85	122.11	118.60
36	5	192	C	N3-C2-O2	-5.85	117.81	121.90
36	5	1481	A	N7-C8-N9	5.85	116.72	113.80
36	5	2648	G	C5-C6-N1	5.85	114.42	111.50
36	5	2727	A	C2-N3-C4	5.85	113.53	110.60
1	6	426	G	O5'-P-OP2	-5.85	100.44	105.70
1	6	795	U	N1-C2-O2	5.85	126.89	122.80
36	5	2827	U	OP1-P-O3'	5.85	118.06	105.20
1	2	1114	G	C6-C5-N7	-5.84	126.89	130.40
36	1	992	A	OP1-P-OP2	5.84	128.37	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2916	U	OP1-P-O3'	5.84	118.06	105.20
36	5	1306	G	C4-C5-N7	5.84	113.14	110.80
36	5	2825	C	N3-C4-N4	5.84	122.09	118.00
36	5	2954	U	N3-C2-O2	-5.84	118.11	122.20
36	1	1137	C	OP1-P-OP2	5.84	128.37	119.60
1	6	422	G	C8-N9-C4	-5.84	104.06	106.40
1	2	136	C	OP1-P-O3'	5.84	118.05	105.20
36	1	2295	A	C5-N7-C8	-5.84	100.98	103.90
36	1	2794	G	C2-N3-C4	5.84	114.82	111.90
38	4	17	A	N1-C2-N3	5.84	132.22	129.30
36	5	2836	C	C5-C6-N1	-5.84	118.08	121.00
36	5	2914	G	N3-C4-C5	-5.84	125.68	128.60
36	1	888	A	C4-C5-N7	5.84	113.62	110.70
1	6	158	U	P-O3'-C3'	5.84	126.71	119.70
1	6	1119	G	N1-C2-N2	-5.84	110.94	116.20
36	5	632	G	N3-C4-N9	5.84	129.50	126.00
36	5	2953	U	C5-C4-O4	-5.84	122.40	125.90
36	5	3396	U	O4'-C1'-N1	5.84	112.87	108.20
36	1	2212	C	C6-N1-C2	5.84	122.64	120.30
36	1	2606	G	C8-N9-C1'	-5.84	119.41	127.00
36	5	339	C	N1-C2-O2	-5.84	115.40	118.90
36	5	820	A	C5-C6-N6	-5.84	119.03	123.70
36	5	1889	G	N3-C4-N9	5.84	129.50	126.00
36	1	2550	U	N1-C2-N3	5.83	118.40	114.90
1	6	382	C	C2-N3-C4	-5.83	116.98	119.90
1	6	1602	C	N1-C2-O2	5.83	122.40	118.90
36	1	2918	G	C6-C5-N7	-5.83	126.90	130.40
36	1	2944	U	N1-C2-O2	5.83	126.88	122.80
36	1	660	A	C2-N3-C4	5.83	113.52	110.60
36	1	999	G	C5-C6-O6	-5.83	125.10	128.60
36	1	1136	A	C8-N9-C4	-5.83	103.47	105.80
36	5	656	A	C5-C6-N1	-5.83	114.78	117.70
36	5	2364	G	O4'-C1'-N9	5.83	112.86	108.20
36	5	2819	A	O5'-P-OP2	-5.83	100.45	105.70
36	5	229	G	N1-C2-N2	5.83	121.45	116.20
36	5	1522	U	C5-C6-N1	-5.83	119.78	122.70
36	1	326	U	N3-C4-O4	5.83	123.48	119.40
36	1	694	C	N3-C4-C5	5.83	124.23	121.90
36	1	2434	U	C5-C6-N1	-5.83	119.79	122.70
1	6	1736	G	N1-C6-O6	5.83	123.40	119.90
36	5	2140	U	C6-N1-C2	-5.83	117.50	121.00
36	5	2646	C	N3-C4-N4	-5.83	113.92	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2366	C	C5-C6-N1	5.83	123.91	121.00
36	5	1200	A	N1-C2-N3	5.83	132.21	129.30
36	5	2234	G	C4-C5-N7	5.83	113.13	110.80
1	2	75	U	N3-C2-O2	-5.83	118.12	122.20
36	1	2836	C	C4-C5-C6	5.83	120.31	117.40
12	c0	88	PRO	N-CA-CB	5.83	110.29	103.30
36	5	153	U	N1-C2-O2	-5.83	118.72	122.80
36	5	3129	A	C4-C5-N7	5.83	113.61	110.70
38	8	40	A	N7-C8-N9	5.83	116.71	113.80
1	2	1200	G	C5-C6-O6	-5.82	125.11	128.60
1	2	1200	G	C4-C5-C6	5.82	122.30	118.80
36	1	2395	G	C5-C6-O6	-5.82	125.11	128.60
38	4	32	C	C6-N1-C1'	5.82	127.79	120.80
36	5	2849	C	C5-C4-N4	-5.82	116.12	120.20
36	5	2971	A	N3-C4-N9	5.82	132.06	127.40
1	6	440	U	N1-C2-N3	5.82	118.39	114.90
36	1	1190	A	C5-C6-N6	-5.82	119.04	123.70
36	1	1820	U	C5-C4-O4	5.82	129.39	125.90
37	7	37	G	N1-C6-O6	5.82	123.39	119.90
36	1	1555	U	C2-N1-C1'	-5.82	110.72	117.70
1	6	1127	G	N1-C2-N3	5.82	127.39	123.90
36	1	1820	U	C6-N1-C2	-5.82	117.51	121.00
1	6	542	A	N7-C8-N9	5.82	116.71	113.80
36	5	63	A	C6-C5-N7	-5.82	128.23	132.30
36	5	2261	G	C8-N9-C4	5.82	108.73	106.40
24	D2	76	SER	C-N-CD	5.82	140.61	128.40
36	1	232	G	N3-C4-C5	-5.82	125.69	128.60
36	5	835	G	O4'-C1'-N9	5.82	112.85	108.20
36	5	1931	U	C2-N1-C1'	-5.82	110.72	117.70
36	5	2727	A	C8-N9-C4	-5.82	103.47	105.80
36	1	1425	U	N3-C2-O2	-5.81	118.13	122.20
45	L8	189	LEU	CA-CB-CG	5.81	128.67	115.30
36	5	644	G	C8-N9-C4	-5.81	104.08	106.40
36	1	778	U	N3-C4-O4	-5.81	115.33	119.40
36	1	2905	U	N1-C2-O2	-5.81	118.73	122.80
38	4	100	U	O5'-P-OP1	5.81	117.67	110.70
36	1	695	C	C6-N1-C2	5.81	122.62	120.30
36	1	933	A	C4-C5-C6	5.81	119.91	117.00
36	1	941	G	C5-C6-N1	5.81	114.41	111.50
36	1	2942	C	N3-C2-O2	5.81	125.97	121.90
36	1	2177	G	N3-C2-N2	5.81	123.97	119.90
38	4	57	C	N3-C4-C5	5.81	124.22	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1523	G	N1-C6-O6	-5.81	116.41	119.90
36	5	2215	A	C8-N9-C4	5.81	108.12	105.80
36	1	200	C	C2-N3-C4	-5.81	117.00	119.90
36	1	292	U	C5-C6-N1	-5.81	119.80	122.70
36	1	2606	G	C4-N9-C1'	5.81	134.05	126.50
36	5	915	A	O5'-P-OP1	-5.81	100.47	105.70
36	5	1398	U	C5-C4-O4	5.81	129.38	125.90
36	5	2120	A	C5-C6-N6	5.81	128.35	123.70
36	5	2820	A	C5-C6-N6	-5.81	119.05	123.70
37	7	82	G	C6-C5-N7	-5.81	126.92	130.40
36	1	2355	G	C5-C6-O6	-5.81	125.12	128.60
36	5	807	A	C8-N9-C4	-5.81	103.48	105.80
36	1	432	G	C6-C5-N7	-5.80	126.92	130.40
36	5	1609	C	N3-C4-N4	5.80	122.06	118.00
36	5	2190	U	N1-C2-N3	5.80	118.38	114.90
36	5	2630	C	N3-C4-C5	5.80	124.22	121.90
36	1	1432	C	C5-C6-N1	5.80	123.90	121.00
36	5	1595	U	C2-N1-C1'	-5.80	110.74	117.70
36	5	2112	U	O5'-P-OP1	-5.80	100.48	105.70
36	5	2816	G	C4-N9-C1'	-5.80	118.96	126.50
1	2	1386	G	C8-N9-C4	5.80	108.72	106.40
36	1	2201	G	O5'-P-OP2	-5.80	100.48	105.70
1	6	75	U	N3-C2-O2	-5.80	118.14	122.20
36	5	567	G	N1-C6-O6	5.80	123.38	119.90
36	5	2509	U	N1-C2-O2	5.80	126.86	122.80
36	1	422	A	N9-C4-C5	5.80	108.12	105.80
36	1	1107	C	C6-N1-C2	5.80	122.62	120.30
36	5	931	C	C6-N1-C2	5.80	122.62	120.30
36	5	1101	G	N3-C2-N2	5.80	123.96	119.90
36	5	2112	U	C6-N1-C2	-5.80	117.52	121.00
36	5	2831	G	C5-C6-O6	-5.80	125.12	128.60
36	5	3211	C	C6-N1-C2	5.80	122.62	120.30
36	1	587	U	N3-C4-C5	5.79	118.08	114.60
36	1	282	G	C2'-C3'-O3'	5.79	122.97	113.70
36	1	895	A	N1-C2-N3	5.79	132.20	129.30
36	1	1366	A	C5-N7-C8	-5.79	101.00	103.90
36	1	2923	U	C5-C4-O4	-5.79	122.42	125.90
1	6	886	U	O4'-C1'-N1	5.79	112.83	108.20
36	5	811	U	C2-N3-C4	-5.79	123.52	127.00
36	5	1730	G	C8-N9-C4	5.79	108.72	106.40
1	2	1782	A	C5-C6-N1	-5.79	114.80	117.70
36	1	3361	G	N3-C2-N2	5.79	123.95	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	57	G	N3-C4-C5	-5.79	125.70	128.60
36	5	2865	U	C5-C6-N1	5.79	125.60	122.70
36	5	3216	G	N1-C6-O6	5.79	123.38	119.90
38	8	119	C	C6-N1-C2	5.79	122.62	120.30
36	1	917	A	C6-C5-N7	5.79	136.35	132.30
36	1	2372	A	C8-N9-C4	-5.79	103.48	105.80
1	6	1674	C	N1-C2-O2	-5.79	115.43	118.90
36	5	349	A	O5'-P-OP2	-5.79	100.49	105.70
36	5	1304	A	O5'-P-OP1	-5.79	100.49	105.70
37	7	90	U	C2-N3-C4	-5.79	123.53	127.00
1	2	1218	G	N1-C6-O6	5.79	123.37	119.90
36	1	1466	G	C4-C5-N7	5.79	113.11	110.80
36	5	417	A	C5-C6-N1	5.79	120.59	117.70
36	5	1183	C	C2-N3-C4	-5.79	117.01	119.90
36	1	24	G	N1-C2-N3	5.79	127.37	123.90
36	1	1334	U	N1-C2-O2	-5.79	118.75	122.80
36	1	2968	G	C2-N3-C4	-5.79	109.01	111.90
1	6	352	A	C8-N9-C4	5.79	108.11	105.80
36	5	2754	G	C8-N9-C4	5.79	108.71	106.40
36	1	35	A	C5-N7-C8	-5.78	101.01	103.90
36	1	101	G	O4'-C1'-N9	5.78	112.83	108.20
36	1	435	C	C6-N1-C2	5.78	122.61	120.30
1	6	163	G	N3-C2-N2	-5.78	115.85	119.90
36	5	422	A	O5'-P-OP1	-5.78	100.49	105.70
36	5	1942	U	N1-C2-N3	5.78	118.37	114.90
36	5	2372	A	O4'-C1'-N9	-5.78	103.57	108.20
36	5	2823	G	C5-C6-O6	-5.78	125.13	128.60
36	1	2419	A	C5-N7-C8	-5.78	101.01	103.90
36	5	2917	G	C6-N1-C2	-5.78	121.63	125.10
36	5	2930	A	O4'-C1'-N9	5.78	112.83	108.20
36	1	3368	U	C6-N1-C1'	5.78	129.29	121.20
1	2	765	G	C2-N3-C4	5.78	114.79	111.90
1	2	857	U	N1-C2-O2	5.78	126.84	122.80
1	6	892	A	C8-N9-C4	-5.78	103.49	105.80
36	5	974	G	C6-N1-C2	-5.78	121.63	125.10
36	5	1085	A	C2-N3-C4	-5.78	107.71	110.60
36	5	2165	G	N3-C4-N9	5.78	129.47	126.00
36	1	1269	U	N1-C2-O2	5.78	126.84	122.80
36	1	2952	G	N1-C6-O6	5.78	123.36	119.90
36	5	2421	U	C4-C5-C6	5.77	123.17	119.70
36	1	2917	G	C5-C6-O6	-5.77	125.14	128.60
36	5	660	A	O5'-P-OP2	-5.77	100.50	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2871	G	O5'-P-OP2	-5.77	100.50	105.70
36	5	3204	C	C2-N3-C4	-5.77	117.01	119.90
36	1	635	G	C5-C6-N1	5.77	114.39	111.50
1	2	1432	U	C6-N1-C2	5.77	124.46	121.00
36	1	1344	G	OP2-P-O3'	5.77	117.89	105.20
36	1	3382	U	N3-C2-O2	-5.77	118.16	122.20
36	5	1001	G	O5'-P-OP1	-5.77	100.51	105.70
1	2	1116	A	N1-C6-N6	5.77	122.06	118.60
1	6	50	C	C4-C5-C6	5.77	120.28	117.40
1	6	1582	U	C5-C4-O4	5.77	129.36	125.90
36	5	2609	A	O5'-P-OP2	-5.77	100.51	105.70
36	5	2616	C	N3-C2-O2	5.77	125.94	121.90
36	1	76	G	N3-C4-C5	-5.76	125.72	128.60
36	1	1931	U	C5-C4-O4	5.76	129.36	125.90
36	1	2169	G	C5-N7-C8	5.76	107.18	104.30
36	1	2923	U	O5'-P-OP2	5.76	117.62	110.70
36	1	3229	G	N9-C4-C5	-5.76	103.09	105.40
1	6	1000	C	C6-N1-C1'	-5.76	113.88	120.80
36	5	3195	U	P-O3'-C3'	5.76	126.62	119.70
38	8	42	G	N3-C4-N9	-5.76	122.54	126.00
36	5	1420	C	OP2-P-O3'	5.76	117.88	105.20
36	1	350	C	C2-N1-C1'	5.76	125.14	118.80
36	1	639	G	O5'-P-OP1	5.76	117.61	110.70
36	1	2241	U	C5-C4-O4	5.76	129.36	125.90
36	1	2864	A	O5'-P-OP1	-5.76	100.51	105.70
36	5	1194	G	C2-N3-C4	5.76	114.78	111.90
36	5	2341	A	N7-C8-N9	-5.76	110.92	113.80
36	5	3214	U	C5-C4-O4	5.76	129.36	125.90
36	1	286	U	N1-C2-O2	5.76	126.83	122.80
36	1	1696	A	C8-N9-C4	-5.76	103.50	105.80
36	1	2769	A	O5'-P-OP2	-5.76	100.52	105.70
49	M3	7	LEU	CA-CB-CG	-5.76	102.06	115.30
1	6	583	C	C2-N1-C1'	5.76	125.14	118.80
1	6	1300	A	N1-C6-N6	-5.76	115.14	118.60
36	5	2759	U	N3-C4-O4	5.76	123.43	119.40
36	1	808	A	N1-C6-N6	-5.76	115.14	118.60
36	1	1891	A	N9-C4-C5	-5.76	103.50	105.80
36	5	1381	A	N1-C6-N6	-5.76	115.14	118.60
36	5	1847	A	N3-C4-C5	5.76	130.83	126.80
36	5	2951	G	C8-N9-C4	5.76	108.70	106.40
36	5	3200	G	C6-C5-N7	-5.76	126.94	130.40
1	2	1176	G	C6-C5-N7	-5.76	126.95	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	606	C	C6-N1-C2	5.76	122.60	120.30
36	1	1431	G	C5-C6-O6	5.76	132.05	128.60
1	6	941	A	N1-C6-N6	-5.76	115.15	118.60
1	6	1097	U	C5-C4-O4	5.76	129.35	125.90
1	6	1129	U	C5-C4-O4	5.76	129.35	125.90
1	6	1200	G	N3-C4-C5	5.76	131.48	128.60
36	5	632	G	O5'-P-OP1	5.76	117.61	110.70
36	5	1522	U	C2-N3-C4	-5.76	123.55	127.00
36	5	567	G	C6-C5-N7	-5.75	126.95	130.40
36	5	1164	G	C8-N9-C4	5.75	108.70	106.40
36	1	1548	C	N3-C2-O2	5.75	125.93	121.90
36	1	1842	A	N1-C6-N6	-5.75	115.15	118.60
36	5	308	A	O5'-P-OP1	5.75	117.60	110.70
36	5	1593	A	N1-C6-N6	5.75	122.05	118.60
36	1	1845	G	OP2-P-O3'	5.75	117.85	105.20
36	1	2808	A	C8-N9-C1'	-5.75	117.35	127.70
1	6	1285	U	C5-C4-O4	5.75	129.35	125.90
36	5	343	U	C5-C4-O4	5.75	129.35	125.90
36	5	1851	G	C5-C6-O6	-5.75	125.15	128.60
36	1	53	G	C5-C6-N1	5.75	114.38	111.50
36	1	426	G	N3-C4-N9	5.75	129.45	126.00
36	1	959	C	C6-N1-C2	5.75	122.60	120.30
36	1	1204	A	C8-N9-C4	5.75	108.10	105.80
36	1	1931	U	C2-N1-C1'	-5.75	110.80	117.70
1	6	1503	A	N7-C8-N9	5.75	116.67	113.80
36	5	1869	C	C2-N1-C1'	-5.75	112.48	118.80
36	5	3101	G	N3-C4-C5	-5.75	125.73	128.60
36	5	3186	A	N1-C6-N6	-5.75	115.15	118.60
36	1	320	G	C5-C6-O6	-5.75	125.15	128.60
36	5	2246	G	C8-N9-C4	-5.75	104.10	106.40
36	5	2772	C	P-O3'-C3'	5.75	126.59	119.70
36	5	2820	A	C5-N7-C8	-5.75	101.03	103.90
36	1	937	G	N1-C6-O6	5.75	123.35	119.90
64	N8	32	ARG	NE-CZ-NH1	-5.75	117.43	120.30
36	5	923	C	C5-C4-N4	-5.75	116.18	120.20
36	5	1522	U	C5-C4-O4	-5.75	122.45	125.90
36	1	931	C	C5-C6-N1	-5.74	118.13	121.00
36	1	1189	C	N1-C2-O2	-5.74	115.45	118.90
36	1	1468	A	C2-N3-C4	-5.74	107.73	110.60
36	1	1498	A	C6-N1-C2	-5.74	115.15	118.60
36	1	2406	C	N1-C2-O2	-5.74	115.45	118.90
36	1	2818	U	N1-C2-N3	5.74	118.35	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2912	G	C6-C5-N7	5.74	133.85	130.40
36	5	1367	G	N1-C6-O6	5.74	123.35	119.90
36	5	2651	G	C5-C6-N1	-5.74	108.63	111.50
36	1	2861	U	N3-C2-O2	-5.74	118.18	122.20
1	6	337	G	C8-N9-C1'	-5.74	119.53	127.00
36	1	1176	C	C5-C4-N4	-5.74	116.18	120.20
36	1	1534	A	N1-C6-N6	5.74	122.04	118.60
1	6	777	C	C6-N1-C2	-5.74	118.00	120.30
36	5	3047	U	N3-C4-C5	-5.74	111.16	114.60
1	2	1782	A	O5'-P-OP1	-5.74	100.53	105.70
36	1	281	G	OP1-P-OP2	-5.74	110.99	119.60
36	5	1833	G	N1-C6-O6	-5.74	116.46	119.90
37	7	105	C	C2-N1-C1'	5.74	125.11	118.80
36	5	2950	G	OP1-P-O3'	5.74	117.82	105.20
36	1	805	G	C5-N7-C8	5.74	107.17	104.30
36	5	1556	C	C5-C6-N1	5.74	123.87	121.00
36	5	3055	U	C5-C4-O4	-5.74	122.46	125.90
36	1	2836	C	N1-C2-N3	5.73	123.21	119.20
1	6	765	G	C8-N9-C4	5.73	108.69	106.40
36	1	92	G	N3-C2-N2	5.73	123.91	119.90
36	1	650	C	N1-C2-O2	-5.73	115.46	118.90
36	1	1916	U	C5-C6-N1	-5.73	119.83	122.70
36	1	2923	U	N3-C4-O4	5.73	123.41	119.40
36	1	2953	U	N3-C2-O2	5.73	126.21	122.20
1	6	1027	A	C5-N7-C8	-5.73	101.03	103.90
36	5	2393	G	N3-C4-C5	-5.73	125.73	128.60
20	C8	3	LEU	CA-CB-CG	5.73	128.48	115.30
1	6	639	U	N1-C2-O2	5.73	126.81	122.80
1	6	996	U	C5-C4-O4	5.73	129.34	125.90
1	6	1751	C	C6-N1-C2	5.73	122.59	120.30
36	5	13	A	N1-C6-N6	-5.73	115.16	118.60
36	5	898	U	O5'-P-OP2	5.73	117.58	110.70
36	5	1110	U	N3-C4-O4	-5.73	115.39	119.40
36	5	2961	G	N7-C8-N9	5.73	115.97	113.10
37	7	84	A	OP1-P-O3'	5.73	117.80	105.20
36	5	1372	C	C5-C6-N1	-5.73	118.14	121.00
36	5	2309	A	N9-C4-C5	5.73	108.09	105.80
36	1	328	U	N1-C2-O2	5.72	126.81	122.80
36	1	1133	A	C5-C6-N6	-5.72	119.12	123.70
36	1	1389	G	C6-C5-N7	-5.72	126.97	130.40
1	6	308	C	C2-N3-C4	-5.72	117.04	119.90
1	6	337	G	N3-C4-N9	5.72	129.44	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	636	C	C2-N3-C4	-5.72	117.04	119.90
36	1	1425	U	C5-C4-O4	5.72	129.33	125.90
36	1	3217	C	N1-C2-O2	5.72	122.33	118.90
36	5	1103	A	C8-N9-C4	-5.72	103.51	105.80
36	5	1879	A	C2-N3-C4	-5.72	107.74	110.60
37	7	84	A	C8-N9-C4	-5.72	103.51	105.80
36	1	808	A	C4-C5-N7	-5.72	107.84	110.70
36	1	2356	A	C5-C6-N6	-5.72	119.12	123.70
36	1	2973	G	C8-N9-C4	5.72	108.69	106.40
36	1	790	U	N3-C2-O2	-5.72	118.20	122.20
36	1	927	C	C2-N3-C4	-5.72	117.04	119.90
36	1	1581	C	N3-C2-O2	-5.72	117.90	121.90
36	1	3209	A	N9-C4-C5	-5.72	103.51	105.80
38	4	13	A	C6-C5-N7	-5.72	128.30	132.30
36	5	304	G	C5-C6-O6	5.72	132.03	128.60
36	5	589	A	N1-C6-N6	5.72	122.03	118.60
36	5	1312	C	N1-C2-O2	-5.72	115.47	118.90
36	5	3105	U	C2-N3-C4	-5.72	123.57	127.00
36	1	648	C	OP1-P-O3'	5.72	117.78	105.20
36	1	915	A	O5'-P-OP2	-5.72	100.55	105.70
36	5	334	A	N7-C8-N9	-5.72	110.94	113.80
36	1	869	G	N1-C6-O6	5.72	123.33	119.90
36	1	1835	A	N1-C6-N6	-5.72	115.17	118.60
36	1	2302	G	N1-C6-O6	-5.72	116.47	119.90
36	1	2899	C	N1-C2-N3	5.72	123.20	119.20
37	3	14	U	C6-N1-C2	5.72	124.43	121.00
36	1	567	G	C8-N9-C4	-5.71	104.11	106.40
36	1	940	G	N3-C4-C5	-5.71	125.74	128.60
36	1	1059	G	C5-C6-O6	5.71	132.03	128.60
36	1	2602	G	C5-C6-O6	5.71	132.03	128.60
36	1	410	U	N1-C2-N3	5.71	118.33	114.90
36	5	2600	C	C5-C6-N1	5.71	123.86	121.00
36	5	3145	C	C6-N1-C2	5.71	122.58	120.30
1	2	1592	A	C8-N9-C4	-5.71	103.52	105.80
36	5	81	C	C6-N1-C2	5.71	122.58	120.30
37	7	95	A	OP1-P-OP2	-5.71	111.03	119.60
36	1	279	U	C5-C6-N1	-5.71	119.85	122.70
36	5	50	U	C5-C6-N1	5.71	125.55	122.70
36	5	835	G	N3-C2-N2	5.71	123.90	119.90
36	5	1014	U	C2-N1-C1'	5.71	124.55	117.70
36	5	2306	C	C2-N1-C1'	5.71	125.08	118.80
36	5	2965	U	N3-C2-O2	5.71	126.20	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1619	A	C8-N9-C4	5.71	108.08	105.80
36	1	2142	A	N1-C6-N6	-5.71	115.18	118.60
36	1	2865	U	C6-N1-C2	5.71	124.42	121.00
38	8	103	G	N3-C4-N9	5.71	129.42	126.00
36	1	65	A	OP1-P-O3'	5.71	117.75	105.20
36	1	1602	A	N1-C6-N6	5.71	122.02	118.60
36	1	2174	G	C8-N9-C4	-5.70	104.12	106.40
36	1	2871	G	C5-C6-O6	-5.70	125.18	128.60
36	5	804	C	OP1-P-O3'	5.70	117.75	105.20
36	5	869	G	N1-C6-O6	-5.70	116.48	119.90
36	5	3136	G	N1-C2-N3	5.70	127.32	123.90
44	17	232	ARG	NE-CZ-NH1	-5.70	117.45	120.30
36	5	770	G	O4'-C1'-N9	5.70	112.76	108.20
36	1	983	A	C6-N1-C2	-5.70	115.18	118.60
1	6	1046	G	N7-C8-N9	-5.70	110.25	113.10
36	5	225	C	C2-N3-C4	-5.70	117.05	119.90
36	1	919	U	N1-C2-O2	5.70	126.79	122.80
36	1	1154	A	C5-C6-N6	-5.70	119.14	123.70
36	5	3184	A	C4-C5-N7	5.70	113.55	110.70
36	1	804	C	C4-C5-C6	5.70	120.25	117.40
36	5	43	A	C4-C5-N7	5.70	113.55	110.70
36	5	417	A	OP2-P-O3'	5.69	117.73	105.20
36	1	895	A	N9-C4-C5	-5.69	103.52	105.80
36	1	3270	U	O5'-P-OP1	-5.69	100.58	105.70
1	6	66	U	P-O3'-C3'	5.69	126.53	119.70
36	5	637	C	N1-C2-O2	-5.69	115.48	118.90
36	5	1116	G	C4-C5-N7	-5.69	108.52	110.80
36	1	1340	G	C8-N9-C4	5.69	108.68	106.40
1	6	544	A	C8-N9-C4	5.69	108.08	105.80
36	5	1114	U	OP1-P-O3'	5.69	117.72	105.20
36	5	2943	G	C6-C5-N7	-5.69	126.98	130.40
38	8	10	A	N1-C6-N6	5.69	122.01	118.60
36	1	498	A	C8-N9-C4	-5.69	103.52	105.80
36	1	1891	A	N7-C8-N9	-5.69	110.96	113.80
36	5	1161	G	N3-C4-N9	5.69	129.41	126.00
38	8	54	A	C5-C6-N1	-5.69	114.86	117.70
36	1	2729	U	N3-C2-O2	-5.69	118.22	122.20
36	5	2164	A	C4-C5-C6	5.69	119.84	117.00
36	5	2759	U	N3-C4-C5	-5.69	111.19	114.60
36	5	1911	A	C2-N3-C4	-5.69	107.76	110.60
1	2	857	U	N3-C2-O2	-5.68	118.22	122.20
36	1	1796	G	C8-N9-C4	-5.68	104.13	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1865	A	OP1-P-O3'	5.68	117.70	105.20
36	1	2159	U	C6-N1-C2	5.68	124.41	121.00
36	5	890	C	N3-C4-N4	5.68	121.98	118.00
36	5	2128	C	C6-N1-C2	-5.68	118.03	120.30
36	5	2814	G	N3-C2-N2	5.68	123.88	119.90
38	8	54	A	N1-C6-N6	5.68	122.01	118.60
36	1	3029	A	C8-N9-C4	-5.68	103.53	105.80
36	5	1872	C	N3-C2-O2	-5.68	117.92	121.90
36	5	3083	G	N1-C6-O6	-5.68	116.49	119.90
1	2	186	C	C6-N1-C2	-5.68	118.03	120.30
36	5	1198	C	N1-C2-N3	5.68	123.18	119.20
36	5	2691	A	C8-N9-C4	-5.68	103.53	105.80
36	1	1404	G	C5-C6-O6	5.68	132.01	128.60
36	1	2613	U	C5-C4-O4	5.68	129.31	125.90
36	5	209	A	C5-C6-N6	-5.68	119.16	123.70
36	5	622	A	O5'-P-OP1	-5.68	100.59	105.70
36	5	1119	C	C2-N3-C4	-5.68	117.06	119.90
36	5	1546	A	N1-C6-N6	5.68	122.01	118.60
36	1	300	G	N1-C6-O6	-5.68	116.49	119.90
36	1	954	U	O5'-P-OP2	-5.68	100.59	105.70
36	1	1051	U	C2-N1-C1'	-5.68	110.89	117.70
36	1	1105	A	C8-N9-C4	5.68	108.07	105.80
36	1	1389	G	C5-C6-O6	-5.68	125.19	128.60
36	1	394	G	C4-N9-C1'	-5.68	119.12	126.50
36	1	2418	G	C2-N3-C4	5.68	114.74	111.90
36	1	2954	U	C5-C6-N1	-5.68	119.86	122.70
36	5	288	C	N1-C2-O2	-5.68	115.49	118.90
36	5	2345	A	N9-C4-C5	-5.68	103.53	105.80
36	5	2524	A	N7-C8-N9	5.68	116.64	113.80
36	5	2572	C	N3-C2-O2	-5.68	117.93	121.90
36	5	2939	G	N7-C8-N9	-5.68	110.26	113.10
36	1	501	A	C8-N9-C4	5.67	108.07	105.80
36	1	957	C	O5'-P-OP2	-5.67	100.59	105.70
36	5	1210	U	C5-C6-N1	-5.67	119.86	122.70
36	1	1379	G	C2-N3-C4	-5.67	109.06	111.90
36	5	610	G	N9-C4-C5	5.67	107.67	105.40
36	1	697	A	N9-C4-C5	-5.67	103.53	105.80
36	1	2808	A	C2-N3-C4	-5.67	107.77	110.60
38	4	107	G	C6-C5-N7	5.67	133.80	130.40
1	6	33	U	C2-N1-C1'	-5.67	110.89	117.70
1	6	1634	C	C6-N1-C1'	-5.67	114.00	120.80
36	5	1313	G	O5'-P-OP2	-5.67	100.59	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2885	C	N1-C2-O2	-5.67	115.50	118.90
36	1	1930	A	C4-C5-C6	5.67	119.83	117.00
36	1	3044	G	C5-C6-O6	5.67	132.00	128.60
1	6	434	G	C5-C6-O6	-5.67	125.20	128.60
36	1	920	A	N1-C6-N6	-5.67	115.20	118.60
36	1	3094	A	O5'-P-OP1	-5.67	100.60	105.70
1	6	362	G	C8-N9-C1'	-5.67	119.63	127.00
36	5	941	G	N1-C6-O6	-5.67	116.50	119.90
36	5	1598	G	N1-C6-O6	-5.67	116.50	119.90
36	5	1599	G	C8-N9-C4	5.67	108.67	106.40
36	5	2147	A	C5-C6-N6	-5.67	119.17	123.70
36	5	2361	A	N1-C2-N3	5.67	132.13	129.30
36	5	2623	G	N1-C6-O6	5.67	123.30	119.90
1	2	720	G	P-O3'-C3'	5.67	126.50	119.70
36	5	371	G	C5-C6-O6	-5.67	125.20	128.60
36	1	364	G	N3-C4-C5	5.66	131.43	128.60
36	1	1123	U	N3-C4-O4	5.66	123.36	119.40
36	1	1152	G	O4'-C1'-N9	5.66	112.73	108.20
36	1	1932	A	N1-C6-N6	5.66	122.00	118.60
36	1	2335	G	N1-C6-O6	-5.66	116.50	119.90
36	5	41	G	C5-N7-C8	-5.66	101.47	104.30
36	5	2168	A	O5'-P-OP2	-5.66	100.60	105.70
36	5	2811	A	O5'-P-OP2	-5.66	100.60	105.70
36	5	2941	A	N9-C4-C5	5.66	108.07	105.80
36	5	3054	U	C6-N1-C2	-5.66	117.60	121.00
1	2	1057	U	C5-C6-N1	5.66	125.53	122.70
1	2	1426	C	N3-C2-O2	5.66	125.86	121.90
27	D5	95	HIS	N-CA-C	5.66	126.28	111.00
36	1	1210	U	C6-N1-C2	5.66	124.40	121.00
36	1	2874	G	C8-N9-C4	-5.66	104.14	106.40
1	6	16	G	N1-C6-O6	-5.66	116.50	119.90
1	6	1582	U	N3-C4-O4	-5.66	115.44	119.40
36	1	234	G	N1-C6-O6	5.66	123.30	119.90
36	1	1807	G	N3-C4-N9	5.66	129.40	126.00
1	6	1583	A	C8-N9-C4	5.66	108.06	105.80
36	5	1187	C	N3-C4-C5	5.66	124.16	121.90
36	5	2953	U	N1-C2-O2	-5.66	118.84	122.80
36	1	716	A	N3-C4-C5	5.66	130.76	126.80
36	1	1373	A	C5-C6-N1	5.66	120.53	117.70
36	1	2178	A	N1-C6-N6	-5.66	115.21	118.60
36	5	1766	G	N7-C8-N9	5.66	115.93	113.10
1	2	720	G	OP1-P-O3'	5.66	117.64	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	687	U	N3-C4-O4	5.66	123.36	119.40
36	1	997	A	C4-C5-C6	5.66	119.83	117.00
36	1	2425	G	C5-N7-C8	-5.66	101.47	104.30
36	5	2276	G	C5-C6-N1	5.66	114.33	111.50
36	5	3049	A	C8-N9-C4	5.65	108.06	105.80
1	6	558	U	C2-N1-C1'	5.65	124.48	117.70
36	5	74	G	N7-C8-N9	5.65	115.93	113.10
36	5	654	C	O5'-P-OP1	-5.65	100.61	105.70
36	5	922	U	C2-N3-C4	-5.65	123.61	127.00
36	5	1509	A	N9-C4-C5	-5.65	103.54	105.80
36	1	879	U	N3-C4-O4	-5.65	115.44	119.40
36	1	2766	U	C2-N1-C1'	5.65	124.48	117.70
1	6	939	A	C8-N9-C4	-5.65	103.54	105.80
36	5	2869	U	N1-C2-N3	5.65	118.29	114.90
69	o3	18	ARG	NE-CZ-NH1	-5.65	117.47	120.30
36	1	2343	C	OP2-P-O3'	5.65	117.63	105.20
36	5	2354	C	N3-C4-C5	-5.65	119.64	121.90
38	8	8	C	N1-C2-O2	-5.65	115.51	118.90
1	2	942	G	N1-C6-O6	-5.65	116.51	119.90
36	1	22	G	C6-C5-N7	-5.65	127.01	130.40
36	1	1918	C	C6-N1-C2	-5.65	118.04	120.30
38	4	153	U	C6-N1-C2	5.65	124.39	121.00
1	6	111	U	C6-N1-C2	-5.65	117.61	121.00
36	5	2899	C	N3-C2-O2	-5.65	117.95	121.90
37	7	74	C	N1-C2-O2	-5.65	115.51	118.90
36	1	375	A	OP1-P-O3'	5.65	117.62	105.20
53	M7	131	ARG	NE-CZ-NH1	-5.65	117.48	120.30
36	5	907	G	N9-C4-C5	-5.65	103.14	105.40
36	1	402	A	N7-C8-N9	-5.64	110.98	113.80
36	1	801	A	C4-C5-N7	5.64	113.52	110.70
36	1	1202	A	C2-N3-C4	-5.64	107.78	110.60
36	1	1362	G	N7-C8-N9	-5.64	110.28	113.10
36	1	2910	A	C2-N3-C4	-5.64	107.78	110.60
36	5	343	U	OP1-P-O3'	5.64	117.62	105.20
36	5	2158	A	C5-C6-N1	5.64	120.52	117.70
1	2	16	G	N3-C4-N9	5.64	129.39	126.00
36	1	1056	U	C5-C6-N1	5.64	125.52	122.70
36	1	1181	U	C5-C4-O4	5.64	129.29	125.90
36	1	2373	A	N9-C4-C5	5.64	108.06	105.80
36	1	2647	A	C4-C5-C6	5.64	119.82	117.00
36	5	414	U	C5-C4-O4	-5.64	122.52	125.90
36	1	945	C	N3-C4-N4	-5.64	114.05	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1116	G	C4-C5-C6	5.64	122.18	118.80
36	1	1124	U	N3-C4-C5	5.64	117.98	114.60
36	1	1309	U	OP1-P-OP2	5.64	128.06	119.60
36	1	2554	A	C8-N9-C4	5.64	108.06	105.80
1	6	1773	C	C6-N1-C2	-5.64	118.04	120.30
36	5	227	G	C5-C6-O6	-5.64	125.22	128.60
36	5	567	G	C4-C5-N7	5.64	113.06	110.80
36	5	967	A	OP2-P-O3'	5.64	117.61	105.20
36	5	794	U	O5'-P-OP2	-5.64	100.63	105.70
36	5	2379	U	C5-C6-N1	-5.64	119.88	122.70
36	1	776	U	N3-C4-C5	-5.64	111.22	114.60
36	1	1929	G	N9-C4-C5	-5.64	103.15	105.40
36	5	368	G	C8-N9-C4	-5.64	104.14	106.40
36	5	1208	U	N1-C2-O2	5.64	126.75	122.80
36	5	1919	G	C8-N9-C4	-5.64	104.14	106.40
36	5	2142	A	C6-N1-C2	-5.64	115.22	118.60
1	2	323	A	C8-N9-C4	-5.63	103.55	105.80
36	1	936	A	P-O3'-C3'	5.63	126.46	119.70
36	1	2296	A	C2-N3-C4	-5.63	107.78	110.60
36	5	646	A	N1-C2-N3	5.63	132.12	129.30
36	5	2242	A	C6-N1-C2	-5.63	115.22	118.60
36	5	3080	G	C5-C6-O6	-5.63	125.22	128.60
1	6	452	A	N1-C6-N6	5.63	121.98	118.60
36	5	1546	A	C5-C6-N6	-5.63	119.19	123.70
38	8	29	U	N3-C2-O2	-5.63	118.26	122.20
1	2	1614	A	N1-C6-N6	5.63	121.98	118.60
36	1	1450	G	O5'-P-OP1	-5.63	100.63	105.70
36	1	1486	G	N1-C6-O6	5.63	123.28	119.90
36	1	2527	G	N3-C4-N9	-5.63	122.62	126.00
38	4	61	A	N1-C2-N3	-5.63	126.48	129.30
12	c0	83	PRO	N-CA-CB	5.63	110.06	103.30
36	5	1152	G	N7-C8-N9	5.63	115.92	113.10
36	5	1177	G	C6-N1-C2	-5.63	121.72	125.10
36	1	96	G	N3-C4-C5	5.63	131.41	128.60
36	1	1663	C	C6-N1-C2	5.63	122.55	120.30
1	6	151	G	N3-C2-N2	-5.63	115.96	119.90
36	5	218	G	N3-C4-C5	-5.63	125.78	128.60
36	5	3336	A	C8-N9-C4	5.63	108.05	105.80
61	n5	115	ARG	NE-CZ-NH1	5.63	123.11	120.30
1	2	192	U	C2-N1-C1'	5.63	124.45	117.70
36	1	1004	U	C5-C6-N1	5.63	125.51	122.70
36	1	1557	A	O5'-P-OP2	-5.63	100.64	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3154	C	C2-N1-C1'	5.63	124.99	118.80
1	6	577	G	C5-N7-C8	-5.63	101.49	104.30
36	5	1499	C	N1-C2-O2	-5.63	115.52	118.90
36	5	2894	C	O5'-P-OP1	-5.63	100.64	105.70
1	2	647	G	N9-C4-C5	5.63	107.65	105.40
36	1	1656	A	C8-N9-C4	5.63	108.05	105.80
36	5	1185	C	N1-C2-O2	-5.63	115.52	118.90
36	5	2231	C	C6-N1-C1'	-5.63	114.05	120.80
36	5	2684	C	O5'-P-OP2	-5.63	100.64	105.70
36	1	198	A	N1-C6-N6	5.62	121.97	118.60
36	1	1507	G	N9-C4-C5	-5.62	103.15	105.40
36	1	2192	C	N1-C2-O2	-5.62	115.53	118.90
1	6	936	G	C4-C5-N7	5.62	113.05	110.80
1	6	1758	U	N1-C2-O2	5.62	126.74	122.80
36	5	369	A	C8-N9-C4	-5.62	103.55	105.80
36	5	651	G	N3-C4-N9	5.62	129.37	126.00
36	1	435	C	N1-C2-O2	-5.62	115.53	118.90
36	1	663	C	N1-C2-O2	-5.62	115.53	118.90
36	1	1155	C	C5-C6-N1	5.62	123.81	121.00
36	1	1303	A	N1-C6-N6	5.62	121.97	118.60
36	1	2918	G	OP2-P-O3'	5.62	117.56	105.20
1	6	639	U	C5-C4-O4	5.62	129.27	125.90
36	1	2400	G	C4-C5-N7	5.62	113.05	110.80
1	6	942	G	O5'-P-OP2	-5.62	100.64	105.70
36	5	1189	C	N3-C2-O2	5.62	125.83	121.90
36	5	1846	C	C5-C6-N1	-5.62	118.19	121.00
36	1	32	U	O5'-P-OP2	-5.62	100.64	105.70
36	1	59	G	C4-C5-N7	5.62	113.05	110.80
36	1	1663	C	N3-C4-C5	5.62	124.15	121.90
36	1	2257	C	C2-N1-C1'	5.62	124.98	118.80
36	1	2395	G	OP2-P-O3'	5.62	117.56	105.20
36	1	2918	G	C4-C5-C6	5.62	122.17	118.80
36	5	1545	A	C5-C6-N6	-5.62	119.21	123.70
36	5	2244	A	O5'-P-OP1	5.62	117.44	110.70
36	5	2821	C	C6-N1-C2	5.62	122.55	120.30
36	5	3098	G	C2-N3-C4	5.62	114.71	111.90
38	4	59	A	C5-C6-N1	5.62	120.51	117.70
36	5	1561	G	O4'-C1'-N9	5.62	112.69	108.20
1	2	1745	G	N9-C4-C5	-5.62	103.15	105.40
36	1	108	A	OP2-P-O3'	5.62	117.56	105.20
36	1	1513	G	N3-C4-N9	5.62	129.37	126.00
36	1	2688	U	C6-N1-C2	5.62	124.37	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3184	A	N7-C8-N9	-5.62	110.99	113.80
36	5	2906	C	C5-C6-N1	-5.62	118.19	121.00
36	5	3093	C	N1-C2-O2	-5.62	115.53	118.90
1	2	380	U	N3-C2-O2	-5.61	118.27	122.20
36	1	958	C	C2-N3-C4	-5.61	117.09	119.90
1	6	66	U	OP1-P-O3'	5.61	117.55	105.20
36	5	1331	U	O4'-C1'-N1	-5.61	103.71	108.20
37	7	76	A	C8-N9-C4	5.61	108.05	105.80
36	5	2704	A	OP1-P-OP2	5.61	128.02	119.60
1	2	1486	G	N1-C6-O6	5.61	123.27	119.90
1	2	1782	A	N7-C8-N9	5.61	116.61	113.80
1	6	1210	C	C6-N1-C2	-5.61	118.06	120.30
36	5	650	C	OP2-P-O3'	5.61	117.54	105.20
36	5	1412	G	O5'-P-OP2	-5.61	100.65	105.70
36	1	2153	U	N3-C2-O2	-5.61	118.27	122.20
36	5	2242	A	OP1-P-O3'	5.61	117.54	105.20
36	1	2836	C	N3-C4-N4	-5.61	114.08	118.00
1	6	102	U	O5'-P-OP1	-5.61	100.65	105.70
1	6	863	A	C5-C6-N6	-5.61	119.21	123.70
36	5	394	G	C5-N7-C8	5.61	107.10	104.30
36	5	968	G	N1-C6-O6	5.61	123.27	119.90
36	5	1873	U	N3-C4-O4	5.61	123.33	119.40
36	5	2199	G	C8-N9-C1'	-5.61	119.71	127.00
36	5	2350	C	OP1-P-OP2	-5.61	111.19	119.60
1	2	1486	G	C4-C5-N7	5.61	113.04	110.80
36	1	1421	G	C8-N9-C4	5.61	108.64	106.40
37	3	42	A	C5-C6-N1	-5.61	114.90	117.70
36	5	3272	C	O5'-P-OP1	-5.61	100.66	105.70
1	2	422	G	C4-C5-N7	5.60	113.04	110.80
36	1	653	A	C5-N7-C8	-5.60	101.10	103.90
36	1	2364	G	O4'-C1'-N9	5.60	112.68	108.20
1	2	934	C	C2-N1-C1'	5.60	124.96	118.80
36	1	665	A	N1-C6-N6	-5.60	115.24	118.60
1	6	1288	G	O5'-P-OP1	5.60	117.42	110.70
37	7	105	C	N3-C4-C5	-5.60	119.66	121.90
1	2	158	U	N1-C2-O2	5.60	126.72	122.80
1	2	402	C	C6-N1-C2	5.60	122.54	120.30
1	2	1654	G	N3-C4-C5	-5.60	125.80	128.60
36	1	882	A	N1-C2-N3	5.60	132.10	129.30
36	1	3072	C	C2-N1-C1'	-5.60	112.64	118.80
1	2	830	U	N1-C2-O2	5.60	126.72	122.80
36	1	232	G	N3-C4-N9	5.60	129.36	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	649	A	C6-N1-C2	-5.60	115.24	118.60
36	5	2870	C	N3-C4-C5	5.60	124.14	121.90
36	5	1380	G	O5'-P-OP1	5.60	117.42	110.70
36	1	1292	C	C6-N1-C2	5.59	122.54	120.30
36	1	2231	C	C6-N1-C2	5.59	122.54	120.30
1	6	1537	C	C6-N1-C1'	5.59	127.51	120.80
36	5	1001	G	N1-C6-O6	-5.59	116.54	119.90
36	5	3093	C	C5-C6-N1	-5.59	118.20	121.00
36	1	652	G	N3-C4-N9	5.59	129.36	126.00
36	1	963	G	O5'-P-OP2	-5.59	100.67	105.70
36	1	2375	G	C5-C6-N1	5.59	114.30	111.50
36	5	1882	G	N9-C4-C5	-5.59	103.16	105.40
36	1	1112	A	C8-N9-C4	5.59	108.04	105.80
36	1	1560	G	N3-C4-C5	5.59	131.40	128.60
36	1	3214	U	N1-C2-O2	5.59	126.71	122.80
36	5	927	C	C2-N3-C4	-5.59	117.10	119.90
36	1	2333	C	OP2-P-O3'	5.59	117.50	105.20
36	1	2861	U	N1-C2-O2	5.59	126.71	122.80
36	1	2865	U	N3-C4-O4	-5.59	115.49	119.40
36	5	112	U	O4'-C1'-N1	5.59	112.67	108.20
36	5	966	U	C6-N1-C2	-5.59	117.65	121.00
37	7	96	U	C5-C4-O4	5.59	129.25	125.90
36	1	915	A	OP1-P-OP2	5.59	127.98	119.60
36	5	1348	U	C4-C5-C6	5.59	123.05	119.70
36	1	546	C	C6-N1-C2	-5.59	118.06	120.30
1	6	272	U	C2-N1-C1'	5.59	124.40	117.70
36	5	2800	G	O5'-P-OP1	5.59	117.40	110.70
36	1	24	G	N1-C2-N2	-5.58	111.17	116.20
36	1	93	C	C5-C6-N1	5.58	123.79	121.00
38	4	55	U	C5-C4-O4	-5.58	122.55	125.90
36	5	152	U	C4-C5-C6	5.58	123.05	119.70
36	5	796	U	N3-C2-O2	-5.58	118.29	122.20
37	7	81	U	C6-N1-C2	5.58	124.35	121.00
38	8	33	A	N9-C4-C5	-5.58	103.57	105.80
36	1	514	G	C8-N9-C4	5.58	108.63	106.40
36	1	910	G	C5-C6-N1	-5.58	108.71	111.50
36	1	936	A	C5-C6-N1	-5.58	114.91	117.70
36	1	2619	G	C2-N3-C4	5.58	114.69	111.90
36	5	2314	U	C6-N1-C2	-5.58	117.65	121.00
36	5	2868	U	N3-C2-O2	-5.58	118.29	122.20
1	2	428	A	O5'-P-OP2	-5.58	100.68	105.70
36	1	2633	U	C4-C5-C6	5.58	123.05	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	936	A	C6-N1-C2	5.58	121.95	118.60
36	1	2250	G	N7-C8-N9	-5.58	110.31	113.10
36	1	2777	G	C4-C5-N7	-5.58	108.57	110.80
36	1	3084	C	N1-C2-O2	-5.58	115.55	118.90
36	5	1303	A	C8-N9-C4	5.58	108.03	105.80
36	5	1431	G	N1-C6-O6	-5.58	116.55	119.90
36	5	2191	U	N1-C2-O2	5.58	126.70	122.80
36	5	2830	G	N1-C2-N3	5.58	127.25	123.90
36	1	753	C	N3-C4-C5	5.58	124.13	121.90
1	6	374	U	O5'-P-OP2	-5.58	100.68	105.70
36	5	2692	A	N1-C6-N6	-5.58	115.25	118.60
1	2	543	C	N3-C2-O2	-5.58	118.00	121.90
1	2	553	G	C4-C5-N7	5.58	113.03	110.80
36	1	798	G	C8-N9-C4	-5.58	104.17	106.40
36	1	1513	G	C6-N1-C2	-5.58	121.75	125.10
36	1	2392	C	N3-C4-C5	5.58	124.13	121.90
36	1	2610	G	C6-C5-N7	-5.58	127.06	130.40
36	1	3217	C	C6-N1-C1'	-5.58	114.11	120.80
36	1	3229	G	N1-C6-O6	5.58	123.25	119.90
36	5	218	G	N3-C4-N9	5.58	129.35	126.00
36	5	2334	U	N1-C2-N3	5.58	118.25	114.90
1	2	412	A	N1-C6-N6	5.57	121.94	118.60
36	1	365	A	N1-C6-N6	5.57	121.94	118.60
36	1	711	A	C8-N9-C4	5.57	108.03	105.80
36	1	892	U	C5-C4-O4	5.57	129.25	125.90
36	1	1176	C	O5'-P-OP2	5.57	117.39	110.70
38	4	58	G	O5'-P-OP2	-5.57	100.68	105.70
36	5	758	C	C2-N1-C1'	-5.57	112.67	118.80
36	5	1905	G	C5-C6-O6	-5.57	125.26	128.60
36	1	338	A	OP2-P-O3'	5.57	117.45	105.20
36	1	3207	U	C2-N1-C1'	-5.57	111.02	117.70
36	1	3217	C	C6-N1-C2	-5.57	118.07	120.30
1	6	1047	G	N1-C6-O6	5.57	123.24	119.90
36	5	222	A	O5'-P-OP2	-5.57	100.69	105.70
36	5	720	A	C5-C6-N6	-5.57	119.24	123.70
36	5	869	G	C8-N9-C4	5.57	108.63	106.40
36	5	1296	C	C6-N1-C2	-5.57	118.07	120.30
36	5	1534	A	C4-C5-C6	5.57	119.78	117.00
36	5	2136	C	C6-N1-C2	5.57	122.53	120.30
1	2	1560	U	N3-C4-O4	-5.57	115.50	119.40
36	1	432	G	C2-N3-C4	-5.57	109.11	111.90
36	1	2606	G	N3-C4-C5	-5.57	125.81	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1500	G	C8-N9-C4	5.57	108.63	106.40
36	5	2393	G	C2-N3-C4	5.57	114.69	111.90
36	5	2599	U	C5-C6-N1	-5.57	119.92	122.70
36	1	424	G	C5-C6-O6	-5.57	125.26	128.60
36	1	3215	A	N1-C6-N6	5.57	121.94	118.60
36	1	3362	A	C2-N3-C4	-5.57	107.82	110.60
36	5	52	A	C2-N3-C4	-5.57	107.82	110.60
36	5	346	C	C5-C4-N4	-5.57	116.30	120.20
36	5	1115	G	N7-C8-N9	5.57	115.88	113.10
36	1	1185	C	C6-N1-C2	5.57	122.53	120.30
1	6	343	C	N1-C2-O2	-5.57	115.56	118.90
36	5	2380	U	C5-C4-O4	-5.57	122.56	125.90
36	5	2699	G	C8-N9-C4	5.57	108.63	106.40
36	5	2797	C	N3-C4-C5	-5.57	119.67	121.90
36	5	2827	U	O4'-C1'-N1	5.57	112.65	108.20
36	5	2947	G	OP1-P-O3'	5.57	117.45	105.20
36	5	3164	C	O4'-C1'-N1	5.57	112.65	108.20
1	6	432	G	C4-C5-N7	5.56	113.03	110.80
36	5	2857	C	C5-C4-N4	-5.56	116.31	120.20
1	2	1473	U	N3-C2-O2	-5.56	118.31	122.20
36	1	28	C	C5-C4-N4	-5.56	116.31	120.20
36	1	2367	A	C6-N1-C2	-5.56	115.26	118.60
36	1	2395	G	O5'-P-OP1	5.56	117.38	110.70
36	1	2572	C	C6-N1-C2	-5.56	118.08	120.30
36	1	2748	A	N1-C6-N6	5.56	121.94	118.60
36	5	960	U	OP2-P-O3'	5.56	117.44	105.20
36	1	1480	G	C5-N7-C8	-5.56	101.52	104.30
36	5	1226	G	N9-C4-C5	-5.56	103.18	105.40
36	5	2410	U	O5'-P-OP1	-5.56	100.69	105.70
36	1	1097	G	P-O3'-C3'	5.56	126.37	119.70
1	6	1274	C	C6-N1-C2	-5.56	118.08	120.30
36	5	1499	C	OP2-P-O3'	5.56	117.43	105.20
36	5	2661	G	OP1-P-O3'	5.56	117.43	105.20
36	5	3386	G	O5'-P-OP2	-5.56	100.70	105.70
36	1	1807	G	C6-C5-N7	-5.56	127.06	130.40
36	1	1932	A	C5-C6-N6	-5.56	119.25	123.70
36	5	417	A	N1-C6-N6	-5.56	115.27	118.60
36	5	1793	C	O5'-P-OP1	-5.56	100.70	105.70
36	5	1917	C	N1-C2-O2	-5.56	115.57	118.90
36	1	1518	U	N3-C4-C5	-5.55	111.27	114.60
36	5	1496	C	O5'-P-OP1	5.55	117.36	110.70
36	5	2290	C	C2-N3-C4	-5.55	117.12	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2765	C	C6-N1-C2	-5.55	118.08	120.30
36	1	3377	G	N3-C4-N9	5.55	129.33	126.00
1	6	426	G	C8-N9-C4	-5.55	104.18	106.40
3	S1	96	LEU	CA-CB-CG	5.55	128.07	115.30
36	1	99	A	C5'-C4'-O4'	5.55	115.76	109.10
36	1	615	U	C5-C4-O4	5.55	129.23	125.90
36	1	3045	G	N3-C4-N9	5.55	129.33	126.00
36	1	3120	C	O5'-P-OP2	-5.55	100.70	105.70
1	6	1026	A	N7-C8-N9	-5.55	111.03	113.80
36	1	22	G	N3-C4-N9	5.55	129.33	126.00
38	4	17	A	C2-N3-C4	-5.55	107.83	110.60
36	5	1374	G	C8-N9-C4	5.55	108.62	106.40
36	5	2524	A	N9-C1'-C2'	5.55	121.21	114.00
36	5	3176	G	N3-C4-C5	-5.55	125.83	128.60
36	1	224	C	C6-N1-C2	-5.55	118.08	120.30
36	1	277	G	O5'-P-OP1	-5.55	100.71	105.70
36	1	644	G	N7-C8-N9	5.55	115.87	113.10
36	1	888	A	N9-C4-C5	-5.55	103.58	105.80
36	1	1306	G	C6-C5-N7	-5.55	127.07	130.40
1	6	1058	U	P-O3'-C3'	5.55	126.36	119.70
36	5	753	C	C5-C6-N1	-5.55	118.23	121.00
36	5	779	G	O5'-P-OP2	-5.55	100.71	105.70
36	1	2965	U	C5-C6-N1	-5.54	119.93	122.70
1	6	1297	G	O5'-P-OP2	-5.54	100.71	105.70
1	2	1200	G	N3-C2-N2	-5.54	116.02	119.90
36	1	2177	G	C6-N1-C2	-5.54	121.77	125.10
36	1	2357	A	C4-C5-N7	5.54	113.47	110.70
38	4	59	A	C5-C6-N6	-5.54	119.27	123.70
1	6	1697	G	N3-C4-C5	-5.54	125.83	128.60
36	5	197	G	N3-C4-N9	5.54	129.33	126.00
36	1	304	G	C2-N3-C4	5.54	114.67	111.90
36	1	896	A	N9-C4-C5	5.54	108.02	105.80
36	5	689	U	N3-C2-O2	-5.54	118.32	122.20
36	5	229	G	N3-C4-N9	-5.54	122.68	126.00
36	1	334	A	C8-N9-C4	-5.54	103.58	105.80
36	1	803	C	O5'-P-OP1	5.54	117.35	110.70
36	5	1348	U	O4'-C1'-N1	5.54	112.63	108.20
36	5	2879	C	C5-C4-N4	-5.54	116.32	120.20
1	6	317	C	N1-C2-N3	5.54	123.08	119.20
1	6	1031	U	C5-C6-N1	-5.54	119.93	122.70
36	5	520	U	N1-C2-O2	-5.54	118.92	122.80
36	5	1153	A	C6-C5-N7	-5.54	128.43	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1161	G	C5-C6-N1	5.54	114.27	111.50
36	5	2383	C	N1-C2-O2	-5.54	115.58	118.90
36	5	2735	U	C6-N1-C2	-5.54	117.68	121.00
37	7	82	G	OP2-P-O3'	5.54	117.38	105.20
36	1	1854	C	N3-C4-N4	-5.53	114.13	118.00
36	5	348	A	C2-N3-C4	-5.53	107.83	110.60
36	5	1148	G	N1-C6-O6	5.53	123.22	119.90
36	5	2186	U	N3-C4-O4	-5.53	115.53	119.40
36	5	2700	G	N3-C4-N9	5.53	129.32	126.00
36	1	1316	C	N3-C4-N4	5.53	121.87	118.00
36	1	1324	U	O5'-P-OP1	5.53	117.33	110.70
36	1	2623	G	N1-C2-N2	-5.53	111.22	116.20
36	1	2802	A	O4'-C1'-N9	5.53	112.62	108.20
1	6	309	C	O5'-P-OP1	-5.53	100.72	105.70
36	5	515	C	O5'-P-OP2	-5.53	100.72	105.70
64	n8	73	LEU	CA-CB-CG	5.53	128.02	115.30
36	1	1124	U	C4-C5-C6	-5.53	116.38	119.70
36	1	2148	U	N1-C2-O2	-5.53	118.93	122.80
36	5	659	G	C2-N3-C4	5.53	114.66	111.90
36	1	2150	G	C4-C5-C6	5.53	122.12	118.80
36	1	2326	A	C5-N7-C8	-5.53	101.14	103.90
36	1	3140	G	N1-C6-O6	5.53	123.22	119.90
36	1	3261	C	N3-C4-N4	5.53	121.87	118.00
36	5	639	G	C8-N9-C4	5.53	108.61	106.40
36	5	673	U	C5-C6-N1	-5.53	119.94	122.70
36	5	1884	A	OP2-P-O3'	5.53	117.36	105.20
36	5	2397	A	C8-N9-C4	5.53	108.01	105.80
1	2	95	G	C5-C6-O6	5.53	131.92	128.60
36	1	350	C	N3-C2-O2	-5.53	118.03	121.90
36	1	425	G	O5'-P-OP1	5.53	117.33	110.70
36	1	1481	A	C5-N7-C8	-5.53	101.14	103.90
36	1	2355	G	C2-N3-C4	-5.53	109.14	111.90
36	1	2396	G	C5-C6-N1	-5.53	108.74	111.50
36	1	3154	C	C6-N1-C2	-5.53	118.09	120.30
36	5	41	G	N1-C6-O6	5.53	123.22	119.90
36	5	2121	G	O5'-P-OP2	-5.53	100.73	105.70
36	5	2315	G	N1-C6-O6	5.53	123.22	119.90
1	2	925	G	C5-C6-O6	-5.52	125.28	128.60
36	5	1846	C	C6-N1-C2	5.52	122.51	120.30
1	2	1268	G	O5'-P-OP2	-5.52	100.73	105.70
36	1	1305	U	N1-C2-O2	5.52	126.67	122.80
36	1	2679	A	C2-N3-C4	-5.52	107.84	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	440	U	N1-C2-O2	-5.52	118.93	122.80
36	5	330	G	C8-N9-C4	5.52	108.61	106.40
36	5	2887	A	C6-C5-N7	-5.52	128.43	132.30
1	2	315	A	N1-C6-N6	5.52	121.91	118.60
36	5	609	G	O5'-P-OP2	-5.52	100.73	105.70
36	5	2381	G	C5-C6-O6	-5.52	125.29	128.60
1	2	73	U	OP1-P-O3'	5.52	117.34	105.20
36	1	211	A	C2-N3-C4	-5.52	107.84	110.60
36	1	869	G	C6-C5-N7	-5.52	127.09	130.40
36	1	1677	G	C8-N9-C4	-5.52	104.19	106.40
36	5	877	C	N3-C4-N4	-5.52	114.14	118.00
36	5	1488	G	OP1-P-O3'	5.52	117.34	105.20
1	2	254	A	C8-N9-C4	5.52	108.01	105.80
1	2	308	C	C2-N3-C4	-5.52	117.14	119.90
36	1	906	A	C6-N1-C2	-5.52	115.29	118.60
36	1	1432	C	N3-C4-C5	-5.52	119.69	121.90
36	1	2145	A	C6-C5-N7	-5.52	128.44	132.30
36	1	2940	A	C2-N3-C4	5.52	113.36	110.60
36	5	2724	U	N1-C2-N3	5.52	118.21	114.90
52	m6	151	ASP	CB-CG-OD2	5.52	123.27	118.30
36	1	720	A	N1-C6-N6	5.52	121.91	118.60
36	5	686	G	C8-N9-C4	5.52	108.61	106.40
36	5	2311	G	C8-N9-C4	5.52	108.61	106.40
36	1	1047	A	C2-N3-C4	-5.51	107.84	110.60
36	1	1059	G	N1-C6-O6	-5.51	116.59	119.90
36	1	2808	A	C4-N9-C1'	5.51	136.23	126.30
36	5	1302	A	N9-C4-C5	5.51	108.01	105.80
36	5	1848	G	C5-C6-O6	-5.51	125.29	128.60
36	1	1741	A	N1-C2-N3	5.51	132.06	129.30
36	5	21	G	C8-N9-C4	5.51	108.61	106.40
36	1	33	G	C4-C5-C6	5.51	122.11	118.80
36	1	226	C	N3-C4-C5	-5.51	119.69	121.90
36	1	900	G	N7-C8-N9	-5.51	110.34	113.10
1	6	298	C	N1-C2-O2	-5.51	115.59	118.90
36	5	687	U	O5'-P-OP2	-5.51	100.74	105.70
36	5	2572	C	C6-N1-C1'	-5.51	114.19	120.80
36	5	2697	A	C5-C6-N6	-5.51	119.29	123.70
36	5	2821	C	C2-N1-C1'	-5.51	112.74	118.80
36	5	3287	U	N3-C2-O2	-5.51	118.34	122.20
36	5	3309	G	C4-N9-C1'	5.51	133.67	126.50
36	1	776	U	C5-C4-O4	5.51	129.21	125.90
1	6	1150	G	N3-C4-C5	5.51	131.35	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1434	G	N9-C4-C5	5.51	107.60	105.40
36	5	3196	U	O5'-P-OP1	-5.51	100.74	105.70
36	1	3208	G	N3-C4-C5	-5.51	125.85	128.60
38	4	17	A	C4-C5-C6	5.51	119.75	117.00
36	5	2765	C	C5-C6-N1	5.51	123.75	121.00
1	2	354	C	N3-C4-C5	-5.51	119.70	121.90
36	1	803	C	N1-C2-O2	-5.51	115.60	118.90
36	1	1447	G	C2-N3-C4	5.51	114.65	111.90
36	1	2714	G	C8-N9-C1'	5.51	134.16	127.00
38	4	44	A	N9-C4-C5	-5.51	103.60	105.80
36	5	216	G	N9-C4-C5	-5.51	103.20	105.40
36	1	1790	G	C6-C5-N7	-5.50	127.10	130.40
36	1	3265	C	C6-N1-C2	5.50	122.50	120.30
36	5	904	A	C5-C6-N1	5.50	120.45	117.70
36	5	1045	C	C6-N1-C2	-5.50	118.10	120.30
36	1	1180	A	O4'-C1'-N9	-5.50	103.80	108.20
36	1	1849	C	N3-C4-C5	5.50	124.10	121.90
40	L3	4	ARG	NE-CZ-NH2	-5.50	117.55	120.30
36	5	610	G	N3-C4-C5	-5.50	125.85	128.60
36	5	2297	U	O5'-P-OP2	-5.50	100.75	105.70
36	5	2401	A	OP1-P-OP2	5.50	127.86	119.60
36	5	2930	A	C6-N1-C2	-5.50	115.30	118.60
1	2	988	A	C2-N3-C4	-5.50	107.85	110.60
36	1	591	G	C6-C5-N7	-5.50	127.10	130.40
36	1	3344	A	C4-C5-N7	5.50	113.45	110.70
36	5	1390	A	C2-N3-C4	5.50	113.35	110.60
36	5	3378	C	N3-C4-C5	5.50	124.10	121.90
1	2	1458	G	C4-N9-C1'	5.50	133.65	126.50
1	2	968	U	C5-C6-N1	-5.50	119.95	122.70
1	2	1202	A	C8-N9-C4	-5.50	103.60	105.80
36	1	352	A	O4'-C1'-N9	5.50	112.60	108.20
36	1	880	G	C6-C5-N7	5.50	133.70	130.40
36	1	3194	C	N3-C4-C5	-5.50	119.70	121.90
1	6	638	U	N3-C2-O2	-5.50	118.35	122.20
36	1	1326	A	O5'-P-OP2	-5.50	100.75	105.70
36	1	1849	C	N3-C2-O2	5.50	125.75	121.90
36	1	1934	G	N1-C6-O6	5.50	123.20	119.90
36	1	2162	U	N3-C4-C5	5.50	117.90	114.60
1	6	60	U	N1-C2-O2	5.50	126.65	122.80
36	5	2630	C	N3-C2-O2	5.50	125.75	121.90
1	2	857	U	C2-N1-C1'	5.50	124.29	117.70
1	2	1657	U	C5-C4-O4	5.50	129.20	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1380	G	C8-N9-C4	5.50	108.60	106.40
36	5	1846	C	OP2-P-O3'	5.50	117.29	105.20
36	5	2197	C	C6-N1-C2	5.50	122.50	120.30
36	1	1199	C	N1-C2-O2	5.49	122.20	118.90
36	1	2278	C	C4-C5-C6	-5.49	114.65	117.40
36	1	2329	C	N1-C2-O2	-5.49	115.60	118.90
36	1	2610	G	O5'-P-OP1	5.49	117.29	110.70
1	6	21	U	C5-C4-O4	-5.49	122.60	125.90
36	5	869	G	C6-N1-C2	-5.49	121.80	125.10
36	5	971	G	C8-N9-C4	5.49	108.60	106.40
36	5	2165	G	N3-C4-C5	-5.49	125.85	128.60
36	5	2385	G	N3-C4-N9	-5.49	122.70	126.00
36	5	2813	A	C8-N9-C4	-5.49	103.60	105.80
36	5	2893	C	N1-C2-O2	-5.49	115.60	118.90
36	5	3373	U	N3-C2-O2	-5.49	118.36	122.20
36	1	1365	G	N7-C8-N9	5.49	115.85	113.10
1	6	609	U	O5'-P-OP2	-5.49	100.76	105.70
36	5	689	U	N1-C2-O2	5.49	126.64	122.80
36	5	2245	C	N3-C4-C5	-5.49	119.70	121.90
36	5	2891	U	N3-C4-C5	5.49	117.89	114.60
36	5	2971	A	N1-C2-N3	-5.49	126.55	129.30
36	1	2395	G	C6-C5-N7	-5.49	127.11	130.40
36	1	2419	A	OP1-P-OP2	-5.49	111.36	119.60
1	6	1280	C	N3-C4-C5	-5.49	119.70	121.90
36	5	518	G	N9-C4-C5	5.49	107.60	105.40
36	5	1547	G	C8-N9-C4	5.49	108.60	106.40
36	5	2285	C	C6-N1-C2	-5.49	118.10	120.30
36	5	3190	C	N3-C4-C5	-5.49	119.70	121.90
1	2	829	A	P-O3'-C3'	5.49	126.29	119.70
36	1	864	G	C4-C5-N7	-5.49	108.61	110.80
36	1	917	A	O5'-P-OP2	-5.49	100.76	105.70
36	1	2688	U	C6-N1-C1'	-5.49	113.52	121.20
36	1	2714	G	C4-C5-N7	5.49	113.00	110.80
36	5	46	U	N3-C2-O2	5.49	126.04	122.20
36	5	1331	U	N3-C4-C5	5.49	117.89	114.60
36	5	2134	G	N1-C2-N2	-5.49	111.26	116.20
36	5	2916	U	C4-C5-C6	5.49	122.99	119.70
36	5	3190	C	C6-N1-C2	-5.49	118.11	120.30
18	C6	53	LEU	CA-CB-CG	-5.49	102.68	115.30
1	6	363	G	C5-C6-O6	-5.49	125.31	128.60
36	5	2811	A	C8-N9-C4	5.49	108.00	105.80
38	8	8	C	C6-N1-C2	-5.49	118.11	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	l2	179	LEU	CA-CB-CG	5.49	127.92	115.30
36	5	43	A	C2-N3-C4	-5.49	107.86	110.60
36	5	672	A	N7-C8-N9	5.49	116.54	113.80
36	5	1922	A	C2-N3-C4	-5.49	107.86	110.60
36	1	888	A	C6-C5-N7	-5.48	128.46	132.30
36	1	981	U	C6-N1-C2	-5.48	117.71	121.00
36	1	2572	C	N3-C2-O2	-5.48	118.06	121.90
36	5	1133	A	C5-C6-N1	5.48	120.44	117.70
36	5	1552	G	N9-C4-C5	-5.48	103.21	105.40
36	1	1121	U	N1-C2-N3	5.48	118.19	114.90
36	1	1846	C	N1-C2-N3	5.48	123.04	119.20
36	1	2878	G	N9-C4-C5	-5.48	103.21	105.40
36	1	3177	G	N1-C6-O6	5.48	123.19	119.90
36	1	3228	C	C2-N1-C1'	5.48	124.83	118.80
1	6	782	U	N3-C2-O2	-5.48	118.36	122.20
36	5	708	G	O5'-P-OP1	-5.48	100.77	105.70
36	5	1846	C	C2-N3-C4	-5.48	117.16	119.90
37	7	68	C	N3-C2-O2	-5.48	118.06	121.90
64	n8	25	HIS	N-CA-C	-5.48	96.20	111.00
36	1	2958	A	C5-C6-N1	5.48	120.44	117.70
36	5	715	A	O4'-C1'-N9	5.48	112.58	108.20
36	5	1115	G	C8-N9-C4	-5.48	104.21	106.40
36	1	88	A	N9-C4-C5	-5.48	103.61	105.80
36	1	159	A	C8-N9-C4	5.48	107.99	105.80
36	1	690	A	N1-C6-N6	-5.48	115.31	118.60
36	5	349	A	C5-C6-N1	5.48	120.44	117.70
36	5	3083	G	N1-C2-N2	-5.48	111.27	116.20
1	2	579	A	N1-C2-N3	5.48	132.04	129.30
36	1	36	C	C5-C4-N4	-5.48	116.37	120.20
36	1	304	G	N3-C2-N2	-5.48	116.07	119.90
36	5	2377	G	C8-N9-C4	5.48	108.59	106.40
36	1	1203	A	C5-N7-C8	-5.47	101.16	103.90
36	5	1854	C	C6-N1-C2	-5.47	118.11	120.30
43	l6	173	MET	CB-CG-SD	-5.47	95.98	112.40
36	1	880	G	C4-N9-C1'	-5.47	119.39	126.50
36	1	1619	A	N9-C4-C5	-5.47	103.61	105.80
36	1	2966	G	C4-C5-N7	5.47	112.99	110.80
37	3	92	A	C2-N3-C4	-5.47	107.86	110.60
1	6	454	U	C6-N1-C2	5.47	124.28	121.00
1	6	634	G	O4'-C1'-N9	5.47	112.58	108.20
36	5	915	A	OP1-P-OP2	5.47	127.81	119.60
1	2	1241	G	C4-N9-C1'	5.47	133.61	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	395	A	C6-N1-C2	-5.47	115.32	118.60
36	5	514	G	N1-C6-O6	5.47	123.18	119.90
36	1	220	G	C5-C6-O6	-5.47	125.32	128.60
36	1	2309	A	C5-C6-N6	-5.47	119.32	123.70
36	1	2400	G	N3-C4-N9	5.47	129.28	126.00
36	1	2426	U	N3-C2-O2	-5.47	118.37	122.20
36	1	2813	A	C4-C5-C6	5.47	119.73	117.00
36	5	969	C	C2-N3-C4	-5.47	117.17	119.90
36	5	1881	A	N1-C6-N6	5.47	121.88	118.60
36	5	364	G	OP2-P-O3'	5.47	117.23	105.20
36	5	2805	G	N1-C6-O6	5.47	123.18	119.90
36	1	888	A	C5-N7-C8	-5.47	101.17	103.90
36	1	1837	U	N3-C2-O2	5.47	126.03	122.20
38	4	47	C	C4-C5-C6	5.47	120.13	117.40
37	7	100	C	C5-C6-N1	-5.47	118.27	121.00
36	1	2698	G	N3-C4-C5	-5.46	125.87	128.60
1	6	215	A	C8-N9-C4	-5.46	103.61	105.80
1	6	541	A	C8-N9-C4	-5.46	103.61	105.80
36	5	951	A	N1-C2-N3	-5.46	126.57	129.30
36	5	1286	A	N7-C8-N9	-5.46	111.07	113.80
36	5	2273	G	C8-N9-C1'	5.46	134.10	127.00
1	2	448	C	N3-C2-O2	-5.46	118.08	121.90
36	1	970	A	C6-N1-C2	-5.46	115.32	118.60
36	1	1005	G	C5-C6-O6	5.46	131.88	128.60
36	1	2179	C	OP2-P-O3'	5.46	117.22	105.20
1	6	782	U	C2-N1-C1'	5.46	124.25	117.70
36	5	1150	A	O5'-P-OP2	-5.46	100.78	105.70
36	1	99	A	C8-N9-C4	-5.46	103.61	105.80
36	1	2915	U	C5-C4-O4	-5.46	122.62	125.90
36	5	374	A	N9-C4-C5	5.46	107.98	105.80
36	5	1490	A	C5-C6-N1	5.46	120.43	117.70
36	5	2355	G	OP2-P-O3'	5.46	117.22	105.20
1	2	1096	C	C6-N1-C1'	-5.46	114.25	120.80
36	1	3326	G	N9-C4-C5	-5.46	103.22	105.40
36	5	2685	C	C5-C6-N1	-5.46	118.27	121.00
36	1	710	A	C5-C6-N6	-5.46	119.33	123.70
36	1	2522	G	C4-N9-C1'	5.46	133.60	126.50
36	1	2866	U	N3-C2-O2	-5.46	118.38	122.20
1	6	634	G	O5'-P-OP2	-5.46	100.79	105.70
36	5	2738	A	O5'-P-OP2	-5.46	100.79	105.70
36	5	2899	C	N3-C4-C5	-5.46	119.72	121.90
36	5	2991	A	OP2-P-O3'	5.46	117.21	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1100	G	C4-N9-C1'	5.46	133.59	126.50
36	5	2379	U	O5'-P-OP1	5.46	117.25	110.70
36	1	423	A	C5-C6-N1	-5.46	114.97	117.70
67	O1	62	ARG	NE-CZ-NH1	-5.46	117.57	120.30
1	6	421	A	N9-C4-C5	-5.46	103.62	105.80
1	2	142	G	N3-C4-N9	-5.45	122.73	126.00
36	1	2380	U	C2-N3-C4	-5.45	123.73	127.00
1	6	1266	U	C5-C6-N1	5.45	125.43	122.70
36	5	921	A	OP2-P-O3'	5.45	117.20	105.20
36	5	1103	A	N7-C8-N9	5.45	116.53	113.80
36	5	1129	A	O5'-P-OP1	5.45	117.24	110.70
36	1	787	G	N3-C4-C5	-5.45	125.87	128.60
36	1	984	G	C8-N9-C4	-5.45	104.22	106.40
36	1	2402	A	N1-C6-N6	5.45	121.87	118.60
1	6	1399	C	C6-N1-C2	-5.45	118.12	120.30
36	5	2400	G	C5-N7-C8	-5.45	101.57	104.30
36	1	1158	A	C5-C6-N6	-5.45	119.34	123.70
36	1	2372	A	OP1-P-O3'	5.45	117.19	105.20
36	1	2838	A	N1-C2-N3	5.45	132.03	129.30
1	6	1025	A	C2-N3-C4	-5.45	107.88	110.60
1	6	1581	C	C6-N1-C2	5.45	122.48	120.30
36	5	348	A	O5'-P-OP1	-5.45	100.80	105.70
36	5	1294	A	C5-C6-N1	5.45	120.43	117.70
36	5	2584	G	OP2-P-O3'	5.45	117.19	105.20
36	5	2872	A	C2-N3-C4	-5.45	107.88	110.60
36	5	2898	G	O4'-C1'-N9	-5.45	103.84	108.20
1	2	359	A	C4-N9-C1'	-5.45	116.49	126.30
36	1	318	A	O5'-P-OP1	-5.45	100.80	105.70
36	1	2944	U	C4-C5-C6	-5.45	116.43	119.70
36	1	2953	U	N1-C2-O2	-5.45	118.99	122.80
36	5	1452	A	C4-C5-N7	5.45	113.42	110.70
36	5	3204	C	C6-N1-C2	5.45	122.48	120.30
36	1	2145	A	N1-C6-N6	5.45	121.87	118.60
36	1	2622	C	N1-C2-O2	-5.45	115.63	118.90
36	1	798	G	C5-C6-N1	-5.45	108.78	111.50
36	1	3099	C	O4'-C1'-N1	5.45	112.56	108.20
36	5	1099	A	N1-C6-N6	5.45	121.87	118.60
36	1	394	G	C5-C6-O6	5.44	131.87	128.60
1	2	1082	C	C2-N1-C1'	5.44	124.79	118.80
36	1	1166	G	C4-C5-N7	5.44	112.98	110.80
36	1	2973	G	C5-C6-N1	-5.44	108.78	111.50
36	5	617	G	N9-C4-C5	-5.44	103.22	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2843	U	N3-C2-O2	-5.44	118.39	122.20
36	5	2951	G	N9-C4-C5	-5.44	103.22	105.40
36	5	3043	C	N3-C4-N4	-5.44	114.19	118.00
1	2	48	G	OP2-P-O3'	5.44	117.17	105.20
1	2	1100	G	C5-C6-O6	-5.44	125.34	128.60
36	5	2837	A	O5'-P-OP1	-5.44	100.80	105.70
36	5	915	A	OP1-P-O3'	5.44	117.17	105.20
36	5	2356	A	C6-N1-C2	5.44	121.86	118.60
1	2	1535	U	N1-C2-O2	5.44	126.61	122.80
36	1	1158	A	N1-C6-N6	5.44	121.86	118.60
36	1	3229	G	C5-C6-O6	-5.44	125.34	128.60
36	5	504	A	C8-N9-C4	5.44	107.97	105.80
36	5	3096	C	N1-C2-O2	-5.44	115.64	118.90
38	8	85	G	C8-N9-C4	-5.44	104.22	106.40
36	1	3180	A	C2-N3-C4	-5.44	107.88	110.60
36	5	1079	A	C5-C6-N1	5.44	120.42	117.70
1	2	316	A	N7-C8-N9	-5.43	111.08	113.80
36	1	580	C	N1-C2-O2	-5.43	115.64	118.90
36	1	1445	U	N3-C2-O2	5.43	126.00	122.20
36	1	3368	U	N1-C2-O2	-5.43	119.00	122.80
36	5	2165	G	C8-N9-C1'	-5.43	119.93	127.00
36	5	3368	U	C6-N1-C1'	5.43	128.81	121.20
36	1	1153	A	C4-C5-C6	5.43	119.72	117.00
36	1	2817	A	OP2-P-O3'	5.43	117.15	105.20
36	1	3319	U	P-O3'-C3'	5.43	126.22	119.70
1	6	1001	A	C6-C5-N7	-5.43	128.50	132.30
36	5	2204	C	OP1-P-O3'	5.43	117.15	105.20
36	5	2899	C	C2-N1-C1'	5.43	124.78	118.80
36	5	3277	U	N1-C2-O2	5.43	126.60	122.80
36	5	3288	G	C5-C6-N1	5.43	114.22	111.50
36	5	361	A	C2-N3-C4	5.43	113.31	110.60
36	5	679	U	C5-C4-O4	5.43	129.16	125.90
38	4	119	C	O5'-P-OP2	-5.43	100.81	105.70
1	6	65	A	N3-C4-C5	5.43	130.60	126.80
1	6	1539	G	N3-C4-C5	5.43	131.31	128.60
1	2	142	G	N3-C4-C5	5.43	131.31	128.60
1	2	1733	C	N3-C4-N4	5.43	121.80	118.00
36	1	356	C	O5'-P-OP2	-5.43	100.82	105.70
36	1	690	A	C5-C6-N6	5.43	128.04	123.70
36	1	1422	G	C8-N9-C4	5.43	108.57	106.40
36	1	1521	G	C2-N3-C4	-5.43	109.19	111.90
36	1	1897	G	C5-N7-C8	-5.43	101.59	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	387	A	O5'-P-OP2	-5.43	100.82	105.70
36	5	56	G	O5'-P-OP1	5.43	117.21	110.70
36	5	1180	A	N9-C4-C5	5.43	107.97	105.80
36	5	2326	A	OP2-P-O3'	5.43	117.14	105.20
36	5	2412	G	C5-C6-N1	5.43	114.21	111.50
36	5	2756	C	C6-N1-C2	5.43	122.47	120.30
37	7	26	C	N3-C4-C5	-5.43	119.73	121.90
36	1	2818	U	O4'-C1'-N1	-5.42	103.86	108.20
1	6	51	A	N1-C6-N6	-5.42	115.34	118.60
36	5	3	U	N1-C2-O2	5.42	126.60	122.80
36	5	621	A	C5-C6-N1	5.42	120.41	117.70
1	2	581	U	C5-C6-N1	5.42	125.41	122.70
36	1	383	G	C5-C6-O6	-5.42	125.35	128.60
36	1	577	C	C4-C5-C6	5.42	120.11	117.40
36	1	645	A	N1-C2-N3	5.42	132.01	129.30
36	1	1307	G	N9-C4-C5	5.42	107.57	105.40
1	6	455	C	C5-C4-N4	-5.42	116.40	120.20
1	6	901	G	N1-C6-O6	5.42	123.15	119.90
36	1	45	A	N1-C6-N6	-5.42	115.35	118.60
36	1	1389	G	C5-N7-C8	-5.42	101.59	104.30
1	6	25	C	P-O3'-C3'	5.42	126.21	119.70
1	6	747	C	C6-N1-C2	-5.42	118.13	120.30
36	5	1868	G	N9-C4-C5	-5.42	103.23	105.40
36	5	2556	C	N3-C2-O2	-5.42	118.11	121.90
38	4	40	A	C5-C6-N6	-5.42	119.36	123.70
36	5	1012	G	N3-C4-C5	5.42	131.31	128.60
36	5	1303	A	N1-C6-N6	5.42	121.85	118.60
36	5	1339	C	N3-C4-N4	5.42	121.79	118.00
1	2	1131	A	C8-N9-C4	5.42	107.97	105.80
1	2	1311	U	C5-C6-N1	-5.42	119.99	122.70
1	6	359	A	N3-C4-C5	5.42	130.59	126.80
36	5	2295	A	C5-C6-N1	5.42	120.41	117.70
36	1	58	G	C5-C6-O6	-5.42	125.35	128.60
36	1	1741	A	N1-C6-N6	5.42	121.85	118.60
36	1	1745	C	O5'-P-OP2	-5.42	100.83	105.70
36	5	2763	U	C2-N3-C4	-5.42	123.75	127.00
36	5	3032	A	OP1-P-O3'	5.42	117.11	105.20
36	1	1520	G	C6-C5-N7	5.42	133.65	130.40
36	1	1874	A	O5'-P-OP1	-5.42	100.83	105.70
36	5	1435	A	O5'-P-OP2	5.42	117.20	110.70
36	1	1156	C	C5-C6-N1	-5.41	118.29	121.00
36	1	1429	G	N3-C4-C5	-5.41	125.89	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3177	G	C5-C6-O6	-5.41	125.35	128.60
36	5	1533	U	N3-C2-O2	-5.41	118.41	122.20
36	5	1856	C	C5-C6-N1	5.41	123.71	121.00
36	5	2236	G	O5'-P-OP1	-5.41	100.83	105.70
36	1	430	U	N1-C2-N3	5.41	118.15	114.90
36	1	1723	A	N1-C2-N3	-5.41	126.59	129.30
36	1	1891	A	C2-N3-C4	-5.41	107.89	110.60
1	6	308	C	C5-C4-N4	5.41	123.99	120.20
36	5	3084	C	C5-C6-N1	-5.41	118.30	121.00
1	2	16	G	N3-C4-C5	-5.41	125.89	128.60
36	1	1444	G	C5-C6-O6	-5.41	125.36	128.60
36	1	1589	A	O4'-C1'-N9	-5.41	103.87	108.20
38	4	97	A	C8-N9-C4	-5.41	103.64	105.80
36	5	758	C	C5-C6-N1	-5.41	118.30	121.00
1	2	794	U	P-O3'-C3'	5.41	126.19	119.70
36	1	805	G	N7-C8-N9	-5.41	110.40	113.10
36	5	836	A	N1-C2-N3	5.41	132.00	129.30
36	5	2664	C	C5-C4-N4	-5.41	116.42	120.20
36	5	2909	U	N1-C2-O2	-5.41	119.02	122.80
1	2	1568	C	P-O3'-C3'	5.41	126.19	119.70
36	1	69	C	N3-C4-C5	-5.41	119.74	121.90
36	1	3362	A	N1-C2-N3	5.41	132.00	129.30
1	6	541	A	OP1-P-O3'	5.41	117.09	105.20
36	5	2310	U	C6-N1-C2	-5.41	117.76	121.00
36	5	2381	G	OP1-P-O3'	5.41	117.09	105.20
36	5	2531	C	C6-N1-C1'	-5.41	114.31	120.80
36	5	2978	U	O4'-C1'-N1	5.41	112.52	108.20
36	1	1838	G	C4-C5-C6	5.40	122.04	118.80
1	6	194	U	C2-N1-C1'	5.40	124.19	117.70
1	6	340	U	N1-C2-N3	5.40	118.14	114.90
36	5	2618	G	N3-C4-N9	5.40	129.24	126.00
36	5	3044	G	C8-N9-C4	-5.40	104.24	106.40
36	1	346	C	C6-N1-C2	5.40	122.46	120.30
36	1	424	G	C8-N9-C4	5.40	108.56	106.40
36	1	1164	G	O5'-P-OP1	5.40	117.18	110.70
36	1	1320	C	N3-C4-C5	-5.40	119.74	121.90
36	1	1445	U	C2-N3-C4	-5.40	123.76	127.00
1	6	454	U	C5-C6-N1	-5.40	120.00	122.70
36	5	3021	A	C2-N3-C4	5.40	113.30	110.60
36	1	1329	U	N1-C2-O2	5.40	126.58	122.80
36	1	2226	U	O5'-P-OP1	-5.40	100.84	105.70
1	6	369	A	N1-C6-N6	5.40	121.84	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	882	U	O5'-P-OP1	-5.40	100.84	105.70
1	6	1766	A	OP1-P-O3'	5.40	117.08	105.20
36	5	3368	U	C4-C5-C6	5.40	122.94	119.70
25	D3	133	LEU	CA-CB-CG	5.40	127.72	115.30
36	1	588	G	C5-N7-C8	5.40	107.00	104.30
36	5	1528	G	C4-N9-C1'	5.40	133.52	126.50
36	5	1724	U	N1-C2-N3	5.40	118.14	114.90
36	5	2397	A	C6-N1-C2	-5.40	115.36	118.60
36	5	3043	C	N3-C4-C5	5.40	124.06	121.90
37	7	68	C	N1-C2-O2	5.40	122.14	118.90
36	5	85	A	C8-N9-C4	5.40	107.96	105.80
1	2	1503	A	N1-C6-N6	5.39	121.84	118.60
36	1	912	G	N3-C2-N2	-5.39	116.12	119.90
36	1	1300	G	N3-C4-N9	5.39	129.24	126.00
36	1	1375	G	N1-C6-O6	5.39	123.14	119.90
36	1	1425	U	C4-C5-C6	5.39	122.94	119.70
52	M6	84	LEU	CA-CB-CG	5.39	127.70	115.30
36	5	407	A	C8-N9-C1'	-5.39	117.99	127.70
36	5	3309	G	N3-C4-C5	-5.39	125.90	128.60
54	m8	3	ILE	CB-CA-C	-5.39	100.81	111.60
36	1	821	U	N3-C4-O4	-5.39	115.62	119.40
36	1	1166	G	C8-N9-C4	5.39	108.56	106.40
36	1	2527	G	N3-C2-N2	-5.39	116.13	119.90
36	1	2712	U	N1-C2-N3	5.39	118.14	114.90
1	6	1200	G	N1-C6-O6	5.39	123.14	119.90
1	6	1726	G	OP2-P-O3'	5.39	117.06	105.20
36	5	217	U	OP1-P-O3'	5.39	117.06	105.20
36	5	676	G	N7-C8-N9	5.39	115.80	113.10
36	5	1497	C	O5'-P-OP1	-5.39	100.85	105.70
36	5	1514	G	N1-C6-O6	5.39	123.14	119.90
36	5	2377	G	N1-C6-O6	-5.39	116.66	119.90
36	5	2727	A	N1-C6-N6	-5.39	115.36	118.60
1	2	942	G	C8-N9-C4	-5.39	104.24	106.40
36	1	2295	A	N1-C6-N6	5.39	121.83	118.60
36	1	1044	U	N1-C2-N3	-5.39	111.67	114.90
36	1	1407	A	N7-C8-N9	-5.39	111.11	113.80
36	1	1443	G	C5-C6-N1	-5.39	108.81	111.50
36	1	2609	A	C8-N9-C4	5.39	107.96	105.80
38	4	54	A	C6-C5-N7	-5.39	128.53	132.30
1	6	630	A	C8-N9-C4	5.39	107.96	105.80
36	5	2931	C	N1-C2-O2	-5.39	115.67	118.90
39	l2	242	ARG	NE-CZ-NH2	-5.39	117.61	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	45	A	C6-N1-C2	-5.39	115.37	118.60
36	5	767	U	O4'-C1'-N1	5.39	112.51	108.20
36	5	2157	G	O5'-P-OP1	-5.39	100.85	105.70
36	5	2264	U	O5'-P-OP2	-5.39	100.85	105.70
36	5	2889	C	N1-C2-N3	5.39	122.97	119.20
1	2	794	U	OP1-P-O3'	5.39	117.05	105.20
1	2	1600	A	P-O3'-C3'	5.39	126.16	119.70
36	1	711	A	N7-C8-N9	-5.39	111.11	113.80
36	1	861	C	N3-C4-C5	5.39	124.05	121.90
36	1	2796	G	C8-N9-C4	-5.39	104.25	106.40
36	1	2881	C	O4'-C1'-N1	5.39	112.51	108.20
36	5	838	G	C5-C6-O6	5.39	131.83	128.60
36	5	3093	C	C6-N1-C2	5.39	122.45	120.30
1	2	577	G	N3-C4-C5	5.38	131.29	128.60
1	2	1798	U	C2-N1-C1'	5.38	124.16	117.70
36	1	404	G	C5-C6-N1	-5.38	108.81	111.50
36	1	2876	C	N3-C4-C5	-5.38	119.75	121.90
36	1	2883	U	N1-C2-N3	-5.38	111.67	114.90
36	1	3269	U	C5-C4-O4	5.38	129.13	125.90
36	5	2355	G	C5-C6-O6	-5.38	125.37	128.60
37	7	26	C	O5'-P-OP2	-5.38	100.85	105.70
36	1	3081	C	C4-C5-C6	5.38	120.09	117.40
36	1	82	C	N3-C4-C5	-5.38	119.75	121.90
36	1	867	G	N3-C2-N2	-5.38	116.13	119.90
36	1	939	U	O5'-P-OP1	5.38	117.16	110.70
36	1	1172	G	O5'-P-OP1	-5.38	100.86	105.70
36	1	1838	G	C4-C5-N7	5.38	112.95	110.80
36	1	2731	U	C5-C4-O4	-5.38	122.67	125.90
36	5	1884	A	C8-N9-C4	-5.38	103.65	105.80
36	5	2651	G	OP2-P-O3'	5.38	117.04	105.20
36	5	63	A	N9-C4-C5	-5.38	103.65	105.80
36	5	327	A	C8-N9-C4	5.38	107.95	105.80
36	1	765	C	C2-N1-C1'	5.38	124.72	118.80
36	1	1414	G	C4-C5-N7	5.38	112.95	110.80
36	1	1531	C	C2-N1-C1'	5.38	124.72	118.80
36	5	691	A	N1-C6-N6	-5.38	115.37	118.60
36	5	1174	G	N3-C4-N9	5.38	129.23	126.00
36	5	2300	G	O5'-P-OP1	-5.38	100.86	105.70
41	14	230	VAL	CB-CA-C	-5.38	101.18	111.40
36	1	2137	U	N1-C2-O2	5.38	126.56	122.80
36	1	2385	G	N3-C4-C5	5.38	131.29	128.60
36	1	3044	G	N1-C6-O6	-5.38	116.67	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	525	C	N1-C2-O2	-5.38	115.67	118.90
36	5	3047	U	C5-C4-O4	5.38	129.13	125.90
36	5	3133	C	C6-N1-C2	-5.38	118.15	120.30
36	1	394	G	N7-C8-N9	-5.38	110.41	113.10
36	1	2714	G	O5'-P-OP1	-5.38	100.86	105.70
36	5	2253	G	O5'-P-OP2	-5.38	100.86	105.70
36	5	2798	C	C5-C4-N4	5.38	123.96	120.20
36	5	2818	U	C5'-C4'-O4'	-5.38	102.65	109.10
36	5	2889	C	C2-N3-C4	-5.38	117.21	119.90
36	1	1403	C	C5-C6-N1	-5.37	118.31	121.00
36	1	2724	U	N1-C2-N3	5.37	118.12	114.90
36	5	970	A	C8-N9-C4	5.37	107.95	105.80
36	5	1695	U	N3-C2-O2	-5.37	118.44	122.20
36	5	1876	U	C2-N3-C4	-5.37	123.78	127.00
36	1	439	C	C6-N1-C1'	-5.37	114.35	120.80
36	1	801	A	O4'-C1'-N9	-5.37	103.90	108.20
36	1	1743	G	C8-N9-C4	5.37	108.55	106.40
1	6	92	A	C2-N3-C4	-5.37	107.92	110.60
36	5	1482	A	O5'-P-OP1	5.37	117.15	110.70
36	5	2361	A	C2-N3-C4	-5.37	107.91	110.60
36	1	3382	U	C2-N1-C1'	5.37	124.14	117.70
36	5	753	C	C6-N1-C2	5.37	122.45	120.30
1	2	2	A	O4'-C1'-N9	-5.37	103.91	108.20
36	1	229	G	C5-C6-O6	-5.37	125.38	128.60
36	1	645	A	N3-C4-C5	-5.37	123.04	126.80
36	1	714	G	N1-C6-O6	5.37	123.12	119.90
36	1	2418	G	C8-N9-C1'	-5.37	120.02	127.00
1	6	44	U	N3-C2-O2	5.37	125.96	122.20
39	l2	216	HIS	N-CA-C	-5.37	96.51	111.00
1	2	16	G	N3-C2-N2	5.37	123.66	119.90
36	1	658	G	N1-C6-O6	5.37	123.12	119.90
36	1	1475	A	C5-N7-C8	5.37	106.58	103.90
36	1	1733	G	C8-N9-C4	-5.37	104.25	106.40
6	S4	12	LEU	CA-CB-CG	5.37	127.64	115.30
36	1	523	A	C8-N9-C4	5.37	107.95	105.80
36	1	715	A	O5'-P-OP2	-5.37	100.87	105.70
36	1	922	U	N1-C2-O2	5.37	126.56	122.80
36	1	1800	A	C2-N3-C4	5.37	113.28	110.60
1	6	804	A	N9-C4-C5	-5.37	103.65	105.80
36	5	1203	A	C4-C5-N7	5.37	113.38	110.70
36	5	2894	C	N3-C4-C5	5.37	124.05	121.90
36	5	2933	A	C5-C6-N6	-5.37	119.41	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2991	A	C2-N3-C4	5.37	113.28	110.60
36	5	3262	U	C6-N1-C2	-5.37	117.78	121.00
38	8	45	C	C6-N1-C2	-5.37	118.15	120.30
36	1	201	A	N1-C2-N3	5.36	131.98	129.30
36	1	2883	U	C4-C5-C6	-5.36	116.48	119.70
36	5	1878	G	C8-N9-C1'	-5.36	120.03	127.00
36	5	2606	G	C5-C6-O6	5.36	131.82	128.60
1	6	101	U	N3-C2-O2	-5.36	118.45	122.20
36	5	911	C	N1-C2-O2	-5.36	115.68	118.90
36	5	2190	U	C4-C5-C6	5.36	122.92	119.70
37	7	100	C	O5'-P-OP2	-5.36	100.87	105.70
38	8	84	C	C6-N1-C2	-5.36	118.16	120.30
1	2	313	U	N1-C2-N3	5.36	118.12	114.90
1	2	499	U	C5-C4-O4	-5.36	122.68	125.90
36	1	1103	A	C4-C5-C6	-5.36	114.32	117.00
1	6	351	C	N3-C4-N4	5.36	121.75	118.00
36	5	82	C	N3-C4-C5	-5.36	119.76	121.90
36	5	1485	G	N3-C4-C5	-5.36	125.92	128.60
37	7	93	C	O5'-P-OP1	5.36	117.13	110.70
36	1	1856	C	C5-C4-N4	-5.36	116.45	120.20
36	1	2914	G	C8-N9-C4	5.36	108.54	106.40
36	1	3173	G	C5-C6-O6	-5.36	125.39	128.60
36	5	1921	A	O5'-P-OP2	-5.36	100.88	105.70
1	2	1657	U	P-O3'-C3'	5.36	126.13	119.70
1	2	1761	U	N3-C2-O2	-5.36	118.45	122.20
36	1	124	U	N1-C2-O2	5.36	126.55	122.80
36	1	398	A	C5-C6-N6	-5.36	119.41	123.70
36	1	945	C	C5-C6-N1	-5.36	118.32	121.00
36	1	2191	U	C5-C4-O4	5.36	129.11	125.90
36	1	2527	G	N3-C4-C5	5.36	131.28	128.60
36	5	2353	G	OP2-P-O3'	5.36	116.99	105.20
51	m5	99	ARG	NE-CZ-NH1	-5.36	117.62	120.30
1	2	1100	G	C4-N9-C1'	5.36	133.46	126.50
36	1	24	G	C2-N3-C4	-5.36	109.22	111.90
36	1	589	A	C5-N7-C8	5.36	106.58	103.90
36	1	2603	G	N3-C2-N2	5.36	123.65	119.90
1	6	15	U	C5-C4-O4	5.36	129.11	125.90
36	5	1319	G	C4-C5-N7	-5.36	108.66	110.80
36	5	2396	G	C5-C6-O6	-5.36	125.39	128.60
36	5	2871	G	N3-C4-C5	-5.36	125.92	128.60
36	1	1152	G	OP1-P-OP2	5.35	127.63	119.60
1	6	92	A	N9-C4-C5	-5.35	103.66	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1614	A	C6-C5-N7	-5.35	128.55	132.30
36	5	2700	G	C8-N9-C1'	-5.35	120.04	127.00
36	1	614	C	N3-C4-C5	5.35	124.04	121.90
36	1	1118	C	C6-N1-C2	-5.35	118.16	120.30
36	1	1419	A	C5-C6-N6	-5.35	119.42	123.70
36	1	2712	U	C5-C4-O4	5.35	129.11	125.90
36	5	2864	A	N1-C6-N6	5.35	121.81	118.60
36	1	1004	U	C2-N1-C1'	5.35	124.12	117.70
36	1	2874	G	C5-C6-N1	-5.35	108.82	111.50
36	5	716	A	C8-N9-C4	5.35	107.94	105.80
36	1	22	G	N3-C4-C5	-5.35	125.93	128.60
36	1	2968	G	C6-C5-N7	-5.35	127.19	130.40
36	1	3178	A	C6-C5-N7	-5.35	128.56	132.30
36	5	2173	U	C5-C4-O4	5.35	129.11	125.90
36	5	3049	A	C2-N3-C4	-5.35	107.93	110.60
1	2	1082	C	N1-C2-O2	5.35	122.11	118.90
1	2	1124	A	C2-N3-C4	-5.35	107.93	110.60
36	1	92	G	N1-C2-N2	-5.35	111.39	116.20
36	1	689	U	N1-C2-O2	-5.35	119.06	122.80
36	1	1113	G	N3-C2-N2	-5.35	116.16	119.90
36	1	1366	A	C4-C5-N7	5.35	113.37	110.70
1	6	119	A	N3-C4-C5	5.35	130.54	126.80
36	5	805	G	N7-C8-N9	-5.35	110.43	113.10
36	5	907	G	N3-C4-N9	5.35	129.21	126.00
36	5	2345	A	C6-C5-N7	-5.35	128.56	132.30
37	7	7	G	N1-C6-O6	-5.35	116.69	119.90
36	1	1604	G	C8-N9-C4	-5.35	104.26	106.40
36	5	2951	G	C8-N9-C1'	-5.35	120.05	127.00
36	5	3154	C	N3-C2-O2	-5.35	118.16	121.90
36	1	2699	G	C5-C6-O6	-5.34	125.39	128.60
36	5	1410	U	C6-N1-C2	5.34	124.21	121.00
36	5	1817	G	O4'-C1'-N9	5.34	112.48	108.20
36	5	2333	C	OP2-P-O3'	5.34	116.96	105.20
36	1	2159	U	N3-C4-C5	5.34	117.81	114.60
36	1	2295	A	C8-N9-C4	-5.34	103.66	105.80
36	1	2612	U	N3-C4-O4	-5.34	115.66	119.40
36	5	1238	C	P-O3'-C3'	5.34	126.11	119.70
36	5	1370	G	N1-C2-N3	5.34	127.11	123.90
36	5	2372	A	C2-N3-C4	5.34	113.27	110.60
1	2	1052	U	C2-N1-C1'	5.34	124.11	117.70
36	1	360	G	N3-C4-N9	5.34	129.21	126.00
36	1	1852	G	N1-C6-O6	5.34	123.11	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2237	C	C6-N1-C2	5.34	122.44	120.30
36	1	2395	G	N1-C6-O6	5.34	123.11	119.90
36	1	2993	G	N3-C2-N2	5.34	123.64	119.90
36	1	3101	G	N1-C6-O6	-5.34	116.69	119.90
1	6	1649	G	N3-C4-N9	5.34	129.21	126.00
36	5	1898	G	N1-C6-O6	5.34	123.11	119.90
36	5	2188	A	O5'-P-OP1	-5.34	100.89	105.70
36	5	2890	A	N1-C6-N6	5.34	121.81	118.60
36	1	859	G	C4-C5-C6	5.34	122.00	118.80
36	5	275	U	OP2-P-O3'	5.34	116.95	105.20
36	5	1112	A	C6-N1-C2	-5.34	115.40	118.60
36	1	93	C	O5'-P-OP2	-5.34	100.89	105.70
36	1	1492	G	O5'-P-OP2	-5.34	100.90	105.70
1	6	1649	G	C8-N9-C4	5.34	108.53	106.40
36	5	1143	A	N1-C2-N3	5.34	131.97	129.30
36	1	357	A	C8-N9-C4	-5.34	103.67	105.80
36	1	1000	C	C6-N1-C1'	-5.34	114.40	120.80
36	1	1144	U	N1-C2-O2	-5.34	119.06	122.80
1	6	1773	C	N3-C2-O2	5.34	125.64	121.90
36	5	51	A	N1-C6-N6	5.34	121.80	118.60
36	5	204	A	N1-C6-N6	-5.34	115.40	118.60
36	1	965	A	OP1-P-O3'	5.33	116.94	105.20
36	1	1412	G	C5-C6-N1	-5.33	108.83	111.50
36	1	1417	G	C2-N3-C4	-5.33	109.23	111.90
36	1	1440	G	C8-N9-C4	5.33	108.53	106.40
37	3	111	U	O5'-P-OP1	-5.33	100.90	105.70
36	5	821	U	C5-C6-N1	-5.33	120.03	122.70
36	5	908	G	C5-C6-O6	-5.33	125.40	128.60
36	1	1375	G	C6-C5-N7	-5.33	127.20	130.40
36	1	1655	G	C8-N9-C1'	-5.33	120.07	127.00
36	1	2802	A	OP2-P-O3'	5.33	116.93	105.20
36	1	2879	C	N3-C2-O2	5.33	125.63	121.90
36	1	3087	A	OP2-P-O3'	5.33	116.93	105.20
36	5	670	C	N1-C2-O2	-5.33	115.70	118.90
36	5	1310	G	OP1-P-O3'	5.33	116.93	105.20
36	5	3362	A	C5-C6-N1	-5.33	115.03	117.70
36	5	1116	G	C4-N9-C1'	5.33	133.43	126.50
38	8	39	G	C8-N9-C4	-5.33	104.27	106.40
36	1	198	A	C5-C6-N6	-5.33	119.44	123.70
36	1	1334	U	C6-N1-C2	-5.33	117.80	121.00
36	1	2379	U	C5-C6-N1	5.33	125.36	122.70
38	4	113	U	N1-C2-N3	5.33	118.10	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	767	U	C5-C4-O4	5.33	129.10	125.90
1	6	1602	C	N3-C2-O2	-5.33	118.17	121.90
36	5	86	G	O5'-P-OP1	5.33	117.09	110.70
36	5	2811	A	N7-C8-N9	-5.33	111.14	113.80
36	5	3197	G	C2-N3-C4	-5.33	109.23	111.90
37	7	104	A	O5'-P-OP2	-5.33	100.91	105.70
1	2	587	C	N3-C4-C5	-5.33	119.77	121.90
36	1	718	G	C8-N9-C4	-5.33	104.27	106.40
36	1	958	C	N3-C2-O2	-5.33	118.17	121.90
36	5	1866	C	O4'-C1'-N1	-5.33	103.94	108.20
36	5	2950	G	C8-N9-C4	-5.33	104.27	106.40
36	1	692	A	C4-C5-C6	5.33	119.66	117.00
36	1	845	G	OP1-P-O3'	5.33	116.92	105.20
36	1	1445	U	C2-N1-C1'	-5.33	111.31	117.70
36	1	1468	A	N1-C2-N3	5.33	131.96	129.30
36	1	3054	U	C4-C5-C6	5.33	122.90	119.70
51	M5	188	ARG	NE-CZ-NH1	-5.33	117.64	120.30
36	5	324	A	OP1-P-O3'	5.33	116.92	105.20
36	5	634	C	OP2-P-O3'	5.33	116.92	105.20
36	5	715	A	C5-C6-N1	5.33	120.36	117.70
36	5	3153	U	N3-C2-O2	-5.33	118.47	122.20
1	2	1277	G	N3-C4-N9	-5.32	122.81	126.00
36	1	1166	G	N9-C4-C5	-5.32	103.27	105.40
36	1	2411	U	C2-N3-C4	-5.32	123.81	127.00
36	1	2959	C	N1-C2-O2	-5.32	115.71	118.90
1	6	65	A	N1-C6-N6	5.32	121.80	118.60
38	8	51	G	C5-C6-O6	-5.32	125.41	128.60
36	5	1409	G	N1-C6-O6	-5.32	116.71	119.90
36	1	407	A	C5-C6-N6	-5.32	119.44	123.70
36	1	2384	A	C8-N9-C4	-5.32	103.67	105.80
36	1	3100	U	N3-C4-O4	5.32	123.12	119.40
36	5	279	U	C6-N1-C2	5.32	124.19	121.00
36	5	1158	A	N1-C6-N6	5.32	121.79	118.60
36	5	1327	C	C6-N1-C2	5.32	122.43	120.30
37	3	74	C	C6-N1-C2	5.32	122.43	120.30
36	1	922	U	C6-N1-C1'	-5.32	113.76	121.20
36	1	1203	A	N1-C6-N6	5.32	121.79	118.60
36	5	1604	G	C4-N9-C1'	5.32	133.41	126.50
36	5	1844	C	N3-C4-C5	5.32	124.03	121.90
36	1	81	C	C2-N3-C4	-5.32	117.24	119.90
36	5	1191	U	C5-C6-N1	-5.32	120.04	122.70
36	5	2642	A	N1-C6-N6	-5.32	115.41	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1633	A	N9-C4-C5	5.31	107.92	105.80
1	6	308	C	C4-C5-C6	5.31	120.06	117.40
1	6	1697	G	N3-C4-N9	5.31	129.19	126.00
36	5	579	G	O5'-P-OP1	5.31	117.08	110.70
36	5	1305	U	N3-C4-C5	-5.31	111.41	114.60
36	5	1903	U	C5-C6-N1	5.31	125.36	122.70
38	8	102	U	N3-C4-O4	5.31	123.12	119.40
1	2	751	G	C8-N9-C4	5.31	108.53	106.40
1	2	864	U	C5-C4-O4	5.31	129.09	125.90
36	1	1843	C	C2-N3-C4	-5.31	117.24	119.90
1	6	145	A	O4'-C1'-N9	5.31	112.45	108.20
36	1	170	G	O5'-P-OP1	-5.31	100.92	105.70
36	1	2859	U	O5'-P-OP1	-5.31	100.92	105.70
1	6	1537	C	N1-C2-O2	-5.31	115.71	118.90
36	5	1469	C	N1-C2-O2	-5.31	115.71	118.90
36	5	3229	G	N1-C6-O6	-5.31	116.71	119.90
38	8	71	A	C8-N9-C4	5.31	107.92	105.80
1	2	186	C	C5-C6-N1	5.31	123.66	121.00
36	1	1116	G	C8-N9-C4	-5.31	104.28	106.40
36	1	1389	G	N1-C6-O6	5.31	123.08	119.90
36	1	1448	U	OP2-P-O3'	5.31	116.88	105.20
1	6	1382	A	O4'-C1'-N9	5.31	112.45	108.20
1	6	1748	G	OP2-P-O3'	5.31	116.88	105.20
36	5	656	A	N9-C4-C5	-5.31	103.68	105.80
36	5	800	G	N9-C4-C5	5.31	107.52	105.40
1	2	278	U	O5'-P-OP1	-5.31	100.92	105.70
36	1	1300	G	C4-C5-N7	5.31	112.92	110.80
36	1	2153	U	C6-N1-C2	-5.31	117.82	121.00
36	1	2314	U	C6-N1-C2	5.31	124.18	121.00
1	6	1481	C	OP1-P-O3'	5.31	116.88	105.20
36	5	1878	G	N1-C6-O6	-5.31	116.72	119.90
36	1	1514	G	O5'-P-OP2	-5.31	100.92	105.70
36	1	2351	U	N1-C2-N3	5.30	118.08	114.90
1	6	1027	A	N1-C6-N6	5.30	121.78	118.60
38	8	18	U	C5-C4-O4	5.30	129.08	125.90
36	1	898	U	N1-C2-N3	-5.30	111.72	114.90
36	1	961	C	N3-C4-C5	5.30	124.02	121.90
36	1	2287	C	N1-C2-O2	-5.30	115.72	118.90
36	1	2926	A	N1-C6-N6	5.30	121.78	118.60
41	L4	313	LEU	CA-CB-CG	5.30	127.50	115.30
36	5	283	G	C4-C5-N7	5.30	112.92	110.80
36	1	371	G	C4-C5-N7	5.30	112.92	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1840	U	OP1-P-O3'	5.30	116.86	105.20
1	6	363	G	C8-N9-C4	5.30	108.52	106.40
36	5	672	A	C5-N7-C8	-5.30	101.25	103.90
36	5	1113	G	C2-N3-C4	-5.30	109.25	111.90
36	5	2391	G	C2-N3-C4	5.30	114.55	111.90
36	5	2685	C	C6-N1-C2	5.30	122.42	120.30
36	5	3058	U	C2-N1-C1'	5.30	124.06	117.70
1	2	1596	C	N3-C2-O2	-5.30	118.19	121.90
36	1	936	A	O4'-C1'-N9	5.30	112.44	108.20
36	1	2402	A	C4-C5-C6	5.30	119.65	117.00
36	1	2692	A	N1-C6-N6	5.30	121.78	118.60
36	1	2808	A	N1-C2-N3	5.30	131.95	129.30
36	5	2351	U	N3-C2-O2	-5.30	118.49	122.20
36	5	3129	A	N9-C4-C5	-5.30	103.68	105.80
36	5	3218	A	P-O3'-C3'	5.30	126.06	119.70
36	1	267	G	O4'-C1'-N9	-5.30	103.96	108.20
36	1	2249	G	C8-N9-C1'	-5.30	120.11	127.00
36	5	807	A	C6-N1-C2	-5.30	115.42	118.60
1	2	1634	C	C6-N1-C2	5.30	122.42	120.30
36	1	608	A	C5-C6-N6	-5.30	119.46	123.70
36	1	667	C	N3-C4-C5	5.30	124.02	121.90
36	1	1528	G	O5'-P-OP1	-5.30	100.93	105.70
36	1	3059	G	C8-N9-C4	5.30	108.52	106.40
36	5	31	C	C5-C4-N4	-5.30	116.49	120.20
36	5	1593	A	C5-C6-N6	-5.30	119.46	123.70
36	5	2685	C	N1-C2-O2	-5.30	115.72	118.90
37	7	103	A	C5-C6-N1	5.30	120.35	117.70
36	5	436	A	OP1-P-OP2	-5.29	111.66	119.60
36	5	1060	U	C5-C6-N1	-5.29	120.05	122.70
36	1	636	C	N3-C4-C5	5.29	124.02	121.90
36	1	933	A	C6-N1-C2	-5.29	115.42	118.60
36	1	2953	U	C5-C4-O4	-5.29	122.72	125.90
38	4	103	G	N3-C4-C5	-5.29	125.95	128.60
36	5	283	G	O4'-C1'-N9	-5.29	103.97	108.20
36	5	1344	G	N3-C4-C5	5.29	131.25	128.60
36	5	1422	G	C4-C5-N7	5.29	112.92	110.80
59	n3	48	ARG	NE-CZ-NH1	5.29	122.95	120.30
1	2	393	C	N3-C4-C5	5.29	124.02	121.90
1	2	795	U	C4-C5-C6	5.29	122.88	119.70
1	2	1196	A	P-O3'-C3'	5.29	126.05	119.70
36	1	1726	C	N3-C4-N4	-5.29	114.30	118.00
36	1	1795	U	N3-C2-O2	-5.29	118.50	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3214	U	O4'-C1'-N1	5.29	112.43	108.20
36	5	31	C	N3-C4-C5	5.29	124.02	121.90
36	5	1119	C	C5-C6-N1	-5.29	118.35	121.00
37	7	104	A	N1-C6-N6	5.29	121.77	118.60
36	1	54	C	C5-C6-N1	-5.29	118.36	121.00
36	1	1343	A	C6-C5-N7	-5.29	128.60	132.30
36	1	2987	A	N1-C2-N3	5.29	131.94	129.30
36	5	2185	G	C2-N3-C4	-5.29	109.25	111.90
36	1	1330	A	C5-C6-N1	-5.29	115.06	117.70
36	1	1433	A	N7-C8-N9	5.29	116.44	113.80
36	1	1903	U	C2-N3-C4	5.29	130.17	127.00
36	1	3173	G	N1-C6-O6	5.29	123.07	119.90
1	6	5	U	OP2-P-O3'	5.29	116.83	105.20
36	5	416	A	OP2-P-O3'	5.29	116.84	105.20
36	5	1137	C	C6-N1-C2	5.29	122.42	120.30
36	5	1825	G	O5'-P-OP1	5.29	117.05	110.70
36	5	2829	U	C5-C6-N1	5.29	125.34	122.70
36	5	3115	C	N1-C2-N3	5.29	122.90	119.20
36	5	3195	U	OP1-P-O3'	5.29	116.83	105.20
1	2	728	U	N1-C2-O2	5.29	126.50	122.80
36	1	158	G	C6-C5-N7	-5.29	127.23	130.40
36	1	2636	A	N7-C8-N9	5.29	116.44	113.80
1	6	15	U	N1-C2-N3	5.29	118.07	114.90
1	6	369	A	O5'-P-OP2	-5.29	100.94	105.70
1	6	1747	G	N7-C8-N9	-5.29	110.46	113.10
36	5	511	G	O5'-P-OP2	-5.29	100.94	105.70
36	5	793	C	C5-C4-N4	-5.29	116.50	120.20
36	5	1174	G	C5-C6-O6	-5.29	125.43	128.60
36	5	1483	G	N1-C6-O6	-5.29	116.73	119.90
36	5	2682	C	C5-C6-N1	-5.29	118.36	121.00
1	2	619	A	N1-C6-N6	-5.28	115.43	118.60
36	1	3204	C	N3-C2-O2	-5.28	118.20	121.90
38	4	91	C	C6-N1-C2	-5.28	118.19	120.30
37	7	75	G	N1-C6-O6	5.28	123.07	119.90
38	8	25	G	O5'-P-OP2	-5.28	100.94	105.70
36	1	2298	U	C5-C6-N1	-5.28	120.06	122.70
1	6	364	G	N9-C4-C5	-5.28	103.29	105.40
36	1	1134	G	C5-C6-O6	-5.28	125.43	128.60
36	1	2594	C	O5'-P-OP2	-5.28	100.95	105.70
36	5	2283	G	N1-C6-O6	5.28	123.07	119.90
36	5	2820	A	C6-N1-C2	-5.28	115.43	118.60
38	8	26	U	OP1-P-OP2	5.28	127.52	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	357	A	C5-N7-C8	-5.28	101.26	103.90
36	1	419	G	OP2-P-O3'	5.28	116.81	105.20
36	1	423	A	N1-C2-N3	5.28	131.94	129.30
36	1	699	A	C2-N3-C4	-5.28	107.96	110.60
36	1	2887	A	C8-N9-C4	-5.28	103.69	105.80
73	O7	65	ARG	NE-CZ-NH2	-5.28	117.66	120.30
1	6	68	A	N1-C6-N6	5.28	121.77	118.60
36	5	281	G	C5-C6-O6	-5.28	125.43	128.60
1	2	622	A	C8-N9-C4	5.28	107.91	105.80
36	1	881	C	N1-C2-O2	5.28	122.07	118.90
36	1	2375	G	O4'-C1'-N9	5.28	112.42	108.20
36	1	3181	C	N1-C2-N3	5.28	122.89	119.20
36	5	201	A	C2-N3-C4	-5.28	107.96	110.60
36	5	740	G	C5-C6-N1	5.28	114.14	111.50
36	5	880	G	N7-C8-N9	-5.28	110.46	113.10
36	5	964	G	N3-C4-C5	-5.28	125.96	128.60
36	5	971	G	C5-N7-C8	5.28	106.94	104.30
36	5	1589	A	C8-N9-C4	-5.28	103.69	105.80
36	5	2121	G	C5-C6-O6	-5.28	125.43	128.60
1	2	1463	C	C6-N1-C2	5.28	122.41	120.30
36	1	398	A	N1-C6-N6	5.28	121.77	118.60
36	1	1103	A	C2-N3-C4	5.28	113.24	110.60
36	1	1194	G	N9-C4-C5	5.28	107.51	105.40
36	1	1635	G	C5-C6-O6	-5.28	125.44	128.60
1	6	454	U	C2-N1-C1'	-5.28	111.37	117.70
36	5	398	A	OP1-P-OP2	5.28	127.51	119.60
1	2	1182	U	N3-C2-O2	-5.27	118.51	122.20
36	1	883	A	O5'-P-OP2	5.27	117.03	110.70
36	5	1710	C	C5-C6-N1	-5.27	118.36	121.00
36	5	3303	G	OP1-P-OP2	5.27	127.51	119.60
36	1	689	U	C2-N3-C4	-5.27	123.84	127.00
36	1	925	A	N9-C4-C5	5.27	107.91	105.80
36	1	1429	G	C8-N9-C4	5.27	108.51	106.40
36	5	24	G	C5-C6-N1	5.27	114.14	111.50
36	5	97	U	OP2-P-O3'	5.27	116.80	105.20
36	5	668	G	C5-C6-N1	5.27	114.14	111.50
36	5	931	C	N3-C4-C5	5.27	124.01	121.90
1	2	933	A	C8-N9-C4	-5.27	103.69	105.80
36	1	2808	A	C4-C5-C6	5.27	119.64	117.00
36	1	2815	G	N9-C4-C5	-5.27	103.29	105.40
36	5	2632	G	OP1-P-O3'	5.27	116.80	105.20
36	1	940	G	C6-N1-C2	-5.27	121.94	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1693	C	N3-C4-C5	-5.27	119.79	121.90
1	6	1134	C	O5'-P-OP2	-5.27	100.96	105.70
36	5	965	A	O5'-P-OP2	-5.27	100.96	105.70
36	5	1828	A	N1-C6-N6	5.27	121.76	118.60
36	5	1847	A	O5'-P-OP2	-5.27	100.96	105.70
36	5	2818	U	P-O3'-C3'	5.27	126.02	119.70
36	1	1116	G	O4'-C1'-N9	5.27	112.41	108.20
36	1	1399	A	N3-C4-N9	-5.27	123.19	127.40
38	4	115	C	C6-N1-C2	5.27	122.41	120.30
1	6	315	A	C2-N3-C4	5.27	113.23	110.60
1	6	350	U	N1-C2-O2	-5.27	119.11	122.80
36	5	587	U	N1-C2-N3	-5.27	111.74	114.90
36	5	801	A	N1-C2-N3	5.27	131.93	129.30
36	5	981	U	C5-C6-N1	5.27	125.33	122.70
36	5	1316	C	N3-C4-C5	-5.27	119.79	121.90
1	2	647	G	N3-C2-N2	-5.26	116.21	119.90
1	2	825	U	C5-C6-N1	5.26	125.33	122.70
36	1	1131	G	C4-C5-N7	5.26	112.91	110.80
36	1	1349	G	C4-N9-C1'	5.26	133.34	126.50
36	1	3362	A	C4-C5-C6	5.26	119.63	117.00
49	M3	7	LEU	CB-CG-CD2	-5.26	102.05	111.00
36	5	971	G	OP2-P-O3'	5.26	116.78	105.20
36	5	2121	G	C4-C5-N7	5.26	112.91	110.80
36	5	3067	C	C5-C6-N1	-5.26	118.37	121.00
36	1	87	U	N3-C4-O4	5.26	123.08	119.40
36	1	2554	A	P-O3'-C3'	5.26	126.02	119.70
36	1	2772	C	O4'-C1'-N1	5.26	112.41	108.20
37	3	87	G	N9-C4-C5	-5.26	103.30	105.40
1	6	543	C	C4-C5-C6	-5.26	114.77	117.40
1	6	1165	G	OP2-P-O3'	5.26	116.78	105.20
36	5	299	G	O5'-P-OP2	-5.26	100.96	105.70
36	5	917	A	O5'-P-OP2	-5.26	100.96	105.70
36	5	2412	G	C6-N1-C2	-5.26	121.94	125.10
38	8	33	A	N1-C6-N6	5.26	121.76	118.60
1	6	1716	C	O4'-C1'-N1	5.26	112.41	108.20
36	5	1550	C	N1-C2-O2	-5.26	115.74	118.90
36	5	2296	A	C5-C6-N1	5.26	120.33	117.70
36	5	2375	G	C4-C5-N7	-5.26	108.69	110.80
36	1	24	G	C8-N9-C1'	-5.26	120.16	127.00
36	1	642	U	N3-C2-O2	-5.26	118.52	122.20
36	1	1041	U	O5'-P-OP2	-5.26	100.97	105.70
1	6	765	G	O4'-C1'-N9	-5.26	103.99	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1458	G	C4-N9-C1'	5.26	133.34	126.50
36	5	1428	A	C4-C5-C6	-5.26	114.37	117.00
36	5	1839	A	O5'-P-OP1	-5.26	100.97	105.70
36	5	2704	A	C8-N9-C4	5.26	107.90	105.80
36	1	304	G	C5-N7-C8	5.26	106.93	104.30
36	1	676	G	C4-C5-C6	5.26	121.95	118.80
36	1	912	G	N3-C4-C5	-5.26	125.97	128.60
36	1	2192	C	C5-C6-N1	-5.26	118.37	121.00
36	1	2400	G	N1-C2-N2	-5.26	111.47	116.20
36	5	349	A	O4'-C1'-N9	-5.26	104.00	108.20
36	5	404	G	O5'-P-OP2	-5.26	100.97	105.70
36	5	65	A	O5'-P-OP2	-5.25	100.97	105.70
36	5	212	G	OP1-P-O3'	5.25	116.76	105.20
36	5	645	A	C4-C5-C6	5.25	119.63	117.00
36	5	1317	A	N9-C4-C5	-5.25	103.70	105.80
36	5	1805	C	C6-N1-C2	5.25	122.40	120.30
36	5	3319	U	C6-N1-C2	-5.25	117.85	121.00
48	m1	12	LEU	CA-CB-CG	5.25	127.39	115.30
1	2	554	C	C2-N1-C1'	5.25	124.58	118.80
36	1	778	U	N3-C2-O2	-5.25	118.52	122.20
36	1	1363	A	C5-C6-N1	5.25	120.33	117.70
36	1	2611	U	O5'-P-OP1	5.25	117.00	110.70
1	6	607	G	C4-C5-C6	5.25	121.95	118.80
36	5	2379	U	C2-N3-C4	-5.25	123.85	127.00
36	5	3176	G	C4-N9-C1'	5.25	133.33	126.50
36	5	3181	C	N1-C2-O2	-5.25	115.75	118.90
36	1	930	U	N3-C4-C5	5.25	117.75	114.60
36	1	1304	A	N1-C6-N6	-5.25	115.45	118.60
36	1	2257	C	O4'-C1'-N1	5.25	112.40	108.20
36	1	2606	G	C4-C5-C6	5.25	121.95	118.80
41	L4	326	ARG	NE-CZ-NH2	-5.25	117.67	120.30
36	5	632	G	C5-N7-C8	5.25	106.92	104.30
36	5	1167	U	OP1-P-OP2	-5.25	111.72	119.60
36	5	1496	C	C6-N1-C1'	-5.25	114.50	120.80
36	5	3044	G	O4'-C1'-N9	5.25	112.40	108.20
36	1	23	A	C5-N7-C8	-5.25	101.28	103.90
36	1	148	G	C6-C5-N7	-5.25	127.25	130.40
36	1	666	A	OP1-P-O3'	5.25	116.75	105.20
36	1	2371	G	C6-C5-N7	-5.25	127.25	130.40
36	5	672	A	N3-C4-N9	5.25	131.60	127.40
1	2	408	C	N1-C2-O2	-5.25	115.75	118.90
36	1	420	G	N3-C4-C5	-5.25	125.98	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1178	G	C5-N7-C8	-5.25	101.68	104.30
36	5	1589	A	C5-C6-N6	-5.25	119.50	123.70
36	5	1655	G	C5-C6-O6	-5.25	125.45	128.60
36	1	798	G	N1-C2-N3	5.25	127.05	123.90
36	5	383	G	N3-C4-C5	5.25	131.22	128.60
36	5	2314	U	C2-N1-C1'	5.25	124.00	117.70
36	5	3311	C	N1-C2-O2	-5.25	115.75	118.90
36	1	2912	G	C2-N3-C4	5.25	114.52	111.90
36	5	365	A	N1-C6-N6	5.25	121.75	118.60
36	5	2597	U	N1-C2-N3	-5.25	111.75	114.90
38	8	42	G	C4-N9-C1'	-5.25	119.68	126.50
1	2	1324	G	N1-C2-N2	5.24	120.92	116.20
36	1	346	C	O5'-P-OP2	-5.24	100.98	105.70
36	1	883	A	OP1-P-OP2	-5.24	111.73	119.60
36	5	942	U	C6-N1-C2	-5.24	117.85	121.00
36	5	2144	A	OP1-P-O3'	5.24	116.74	105.20
36	5	2398	A	C5-C6-N1	5.24	120.32	117.70
36	5	2777	G	C4-C5-N7	-5.24	108.70	110.80
36	1	2243	A	C8-N9-C4	5.24	107.90	105.80
36	1	2919	A	N1-C2-N3	-5.24	126.68	129.30
1	6	1696	G	P-O3'-C3'	5.24	125.99	119.70
36	5	3059	G	C8-N9-C4	5.24	108.50	106.40
36	1	1063	G	C8-N9-C4	-5.24	104.30	106.40
36	1	1496	C	C6-N1-C2	-5.24	118.20	120.30
36	1	2139	A	N1-C6-N6	-5.24	115.46	118.60
37	3	80	G	C5-C6-N1	-5.24	108.88	111.50
36	5	941	G	OP1-P-O3'	5.24	116.73	105.20
36	5	2820	A	C5-C6-N1	5.24	120.32	117.70
36	5	2938	G	OP1-P-OP2	5.24	127.46	119.60
1	2	317	C	C5-C4-N4	-5.24	116.53	120.20
1	2	1781	A	C5-C6-N1	-5.24	115.08	117.70
36	1	1148	G	OP1-P-O3'	5.24	116.72	105.20
36	1	1305	U	N3-C2-O2	-5.24	118.53	122.20
36	1	1434	G	C2-N3-C4	5.24	114.52	111.90
36	1	1453	A	C8-N9-C4	-5.24	103.70	105.80
36	1	2763	U	C5-C4-O4	-5.24	122.76	125.90
36	5	2918	G	C8-N9-C4	5.24	108.50	106.40
1	2	334	G	N3-C4-N9	-5.24	122.86	126.00
36	1	793	C	N1-C2-O2	-5.24	115.76	118.90
36	1	1807	G	C4-N9-C1'	5.24	133.31	126.50
36	5	1159	A	C2-N3-C4	-5.24	107.98	110.60
36	5	1469	C	C4-C5-C6	5.24	120.02	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	33	G	C5-C6-N1	-5.24	108.88	111.50
36	1	590	G	N1-C6-O6	5.24	123.04	119.90
36	1	2169	G	C2-N3-C4	5.24	114.52	111.90
36	1	2216	G	C5-C6-O6	5.24	131.74	128.60
36	5	1876	U	N3-C4-O4	-5.24	115.73	119.40
36	5	2627	C	N1-C2-N3	5.24	122.86	119.20
36	5	2741	C	N1-C2-O2	-5.24	115.76	118.90
36	1	2162	U	OP1-P-OP2	5.23	127.45	119.60
36	1	2375	G	O5'-P-OP2	5.23	116.98	110.70
36	1	3241	G	N3-C4-N9	-5.23	122.86	126.00
36	5	1348	U	N3-C4-C5	-5.23	111.46	114.60
36	5	1370	G	C6-N1-C2	-5.23	121.96	125.10
36	5	2799	A	N1-C6-N6	-5.23	115.46	118.60
36	5	3343	G	N3-C2-N2	5.23	123.56	119.90
37	7	97	A	N1-C2-N3	5.23	131.92	129.30
1	2	1642	G	C6-C5-N7	-5.23	127.26	130.40
36	1	2806	U	C5-C4-O4	5.23	129.04	125.90
36	1	2899	C	C2-N1-C1'	5.23	124.56	118.80
56	N0	24	LEU	CA-CB-CG	5.23	127.34	115.30
36	5	1495	U	C2-N1-C1'	5.23	123.98	117.70
36	5	2664	C	N3-C2-O2	5.23	125.56	121.90
38	8	68	G	N1-C6-O6	5.23	123.04	119.90
42	l5	75	LEU	CA-CB-CG	5.23	127.33	115.30
36	1	800	G	N3-C2-N2	-5.23	116.24	119.90
41	L4	327	LEU	CA-CB-CG	5.23	127.33	115.30
1	6	874	C	C6-N1-C1'	-5.23	114.52	120.80
38	8	26	U	N3-C2-O2	-5.23	118.54	122.20
36	1	2250	G	C8-N9-C4	5.23	108.49	106.40
36	5	876	A	OP2-P-O3'	5.23	116.70	105.20
36	5	1163	A	N1-C2-N3	5.23	131.91	129.30
36	5	1344	G	C8-N9-C4	5.23	108.49	106.40
36	5	3032	A	N1-C6-N6	-5.23	115.46	118.60
37	7	71	G	OP2-P-O3'	5.23	116.70	105.20
1	2	447	U	C5-C6-N1	5.23	125.31	122.70
36	1	2739	A	N1-C6-N6	5.23	121.74	118.60
1	6	542	A	C5-N7-C8	-5.23	101.29	103.90
36	5	959	C	O5'-P-OP1	5.23	116.97	110.70
36	5	1126	G	C5-C6-N1	-5.23	108.89	111.50
36	5	1178	G	C4-C5-N7	5.23	112.89	110.80
36	5	1364	C	OP2-P-O3'	5.23	116.70	105.20
36	5	1422	G	C5-C6-O6	-5.23	125.46	128.60
36	5	2639	G	C6-C5-N7	-5.23	127.26	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3045	G	C5-C6-O6	-5.23	125.46	128.60
36	5	3116	G	C5-C6-N1	5.23	114.11	111.50
36	1	1414	G	C5-C6-O6	-5.23	125.46	128.60
38	4	9	A	N9-C4-C5	5.23	107.89	105.80
1	6	1596	C	N3-C4-N4	-5.23	114.34	118.00
1	2	1657	U	N1-C2-O2	5.22	126.46	122.80
36	1	652	G	N3-C4-C5	-5.22	125.99	128.60
36	1	914	A	C5-C6-N6	5.22	127.88	123.70
36	1	1061	A	N1-C6-N6	5.22	121.73	118.60
36	1	1795	U	O5'-P-OP1	-5.22	101.00	105.70
36	1	2396	G	C4-C5-C6	5.22	121.94	118.80
36	1	2723	U	C2-N3-C4	-5.22	123.87	127.00
1	6	1503	A	C8-N9-C4	-5.22	103.71	105.80
36	5	410	U	N3-C4-O4	5.22	123.06	119.40
36	5	1471	U	N3-C4-O4	-5.22	115.74	119.40
36	5	2116	G	N1-C6-O6	5.22	123.03	119.90
36	5	2886	U	C4-C5-C6	5.22	122.83	119.70
36	1	806	A	N9-C4-C5	-5.22	103.71	105.80
36	1	928	C	N1-C2-N3	5.22	122.86	119.20
57	N1	89	LEU	CA-CB-CG	5.22	127.31	115.30
1	6	418	G	C4-C5-N7	5.22	112.89	110.80
36	5	694	C	C6-N1-C2	-5.22	118.21	120.30
36	5	2246	G	C2-N3-C4	5.22	114.51	111.90
36	5	2375	G	O4'-C1'-N9	5.22	112.38	108.20
36	5	2838	A	O5'-P-OP1	5.22	116.97	110.70
36	5	2869	U	C5-C4-O4	5.22	129.03	125.90
36	1	878	G	C5-C6-N1	-5.22	108.89	111.50
36	5	889	U	C2-N3-C4	-5.22	123.87	127.00
36	5	2777	G	C5-C6-O6	5.22	131.73	128.60
36	5	2801	A	N1-C6-N6	-5.22	115.47	118.60
36	1	325	A	C5-C6-N1	5.22	120.31	117.70
36	1	573	C	C2-N3-C4	-5.22	117.29	119.90
36	1	582	G	N3-C4-N9	-5.22	122.87	126.00
36	1	994	G	N3-C2-N2	5.22	123.55	119.90
36	1	1331	U	O4'-C1'-N1	-5.22	104.02	108.20
36	5	3035	A	N7-C8-N9	-5.22	111.19	113.80
36	5	3244	A	C2-N3-C4	-5.22	107.99	110.60
52	m6	84	LEU	CB-CG-CD1	-5.22	102.13	111.00
1	2	44	U	N1-C2-O2	-5.22	119.15	122.80
36	5	984	G	N3-C4-C5	-5.22	125.99	128.60
1	2	453	U	C6-N1-C1'	-5.22	113.90	121.20
36	1	2145	A	C5-C6-N6	-5.22	119.53	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3256	G	N1-C6-O6	5.22	123.03	119.90
1	6	1093	A	C8-N9-C4	-5.22	103.71	105.80
1	6	1129	U	C2-N1-C1'	-5.22	111.44	117.70
36	5	1331	U	C6-N1-C2	5.22	124.13	121.00
36	5	1339	C	N3-C4-C5	-5.22	119.81	121.90
36	5	3335	A	N1-C6-N6	5.22	121.73	118.60
38	8	4	C	N3-C4-N4	-5.22	114.35	118.00
1	2	73	U	P-O3'-C3'	5.21	125.96	119.70
1	2	992	A	N3-C4-C5	5.21	130.45	126.80
1	2	1107	G	C5-C6-N1	-5.21	108.89	111.50
36	1	656	A	C4-C5-C6	5.21	119.61	117.00
36	1	663	C	N3-C4-N4	5.21	121.65	118.00
36	1	2192	C	O5'-P-OP2	-5.21	101.01	105.70
36	1	2739	A	C5-C6-N6	-5.21	119.53	123.70
38	4	78	G	N3-C4-N9	5.21	129.13	126.00
1	6	112	A	C8-N9-C4	5.21	107.89	105.80
1	6	514	G	C8-N9-C4	5.21	108.48	106.40
1	6	1658	G	C8-N9-C4	5.21	108.49	106.40
36	5	1316	C	C5-C4-N4	-5.21	116.55	120.20
36	5	1545	A	C6-C5-N7	-5.21	128.65	132.30
36	5	2364	G	N3-C4-N9	-5.21	122.87	126.00
36	5	2625	C	C5-C4-N4	-5.21	116.55	120.20
36	5	3198	U	N1-C2-O2	5.21	126.45	122.80
1	2	1673	G	C6-C5-N7	-5.21	127.27	130.40
1	6	982	U	C5-C6-N1	-5.21	120.09	122.70
1	6	1560	U	O5'-P-OP1	-5.21	101.01	105.70
36	5	589	A	C8-N9-C4	5.21	107.89	105.80
36	5	2875	U	OP2-P-O3'	-5.21	93.73	105.20
36	1	1385	C	C6-N1-C2	5.21	122.38	120.30
36	1	2800	G	N1-C2-N3	5.21	127.03	123.90
1	6	542	A	P-O3'-C3'	5.21	125.95	119.70
1	6	542	A	C4-N9-C1'	5.21	135.68	126.30
1	6	1458	G	C8-N9-C1'	-5.21	120.22	127.00
1	6	1532	U	C5-C6-N1	-5.21	120.09	122.70
36	5	2421	U	N1-C2-O2	-5.21	119.15	122.80
36	1	942	U	OP1-P-OP2	-5.21	111.78	119.60
1	2	115	G	O5'-P-OP2	-5.21	101.01	105.70
35	SM	134	ASP	CB-CG-OD2	5.21	122.99	118.30
36	1	185	C	N1-C2-N3	5.21	122.85	119.20
36	1	635	G	C6-C5-N7	-5.21	127.28	130.40
36	1	1296	C	N1-C2-N3	5.21	122.84	119.20
36	1	1334	U	C4-C5-C6	5.21	122.83	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2623	G	N3-C2-N2	5.21	123.55	119.90
1	6	901	G	N7-C8-N9	5.21	115.70	113.10
1	6	1767	G	N3-C4-C5	5.21	131.20	128.60
36	5	1685	C	N1-C2-O2	5.21	122.03	118.90
36	5	2800	G	C5-C6-O6	-5.21	125.47	128.60
36	5	2978	U	N3-C2-O2	-5.21	118.55	122.20
36	1	283	G	O4'-C1'-N9	-5.21	104.03	108.20
36	1	701	G	C4-C5-C6	5.21	121.92	118.80
36	1	2403	G	O5'-P-OP1	5.21	116.95	110.70
36	1	2537	U	P-O3'-C3'	5.21	125.95	119.70
38	4	12	A	N1-C2-N3	-5.21	126.70	129.30
1	6	804	A	C8-N9-C4	5.21	107.88	105.80
36	5	630	A	N9-C4-C5	-5.21	103.72	105.80
36	5	931	C	C2-N3-C4	-5.21	117.30	119.90
36	5	2579	G	N3-C4-C5	-5.21	126.00	128.60
36	5	2636	A	O5'-P-OP2	5.21	116.95	110.70
64	n8	46	ASP	N-CA-C	-5.21	96.94	111.00
36	1	2621	G	N9-C4-C5	5.21	107.48	105.40
36	5	395	A	C5-C6-N6	-5.21	119.54	123.70
1	2	250	C	O5'-P-OP1	-5.20	101.02	105.70
36	1	206	G	C5-C6-N1	5.20	114.10	111.50
36	1	1154	A	C6-N1-C2	-5.20	115.48	118.60
36	1	1269	U	N3-C2-O2	-5.20	118.56	122.20
36	1	2956	A	N1-C6-N6	5.20	121.72	118.60
37	3	81	U	N1-C2-O2	5.20	126.44	122.80
1	6	1653	C	N3-C4-C5	-5.20	119.82	121.90
36	5	1870	C	C5-C4-N4	-5.20	116.56	120.20
36	5	2763	U	N3-C4-C5	5.20	117.72	114.60
56	n0	113	ARG	NE-CZ-NH1	-5.20	117.70	120.30
36	1	355	A	C8-N9-C4	5.20	107.88	105.80
36	1	1060	U	C6-N1-C2	5.20	124.12	121.00
36	1	1165	A	N1-C6-N6	5.20	121.72	118.60
36	1	1351	U	C5-C6-N1	5.20	125.30	122.70
36	5	630	A	N1-C2-N3	5.20	131.90	129.30
1	2	145	A	N7-C8-N9	5.20	116.40	113.80
36	1	794	U	N3-C2-O2	5.20	125.84	122.20
36	1	816	A	N9-C4-C5	5.20	107.88	105.80
36	1	921	A	O4'-C1'-N9	-5.20	104.04	108.20
36	1	2136	C	N1-C2-O2	-5.20	115.78	118.90
36	1	2380	U	N3-C4-C5	5.20	117.72	114.60
36	5	884	A	C5-N7-C8	-5.20	101.30	103.90
36	5	968	G	C8-N9-C4	5.20	108.48	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1083	G	OP1-P-OP2	5.20	127.40	119.60
36	5	1171	G	OP1-P-OP2	-5.20	111.80	119.60
36	5	3244	A	O4'-C1'-N9	-5.20	104.04	108.20
36	5	3287	U	C6-N1-C2	-5.20	117.88	121.00
36	1	22	G	C5-C6-O6	-5.20	125.48	128.60
36	1	424	G	O5'-P-OP2	-5.20	101.02	105.70
36	1	830	A	O5'-P-OP1	-5.20	101.02	105.70
37	3	108	A	O5'-P-OP1	-5.20	101.02	105.70
36	5	610	G	C4-C5-N7	-5.20	108.72	110.80
36	5	2723	U	N1-C2-N3	5.20	118.02	114.90
38	8	19	C	N1-C2-O2	-5.20	115.78	118.90
1	2	396	G	N3-C4-C5	5.20	131.20	128.60
1	2	1164	G	C5-C6-O6	-5.20	125.48	128.60
36	1	1207	G	N3-C4-N9	5.20	129.12	126.00
36	1	1392	G	N3-C4-C5	-5.20	126.00	128.60
36	5	2425	G	N3-C4-N9	-5.20	122.88	126.00
1	2	1777	G	C6-C5-N7	-5.20	127.28	130.40
36	1	190	U	C2-N1-C1'	-5.20	111.47	117.70
36	1	815	G	C4-N9-C1'	5.20	133.25	126.50
36	1	861	C	O5'-P-OP1	5.20	116.94	110.70
36	1	1386	A	C4-C5-C6	5.20	119.60	117.00
59	n3	45	ARG	NE-CZ-NH1	-5.20	117.70	120.30
36	1	2916	U	N1-C2-O2	5.19	126.44	122.80
1	6	163	G	C8-N9-C4	-5.19	104.32	106.40
36	5	2381	G	C2-N3-C4	5.19	114.50	111.90
36	5	3003	G	C5-C6-N1	5.19	114.10	111.50
36	1	83	U	C5-C4-O4	-5.19	122.78	125.90
36	1	1849	C	N1-C2-O2	-5.19	115.78	118.90
36	1	2355	G	N3-C2-N2	-5.19	116.27	119.90
36	1	2551	U	C2-N1-C1'	5.19	123.93	117.70
1	6	1596	C	N3-C2-O2	-5.19	118.27	121.90
36	5	1149	G	N3-C4-C5	-5.19	126.00	128.60
36	5	1424	C	N1-C2-O2	-5.19	115.78	118.90
36	5	2867	C	N1-C2-O2	-5.19	115.78	118.90
36	5	3225	C	N1-C2-O2	5.19	122.02	118.90
1	2	1650	U	C5-C6-N1	-5.19	120.11	122.70
36	1	2612	U	C2-N3-C4	-5.19	123.89	127.00
36	5	104	G	C5-C6-O6	-5.19	125.49	128.60
36	5	1304	A	OP1-P-OP2	5.19	127.39	119.60
36	5	1431	G	C2-N3-C4	5.19	114.50	111.90
1	6	536	C	C6-N1-C2	-5.19	118.22	120.30
36	5	1056	U	OP2-P-O3'	5.19	116.62	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2887	A	C4-C5-C6	5.19	119.59	117.00
1	2	1100	G	N3-C4-N9	5.19	129.11	126.00
36	1	2151	C	N3-C2-O2	5.19	125.53	121.90
36	1	2358	A	N1-C2-N3	5.19	131.89	129.30
36	1	2915	U	C2-N3-C4	-5.19	123.89	127.00
37	3	86	U	C2-N3-C4	-5.19	123.89	127.00
36	5	538	G	C5-C6-N1	-5.19	108.91	111.50
36	5	648	C	OP1-P-OP2	5.19	127.38	119.60
36	5	903	U	OP1-P-O3'	5.19	116.61	105.20
36	5	1329	U	N1-C2-O2	-5.19	119.17	122.80
36	5	2394	G	C6-C5-N7	-5.19	127.29	130.40
1	2	1744	A	N1-C2-N3	5.19	131.89	129.30
1	6	884	A	C8-N9-C4	5.19	107.87	105.80
36	5	1285	G	C8-N9-C4	5.19	108.47	106.40
36	1	1371	G	C5-C6-O6	-5.18	125.49	128.60
36	1	1857	C	N1-C2-O2	-5.18	115.79	118.90
36	1	2541	U	P-O3'-C3'	5.18	125.92	119.70
68	O2	66	LEU	CB-CG-CD1	-5.18	102.19	111.00
36	5	831	G	C2-N3-C4	5.18	114.49	111.90
36	5	883	A	N1-C2-N3	5.18	131.89	129.30
36	5	1738	C	N1-C2-O2	-5.18	115.79	118.90
36	5	2345	A	N3-C4-N9	5.18	131.55	127.40
36	5	2615	G	C2-N3-C4	-5.18	109.31	111.90
36	5	3008	A	N1-C2-N3	5.18	131.89	129.30
36	5	3098	G	O5'-P-OP2	-5.18	101.03	105.70
36	5	3141	A	OP1-P-OP2	5.18	127.38	119.60
1	2	1486	G	C6-C5-N7	-5.18	127.29	130.40
36	1	205	C	C6-N1-C2	5.18	122.37	120.30
36	1	231	G	N9-C4-C5	5.18	107.47	105.40
36	1	1480	G	N1-C6-O6	5.18	123.01	119.90
1	6	565	C	C6-N1-C1'	-5.18	114.58	120.80
36	5	1306	G	C8-N9-C1'	-5.18	120.26	127.00
36	5	1413	G	C5-C6-N1	5.18	114.09	111.50
36	5	2761	G	N1-C6-O6	5.18	123.01	119.90
36	1	1394	A	C4-C5-C6	-5.18	114.41	117.00
38	4	66	A	C4-C5-C6	5.18	119.59	117.00
1	2	4	C	O5'-P-OP1	-5.18	101.04	105.70
36	1	2412	G	N3-C4-C5	-5.18	126.01	128.60
36	1	2710	C	N1-C2-O2	-5.18	115.79	118.90
36	5	1476	G	C5-C6-O6	5.18	131.71	128.60
1	2	971	A	C4-C5-C6	5.18	119.59	117.00
36	1	210	U	O5'-P-OP1	5.18	116.91	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	M6	28	LEU	CB-CG-CD1	-5.18	102.20	111.00
1	6	435	C	C6-N1-C1'	-5.18	114.59	120.80
36	5	424	G	C8-N9-C4	5.18	108.47	106.40
36	5	1400	G	N3-C4-C5	-5.18	126.01	128.60
36	5	1495	U	N3-C4-C5	-5.18	111.49	114.60
36	1	396	A	C8-N9-C4	-5.17	103.73	105.80
36	1	635	G	N3-C4-C5	-5.17	126.01	128.60
36	5	963	G	N3-C2-N2	5.17	123.52	119.90
36	5	1646	G	C5-C6-O6	-5.17	125.50	128.60
36	5	1757	A	C8-N9-C4	-5.17	103.73	105.80
1	2	730	G	C4-N9-C1'	5.17	133.22	126.50
36	1	757	C	C2-N1-C1'	-5.17	113.11	118.80
36	1	3361	G	N1-C2-N2	-5.17	111.55	116.20
36	1	1131	G	C6-C5-N7	-5.17	127.30	130.40
36	1	2801	A	C8-N9-C4	5.17	107.87	105.80
37	3	82	G	C6-N1-C2	-5.17	122.00	125.10
47	M0	21	ARG	NE-CZ-NH1	-5.17	117.71	120.30
36	5	1116	G	OP2-P-O3'	5.17	116.58	105.20
36	5	1848	G	O4'-C1'-N9	5.17	112.34	108.20
36	5	2556	C	N1-C2-O2	5.17	122.00	118.90
36	5	3074	G	C2-N3-C4	5.17	114.49	111.90
37	7	73	C	N3-C4-N4	5.17	121.62	118.00
36	1	994	G	OP1-P-O3'	5.17	116.57	105.20
36	5	1329	U	C3'-C2'-C1'	5.17	105.64	101.50
36	5	2932	U	C5-C6-N1	-5.17	120.11	122.70
1	2	426	G	C8-N9-C1'	-5.17	120.28	127.00
36	1	3205	G	C2-N3-C4	-5.17	109.31	111.90
36	5	1314	C	C2-N1-C1'	5.17	124.48	118.80
36	5	2380	U	O5'-P-OP2	-5.17	101.05	105.70
36	1	97	U	OP2-P-O3'	5.17	116.56	105.20
36	1	635	G	N3-C4-N9	5.17	129.10	126.00
36	1	1049	C	N3-C4-C5	5.17	123.97	121.90
36	1	2416	U	N3-C4-C5	-5.17	111.50	114.60
36	1	3362	A	C4-N9-C1'	5.17	135.60	126.30
1	6	1119	G	N3-C4-C5	-5.17	126.02	128.60
36	5	2878	G	C5-C6-N1	5.17	114.08	111.50
36	5	3177	G	C8-N9-C4	5.17	108.47	106.40
36	1	2871	G	C2-N3-C4	5.17	114.48	111.90
46	L9	31	ARG	NE-CZ-NH1	-5.17	117.72	120.30
36	1	847	A	C5-C6-N6	-5.16	119.57	123.70
36	1	1461	A	N1-C6-N6	5.16	121.70	118.60
36	1	2314	U	O5'-P-OP1	5.16	116.90	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2870	C	N3-C4-C5	5.16	123.97	121.90
36	1	2952	G	N9-C4-C5	-5.16	103.33	105.40
36	1	3303	G	O4'-C1'-N9	5.16	112.33	108.20
1	6	1775	U	C2-N3-C4	-5.16	123.90	127.00
36	5	1861	G	C8-N9-C4	-5.16	104.33	106.40
37	7	51	A	C5-N7-C8	-5.16	101.32	103.90
36	1	1886	A	N1-C6-N6	-5.16	115.50	118.60
36	5	1534	A	C8-N9-C1'	-5.16	118.41	127.70
38	8	5	U	C5-C4-O4	-5.16	122.80	125.90
38	8	45	C	N3-C4-C5	-5.16	119.84	121.90
1	2	1740	A	N9-C4-C5	-5.16	103.74	105.80
36	1	887	G	N3-C4-N9	5.16	129.10	126.00
36	1	2782	U	C5-C6-N1	-5.16	120.12	122.70
1	6	151	G	N3-C4-C5	5.16	131.18	128.60
36	5	2895	G	N1-C6-O6	5.16	123.00	119.90
36	5	704	U	N3-C2-O2	5.16	125.81	122.20
36	1	398	A	N9-C4-C5	-5.16	103.74	105.80
36	1	439	C	N3-C2-O2	-5.16	118.29	121.90
36	1	1869	C	C2-N3-C4	5.16	122.48	119.90
36	5	1304	A	C8-N9-C4	-5.16	103.74	105.80
36	5	1730	G	O5'-P-OP1	-5.16	101.06	105.70
36	5	1865	A	C2-N3-C4	-5.16	108.02	110.60
36	5	2396	G	C8-N9-C4	-5.16	104.34	106.40
36	5	2861	U	O5'-P-OP2	5.16	116.89	110.70
1	2	1782	A	N9-C4-C5	5.15	107.86	105.80
36	1	2177	G	N1-C2-N2	-5.15	111.56	116.20
36	1	1325	U	P-O3'-C3'	-5.15	113.52	119.70
38	4	107	G	N7-C8-N9	-5.15	110.52	113.10
1	6	25	C	OP2-P-O3'	5.15	116.54	105.20
1	6	163	G	C4-N9-C1'	-5.15	119.80	126.50
1	6	1674	C	N3-C2-O2	5.15	125.51	121.90
36	5	804	C	C5-C6-N1	-5.15	118.42	121.00
37	7	39	C	C2-N1-C1'	5.15	124.47	118.80
36	1	397	A	N9-C4-C5	5.15	107.86	105.80
36	1	2369	G	N3-C4-C5	-5.15	126.03	128.60
38	4	99	C	C6-N1-C2	5.15	122.36	120.30
36	5	354	U	C6-N1-C1'	-5.15	113.99	121.20
36	5	1184	A	C5-C6-N6	5.15	127.82	123.70
36	5	1866	C	C2-N1-C1'	5.15	124.47	118.80
36	5	2385	G	C5-C6-N1	-5.15	108.92	111.50
36	5	2820	A	C8-N9-C4	-5.15	103.74	105.80
1	2	139	C	P-O3'-C3'	5.15	125.88	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	874	U	O5'-P-OP1	-5.15	101.07	105.70
41	L4	98	ARG	NE-CZ-NH2	5.15	122.87	120.30
36	5	2950	G	C6-C5-N7	-5.15	127.31	130.40
36	1	878	G	N1-C2-N2	-5.15	111.57	116.20
36	1	1371	G	N3-C4-N9	5.15	129.09	126.00
36	1	1399	A	N3-C4-C5	5.15	130.40	126.80
36	1	2625	C	C2-N3-C4	-5.15	117.33	119.90
36	5	323	A	OP1-P-O3'	5.15	116.52	105.20
36	5	805	G	C5-C6-O6	-5.15	125.51	128.60
36	5	2613	U	OP1-P-O3'	5.15	116.52	105.20
36	5	3368	U	N1-C2-O2	-5.15	119.20	122.80
36	1	984	G	N1-C2-N2	-5.14	111.57	116.20
36	1	2153	U	N1-C2-N3	5.14	117.99	114.90
1	6	578	U	C5-C6-N1	-5.14	120.13	122.70
1	6	1346	A	O4'-C1'-N9	5.14	112.32	108.20
1	6	1354	G	C4-N9-C1'	5.14	133.19	126.50
36	5	225	C	N1-C2-O2	-5.14	115.81	118.90
36	5	2721	A	O5'-P-OP1	-5.14	101.07	105.70
36	5	3153	U	C2-N1-C1'	5.14	123.87	117.70
36	1	332	C	C5-C6-N1	-5.14	118.43	121.00
36	1	395	A	N9-C4-C5	5.14	107.86	105.80
36	1	900	G	C4-C5-N7	-5.14	108.74	110.80
36	1	1194	G	C8-N9-C4	-5.14	104.34	106.40
36	1	2400	G	N1-C6-O6	5.14	122.98	119.90
36	5	1117	G	N3-C4-C5	5.14	131.17	128.60
36	5	1298	C	N1-C2-O2	-5.14	115.81	118.90
36	5	1662	G	N1-C6-O6	5.14	122.99	119.90
36	1	2114	C	O5'-P-OP2	-5.14	101.07	105.70
1	6	29	U	C4-C5-C6	5.14	122.78	119.70
36	5	963	G	N1-C6-O6	-5.14	116.81	119.90
36	5	1075	A	C8-N9-C4	5.14	107.86	105.80
73	O7	5	THR	C-N-CD	5.14	139.19	128.40
36	5	806	A	C8-N9-C4	5.14	107.86	105.80
36	5	806	A	N3-C4-C5	5.14	130.40	126.80
36	5	935	U	N3-C4-O4	5.14	123.00	119.40
36	5	1885	U	C5-C6-N1	-5.14	120.13	122.70
36	5	3105	U	C2-N1-C1'	-5.14	111.53	117.70
1	2	409	C	N1-C2-O2	-5.14	115.82	118.90
36	1	3207	U	C6-N1-C1'	5.14	128.39	121.20
38	4	31	G	N1-C6-O6	5.14	122.98	119.90
36	1	1103	A	P-O3'-C3'	5.14	125.86	119.70
36	1	2298	U	O4'-C1'-N1	5.14	112.31	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2873	U	N1-C2-N3	5.14	117.98	114.90
36	5	394	G	C5-C6-O6	5.14	131.68	128.60
36	5	1226	G	C5-C6-O6	-5.14	125.52	128.60
36	5	1456	A	OP1-P-O3'	5.14	116.50	105.20
36	5	1483	G	C6-C5-N7	5.14	133.48	130.40
36	5	2145	A	N3-C4-C5	-5.14	123.20	126.80
36	5	2617	U	C6-N1-C2	-5.14	117.92	121.00
36	5	2940	A	C6-N1-C2	-5.14	115.52	118.60
36	1	364	G	N1-C2-N3	-5.13	120.82	123.90
36	1	609	G	C5-C6-N1	5.13	114.07	111.50
36	1	632	G	N9-C4-C5	-5.13	103.35	105.40
36	1	1316	C	N3-C4-C5	-5.13	119.85	121.90
36	1	2891	U	C5-C4-O4	-5.13	122.82	125.90
1	6	1758	U	C2-N1-C1'	5.13	123.86	117.70
36	5	2950	G	C5-C6-O6	-5.13	125.52	128.60
36	5	2263	C	C5-C6-N1	5.13	123.57	121.00
1	2	1096	C	N3-C2-O2	-5.13	118.31	121.90
36	1	639	G	N3-C4-N9	5.13	129.08	126.00
36	1	971	G	C5-C6-N1	5.13	114.07	111.50
36	1	2860	U	O5'-P-OP1	5.13	116.86	110.70
1	6	280	U	N1-C2-O2	5.13	126.39	122.80
36	5	35	A	C4-C5-C6	5.13	119.57	117.00
36	5	1214	U	C6-N1-C2	-5.13	117.92	121.00
36	1	249	U	C6-N1-C2	-5.13	117.92	121.00
36	1	1436	U	N1-C2-O2	-5.13	119.21	122.80
36	1	3362	A	C4-C5-N7	5.13	113.27	110.70
36	5	3099	C	C6-N1-C1'	5.13	126.95	120.80
1	2	616	G	C4-C5-N7	-5.13	108.75	110.80
36	1	2728	G	O5'-P-OP1	-5.13	101.08	105.70
1	6	1162	C	C6-N1-C2	-5.13	118.25	120.30
1	6	1615	C	N1-C2-O2	-5.13	115.82	118.90
36	5	636	C	C5-C6-N1	-5.13	118.44	121.00
36	5	1187	C	OP2-P-O3'	5.13	116.48	105.20
36	5	1214	U	N3-C4-O4	5.13	122.99	119.40
36	5	1437	C	C6-N1-C2	-5.13	118.25	120.30
36	5	1848	G	OP2-P-O3'	5.13	116.48	105.20
36	5	3370	A	C2-N3-C4	5.13	113.16	110.60
1	2	1345	A	O5'-P-OP2	-5.13	101.09	105.70
1	2	1389	C	N1-C2-O2	5.13	121.98	118.90
41	L4	316	ASN	C-N-CD	5.13	139.17	128.40
1	6	937	C	N3-C4-C5	-5.13	119.85	121.90
36	5	1667	A	N9-C4-C5	-5.13	103.75	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2191	U	C5-C4-O4	5.13	128.98	125.90
36	5	2920	U	C2-N3-C4	-5.13	123.92	127.00
38	8	2	A	C5-N7-C8	-5.13	101.34	103.90
36	1	1133	A	N9-C4-C5	-5.12	103.75	105.80
1	6	359	A	N3-C4-N9	-5.12	123.30	127.40
36	5	655	C	C2-N3-C4	-5.12	117.34	119.90
1	2	323	A	N7-C8-N9	5.12	116.36	113.80
36	1	21	G	C5-C6-O6	5.12	131.67	128.60
36	1	1414	G	C6-C5-N7	-5.12	127.33	130.40
36	1	2847	A	C5-C6-N6	-5.12	119.60	123.70
36	1	3298	C	C6-N1-C2	5.12	122.35	120.30
36	5	2968	G	O4'-C1'-N9	-5.12	104.10	108.20
1	2	1274	C	C6-N1-C1'	-5.12	114.65	120.80
36	1	1146	C	C6-N1-C2	5.12	122.35	120.30
36	1	2385	G	O5'-P-OP2	-5.12	101.09	105.70
36	1	2773	C	OP1-P-OP2	5.12	127.28	119.60
36	1	2966	G	N9-C4-C5	-5.12	103.35	105.40
37	3	82	G	C6-C5-N7	-5.12	127.33	130.40
36	5	27	C	C2-N1-C1'	-5.12	113.17	118.80
36	5	403	C	OP2-P-O3'	5.12	116.47	105.20
36	5	2405	C	N3-C4-C5	-5.12	119.85	121.90
38	8	90	U	N1-C2-N3	-5.12	111.83	114.90
36	1	1556	C	C6-N1-C1'	-5.12	114.66	120.80
36	1	2177	G	N1-C6-O6	-5.12	116.83	119.90
36	1	2871	G	C5-C6-N1	5.12	114.06	111.50
36	5	704	U	N1-C2-O2	-5.12	119.22	122.80
1	2	570	A	C5-C6-N6	-5.12	119.61	123.70
36	1	98	G	C8-N9-C4	5.12	108.45	106.40
36	1	1486	G	C5-C6-O6	-5.12	125.53	128.60
36	1	1877	U	N3-C2-O2	5.12	125.78	122.20
36	1	2705	A	OP2-P-O3'	5.12	116.46	105.20
36	1	2710	C	N3-C4-C5	5.12	123.95	121.90
36	5	1319	G	C5-N7-C8	5.12	106.86	104.30
36	5	2393	G	O5'-P-OP2	-5.12	101.09	105.70
37	7	12	U	C5-C4-O4	-5.12	122.83	125.90
37	7	75	G	C6-C5-N7	-5.12	127.33	130.40
36	1	1180	A	C2-N3-C4	-5.12	108.04	110.60
36	1	2351	U	C6-N1-C2	-5.12	117.93	121.00
36	5	639	G	N9-C1'-C2'	-5.12	106.37	112.00
36	5	1386	A	OP1-P-OP2	5.12	127.28	119.60
61	n5	34	LEU	CA-CB-CG	5.12	127.07	115.30
38	4	95	G	C4-N9-C1'	-5.12	119.85	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	251	A	C8-N9-C4	5.12	107.85	105.80
1	6	1615	C	C3'-C2'-C1'	5.12	105.59	101.50
36	5	934	G	N1-C6-O6	5.12	122.97	119.90
36	5	2816	G	C6-N1-C2	-5.12	122.03	125.10
1	2	590	C	C6-N1-C2	-5.11	118.25	120.30
36	1	1190	A	C4-N9-C1'	5.11	135.50	126.30
36	1	2200	U	N3-C4-O4	5.11	122.98	119.40
1	6	426	G	C5-C6-O6	5.11	131.67	128.60
36	5	250	U	C5-C6-N1	5.11	125.26	122.70
36	5	512	U	N1-C2-N3	5.11	117.97	114.90
36	1	1790	G	N3-C2-N2	-5.11	116.32	119.90
36	1	2165	G	OP1-P-OP2	5.11	127.27	119.60
36	1	2586	G	N1-C6-O6	-5.11	116.83	119.90
68	O2	27	ARG	NE-CZ-NH1	-5.11	117.74	120.30
1	6	901	G	C6-C5-N7	-5.11	127.33	130.40
1	6	1744	A	C5-C6-N6	-5.11	119.61	123.70
36	1	612	U	C5-C6-N1	-5.11	120.14	122.70
36	1	1858	A	N7-C8-N9	5.11	116.36	113.80
37	3	39	C	OP1-P-OP2	5.11	127.27	119.60
36	5	635	G	C2-N3-C4	-5.11	109.34	111.90
36	5	1534	A	N1-C6-N6	5.11	121.67	118.60
36	5	1897	G	N7-C8-N9	5.11	115.66	113.10
36	1	48	A	O4'-C1'-N9	5.11	112.29	108.20
36	1	1405	U	C2-N3-C4	-5.11	123.94	127.00
46	L9	41	ILE	N-CA-C	5.11	124.79	111.00
1	6	1767	G	C4-N9-C1'	-5.11	119.86	126.50
36	5	2121	G	N3-C4-N9	5.11	129.06	126.00
36	5	3245	A	C4-C5-C6	5.11	119.55	117.00
1	2	158	U	P-O3'-C3'	5.11	125.83	119.70
36	1	1340	G	N9-C4-C5	-5.11	103.36	105.40
36	1	1556	C	C5-C6-N1	5.11	123.55	121.00
36	1	1654	A	C8-N9-C4	5.11	107.84	105.80
36	1	2949	U	C6-N1-C2	5.11	124.06	121.00
1	6	915	A	C8-N9-C4	-5.11	103.76	105.80
36	5	561	C	C2-N3-C4	5.11	122.45	119.90
36	5	916	G	O5'-P-OP1	-5.11	101.10	105.70
36	5	2198	A	C6-N1-C2	-5.11	115.53	118.60
36	1	282	G	N1-C6-O6	-5.11	116.84	119.90
36	1	999	G	C8-N9-C4	5.11	108.44	106.40
36	5	2848	G	C5-C6-N1	-5.11	108.95	111.50
36	1	676	G	N1-C6-O6	5.10	122.96	119.90
36	1	2572	C	C5-C6-N1	5.10	123.55	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	3	82	G	C8-N9-C1'	-5.10	120.36	127.00
36	5	1540	U	N3-C2-O2	-5.10	118.63	122.20
36	5	2338	C	N3-C4-N4	5.10	121.57	118.00
36	5	2805	G	C8-N9-C4	5.10	108.44	106.40
36	5	3378	C	C2-N3-C4	-5.10	117.35	119.90
1	2	142	G	N1-C6-O6	5.10	122.96	119.90
1	2	1465	C	C4-C5-C6	5.10	119.95	117.40
36	1	901	G	C5-C6-O6	-5.10	125.54	128.60
36	1	937	G	O5'-P-OP2	-5.10	101.11	105.70
36	1	1334	U	N3-C4-O4	5.10	122.97	119.40
36	1	2290	C	N3-C4-C5	-5.10	119.86	121.90
1	6	187	G	P-O3'-C3'	5.10	125.82	119.70
36	5	1113	G	N1-C6-O6	5.10	122.96	119.90
36	5	1902	G	O5'-P-OP2	5.10	116.82	110.70
36	5	2296	A	N7-C8-N9	5.10	116.35	113.80
36	5	2372	A	OP1-P-OP2	5.10	127.25	119.60
36	5	2395	G	OP2-P-O3'	5.10	116.43	105.20
36	5	3195	U	N1-C2-O2	5.10	126.37	122.80
37	7	32	U	C5-C4-O4	-5.10	122.84	125.90
36	1	1386	A	N1-C6-N6	5.10	121.66	118.60
36	5	2616	C	N1-C2-O2	-5.10	115.84	118.90
36	1	935	U	C4-C5-C6	5.10	122.76	119.70
36	1	1395	G	N7-C8-N9	-5.10	110.55	113.10
36	1	2343	C	C2-N3-C4	-5.10	117.35	119.90
1	6	1185	U	N1-C2-O2	5.10	126.37	122.80
9	s7	141	ARG	NE-CZ-NH1	5.10	122.85	120.30
36	5	112	U	C2-N1-C1'	5.10	123.82	117.70
36	5	768	C	C6-N1-C2	-5.10	118.26	120.30
36	5	878	G	C6-C5-N7	-5.10	127.34	130.40
36	5	2320	A	C2-N3-C4	-5.10	108.05	110.60
38	8	114	G	O5'-P-OP1	-5.10	101.11	105.70
1	2	992	A	O4'-C1'-N9	5.10	112.28	108.20
36	1	1056	U	C6-N1-C2	-5.10	117.94	121.00
36	1	1827	C	C6-N1-C2	5.10	122.34	120.30
36	1	2914	G	N7-C8-N9	-5.10	110.55	113.10
36	1	2986	U	C6-N1-C2	-5.10	117.94	121.00
1	6	347	G	N3-C4-C5	-5.10	126.05	128.60
36	5	2980	U	N1-C2-N3	5.10	117.96	114.90
36	5	3323	A	C2-N3-C4	-5.10	108.05	110.60
1	6	639	U	N3-C4-O4	-5.10	115.83	119.40
36	5	354	U	C2-N1-C1'	5.10	123.82	117.70
36	5	2725	U	C4-C5-C6	-5.10	116.64	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	969	C	N3-C4-C5	5.09	123.94	121.90
36	1	3140	G	C5-C6-O6	-5.09	125.54	128.60
64	N8	9	ARG	NE-CZ-NH1	-5.09	117.75	120.30
1	6	598	U	N1-C2-N3	5.09	117.96	114.90
36	5	61	A	C2-N3-C4	-5.09	108.05	110.60
36	5	358	G	C5-C6-O6	-5.09	125.54	128.60
36	5	682	U	O5'-P-OP1	-5.09	101.11	105.70
38	8	90	U	C6-N1-C1'	-5.09	114.07	121.20
36	1	949	C	N3-C4-C5	-5.09	119.86	121.90
36	1	3121	U	OP1-P-O3'	5.09	116.41	105.20
36	5	3039	C	C4-C5-C6	5.09	119.95	117.40
36	1	1124	U	OP1-P-O3'	5.09	116.40	105.20
36	1	1386	A	C6-C5-N7	-5.09	128.74	132.30
36	1	2749	G	N3-C4-C5	5.09	131.15	128.60
1	6	314	C	N3-C4-N4	5.09	121.56	118.00
1	6	943	C	O5'-P-OP1	-5.09	101.12	105.70
36	5	659	G	OP2-P-O3'	5.09	116.40	105.20
36	5	883	A	C2-N3-C4	-5.09	108.06	110.60
36	5	1872	C	N3-C4-N4	-5.09	114.44	118.00
36	5	2419	A	C5-N7-C8	-5.09	101.35	103.90
36	5	2728	G	C8-N9-C4	-5.09	104.36	106.40
36	5	3080	G	N1-C6-O6	5.09	122.95	119.90
36	5	3243	A	C4-C5-C6	5.09	119.55	117.00
1	2	1458	G	C8-N9-C1'	-5.09	120.39	127.00
36	1	297	G	N1-C6-O6	-5.09	116.85	119.90
36	1	2785	A	C8-N9-C4	5.09	107.84	105.80
36	1	3055	U	C5-C4-O4	-5.09	122.85	125.90
1	6	1000	C	C4-C5-C6	5.09	119.94	117.40
36	5	405	U	C5-C4-O4	-5.09	122.85	125.90
36	5	638	C	C6-N1-C2	-5.09	118.26	120.30
36	5	923	C	C6-N1-C1'	-5.09	114.69	120.80
36	5	1199	C	O5'-P-OP2	-5.09	101.12	105.70
36	5	3287	U	N1-C2-O2	5.09	126.36	122.80
1	2	74	U	O5'-P-OP1	-5.09	101.12	105.70
36	1	159	A	C2-N3-C4	-5.09	108.06	110.60
36	1	500	C	C4-C5-C6	5.09	119.94	117.40
36	1	3264	G	N7-C8-N9	-5.09	110.56	113.10
36	5	574	U	C2-N1-C1'	-5.09	111.59	117.70
1	2	1324	G	N9-C4-C5	5.09	107.43	105.40
15	C3	22	ALA	C-N-CA	5.09	143.36	122.00
36	1	939	U	C2-N3-C4	-5.09	123.95	127.00
36	1	2295	A	N7-C8-N9	5.09	116.34	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	102	C	N3-C4-N4	5.09	121.56	118.00
36	5	893	C	N1-C2-O2	5.09	121.95	118.90
36	5	1373	A	N9-C4-C5	-5.09	103.77	105.80
36	5	3137	C	C6-N1-C1'	5.09	126.90	120.80
36	1	1445	U	OP2-P-O3'	5.08	116.39	105.20
38	4	121	U	C5-C4-O4	5.08	128.95	125.90
1	6	116	U	N3-C4-O4	5.08	122.96	119.40
1	2	118	U	C5-C6-N1	-5.08	120.16	122.70
1	2	1633	A	C8-N9-C4	-5.08	103.77	105.80
1	2	1755	A	N1-C6-N6	5.08	121.65	118.60
36	1	2712	U	N3-C4-O4	-5.08	115.84	119.40
1	6	403	G	C2-N3-C4	-5.08	109.36	111.90
1	6	965	U	N3-C2-O2	-5.08	118.64	122.20
36	5	366	A	OP1-P-O3'	5.08	116.39	105.20
36	5	1389	G	C6-C5-N7	-5.08	127.35	130.40
36	5	2813	A	C6-C5-N7	-5.08	128.74	132.30
1	2	1462	G	C4-C5-N7	5.08	112.83	110.80
36	1	1480	G	C6-C5-N7	-5.08	127.35	130.40
36	1	2249	G	N9-C4-C5	-5.08	103.37	105.40
1	6	435	C	N3-C2-O2	-5.08	118.34	121.90
1	6	557	G	P-O3'-C3'	5.08	125.80	119.70
36	5	1407	A	C6-N1-C2	5.08	121.65	118.60
36	5	1837	U	N3-C4-O4	5.08	122.96	119.40
36	5	2884	C	C4-C5-C6	-5.08	114.86	117.40
1	2	1272	U	OP2-P-O3'	5.08	116.37	105.20
36	1	69	C	N1-C2-O2	-5.08	115.85	118.90
36	1	217	U	OP1-P-OP2	5.08	127.22	119.60
36	1	757	C	N3-C2-O2	5.08	125.45	121.90
1	6	392	G	C5-C6-O6	-5.08	125.55	128.60
1	6	1267	G	C8-N9-C4	5.08	108.43	106.40
36	5	631	U	C5-C6-N1	-5.08	120.16	122.70
36	5	1130	A	OP1-P-OP2	5.08	127.22	119.60
36	5	1226	G	C6-C5-N7	-5.08	127.35	130.40
36	5	2647	A	C6-N1-C2	-5.08	115.55	118.60
1	6	1119	G	N1-C6-O6	-5.08	116.85	119.90
36	5	567	G	C5-C6-O6	-5.08	125.55	128.60
1	2	830	U	C2-N1-C1'	5.08	123.79	117.70
36	1	712	G	OP1-P-OP2	5.08	127.21	119.60
36	1	3206	C	C2-N1-C1'	-5.08	113.22	118.80
36	5	1480	G	P-O3'-C3'	-5.08	113.61	119.70
36	5	2330	C	O5'-P-OP2	-5.08	101.13	105.70
36	1	906	A	N3-C4-C5	-5.07	123.25	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1313	G	C5-N7-C8	-5.07	101.76	104.30
36	1	1444	G	N1-C6-O6	5.07	122.94	119.90
1	6	199	G	O4'-C1'-N9	5.07	112.26	108.20
36	5	2818	U	C4-C5-C6	-5.07	116.66	119.70
36	5	2859	U	N1-C2-O2	-5.07	119.25	122.80
36	5	2900	A	N1-C6-N6	-5.07	115.56	118.60
37	7	39	C	N3-C4-N4	5.07	121.55	118.00
38	8	20	U	N1-C2-O2	-5.07	119.25	122.80
1	2	1174	C	N1-C2-O2	5.07	121.94	118.90
36	1	898	U	C2-N1-C1'	5.07	123.79	117.70
36	1	1053	A	C8-N9-C4	5.07	107.83	105.80
36	1	1906	G	C5-C6-O6	-5.07	125.56	128.60
36	5	2128	C	C2-N1-C1'	5.07	124.38	118.80
68	o2	47	ARG	NE-CZ-NH1	5.07	122.84	120.30
36	1	785	G	C2-N3-C4	5.07	114.44	111.90
36	1	2805	G	C8-N9-C4	5.07	108.43	106.40
36	1	2987	A	C8-N9-C1'	-5.07	118.57	127.70
38	4	82	U	C6-N1-C2	-5.07	117.96	121.00
1	6	1636	C	N3-C4-N4	5.07	121.55	118.00
36	5	964	G	N7-C8-N9	5.07	115.64	113.10
36	5	2398	A	C6-N1-C2	-5.07	115.56	118.60
36	5	2877	G	C5-N7-C8	5.07	106.83	104.30
36	1	100	A	C2-N3-C4	-5.07	108.07	110.60
36	1	520	U	N1-C2-O2	-5.07	119.25	122.80
36	1	1328	C	N1-C2-O2	-5.07	115.86	118.90
36	1	1420	C	C5-C4-N4	5.07	123.75	120.20
36	1	277	G	C2-N3-C4	5.07	114.43	111.90
36	1	1133	A	C8-N9-C4	5.07	107.83	105.80
36	1	1507	G	C4-N9-C1'	5.07	133.09	126.50
36	1	2314	U	O5'-P-OP2	-5.07	101.14	105.70
68	O2	47	ARG	NE-CZ-NH1	-5.07	117.77	120.30
11	s9	116	LEU	CA-CB-CG	-5.07	103.64	115.30
36	5	991	G	C2-N3-C4	5.07	114.43	111.90
36	5	1004	U	C5-C6-N1	5.07	125.23	122.70
36	1	292	U	N1-C2-O2	-5.07	119.25	122.80
36	1	1126	G	N1-C6-O6	5.07	122.94	119.90
36	1	3205	G	N1-C2-N2	-5.07	111.64	116.20
38	4	20	U	N3-C4-C5	5.07	117.64	114.60
38	4	115	C	N3-C4-C5	5.07	123.93	121.90
1	6	1133	A	O5'-P-OP2	5.07	116.78	110.70
36	5	170	G	C4-N9-C1'	5.07	133.09	126.50
36	5	353	G	O5'-P-OP1	-5.07	101.14	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2297	U	C2-N1-C1'	-5.07	111.62	117.70
36	5	2829	U	N3-C4-O4	5.07	122.95	119.40
1	6	1097	U	P-O3'-C3'	5.06	125.78	119.70
36	5	3296	A	OP2-P-O3'	5.06	116.34	105.20
36	1	87	U	C6-N1-C2	-5.06	117.96	121.00
36	1	1578	C	C6-N1-C2	-5.06	118.28	120.30
36	1	2920	U	C6-N1-C2	5.06	124.04	121.00
36	1	2961	G	N1-C6-O6	5.06	122.94	119.90
1	6	1013	A	C4-C5-N7	5.06	113.23	110.70
36	5	971	G	C6-N1-C2	-5.06	122.06	125.10
36	5	3172	A	C2-N3-C4	-5.06	108.07	110.60
1	2	1241	G	C5-N7-C8	-5.06	101.77	104.30
1	2	1675	C	N3-C2-O2	-5.06	118.36	121.90
36	1	201	A	C5-C6-N1	-5.06	115.17	117.70
36	1	498	A	O5'-P-OP1	5.06	116.77	110.70
36	1	703	G	N9-C4-C5	5.06	107.42	105.40
36	1	2866	U	OP1-P-O3'	5.06	116.33	105.20
36	5	2626	A	OP1-P-OP2	-5.06	112.01	119.60
36	5	2880	U	C6-N1-C2	-5.06	117.96	121.00
36	1	326	U	N3-C4-C5	-5.06	111.56	114.60
36	1	573	C	C5-C6-N1	-5.06	118.47	121.00
36	1	648	C	C2-N1-C1'	5.06	124.36	118.80
36	1	1113	G	C6-C5-N7	-5.06	127.36	130.40
36	1	1456	A	OP1-P-O3'	5.06	116.33	105.20
36	1	1838	G	C4-N9-C1'	5.06	133.08	126.50
36	1	2165	G	O5'-P-OP2	-5.06	101.15	105.70
36	1	2435	G	C2-N3-C4	-5.06	109.37	111.90
36	1	2999	U	C2-N1-C1'	-5.06	111.63	117.70
1	6	1648	A	N9-C4-C5	-5.06	103.78	105.80
36	5	1226	G	C4-C5-N7	5.06	112.82	110.80
36	5	3022	G	O5'-P-OP1	-5.06	101.15	105.70
1	2	1431	C	C6-N1-C2	5.06	122.32	120.30
36	1	357	A	N7-C8-N9	5.06	116.33	113.80
36	1	588	G	N3-C4-C5	-5.06	126.07	128.60
38	8	6	U	C6-N1-C2	5.06	124.03	121.00
36	5	2146	C	O5'-P-OP2	-5.06	101.15	105.70
36	1	54	C	C5-C4-N4	-5.05	116.66	120.20
36	1	1166	G	C6-C5-N7	-5.05	127.37	130.40
36	1	2800	G	O5'-P-OP1	5.05	116.77	110.70
36	1	2870	C	O5'-P-OP2	-5.05	101.15	105.70
37	3	81	U	N3-C2-O2	-5.05	118.66	122.20
1	6	976	G	N1-C2-N2	-5.05	111.65	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1748	G	C5-C6-O6	-5.05	125.57	128.60
36	5	833	G	C5-C6-O6	-5.05	125.57	128.60
36	5	949	C	C2-N3-C4	-5.05	117.37	119.90
36	5	1312	C	N3-C4-C5	-5.05	119.88	121.90
36	5	2342	U	OP2-P-O3'	5.05	116.32	105.20
36	5	2948	C	N3-C4-C5	5.05	123.92	121.90
36	1	2995	A	C5-C6-N1	-5.05	115.17	117.70
36	1	3101	G	C8-N9-C4	5.05	108.42	106.40
36	5	2697	A	C6-C5-N7	-5.05	128.76	132.30
36	5	2984	C	C6-N1-C2	5.05	122.32	120.30
36	5	3309	G	N3-C4-N9	5.05	129.03	126.00
1	2	169	A	C5-C6-N6	-5.05	119.66	123.70
1	2	969	C	C6-N1-C2	5.05	122.32	120.30
36	1	1192	C	C2-N3-C4	5.05	122.42	119.90
36	1	2167	A	OP2-P-O3'	5.05	116.31	105.20
36	1	2227	C	C4-C5-C6	5.05	119.92	117.40
36	1	2376	G	C5-N7-C8	-5.05	101.77	104.30
36	5	1379	G	C6-C5-N7	-5.05	127.37	130.40
36	5	1409	G	N3-C4-C5	-5.05	126.07	128.60
1	2	1611	A	N1-C2-N3	5.05	131.82	129.30
36	1	1001	G	C8-N9-C1'	-5.05	120.44	127.00
36	1	2378	C	C2-N3-C4	-5.05	117.38	119.90
36	1	2880	U	C5-C6-N1	5.05	125.22	122.70
36	5	2605	G	OP2-P-O3'	5.05	116.31	105.20
36	5	2979	U	C2-N1-C1'	-5.05	111.64	117.70
36	1	3079	U	C5-C6-N1	-5.05	120.18	122.70
1	6	1022	C	N3-C2-O2	5.05	125.43	121.90
36	5	1634	G	C8-N9-C4	5.05	108.42	106.40
1	2	499	U	C3'-C2'-C1'	5.05	105.54	101.50
36	1	632	G	OP2-P-O3'	5.05	116.30	105.20
36	1	1174	G	C8-N9-C1'	-5.05	120.44	127.00
36	1	2391	G	C6-N1-C2	-5.05	122.07	125.10
36	5	336	A	N1-C6-N6	-5.05	115.57	118.60
36	5	3382	U	C5-C6-N1	5.05	125.22	122.70
38	8	2	A	C8-N9-C4	-5.05	103.78	105.80
36	1	1310	G	N1-C6-O6	-5.04	116.87	119.90
36	1	2401	A	C8-N9-C4	-5.04	103.78	105.80
37	3	67	G	C8-N9-C4	5.04	108.42	106.40
1	6	435	C	C2-N1-C1'	5.04	124.35	118.80
1	6	616	G	N9-C4-C5	5.04	107.42	105.40
36	5	1766	G	C8-N9-C4	-5.04	104.38	106.40
1	2	359	A	N1-C2-N3	-5.04	126.78	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	794	U	N1-C2-O2	5.04	126.33	122.80
36	1	999	G	O5'-P-OP2	5.04	116.75	110.70
36	1	1307	G	N3-C4-N9	-5.04	122.97	126.00
36	1	1355	A	P-O3'-C3'	5.04	125.75	119.70
36	1	2179	C	N1-C2-O2	5.04	121.92	118.90
36	1	2873	U	N3-C4-O4	-5.04	115.87	119.40
36	1	2954	U	C6-N1-C2	5.04	124.02	121.00
36	1	3275	U	C6-N1-C2	-5.04	117.97	121.00
36	5	834	U	C4-C5-C6	-5.04	116.67	119.70
36	5	1466	G	C8-N9-C4	5.04	108.42	106.40
36	5	1941	C	N3-C2-O2	5.04	125.43	121.90
36	1	320	G	N1-C6-O6	5.04	122.92	119.90
36	1	2723	U	N3-C4-C5	5.04	117.62	114.60
36	5	696	C	N3-C4-N4	5.04	121.53	118.00
56	n0	13	ARG	NE-CZ-NH2	-5.04	117.78	120.30
36	1	665	A	C5-C6-N1	5.04	120.22	117.70
36	1	916	G	P-O3'-C3'	5.04	125.75	119.70
36	1	1429	G	C4-N9-C1'	5.04	133.05	126.50
36	1	1480	G	N3-C2-N2	5.04	123.43	119.90
36	1	2612	U	N3-C4-C5	5.04	117.62	114.60
1	6	100	A	C8-N9-C4	5.04	107.82	105.80
36	5	1083	G	N9-C4-C5	5.04	107.42	105.40
36	5	1302	A	OP1-P-OP2	-5.04	112.04	119.60
36	5	2366	C	C2-N1-C1'	5.04	124.34	118.80
36	5	2645	G	C4-C5-N7	-5.04	108.78	110.80
38	8	3	A	N1-C6-N6	-5.04	115.58	118.60
36	1	1002	A	C8-N9-C4	5.04	107.81	105.80
36	5	1387	G	N3-C4-N9	-5.04	122.98	126.00
36	5	2145	A	C4-C5-C6	5.04	119.52	117.00
36	5	2215	A	C2-N3-C4	-5.04	108.08	110.60
37	7	12	U	C4-C5-C6	-5.04	116.68	119.70
36	1	788	C	C6-N1-C1'	5.04	126.84	120.80
36	1	1139	G	C5-C6-N1	-5.04	108.98	111.50
36	1	1836	C	N1-C2-O2	5.04	121.92	118.90
36	1	1903	U	O5'-P-OP1	-5.04	101.17	105.70
37	3	84	A	C5-C6-N6	-5.04	119.67	123.70
36	5	189	G	N1-C6-O6	-5.04	116.88	119.90
36	5	2386	A	N1-C2-N3	5.04	131.82	129.30
36	5	3167	A	C8-N9-C4	-5.04	103.78	105.80
36	1	910	G	C4-C5-C6	5.03	121.82	118.80
36	1	2763	U	N3-C2-O2	5.03	125.72	122.20
36	5	938	C	C6-N1-C1'	-5.03	114.76	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1214	U	C5-C6-N1	5.03	125.22	122.70
36	5	2296	A	O5'-P-OP1	-5.03	101.17	105.70
37	7	5	G	N1-C2-N3	5.03	126.92	123.90
36	1	3174	A	C5-N7-C8	-5.03	101.38	103.90
1	2	1536	G	C4-N9-C1'	5.03	133.04	126.50
36	1	79	U	N1-C2-O2	-5.03	119.28	122.80
36	1	859	G	N1-C6-O6	5.03	122.92	119.90
36	1	898	U	C6-N1-C1'	-5.03	114.16	121.20
38	4	47	C	C6-N1-C2	5.03	122.31	120.30
1	6	959	U	O4'-C1'-N1	-5.03	104.17	108.20
36	5	73	C	C5-C4-N4	-5.03	116.68	120.20
36	5	337	G	C4-C5-N7	-5.03	108.79	110.80
36	5	716	A	N9-C4-C5	-5.03	103.79	105.80
36	5	1306	G	N1-C2-N3	5.03	126.92	123.90
36	5	2689	A	N3-C4-N9	5.03	131.43	127.40
50	m4	74	ARG	NE-CZ-NH2	-5.03	117.78	120.30
36	1	1507	G	C4-C5-C6	5.03	121.82	118.80
36	1	2985	C	N1-C2-O2	-5.03	115.88	118.90
36	5	1493	G	O4'-C1'-N9	5.03	112.22	108.20
36	5	1662	G	C5-C6-N1	-5.03	108.99	111.50
36	5	2222	A	OP2-P-O3'	5.03	116.26	105.20
36	5	2393	G	N3-C4-N9	5.03	129.02	126.00
1	2	75	U	C6-N1-C1'	-5.03	114.16	121.20
1	2	1339	C	C2-N1-C1'	5.03	124.33	118.80
36	1	89	A	C6-N1-C2	-5.03	115.58	118.60
38	4	35	C	OP1-P-OP2	-5.03	112.06	119.60
38	4	125	U	O4'-C1'-N1	5.03	112.22	108.20
62	N6	75	ARG	NE-CZ-NH1	-5.03	117.79	120.30
36	5	348	A	N9-C4-C5	-5.03	103.79	105.80
36	5	407	A	C4-N9-C1'	5.03	135.34	126.30
36	5	758	C	N3-C4-N4	-5.03	114.48	118.00
36	5	912	G	C5-C6-N1	5.03	114.01	111.50
36	5	1438	U	N3-C4-O4	5.03	122.92	119.40
36	5	2426	U	N1-C2-O2	5.03	126.32	122.80
36	5	2754	G	N3-C2-N2	5.03	123.42	119.90
36	5	2860	U	OP1-P-OP2	5.03	127.14	119.60
36	5	3214	U	N1-C2-O2	5.03	126.32	122.80
36	1	973	A	N1-C2-N3	5.02	131.81	129.30
36	5	34	A	OP2-P-O3'	5.02	116.25	105.20
36	5	190	U	O4'-C1'-N1	5.02	112.22	108.20
36	5	1115	G	P-O3'-C3'	5.02	125.73	119.70
36	5	2371	G	N1-C2-N2	-5.02	111.68	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	150	U	O5'-P-OP1	-5.02	101.18	105.70
1	2	1740	A	C5-C6-N6	-5.02	119.68	123.70
36	1	1431	G	C4-C5-N7	-5.02	108.79	110.80
38	4	74	U	C2-N3-C4	-5.02	123.99	127.00
44	L7	129	LEU	CB-CG-CD2	-5.02	102.46	111.00
51	M5	96	ARG	NE-CZ-NH1	5.02	122.81	120.30
36	5	878	G	N3-C4-C5	-5.02	126.09	128.60
36	5	2212	C	C5-C6-N1	5.02	123.51	121.00
44	17	229	PHE	CB-CG-CD2	-5.02	117.28	120.80
1	6	119	A	N1-C6-N6	5.02	121.61	118.60
36	5	343	U	N3-C4-C5	-5.02	111.59	114.60
36	5	796	U	C6-N1-C2	-5.02	117.99	121.00
36	5	2932	U	C6-N1-C1'	-5.02	114.17	121.20
1	2	389	G	C5-C6-O6	-5.02	125.59	128.60
36	1	1384	U	OP2-P-O3'	5.02	116.24	105.20
36	1	2197	C	N1-C2-N3	-5.02	115.69	119.20
36	1	2824	G	C8-N9-C4	5.02	108.41	106.40
36	5	437	G	N7-C8-N9	5.02	115.61	113.10
36	5	1306	G	C4-N9-C1'	5.02	133.02	126.50
36	1	2607	G	O5'-P-OP2	-5.02	101.18	105.70
36	1	2823	G	C4-C5-N7	-5.02	108.79	110.80
36	1	3111	U	C6-N1-C2	5.02	124.01	121.00
1	6	1503	A	C5-N7-C8	-5.02	101.39	103.90
36	5	341	G	N3-C4-N9	-5.02	122.99	126.00
36	5	2632	G	C5-C6-O6	5.02	131.61	128.60
36	5	2792	A	C4-C5-C6	5.02	119.51	117.00
36	5	3351	U	N1-C2-O2	5.02	126.31	122.80
36	1	2772	C	C3'-C2'-C1'	-5.02	97.49	101.50
36	1	1322	U	N3-C2-O2	5.01	125.71	122.20
36	1	3201	C	C4-C5-C6	5.01	119.91	117.40
38	4	136	G	C5-C6-O6	-5.01	125.59	128.60
1	6	1140	G	C5-C6-O6	-5.01	125.59	128.60
36	5	1447	G	N3-C4-C5	-5.01	126.09	128.60
36	5	2257	C	C6-N1-C2	-5.01	118.29	120.30
36	5	2266	U	N3-C2-O2	-5.01	118.69	122.20
36	5	3362	A	OP2-P-O3'	5.01	116.23	105.20
37	7	27	A	C6-N1-C2	-5.01	115.59	118.60
1	2	57	G	O5'-P-OP2	-5.01	101.19	105.70
36	1	814	U	C2-N3-C4	5.01	130.01	127.00
36	5	637	C	O5'-P-OP1	-5.01	101.19	105.70
36	5	1481	A	O5'-P-OP2	-5.01	101.19	105.70
36	5	2303	A	C2-N3-C4	-5.01	108.09	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	90	U	C6-N1-C2	5.01	124.01	121.00
1	2	44	U	C2-N3-C4	-5.01	123.99	127.00
36	1	2247	G	N3-C2-N2	-5.01	116.39	119.90
36	1	2687	G	C5-C6-O6	5.01	131.61	128.60
36	1	2779	A	C8-N9-C4	5.01	107.80	105.80
1	6	1743	U	N3-C4-C5	-5.01	111.59	114.60
20	c8	116	LEU	CA-CB-CG	5.01	126.83	115.30
36	5	1184	A	C6-C5-N7	5.01	135.81	132.30
36	5	1452	A	N9-C4-C5	-5.01	103.80	105.80
36	5	2615	G	N1-C2-N3	5.01	126.91	123.90
36	5	2625	C	OP1-P-O3'	5.01	116.22	105.20
36	5	2675	C	O5'-P-OP1	-5.01	101.19	105.70
36	1	1128	U	C2-N3-C4	-5.01	123.99	127.00
36	1	1176	C	N1-C2-O2	-5.01	115.89	118.90
36	1	2904	U	O5'-P-OP1	5.01	116.71	110.70
1	6	371	G	N3-C4-C5	-5.01	126.10	128.60
36	5	716	A	N1-C6-N6	5.01	121.61	118.60
36	5	1316	C	N3-C2-O2	5.01	125.41	121.90
37	7	10	C	C6-N1-C2	5.01	122.30	120.30
1	2	310	C	C6-N1-C2	-5.01	118.30	120.30
1	2	777	C	N1-C2-O2	5.01	121.91	118.90
36	1	720	A	C5-C6-N6	-5.01	119.69	123.70
1	6	1614	A	C5-C6-N1	-5.01	115.20	117.70
36	1	407	A	C4-C5-N7	5.01	113.20	110.70
36	1	887	G	N3-C4-C5	-5.01	126.10	128.60
36	1	1109	U	C2-N3-C4	5.01	130.00	127.00
36	1	1393	A	C2-N3-C4	5.01	113.10	110.60
36	1	2914	G	C5-N7-C8	5.01	106.80	104.30
1	6	430	G	N1-C6-O6	-5.01	116.90	119.90
36	5	1316	C	C4-C5-C6	5.01	119.90	117.40
36	5	2606	G	N1-C6-O6	-5.01	116.90	119.90
36	5	2931	C	C2-N1-C1'	-5.01	113.29	118.80
36	5	3080	G	C6-C5-N7	-5.01	127.40	130.40
36	5	3231	U	C5-C4-O4	5.01	128.90	125.90
1	2	1745	G	C6-C5-N7	-5.00	127.40	130.40
36	1	1392	G	C5-C6-N1	5.00	114.00	111.50
36	1	2125	A	C8-N9-C4	5.00	107.80	105.80
36	1	2606	G	C5-C6-O6	-5.00	125.60	128.60
36	1	2980	U	N1-C2-N3	5.00	117.90	114.90
1	6	15	U	C6-N1-C2	-5.00	118.00	121.00
1	6	1113	A	N1-C2-N3	5.00	131.80	129.30
36	5	2945	G	O5'-P-OP1	-5.00	101.20	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2968	G	N7-C8-N9	-5.00	110.60	113.10
36	1	31	C	C2-N3-C4	-5.00	117.40	119.90
36	1	1670	C	C6-N1-C2	5.00	122.30	120.30
1	6	1119	G	C8-N9-C4	-5.00	104.40	106.40
36	5	2357	A	C8-N9-C4	5.00	107.80	105.80
37	7	85	G	OP1-P-OP2	-5.00	112.10	119.60

There are no chirality outliers.

All (46) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
16	C4	123	SER	Peptide
16	C4	124	ASP	Peptide
16	C4	38	THR	Peptide
18	C6	113	ASP	Peptide
19	C7	85	VAL	Peptide
27	D5	54	VAL	Peptide
27	D5	94	LYS	Peptide
27	D5	96	SER	Peptide
28	D6	85	ARG	Peptide
39	L2	19	HIS	Peptide
46	L9	189	GLU	Peptide
48	M1	8	PRO	Peptide
52	M6	110	PRO	Peptide
56	N0	22	PRO	Peptide
57	N1	16	GLN	Peptide
64	N8	30	GLY	Peptide
64	N8	54	GLY	Peptide
65	N9	19	ASN	Peptide
67	O1	5	LYS	Peptide
7	S5	44	ASN	Peptide
9	S7	131	PHE	Peptide
9	S7	31	SER	Peptide
10	S8	147	ALA	Peptide
16	c4	124	ASP	Peptide
17	c5	52	LYS	Peptide
18	c6	40	GLU	Peptide
24	d2	54	ASP	Peptide
26	d4	59	GLY	Peptide
80	e0	51	ASN	Peptide
39	l2	143	GLU	Peptide
39	l2	212	GLY	Peptide

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Mol	Chain	Res	Type	Group
39	l2	215	ASN	Peptide
39	l2	247	ARG	Peptide
44	l7	192	GLY	Peptide
44	l7	226	GLY	Peptide
82	m2	29	UNK	Peptide
52	m6	110	PRO	Peptide
56	n0	133	ALA	Peptide
59	n3	136	VAL	Peptide
64	n8	18	GLY	Peptide
64	n8	26	ARG	Peptide
64	n8	66	ALA	Peptide
2	s0	72	ASP	Peptide
7	s5	44	ASN	Peptide
7	s5	99	MET	Peptide
9	s7	130	VAL	Peptide

## 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	2	37283	0	18757	998	1
1	6	38238	0	19241	944	0
2	S0	1577	0	1567	172	0
2	s0	1583	0	1578	0	0
3	S1	1709	0	1784	186	0
3	s1	1722	0	1793	0	0
4	S2	1635	0	1723	147	0
4	s2	1635	0	1723	0	0
5	S3	1734	0	1817	125	0
5	s3	1734	0	1817	0	0
6	S4	2068	0	2154	170	0
6	s4	2068	0	2154	0	0
7	S5	1609	0	1675	156	0
7	s5	1609	0	1675	0	0
8	S6	1799	0	1878	146	0
8	s6	1755	0	1846	0	0
9	S7	1481	0	1572	125	0
9	s7	1491	0	1578	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
10	S8	1489	0	1525	123	0
10	s8	1489	0	1525	0	0
11	S9	1494	0	1573	144	0
11	s9	1494	0	1573	0	0
12	C0	773	0	729	73	0
12	c0	762	0	699	0	0
13	C1	1214	0	1259	85	0
13	c1	1168	0	1231	0	0
14	C2	892	0	891	54	0
14	c2	892	0	891	0	0
15	C3	1192	0	1255	118	0
15	c3	1192	0	1255	0	0
16	C4	891	0	883	112	0
16	c4	949	0	985	0	0
17	C5	977	0	1002	102	0
17	c5	1039	0	1050	0	0
18	C6	1105	0	1166	133	0
18	c6	1111	0	1171	0	0
19	C7	926	0	930	94	0
19	c7	906	0	909	0	0
20	C8	1192	0	1222	124	0
20	c8	1192	0	1222	0	0
21	C9	1112	0	1124	93	0
21	c9	1112	0	1124	0	0
22	D0	855	0	917	91	0
22	d0	882	0	939	0	0
23	D1	684	0	672	67	0
23	d1	684	0	672	0	0
24	D2	1021	0	1060	98	0
24	d2	1021	0	1060	0	0
25	D3	1121	0	1196	100	0
25	d3	1121	0	1196	0	0
26	D4	1073	0	1132	98	0
26	d4	1073	0	1132	0	0
27	D5	563	0	603	63	0
27	d5	558	0	598	0	0
28	D6	769	0	815	103	0
28	d6	769	0	814	0	0
29	D7	610	0	630	54	0
29	d7	610	0	631	0	0
30	D8	497	0	535	54	0
30	d8	497	0	535	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
31	D9	442	0	428	44	0
31	d9	442	0	428	0	0
32	E0	475	0	525	32	0
33	E1	566	0	603	60	0
33	e1	608	0	656	0	0
34	SR	2441	0	2397	197	0
34	sR	2442	0	2392	0	0
35	SM	1104	0	996	72	0
35	sM	679	0	603	0	0
36	1	67355	0	33839	1388	0
36	5	67376	0	33855	1332	1
37	3	2579	0	1304	63	0
37	7	2579	0	1304	49	0
38	4	3353	0	1695	68	0
38	8	3353	0	1695	67	0
39	L2	1914	0	1981	157	0
39	l2	1912	0	1976	0	0
40	L3	3075	0	3142	280	0
40	l3	3075	0	3142	0	0
41	L4	2748	0	2859	253	0
41	l4	2748	0	2859	0	0
42	L5	2375	0	2325	211	0
42	l5	2359	0	2311	0	0
43	L6	1239	0	1326	90	0
43	l6	1248	0	1339	0	0
44	L7	1784	0	1862	150	0
44	l7	1791	0	1869	0	0
45	L8	1804	0	1877	152	0
45	l8	1763	0	1819	0	0
46	L9	1518	0	1587	144	0
46	l9	1518	0	1587	0	0
47	M0	1705	0	1735	141	0
47	m0	1722	0	1755	0	0
48	M1	1353	0	1383	110	0
48	m1	1353	0	1383	0	0
49	M3	1543	0	1608	158	0
49	m3	1548	0	1613	0	0
50	M4	1053	0	1149	94	0
50	m4	1059	0	1154	0	0
51	M5	1720	0	1779	143	0
51	m5	1720	0	1779	0	0
52	M6	1555	0	1659	127	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
52	m6	1555	0	1659	0	0
53	M7	1420	0	1437	112	0
53	m7	1227	0	1236	0	0
54	M8	1441	0	1543	107	0
54	m8	1441	0	1543	0	0
55	M9	1521	0	1617	121	0
55	m9	1521	0	1617	0	0
56	N0	1445	0	1487	108	0
56	n0	1445	0	1487	0	0
57	N1	1276	0	1323	108	0
57	n1	1276	0	1323	0	0
58	N2	796	0	812	55	0
58	n2	778	0	791	0	0
59	N3	1003	0	1048	90	0
59	n3	1003	0	1048	0	0
60	N4	699	0	640	26	0
60	n4	1038	0	1071	0	0
61	N5	964	0	1025	86	0
61	n5	959	0	1023	0	0
62	N6	993	0	1081	80	0
62	n6	993	0	1081	0	0
63	N7	1092	0	1155	92	0
63	n7	1092	0	1155	0	0
64	N8	1173	0	1215	137	0
64	n8	1173	0	1215	0	0
65	N9	462	0	491	41	0
65	n9	462	0	491	0	0
66	O0	743	0	797	59	0
66	o0	767	0	816	0	0
67	O1	876	0	912	63	0
67	o1	883	0	918	0	0
68	O2	1020	0	1090	85	0
68	o2	1020	0	1090	0	0
69	O3	850	0	880	66	0
69	o3	850	0	880	0	0
70	O4	880	0	945	69	0
70	o4	880	0	945	0	0
71	O5	969	0	1078	89	0
71	o5	965	0	1067	0	0
72	O6	771	0	849	74	0
72	o6	770	0	846	0	0
73	O7	681	0	682	60	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
73	o7	681	0	683	0	0
74	O8	612	0	682	46	0
74	o8	608	0	671	0	0
75	O9	436	0	475	49	0
75	o9	436	0	475	0	0
76	Q0	417	0	456	31	0
76	q0	417	0	456	0	0
77	Q1	233	0	284	29	0
77	q1	233	0	284	0	0
78	Q2	847	0	917	59	0
78	q2	847	0	918	0	0
79	Q3	694	0	734	58	0
79	q3	694	0	734	0	0
80	e0	491	0	542	0	0
81	p0	1076	0	1040	0	0
82	m2	750	0	170	0	0
83	p1	235	0	52	0	0
84	p2	230	0	51	0	0
85	1	469	0	0	0	0
85	2	125	0	0	0	0
85	3	14	0	0	0	0
85	4	21	0	0	0	0
85	5	505	0	0	0	0
85	6	148	0	0	0	0
85	7	17	0	0	0	0
85	8	14	0	0	0	0
85	D0	1	0	0	0	0
85	D3	1	0	0	0	0
85	L2	1	0	0	0	0
85	L3	3	0	0	0	0
85	L4	1	0	0	0	0
85	L5	2	0	0	0	0
85	L7	3	0	0	0	0
85	L8	1	0	0	0	0
85	M0	3	0	0	0	0
85	M1	1	0	0	0	0
85	M3	3	0	0	0	0
85	M5	1	0	0	0	0
85	M6	1	0	0	0	0
85	M7	5	0	0	0	0
85	M9	1	0	0	0	0
85	N0	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	N3	2	0	0	0	0
85	N5	1	0	0	0	0
85	N6	2	0	0	0	0
85	N8	5	0	0	0	0
85	O2	1	0	0	0	0
85	O4	1	0	0	0	0
85	O5	1	0	0	0	0
85	O7	3	0	0	0	0
85	Q2	1	0	0	0	0
85	S4	1	0	0	0	0
85	S8	1	0	0	0	0
85	SM	1	0	0	0	0
85	c1	1	0	0	0	0
85	c7	1	0	0	0	0
85	c8	1	0	0	0	0
85	c9	1	0	0	0	0
85	d3	1	0	0	0	0
85	d4	1	0	0	0	0
85	d6	1	0	0	0	0
85	l2	1	0	0	0	0
85	l3	1	0	0	0	0
85	l4	1	0	0	0	0
85	l5	2	0	0	0	0
85	l7	1	0	0	0	0
85	l9	1	0	0	0	0
85	m0	1	0	0	0	0
85	m1	1	0	0	0	0
85	m5	2	0	0	0	0
85	m6	1	0	0	0	0
85	m7	5	0	0	0	0
85	n0	2	0	0	0	0
85	n3	2	0	0	0	0
85	n6	1	0	0	0	0
85	n8	4	0	0	0	0
85	n9	1	0	0	0	0
85	o1	1	0	0	0	0
85	o3	1	0	0	0	0
85	o4	2	0	0	0	0
85	o7	1	0	0	0	0
85	q0	1	0	0	0	0
85	q1	1	0	0	0	0
85	q3	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	s1	1	0	0	0	0
85	s6	1	0	0	0	0
85	s8	2	0	0	0	0
85	sM	2	0	0	0	0
86	1	2457	0	0	229	0
86	2	1092	0	0	109	0
86	3	77	0	0	5	0
86	4	98	0	0	7	0
86	5	2478	0	0	240	0
86	6	1106	0	0	107	0
86	7	77	0	0	10	0
86	8	119	0	0	18	0
86	C1	7	0	0	0	0
86	C3	7	0	0	1	0
86	C5	7	0	0	5	0
86	C8	7	0	0	0	0
86	D9	7	0	0	1	0
86	L3	21	0	0	2	0
86	L4	7	0	0	0	0
86	M0	7	0	0	1	0
86	M5	7	0	0	1	0
86	M7	14	0	0	2	0
86	M8	7	0	0	0	0
86	M9	7	0	0	0	0
86	N1	7	0	0	2	0
86	N9	7	0	0	0	0
86	O1	7	0	0	6	0
86	O2	7	0	0	0	0
86	O3	7	0	0	1	0
86	O7	14	0	0	6	0
86	O9	7	0	0	1	0
86	S8	7	0	0	0	0
86	SR	7	0	0	0	0
86	c3	7	0	0	0	0
86	c5	7	0	0	0	0
86	c8	7	0	0	0	0
86	d4	7	0	0	0	0
86	d9	7	0	0	0	0
86	l3	21	0	0	0	0
86	l4	14	0	0	0	0
86	l5	21	0	0	0	0
86	l9	7	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	m0	14	0	0	0	0
86	m1	7	0	0	0	0
86	m4	7	0	0	0	0
86	m5	7	0	0	0	0
86	m6	7	0	0	0	0
86	m7	7	0	0	0	0
86	m8	7	0	0	0	0
86	m9	7	0	0	0	0
86	n1	7	0	0	0	0
86	n3	7	0	0	0	0
86	n9	7	0	0	0	0
86	o3	7	0	0	0	0
86	q2	7	0	0	0	0
86	s1	14	0	0	0	0
86	s4	7	0	0	0	0
86	s8	7	0	0	0	0
86	s9	7	0	0	0	0
86	sR	7	0	0	0	0
87	2	28	0	27	4	0
87	6	28	0	27	1	0
88	D6	1	0	0	0	0
88	D7	1	0	0	0	0
88	D9	1	0	0	0	0
88	E1	1	0	0	0	0
88	O7	1	0	0	0	0
88	Q0	1	0	0	0	0
88	Q2	1	0	0	0	0
88	Q3	1	0	0	0	0
88	d6	1	0	0	0	0
88	d7	1	0	0	0	0
88	d9	1	0	0	0	0
88	e1	1	0	0	0	0
88	o7	1	0	0	0	0
88	q0	1	0	0	0	0
88	q2	1	0	0	0	0
88	q3	1	0	0	0	0
All	All	411206	0	297328	11067	1

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 16.

All (11067) 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)
78:Q2:17:CYS:CB	78:Q2:17:CYS:SG	2.06	1.43
40:L3:41:VAL:HA	40:L3:185:GLY:HA3	1.44	1.07
36:5:3274:A:H3'	36:5:3275:U:H5''	1.38	1.04
42:L5:111:GLN:HA	42:L5:116:ASP:HB3	3.45	1.02
1:2:992:A:H2	1:2:1012:U:H3	1.09	1.01
71:O5:85:THR:HG22	71:O5:87:ALA:H	1.26	1.00
20:C8:145:ARG:HB3	35:SM:68:ARG:HH12	3.41	1.00
36:5:2273:G:O6	86:5:4200:OHX:N5	1.94	1.00
36:1:3182:G:OP1	52:M6:160:ARG:NH2	1.94	0.98
36:1:1481:A:O2'	36:1:1858:A:N3	1.97	0.97
1:6:1595:U:H3	1:6:1600:A:H2	1.10	0.97
78:Q2:17:CYS:SG	78:Q2:77:CYS:HB3	2.13	0.97
36:5:438:A:N1	36:5:621:A:N6	2.13	0.96
51:M5:96:ARG:HG2	51:M5:96:ARG:HH11	1.29	0.96
1:2:991:G:OP2	86:2:2131:OHX:N1	1.98	0.95
36:1:1898:G:OP2	86:1:3927:OHX:N4	1.99	0.95
39:L2:193:ARG:NH2	36:5:2181:C:OP1	197.38	0.95
41:L4:269:SER:O	41:L4:271:LYS:N	2.34	0.95
50:M4:55:ARG:NH2	50:M4:76:ALA:O	2.22	0.94
64:N8:21:ARG:NH2	36:5:640:U:OP1	181.96	0.94
36:5:3194:C:O2	36:5:3197:G:N2	2.02	0.93
18:C6:82:ARG:HH22	18:C6:114:ARG:HB2	1.32	0.93
52:M6:110:PRO:O	52:M6:112:TYR:N	2.93	0.93
56:N0:6:GLU:OE1	56:N0:99:ARG:NH2	3.40	0.93
66:O0:29:SER:HA	66:O0:32:LYS:HD3	1.48	0.93
50:M4:113:THR:HB	50:M4:116:GLU:HG3	1.88	0.93
36:1:1949:G:OP1	55:M9:104:ARG:NH1	2.02	0.93
43:L6:31:ARG:NH1	69:O3:107:ILE:O	2.02	0.93
2:S0:139:VAL:HG23	4:S2:62:PRO:HG3	2.30	0.92
36:1:2836:C:H5	36:1:2852:C:H42	1.17	0.92
36:1:2736:A:OP1	57:N1:92:ARG:NH1	2.01	0.92
36:5:2439:A:H61	36:5:2508:U:H3	1.17	0.92
36:1:1639:C:OP2	70:O4:74:ARG:NH2	2.02	0.92
11:S9:108:ARG:HB2	11:S9:111:THR:HG23	2.10	0.92
1:2:1595:U:H3	1:2:1600:A:H2	1.09	0.92
86:1:4079:OHX:N1	72:O6:28:TYR:O	2.03	0.91
36:1:2940:A:N7	40:L3:2:SER:N	2.18	0.91
49:M3:46:ILE:HG22	49:M3:49:ARG:HB2	2.31	0.91
21:C9:27:LYS:HB3	21:C9:111:ILE:HD11	1.53	0.91
36:1:883:A:H5'	53:M7:133:HIS:HA	1.52	0.91
1:6:1588:G:H1	1:6:1608:U:H3	1.17	0.91
1:2:823:G:H2'	1:2:824:G:C8	2.06	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1291:G:H22	1:2:1324:G:H1	1.19	0.91
36:5:1239:C:H42	36:5:1249:G:H1	1.18	0.90
13:C1:139:VAL:HG12	13:C1:140:VAL:H	1.35	0.90
36:1:1362:G:H4'	44:L7:159:GLN:O	1.69	0.90
41:L4:329:PRO:O	41:L4:331:ALA:N	3.53	0.90
42:L5:120:LYS:O	42:L5:248:ARG:NH2	2.28	0.90
64:N8:6:THR:HG23	64:N8:8:THR:HG23	2.15	0.90
1:2:1559:A:H5''	20:C8:135:GLY:HA3	1.53	0.90
1:2:565:C:O2	86:2:2039:OHX:N5	2.04	0.90
1:2:471:A:OP2	86:2:2076:OHX:N4	2.05	0.90
74:O8:46:ARG:NH2	36:5:1613:A:OP2	131.33	0.90
59:N3:81:GLN:O	59:N3:98:ASN:ND2	2.04	0.90
36:1:2208:A:N1	86:1:4041:OHX:N2	2.20	0.90
1:2:1202:A:OP1	86:2:2110:OHX:N1	2.05	0.89
17:C5:123:TYR:HH	20:C8:122:HIS:HE2	1.19	0.89
25:D3:64:PRO:O	86:6:2159:OHX:N2	360.29	0.89
18:C6:58:ASP:O	18:C6:60:PHE:N	2.06	0.89
40:L3:291:GLU:OE1	40:L3:302:LYS:NZ	5.06	0.89
36:1:2356:A:H61	36:1:2983:C:H5	1.19	0.89
1:2:1508:U:O4	86:2:2031:OHX:N5	2.06	0.89
36:5:3299:A:H61	36:5:3315:G:H1	1.12	0.89
36:5:343:U:OP2	86:5:3926:OHX:N3	2.05	0.89
41:L4:283:THR:HG22	41:L4:285:ASP:H	1.36	0.88
45:L8:100:GLU:OE1	45:L8:108:ARG:NH1	2.56	0.88
45:L8:41:GLN:HG3	45:L8:44:ARG:HH12	1.36	0.88
53:M7:172:GLN:NE2	69:O3:60:ARG:O	2.07	0.88
36:5:1940:G:H21	36:5:3362:A:H8	1.20	0.88
36:5:272:G:OP2	86:5:4076:OHX:N6	2.05	0.88
36:1:1447:G:H3'	53:M7:67:ILE:HD11	1.53	0.88
37:3:44:C:OP2	48:M1:137:ARG:NH2	2.06	0.88
1:2:542:A:O2'	1:2:543:C:O5'	1.92	0.88
7:S5:94:THR:HG22	7:S5:114:ILE:HG13	2.19	0.88
36:5:1231:A:H5''	36:5:1232:C:H5'	1.54	0.87
36:1:31:C:OP2	51:M5:188:ARG:NH2	2.07	0.87
52:M6:160:ARG:NH2	36:5:3182:G:OP1	279.62	0.87
36:1:768:C:OP1	49:M3:186:ARG:NH2	2.06	0.87
36:1:3118:C:H4'	76:Q0:106:ARG:HH22	1.38	0.87
4:S2:140:ARG:NH1	23:D1:10:GLU:OE1	6.36	0.87
1:6:1636:C:H4'	1:6:1637:C:H5''	1.57	0.86
3:S1:70:LEU:HA	3:S1:73:LEU:HB3	1.57	0.86
76:Q0:106:ARG:HH11	76:Q0:106:ARG:HB2	3.89	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:283:G:OP1	78:Q2:45:ARG:NH2	2.09	0.86
36:1:2123:G:N7	86:1:4197:OHX:N2	2.23	0.86
36:1:1427:U:OP2	64:N8:4:ARG:NH2	2.08	0.86
10:S8:57:ALA:HB2	10:S8:177:GLY:HA2	2.29	0.86
36:5:2620:G:O6	86:5:4245:OHX:N4	2.08	0.86
33:E1:134:ASN:H	1:6:1251:U:H4'	441.48	0.86
1:6:991:G:OP2	86:6:2171:OHX:N2	2.08	0.86
33:E1:88:PRO:HB2	33:E1:89:LYS:HD3	6.60	0.86
47:M0:175:ASN:OD1	47:M0:176:LEU:N	5.02	0.86
52:M6:3:VAL:HG13	52:M6:4:GLU:H	1.40	0.86
36:1:2818:U:H6	36:1:2818:U:H5'	1.41	0.85
45:L8:45:ASN:HD21	45:L8:47:SER:HB3	1.40	0.85
1:2:1529:C:OP1	7:S5:112:ARG:NH1	2.09	0.85
42:L5:40:HIS:HD2	42:L5:42:ALA:H	1.18	0.85
36:1:824:C:H5''	39:L2:21:ARG:HD3	1.58	0.85
1:2:79:C:H1'	8:S6:174:LYS:HD3	1.58	0.85
86:1:3954:OHX:N6	44:L7:217:PRO:O	2.08	0.85
54:M8:86:THR:HG22	54:M8:105:ARG:HB2	1.59	0.85
66:O0:63:SER:HG	66:O0:65:THR:HG1	1.24	0.85
36:1:3050:U:OP2	86:1:4180:OHX:N4	2.09	0.85
1:6:1696:G:O2'	1:6:1698:G:N7	2.08	0.85
22:D0:42:VAL:HG21	22:D0:55:PRO:HD3	1.58	0.85
60:N4:39:LEU:HD12	60:N4:44:LYS:HG3	1.64	0.85
24:D2:15:ASN:HD21	24:D2:71:LYS:HA	1.40	0.85
25:D3:79:ASN:HD22	25:D3:81:LYS:H	1.20	0.85
36:5:1555:U:O4	36:5:1557:A:N6	2.09	0.84
41:L4:338:LYS:O	41:L4:340:GLY:N	2.15	0.84
46:L9:91:ARG:NH2	46:L9:141:LYS:O	5.06	0.84
47:M0:174:THR:HG23	47:M0:176:LEU:H	1.42	0.84
51:M5:8:GLU:HG3	51:M5:50:ARG:HH12	3.56	0.84
1:2:1542:G:N2	1:2:1569:A:OP2	2.09	0.84
37:3:17:A:OP1	42:L5:2:ALA:N	2.09	0.84
63:N7:46:ILE:HD13	63:N7:68:ILE:HG23	1.59	0.84
1:6:990:C:OP2	86:6:2121:OHX:N2	2.11	0.84
55:M9:74:ARG:NH1	36:5:1942:U:OP2	209.49	0.84
34:SR:169:ILE:HG12	34:SR:183:LEU:HD21	3.06	0.84
47:M0:76:MET:HE3	47:M0:148:VAL:HA	1.57	0.84
49:M3:73:ARG:NH1	36:5:110:G:OP2	75.22	0.84
9:S7:154:LEU:HD21	9:S7:183:PHE:HD1	1.41	0.84
1:2:1796:C:OP1	28:D6:87:ARG:NH1	2.10	0.84
65:N9:23:LYS:HB3	65:N9:24:PRO:HD3	2.89	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:76:GLN:O	71:O5:81:ARG:NH1	2.24	0.84
72:O6:28:TYR:O	86:5:4191:OHX:N2	104.16	0.84
36:5:2836:C:H5	36:5:2852:C:H42	1.21	0.84
1:2:1280:C:H2'	1:2:1281:G:H8	1.40	0.84
49:M3:15:ARG:NH2	36:5:96:G:OP1	154.01	0.84
48:M1:94:ARG:O	48:M1:96:PHE:N	2.31	0.84
34:SR:161:LYS:O	34:SR:161:LYS:HG2	1.78	0.84
16:C4:85:ALA:H	16:C4:119:THR:HG22	1.42	0.84
18:C6:32:ASN:HD21	18:C6:69:VAL:HG23	3.96	0.84
46:L9:120:ASP:OD1	46:L9:124:ARG:NH2	2.10	0.84
68:O2:81:ASP:O	68:O2:84:THR:OG1	1.96	0.84
3:S1:70:LEU:HB3	3:S1:79:HIS:HB3	5.20	0.84
73:O7:65:ARG:HG3	73:O7:65:ARG:HH11	1.43	0.83
28:D6:40:ALA:HB3	28:D6:69:ASN:HB3	2.20	0.83
64:N8:3:SER:O	64:N8:6:THR:HB	3.34	0.83
75:O9:23:LEU:HD22	75:O9:24:PRO:HD2	1.60	0.83
1:2:1597:A:OP2	31:D9:32:ARG:NH2	2.12	0.83
31:D9:21:CYS:HB2	31:D9:39:CYS:HB3	2.20	0.83
70:O4:74:ARG:NH2	36:5:1639:C:OP2	200.29	0.83
73:O7:87:SER:O	86:O7:105:OHX:N3	2.10	0.83
8:S6:57:ASP:HA	8:S6:106:LEU:HA	1.60	0.83
1:6:1688:U:H3	1:6:1713:G:H1	1.26	0.83
41:L4:300:ARG:HG2	41:L4:300:ARG:HH11	3.72	0.83
48:M1:49:LYS:HB3	48:M1:62:ASN:HA	1.60	0.83
36:1:13:A:OP2	86:1:4201:OHX:N5	2.11	0.83
36:5:2444:C:H42	36:5:2503:G:H1	1.27	0.83
47:M0:63:GLU:HB2	36:5:2853:A:H5'	296.43	0.83
1:2:1520:U:OP2	21:C9:75:LYS:NZ	2.10	0.83
36:5:2211:U:O4	86:5:3964:OHX:N4	2.12	0.83
36:1:371:G:O6	86:1:4179:OHX:N4	2.11	0.82
1:6:453:U:O4	86:6:2062:OHX:N4	2.12	0.82
41:L4:122:THR:HG22	41:L4:235:LEU:HB2	1.63	0.82
1:6:833:U:O4	86:6:2101:OHX:N2	2.12	0.82
1:2:1435:G:N7	12:C0:25:LYS:NZ	2.26	0.82
46:L9:49:ASN:O	46:L9:51:GLN:N	2.12	0.82
51:M5:24:ARG:HG2	51:M5:24:ARG:HH11	3.50	0.82
7:S5:57:SER:O	7:S5:59:VAL:N	2.12	0.82
36:1:3155:U:H3'	36:1:3156:U:H4'	1.62	0.82
17:C5:43:ARG:NH2	1:6:1552:U:OP2	402.67	0.82
42:L5:279:LYS:HE3	42:L5:282:ARG:HH12	1.44	0.82
6:S4:49:ARG:NH1	1:6:448:C:OP2	379.52	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:104:ARG:HH21	55:M9:105:LEU:HB2	1.42	0.82
73:O7:88:ALA:O	86:O7:105:OHX:N1	2.12	0.82
16:C4:50:ALA:O	16:C4:52:ARG:N	2.49	0.82
49:M3:47:ALA:HB1	49:M3:48:PRO:HD2	1.70	0.82
1:6:1011:G:OP2	86:6:2121:OHX:N3	2.13	0.82
2:S0:13:ASP:OD1	2:S0:179:ARG:NH2	2.58	0.82
75:O9:5:LYS:HD3	75:O9:13:MET:HE1	1.87	0.82
47:M0:140:THR:HG21	47:M0:144:ASN:HD22	1.45	0.82
59:N3:48:ARG:HH11	59:N3:48:ARG:HG3	1.85	0.81
36:1:3276:G:H1	69:O3:60:ARG:HH12	1.26	0.81
36:5:2818:U:H6	36:5:2818:U:H5'	1.43	0.81
47:M0:3:ARG:NH2	36:5:2854:U:OP2	290.25	0.81
51:M5:14:LYS:HA	51:M5:19:LEU:HD23	1.62	0.81
36:5:409:A:OP2	86:5:4105:OHX:N3	2.13	0.81
19:C7:25:THR:O	19:C7:27:ASP:N	2.13	0.81
40:L3:139:GLN:O	40:L3:141:GLY:N	2.42	0.81
58:N2:51:GLY:O	58:N2:52:ASN:ND2	2.10	0.81
1:2:140:A:N6	1:2:281:G:OP1	2.13	0.81
36:1:2179:C:O3'	39:L2:174:ARG:NH2	2.13	0.81
44:L7:216:VAL:HG11	44:L7:227:GLY:HA3	4.69	0.81
36:1:1243:G:N2	36:1:1244:A:N7	2.28	0.81
21:C9:119:LYS:NZ	1:6:1369:U:OP1	441.90	0.81
48:M1:15:GLU:HB3	48:M1:130:VAL:HG13	1.60	0.81
40:L3:70:ARG:HH22	59:N3:120:LYS:HE3	1.46	0.81
38:4:79:A:H2'	38:4:80:A:H1'	1.63	0.81
36:5:1235:U:H4'	36:5:1236:G:H5'	1.61	0.81
41:L4:317:PRO:O	41:L4:319:LYS:N	2.13	0.81
42:L5:265:TYR:HE1	37:7:121:U:H5''	315.13	0.81
36:5:566:G:N7	86:5:4134:OHX:N5	2.29	0.81
73:O7:62:GLY:O	86:8:217:OHX:N3	82.54	0.81
78:Q2:17:CYS:SG	78:Q2:77:CYS:CB	2.77	0.81
36:1:425:G:O6	86:1:3871:OHX:N6	2.13	0.80
71:O5:101:THR:HG22	71:O5:104:GLN:H	1.44	0.80
8:S6:67:VAL:HG21	8:S6:99:GLY:HA2	1.82	0.80
36:5:2234:G:O6	86:5:3964:OHX:N1	2.14	0.80
36:5:510:G:O6	86:5:4025:OHX:N2	2.13	0.80
41:L4:361:HIS:CG	41:L4:362:ASP:H	2.69	0.80
36:5:2233:A:OP2	86:5:3964:OHX:N5	2.14	0.80
36:5:1877:U:H5''	36:5:1878:G:H5'	1.62	0.80
12:C0:44:LYS:HE2	1:6:1217:A:H4'	425.07	0.80
47:M0:68:ALA:HB2	47:M0:158:LYS:HB2	1.94	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2656:A:H4'	78:Q2:98:LYS:HD2	1.61	0.80
36:1:300:G:O6	86:1:4149:OHX:N1	2.14	0.80
36:1:979:U:H1'	36:1:980:A:C8	2.17	0.80
49:M3:73:ARG:NH2	36:5:77:A:N7	80.39	0.80
1:2:283:U:H5''	8:S6:188:ARG:HD3	1.63	0.80
36:1:2443:A:N6	36:1:2504:U:O4	2.14	0.80
38:8:79:A:H3'	38:8:80:A:C8	2.15	0.80
50:M4:128:ARG:NH2	36:5:3214:U:OP2	280.12	0.80
57:N1:51:GLY:HA3	57:N1:92:ARG:HG3	3.49	0.80
28:D6:10:ARG:HB2	28:D6:34:LYS:HA	1.82	0.80
46:L9:12:VAL:HB	46:L9:51:GLN:HA	1.81	0.79
56:N0:13:ARG:HH11	56:N0:13:ARG:HG3	4.33	0.79
7:S5:163:SER:HB2	30:D8:48:VAL:HG22	3.03	0.79
36:5:2404:A:H2'	36:5:2405:C:H5'	1.62	0.79
74:O8:46:ARG:NH1	74:O8:47:GLY:O	2.41	0.79
7:S5:77:TYR:HB3	7:S5:84:LYS:HA	1.62	0.79
77:Q1:11:ARG:NH2	1:6:1127:G:OP1	293.72	0.79
10:S8:50:GLY:HA2	1:6:397:A:O3'	314.81	0.79
36:1:2177:G:OP2	39:L2:128:ARG:NH1	2.14	0.79
54:M8:66:ARG:NH2	36:5:744:A:OP1	166.31	0.79
42:L5:259:LYS:HG3	42:L5:260:PHE:HD2	1.48	0.79
1:2:715:U:H3	1:2:723:G:H1	1.27	0.79
36:5:1808:G:O6	86:5:4026:OHX:N3	2.16	0.79
36:5:2258:U:OP2	86:5:3950:OHX:N4	2.15	0.79
13:C1:132:SER:O	13:C1:134:THR:N	3.07	0.79
3:S1:157:GLN:O	3:S1:159:SER:N	2.15	0.79
49:M3:165:SER:O	49:M3:167:PHE:N	2.14	0.79
36:1:562:C:H2'	36:1:563:U:H6	1.48	0.79
72:O6:63:ASN:O	72:O6:65:GLY:N	4.84	0.79
36:1:3066:U:O4	86:1:4134:OHX:N5	2.16	0.79
1:2:895:G:H1	1:2:917:U:H3	1.29	0.79
43:L6:78:ARG:NH1	36:5:3272:C:OP2	246.91	0.79
36:1:36:C:N4	36:1:47:C:O2	2.14	0.79
1:6:228:G:N2	1:6:237:C:N3	2.31	0.78
1:6:754:A:N6	1:6:793:A:N7	2.31	0.78
57:N1:130:ARG:NH1	36:5:1098:A:OP2	253.08	0.78
71:O5:78:LYS:HA	71:O5:81:ARG:HD3	3.27	0.78
10:S8:76:THR:HG22	10:S8:108:PRO:HG2	1.65	0.78
24:D2:37:PHE:CE2	24:D2:103:ILE:HD11	3.02	0.78
36:5:2960:C:OP1	86:5:3974:OHX:N5	2.17	0.78
25:D3:92:CYS:HA	25:D3:95:PHE:HD2	1.46	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:66:ILE:O	5:S3:70:THR:OG1	3.13	0.78
9:S7:131:PHE:O	9:S7:133:THR:N	2.16	0.78
62:N6:91:ASN:O	62:N6:93:ALA:N	2.16	0.78
1:2:1237:G:N2	1:2:1248:C:O2	2.15	0.78
75:O9:2:ALA:N	36:5:1493:G:O6	122.50	0.78
2:S0:167:LYS:HB3	2:S0:168:HIS:CD2	2.19	0.78
36:1:3087:A:OP1	86:1:4180:OHX:N5	2.17	0.78
56:N0:91:TYR:O	56:N0:137:ARG:NH1	2.17	0.78
36:1:1563:C:O2	36:1:1577:G:N2	2.11	0.78
36:1:3151:U:OP2	40:L3:132:LYS:NZ	2.17	0.78
36:1:807:A:H61	36:1:934:G:H22	1.29	0.78
10:S8:162:ALA:HA	36:1:3353:G:H5''	1.65	0.78
36:1:829:U:H3	36:1:895:A:N6	1.82	0.78
1:2:1331:A:OP1	19:C7:45:ARG:NH2	2.17	0.78
37:3:112:G:OP2	86:3:221:OHX:N1	2.17	0.78
18:C6:50:GLU:OE1	18:C6:114:ARG:NH1	2.14	0.78
25:D3:91:GLY:O	25:D3:93:LEU:N	2.17	0.78
63:N7:128:GLN:O	63:N7:130:PHE:N	2.17	0.78
1:2:1046:G:OP1	3:S1:157:GLN:NE2	2.17	0.78
56:N0:50:LYS:NZ	37:7:76:A:O2'	301.74	0.78
21:C9:49:ASP:HB3	21:C9:53:TRP:HB3	1.64	0.78
40:L3:347:SER:O	40:L3:349:LYS:N	2.16	0.78
67:O1:13:THR:HG22	67:O1:72:ARG:HH21	5.39	0.78
52:M6:60:LYS:HE2	36:5:1307:G:H5''	250.76	0.77
40:L3:169:THR:HG23	40:L3:171:LEU:H	1.95	0.77
50:M4:132:LYS:HD3	36:5:3230:G:H4'	286.05	0.77
1:2:1585:U:H3	1:2:1611:A:H2	1.31	0.77
36:5:419:G:N7	86:5:3907:OHX:N3	2.32	0.77
53:M7:25:SER:O	53:M7:29:THR:HG23	2.28	0.77
53:M7:32:THR:HG21	53:M7:87:SER:HB3	1.66	0.77
36:1:1634:G:OP1	63:N7:107:ARG:NH1	2.16	0.77
1:2:237:C:H5''	1:2:238:U:H5'	1.64	0.77
44:L7:180:SER:HB2	44:L7:183:ASP:H	1.47	0.77
48:M1:28:ASP:OD2	48:M1:32:ARG:NH2	6.25	0.77
36:1:1878:G:OP1	86:1:3923:OHX:N4	2.18	0.77
1:2:1010:C:OP2	86:2:2131:OHX:N6	2.18	0.77
36:1:2233:A:OP2	86:1:4041:OHX:N5	2.17	0.77
1:2:9:U:O4	86:2:2154:OHX:N6	2.18	0.77
51:M5:50:ARG:HH11	36:5:267:G:H4'	111.01	0.77
36:1:924:G:OP1	86:1:4142:OHX:N5	2.18	0.77
36:1:705:A:H62	64:N8:74:ASN:HD21	1.31	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:800:U:O4	86:2:2054:OHX:N5	2.18	0.77
41:L4:291:ASN:O	41:L4:293:SER:N	2.16	0.77
36:1:640:U:OP1	64:N8:21:ARG:NH2	2.18	0.77
36:5:1599:G:OP1	86:5:4140:OHX:N4	2.18	0.77
50:M4:16:GLU:HB3	56:N0:149:LYS:HB3	2.13	0.77
6:S4:158:ASP:OD2	6:S4:174:LYS:NZ	2.18	0.77
44:L7:80:GLN:HE21	57:N1:136:ARG:H	4.96	0.77
8:S6:135:PRO:HB2	8:S6:141:ILE:HG13	1.65	0.77
72:O6:66:GLU:OE1	72:O6:70:ARG:NH2	2.18	0.77
3:S1:110:LEU:HD11	3:S1:213:ARG:HD2	2.18	0.77
34:SR:102:ARG:NH2	1:6:1341:A:O2'	458.05	0.77
37:7:86:U:O2	86:7:220:OHX:N4	2.18	0.77
69:O3:14:LEU:HD11	69:O3:31:LYS:HB2	2.58	0.77
8:S6:12:SER:HB3	8:S6:124:LEU:HD12	1.86	0.77
36:1:276:U:O2	51:M5:93:LYS:NZ	2.18	0.76
86:2:2039:OHX:N1	25:D3:64:PRO:O	2.17	0.76
18:C6:66:ARG:NH1	1:6:1351:G:OP1	435.33	0.76
29:D7:59:CYS:O	29:D7:61:THR:N	2.83	0.76
40:L3:296:THR:HG22	40:L3:299:ASP:H	1.90	0.76
49:M3:166:ALA:HB1	64:N8:147:LEU:HD21	2.13	0.76
54:M8:133:LYS:HB2	54:M8:135:GLN:HE22	2.73	0.76
1:2:143:G:N7	8:S6:177:ARG:NH2	2.33	0.76
36:1:3224:G:O6	86:1:3889:OHX:N4	2.18	0.76
1:2:1203:A:OP2	86:2:2110:OHX:N5	2.18	0.76
1:2:142:G:H22	1:2:173:A:H2	1.33	0.76
63:N7:83:THR:HG23	63:N7:85:TYR:H	1.51	0.76
39:L2:70:ARG:HH11	39:L2:72:ARG:HG2	1.49	0.76
40:L3:346:THR:O	40:L3:348:ARG:N	2.18	0.76
52:M6:27:LEU:HD22	52:M6:101:ARG:HB2	1.65	0.76
72:O6:74:LYS:HD2	72:O6:80:PHE:HD2	1.48	0.76
36:5:3343:G:H21	36:5:3362:A:H2	1.33	0.76
36:5:410:U:O4	86:5:4105:OHX:N1	2.18	0.76
24:D2:53:ILE:HG12	24:D2:60:LYS:HB2	1.67	0.76
71:O5:101:THR:HG22	71:O5:104:GLN:HB2	1.92	0.76
5:S3:170:THR:HG22	5:S3:187:LYS:HA	5.85	0.76
37:3:49:G:N7	42:L5:58:LYS:HG3	2.00	0.76
53:M7:105:LYS:HB3	53:M7:107:LEU:HD13	3.37	0.76
69:O3:86:ARG:O	86:O3:201:OHX:N1	2.18	0.76
34:SR:38:ARG:HG2	34:SR:67:ILE:HG23	1.88	0.76
78:Q2:41:ARG:NH1	36:5:284:A:OP2	156.53	0.76
36:5:3165:A:H61	36:5:3285:C:H42	1.32	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2822:U:OP2	86:5:3955:OHX:N1	2.19	0.76
55:M9:76:SER:O	55:M9:81:ARG:NH1	2.19	0.76
36:1:1565:G:N2	36:1:1574:C:O2	2.19	0.76
2:S0:185:ARG:HB2	23:D1:45:ALA:HB3	1.68	0.76
41:L4:60:THR:HG21	41:L4:77:VAL:HG22	2.02	0.76
45:L8:148:ALA:HA	45:L8:201:THR:HG22	1.66	0.76
43:L6:3:ALA:HB2	68:O2:77:ALA:HB2	2.29	0.76
1:6:868:G:H1	1:6:960:U:H3	1.33	0.76
7:S5:62:VAL:HG13	7:S5:89:ILE:HG12	1.88	0.76
1:2:1173:C:H3'	20:C8:141:THR:HG21	1.66	0.76
55:M9:17:VAL:HG21	55:M9:52:LYS:HE2	4.01	0.76
56:N0:137:ARG:HG2	56:N0:139:TYR:CE1	2.31	0.76
68:O2:100:ILE:O	68:O2:105:ARG:NH1	2.18	0.76
69:O3:12:LYS:NZ	69:O3:95:GLY:O	2.18	0.76
1:2:1424:A:H1'	4:S2:92:ALA:HB1	1.67	0.76
36:1:679:U:O4	86:1:3969:OHX:N1	2.19	0.76
36:5:2971:A:H3'	36:5:2971:A:N3	1.99	0.76
19:C7:25:THR:OG1	19:C7:31:ASN:ND2	5.19	0.76
41:L4:152:VAL:HG23	41:L4:172:VAL:HG21	1.66	0.76
1:2:169:A:H5''	8:S6:176:GLN:HG2	1.66	0.75
36:5:742:G:N7	86:5:4005:OHX:N4	2.34	0.75
15:C3:140:LYS:NZ	36:5:847:A:OP1	286.27	0.75
42:L5:285:ARG:NH1	37:7:62:U:O3'	340.26	0.75
32:E0:50:VAL:HA	32:E0:54:ARG:HA	3.49	0.75
40:L3:76:VAL:HG12	40:L3:325:LYS:HA	1.68	0.75
67:O1:46:THR:OG1	67:O1:47:ASP:N	3.74	0.75
36:1:2794:G:N7	86:1:3930:OHX:N2	2.34	0.75
86:5:3944:OHX:N2	86:5:4236:OHX:N4	2.34	0.75
46:L9:9:GLN:HG2	46:L9:52:LEU:HD21	1.68	0.75
47:M0:129:VAL:HG22	47:M0:133:GLN:HG2	1.67	0.75
4:S2:179:VAL:O	4:S2:198:THR:OG1	2.04	0.75
5:S3:167:PHE:HA	5:S3:190:ARG:HD3	1.67	0.75
8:S6:20:ASP:HB3	8:S6:23:ARG:HG3	3.50	0.75
1:6:230:C:N3	1:6:235:G:N2	2.33	0.75
47:M0:42:THR:HG23	47:M0:45:GLU:HG3	4.61	0.75
52:M6:121:PRO:HA	52:M6:124:LEU:HD22	2.64	0.75
6:S4:3:ARG:HG2	1:6:399:A:H4'	320.12	0.75
1:2:1507:G:O6	86:2:2145:OHX:N5	2.20	0.75
1:2:452:A:OP2	86:2:2038:OHX:N5	2.19	0.75
21:C9:16:ASN:OD1	21:C9:56:LYS:NZ	2.52	0.75
46:L9:100:ASN:HB3	46:L9:115:ARG:HB2	2.44	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:15:GLU:OE1	48:M1:140:ARG:NH1	2.18	0.75
36:1:2433:U:H1'	51:M5:125:SER:HB3	1.68	0.75
36:1:2897:A:H2'	36:1:2899:C:H5''	1.68	0.75
46:L9:70:THR:HG21	36:5:3122:A:N1	323.95	0.75
73:O7:21:ARG:NH2	73:O7:41:ALA:O	2.20	0.75
1:2:992:A:OP1	86:2:2035:OHX:N2	2.20	0.75
36:5:1066:G:OP1	86:5:4230:OHX:N2	2.20	0.75
16:C4:91:THR:O	16:C4:93:THR:N	2.19	0.75
47:M0:88:ARG:HG2	47:M0:90:ARG:HG2	2.47	0.75
2:S0:142:PRO:HB3	23:D1:34:ILE:HD13	1.99	0.75
36:1:715:A:H8	64:N8:115:LYS:HG3	1.50	0.75
36:5:2996:U:OP1	36:5:2996:U:H4'	1.86	0.75
1:6:138:A:N6	1:6:266:A:H61	1.85	0.75
46:L9:22:SER:OG	46:L9:23:ARG:N	2.19	0.75
46:L9:77:ASN:HA	46:L9:80:THR:HG23	2.16	0.75
11:S9:38:ASN:HB2	11:S9:41:GLU:HG3	1.69	0.75
34:SR:115:ILE:HG13	34:SR:122:ILE:HG12	1.97	0.75
36:1:1591:G:O2'	36:1:1799:A:N1	2.17	0.75
1:2:1557:U:OP2	1:2:1559:A:O2'	2.05	0.75
36:5:789:A:H2'	36:5:790:U:H6	1.52	0.75
36:1:1877:U:OP2	86:1:3923:OHX:N2	2.20	0.75
1:2:1291:G:N2	1:2:1324:G:H22	1.83	0.75
29:D7:19:HIS:HD2	29:D7:21:LEU:H	5.22	0.75
70:O4:8:ARG:HH21	70:O4:31:ARG:HH11	2.47	0.75
72:O6:76:ARG:HA	72:O6:76:ARG:HE	1.51	0.75
36:1:1740:U:H1'	36:1:1741:A:H2	1.52	0.74
1:2:116:U:H2'	1:2:117:U:C6	2.22	0.74
1:6:471:A:OP2	86:6:2103:OHX:N5	2.20	0.74
3:S1:72:ASP:OD1	16:C4:114:ARG:NH1	4.40	0.74
64:N8:94:ALA:HB1	64:N8:122:PRO:HD2	1.67	0.74
67:O1:23:VAL:O	67:O1:28:ARG:NH1	2.19	0.74
6:S4:85:GLY:N	6:S4:88:ASP:OD2	2.46	0.74
7:S5:120:ILE:HG12	27:D5:100:ILE:HD11	1.69	0.74
9:S7:13:PRO:HB3	9:S7:14:THR:HB	1.67	0.74
34:SR:70:ASP:OD2	34:SR:155:ARG:NH2	2.20	0.74
36:1:18:G:OP1	71:O5:81:ARG:NH2	2.19	0.74
36:5:1238:C:O2'	36:5:1239:C:OP1	2.05	0.74
64:N8:34:MET:HB2	36:5:95:A:H5''	162.68	0.74
19:C7:66:VAL:O	19:C7:68:GLY:N	3.18	0.74
26:D4:62:THR:HA	26:D4:69:SER:HA	1.67	0.74
34:SR:76:ASP:OD1	34:SR:76:ASP:N	2.20	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:99:ARG:NH1	25:D3:7:ARG:O	2.25	0.74
40:L3:53:MET:HG2	40:L3:77:THR:HG22	1.68	0.74
41:L4:22:LEU:HD22	41:L4:23:PRO:HD2	1.68	0.74
70:O4:54:ILE:HD11	70:O4:78:GLY:HA2	2.26	0.74
2:S0:179:ARG:HD3	2:S0:183:ARG:HH11	1.50	0.74
3:S1:123:ALA:HB2	3:S1:165:ARG:HG2	2.14	0.74
36:5:979:U:H1'	36:5:980:A:C4	2.22	0.74
29:D7:56:CYS:SG	29:D7:57:GLU:N	2.85	0.74
79:Q3:73:THR:HG22	79:Q3:76:ALA:H	1.52	0.74
5:S3:79:TYR:HD1	5:S3:84:ILE:HB	1.50	0.74
38:4:16:G:O6	86:4:222:OHX:N3	2.20	0.74
86:5:3944:OHX:N5	86:5:4236:OHX:N6	2.35	0.74
47:M0:73:ASN:O	47:M0:77:THR:OG1	3.64	0.74
36:1:687:U:OP2	49:M3:36:ARG:NH2	2.21	0.74
8:S6:120:GLU:HG3	8:S6:125:THR:HB	1.67	0.74
8:S6:142:ARG:HA	8:S6:147:LEU:HD12	1.68	0.74
86:5:3944:OHX:N5	86:5:4236:OHX:N3	2.36	0.74
15:C3:67:THR:O	15:C3:69:ASN:N	2.21	0.74
42:L5:270:LYS:HG3	42:L5:273:ARG:HB3	4.87	0.74
71:O5:86:ARG:HG3	71:O5:90:ARG:NH2	2.23	0.74
1:2:1290:U:H2'	1:2:1291:G:C8	2.21	0.74
1:2:399:A:OP1	10:S8:49:ARG:NH2	2.20	0.74
1:6:1130:G:OP2	86:6:2113:OHX:N1	2.20	0.74
1:2:1533:C:OP2	27:D5:77:ARG:NH2	2.21	0.74
49:M3:182:ILE:HD12	49:M3:182:ILE:H	1.53	0.74
6:S4:108:ARG:NH1	1:6:788:A:OP2	397.07	0.74
36:5:955:U:H2'	36:5:956:U:C6	2.21	0.74
1:6:369:A:O2'	1:6:371:G:OP2	2.05	0.74
42:L5:107:ARG:HH22	42:L5:120:LYS:HA	1.52	0.74
42:L5:60:ILE:HB	42:L5:80:SER:HB3	1.68	0.74
66:O0:22:LYS:HB2	66:O0:94:GLU:HB2	1.69	0.74
76:Q0:77:ILE:HG23	76:Q0:78:ILE:HG22	5.59	0.74
4:S2:53:ILE:HD12	4:S2:53:ILE:H	4.20	0.74
1:2:149:C:O2'	8:S6:132:ARG:NH1	2.20	0.74
1:2:1796:C:OP2	28:D6:5:ARG:NH1	2.20	0.74
1:6:25:C:O2	86:6:2108:OHX:N5	2.20	0.74
22:D0:20:ILE:HD12	22:D0:100:VAL:HG21	4.08	0.74
48:M1:60:ARG:NH1	78:Q2:104:LEU:O	3.50	0.74
52:M6:18:ARG:NH2	36:5:1318:A:OP1	276.21	0.74
59:N3:87:ARG:HH22	59:N3:137:VAL:HG21	1.52	0.74
66:O0:99:ASP:N	66:O0:99:ASP:OD2	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:24:ARG:NH1	36:5:361:A:OP1	120.45	0.74
1:2:1280:C:H2'	1:2:1281:G:C8	2.23	0.74
1:6:1665:U:O4	86:6:2124:OHX:N6	2.21	0.74
11:S9:126:ARG:NH1	1:6:475:A:OP2	423.81	0.74
36:1:912:G:OP2	39:L2:9:ARG:NH1	2.20	0.74
63:N7:95:VAL:HG21	63:N7:113:VAL:HG21	1.68	0.74
64:N8:128:ARG:HB2	72:O6:8:ALA:HB2	4.03	0.74
36:5:864:G:OP2	86:5:3918:OHX:N4	2.20	0.73
69:O3:60:ARG:HD3	36:5:3275:U:N3	213.34	0.73
1:2:1720:G:O6	86:2:2082:OHX:N5	2.21	0.73
86:2:2031:OHX:N3	86:2:2145:OHX:N5	2.36	0.73
1:2:823:G:H2'	1:2:824:G:H8	1.53	0.73
36:5:2439:A:N6	36:5:2508:U:H3	1.86	0.73
72:O6:9:ILE:HD13	72:O6:10:GLY:H	4.90	0.73
35:SM:23:LYS:HD2	35:SM:23:LYS:H	1.52	0.73
36:1:148:G:OP2	51:M5:4:TYR:OH	2.05	0.73
36:1:3085:G:OP2	86:1:3883:OHX:N2	2.21	0.73
36:1:2659:G:N7	86:1:3876:OHX:N5	2.37	0.73
36:5:3174:A:H2'	36:5:3175:U:H5'	1.71	0.73
36:5:2705:A:OP2	86:5:3901:OHX:N2	2.21	0.73
19:C7:47:ARG:NH1	19:C7:48:ASN:OD1	2.21	0.73
27:D5:71:ILE:HG21	27:D5:76:ALA:HB2	3.61	0.73
39:L2:70:ARG:HH11	39:L2:72:ARG:HE	4.14	0.73
50:M4:19:ARG:HA	50:M4:69:THR:HG22	2.68	0.73
51:M5:31:ARG:NH1	51:M5:124:ASP:OD1	2.56	0.73
6:S4:104:ASP:HB2	6:S4:108:ARG:H	1.51	0.73
1:2:1339:C:O2'	1:2:1341:A:N7	2.21	0.73
1:6:770:A:OP2	86:6:2139:OHX:N3	2.21	0.73
16:C4:81:VAL:HG22	16:C4:115:ILE:HB	1.69	0.73
1:2:747:C:O2'	24:D2:80:ASN:OD1	2.05	0.73
36:1:1613:A:OP2	74:O8:46:ARG:NH2	2.20	0.73
36:1:2107:A:H2	36:1:3344:A:H8	1.36	0.73
36:5:1009:A:N6	36:5:1041:U:O4	2.14	0.73
1:6:1050:G:N2	1:6:1068:C:O2	2.19	0.73
20:C8:13:HIS:HA	20:C8:24:GLY:HA3	2.71	0.73
34:SR:160:GLU:O	34:SR:162:ALA:N	2.21	0.73
34:SR:89:LEU:HB2	34:SR:103:PHE:HB2	1.73	0.73
36:1:1222:G:O2'	36:1:1285:G:N1	2.20	0.73
36:1:3115:C:O2'	36:1:3117:C:N4	2.22	0.73
1:2:1796:C:H5	28:D6:6:ALA:H	1.37	0.73
1:2:900:A:OP1	16:C4:43:THR:OG1	2.06	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:26:C:H5'	42:L5:56:THR:HB	1.70	0.73
55:M9:135:LYS:NZ	36:5:1949:G:OP2	224.53	0.73
24:D2:2:THR:N	1:6:1034:C:HO2'	337.79	0.73
39:L2:21:ARG:HD3	36:5:824:C:H5''	170.46	0.73
1:2:499:U:O2'	1:2:500:C:O5'	2.07	0.73
22:D0:51:VAL:HG13	22:D0:94:GLU:HB2	1.69	0.73
28:D6:37:LYS:O	28:D6:38:ARG:NH1	2.21	0.73
40:L3:152:LYS:HD3	40:L3:189:SER:HA	1.70	0.73
2:S0:24:LEU:O	2:S0:163:ASN:ND2	2.21	0.73
9:S7:14:THR:OG1	9:S7:15:GLU:N	2.21	0.73
10:S8:6:ASP:HB2	10:S8:8:ARG:HG3	6.21	0.73
36:1:1466:G:O6	86:1:3875:OHX:N4	2.21	0.73
36:5:255:A:H2'	36:5:256:G:H8	1.54	0.73
47:M0:36:LEU:HD21	47:M0:69:ARG:HD3	1.70	0.73
49:M3:157:ARG:HG2	49:M3:158:ALA:N	2.04	0.73
10:S8:76:THR:HG22	10:S8:105:ASP:HB3	3.25	0.73
36:1:2273:G:O6	86:1:4138:OHX:N5	2.22	0.73
40:L3:97:ARG:NH1	36:5:3244:A:N1	244.51	0.73
60:N4:52:THR:O	60:N4:56:ARG:HG3	1.88	0.73
36:1:3275:U:H5''	69:O3:68:TRP:HZ2	1.53	0.73
36:5:2440:G:H2'	36:5:2441:A:C8	2.23	0.73
64:N8:27:LYS:NZ	36:5:801:A:OP1	153.95	0.73
1:6:895:G:H1	1:6:917:U:H3	1.33	0.73
36:1:3122:A:N1	46:L9:70:THR:HG21	2.04	0.73
36:1:2338:C:H1'	59:N3:49:LEU:HD12	1.71	0.73
71:O5:90:ARG:NH1	36:5:20:A:OP2	86.11	0.73
4:S2:225:LEU:HD13	24:D2:68:ARG:HA	2.35	0.72
56:N0:23:LYS:O	57:N1:146:ASN:ND2	2.22	0.72
3:S1:176:VAL:HG12	3:S1:177:GLN:H	1.54	0.72
8:S6:13:GLN:OE1	1:6:151:G:N2	310.85	0.72
56:N0:13:ARG:NH1	56:N0:13:ARG:HG3	4.76	0.72
36:1:2895:G:O2'	76:Q0:100:TYR:O	2.05	0.72
3:S1:41:ARG:HH22	3:S1:232:HIS:HA	3.07	0.72
8:S6:153:VAL:O	8:S6:155:ASP:N	2.67	0.72
11:S9:38:ASN:HB3	11:S9:40:LYS:H	1.55	0.72
36:1:3060:C:OP1	86:1:4036:OHX:N4	2.21	0.72
53:M7:168:LEU:HD13	53:M7:173:ARG:HB3	1.72	0.72
5:S3:40:ARG:HD2	5:S3:49:ILE:HD11	3.04	0.72
6:S4:182:TYR:HB2	6:S4:228:ILE:HD13	1.70	0.72
86:2:2031:OHX:N6	86:2:2145:OHX:N5	2.36	0.72
36:5:1249:G:H2'	36:5:1250:G:H8	1.55	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:398:A:O2'	36:5:1416:C:OP1	2.07	0.72
36:5:1734:G:O6	86:5:3971:OHX:N5	2.22	0.72
19:C7:8:THR:HG21	1:6:1330:G:H21	418.89	0.72
6:S4:108:ARG:NH2	1:6:789:A:OP1	390.83	0.72
67:O1:44:MET:HB3	67:O1:77:ARG:NH1	4.14	0.72
2:S0:78:SER:OG	2:S0:129:ASP:OD1	3.29	0.72
5:S3:74:GLN:HA	5:S3:79:TYR:HB2	2.58	0.72
36:5:2236:G:OP1	86:5:4251:OHX:N3	2.22	0.72
36:5:2745:G:N2	36:5:2748:A:OP2	2.21	0.72
47:M0:4:ARG:NH1	36:5:2828:G:O2'	264.16	0.72
16:C4:38:THR:HG21	1:6:895:G:H21	262.27	0.72
48:M1:23:VAL:O	48:M1:25:GLU:N	2.22	0.72
39:L2:59:ALA:HB2	39:L2:78:ALA:HB2	1.71	0.72
41:L4:283:THR:HG22	41:L4:285:ASP:N	2.05	0.72
47:M0:86:HIS:HB3	47:M0:139:ARG:HG2	1.80	0.72
50:M4:13:ARG:NH1	50:M4:65:LEU:O	2.65	0.72
10:S8:89:GLU:OE1	10:S8:92:ARG:NH2	2.16	0.72
11:S9:109:LEU:HB2	11:S9:146:PHE:HB3	1.74	0.72
53:M7:122:ALA:HB3	53:M7:143:PRO:HB2	2.54	0.72
3:S1:34:ALA:HB3	3:S1:41:ARG:HA	1.69	0.72
10:S8:84:HIS:CE1	10:S8:86:SER:HB2	2.25	0.72
36:1:3316:A:OP1	36:1:3318:G:N2	2.23	0.72
1:2:541:A:O2'	1:2:542:A:H4'	1.89	0.72
1:2:542:A:O2'	1:2:543:C:H3'	1.89	0.72
36:5:2568:C:O2'	36:5:2569:A:O5'	2.07	0.72
78:Q2:63:LYS:NZ	36:5:2761:G:N7	210.68	0.72
1:6:138:A:H62	1:6:266:A:H61	1.38	0.72
1:6:1727:G:H2'	1:6:1728:A:C8	2.25	0.72
48:M1:137:ARG:NH1	37:7:28:C:OP1	300.53	0.72
66:O0:34:LEU:HD23	66:O0:59:TYR:HB3	1.72	0.72
36:1:2503:G:H1'	36:1:2504:U:H5	1.54	0.72
1:2:1595:U:N3	1:2:1600:A:H2	1.88	0.72
1:2:1680:G:O6	86:2:2109:OHX:N5	2.23	0.72
36:5:3066:U:O4	86:5:4108:OHX:N4	2.22	0.72
29:D7:19:HIS:CD2	29:D7:21:LEU:H	4.41	0.72
55:M9:47:ASN:ND2	55:M9:47:ASN:O	2.22	0.72
56:N0:77:VAL:HG11	56:N0:106:LEU:HD12	1.71	0.72
63:N7:135:ARG:HH21	63:N7:135:ARG:HB3	3.27	0.72
49:M3:164:GLU:O	64:N8:139:ARG:NH2	5.38	0.72
72:O6:97:SER:OG	72:O6:98:ARG:N	2.19	0.72
8:S6:206:ALA:O	8:S6:210:GLN:NE2	2.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:129:ILE:HA	11:S9:134:ILE:HG12	4.70	0.72
1:6:140:A:N6	1:6:281:G:OP1	2.23	0.72
28:D6:24:VAL:HG11	28:D6:71:LEU:HD12	1.72	0.72
40:L3:150:ARG:HG2	40:L3:150:ARG:HH11	3.95	0.72
63:N7:83:THR:HG23	63:N7:85:TYR:N	2.05	0.72
74:O8:44:LYS:HG2	74:O8:53:THR:HB	1.84	0.72
36:5:1015:U:O2'	36:5:1017:C:OP1	2.06	0.71
36:5:2568:C:N4	36:5:2574:G:O6	2.23	0.71
86:5:3944:OHX:N1	86:5:4236:OHX:N4	2.37	0.71
25:D3:130:VAL:O	25:D3:131:SER:HB3	2.53	0.71
36:1:1790:G:O6	86:1:4167:OHX:N4	2.23	0.71
17:C5:69:GLU:OE1	86:C5:201:OHX:N4	2.23	0.71
45:L8:244:ALA:HA	45:L8:247:ASP:HB2	2.65	0.71
6:S4:141:THR:OG1	6:S4:143:ASP:OD2	2.08	0.71
34:SR:74:THR:O	34:SR:76:ASP:N	3.39	0.71
36:1:595:G:N1	36:1:609:G:H5''	2.04	0.71
1:2:1427:A:OP2	35:SM:93:ARG:NH1	2.23	0.71
36:5:658:G:OP1	86:8:223:OHX:N5	2.23	0.71
27:D5:55:PRO:O	27:D5:57:TYR:N	2.23	0.71
63:N7:67:LYS:NZ	36:5:1630:U:OP1	196.56	0.71
71:O5:13:SER:HB3	71:O5:16:GLN:HG3	1.72	0.71
4:S2:170:ILE:HB	4:S2:197:TYR:HB2	1.72	0.71
36:1:595:G:H1	36:1:609:G:H5''	1.56	0.71
36:1:618:C:H5'	53:M7:169:THR:HG22	1.71	0.71
36:5:2207:A:H62	36:5:2236:G:H1	1.36	0.71
25:D3:79:ASN:ND2	25:D3:81:LYS:H	1.89	0.71
40:L3:81:THR:HG22	40:L3:321:PHE:HA	5.07	0.71
40:L3:368:GLY:O	60:N4:17:ARG:NH1	2.96	0.71
50:M4:14:LEU:H	50:M4:19:ARG:HH11	2.20	0.71
57:N1:30:TYR:OH	57:N1:94:GLU:OE2	2.55	0.71
23:D1:74:GLN:HE22	23:D1:82:VAL:HG12	1.55	0.71
49:M3:74:GLY:O	49:M3:101:ARG:NH1	2.23	0.71
72:O6:45:ARG:NH2	72:O6:54:GLU:OE1	2.85	0.71
6:S4:174:LYS:HE3	6:S4:175:PHE:H	3.52	0.71
36:1:1230:G:H1	36:1:1279:C:H42	1.38	0.71
36:1:410:U:O4	86:1:4054:OHX:N2	2.24	0.71
61:N5:115:ARG:HH11	61:N5:115:ARG:HG3	2.48	0.71
66:O0:75:ASN:HA	66:O0:86:ARG:HB2	3.42	0.71
75:O9:9:ILE:HG22	75:O9:13:MET:HE2	1.73	0.71
9:S7:67:LEU:HG	9:S7:94:ALA:HB2	2.46	0.71
36:1:1712:G:N2	36:1:1731:A:OP2	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1067:C:H2'	1:2:1068:C:C6	2.25	0.71
77:Q1:15:ARG:NH1	1:6:1126:G:OP1	281.76	0.71
17:C5:126:VAL:HG13	17:C5:127:ARG:H	1.56	0.71
40:L3:233:TRP:CD1	40:L3:265:ALA:HB1	2.26	0.71
42:L5:40:HIS:HB3	42:L5:43:LYS:HG3	1.72	0.71
49:M3:161:ASP:O	49:M3:163:GLY:N	3.24	0.71
51:M5:90:ASN:O	51:M5:92:LEU:N	2.22	0.71
6:S4:100:ARG:NH2	6:S4:121:TYR:O	2.63	0.71
1:2:1572:G:H1'	7:S5:185:ARG:HH22	1.54	0.71
36:5:1466:G:O6	86:5:3914:OHX:N5	2.24	0.71
6:S4:163:ASP:O	6:S4:164:LEU:HB2	2.30	0.71
10:S8:5:ARG:NH1	10:S8:29:LEU:O	2.21	0.71
36:1:1495:U:H5	36:1:1835:A:N1	1.87	0.71
1:2:1564:U:H2'	1:2:1565:C:C6	2.26	0.71
36:5:3057:U:O2'	36:5:3059:G:OP1	2.06	0.71
36:5:1940:G:N2	36:5:3362:A:H8	1.89	0.71
36:5:604:G:N7	86:5:4170:OHX:N2	2.39	0.71
12:C0:16:PHE:HD2	12:C0:76:LEU:HD23	1.55	0.71
16:C4:29:HIS:HB3	16:C4:41:ARG:HG3	1.72	0.71
2:S0:59:LEU:HD12	23:D1:79:LEU:HD21	2.68	0.71
44:L7:92:ILE:HD11	54:M8:4:ASP:HB2	1.73	0.71
68:O2:124:GLY:O	68:O2:126:LEU:N	2.67	0.71
4:S2:88:LYS:HB3	4:S2:95:ARG:HD2	5.07	0.71
1:2:142:G:O6	8:S6:177:ARG:NH1	2.23	0.71
1:2:800:U:H2'	1:2:801:G:H8	1.55	0.71
36:5:1155:C:H2'	36:5:1156:C:H6	1.56	0.71
39:L2:128:ARG:NH1	36:5:2177:G:OP2	198.01	0.71
8:S6:94:ARG:HH21	1:6:407:A:H5'	289.47	0.71
1:6:454:U:H5''	1:6:455:C:H5	1.56	0.71
43:L6:31:ARG:NH2	43:L6:81:ALA:O	2.23	0.71
44:L7:158:LYS:HE2	44:L7:159:GLN:H	1.54	0.71
47:M0:43:VAL:HG21	47:M0:197:VAL:HB	2.25	0.71
50:M4:3:THR:O	50:M4:3:THR:OG1	2.08	0.71
50:M4:50:LYS:HE3	50:M4:86:ALA:HB2	1.71	0.71
63:N7:52:LYS:O	63:N7:65:ARG:NH1	2.22	0.71
63:N7:53:VAL:HG21	63:N7:62:VAL:HG13	1.71	0.71
69:O3:90:PRO:O	69:O3:92:LYS:N	2.23	0.71
71:O5:81:ARG:NH2	36:5:18:G:OP1	77.09	0.71
9:S7:50:ASP:N	9:S7:50:ASP:OD1	2.24	0.71
36:1:2307:G:O2'	36:1:2310:U:OP2	2.09	0.70
36:1:2680:A:C2	48:M1:57:PHE:HB3	2.26	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:838:G:O6	79:Q3:4:ARG:NH2	2.24	0.70
86:2:2031:OHX:N4	86:2:2145:OHX:N1	2.38	0.70
1:2:885:G:H21	16:C4:123:SER:HB2	1.54	0.70
37:7:91:G:H2'	37:7:92:A:C8	2.26	0.70
46:L9:171:ASP:OD2	46:L9:173:ARG:NH1	2.37	0.70
48:M1:52:TYR:HA	48:M1:61:ARG:HG3	2.63	0.70
59:N3:13:ILE:HG12	59:N3:53:SER:HB2	1.72	0.70
36:1:1234:G:H1	36:1:1254:C:H42	1.38	0.70
36:1:2732:G:OP2	86:1:4202:OHX:N2	2.23	0.70
36:1:2808:A:O2'	36:1:2969:A:OP1	2.09	0.70
36:5:1696:A:OP2	86:5:4187:OHX:N6	2.24	0.70
13:C1:112:SER:O	13:C1:114:ALA:N	2.82	0.70
17:C5:44:ARG:NH2	17:C5:82:ASN:O	2.61	0.70
18:C6:42:GLU:HA	18:C6:45:ARG:HB2	1.74	0.70
18:C6:21:HIS:HB2	18:C6:66:ARG:HB3	2.90	0.70
20:C8:26:ILE:HD11	20:C8:31:ALA:HA	2.42	0.70
39:L2:200:ARG:NH1	36:5:2146:C:OP1	213.11	0.70
39:L2:79:ASN:O	39:L2:82:VAL:HG13	1.91	0.70
44:L7:197:GLN:OE1	44:L7:197:GLN:N	2.20	0.70
34:SR:132:LYS:NZ	34:SR:143:THR:OG1	2.85	0.70
36:1:353:G:N7	73:O7:55:ARG:HD3	2.06	0.70
1:2:477:A:H2'	1:2:478:A:H8	1.55	0.70
1:2:732:G:O2'	1:2:733:A:O4'	2.09	0.70
38:4:70:G:O6	86:O7:105:OHX:N4	2.24	0.70
27:D5:60:VAL:HG22	27:D5:101:TYR:HB2	1.73	0.70
40:L3:123:TYR:CZ	40:L3:124:LYS:HG3	2.26	0.70
40:L3:92:TYR:HB2	40:L3:157:VAL:HG13	1.71	0.70
40:L3:227:GLU:HG2	40:L3:270:ARG:HD3	1.71	0.70
41:L4:10:SER:OG	41:L4:13:GLY:O	2.07	0.70
51:M5:149:ASN:OD1	86:M5:302:OHX:N2	2.24	0.70
62:N6:45:ILE:HD12	62:N6:119:ILE:HG23	1.71	0.70
64:N8:19:LYS:HD2	64:N8:25:HIS:HD2	4.89	0.70
36:1:3343:G:H21	36:1:3362:A:H2	1.39	0.70
18:C6:22:VAL:HG22	18:C6:65:ILE:HG23	1.72	0.70
39:L2:112:ILE:HD11	39:L2:168:VAL:HG12	5.92	0.70
40:L3:347:SER:HB3	40:L3:350:ALA:H	2.02	0.70
44:L7:27:ALA:HA	44:L7:30:ARG:HB3	1.74	0.70
45:L8:156:ASP:OD2	45:L8:156:ASP:N	2.18	0.70
4:S2:137:ILE:HG12	4:S2:138:PRO:HD2	1.72	0.70
36:1:3134:A:OP1	86:1:3897:OHX:N4	2.24	0.70
36:1:3174:A:OP1	69:O3:97:SER:OG	2.09	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:2:2031:OHX:N4	86:2:2145:OHX:N2	2.39	0.70
36:5:2774:C:O2	36:5:2786:G:N2	2.16	0.70
21:C9:57:ARG:NH1	1:6:1479:A:OP1	392.74	0.70
18:C6:95:LYS:O	34:SR:59:ARG:NH2	2.25	0.70
40:L3:62:ARG:H	40:L3:68:HIS:HD1	1.39	0.70
46:L9:147:SER:HB2	46:L9:187:ILE:HD11	1.73	0.70
49:M3:168:ARG:HG3	49:M3:172:LEU:HD12	1.77	0.70
49:M3:91:ARG:NH2	49:M3:97:VAL:O	3.02	0.70
54:M8:34:THR:HG22	54:M8:49:LEU:HD21	1.86	0.70
68:O2:16:LYS:O	68:O2:17:PHE:HB2	4.64	0.70
1:2:820:U:H2'	1:2:821:U:H4'	1.74	0.70
36:5:2128:C:OP1	86:5:4093:OHX:N3	2.24	0.70
22:D0:69:LYS:HE2	22:D0:80:GLU:HB2	1.72	0.70
45:L8:181:LYS:HD3	38:8:154:C:H5''	150.55	0.70
11:S9:93:LEU:HA	11:S9:96:VAL:HG13	1.83	0.70
36:1:1473:G:OP2	55:M9:8:LYS:NZ	2.25	0.70
36:1:2924:U:O4	86:1:4014:OHX:N1	2.25	0.70
36:1:619:A:H5''	36:1:620:U:OP1	1.92	0.70
36:5:1556:C:H2'	36:5:2169:G:N1	2.06	0.70
36:5:3299:A:N6	36:5:3315:G:H1	1.87	0.70
1:6:1698:G:O2'	1:6:1699:G:O5'	2.08	0.70
47:M0:208:ASN:HB3	47:M0:211:ARG:HH11	1.74	0.70
49:M3:87:ALA:O	49:M3:91:ARG:HG3	1.90	0.70
36:1:2355:G:H4'	53:M7:139:TYR:CE2	2.26	0.70
59:N3:87:ARG:HH22	59:N3:137:VAL:HG22	2.03	0.70
62:N6:120:GLN:CD	62:N6:126:LEU:HA	7.99	0.70
3:S1:137:ILE:HG13	3:S1:172:LEU:HD13	1.73	0.70
11:S9:168:ARG:HD3	11:S9:174:ARG:HD2	3.64	0.70
36:1:3136:G:OP2	86:1:4098:OHX:N6	2.25	0.70
36:5:1103:A:H3'	36:5:1104:G:H5'	1.73	0.70
44:L7:217:PRO:O	86:5:4004:OHX:N3	259.43	0.70
86:5:3944:OHX:N2	86:5:4236:OHX:N6	2.39	0.70
16:C4:23:PHE:HE2	16:C4:91:THR:HG21	1.56	0.70
40:L3:171:LEU:O	86:L3:405:OHX:N6	2.24	0.70
46:L9:28:VAL:HG13	46:L9:33:THR:HB	2.60	0.70
6:S4:37:LYS:NZ	6:S4:40:GLU:OE2	5.87	0.70
37:7:23:A:HO2'	37:7:121:U:HO3'	1.36	0.70
18:C6:43:ILE:H	18:C6:43:ILE:HD13	2.23	0.70
1:2:532:U:H4'	26:D4:66:GLY:HA2	1.74	0.70
40:L3:296:THR:HG22	40:L3:298:PHE:H	1.58	0.70
41:L4:295:ILE:HG22	41:L4:299:ILE:HD11	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:99:ILE:HG13	47:M0:123:HIS:HB2	4.78	0.70
53:M7:108:ASP:N	53:M7:152:GLU:OE2	2.65	0.70
57:N1:65:TYR:HB3	57:N1:75:ILE:HG13	5.45	0.70
66:O0:99:ASP:HB2	66:O0:103:THR:HG23	1.74	0.70
72:O6:9:ILE:HA	72:O6:13:LYS:HD2	2.61	0.70
3:S1:89:ASP:OD1	3:S1:89:ASP:N	2.25	0.70
4:S2:140:ARG:HB3	4:S2:221:THR:HB	1.74	0.70
1:2:656:G:O2'	1:2:657:U:O4'	2.09	0.70
47:M0:41:ALA:O	47:M0:139:ARG:NH2	2.61	0.70
53:M7:62:ARG:O	86:M7:206:OHX:N1	2.25	0.70
4:S2:45:VAL:HG21	4:S2:68:ILE:HG23	1.95	0.70
36:1:801:A:O2'	86:1:3978:OHX:N2	2.24	0.69
36:1:1817:G:OP1	86:1:4089:OHX:N1	2.25	0.69
86:2:2031:OHX:N3	86:2:2145:OHX:N1	2.40	0.69
1:2:738:G:O6	86:2:2096:OHX:N1	2.24	0.69
1:2:530:C:O2	26:D4:61:ARG:NH2	2.25	0.69
51:M5:157:LYS:NZ	36:5:58:G:OP1	85.36	0.69
1:6:822:U:H2'	1:6:823:G:H5''	1.74	0.69
28:D6:82:ARG:HB2	28:D6:85:ARG:HE	8.15	0.69
54:M8:158:HIS:H	54:M8:186:VAL:HG12	1.56	0.69
6:S4:125:LYS:NZ	6:S4:225:VAL:O	2.21	0.69
36:1:770:G:N7	86:1:4094:OHX:N6	2.40	0.69
36:1:562:C:H2'	36:1:563:U:C6	2.27	0.69
1:2:1564:U:H2'	1:2:1565:C:H6	1.57	0.69
1:6:833:U:O4	86:6:2101:OHX:N5	2.26	0.69
55:M9:106:LEU:HD13	55:M9:138:LEU:HD11	2.28	0.69
71:O5:10:ARG:NH1	71:O5:60:GLU:OE1	2.81	0.69
36:5:595:G:H1	36:5:609:G:H5''	1.57	0.69
1:6:1579:U:OP1	86:6:2182:OHX:N4	2.26	0.69
16:C4:29:HIS:ND1	16:C4:29:HIS:O	2.25	0.69
20:C8:123:ARG:HG3	20:C8:133:VAL:HG21	1.74	0.69
20:C8:41:ARG:NH2	21:C9:36:ILE:O	3.75	0.69
41:L4:181:VAL:HG11	41:L4:224:GLY:HA3	2.57	0.69
41:L4:44:LYS:HB3	41:L4:47:ARG:HH11	2.67	0.69
74:O8:67:GLN:NE2	74:O8:67:GLN:O	2.22	0.69
4:S2:56:ILE:HG23	4:S2:61:LEU:HB2	1.72	0.69
1:2:1105:C:H41	25:D3:4:GLY:HA3	1.56	0.69
1:2:127:G:N7	8:S6:202:ARG:NH2	2.41	0.69
1:2:702:G:O6	1:2:737:A:N6	2.25	0.69
1:2:992:A:H2	1:2:1012:U:N3	1.86	0.69
42:L5:106:ALA:HB2	42:L5:166:ALA:HA	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:165:ILE:HG23	54:M8:167:SER:H	3.38	0.69
64:N8:21:ARG:NH1	36:5:1369:A:OP1	182.89	0.69
3:S1:131:ASP:HB3	3:S1:180:THR:HG23	1.73	0.69
6:S4:160:VAL:HG13	6:S4:169:ILE:HG23	4.57	0.69
36:1:2298:U:O4	36:1:2923:U:H5	1.76	0.69
36:1:735:A:H2'	36:1:736:A:H8	1.55	0.69
1:2:1459:C:OP1	20:C8:126:ARG:NH2	2.24	0.69
36:5:2836:C:H5	36:5:2852:C:N4	1.90	0.69
14:C2:88:LEU:HB3	14:C2:140:PHE:HZ	1.57	0.69
40:L3:230:THR:HA	40:L3:235:THR:HG22	2.10	0.69
51:M5:172:ARG:HH11	36:5:30:G:P	107.39	0.69
53:M7:136:ILE:O	53:M7:137:ASN:ND2	2.34	0.69
64:N8:45:MET:HE2	64:N8:45:MET:HA	4.60	0.69
3:S1:87:ARG:NH2	3:S1:89:ASP:OD1	5.38	0.69
7:S5:92:ARG:NH2	7:S5:169:ASN:OD1	2.26	0.69
8:S6:78:THR:HG23	8:S6:92:ARG:HG2	1.73	0.69
36:1:2766:U:O4	86:1:4035:OHX:N2	2.24	0.69
1:2:115:G:OP1	13:C1:67:ARG:NH1	2.26	0.69
40:L3:21:ARG:NH2	36:5:3309:G:O6	198.87	0.69
36:5:2975:U:OP1	86:5:4091:OHX:N3	2.25	0.69
1:6:151:G:H1	1:6:163:G:H1	1.38	0.69
41:L4:226:GLU:OE1	41:L4:237:GLN:NE2	2.26	0.69
7:S5:59:VAL:O	7:S5:61:TYR:N	2.25	0.69
36:1:1334:U:O2'	44:L7:151:ARG:NH2	2.25	0.69
1:2:1472:C:OP1	7:S5:102:ARG:NH2	2.25	0.69
1:2:740:A:H2'	1:2:741:C:H5''	1.74	0.69
36:5:1239:C:N3	36:5:1249:G:N2	2.40	0.69
39:L2:144:ASN:O	39:L2:160:SER:N	3.01	0.69
3:S1:180:THR:HG22	3:S1:181:LEU:HD13	1.74	0.69
7:S5:43:PHE:H	7:S5:46:TRP:H	2.28	0.69
36:1:1103:A:H4'	36:1:1103:A:OP2	1.91	0.69
36:1:1409:G:N7	86:1:4065:OHX:N3	2.41	0.69
36:5:2875:U:H3	36:5:2952:G:H1	1.40	0.69
15:C3:124:ARG:NH2	1:6:967:A:OP2	319.11	0.69
22:D0:36:ASN:HA	22:D0:39:SER:HB3	5.59	0.69
39:L2:189:TYR:HA	39:L2:192:LYS:HG3	1.80	0.69
41:L4:44:LYS:HB3	41:L4:47:ARG:NH1	2.91	0.69
47:M0:84:ALA:O	47:M0:140:THR:HG22	2.07	0.69
50:M4:17:VAL:HG21	50:M4:74:ARG:HB2	1.97	0.69
4:S2:140:ARG:NH1	23:D1:1:MET:SD	2.66	0.69
5:S3:141:LYS:NZ	5:S3:179:GLN:OE1	4.36	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:122:LYS:HD2	6:S4:164:LEU:HD21	1.75	0.69
6:S4:246:LEU:HB2	6:S4:251:GLU:HG3	1.75	0.69
1:2:280:U:O2'	1:2:281:G:OP2	2.11	0.69
1:2:40:A:OP1	11:S9:3:ARG:NH1	2.25	0.69
1:2:73:U:H4'	1:2:74:U:OP1	1.92	0.69
36:5:1025:A:H3'	36:5:1026:A:H4'	1.75	0.69
75:O9:45:ARG:NH2	36:5:1841:A:N3	129.03	0.69
1:6:542:A:H2'	1:6:542:A:OP1	1.93	0.69
14:C2:103:LEU:HG	14:C2:116:VAL:HG13	4.83	0.69
20:C8:135:GLY:HA3	1:6:1559:A:H5''	365.41	0.69
22:D0:35:GLU:OE1	22:D0:89:ARG:NH1	5.39	0.69
24:D2:15:ASN:HD21	24:D2:71:LYS:HG2	4.11	0.69
36:1:565:U:H2'	36:1:566:G:H8	1.58	0.69
79:Q3:4:ARG:NH1	36:5:837:A:OP2	237.67	0.69
27:D5:74:SER:OG	1:6:1534:G:OP2	344.41	0.69
22:D0:106:ILE:HG23	22:D0:107:THR:HG23	1.74	0.69
57:N1:46:GLY:O	57:N1:49:GLN:NE2	2.25	0.69
1:2:197:A:H61	10:S8:138:ASN:ND2	1.91	0.69
34:SR:16:HIS:CE1	34:SR:37:SER:HB3	2.28	0.69
36:1:662:U:OP1	64:N8:8:THR:HG21	1.92	0.69
36:5:3364:C:OP1	86:5:3944:OHX:N1	2.26	0.69
56:N0:71:LYS:NZ	36:5:563:U:OP1	340.19	0.69
39:L2:70:ARG:NH2	36:5:2522:G:O6	175.70	0.69
50:M4:113:THR:HG22	50:M4:116:GLU:H	2.01	0.69
51:M5:80:THR:HG21	51:M5:87:GLN:HA	1.74	0.69
55:M9:46:LYS:HZ1	36:5:1766:G:H8	101.40	0.69
6:S4:107:GLY:HA2	6:S4:189:LEU:HG	2.12	0.69
9:S7:28:GLU:HG2	9:S7:35:LYS:HA	3.73	0.69
36:1:1320:C:O2	56:N0:115:ARG:NH2	2.26	0.68
36:1:2514:U:H5'	45:L8:68:ARG:HG3	1.73	0.68
36:1:1231:A:OP2	86:1:4084:OHX:N6	2.27	0.68
36:5:980:A:H2'	36:5:981:U:C2	2.28	0.68
26:D4:120:GLY:HA2	1:6:85:A:O3'	335.44	0.68
66:O0:9:SER:OG	66:O0:10:ILE:N	2.54	0.68
5:S3:115:ILE:HD11	5:S3:138:VAL:HG21	1.74	0.68
9:S7:35:LYS:O	9:S7:37:GLU:N	2.26	0.68
42:L5:270:LYS:HE2	42:L5:273:ARG:HA	9.49	0.68
46:L9:34:LEU:HD21	46:L9:149:ASN:HB2	1.75	0.68
71:O5:14:LYS:NZ	71:O5:62:GLN:OE1	5.21	0.68
6:S4:187:ARG:HH11	6:S4:187:ARG:HB2	5.79	0.68
1:2:1795:U:H3'	28:D6:5:ARG:HH12	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:800:U:H2'	1:2:801:G:C8	2.28	0.68
1:6:218:A:H2'	1:6:219:A:H5''	1.74	0.68
20:C8:91:ASP:HB3	20:C8:95:GLY:H	2.07	0.68
41:L4:170:LYS:HG3	41:L4:175:HIS:HB2	2.38	0.68
41:L4:204:GLY:O	41:L4:246:ARG:NH1	2.29	0.68
36:1:2120:A:OP2	86:1:4005:OHX:N2	2.26	0.68
37:3:7:G:H5''	42:L5:22:ARG:HD3	1.76	0.68
41:L4:73:ARG:NH2	36:5:2814:G:OP1	171.68	0.68
42:L5:259:LYS:HG3	42:L5:260:PHE:CD2	2.29	0.68
63:N7:135:ARG:HG2	63:N7:135:ARG:HH21	1.58	0.68
78:Q2:47:GLN:HE22	78:Q2:53:GLN:HA	1.58	0.68
1:2:591:A:H2'	1:2:592:A:C8	2.29	0.68
86:5:3944:OHX:N1	86:5:4236:OHX:N3	2.41	0.68
2:S0:88:LYS:NZ	19:C7:82:ASP:OD1	3.25	0.68
24:D2:27:ILE:HG12	24:D2:61:ILE:HB	1.74	0.68
36:1:3312:U:H5''	40:L3:25:ILE:HD12	1.74	0.68
41:L4:337:GLU:O	41:L4:339:LEU:N	2.25	0.68
44:L7:142:SER:O	44:L7:146:GLN:HG3	2.08	0.68
7:S5:35:GLN:O	7:S5:37:GLN:N	2.89	0.68
9:S7:38:LEU:HD23	9:S7:41:LEU:HD12	1.74	0.68
1:2:770:A:OP2	86:2:2138:OHX:N6	2.27	0.68
1:2:1029:U:O4	86:2:2168:OHX:N3	2.27	0.68
36:5:2897:A:H2'	36:5:2899:C:H5''	1.75	0.68
79:Q3:4:ARG:NH2	36:5:838:G:O6	236.53	0.68
1:6:1230:A:H2	1:6:1255:G:H21	1.42	0.68
2:S0:101:ARG:NH2	1:6:1321:A:OP2	400.88	0.68
1:6:1680:G:O6	86:6:2189:OHX:N4	2.27	0.68
13:C1:139:VAL:O	13:C1:140:VAL:HB	1.92	0.68
18:C6:18:ALA:HB2	18:C6:69:VAL:HG13	1.95	0.68
28:D6:78:ALA:HA	28:D6:83:ILE:HD12	8.53	0.68
41:L4:361:HIS:CG	41:L4:362:ASP:N	3.05	0.68
41:L4:286:VAL:HG11	54:M8:31:LYS:HD2	4.89	0.68
3:S1:175:GLU:O	3:S1:179:SER:OG	9.43	0.68
5:S3:211:PRO:HG2	19:C7:19:ARG:HB2	2.18	0.68
36:1:582:G:O6	86:1:4171:OHX:N2	2.27	0.68
36:1:781:G:N7	86:1:3936:OHX:N5	2.41	0.68
1:2:475:A:OP2	11:S9:126:ARG:NH1	2.27	0.68
37:3:60:G:OP2	86:3:225:OHX:N3	2.26	0.68
31:D9:30:LEU:HD12	31:D9:32:ARG:HD3	3.89	0.68
40:L3:115:LYS:HE3	40:L3:129:ALA:HB3	5.10	0.68
41:L4:304:GLN:O	41:L4:306:THR:N	2.63	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:182:GLY:HA3	45:L8:185:ARG:HB2	1.76	0.68
36:1:155:G:H1'	72:O6:26:ILE:HD13	1.76	0.68
36:1:156:G:OP2	72:O6:25:LYS:HB3	1.94	0.68
36:1:1596:C:H2'	36:1:1597:C:C6	2.29	0.68
36:1:3358:U:H2'	36:1:3359:A:O4'	1.94	0.68
1:2:883:C:H2'	1:2:884:A:H8	1.58	0.68
37:3:11:A:O2'	37:3:13:A:OP2	2.12	0.68
32:E0:13:LYS:HD3	32:E0:14:VAL:HG23	4.04	0.68
40:L3:41:VAL:HA	40:L3:185:GLY:CA	2.28	0.68
44:L7:88:ARG:HD2	44:L7:90:LYS:O	2.07	0.68
46:L9:132:VAL:HG23	46:L9:154:VAL:HG22	5.31	0.68
58:N2:49:ASN:O	58:N2:51:GLY:N	2.67	0.68
1:2:1460:A:O3'	35:SM:72:ARG:NH2	2.27	0.68
1:2:1041:G:H2'	1:2:1042:G:C8	2.29	0.68
1:2:312:A:H4'	1:2:313:U:H5''	1.74	0.68
36:5:1806:A:OP2	86:5:4026:OHX:N5	2.27	0.68
36:5:2841:G:OP2	86:5:4141:OHX:N1	2.26	0.68
33:E1:86:THR:O	33:E1:87:THR:OG1	3.06	0.68
42:L5:270:LYS:HG2	37:7:2:G:H5'	318.78	0.68
8:S6:98:ARG:NH2	8:S6:101:ILE:O	2.29	0.68
36:1:13:A:H4'	61:N5:39:LYS:HG3	1.75	0.68
1:6:1359:C:N4	1:6:1364:G:O6	2.20	0.68
1:6:180:A:H2'	1:6:181:A:O4'	1.94	0.68
12:C0:56:LYS:N	12:C0:67:THR:O	2.89	0.68
3:S1:92:GLN:O	3:S1:94:LYS:N	2.26	0.68
10:S8:11:ARG:O	13:C1:133:LYS:NZ	2.26	0.68
10:S8:52:ASN:OD1	86:6:2137:OHX:N3	310.70	0.68
1:2:1649:G:N7	86:2:2051:OHX:N1	2.41	0.67
36:5:2569:A:H4'	36:5:2570:U:H5'	1.76	0.67
36:5:2248:C:OP2	86:5:3980:OHX:N6	2.28	0.67
36:5:863:C:OP1	86:5:3918:OHX:N3	2.27	0.67
17:C5:115:TYR:OH	1:6:1556:A:OP1	386.99	0.67
11:S9:6:ARG:HB2	11:S9:6:ARG:HH11	4.30	0.67
11:S9:89:ASP:HB2	11:S9:90:LYS:HE2	1.77	0.67
36:1:410:U:O4	86:1:4054:OHX:N5	2.27	0.67
1:2:515:A:OP2	86:2:2070:OHX:N3	2.27	0.67
37:3:19:C:H2'	37:3:20:A:H8	1.59	0.67
1:6:826:U:O4	86:6:2066:OHX:N3	2.27	0.67
1:6:486:G:H22	1:6:501:U:H3	1.43	0.67
13:C1:74:THR:O	13:C1:74:THR:OG1	2.12	0.67
25:D3:24:TRP:HE3	25:D3:30:LYS:HG3	2.65	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:163:VAL:HG22	45:L8:166:LEU:HD12	1.75	0.67
36:1:944:C:H4'	68:O2:33:ARG:NH1	2.07	0.67
2:S0:56:LYS:HZ3	2:S0:158:VAL:HG23	1.58	0.67
3:S1:85:LYS:HB3	3:S1:101:HIS:HB3	1.76	0.67
6:S4:230:GLU:HB2	6:S4:233:LYS:HB2	1.74	0.67
11:S9:169:PRO:HD2	11:S9:174:ARG:HD2	1.76	0.67
34:SR:90:ARG:HH21	34:SR:102:ARG:HH21	3.10	0.67
36:1:1238:C:N4	36:1:1245:A:OP2	2.27	0.67
36:1:2101:C:O2'	36:1:2102:U:O5'	2.10	0.67
36:1:239:G:O6	86:1:4031:OHX:N3	2.27	0.67
37:3:86:U:O2	86:3:218:OHX:N5	2.28	0.67
14:C2:56:GLU:OE1	14:C2:124:LYS:NZ	3.05	0.67
55:M9:4:LEU:HA	55:M9:7:GLN:HE21	5.16	0.67
68:O2:123:LYS:HA	68:O2:126:LEU:HD12	2.62	0.67
38:4:95:G:OP2	73:O7:72:ARG:NH1	2.27	0.67
11:S9:171:ARG:HE	11:S9:174:ARG:HB2	4.41	0.67
36:1:1015:U:O2'	36:1:1017:C:OP2	2.12	0.67
36:1:3166:C:H42	36:1:3284:G:H1	1.40	0.67
1:2:1017:U:H2'	1:2:1018:U:C6	2.30	0.67
1:2:358:U:O2'	1:2:360:A:OP1	2.12	0.67
36:5:1662:G:N2	36:5:1788:C:O2	2.28	0.67
5:S3:7:LYS:HD3	22:D0:27:THR:HG21	3.56	0.67
41:L4:354:VAL:HG11	57:N1:143:THR:HG21	1.76	0.67
54:M8:71:LEU:HD13	54:M8:99:THR:HG21	1.76	0.67
63:N7:54:THR:H	63:N7:57:HIS:CD2	2.66	0.67
64:N8:77:LYS:O	64:N8:79:TRP:N	2.63	0.67
78:Q2:47:GLN:OE1	78:Q2:54:THR:OG1	2.12	0.67
34:SR:214:ALA:HB2	34:SR:220:ILE:HA	1.75	0.67
36:1:1352:A:H4'	36:1:1353:U:OP1	1.95	0.67
36:1:2218:G:H2'	36:1:2219:A:H8	1.58	0.67
36:1:3243:A:C8	52:M6:156:LEU:HD22	2.30	0.67
36:1:3243:A:H4'	40:L3:95:THR:HG22	1.76	0.67
36:5:1387:G:OP1	86:5:4202:OHX:N3	2.27	0.67
1:6:542:A:H8	1:6:543:C:H5'	1.60	0.67
1:6:823:G:H2'	1:6:824:G:O4'	1.95	0.67
41:L4:197:ARG:NH2	36:5:339:C:OP2	107.33	0.67
73:O7:60:GLY:O	86:O7:106:OHX:N6	2.27	0.67
3:S1:62:LYS:O	3:S1:64:ARG:N	2.27	0.67
6:S4:151:ASP:HB3	6:S4:154:ILE:HG13	1.75	0.67
1:2:301:A:OP2	86:2:2064:OHX:N2	2.28	0.67
1:2:218:A:O2'	1:2:219:A:OP1	2.09	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1661:G:O6	86:5:3921:OHX:N3	2.27	0.67
16:C4:84:ARG:HB2	16:C4:118:VAL:HG23	1.75	0.67
18:C6:109:PHE:O	18:C6:113:ASP:N	2.82	0.67
1:2:1429:G:H1'	22:D0:74:GLU:HG2	1.76	0.67
63:N7:22:LYS:HE3	63:N7:134:LEU:HB2	2.43	0.67
9:S7:11:GLN:HG3	9:S7:13:PRO:HD2	1.77	0.67
36:1:1487:G:H1	36:1:1855:U:H3	1.43	0.67
36:1:3187:A:H5'	46:L9:22:SER:HA	1.77	0.67
36:1:2107:A:H2	36:1:3344:A:C8	2.12	0.67
53:M7:138:LYS:NZ	36:5:2356:A:OP1	148.81	0.67
36:5:1541:G:OP2	86:5:4096:OHX:N4	2.28	0.67
1:6:1160:A:H2'	1:6:1161:C:C6	2.30	0.67
12:C0:50:THR:HG21	12:C0:57:THR:OG1	1.94	0.67
17:C5:15:HIS:H	17:C5:22:LEU:HD22	3.49	0.67
44:L7:150:LYS:HD3	44:L7:244:ASN:HD21	1.58	0.67
36:1:1135:A:OP2	65:N9:5:LYS:NZ	2.27	0.67
66:O0:66:LYS:H	66:O0:66:LYS:HD2	3.54	0.67
10:S8:44:HIS:O	10:S8:56:ARG:N	2.84	0.67
35:SM:79:SER:HA	35:SM:82:THR:HG23	1.77	0.67
34:SR:209:THR:HB	34:SR:226:ALA:HB2	4.19	0.67
36:1:718:G:C2	36:1:721:G:H1'	2.30	0.67
1:2:1681:A:H2'	1:2:1682:U:H5'	1.76	0.67
1:6:1542:G:N2	1:6:1568:C:H1'	2.09	0.67
79:Q3:27:LYS:O	79:Q3:31:ILE:HD12	2.59	0.67
3:S1:175:GLU:HG3	3:S1:193:ILE:HD12	1.76	0.67
4:S2:38:VAL:HG13	4:S2:39:THR:HG23	1.76	0.67
11:S9:114:TYR:HE1	11:S9:121:SER:H	1.43	0.67
36:1:567:G:O6	86:1:3999:OHX:N1	2.27	0.67
36:5:801:A:O2'	86:5:4030:OHX:N1	2.28	0.67
36:5:847:A:H2'	36:5:848:A:C8	2.29	0.67
9:S7:114:ARG:NH2	1:6:637:C:O2	351.34	0.67
17:C5:67:ALA:O	86:C5:201:OHX:N2	2.28	0.67
19:C7:5:ARG:NH1	1:6:1402:G:OP2	408.44	0.67
11:S9:29:LYS:HG3	32:E0:44:PHE:HE1	5.08	0.67
39:L2:204:MET:HE2	39:L2:209:HIS:HB2	1.75	0.67
52:M6:127:LEU:HD11	56:N0:168:PRO:HG3	1.85	0.67
36:1:2586:G:N7	45:L8:241:LYS:HB2	2.09	0.67
86:2:2031:OHX:N6	86:2:2145:OHX:N2	2.43	0.67
1:2:734:A:H5''	1:2:735:C:OP1	1.94	0.67
26:D4:20:ARG:HE	26:D4:22:GLN:HE21	5.15	0.67
23:D1:64:GLU:OE1	29:D7:3:LEU:HB2	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:174:LYS:HB2	76:Q0:127:LEU:HD11	1.75	0.67
46:L9:49:ASN:O	46:L9:49:ASN:ND2	2.26	0.67
52:M6:62:THR:H	52:M6:69:GLY:HA3	1.73	0.67
36:1:1369:A:OP1	64:N8:21:ARG:NH1	2.27	0.67
2:S0:183:ARG:HG3	2:S0:188:LEU:HD12	4.07	0.67
5:S3:140:GLY:HA3	5:S3:182:LEU:HD22	4.86	0.67
5:S3:70:THR:HG23	5:S3:86:LEU:HB2	2.22	0.67
34:SR:249:ARG:NH1	34:SR:298:GLY:O	3.18	0.67
36:1:2255:A:H5'	36:1:2261:G:H22	1.60	0.66
1:2:854:U:O4	55:M9:173:ARG:NH2	2.28	0.66
55:M9:125:LYS:NZ	36:5:1720:U:O4	241.21	0.66
36:5:2957:G:H8	36:5:2957:G:H5'	1.60	0.66
86:5:4022:OHX:N5	86:5:4219:OHX:N1	2.43	0.66
40:L3:2:SER:O	40:L3:3:HIS:HB3	1.98	0.66
42:L5:148:ILE:HG12	42:L5:159:VAL:HG11	1.77	0.66
45:L8:90:THR:HA	45:L8:214:LEU:HD21	2.17	0.66
62:N6:39:LEU:HD12	62:N6:43:TYR:CE2	4.08	0.66
4:S2:139:ILE:HD12	4:S2:191:ALA:HB1	1.76	0.66
7:S5:76:ARG:HG3	7:S5:79:ASN:HD21	1.60	0.66
36:5:1487:G:H1	36:5:1855:U:H3	1.40	0.66
28:D6:6:ALA:H	1:6:1796:C:H5	345.10	0.66
1:6:463:U:OP1	86:6:2204:OHX:N1	2.28	0.66
1:6:486:G:O6	1:6:488:G:N2	2.27	0.66
9:S7:107:ARG:HH22	1:6:741:C:H2'	345.45	0.66
27:D5:49:ARG:O	27:D5:53:GLU:HB2	2.22	0.66
36:1:944:C:H4'	68:O2:33:ARG:HH11	1.59	0.66
69:O3:72:THR:HG23	69:O3:83:ALA:HA	1.77	0.66
3:S1:51:SER:HA	3:S1:57:ALA:H	1.60	0.66
11:S9:53:ARG:NH2	11:S9:97:LEU:O	2.27	0.66
38:4:62:C:O2	86:4:227:OHX:N5	2.27	0.66
36:5:1878:G:OP1	86:5:3959:OHX:N5	2.28	0.66
36:5:2514:U:OP1	36:5:2514:U:H6	1.78	0.66
36:5:3103:A:OP2	86:5:4161:OHX:N4	2.28	0.66
1:6:1057:U:O2'	1:6:1059:U:OP1	2.12	0.66
1:6:1151:A:H4'	1:6:1766:A:C5	2.31	0.66
1:6:1159:C:N3	86:6:2138:OHX:N5	2.43	0.66
18:C6:38:LEU:HD22	21:C9:10:ALA:HB2	1.77	0.66
46:L9:156:GLN:NE2	46:L9:160:ASP:OD1	2.29	0.66
6:S4:160:VAL:HG11	6:S4:169:ILE:HG12	2.95	0.66
10:S8:36:THR:HG23	10:S8:96:LEU:O	2.10	0.66
37:3:27:A:OP2	42:L5:57:ASN:HB2	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1041:G:OP1	86:6:2175:OHX:N4	2.28	0.66
1:6:301:A:OP2	86:6:2093:OHX:N1	2.28	0.66
16:C4:13:VAL:HG13	16:C4:77:THR:H	1.59	0.66
18:C6:110:THR:HA	18:C6:113:ASP:HB2	2.60	0.66
18:C6:6:SER:HB2	18:C6:23:LYS:HB3	3.37	0.66
20:C8:117:LYS:HE2	20:C8:128:PHE:HB2	1.99	0.66
1:2:1500:C:OP1	21:C9:122:ARG:NH2	2.28	0.66
5:S3:40:ARG:HG2	22:D0:110:PRO:HB3	1.77	0.66
25:D3:51:GLY:HA2	25:D3:77:ILE:HG13	1.76	0.66
44:L7:196:LYS:HE2	36:5:1100:U:OP2	245.81	0.66
47:M0:170:LYS:HA	47:M0:177:ASP:HA	1.77	0.66
1:2:523:G:OP2	26:D4:37:LYS:NZ	2.25	0.66
36:5:3269:U:O2	36:5:3271:G:N1	2.28	0.66
36:5:2827:U:O4	86:5:3903:OHX:N6	2.28	0.66
49:M3:63:VAL:HG22	36:5:72:C:H5'	112.76	0.66
1:6:219:A:C6	1:6:843:U:H1'	2.30	0.66
1:6:363:G:OP1	86:6:2112:OHX:N1	2.28	0.66
16:C4:131:GLY:O	16:C4:133:ARG:N	3.12	0.66
28:D6:87:ARG:NH2	28:D6:91:ASP:O	3.01	0.66
54:M8:60:PRO:HG2	54:M8:144:ARG:HA	1.76	0.66
56:N0:26:ARG:HH11	57:N1:150:THR:HG21	2.55	0.66
59:N3:67:PRO:O	59:N3:69:LEU:N	3.23	0.66
4:S2:90:THR:HG22	4:S2:92:ALA:H	1.58	0.66
36:1:1278:A:O2'	36:1:1279:C:O5'	2.12	0.66
36:1:2108:C:O2'	36:1:3362:A:N6	2.28	0.66
36:1:3308:C:N3	53:M7:69:ARG:NH1	2.43	0.66
36:5:789:A:H2'	36:5:790:U:C6	2.30	0.66
1:2:953:G:OP2	15:C3:94:LYS:NZ	2.29	0.66
29:D7:37:CYS:O	29:D7:39:GLY:N	2.35	0.66
49:M3:124:ILE:HD11	49:M3:126:PHE:CZ	2.29	0.66
36:1:743:C:O2	54:M8:141:ARG:HD2	1.94	0.66
66:O0:101:LEU:HD22	66:O0:101:LEU:H	3.51	0.66
77:Q1:9:ARG:HG3	77:Q1:9:ARG:HH11	1.80	0.66
9:S7:66:SER:O	9:S7:68:ALA:N	2.73	0.66
36:1:1723:A:OP2	55:M9:103:ARG:NH2	2.28	0.66
36:1:2104:A:OP2	55:M9:81:ARG:NH2	2.25	0.66
1:2:209:U:H2'	1:2:210:A:C8	2.30	0.66
1:2:39:A:O2'	1:2:40:A:OP2	2.12	0.66
1:2:422:G:OP1	86:2:2042:OHX:N6	2.29	0.66
36:5:1192:C:H41	36:5:1302:A:P	2.19	0.66
36:5:1556:C:H2'	36:5:2169:G:H1	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2311:G:OP2	86:5:4200:OHX:N1	2.28	0.66
37:7:64:A:H5'	37:7:65:G:H5''	1.77	0.66
39:L2:229:ALA:HB3	39:L2:234:LYS:HG3	1.78	0.66
42:L5:184:ASP:OD2	42:L5:187:THR:OG1	4.63	0.66
36:1:2384:A:N1	52:M6:96:LYS:HE2	2.10	0.66
67:O1:79:ARG:NE	67:O1:79:ARG:H	1.94	0.66
36:1:1407:A:O3'	68:O2:33:ARG:NH2	2.28	0.66
78:Q2:12:CYS:SG	78:Q2:17:CYS:HB2	2.87	0.66
3:S1:183:GLN:HG2	3:S1:187:LYS:HE3	1.76	0.66
36:5:1596:C:H2'	36:5:1597:C:C6	2.31	0.66
36:5:2255:A:H5'	36:5:2261:G:H22	1.60	0.66
23:D1:5:LYS:O	23:D1:7:GLN:N	2.29	0.66
28:D6:38:ARG:HH21	28:D6:83:ILE:HG21	1.59	0.66
40:L3:257:PRO:HG2	40:L3:261:MET:HE1	1.78	0.66
42:L5:54:ARG:NH1	42:L5:147:ASP:O	2.28	0.66
50:M4:14:LEU:H	50:M4:19:ARG:NH1	2.44	0.66
70:O4:109:THR:HG22	70:O4:113:LYS:HD2	1.78	0.66
72:O6:4:LYS:HD2	72:O6:14:GLY:HA3	3.75	0.66
5:S3:192:PRO:O	5:S3:195:SER:OG	4.08	0.66
36:1:2768:U:H2'	36:1:2769:A:H8	1.61	0.66
1:2:1015:U:OP1	86:2:2045:OHX:N3	2.29	0.66
1:2:1488:G:H3'	1:2:1515:A:H61	1.59	0.66
1:2:322:G:OP1	86:2:2091:OHX:N4	2.28	0.66
64:N8:9:ARG:NH2	36:5:1431:G:N7	148.13	0.66
1:6:564:G:O6	86:6:2154:OHX:N5	2.29	0.66
9:S7:118:LEU:N	1:6:639:U:OP1	366.16	0.66
86:7:219:OHX:N3	86:7:226:OHX:N6	2.44	0.66
12:C0:27:PHE:HB3	12:C0:40:LEU:HD23	1.77	0.66
25:D3:68:ILE:O	25:D3:70:LYS:NZ	2.25	0.66
40:L3:303:LYS:HD2	40:L3:361:THR:HG21	1.78	0.66
41:L4:265:GLU:OE1	41:L4:265:GLU:N	2.29	0.66
42:L5:83:LEU:HB3	42:L5:88:ILE:HB	1.78	0.66
49:M3:177:LYS:HG3	72:O6:11:LEU:HD13	2.43	0.66
53:M7:53:ASP:O	86:M7:207:OHX:N3	2.28	0.66
66:O0:26:GLY:O	66:O0:30:THR:HG23	1.96	0.66
4:S2:234:PRO:O	4:S2:235:LEU:HB2	1.95	0.66
1:2:472:U:H5''	11:S9:11:THR:HG23	1.76	0.66
53:M7:139:TYR:CE2	36:5:2355:G:H4'	147.31	0.66
41:L4:93:MET:HB2	36:5:658:G:N2	145.32	0.66
1:6:1650:U:H2'	1:6:1651:A:C8	2.31	0.66
2:S0:157:ASP:OD2	23:D1:60:ARG:NH2	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:D1:60:ARG:HA	23:D1:65:SER:HB2	2.10	0.66
66:O0:42:ILE:HD11	66:O0:67:VAL:HG22	1.78	0.66
36:1:2376:G:H2'	36:1:2377:G:C8	2.31	0.65
36:1:3042:U:OP2	36:1:3092:C:N4	2.26	0.65
1:2:480:G:N2	1:2:509:G:H1'	2.11	0.65
36:5:2254:U:H2'	36:5:2261:G:N2	2.11	0.65
1:6:709:C:O2	1:6:730:G:N2	2.29	0.65
14:C2:124:LYS:O	14:C2:126:TRP:N	2.28	0.65
15:C3:132:VAL:HG23	15:C3:134:VAL:HG13	1.77	0.65
28:D6:58:VAL:HG22	28:D6:59:TYR:H	3.86	0.65
39:L2:83:HIS:CE1	39:L2:86:GLN:HB2	2.31	0.65
40:L3:218:ILE:HG12	40:L3:276:THR:HG23	1.78	0.65
50:M4:113:THR:HG22	50:M4:115:PHE:H	1.61	0.65
64:N8:126:LYS:HB3	64:N8:148:ILE:HD13	2.49	0.65
5:S3:53:THR:HG22	5:S3:91:VAL:HG11	2.97	0.65
1:2:386:G:OP2	10:S8:25:ARG:NH2	2.29	0.65
36:1:926:A:H2'	36:1:927:C:C6	2.32	0.65
36:5:437:G:H22	36:5:622:A:H61	1.44	0.65
1:6:1282:U:OP1	86:6:2138:OHX:N4	2.29	0.65
19:C7:74:GLN:HA	19:C7:77:GLU:HB2	1.78	0.65
22:D0:118:VAL:HG22	22:D0:119:ALA:H	1.60	0.65
47:M0:16:PRO:O	47:M0:18:PRO:HD3	1.96	0.65
64:N8:19:LYS:HD2	64:N8:25:HIS:CD2	4.12	0.65
72:O6:45:ARG:HH22	72:O6:54:GLU:CD	2.62	0.65
34:SR:14:GLU:HB3	34:SR:309:VAL:HG13	1.78	0.65
34:SR:156:VAL:HA	34:SR:169:ILE:HG22	1.95	0.65
1:2:1521:G:O6	21:C9:68:ARG:NH1	2.29	0.65
1:2:959:U:C6	15:C3:61:THR:HB	2.32	0.65
37:3:4:U:H2'	37:3:5:G:C8	2.30	0.65
1:6:1281:G:H1	1:6:1426:C:H42	1.43	0.65
1:6:755:A:H2'	1:6:756:A:O4'	1.95	0.65
86:7:219:OHX:N3	86:7:226:OHX:N5	2.43	0.65
22:D0:20:ILE:HD13	22:D0:22:ILE:HD13	1.78	0.65
42:L5:276:LYS:HG2	42:L5:277:LEU:H	3.74	0.65
46:L9:90:MET:HB2	46:L9:144:ILE:HG22	2.97	0.65
62:N6:52:ARG:O	62:N6:54:ASP:N	2.24	0.65
70:O4:47:CYS:SG	70:O4:48:GLY:N	2.68	0.65
9:S7:95:GLU:OE1	9:S7:97:ARG:NH2	5.69	0.65
36:1:1724:U:H1'	36:1:1725:C:C6	2.32	0.65
36:1:272:G:OP2	86:1:4027:OHX:N3	2.29	0.65
36:1:3318:G:H2'	36:1:3318:G:OP2	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:863:C:OP1	86:1:3879:OHX:N5	2.29	0.65
36:5:1564:U:H2'	36:5:1565:G:C8	2.32	0.65
1:6:1542:G:H22	1:6:1568:C:H1'	1.61	0.65
1:6:1680:G:O6	86:6:2189:OHX:N1	2.29	0.65
19:C7:119:LEU:HD12	19:C7:119:LEU:H	1.61	0.65
44:L7:191:VAL:HG12	44:L7:192:GLY:H	4.37	0.65
45:L8:101:THR:HG22	45:L8:104:GLU:H	1.62	0.65
55:M9:92:GLN:O	55:M9:96:ILE:HG13	2.25	0.65
61:N5:67:ILE:HD12	61:N5:121:LYS:HG3	1.77	0.65
3:S1:180:THR:H	3:S1:183:GLN:HB2	5.62	0.65
6:S4:139:VAL:HG13	6:S4:150:PRO:HG3	1.79	0.65
6:S4:37:LYS:HB2	6:S4:40:GLU:HG2	1.77	0.65
36:1:2593:A:H4'	36:1:2594:C:O5'	1.97	0.65
1:2:1202:A:H62	1:2:1457:C:H5''	1.62	0.65
1:2:1428:G:H5'	1:2:1428:G:H8	1.60	0.65
36:5:595:G:N1	36:5:609:G:H5''	2.10	0.65
1:6:1370:U:H4'	1:6:1371:A:H4'	1.78	0.65
8:S6:176:GLN:HG2	1:6:169:A:H5'	328.21	0.65
1:6:1726:G:N7	86:6:2147:OHX:N5	2.45	0.65
25:D3:6:PRO:HG3	25:D3:14:LYS:HG2	1.79	0.65
8:S6:126:ASP:OD2	8:S6:127:THR:HG22	1.96	0.65
36:1:1383:G:O6	86:1:3877:OHX:N3	2.29	0.65
1:2:25:C:O2	86:2:2084:OHX:N3	2.30	0.65
47:M0:116:ARG:NH2	36:5:2617:U:O3'	227.60	0.65
1:6:1294:G:O6	86:6:2069:OHX:N5	2.29	0.65
20:C8:26:ILE:HG12	20:C8:31:ALA:HB2	1.77	0.65
25:D3:95:PHE:HE2	25:D3:136:TRP:HA	2.96	0.65
27:D5:61:SER:H	27:D5:64:VAL:HB	1.89	0.65
33:E1:102:VAL:O	33:E1:104:SER:N	2.29	0.65
41:L4:203:ARG:NH1	41:L4:226:GLU:OE2	2.26	0.65
48:M1:109:HIS:CD2	48:M1:114:ILE:HG21	2.65	0.65
59:N3:66:LYS:HD2	59:N3:68:GLU:HB2	6.85	0.65
64:N8:6:THR:HG22	64:N8:9:ARG:HG2	2.38	0.65
2:S0:41:ARG:HH11	2:S0:45:VAL:HG21	2.01	0.65
5:S3:32:GLU:HG2	5:S3:57:ASP:HB2	2.99	0.65
10:S8:82:VAL:HG13	10:S8:101:ILE:HG22	3.87	0.65
36:1:3227:A:H2'	36:1:3228:C:H5'	1.78	0.65
1:2:1034:C:HO2'	24:D2:2:THR:N	1.94	0.65
1:2:1239:U:O4	86:2:2047:OHX:N2	2.29	0.65
36:5:314:U:H2'	36:5:315:C:C6	2.32	0.65
40:L3:41:VAL:CA	40:L3:185:GLY:HA3	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:25:ILE:H	40:L3:25:ILE:HD13	1.60	0.65
44:L7:221:LYS:HB2	44:L7:227:GLY:HA3	1.78	0.65
47:M0:24:ARG:HG3	47:M0:24:ARG:HH11	1.62	0.65
51:M5:153:ASP:HB3	51:M5:155:VAL:HG23	2.28	0.65
56:N0:92:LYS:NZ	56:N0:109:ASP:OD2	2.28	0.65
74:O8:5:ILE:HG22	74:O8:54:LEU:HB2	1.79	0.65
34:SR:309:VAL:HB	34:SR:311:ARG:NH1	2.71	0.65
34:SR:52:GLN:HG2	34:SR:53:LYS:HG3	4.44	0.65
34:SR:84:SER:OG	34:SR:85:TRP:N	2.75	0.65
36:1:655:C:H2'	36:1:656:A:H8	1.61	0.65
36:5:1414:G:O6	86:5:4149:OHX:N1	2.29	0.65
36:5:1790:G:O6	86:5:4199:OHX:N4	2.29	0.65
1:6:1533:C:H4'	1:6:1539:G:N1	2.12	0.65
1:6:607:G:H5'	1:6:613:G:N2	2.12	0.65
12:C0:14:TYR:HE2	12:C0:21:VAL:HG22	1.61	0.65
12:C0:1:MET:HG2	12:C0:2:LEU:H	1.62	0.65
18:C6:22:VAL:HG22	18:C6:65:ILE:HD12	4.70	0.65
19:C7:7:LYS:N	1:6:1316:G:OP1	409.99	0.65
33:E1:119:ARG:NH2	33:E1:120:GLU:O	8.81	0.65
42:L5:105:ILE:O	42:L5:109:THR:HG22	3.31	0.65
42:L5:233:ALA:O	42:L5:235:SER:N	2.29	0.65
36:1:413:U:OP1	53:M7:34:GLN:NE2	2.30	0.65
54:M8:100:THR:HG22	54:M8:120:GLU:HB3	2.98	0.65
55:M9:44:LEU:HD12	55:M9:49:THR:HB	1.78	0.65
58:N2:14:THR:HG23	58:N2:66:VAL:HG22	4.10	0.65
36:1:715:A:C8	64:N8:115:LYS:HG3	2.30	0.65
78:Q2:14:GLY:O	78:Q2:16:THR:N	2.29	0.65
36:1:1543:G:O6	86:1:4055:OHX:N2	2.30	0.65
36:1:2261:G:O2'	36:1:2263:C:N4	2.30	0.65
36:1:160:G:O6	86:1:4193:OHX:N6	2.30	0.65
36:1:223:U:O4	86:1:4194:OHX:N5	2.30	0.65
1:2:1274:C:C5	35:SM:95:SER:HA	2.32	0.65
52:M6:65:ASN:ND2	36:5:2988:C:OP1	220.48	0.65
19:C7:33:ARG:NH2	34:SR:109:ASP:OD1	2.34	0.65
22:D0:71:PRO:O	22:D0:72:ASN:ND2	5.85	0.65
25:D3:69:ARG:NH1	25:D3:116:ASP:OD1	2.28	0.65
47:M0:10:ARG:HD3	47:M0:11:TYR:CE1	2.32	0.65
65:N9:20:GLY:O	65:N9:21:ILE:HB	2.84	0.65
73:O7:76:ASN:O	73:O7:79:GLN:HG3	2.21	0.65
3:S1:81:PHE:HD2	3:S1:82:ARG:H	2.99	0.65
36:1:3329:U:H5''	40:L3:308:MET:HE3	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:299:G:N7	86:1:4079:OHX:N2	2.44	0.65
1:2:369:A:O2'	1:2:371:G:OP2	2.13	0.65
42:L5:8:LYS:NZ	37:7:15:C:O3'	312.86	0.65
5:S3:27:ARG:HB3	12:C0:58:GLN:HE22	1.60	0.65
16:C4:26:THR:HG21	16:C4:97:GLY:HA3	1.78	0.65
24:D2:47:ILE:HG22	24:D2:65:LEU:HB3	1.79	0.65
33:E1:98:VAL:HG13	33:E1:99:LYS:H	1.61	0.65
51:M5:188:ARG:NH2	36:5:31:C:OP2	121.71	0.65
53:M7:29:THR:HA	53:M7:32:THR:CG2	2.27	0.65
64:N8:42:ARG:NH2	36:5:2799:A:N3	192.94	0.65
2:S0:9:LEU:HD21	2:S0:14:ALA:HB2	4.43	0.65
3:S1:149:GLN:HE21	3:S1:151:LYS:HG2	2.22	0.65
36:1:1635:G:N2	36:1:1638:A:OP2	2.25	0.64
1:2:1535:U:O2'	1:2:1536:G:N3	2.31	0.64
1:2:1672:G:H2'	1:2:1673:G:C8	2.32	0.64
36:5:2101:C:O2'	36:5:2102:U:OP1	2.15	0.64
36:5:2818:U:C6	36:5:2818:U:H5'	2.31	0.64
12:C0:46:LEU:O	12:C0:50:THR:HG23	1.97	0.64
51:M5:96:ARG:NH1	51:M5:96:ARG:HG2	2.07	0.64
36:1:1841:A:N3	75:O9:45:ARG:NH2	2.44	0.64
36:1:3259:U:H6	36:1:3259:U:H5'	1.62	0.64
1:2:1202:A:N6	1:2:1457:C:H5''	2.11	0.64
1:2:1796:C:H5'	1:2:1797:A:C8	2.33	0.64
1:2:277:U:H6	1:2:279:G:H22	1.46	0.64
45:L8:48:ARG:NH2	36:5:2588:U:OP1	183.08	0.64
86:5:4022:OHX:N3	86:5:4219:OHX:N1	2.45	0.64
1:6:220:A:H3'	1:6:832:U:H1'	1.80	0.64
1:6:845:G:H2'	1:6:846:G:H8	1.62	0.64
15:C3:12:SER:O	15:C3:13:SER:HB3	1.96	0.64
16:C4:25:ASP:OD1	16:C4:26:THR:N	2.95	0.64
16:C4:51:ASP:OD1	1:6:902:G:N1	282.42	0.64
16:C4:86:THR:HG21	16:C4:90:ARG:HH21	1.63	0.64
18:C6:49:TYR:HB3	18:C6:53:LEU:HD21	3.19	0.64
46:L9:106:LYS:H	46:L9:109:ALA:HB3	2.44	0.64
47:M0:194:GLY:HA3	36:5:1010:G:N3	335.66	0.64
53:M7:178:ALA:O	53:M7:182:ILE:HB	1.97	0.64
70:O4:74:ARG:HG2	70:O4:75:ALA:H	2.93	0.64
9:S7:158:ASP:O	9:S7:160:GLN:N	2.30	0.64
10:S8:62:THR:HA	10:S8:76:THR:O	2.62	0.64
11:S9:133:HIS:HD2	11:S9:162:SER:HB2	2.31	0.64
11:S9:58:ASP:O	11:S9:61:THR:OG1	3.21	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:348:U:O4	86:2:2127:OHX:N5	2.31	0.64
36:5:1781:C:H2'	36:5:1782:U:C6	2.33	0.64
86:5:4022:OHX:N5	86:5:4219:OHX:N2	2.45	0.64
1:2:1228:G:H1	14:C2:67:THR:HB	1.63	0.64
18:C6:82:ARG:NH2	18:C6:114:ARG:HB2	2.09	0.64
36:1:3272:C:OP2	43:L6:78:ARG:NH1	2.30	0.64
55:M9:46:LYS:NZ	36:5:1766:G:H8	101.60	0.64
49:M3:9:ILE:HG12	64:N8:34:MET:HE1	1.78	0.64
5:S3:223:LYS:HB2	34:SR:191:ASP:HB2	2.27	0.64
7:S5:25:LEU:HD22	7:S5:25:LEU:H	1.63	0.64
10:S8:151:LYS:NZ	10:S8:157:GLU:OE2	8.52	0.64
36:1:1688:U:H2'	36:1:1689:U:C6	2.32	0.64
36:1:2108:C:H1'	36:1:3344:A:C8	2.31	0.64
36:1:271:C:O2	72:O6:82:ARG:NH2	2.31	0.64
36:1:3195:U:O2'	36:1:3197:G:N2	2.30	0.64
1:2:1232:U:H4'	12:C0:2:LEU:HD21	1.78	0.64
56:N0:84:ARG:NH2	36:5:1296:C:OP1	287.68	0.64
36:5:2704:A:OP2	86:5:3901:OHX:N5	2.30	0.64
36:5:1877:U:OP2	86:5:3959:OHX:N1	2.30	0.64
68:O2:33:ARG:HH11	36:5:944:C:H4'	161.43	0.64
1:6:1645:G:OP2	86:6:2183:OHX:N3	2.30	0.64
8:S6:154:ARG:HD3	1:6:78:A:C8	340.01	0.64
16:C4:81:VAL:HG13	16:C4:115:ILE:HG21	1.80	0.64
41:L4:144:LYS:HG2	41:L4:145:ILE:H	4.97	0.64
44:L7:136:TYR:CZ	44:L7:231:ASN:HB2	2.32	0.64
53:M7:29:THR:HA	53:M7:32:THR:HG23	1.80	0.64
73:O7:14:LYS:HZ3	75:O9:51:ILE:HD11	1.62	0.64
34:SR:220:ILE:HB	34:SR:234:LEU:HB2	2.57	0.64
1:6:518:A:O2'	1:6:534:A:N6	2.30	0.64
17:C5:64:LYS:HA	17:C5:73:PRO:HB3	1.80	0.64
28:D6:35:ALA:HB3	28:D6:37:LYS:HE3	1.79	0.64
30:D8:44:VAL:HG21	30:D8:48:VAL:HG21	2.40	0.64
53:M7:109:ALA:HA	53:M7:112:LEU:HD22	1.78	0.64
58:N2:90:ARG:O	58:N2:91:ASP:HB2	2.24	0.64
66:O0:20:SER:OG	66:O0:96:GLY:HA3	1.97	0.64
2:S0:118:PRO:HG2	2:S0:141:ILE:HD13	1.82	0.64
3:S1:120:LEU:HG	3:S1:142:PHE:CE1	2.57	0.64
3:S1:29:TRP:HE1	3:S1:47:LEU:HG	1.60	0.64
1:2:1542:G:N2	1:2:1568:C:H1'	2.13	0.64
1:2:855:A:C2	1:2:857:U:H1'	2.33	0.64
36:5:1765:U:H4'	36:5:1765:U:OP1	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1591:G:O2'	36:5:1799:A:N1	2.30	0.64
36:5:1898:G:OP2	86:5:3947:OHX:N5	2.31	0.64
1:6:190:C:N4	1:6:196:G:O6	2.31	0.64
1:6:578:U:O2	86:6:2154:OHX:N3	2.31	0.64
20:C8:27:LYS:O	20:C8:31:ALA:N	2.59	0.64
25:D3:102:VAL:HG12	25:D3:127:VAL:HA	3.38	0.64
40:L3:152:LYS:HG2	40:L3:192:VAL:HG11	1.79	0.64
8:S6:57:ASP:OD1	8:S6:72:ARG:NH1	2.70	0.64
10:S8:147:ALA:O	10:S8:149:SER:N	3.47	0.64
34:SR:157:VAL:HB	34:SR:168:THR:HG22	3.42	0.64
34:SR:22:SER:CB	34:SR:70:ASP:HA	2.27	0.64
1:2:1126:G:OP1	77:Q1:15:ARG:NH1	2.31	0.64
1:2:531:C:OP2	86:2:2070:OHX:N4	2.31	0.64
17:C5:22:LEU:HA	17:C5:25:LEU:HB2	2.82	0.64
25:D3:57:LEU:HD22	32:E0:4:VAL:HG12	1.80	0.64
26:D4:10:ARG:HD2	1:6:778:G:O6	429.53	0.64
39:L2:108:PRO:O	39:L2:111:THR:OG1	2.39	0.64
40:L3:296:THR:HG21	40:L3:357:LYS:O	2.09	0.64
41:L4:3:ARG:HH11	41:L4:22:LEU:HD12	1.63	0.64
49:M3:56:PRO:HG3	49:M3:74:GLY:O	2.43	0.64
71:O5:10:ARG:NH2	38:8:65:A:O3'	33.49	0.64
6:S4:117:GLU:OE1	6:S4:118:GLU:N	2.30	0.64
8:S6:109:LEU:HD13	8:S6:111:LEU:HD21	1.78	0.64
9:S7:16:LEU:HD11	9:S7:48:GLU:HG3	2.98	0.64
10:S8:36:THR:HB	10:S8:57:ALA:O	1.98	0.64
34:SR:258:THR:OG1	34:SR:258:THR:O	2.16	0.64
36:1:1194:G:H2'	36:1:1195:A:C8	2.32	0.64
36:1:1233:G:H1	36:1:1255:C:H42	1.44	0.64
36:5:2373:A:N3	36:5:2824:G:O2'	2.30	0.64
36:5:3279:A:H2'	36:5:3280:U:H5'	1.79	0.64
56:N0:12:ARG:HB3	56:N0:24:LEU:HD23	1.80	0.64
5:S3:7:LYS:HD3	22:D0:88:LYS:HE2	1.80	0.64
36:1:1093:A:N3	36:1:1096:U:N3	2.46	0.64
36:1:2818:U:C6	36:1:2818:U:H5'	2.29	0.64
36:1:742:G:N7	86:1:3972:OHX:N1	2.46	0.64
36:1:735:A:H2'	36:1:736:A:C8	2.32	0.64
1:6:915:A:OP1	86:6:2071:OHX:N6	2.31	0.64
17:C5:126:VAL:HG22	17:C5:127:ARG:H	2.61	0.64
52:M6:16:VAL:HG21	52:M6:43:ILE:HG12	2.49	0.64
36:1:162:G:N2	36:1:259:C:O2	2.31	0.64
86:1:4196:OHX:N6	86:O1:201:OHX:N5	2.45	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:959:U:H6	15:C3:61:THR:HB	1.63	0.64
37:3:5:G:OP1	48:M1:143:ARG:NH2	2.27	0.64
55:M9:56:THR:HG22	36:5:1873:U:P	150.37	0.64
54:M8:147:ARG:NH2	36:5:670:C:OP1	161.91	0.64
1:6:1257:U:O2'	1:6:1258:U:O4'	2.16	0.64
1:6:9:U:O4	86:6:2146:OHX:N3	2.31	0.64
86:7:219:OHX:N1	86:7:226:OHX:N5	2.46	0.64
17:C5:111:MET:HG2	20:C8:119:ILE:HD11	5.23	0.64
2:S0:154:GLU:HA	23:D1:63:GLY:HA2	1.79	0.64
25:D3:24:TRP:CE3	25:D3:30:LYS:HG3	3.23	0.64
25:D3:30:LYS:HG2	25:D3:34:LEU:HG	2.74	0.64
33:E1:126:CYS:HB3	33:E1:130:VAL:HG21	2.26	0.64
72:O6:57:LEU:O	72:O6:61:ILE:HG13	2.29	0.64
1:2:885:G:OP1	3:S1:136:ARG:NH1	2.30	0.64
4:S2:80:VAL:HA	4:S2:102:VAL:HG22	1.80	0.64
6:S4:11:ARG:HB2	6:S4:27:TYR:C	4.24	0.64
36:1:2244:A:H5''	39:L2:243:THR:OG1	1.97	0.63
36:5:2520:A:H2'	36:5:2521:U:C6	2.33	0.63
1:6:1431:C:O2'	1:6:1437:U:O4	2.14	0.63
1:6:1799:U:H4'	1:6:1800:A:H2'	1.79	0.63
1:2:975:C:H5''	15:C3:109:LYS:HE3	1.80	0.63
16:C4:42:VAL:HG23	16:C4:63:ALA:HB1	1.81	0.63
17:C5:81:ARG:NH1	17:C5:97:TYR:O	2.30	0.63
27:D5:87:GLY:O	27:D5:89:ILE:N	2.30	0.63
46:L9:29:GLY:HA3	46:L9:82:VAL:HG13	1.78	0.63
49:M3:159:VAL:HB	64:N8:96:LYS:HG2	1.80	0.63
58:N2:43:VAL:O	58:N2:45:GLY:N	2.99	0.63
49:M3:174:ARG:NH1	72:O6:9:ILE:HG21	2.13	0.63
5:S3:94:ARG:NH2	5:S3:125:TYR:OH	3.51	0.63
1:2:1533:C:H4'	1:2:1539:G:N1	2.13	0.63
38:4:141:C:OP1	51:M5:109:ARG:NH1	2.31	0.63
38:4:106:C:O2'	86:4:231:OHX:N4	2.31	0.63
36:5:3255:U:H2'	36:5:3256:G:C8	2.34	0.63
1:6:542:A:C8	1:6:543:C:H2'	2.33	0.63
20:C8:52:VAL:HG21	20:C8:69:ILE:HD11	2.81	0.63
40:L3:81:THR:HG23	40:L3:81:THR:O	4.19	0.63
41:L4:126:ILE:HD11	41:L4:233:LEU:HD13	2.10	0.63
43:L6:164:SER:HB3	43:L6:166:LYS:HE2	1.79	0.63
54:M8:30:VAL:O	54:M8:34:THR:HG23	1.97	0.63
62:N6:83:ASP:O	62:N6:84:LYS:HB2	1.99	0.63
43:L6:3:ALA:HB1	68:O2:75:LEU:HD13	1.78	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:117:TRP:HE1	3:S1:152:ARG:CZ	2.10	0.63
4:S2:67:GLN:HA	4:S2:70:ASP:HB2	1.82	0.63
6:S4:163:ASP:O	6:S4:165:ALA:N	2.30	0.63
11:S9:78:ARG:NH1	11:S9:82:ARG:HH21	1.97	0.63
36:1:1952:G:H3'	36:1:1953:G:H5''	1.78	0.63
36:1:2404:A:N3	36:1:2404:A:H2'	2.13	0.63
1:2:1592:A:H2'	1:2:1593:A:C8	2.34	0.63
1:2:1600:A:H4'	1:2:1601:G:OP1	1.99	0.63
45:L8:129:PRO:HB3	36:5:121:A:C2	101.30	0.63
36:5:1595:U:C2	36:5:1596:C:C5	2.87	0.63
56:N0:170:THR:OG1	36:5:3185:U:O2'	304.20	0.63
41:L4:112:LYS:HD3	36:5:682:U:H5	113.70	0.63
1:6:961:U:H2'	1:6:962:C:C6	2.33	0.63
20:C8:12:GLN:NE2	20:C8:14:ILE:O	3.91	0.63
52:M6:15:LEU:HD21	52:M6:125:ARG:HG3	1.81	0.63
59:N3:87:ARG:HH22	59:N3:137:VAL:CG2	2.11	0.63
67:O1:26:LYS:NZ	36:5:1456:A:N7	167.59	0.63
76:Q0:106:ARG:NH1	76:Q0:106:ARG:HB2	3.86	0.63
9:S7:7:LYS:O	9:S7:9:LEU:N	4.06	0.63
35:SM:76:VAL:HG11	1:6:1461:C:H1'	328.26	0.63
34:SR:19:TRP:HB2	34:SR:38:ARG:HD2	1.80	0.63
36:1:1942:U:OP2	55:M9:74:ARG:NH1	2.28	0.63
36:1:3118:C:C4'	76:Q0:106:ARG:HH22	2.11	0.63
36:5:1397:C:O2'	36:5:1398:U:H5'	1.97	0.63
26:D4:121:THR:H	1:6:85:A:H4'	338.44	0.63
86:7:219:OHX:N1	86:7:226:OHX:N2	2.46	0.63
18:C6:112:TYR:OH	18:C6:114:ARG:NH1	2.31	0.63
20:C8:89:GLN:HE21	1:6:1548:G:H1'	375.23	0.63
25:D3:53:VAL:HG23	25:D3:100:ASP:O	1.99	0.63
31:D9:45:GLU:OE1	1:6:1433:G:N2	410.43	0.63
45:L8:171:LYS:NZ	45:L8:223:ALA:O	2.50	0.63
59:N3:79:VAL:HG13	59:N3:100:GLY:HA2	1.81	0.63
3:S1:109:LYS:HG3	3:S1:113:MET:HE3	1.80	0.63
7:S5:92:ARG:HH11	7:S5:92:ARG:HG2	3.12	0.63
10:S8:184:LEU:HD23	10:S8:189:LEU:HA	3.80	0.63
36:1:3280:U:O2'	36:1:3281:U:H5''	1.98	0.63
36:1:1078:U:O4	86:1:3962:OHX:N2	2.31	0.63
1:2:1449:U:H2'	1:2:1450:U:C6	2.34	0.63
1:2:397:A:O3'	10:S8:50:GLY:HA2	1.99	0.63
24:D2:71:LYS:NZ	1:6:1099:U:OP1	374.93	0.63
10:S8:56:ARG:HH22	1:6:332:U:P	287.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:98:ASP:OD2	18:C6:100:GLN:N	2.32	0.63
20:C8:133:VAL:O	20:C8:135:GLY:N	2.31	0.63
26:D4:53:ASP:HB3	26:D4:96:LEU:HD21	2.16	0.63
73:O7:17:THR:HG22	73:O7:18:LEU:H	1.63	0.63
74:O8:24:THR:HG23	74:O8:44:LYS:HB2	1.81	0.63
1:2:377:G:O6	86:2:2078:OHX:N5	2.31	0.63
36:5:783:A:OP2	86:5:4195:OHX:N6	2.31	0.63
15:C3:26:PHE:CE2	15:C3:28:LEU:HB2	2.89	0.63
44:L7:178:ILE:HA	44:L7:183:ASP:HB3	1.80	0.63
45:L8:91:PHE:CE1	45:L8:185:ARG:HD2	2.33	0.63
46:L9:44:THR:HG22	36:5:3186:A:C2	326.73	0.63
72:O6:25:LYS:HB2	72:O6:28:TYR:CD2	2.34	0.63
3:S1:106:THR:O	3:S1:109:LYS:N	3.01	0.63
1:2:1592:A:H2'	1:2:1593:A:H8	1.64	0.63
19:C7:27:ASP:O	19:C7:31:ASN:ND2	4.48	0.63
45:L8:26:LEU:HD13	63:N7:53:VAL:HG11	1.81	0.63
36:1:3214:U:OP2	50:M4:128:ARG:NH2	2.31	0.63
3:S1:180:THR:HG22	3:S1:181:LEU:H	1.62	0.63
3:S1:70:LEU:O	3:S1:74:GLN:N	2.31	0.63
2:S0:119:ARG:HE	4:S2:240:LEU:HD23	3.64	0.63
7:S5:42:LEU:HB2	7:S5:45:LYS:HD2	5.25	0.63
19:C7:29:GLN:HG2	34:SR:67:ILE:HD11	1.79	0.63
36:1:1815:U:O2'	36:1:1816:A:OP2	2.17	0.63
36:1:3344:A:H2	36:1:3361:G:H21	1.46	0.63
36:5:679:U:O4	86:5:4017:OHX:N2	2.31	0.63
1:6:626:U:H2'	1:6:627:C:H6	1.64	0.63
18:C6:99:GLU:HG2	34:SR:57:PRO:HB2	2.57	0.63
33:E1:144:CYS:HB3	33:E1:147:VAL:HG12	3.26	0.63
33:E1:87:THR:O	1:6:1445:G:N1	377.53	0.63
46:L9:171:ASP:OD1	46:L9:173:ARG:HD3	2.01	0.63
53:M7:33:ALA:HB1	53:M7:117:ILE:HG12	2.08	0.63
57:N1:13:TYR:O	86:N1:201:OHX:N4	5.62	0.63
2:S0:74:VAL:HG23	2:S0:118:PRO:HB3	1.89	0.63
7:S5:55:ASP:HB3	7:S5:58:LEU:HD12	1.80	0.63
1:2:583:C:OP1	86:2:2026:OHX:N3	2.31	0.63
1:2:717:C:H42	1:2:720:G:H22	1.46	0.63
41:L4:197:ARG:NH1	36:5:1381:A:OP1	108.99	0.63
6:S4:3:ARG:HB3	1:6:93:A:H1'	326.07	0.63
21:C9:33:TYR:O	21:C9:34:VAL:HB	4.65	0.63
22:D0:53:LYS:HB2	22:D0:92:ASP:HB2	2.90	0.63
23:D1:79:LEU:HD13	23:D1:82:VAL:HG11	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:81:THR:HG22	40:L3:321:PHE:CA	5.83	0.63
51:M5:35:VAL:HG13	51:M5:65:ARG:HB2	1.81	0.63
36:1:1213:G:OP1	56:N0:137:ARG:HD3	1.99	0.63
71:O5:10:ARG:NH1	71:O5:60:GLU:OE2	2.32	0.63
8:S6:20:ASP:O	8:S6:22:HIS:N	3.01	0.63
51:M5:172:ARG:NH1	36:5:30:G:OP1	107.32	0.62
36:5:299:G:N7	86:5:4191:OHX:N1	2.46	0.62
3:S1:65:VAL:HG12	1:6:920:U:H5'	264.47	0.62
37:7:91:G:H2'	37:7:92:A:H8	1.61	0.62
17:C5:48:GLY:O	17:C5:50:THR:N	3.84	0.62
18:C6:79:TYR:HA	18:C6:82:ARG:HD3	1.79	0.62
7:S5:61:TYR:OH	30:D8:52:ASP:OD1	2.67	0.62
40:L3:332:ARG:NH1	40:L3:333:LYS:HD2	2.65	0.62
41:L4:64:SER:HA	41:L4:75:PRO:HA	1.80	0.62
42:L5:211:LEU:HD11	42:L5:218:ARG:HG2	6.11	0.62
50:M4:60:LEU:HD13	56:N0:152:LEU:HD11	1.87	0.62
67:O1:13:THR:HG22	67:O1:72:ARG:HH11	1.64	0.62
78:Q2:59:HIS:O	78:Q2:61:LYS:N	2.31	0.62
2:S0:167:LYS:HB3	2:S0:168:HIS:HD2	1.64	0.62
10:S8:34:ALA:HB2	10:S8:56:ARG:HD3	2.35	0.62
36:1:695:C:OP1	41:L4:271:LYS:NZ	2.27	0.62
1:6:75:U:O2'	1:6:76:A:O4'	2.17	0.62
28:D6:38:ARG:NH2	28:D6:83:ILE:HG21	2.13	0.62
45:L8:26:LEU:H	45:L8:26:LEU:HD12	1.64	0.62
9:S7:28:GLU:HG2	9:S7:35:LYS:HG3	1.80	0.62
34:SR:101:GLN:HG2	34:SR:138:GLY:HA3	2.76	0.62
36:1:2255:A:OP1	86:1:3929:OHX:N3	2.32	0.62
36:1:705:A:N6	64:N8:74:ASN:HD21	1.96	0.62
36:1:860:G:OP1	79:Q3:17:ARG:NH1	2.28	0.62
1:6:982:U:OP1	86:6:2076:OHX:N2	2.32	0.62
14:C2:74:LEU:HD11	33:E1:106:TYR:HB3	3.60	0.62
40:L3:116:ARG:HG2	40:L3:175:LYS:HA	1.81	0.62
36:1:364:G:OP1	41:L4:60:THR:HG23	1.99	0.62
42:L5:256:THR:OG1	42:L5:258:LYS:NZ	2.31	0.62
44:L7:59:GLU:O	44:L7:63:ILE:HG13	1.99	0.62
45:L8:144:GLU:OE1	72:O6:36:ARG:NH2	2.56	0.62
48:M1:151:SER:O	48:M1:152:HIS:HB2	2.44	0.62
2:S0:84:ARG:HH21	2:S0:201:LEU:HD12	4.33	0.62
6:S4:73:ASP:OD2	6:S4:122:LYS:NZ	2.32	0.62
36:1:1564:U:H2'	36:1:1565:G:C8	2.34	0.62
1:2:1566:U:H2'	1:2:1567:U:H6	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1795:U:H3'	28:D6:5:ARG:NH1	2.15	0.62
36:5:3153:U:H4'	36:5:3154:C:H5'	1.80	0.62
86:5:3975:OHX:N3	86:5:4245:OHX:N5	2.47	0.62
24:D2:82:LYS:O	24:D2:84:GLY:N	2.30	0.62
33:E1:144:CYS:HB3	33:E1:147:VAL:HG13	1.79	0.62
41:L4:84:ARG:O	41:L4:87:GLN:HG3	1.99	0.62
42:L5:131:LEU:HD22	42:L5:131:LEU:H	1.63	0.62
43:L6:51:ARG:NH1	50:M4:114:ASP:OD2	2.53	0.62
54:M8:100:THR:HG23	54:M8:120:GLU:HB3	1.82	0.62
63:N7:26:VAL:HG21	63:N7:96:VAL:HB	1.81	0.62
66:O0:16:LEU:HB3	66:O0:98:SER:HB2	1.81	0.62
9:S7:129:LEU:HD21	9:S7:172:VAL:HG11	1.80	0.62
10:S8:12:SER:O	10:S8:15:GLY:N	2.25	0.62
11:S9:59:LEU:HD22	11:S9:69:ARG:HA	2.07	0.62
36:1:2754:G:OP2	86:1:4003:OHX:N6	2.31	0.62
1:2:1335:U:H3	1:2:1416:G:H1	1.47	0.62
1:2:647:G:N2	1:2:687:G:H22	1.96	0.62
57:N1:116:ARG:NH2	36:5:1097:G:N7	247.02	0.62
36:5:2112:U:H4'	36:5:2113:A:H5'	1.82	0.62
36:5:651:G:O2'	36:5:1435:A:OP1	2.17	0.62
1:6:1395:G:O6	86:6:2089:OHX:N3	2.32	0.62
1:6:1670:G:O6	86:6:2190:OHX:N4	2.33	0.62
18:C6:95:LYS:HE3	18:C6:96:TYR:CZ	2.48	0.62
18:C6:97:VAL:HG12	18:C6:98:ASP:H	1.61	0.62
17:C5:119:PHE:HE1	20:C8:119:ILE:HG23	2.61	0.62
24:D2:24:GLN:HE22	29:D7:4:VAL:HA	2.91	0.62
39:L2:113:VAL:HG12	39:L2:166:ILE:HA	2.09	0.62
39:L2:9:ARG:NH1	36:5:912:G:OP2	180.14	0.62
41:L4:269:SER:O	41:L4:269:SER:OG	2.52	0.62
42:L5:270:LYS:HG3	42:L5:273:ARG:CB	5.72	0.62
54:M8:141:ARG:HD3	36:5:743:C:O2	174.14	0.62
56:N0:148:LEU:HD12	56:N0:149:LYS:N	2.14	0.62
64:N8:6:THR:CG2	64:N8:8:THR:HG23	2.76	0.62
36:1:3376:A:OP2	86:1:3902:OHX:N5	2.32	0.62
1:2:1789:G:H8	1:2:1789:G:H5''	1.65	0.62
1:2:304:U:H2'	1:2:305:C:H6	1.64	0.62
1:2:978:A:H2'	1:2:979:A:O4'	2.00	0.62
36:5:279:U:H2'	36:5:280:U:H6	1.64	0.62
36:5:3159:C:H2'	36:5:3160:U:C6	2.35	0.62
36:5:622:A:H2'	36:5:623:U:O4'	1.99	0.62
5:S3:72:LEU:HG	12:C0:20:VAL:HG21	2.36	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:81:ASP:O	14:C2:83:GLU:N	2.84	0.62
1:2:780:A:H8	26:D4:8:ARG:HB3	1.65	0.62
28:D6:38:ARG:HH21	28:D6:83:ILE:HG13	1.65	0.62
40:L3:296:THR:HG22	40:L3:298:PHE:N	2.13	0.62
42:L5:211:LEU:HB3	42:L5:219:PHE:HB2	1.80	0.62
46:L9:88:TYR:CE2	46:L9:184:LYS:HE2	2.71	0.62
47:M0:14:ASN:O	47:M0:128:ARG:NH2	2.33	0.62
61:N5:92:LYS:HG3	36:5:1831:U:P	100.78	0.62
76:Q0:97:ARG:HG3	76:Q0:120:GLN:O	1.99	0.62
5:S3:40:ARG:HB2	5:S3:47:GLU:HB2	1.99	0.62
36:1:1308:A:C8	36:1:1308:A:OP2	2.53	0.62
36:1:3278:C:H2'	36:1:3278:C:O2	1.99	0.62
36:1:440:A:OP1	36:1:494:G:H1'	1.98	0.62
1:2:104:A:OP2	1:2:308:C:N4	2.33	0.62
52:M6:87:MET:HB3	36:5:1175:C:O2	250.63	0.62
62:N6:2:ALA:N	36:5:212:G:OP2	77.13	0.62
36:5:3274:A:H3'	36:5:3275:U:C5'	2.23	0.62
36:5:655:C:H2'	36:5:656:A:H8	1.63	0.62
8:S6:87:ARG:NH2	1:6:161:U:OP2	314.68	0.62
17:C5:65:LEU:O	86:C5:201:OHX:N2	4.83	0.62
39:L2:44:ILE:HD13	39:L2:46:LYS:HD3	2.01	0.62
44:L7:145:ARG:HA	44:L7:185:ILE:HD13	2.31	0.62
46:L9:92:TYR:CD1	46:L9:142:ASP:HB3	3.87	0.62
65:N9:14:ARG:HH12	65:N9:18:ARG:HH11	3.02	0.62
86:1:4109:OHX:N4	65:N9:6:ASN:OD1	2.33	0.62
86:1:4196:OHX:N2	86:O1:201:OHX:N5	2.47	0.62
68:O2:12:LYS:HD3	68:O2:57:TYR:HA	1.81	0.62
75:O9:4:GLN:HG2	36:5:1588:A:C2	128.02	0.62
79:Q3:36:ARG:NH1	79:Q3:48:LYS:HE3	7.42	0.62
4:S2:53:ILE:O	4:S2:56:ILE:N	2.32	0.62
8:S6:2:LYS:HB2	8:S6:108:VAL:HG22	1.80	0.62
9:S7:89:HIS:ND1	9:S7:168:SER:OG	2.28	0.62
11:S9:164:PHE:HE2	1:6:512:A:H4'	452.33	0.62
34:SR:70:ASP:HB3	34:SR:113:VAL:HG12	2.86	0.62
36:1:2663:G:H5'	42:L5:152:ARG:HD3	1.80	0.62
36:1:3362:A:H2'	36:1:3363:U:O4'	2.00	0.62
1:6:1350:U:H2'	1:6:1351:G:C8	2.35	0.62
1:6:1765:A:OP1	86:6:2127:OHX:N2	2.33	0.62
15:C3:55:ARG:HD3	29:D7:47:PHE:CD1	2.34	0.62
1:2:1566:U:H5''	20:C8:39:GLY:H	1.65	0.62
22:D0:106:ILE:HG13	22:D0:107:THR:H	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:87:ARG:NH2	28:D6:94:ASN:O	2.33	0.62
40:L3:56:ILE:HD11	40:L3:359:ILE:HG12	1.80	0.62
42:L5:206:GLN:NE2	42:L5:210:GLU:OE2	2.33	0.62
36:1:412:G:OP1	53:M7:62:ARG:NH1	2.32	0.62
64:N8:46:ASP:O	64:N8:47:LYS:HB3	2.44	0.62
64:N8:47:LYS:O	64:N8:49:HIS:N	3.09	0.62
67:O1:44:MET:O	67:O1:46:THR:N	3.44	0.62
67:O1:84:ASP:N	67:O1:84:ASP:OD1	2.31	0.62
68:O2:26:HIS:O	68:O2:28:VAL:N	2.33	0.62
4:S2:82:ASN:HB2	4:S2:207:LEU:HD13	1.81	0.62
6:S4:124:GLY:HA2	6:S4:142:HIS:CE1	2.44	0.62
6:S4:45:ILE:HA	6:S4:61:VAL:HG11	1.80	0.62
1:2:1482:C:O2'	18:C6:72:GLY:O	2.18	0.62
1:2:987:G:C2	39:L2:249:SER:HB2	2.35	0.62
69:O3:60:ARG:HD3	36:5:3275:U:C4	213.38	0.62
20:C8:142:GLY:O	20:C8:145:ARG:HD2	2.00	0.62
32:E0:13:LYS:O	32:E0:17:GLN:HG2	2.65	0.62
49:M3:151:ALA:O	49:M3:153:ASP:N	4.07	0.62
52:M6:39:GLU:HG2	52:M6:40:GLU:HG2	1.80	0.62
71:O5:78:LYS:HA	71:O5:81:ARG:HD2	1.82	0.62
3:S1:141:ALA:HB1	3:S1:207:LEU:HD22	3.70	0.62
5:S3:203:PRO:HB3	1:6:1332:C:H4'	427.38	0.62
46:L9:70:THR:HB	36:5:3112:G:O2'	328.66	0.62
17:C5:128:HIS:HA	1:6:1180:C:O2'	333.71	0.62
86:6:2121:OHX:N2	86:6:2171:OHX:N1	2.48	0.62
11:S9:9:SER:OG	1:6:771:A:OP1	390.44	0.62
22:D0:57:ARG:HD2	22:D0:89:ARG:HD3	1.81	0.62
44:L7:96:PRO:O	44:L7:99:PRO:HD2	2.00	0.62
45:L8:41:GLN:HG3	45:L8:44:ARG:NH1	2.11	0.62
48:M1:9:MET:HG3	48:M1:9:MET:O	2.00	0.62
52:M6:62:THR:HA	36:5:1306:G:C6	232.94	0.62
57:N1:54:HIS:CE1	57:N1:55:LYS:HG2	2.35	0.62
66:O0:36:GLN:HB3	66:O0:38:LYS:HG3	1.82	0.62
79:Q3:49:ARG:HD3	79:Q3:51:ALA:O	2.00	0.62
7:S5:23:VAL:O	7:S5:34:GLN:NE2	2.34	0.62
36:1:2296:A:OP1	86:1:4146:OHX:N2	2.33	0.61
36:1:2274:U:OP2	86:1:3961:OHX:N4	2.33	0.61
36:5:1194:G:OP1	86:5:4016:OHX:N6	2.33	0.61
36:5:3041:U:H2'	36:5:3042:U:C6	2.35	0.61
1:6:1699:G:H22	1:6:1702:A:H5''	1.64	0.61
1:6:1767:G:OP1	1:6:1770:U:H4'	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:87:ASN:ND2	1:6:341:A:H4'	257.63	0.61
17:C5:123:TYR:HE1	20:C8:122:HIS:HE2	3.17	0.61
18:C6:115:THR:O	18:C6:117:LEU:N	2.31	0.61
20:C8:33:THR:HA	20:C8:38:VAL:HG23	2.08	0.61
24:D2:104:LEU:HB2	24:D2:125:ILE:HA	1.81	0.61
32:E0:59:GLY:O	32:E0:61:SER:N	3.32	0.61
39:L2:130:SER:OG	39:L2:174:ARG:NH2	3.36	0.61
40:L3:345:ASN:OD1	40:L3:347:SER:HB2	2.00	0.61
43:L6:137:ASP:O	43:L6:141:VAL:HG23	2.00	0.61
70:O4:8:ARG:NH2	70:O4:31:ARG:HH11	2.88	0.61
78:Q2:71:ARG:HH21	78:Q2:80:ARG:NH1	2.26	0.61
36:1:2373:A:OP2	36:1:2373:A:H3'	2.00	0.61
36:1:3308:C:O2	53:M7:69:ARG:HD3	2.00	0.61
36:1:831:G:O6	86:1:3885:OHX:N4	2.33	0.61
36:1:873:C:H5''	36:1:874:U:O5'	1.99	0.61
1:2:1066:C:H1'	3:S1:146:GLN:HG2	1.83	0.61
43:L6:23:LYS:HD2	36:5:611:A:N3	235.92	0.61
1:6:1208:A:H5''	1:6:1209:C:OP2	2.00	0.61
41:L4:233:LEU:HD22	41:L4:238:LEU:HD11	2.20	0.61
41:L4:255:PHE:O	41:L4:258:LEU:HB2	2.39	0.61
41:L4:292:SER:HG	41:L4:295:ILE:H	1.47	0.61
49:M3:177:LYS:HA	72:O6:11:LEU:HD22	3.30	0.61
5:S3:20:GLU:OE2	5:S3:76:ARG:NH2	2.33	0.61
10:S8:182:TYR:OH	10:S8:188:GLU:OE1	2.16	0.61
36:1:2373:A:N3	36:1:2824:G:O2'	2.31	0.61
36:1:2827:U:O4	86:1:3863:OHX:N4	2.33	0.61
36:1:356:C:OP2	86:O9:101:OHX:N1	2.34	0.61
1:6:1564:U:H2'	1:6:1565:C:C6	2.35	0.61
1:6:1700:C:O2'	1:6:1701:A:OP1	2.17	0.61
12:C0:29:GLN:HB3	12:C0:39:ASN:HB2	1.81	0.61
1:2:1788:G:P	16:C4:127:ARG:HH12	2.23	0.61
24:D2:6:VAL:HG13	24:D2:29:PRO:HD2	1.81	0.61
39:L2:30:ARG:NH2	39:L2:33:ASP:OD2	2.34	0.61
42:L5:114:GLY:O	42:L5:116:ASP:N	2.30	0.61
43:L6:175:LYS:O	50:M4:117:ARG:NH2	2.33	0.61
44:L7:88:ARG:NH1	44:L7:91:GLY:O	2.70	0.61
47:M0:55:ASN:ND2	47:M0:162:GLN:OE1	2.38	0.61
56:N0:9:VAL:HG22	56:N0:61:ILE:HG12	1.82	0.61
62:N6:37:LYS:H	62:N6:37:LYS:CD	2.29	0.61
69:O3:75:HIS:HB3	69:O3:80:VAL:HB	1.82	0.61
79:Q3:17:ARG:NH1	36:5:860:G:OP1	219.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:53:ILE:HG12	4:S2:73:LEU:HD22	3.90	0.61
7:S5:222:LYS:HE3	7:S5:225:ARG:HH12	1.65	0.61
10:S8:76:THR:HB	10:S8:105:ASP:HB3	1.81	0.61
86:1:4000:OHX:N3	86:1:4171:OHX:N5	2.48	0.61
1:2:1389:C:OP1	19:C7:48:ASN:ND2	2.32	0.61
1:2:1588:G:H1	1:2:1608:U:H3	1.48	0.61
1:2:1645:G:H22	1:2:1756:A:H2	1.48	0.61
1:2:169:A:OP1	8:S6:137:ARG:NH2	2.34	0.61
1:2:649:U:O2'	1:2:650:U:O5'	2.18	0.61
37:3:4:U:H2'	37:3:5:G:H8	1.65	0.61
36:5:1155:C:H2'	36:5:1156:C:C6	2.35	0.61
1:6:1417:A:OP1	86:6:2087:OHX:N4	2.33	0.61
1:6:542:A:C8	1:6:543:C:H5'	2.35	0.61
22:D0:28:SER:OG	22:D0:111:GLY:O	2.47	0.61
25:D3:69:ARG:HD3	25:D3:117:ILE:HG12	1.80	0.61
31:D9:33:LYS:O	31:D9:36:LEU:HD23	2.00	0.61
39:L2:117:GLU:OE2	39:L2:121:GLY:N	2.30	0.61
48:M1:139:THR:HG22	48:M1:147:THR:HA	1.80	0.61
51:M5:36:ILE:HG21	51:M5:109:ARG:HG2	1.82	0.61
54:M8:170:ARG:NH2	64:N8:58:MET:O	2.33	0.61
3:S1:154:SER:OG	3:S1:154:SER:O	2.11	0.61
7:S5:205:SER:O	7:S5:207:THR:N	2.33	0.61
36:1:1719:G:OP2	55:M9:121:HIS:ND1	2.31	0.61
36:1:776:U:H5	36:1:2719:U:O2	1.82	0.61
1:2:1367:G:N7	86:2:2108:OHX:N6	2.48	0.61
61:N5:75:LYS:NZ	36:5:1523:U:O4	96.71	0.61
86:5:4022:OHX:N6	86:5:4219:OHX:N2	2.49	0.61
36:5:1544:G:O6	86:5:4203:OHX:N5	2.33	0.61
1:6:1166:A:H2'	1:6:1167:G:O4'	2.00	0.61
10:S8:146:ARG:NH2	1:6:186:C:OP1	275.09	0.61
13:C1:46:LYS:HE2	1:6:846:G:H21	312.05	0.61
15:C3:54:LEU:HB3	15:C3:60:VAL:HG11	3.06	0.61
16:C4:92:LYS:HD3	28:D6:69:ASN:HD21	1.66	0.61
22:D0:27:THR:HB	22:D0:88:LYS:HG3	1.81	0.61
22:D0:42:VAL:HG23	22:D0:91:ILE:HD13	1.83	0.61
43:L6:43:LEU:HD21	43:L6:85:ILE:HG13	1.82	0.61
36:1:576:C:OP1	44:L7:241:LYS:NZ	2.33	0.61
50:M4:24:LYS:HG2	50:M4:62:GLN:O	2.00	0.61
62:N6:37:LYS:H	62:N6:37:LYS:HD3	1.70	0.61
10:S8:81:VAL:HA	10:S8:102:VAL:HG12	2.15	0.61
36:1:1310:G:O6	86:1:4024:OHX:N1	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2810:C:OP1	86:1:4081:OHX:N6	2.33	0.61
1:6:1374:C:H2'	1:6:1375:A:C8	2.35	0.61
1:6:649:U:H2'	1:6:650:U:H5	1.66	0.61
1:6:687:G:H2'	1:6:688:G:H8	1.65	0.61
15:C3:119:GLU:O	15:C3:123:HIS:ND1	2.93	0.61
31:D9:14:TYR:OH	1:6:1553:G:O2'	402.04	0.61
40:L3:286:GLY:HA3	40:L3:321:PHE:CE2	2.35	0.61
44:L7:151:ARG:NH1	44:L7:244:ASN:O	2.97	0.61
53:M7:29:THR:HG22	53:M7:87:SER:OG	2.47	0.61
63:N7:51:LEU:HD13	63:N7:65:ARG:HE	4.15	0.61
66:O0:40:LYS:HB3	66:O0:101:LEU:HD11	1.82	0.61
5:S3:164:VAL:O	5:S3:168:ILE:HG13	2.25	0.61
7:S5:63:GLN:HB3	7:S5:88:PRO:HA	2.23	0.61
8:S6:59:GLN:OE1	1:6:418:G:O2'	295.57	0.61
34:SR:164:ASP:O	34:SR:166:SER:N	2.92	0.61
36:1:2289:U:H2'	36:1:2290:C:H6	1.66	0.61
1:2:1220:C:H42	1:2:1263:G:H1	1.49	0.61
1:2:1650:U:H2'	1:2:1651:A:C8	2.36	0.61
36:5:173:G:HO2'	36:5:174:C:H6	1.48	0.61
36:5:990:U:O4	86:5:4186:OHX:N6	2.33	0.61
7:S5:109:LYS:NZ	1:6:1474:G:OP1	365.17	0.61
1:6:1524:A:H2'	1:6:1525:A:C8	2.36	0.61
24:D2:18:GLU:HG3	24:D2:69:LEU:HD23	1.82	0.61
1:2:359:A:C2	25:D3:38:PHE:HB3	2.35	0.61
25:D3:70:LYS:HB3	25:D3:93:LEU:HD22	1.81	0.61
55:M9:13:SER:OG	55:M9:38:ARG:NH2	2.34	0.61
58:N2:83:TYR:O	58:N2:87:ASN:ND2	2.33	0.61
59:N3:2:SER:OG	59:N3:3:GLY:N	4.21	0.61
4:S2:148:LEU:O	4:S2:174:ARG:NH2	4.99	0.61
34:SR:69:GLN:OE1	34:SR:85:TRP:NE1	2.32	0.61
36:1:1581:C:O2	36:1:1582:C:H5'	2.01	0.61
36:1:200:C:OP1	62:N6:60:ARG:NH1	2.34	0.61
36:1:2107:A:C2	36:1:3344:A:H8	2.18	0.61
1:2:1018:U:OP1	15:C3:107:LYS:NZ	2.27	0.61
65:N9:50:THR:HB	36:5:1073:U:H1'	205.57	0.61
36:5:3237:U:H2'	36:5:3238:G:O4'	2.01	0.61
40:L3:150:ARG:HD2	36:5:3242:G:N7	250.99	0.61
7:S5:185:ARG:NH1	1:6:1471:A:OP1	333.30	0.61
31:D9:19:ARG:NH2	1:6:1597:A:OP2	407.18	0.61
86:7:219:OHX:N4	86:7:226:OHX:N2	2.48	0.61
86:8:216:OHX:N2	86:8:225:OHX:N1	2.48	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:26:PHE:HE1	15:C3:60:VAL:H	5.22	0.61
18:C6:66:ARG:HE	18:C6:68:ARG:HD2	1.65	0.61
20:C8:28:ILE:HD11	20:C8:56:LYS:HB2	6.49	0.61
27:D5:88:ILE:HG22	27:D5:89:ILE:HG23	4.31	0.61
42:L5:105:ILE:O	42:L5:109:THR:HG23	2.01	0.61
52:M6:61:ALA:HA	52:M6:70:PRO:HD2	1.83	0.61
36:1:1507:G:N7	53:M7:129:THR:HG22	2.15	0.61
57:N1:12:ARG:HD3	57:N1:13:TYR:CE1	2.35	0.61
49:M3:174:ARG:CZ	72:O6:9:ILE:HD13	2.31	0.61
74:O8:9:LYS:NZ	74:O8:13:GLU:OE2	2.34	0.61
4:S2:178:ILE:HD12	4:S2:178:ILE:H	4.58	0.61
9:S7:44:LYS:HD2	9:S7:63:PRO:HA	2.90	0.61
10:S8:84:HIS:HE1	10:S8:86:SER:HB2	1.63	0.61
10:S8:8:ARG:HD3	10:S8:21:PHE:H	1.65	0.61
11:S9:70:LEU:O	11:S9:74:ASN:HB2	1.99	0.61
36:1:155:G:O2'	72:O6:27:SER:HB3	2.01	0.61
36:1:2768:U:H2'	36:1:2769:A:C8	2.36	0.61
36:5:1024:G:N2	36:5:1026:A:OP2	2.34	0.61
36:5:1750:A:H4'	36:5:1751:G:H5'	1.82	0.61
39:L2:181:LYS:NZ	36:5:860:G:O5'	212.75	0.61
1:6:639:U:H1'	1:6:640:U:C6	2.36	0.61
1:6:73:U:H2'	1:6:74:U:C6	2.36	0.61
16:C4:87:GLY:HA3	16:C4:120:PRO:HG2	3.30	0.61
20:C8:53:ASP:HB3	20:C8:56:LYS:HG3	1.82	0.61
32:E0:37:ARG:NH1	1:6:478:A:OP1	439.84	0.61
50:M4:48:GLY:HA3	50:M4:53:VAL:HG13	1.90	0.61
51:M5:97:SER:O	51:M5:100:ALA:N	2.56	0.61
63:N7:23:VAL:HG12	63:N7:45:GLY:HA3	1.85	0.61
2:S0:49:ASN:HA	19:C7:109:LEU:HD21	3.29	0.61
8:S6:202:ARG:NH2	1:6:127:G:N7	330.04	0.61
34:SR:246:SER:HB3	34:SR:251:TRP:HB2	2.39	0.61
86:1:4196:OHX:N4	86:O1:201:OHX:N3	2.48	0.61
37:3:60:G:H2'	37:3:61:G:H8	1.65	0.61
70:O4:9:ARG:NH2	36:5:1606:U:O4	139.95	0.61
36:5:3055:U:O2'	36:5:3057:U:OP1	2.17	0.61
8:S6:177:ARG:NH2	1:6:143:G:N7	311.74	0.61
1:6:922:G:H2'	1:6:923:A:H8	1.66	0.61
13:C1:5:LEU:HB3	13:C1:6:THR:HG23	1.82	0.61
16:C4:19:ILE:HB	16:C4:83:ILE:HD12	1.82	0.61
25:D3:125:VAL:HG12	25:D3:126:LYS:HG3	2.08	0.61
25:D3:92:CYS:HA	25:D3:95:PHE:CD2	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:292:SER:OG	41:L4:295:ILE:N	2.27	0.61
62:N6:88:GLU:OE2	62:N6:94:SER:OG	2.18	0.61
74:O8:8:ILE:HD12	74:O8:8:ILE:H	1.70	0.61
75:O9:3:ALA:O	75:O9:4:GLN:HB2	2.00	0.61
2:S0:31:VAL:HG12	2:S0:33:GLN:H	1.66	0.61
5:S3:11:LEU:HD12	22:D0:86:ILE:HG12	1.83	0.61
36:1:1752:A:OP2	86:1:4045:OHX:N5	2.34	0.60
36:1:3233:C:H2'	36:1:3234:A:C8	2.36	0.60
36:1:3353:G:O2'	36:1:3356:G:OP2	2.20	0.60
36:1:668:G:OP1	86:1:4119:OHX:N2	2.34	0.60
36:1:841:A:OP2	86:1:4174:OHX:N2	2.34	0.60
1:2:1606:C:H2'	1:2:1607:G:C8	2.35	0.60
1:2:736:C:H2'	1:2:737:A:H5'	1.83	0.60
36:5:1688:U:H2'	36:5:1689:U:C6	2.36	0.60
22:D0:50:LEU:HD21	22:D0:95:ALA:HB2	1.83	0.60
25:D3:109:ARG:O	25:D3:112:LYS:HG2	2.69	0.60
1:2:1594:G:H5'	31:D9:33:LYS:HE3	1.82	0.60
39:L2:70:ARG:NH1	39:L2:72:ARG:HE	4.59	0.60
40:L3:214:MET:SD	40:L3:281:LYS:HB2	2.99	0.60
46:L9:49:ASN:C	46:L9:51:GLN:H	2.04	0.60
48:M1:155:THR:O	48:M1:159:THR:HG23	5.21	0.60
3:S1:129:THR:OG1	3:S1:130:SER:N	3.66	0.60
3:S1:58:SER:HA	3:S1:62:LYS:HD3	1.83	0.60
11:S9:30:LEU:HD21	11:S9:102:GLU:HG3	2.25	0.60
36:1:1362:G:H2'	36:1:1363:A:C8	2.36	0.60
36:1:837:A:OP2	79:Q3:4:ARG:NH1	2.34	0.60
63:N7:69:LYS:NZ	36:5:1632:A:OP1	192.12	0.60
36:5:90:C:H2'	36:5:91:G:H5'	1.82	0.60
1:6:694:U:H3'	1:6:695:U:O2	2.00	0.60
14:C2:52:LEU:O	14:C2:85:LYS:NZ	2.35	0.60
39:L2:188:LYS:HD2	39:L2:189:TYR:CZ	5.67	0.60
42:L5:34:LYS:HA	57:N1:27:LEU:HD21	1.82	0.60
52:M6:12:LYS:HA	52:M6:40:GLU:O	2.25	0.60
44:L7:110:ARG:NH2	54:M8:3:ILE:HD11	2.16	0.60
56:N0:8:GLN:HG2	56:N0:62:ASN:HB2	1.84	0.60
61:N5:61:LYS:NZ	38:8:59:A:O2'	70.36	0.60
70:O4:91:ARG:HG3	70:O4:95:ILE:HD13	1.83	0.60
74:O8:44:LYS:HB3	74:O8:51:LEU:HD11	1.83	0.60
36:1:2503:G:H1'	36:1:2504:U:C5	2.36	0.60
36:1:790:U:H4'	41:L4:112:LYS:O	2.01	0.60
1:2:795:U:H5	1:2:796:A:C5	2.19	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:39:C:N3	48:M1:70:THR:HG23	2.15	0.60
36:5:1560:G:O2'	36:5:1561:G:OP1	2.18	0.60
1:6:1248:C:H2'	1:6:1249:U:C6	2.36	0.60
1:6:1508:U:O4	86:6:2055:OHX:N4	2.33	0.60
1:6:800:U:H2'	1:6:801:G:H8	1.67	0.60
1:6:8:U:O2'	86:6:2072:OHX:N2	2.34	0.60
86:7:219:OHX:N4	86:7:226:OHX:N6	2.49	0.60
22:D0:109:GLU:HG3	22:D0:110:PRO:HD2	2.62	0.60
24:D2:104:LEU:HA	24:D2:126:LEU:HB2	1.82	0.60
24:D2:122:SER:OG	24:D2:123:GLY:N	2.34	0.60
25:D3:89:ASN:HB3	25:D3:136:TRP:CZ2	2.36	0.60
40:L3:259:HIS:CE1	36:5:2366:C:H5'	218.31	0.60
46:L9:86:TYR:CE2	46:L9:151:VAL:HG22	2.36	0.60
48:M1:166:LYS:O	48:M1:167:TYR:HB2	2.21	0.60
36:1:1315:U:OP2	52:M6:44:SER:OG	2.19	0.60
66:O0:16:LEU:HD11	66:O0:97:ASP:HB3	1.82	0.60
72:O6:45:ARG:HH21	72:O6:50:LEU:HA	3.03	0.60
73:O7:69:HIS:O	73:O7:73:ARG:HG3	2.02	0.60
39:L2:171:GLY:O	79:Q3:68:ALA:HB2	2.61	0.60
3:S1:181:LEU:HD13	3:S1:181:LEU:H	1.66	0.60
36:1:2310:U:OP1	86:1:4138:OHX:N2	2.34	0.60
37:3:112:G:H2'	37:3:113:C:C6	2.36	0.60
36:5:900:G:H1'	36:5:1589:A:N6	2.17	0.60
1:6:1042:G:N2	1:6:1077:C:O2	2.34	0.60
36:5:59:G:H2'	38:8:33:A:O2'	2.00	0.60
39:L2:65:ASP:HB3	39:L2:68:LYS:O	2.32	0.60
43:L6:131:LYS:HA	43:L6:131:LYS:HE2	5.17	0.60
43:L6:97:ASN:OD1	43:L6:99:GLU:HB2	2.01	0.60
47:M0:48:LEU:HA	47:M0:178:ARG:HH12	1.66	0.60
56:N0:70:THR:O	56:N0:70:THR:OG1	3.26	0.60
3:S1:129:THR:OG1	3:S1:131:ASP:OD1	6.17	0.60
36:1:1441:G:O6	86:1:3921:OHX:N1	2.34	0.60
36:1:180:C:H2'	36:1:181:U:C6	2.37	0.60
36:1:1933:A:OP2	86:1:3881:OHX:N6	2.33	0.60
36:1:1940:G:H21	36:1:3362:A:H8	1.50	0.60
36:1:2218:G:H2'	36:1:2219:A:C8	2.35	0.60
36:1:748:U:H2'	36:1:749:C:H6	1.66	0.60
1:2:1358:G:H2'	1:2:1359:C:C6	2.35	0.60
36:5:979:U:H4'	36:5:980:A:H5'	1.83	0.60
40:L3:84:VAL:HG22	40:L3:162:VAL:HB	2.56	0.60
41:L4:144:LYS:HD2	41:L4:145:ILE:HG23	6.21	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:191:LYS:HG3	41:L4:194:TYR:CZ	4.92	0.60
42:L5:279:LYS:HG2	42:L5:282:ARG:NH2	2.17	0.60
46:L9:124:ARG:HG2	46:L9:164:ILE:HD12	1.83	0.60
47:M0:208:ASN:HB3	47:M0:211:ARG:NH1	2.16	0.60
49:M3:157:ARG:HG2	49:M3:158:ALA:H	1.67	0.60
49:M3:64:LYS:HG3	64:N8:69:TRP:CG	2.41	0.60
57:N1:17:ARG:O	57:N1:18:ASP:HB2	2.02	0.60
76:Q0:83:LYS:O	76:Q0:87:SER:OG	2.17	0.60
20:C8:145:ARG:HG3	35:SM:68:ARG:HH22	4.17	0.60
36:1:1024:G:N7	86:1:4164:OHX:N6	2.49	0.60
36:1:1240:A:H61	36:1:1244:A:H5''	1.66	0.60
36:1:708:G:H5'	36:1:708:G:H8	1.66	0.60
1:2:1199:G:O6	22:D0:67:THR:HG23	2.01	0.60
1:2:1745:G:O6	86:2:2086:OHX:N6	2.35	0.60
36:5:3035:A:OP2	86:5:4053:OHX:N5	2.34	0.60
36:5:23:A:OP1	86:5:3909:OHX:N4	2.35	0.60
1:6:1385:G:N7	86:6:2122:OHX:N6	2.50	0.60
1:6:151:G:H22	1:6:163:G:N2	2.00	0.60
1:6:383:G:N7	86:6:2149:OHX:N5	2.49	0.60
15:C3:34:ILE:O	15:C3:38:VAL:HG23	2.01	0.60
19:C7:30:THR:HG22	34:SR:127:ARG:HH22	1.72	0.60
22:D0:58:LEU:HD12	22:D0:88:LYS:HB3	1.84	0.60
39:L2:105:GLY:HA3	39:L2:160:SER:HB3	2.50	0.60
39:L2:32:LEU:HD13	39:L2:37:ARG:HD3	1.82	0.60
41:L4:283:THR:HB	41:L4:285:ASP:H	3.47	0.60
41:L4:8:VAL:HB	41:L4:16:THR:HG21	3.56	0.60
42:L5:126:GLU:HA	42:L5:196:ARG:HD2	1.84	0.60
50:M4:100:ALA:HA	50:M4:103:ILE:HD12	1.84	0.60
3:S1:126:THR:HG22	3:S1:136:ARG:HE	1.65	0.60
6:S4:31:PRO:HB2	6:S4:38:LEU:HD22	1.84	0.60
1:2:449:C:H4'	6:S4:8:HIS:CD2	2.36	0.60
36:1:1108:U:H2'	36:1:1109:U:C6	2.37	0.60
36:1:1532:C:H2'	36:1:1533:U:C6	2.37	0.60
36:1:191:U:H2'	36:1:192:C:C6	2.36	0.60
36:1:2688:U:OP1	42:L5:12:TYR:OH	2.20	0.60
1:2:705:U:H2'	1:2:706:A:C8	2.37	0.60
36:5:2403:G:N2	36:5:2404:A:N7	2.49	0.60
1:6:1175:U:H2'	1:6:1176:G:C8	2.36	0.60
25:D3:50:LYS:HG2	25:D3:77:ILE:HD12	3.72	0.60
31:D9:5:ASN:CG	31:D9:7:TRP:HE1	2.04	0.60
42:L5:52:VAL:HG21	42:L5:65:ILE:HD12	2.30	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:1:3954:OHX:N4	44:L7:217:PRO:HA	2.16	0.60
46:L9:1:MET:HB3	36:5:1212:A:OP1	320.09	0.60
50:M4:113:THR:HG22	50:M4:115:PHE:N	2.17	0.60
61:N5:110:VAL:HG22	61:N5:124:VAL:HG13	2.40	0.60
6:S4:79:ASP:HB3	6:S4:82:TYR:HB2	1.84	0.60
7:S5:26:ALA:N	18:C6:27:GLY:O	2.87	0.60
34:SR:70:ASP:HB3	34:SR:112:SER:HA	1.82	0.60
36:1:1868:G:N2	36:1:2118:C:O2	2.35	0.60
36:1:3254:G:O6	86:1:4053:OHX:N5	2.35	0.60
1:6:831:U:O2'	1:6:832:U:H5'	2.01	0.60
26:D4:8:ARG:NH1	26:D4:26:ASP:OD1	2.35	0.60
33:E1:106:TYR:CZ	33:E1:131:PHE:HZ	3.15	0.60
36:1:3048:A:H5'	40:L3:53:MET:HE3	1.82	0.60
42:L5:279:LYS:HG2	42:L5:282:ARG:HH22	1.67	0.60
43:L6:108:LYS:O	43:L6:109:GLU:HG2	2.02	0.60
43:L6:44:ALA:O	43:L6:48:ARG:HG2	4.88	0.60
44:L7:102:VAL:HG13	44:L7:126:LEU:HD22	1.94	0.60
45:L8:208:GLU:HA	45:L8:211:LEU:HB2	3.85	0.60
49:M3:95:ILE:HD13	49:M3:116:LEU:HD22	1.83	0.60
51:M5:102:ALA:O	51:M5:106:VAL:HG13	2.01	0.60
51:M5:16:SER:O	51:M5:20:ARG:HG2	2.02	0.60
63:N7:4:PHE:O	63:N7:5:LEU:HB2	4.66	0.60
64:N8:118:ILE:HD13	64:N8:118:ILE:H	1.66	0.60
64:N8:128:ARG:HG2	72:O6:8:ALA:HB2	1.83	0.60
73:O7:48:ASN:HA	73:O7:54:LYS:NZ	3.14	0.60
76:Q0:127:LEU:HD22	76:Q0:128:LYS:HG3	3.59	0.60
36:1:1508:C:C6	36:1:1880:U:H1'	2.36	0.60
36:1:249:U:H1'	36:1:250:U:O2	2.02	0.60
86:1:4196:OHX:N2	86:O1:201:OHX:N1	2.49	0.60
37:3:106:U:H2'	37:3:107:C:C6	2.37	0.60
36:5:1064:A:H4'	36:5:1065:A:O5'	2.02	0.60
62:N6:103:LYS:NZ	36:5:190:U:O4	77.27	0.60
36:5:3192:U:O4	86:5:4147:OHX:N6	2.34	0.60
1:6:1202:A:OP1	86:6:2131:OHX:N2	2.35	0.60
1:6:66:U:H4'	1:6:67:A:OP1	2.01	0.60
16:C4:85:ALA:H	16:C4:119:THR:HB	3.69	0.60
20:C8:87:ASN:OD1	20:C8:88:ARG:N	2.35	0.60
21:C9:86:ARG:HG3	21:C9:86:ARG:HH11	1.66	0.60
45:L8:45:ASN:ND2	45:L8:47:SER:HB3	2.14	0.60
68:O2:105:ARG:O	68:O2:109:LEU:HB2	2.75	0.60
71:O5:14:LYS:HB3	71:O5:15:GLU:OE2	6.57	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:61:LEU:O	3:S1:62:LYS:NZ	2.35	0.60
7:S5:178:GLY:HA3	7:S5:209:TYR:CG	2.36	0.60
9:S7:147:ASN:N	9:S7:147:ASN:OD1	2.30	0.60
11:S9:171:ARG:NH1	11:S9:174:ARG:HD3	3.10	0.60
11:S9:96:VAL:HA	11:S9:99:LEU:HD22	1.82	0.60
34:SR:123:ILE:HG21	34:SR:169:ILE:HD13	2.08	0.60
34:SR:37:SER:OG	34:SR:38:ARG:N	2.83	0.60
36:1:1033:U:H2'	36:1:1034:U:C6	2.37	0.60
36:1:1080:A:OP2	42:L5:140:ARG:NH2	2.34	0.60
36:1:2970:C:H4'	36:1:2971:A:N1	2.17	0.60
36:1:314:U:O4	86:1:4149:OHX:N4	2.35	0.60
86:2:2036:OHX:N2	10:S8:17:LYS:O	2.35	0.60
1:2:543:C:O2	1:2:543:C:H5'	2.01	0.60
36:5:3242:G:H5''	36:5:3245:A:C8	2.37	0.60
36:5:1464:G:O2'	86:5:3914:OHX:N5	2.35	0.60
1:6:1450:U:OP2	86:6:2129:OHX:N4	2.35	0.60
1:6:217:A:C8	1:6:218:A:C8	2.90	0.60
17:C5:24:LYS:O	17:C5:28:MET:HB2	2.00	0.60
25:D3:30:LYS:HE2	25:D3:34:LEU:HD11	1.84	0.60
49:M3:64:LYS:HG3	64:N8:69:TRP:CD2	2.37	0.60
49:M3:6:ASN:O	54:M8:164:ARG:HD2	2.02	0.60
52:M6:38:ALA:O	52:M6:41:LEU:HB2	2.01	0.60
53:M7:18:ARG:NH2	53:M7:147:GLU:OE1	2.27	0.60
86:1:4196:OHX:N4	86:O1:201:OHX:N1	2.49	0.60
2:S0:74:VAL:HG12	2:S0:76:ILE:HG12	1.83	0.60
36:1:964:G:HO2'	64:N8:41:HIS:HE2	1.50	0.59
36:5:1307:G:C2	36:5:1308:A:C2	2.90	0.59
36:5:132:C:H2'	36:5:133:U:H5''	1.84	0.59
36:5:180:C:H2'	36:5:181:U:H6	1.67	0.59
36:5:2404:A:H2'	36:5:2405:C:C5'	2.31	0.59
36:5:2434:U:H4'	36:5:2435:G:H5''	1.83	0.59
77:Q1:23:ARG:O	86:5:4003:OHX:N2	264.30	0.59
33:E1:97:LYS:NZ	1:6:1253:U:O4	439.12	0.59
1:6:1595:U:N3	1:6:1600:A:H2	1.93	0.59
12:C0:44:LYS:HE3	12:C0:47:GLN:HG2	7.08	0.59
26:D4:29:HIS:O	26:D4:31:ASN:N	3.75	0.59
44:L7:151:ARG:HD2	44:L7:244:ASN:ND2	2.16	0.59
46:L9:36:LYS:HD3	46:L9:38:LEU:HD21	2.67	0.59
48:M1:37:LEU:HD12	48:M1:67:VAL:HG23	1.84	0.59
51:M5:160:GLU:OE1	51:M5:160:GLU:N	2.93	0.59
52:M6:98:ALA:HA	52:M6:101:ARG:HH11	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:N2:59:ASP:O	58:N2:61:THR:N	2.34	0.59
59:N3:54:LEU:HA	59:N3:78:VAL:HG12	1.83	0.59
54:M8:182:LYS:HE3	64:N8:55:LYS:O	2.02	0.59
36:1:1433:A:N3	68:O2:27:ARG:NH1	2.50	0.59
6:S4:254:ARG:HH11	6:S4:254:ARG:HB3	4.59	0.59
7:S5:206:SER:O	7:S5:212:LYS:NZ	2.66	0.59
35:SM:25:ILE:HG12	37:3:39:C:H5'	1.84	0.59
36:1:1781:C:H2'	36:1:1782:U:H6	1.66	0.59
36:1:2209:U:H2'	36:1:2209:U:OP2	2.01	0.59
1:2:1657:U:H4'	1:2:1658:G:O5'	2.02	0.59
1:2:1240:U:OP2	86:2:2144:OHX:N1	2.35	0.59
1:2:434:G:N7	86:2:2048:OHX:N4	2.49	0.59
1:2:514:G:O2'	1:2:515:A:H5'	2.02	0.59
1:2:851:U:H2'	1:2:852:C:C6	2.37	0.59
1:2:931:C:O2'	3:S1:118:GLN:O	2.19	0.59
17:C5:22:LEU:HA	17:C5:25:LEU:HD12	2.38	0.59
17:C5:87:PRO:HA	17:C5:90:ILE:HG13	1.84	0.59
24:D2:53:ILE:HD13	29:D7:24:LEU:HD12	1.84	0.59
86:1:4083:OHX:N4	55:M9:14:VAL:O	2.34	0.59
36:1:670:C:P	54:M8:147:ARG:HH22	2.26	0.59
1:2:1450:U:H2'	1:2:1451:C:C6	2.38	0.59
38:4:85:G:O6	62:N6:112:ASP:HB3	2.01	0.59
36:5:1581:C:OP2	36:5:1581:C:H4'	2.01	0.59
36:5:1717:U:H2'	36:5:1718:G:C8	2.37	0.59
36:5:2977:G:OP1	86:5:4155:OHX:N4	2.35	0.59
86:5:4022:OHX:N6	86:5:4219:OHX:N4	2.50	0.59
1:6:1031:U:H4'	1:6:1032:G:OP2	2.02	0.59
1:6:1511:U:H2'	1:6:1512:G:C8	2.38	0.59
1:6:489:C:O2'	1:6:490:C:O5'	2.19	0.59
13:C1:93:TYR:HB2	13:C1:100:TYR:CE1	2.56	0.59
16:C4:124:ASP:O	16:C4:125:SER:HB2	2.02	0.59
7:S5:73:THR:HG21	18:C6:114:ARG:HE	5.49	0.59
41:L4:300:ARG:O	54:M8:39:ARG:NH1	2.35	0.59
49:M3:161:ASP:C	49:M3:163:GLY:H	2.62	0.59
36:1:1546:A:N7	51:M5:71:ARG:NH1	2.50	0.59
54:M8:185:LYS:HG2	54:M8:186:VAL:HG23	1.85	0.59
61:N5:100:LYS:NZ	61:N5:106:ASP:OD2	2.33	0.59
61:N5:137:ASN:HB3	61:N5:142:ILE:HG12	1.84	0.59
72:O6:58:ILE:HA	72:O6:61:ILE:HD12	1.82	0.59
2:S0:76:ILE:HB	2:S0:123:VAL:HG23	1.85	0.59
7:S5:42:LEU:HB2	7:S5:46:TRP:O	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:64:HIS:ND1	34:SR:86:ASP:OD2	2.25	0.59
36:1:1567:U:O2	36:1:1571:A:N6	2.35	0.59
36:1:978:G:O2'	36:1:979:U:O4'	2.20	0.59
1:2:1297:G:N2	1:2:1300:A:OP2	2.34	0.59
1:2:1370:U:O2'	1:2:1371:A:OP2	2.17	0.59
1:2:1657:U:O4	86:2:2089:OHX:N4	2.34	0.59
1:2:778:G:H22	26:D4:10:ARG:NH1	1.99	0.59
38:4:121:U:H2'	38:4:122:U:C6	2.37	0.59
36:5:1621:A:H2'	36:5:1622:U:C6	2.37	0.59
1:6:1491:U:H5'	1:6:1492:A:OP1	2.02	0.59
25:D3:28:ASN:N	25:D3:28:ASN:OD1	2.35	0.59
40:L3:76:VAL:HG11	40:L3:323:MET:HE3	2.31	0.59
44:L7:160:ARG:HD2	44:L7:203:TRP:NE1	2.17	0.59
54:M8:40:THR:O	54:M8:42:ALA:N	2.30	0.59
79:Q3:49:ARG:HD2	79:Q3:50:GLY:H	1.67	0.59
2:S0:41:ARG:HD2	2:S0:42:PRO:HD2	3.72	0.59
6:S4:92:LEU:HD13	26:D4:17:LEU:HD11	6.44	0.59
11:S9:109:LEU:HD13	11:S9:129:ILE:HD13	2.62	0.59
36:1:1447:G:N7	53:M7:25:SER:OG	2.34	0.59
36:1:1497:C:O2'	36:1:1602:A:N3	2.33	0.59
36:1:691:A:OP1	41:L4:46:LYS:NZ	2.36	0.59
1:2:1320:U:O2	1:2:1322:A:H5'	2.02	0.59
1:2:730:G:H21	1:2:731:C:H5'	1.67	0.59
10:S8:138:ASN:OD1	1:6:189:C:N4	273.27	0.59
38:8:104:A:H3'	38:8:105:A:H5''	1.84	0.59
15:C3:29:SER:OG	15:C3:32:SER:OG	2.15	0.59
25:D3:108:GLY:HA2	1:6:600:U:OP2	357.42	0.59
37:3:121:U:H5''	42:L5:265:TYR:HE1	1.68	0.59
46:L9:88:TYR:CE2	46:L9:184:LYS:HG2	2.38	0.59
51:M5:24:ARG:HG2	51:M5:24:ARG:NH1	3.80	0.59
52:M6:77:SER:OG	52:M6:106:GLU:OE2	2.21	0.59
54:M8:60:PRO:HG3	54:M8:144:ARG:HB3	4.56	0.59
56:N0:155:ARG:HD3	56:N0:172:TYR:CG	3.76	0.59
2:S0:150:ASP:OD1	2:S0:165:ARG:NH2	2.35	0.59
2:S0:182:LEU:HB3	2:S0:188:LEU:HD23	1.83	0.59
5:S3:53:THR:HG22	5:S3:91:VAL:HG12	1.84	0.59
10:S8:8:ARG:NH2	10:S8:19:ALA:O	2.36	0.59
36:1:2303:A:OP1	77:Q1:23:ARG:NH2	2.36	0.59
36:1:2700:G:O2'	36:1:2705:A:N1	2.31	0.59
36:1:3057:U:H5'	36:1:3086:A:H61	1.67	0.59
36:5:2409:G:H4'	36:5:2410:U:OP2	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:255:A:H2'	36:5:256:G:C8	2.37	0.59
1:6:1573:A:H4'	1:6:1574:G:O5'	2.01	0.59
1:6:75:U:O2'	1:6:76:A:O5'	2.14	0.59
13:C1:139:VAL:HG12	13:C1:140:VAL:N	2.13	0.59
24:D2:55:ASP:HB3	29:D7:25:VAL:HG22	2.73	0.59
16:C4:114:ARG:HA	28:D6:62:TYR:CZ	2.38	0.59
41:L4:22:LEU:HD23	41:L4:23:PRO:HD2	3.13	0.59
53:M7:178:ALA:HA	53:M7:181:ARG:HB3	1.84	0.59
44:L7:121:LYS:HB2	57:N1:133:ALA:HB3	2.24	0.59
63:N7:33:SER:OG	63:N7:34:LYS:N	2.64	0.59
70:O4:10:ARG:O	36:5:1488:G:O2'	139.30	0.59
74:O8:32:ASN:ND2	74:O8:32:ASN:O	2.34	0.59
76:Q0:99:CYS:HB3	76:Q0:114:LYS:HD2	4.47	0.59
78:Q2:28:TYR:HB3	78:Q2:69:VAL:HB	2.04	0.59
3:S1:129:THR:HB	3:S1:180:THR:HA	1.85	0.59
7:S5:41:LYS:HG2	7:S5:69:PHE:CZ	5.19	0.59
8:S6:141:ILE:HG21	8:S6:153:VAL:HG13	1.83	0.59
10:S8:105:ASP:OD1	10:S8:106:ALA:N	4.92	0.59
1:2:1533:C:H4'	1:2:1539:G:H1	1.67	0.59
36:5:1151:U:OP1	86:5:4213:OHX:N1	2.36	0.59
86:5:4022:OHX:N3	86:5:4219:OHX:N4	2.50	0.59
4:S2:168:ARG:NE	1:6:1098:U:OP2	384.01	0.59
26:D4:37:LYS:HE3	1:6:523:G:OP2	413.34	0.59
1:6:909:U:H2'	1:6:910:C:C6	2.38	0.59
12:C0:50:THR:HG22	12:C0:55:VAL:HG22	1.95	0.59
13:C1:33:ARG:NH1	13:C1:53:TYR:O	2.89	0.59
22:D0:27:THR:HG23	22:D0:113:ASP:HB3	1.84	0.59
45:L8:134:TYR:CG	45:L8:190:VAL:HG21	2.38	0.59
49:M3:70:ARG:NH2	36:5:103:G:OP1	94.33	0.59
52:M6:182:ASN:OD1	52:M6:186:ALA:HB2	5.09	0.59
56:N0:42:TRP:O	56:N0:46:GLN:HG3	2.41	0.59
66:O0:13:LYS:NZ	66:O0:103:THR:HG21	3.19	0.59
2:S0:124:THR:HA	2:S0:146:LEU:HB2	1.85	0.59
2:S0:172:LEU:HD22	2:S0:176:LEU:HG	2.05	0.59
7:S5:225:ARG:CZ	30:D8:58:GLU:HB2	5.09	0.59
11:S9:170:GLY:O	11:S9:172:VAL:N	2.36	0.59
36:1:2443:A:O2'	36:1:2444:C:OP2	2.18	0.59
1:2:732:G:O6	86:2:2129:OHX:N5	2.35	0.59
36:5:507:U:H2'	36:5:508:U:C6	2.38	0.59
1:6:193:U:C2	1:6:195:G:H1'	2.38	0.59
37:7:23:A:H2'	37:7:24:A:C8	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:8:216:OHX:N6	86:8:225:OHX:N3	2.51	0.59
86:8:216:OHX:N5	86:8:225:OHX:N3	2.51	0.59
33:E1:98:VAL:HG12	33:E1:99:LYS:H	2.93	0.59
43:L6:40:LEU:HD13	43:L6:84:VAL:HG11	1.84	0.59
43:L6:64:LEU:HD22	43:L6:65:ILE:H	3.01	0.59
48:M1:137:ARG:HG2	37:7:28:C:H5''	307.06	0.59
49:M3:15:ARG:CZ	36:5:96:G:H5'	151.71	0.59
51:M5:47:LYS:HE3	51:M5:51:LEU:HD11	1.85	0.59
51:M5:8:GLU:HG3	51:M5:50:ARG:NH1	3.59	0.59
53:M7:67:ILE:HG13	53:M7:82:ARG:CZ	2.32	0.59
58:N2:56:VAL:HG22	58:N2:65:VAL:HG22	1.84	0.59
76:Q0:124:LYS:O	76:Q0:126:LYS:NZ	2.48	0.59
5:S3:99:VAL:HG13	5:S3:173:ARG:HH12	3.18	0.59
7:S5:123:VAL:HG12	7:S5:124:LEU:HG	1.85	0.59
8:S6:2:LYS:HD3	8:S6:17:GLU:HG3	1.83	0.59
11:S9:66:ASP:HB3	11:S9:69:ARG:HB3	2.57	0.59
36:1:2572:C:O2'	36:1:2573:G:O4'	2.20	0.59
86:2:2044:OHX:N1	86:2:2098:OHX:N5	2.51	0.59
58:N2:94:ARG:NH2	36:5:1757:A:OP1	128.38	0.59
36:5:1944:U:H2'	36:5:1945:A:H8	1.68	0.59
36:5:2730:G:OP2	86:5:3961:OHX:N4	2.36	0.59
1:6:1001:A:H2'	1:6:1002:G:C8	2.38	0.59
1:6:1371:A:H5'	1:6:1372:U:OP2	2.02	0.59
1:6:230:C:H42	1:6:235:G:H1	1.49	0.59
71:O5:83:LYS:HA	38:8:38:U:H5	65.46	0.59
17:C5:116:LEU:O	17:C5:118:GLU:N	3.12	0.59
33:E1:144:CYS:O	33:E1:146:SER:N	2.51	0.59
39:L2:70:ARG:HD2	39:L2:72:ARG:NE	3.57	0.59
40:L3:97:ARG:NH1	36:5:3244:A:C2	243.56	0.59
47:M0:89:VAL:HG22	47:M0:136:PHE:CE1	2.38	0.59
51:M5:28:TRP:O	51:M5:32:GLN:HG2	2.03	0.59
75:O9:9:ILE:O	75:O9:13:MET:HG3	2.02	0.59
6:S4:45:ILE:HB	6:S4:80:THR:HG23	2.81	0.59
9:S7:30:SER:HB3	9:S7:34:LEU:HD12	2.25	0.59
10:S8:187:GLU:OE2	13:C1:30:ARG:NH1	2.36	0.59
36:1:290:G:H2'	36:1:291:C:C6	2.37	0.59
36:1:1207:G:N7	86:1:4061:OHX:N2	2.51	0.59
1:2:591:A:H2'	1:2:592:A:H8	1.66	0.59
55:M9:117:LYS:HD3	36:5:1718:G:H4'	246.91	0.59
55:M9:104:ARG:NH1	36:5:1949:G:OP1	220.79	0.59
1:6:489:C:O2'	1:6:490:C:O4'	2.19	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:871:G:H2'	1:6:872:G:C8	2.38	0.59
13:C1:6:THR:O	13:C1:8:GLN:N	2.34	0.59
25:D3:56:LYS:NZ	25:D3:96:VAL:O	5.64	0.59
29:D7:36:LYS:HD3	29:D7:43:ILE:HG23	3.85	0.59
30:D8:26:THR:HB	30:D8:44:VAL:HG22	1.84	0.59
39:L2:236:GLY:H	36:5:2183:A:HO2'	205.69	0.59
40:L3:105:VAL:HG21	40:L3:148:LEU:HD13	2.43	0.59
40:L3:211:GLN:NE2	40:L3:284:ARG:HA	2.18	0.59
36:1:1429:G:N1	41:L4:99:MET:HE2	2.18	0.59
46:L9:8:GLN:HG2	46:L9:68:LEU:HD13	1.84	0.59
36:1:1508:C:OP1	53:M7:127:ARG:NH2	2.36	0.59
64:N8:90:TYR:CG	64:N8:100:PRO:HG3	2.38	0.59
68:O2:126:LEU:O	68:O2:128:LEU:N	2.35	0.59
2:S0:13:ASP:HA	2:S0:16:LEU:HD12	1.83	0.59
36:1:544:C:H1'	36:1:548:G:H22	1.68	0.58
1:2:1031:U:H4'	1:2:1032:G:OP2	2.02	0.58
1:2:1148:C:H2'	1:2:1149:G:H8	1.68	0.58
1:2:1657:U:C4	86:2:2089:OHX:N2	2.70	0.58
1:2:839:U:H2'	1:2:840:U:H5'	1.84	0.58
36:5:437:G:H22	36:5:622:A:N6	2.00	0.58
35:SM:72:ARG:NH1	1:6:1460:A:O2'	322.65	0.58
1:6:1691:A:H2'	1:6:1692:G:C8	2.38	0.58
15:C3:34:ILE:HG13	15:C3:67:THR:HG21	1.85	0.58
26:D4:52:LYS:O	26:D4:54:ALA:N	2.47	0.58
30:D8:32:PHE:HE2	30:D8:38:ARG:HB3	1.67	0.58
7:S5:225:ARG:HH22	30:D8:57:MET:HB2	3.64	0.58
40:L3:232:ARG:NH1	40:L3:269:GLN:O	2.49	0.58
41:L4:269:SER:C	41:L4:271:LYS:H	2.05	0.58
47:M0:174:THR:OG1	47:M0:175:ASN:O	6.22	0.58
57:N1:105:PHE:CE2	36:5:1062:A:H4'	243.60	0.58
66:O0:99:ASP:O	66:O0:101:LEU:N	3.02	0.58
72:O6:95:ALA:O	72:O6:99:ARG:HB2	2.02	0.58
3:S1:131:ASP:O	3:S1:133:TYR:N	2.34	0.58
5:S3:127:MET:HE2	5:S3:127:MET:HA	4.17	0.58
36:1:1675:G:H2'	36:1:1676:A:C8	2.38	0.58
36:1:3294:A:H2'	36:1:3295:A:O4'	2.03	0.58
1:2:1067:C:H5''	3:S1:150:VAL:HG23	1.84	0.58
1:2:1202:A:N3	1:2:1202:A:H3'	2.18	0.58
1:2:1488:G:H5'	1:2:1489:U:OP1	2.04	0.58
1:2:1537:C:O2'	1:2:1540:G:O6	2.21	0.58
86:2:2044:OHX:N1	86:2:2098:OHX:N3	2.50	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:2:2134:OHX:N6	10:S8:52:ASN:OD1	2.35	0.58
1:2:383:G:N7	86:2:2130:OHX:N4	2.51	0.58
1:2:52:U:H2'	1:2:53:G:C8	2.37	0.58
37:3:45:A:H2'	37:3:46:A:C8	2.37	0.58
31:D9:34:TYR:OH	1:6:1487:A:OP1	418.86	0.58
12:C0:23:ALA:O	12:C0:24:LYS:HB3	4.62	0.58
25:D3:79:ASN:ND2	25:D3:81:LYS:HG3	2.18	0.58
28:D6:7:SER:O	28:D6:9:GLY:N	3.72	0.58
30:D8:22:ARG:NH1	1:6:1619:C:O2	339.09	0.58
30:D8:52:ASP:N	30:D8:52:ASP:OD2	3.89	0.58
40:L3:113:GLU:OE2	40:L3:167:ARG:HB3	2.17	0.58
50:M4:121:MET:HE1	36:5:3215:A:O5'	275.13	0.58
62:N6:106:ILE:HG21	62:N6:109:LEU:HD23	2.27	0.58
63:N7:48:ARG:HB3	63:N7:69:LYS:HB3	1.85	0.58
70:O4:101:VAL:O	70:O4:105:VAL:HG23	2.80	0.58
71:O5:6:ALA:O	71:O5:10:ARG:HG3	3.88	0.58
34:SR:42:LEU:HB2	34:SR:61:PHE:HB2	1.85	0.58
36:1:2573:G:O6	86:1:3994:OHX:N3	2.37	0.58
1:2:1504:G:H2'	1:2:1505:A:C8	2.39	0.58
1:2:1726:G:N7	86:2:2098:OHX:N4	2.51	0.58
1:2:778:G:H3'	1:2:780:A:H2	1.67	0.58
36:5:171:G:H1	36:5:247:C:N4	2.02	0.58
73:O7:55:ARG:NH1	36:5:353:G:N7	110.51	0.58
36:5:655:C:H2'	36:5:656:A:C8	2.38	0.58
36:5:956:U:H2'	36:5:957:C:C6	2.38	0.58
1:6:737:A:H2'	1:6:738:G:C8	2.38	0.58
12:C0:26:ASP:O	12:C0:39:ASN:ND2	2.36	0.58
15:C3:115:LEU:O	15:C3:119:GLU:HB2	2.78	0.58
17:C5:18:ARG:NH2	17:C5:38:PRO:HG3	2.26	0.58
42:L5:52:VAL:HA	42:L5:147:ASP:HB3	1.86	0.58
50:M4:37:GLU:HG2	50:M4:38:ILE:H	1.68	0.58
54:M8:122:ILE:HG23	54:M8:126:GLN:HB2	1.84	0.58
55:M9:86:GLU:OE2	55:M9:91:SER:N	2.23	0.58
58:N2:22:PRO:HG3	58:N2:93:ILE:HG21	1.84	0.58
59:N3:86:ARG:HG3	59:N3:92:PHE:CE2	2.83	0.58
38:4:151:C:OP2	61:N5:25:LYS:NZ	2.36	0.58
67:O1:72:ARG:HH22	67:O1:107:VAL:HG23	1.68	0.58
71:O5:85:THR:HG22	71:O5:87:ALA:N	2.11	0.58
74:O8:17:ARG:O	74:O8:19:ASP:N	2.37	0.58
77:Q1:6:ARG:O	77:Q1:10:THR:HG23	2.03	0.58
2:S0:71:GLU:O	2:S0:96:THR:HG22	2.25	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:10:SER:HB3	9:S7:43:PHE:O	2.03	0.58
34:SR:16:HIS:CE1	34:SR:43:ILE:HG12	2.70	0.58
36:1:1039:U:H2'	36:1:1040:A:C8	2.38	0.58
36:1:1498:A:H2'	36:1:1499:C:C6	2.38	0.58
36:1:2854:U:OP2	47:M0:3:ARG:NH2	2.36	0.58
36:1:621:A:H8	36:1:623:U:O4	1.85	0.58
36:5:1650:G:N7	86:5:4183:OHX:N3	2.51	0.58
36:5:495:G:H2'	36:5:496:C:O4'	2.03	0.58
36:5:980:A:H2'	36:5:981:U:N1	2.18	0.58
12:C0:16:PHE:CD2	12:C0:76:LEU:HD23	2.38	0.58
13:C1:74:THR:HA	13:C1:122:ILE:HA	1.84	0.58
20:C8:42:TYR:HE2	20:C8:73:MET:HG3	3.95	0.58
21:C9:42:GLY:HA2	21:C9:84:LYS:HG3	1.85	0.58
26:D4:20:ARG:HH11	26:D4:22:GLN:NE2	4.11	0.58
36:1:2157:G:O2'	39:L2:156:LYS:HD2	2.03	0.58
39:L2:51:ASP:HB3	39:L2:54:ARG:HD2	2.51	0.58
40:L3:296:THR:CG2	40:L3:298:PHE:H	2.34	0.58
42:L5:68:THR:HG22	42:L5:71:GLY:O	4.21	0.58
44:L7:89:ILE:HD12	44:L7:214:TRP:CH2	2.38	0.58
47:M0:3:ARG:CZ	47:M0:63:GLU:HG3	2.34	0.58
51:M5:70:ASN:HB3	51:M5:92:LEU:O	2.03	0.58
55:M9:21:LYS:HE3	55:M9:55:VAL:HA	1.86	0.58
58:N2:90:ARG:HB3	58:N2:90:ARG:NH1	4.30	0.58
67:O1:75:ILE:HG12	67:O1:93:VAL:HG13	2.76	0.58
4:S2:203:LYS:O	4:S2:206:THR:HG23	3.15	0.58
5:S3:57:ASP:O	5:S3:65:ARG:HG2	5.19	0.58
9:S7:59:ALA:HA	9:S7:91:ILE:HG22	1.85	0.58
36:1:1564:U:H2'	36:1:1565:G:H8	1.68	0.58
36:1:2128:C:OP1	86:1:3953:OHX:N4	2.36	0.58
36:1:2383:C:H5'	52:M6:71:PHE:CE2	2.39	0.58
36:1:239:G:O2'	36:1:240:U:OP1	2.20	0.58
1:2:71:A:H2'	1:2:72:A:O4'	2.03	0.58
36:5:1363:A:OP2	86:5:4201:OHX:N3	2.37	0.58
36:5:595:G:C8	36:5:609:G:C6	2.92	0.58
17:C5:122:THR:OG1	1:6:1454:G:O3'	368.28	0.58
1:6:488:G:N2	1:6:499:U:H3	2.01	0.58
1:6:722:G:HO2'	1:6:723:G:H8	1.51	0.58
20:C8:140:THR:HA	20:C8:143:ARG:HH11	2.96	0.58
30:D8:10:ALA:HA	30:D8:32:PHE:HA	1.84	0.58
39:L2:222:ALA:HB1	39:L2:224:THR:HG22	5.44	0.58
40:L3:286:GLY:HA3	40:L3:321:PHE:CZ	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:149:ILE:HG23	43:L6:155:LEU:HD13	1.86	0.58
46:L9:47:LYS:HE3	46:L9:50:ASN:H	1.67	0.58
36:1:1145:G:OP1	68:O2:44:ARG:NH1	2.34	0.58
72:O6:37:THR:O	72:O6:41:ARG:HB2	2.03	0.58
2:S0:110:TYR:O	2:S0:112:THR:N	2.89	0.58
2:S0:31:VAL:HA	2:S0:34:GLU:OE2	7.31	0.58
3:S1:105:PHE:CD2	3:S1:213:ARG:HA	2.38	0.58
3:S1:121:ILE:HD13	3:S1:161:ILE:HG23	2.79	0.58
3:S1:168:ILE:HG12	3:S1:197:ILE:HD12	1.85	0.58
6:S4:104:ASP:HB3	6:S4:106:LYS:H	1.87	0.58
6:S4:49:ARG:HG3	6:S4:50:ASN:N	4.32	0.58
6:S4:86:PHE:HE2	6:S4:102:VAL:HG23	2.46	0.58
10:S8:197:THR:HA	10:S8:200:LYS:HB2	1.85	0.58
36:1:2734:A:OP1	86:1:4003:OHX:N3	2.36	0.58
36:1:12:A:OP1	86:1:4201:OHX:N6	2.37	0.58
36:1:849:C:H2'	36:1:850:U:H6	1.67	0.58
75:O9:10:LYS:HD3	36:5:1833:G:H5''	107.87	0.58
36:5:1919:G:N7	86:5:4074:OHX:N4	2.52	0.58
36:5:3263:G:O6	86:5:4123:OHX:N2	2.37	0.58
36:5:90:C:C2'	36:5:91:G:H5'	2.34	0.58
38:8:157:U:H2'	38:8:158:U:H6	1.69	0.58
73:O7:59:THR:HG22	38:8:41:A:O2'	91.80	0.58
33:E1:82:LYS:O	33:E1:84:VAL:N	4.96	0.58
39:L2:5:ILE:HG22	39:L2:208:ASP:O	2.04	0.58
40:L3:274:SER:OG	36:5:3139:A:OP1	228.03	0.58
47:M0:78:THR:OG1	47:M0:79:VAL:N	4.10	0.58
56:N0:155:ARG:NH1	36:5:3206:C:O2	310.14	0.58
57:N1:38:ASP:OD1	57:N1:38:ASP:N	2.34	0.58
69:O3:39:GLN:OE1	69:O3:39:GLN:N	2.78	0.58
2:S0:84:ARG:NH2	2:S0:201:LEU:O	4.66	0.58
34:SR:48:THR:HG22	34:SR:55:GLY:HA2	4.25	0.58
36:1:118:U:O2	36:1:121:A:H5'	2.04	0.58
36:1:917:A:OP2	86:1:4142:OHX:N2	2.36	0.58
86:1:4000:OHX:N6	86:1:4171:OHX:N1	2.52	0.58
36:1:92:G:OP2	36:1:93:C:H5''	2.04	0.58
56:N0:90:MET:HG2	36:5:1213:G:H4'	318.07	0.58
36:5:1378:U:OP1	86:5:4029:OHX:N3	2.36	0.58
36:5:247:C:C4	36:5:248:U:H1'	2.39	0.58
1:6:1011:G:HO2'	1:6:1012:U:H6	1.51	0.58
1:6:263:C:H4'	1:6:292:U:H5'	1.86	0.58
1:6:104:A:H61	1:6:308:C:H5'	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:14:TYR:CE2	12:C0:21:VAL:HG22	2.39	0.58
13:C1:33:ARG:NH2	13:C1:51:GLY:O	3.24	0.58
15:C3:114:ARG:HH11	15:C3:114:ARG:HG2	1.69	0.58
15:C3:23:PRO:HD2	15:C3:26:PHE:HB3	1.86	0.58
22:D0:72:ASN:HD22	22:D0:74:GLU:H	1.51	0.58
28:D6:73:TYR:CZ	28:D6:82:ARG:HD3	2.39	0.58
40:L3:293:ASN:HB2	40:L3:304:THR:HA	1.84	0.58
49:M3:109:PHE:O	49:M3:113:VAL:HG23	2.04	0.58
49:M3:98:ASP:OD2	36:5:76:G:O2'	81.63	0.58
52:M6:62:THR:HG22	52:M6:65:ASN:H	1.67	0.58
63:N7:100:THR:HA	63:N7:106:GLN:HG2	4.96	0.58
70:O4:29:ILE:HD11	70:O4:31:ARG:HH21	1.67	0.58
2:S0:83:GLN:HG2	2:S0:99:ALA:HB1	1.86	0.58
36:1:3119:U:OP2	86:1:3887:OHX:N4	2.36	0.58
36:1:655:C:H2'	36:1:656:A:C8	2.39	0.58
36:1:812:G:N7	86:1:3981:OHX:N1	2.51	0.58
36:1:816:A:H5''	36:1:920:A:H62	1.68	0.58
1:2:1229:G:H1	14:C2:47:GLU:HG3	1.68	0.58
1:2:485:A:H2'	1:2:486:G:O4'	2.03	0.58
1:2:986:G:H2'	1:2:987:G:O4'	2.04	0.58
36:5:2510:U:O2'	36:5:2511:A:H5''	2.03	0.58
46:L9:168:ARG:HD2	36:5:2894:C:OP1	305.73	0.58
1:6:1058:U:H4'	1:6:1059:U:OP1	2.02	0.58
12:C0:53:GLY:O	12:C0:55:VAL:N	2.29	0.58
14:C2:75:VAL:HG21	14:C2:120:VAL:HG21	1.86	0.58
19:C7:104:ASN:O	19:C7:106:THR:N	3.49	0.58
21:C9:57:ARG:HH11	21:C9:57:ARG:HG3	1.68	0.58
40:L3:347:SER:O	40:L3:348:ARG:HB3	2.37	0.58
41:L4:139:GLY:O	41:L4:141:ARG:NH1	4.54	0.58
46:L9:110:LYS:O	46:L9:128:VAL:HG23	2.46	0.58
46:L9:126:VAL:HG21	46:L9:161:LEU:HA	1.83	0.58
46:L9:22:SER:O	46:L9:23:ARG:HG3	2.04	0.58
47:M0:144:ASN:O	47:M0:147:VAL:N	2.36	0.58
47:M0:76:MET:HB3	47:M0:85:PHE:CE2	2.38	0.58
41:L4:106:TRP:HB2	51:M5:199:LEU:HD12	1.85	0.58
54:M8:170:ARG:O	54:M8:171:LYS:HB2	2.04	0.58
54:M8:43:PRO:HA	54:M8:46:LYS:HD3	1.86	0.58
6:S4:38:LEU:O	6:S4:41:SER:OG	2.87	0.58
9:S7:25:VAL:HA	9:S7:28:GLU:HB2	2.16	0.58
1:6:1068:C:H2'	1:6:1069:A:C8	2.37	0.58
1:2:1254:U:H5	14:C2:46:ARG:HH11	1.50	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:16:VAL:O	16:C4:30:VAL:HA	2.03	0.58
23:D1:3:ASN:HD21	23:D1:7:GLN:HB3	4.68	0.58
24:D2:77:PRO:HB2	25:D3:9:LEU:HD23	1.86	0.58
42:L5:270:LYS:HB3	37:7:1:G:O2'	321.56	0.58
6:S4:187:ARG:NH1	6:S4:187:ARG:HB2	6.20	0.58
36:1:1809:A:H2'	36:1:1810:A:O4'	2.04	0.58
36:1:1951:C:H42	36:1:2095:G:H1	1.51	0.58
36:1:2356:A:N6	36:1:2983:C:H5	1.95	0.58
1:2:1681:A:H1'	8:S6:66:GLY:HA3	1.85	0.58
1:2:579:A:H2	5:S3:143:ARG:HG3	1.69	0.58
1:2:793:A:H5''	1:2:794:U:C5	2.39	0.58
36:5:1701:C:H2'	36:5:1702:U:O4'	2.04	0.58
40:L3:64:GLY:O	36:5:3038:U:H4'	288.07	0.58
54:M8:57:ILE:HD12	36:5:671:U:OP2	158.76	0.58
49:M3:35:ARG:NH1	36:5:685:G:OP2	83.29	0.58
1:6:165:G:H2'	1:6:166:C:H5''	1.86	0.58
18:C6:38:LEU:O	18:C6:45:ARG:NE	2.37	0.58
21:C9:49:ASP:OD1	21:C9:53:TRP:N	2.37	0.58
24:D2:89:TRP:O	24:D2:93:LEU:HD22	2.04	0.58
47:M0:177:ASP:O	47:M0:180:GLU:N	2.79	0.58
55:M9:89:LEU:HD12	55:M9:90:PRO:HD2	2.72	0.58
75:O9:2:ALA:HB1	75:O9:5:LYS:NZ	2.19	0.58
6:S4:43:PRO:HA	6:S4:82:TYR:O	2.04	0.58
7:S5:161:ASP:OD2	30:D8:42:ARG:NH1	3.94	0.58
8:S6:139:ASN:OD1	8:S6:142:ARG:NH1	2.37	0.58
35:SM:121:LYS:O	35:SM:123:ALA:N	3.11	0.58
36:5:1934:G:O6	86:5:3917:OHX:N2	2.37	0.57
40:L3:53:MET:HE3	36:5:3048:A:H5'	233.18	0.57
36:5:618:C:H2'	36:5:619:A:C8	2.38	0.57
13:C1:124:THR:O	13:C1:140:VAL:HG12	2.03	0.57
29:D7:62:ILE:HG13	29:D7:63:LEU:H	1.68	0.57
31:D9:24:CYS:SG	31:D9:26:SER:HB3	3.24	0.57
39:L2:96:LEU:HD23	79:Q3:83:ILE:HG23	1.86	0.57
40:L3:205:VAL:C	40:L3:207:SER:H	2.33	0.57
54:M8:64:VAL:HG13	54:M8:93:ILE:HD11	1.86	0.57
65:N9:23:LYS:HD2	65:N9:24:PRO:HD3	1.86	0.57
77:Q1:2:ARG:HB3	77:Q1:5:TRP:CD1	2.39	0.57
2:S0:195:TRP:CE2	2:S0:197:ILE:HB	2.96	0.57
9:S7:31:SER:HB2	9:S7:32:PRO:HD3	1.86	0.57
36:1:1134:G:O2'	36:1:2642:A:N3	2.34	0.57
86:1:4000:OHX:N3	86:1:4171:OHX:N3	2.52	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2187:G:OP2	86:5:3974:OHX:N4	2.37	0.57
36:5:2523:A:O2'	36:5:2587:U:H1'	2.04	0.57
36:5:2249:G:OP1	86:5:4200:OHX:N6	2.36	0.57
36:5:770:G:N7	86:5:4099:OHX:N6	2.52	0.57
42:L5:265:TYR:CE1	37:7:121:U:H5''	314.68	0.57
17:C5:14:THR:HB	17:C5:22:LEU:HB2	1.85	0.57
19:C7:10:LYS:NZ	1:6:1401:A:O3'	406.88	0.57
40:L3:46:PHE:CE2	40:L3:205:VAL:HG13	3.63	0.57
40:L3:247:ARG:NH2	36:5:2341:A:OP1	218.75	0.57
40:L3:2:SER:HB3	36:5:2943:G:OP2	237.41	0.57
41:L4:311:HIS:CE1	41:L4:314:LYS:HA	2.39	0.57
44:L7:43:ILE:O	44:L7:47:ARG:HG2	2.03	0.57
44:L7:80:GLN:NE2	57:N1:136:ARG:HB2	6.31	0.57
45:L8:177:TYR:CZ	45:L8:222:PHE:HB3	3.16	0.57
46:L9:162:GLN:HB2	46:L9:179:ILE:O	2.03	0.57
47:M0:208:ASN:O	47:M0:212:GLU:HB2	3.17	0.57
48:M1:23:VAL:HG12	48:M1:25:GLU:H	3.22	0.57
59:N3:15:LEU:HD23	59:N3:53:SER:HB3	1.87	0.57
38:4:23:U:P	62:N6:16:ARG:HH21	2.27	0.57
62:N6:27:ARG:HD3	62:N6:75:ARG:O	2.51	0.57
4:S2:237:VAL:HB	4:S2:242:ILE:HD11	2.50	0.57
11:S9:178:ALA:HA	11:S9:181:ALA:HB3	2.97	0.57
34:SR:161:LYS:O	34:SR:161:LYS:CG	2.52	0.57
36:1:1894:U:O2	36:1:3054:U:H5''	2.05	0.57
36:1:2392:C:O2'	40:L3:266:ARG:NH2	2.26	0.57
36:1:29:C:H4'	36:1:62:A:H4'	1.86	0.57
36:1:2718:U:OP2	86:1:3980:OHX:N3	2.37	0.57
42:L5:46:THR:HG21	36:5:1078:U:H4'	237.12	0.57
1:6:1542:G:N2	1:6:1569:A:OP2	2.37	0.57
20:C8:41:ARG:HD3	1:6:1565:C:OP1	368.41	0.57
1:6:1699:G:C2	1:6:1701:A:H5''	2.38	0.57
86:8:216:OHX:N2	86:8:225:OHX:N4	2.52	0.57
17:C5:81:ARG:HH12	17:C5:120:SER:HB3	1.68	0.57
27:D5:58:ARG:HB3	27:D5:103:ARG:HH11	6.93	0.57
40:L3:117:ARG:CZ	40:L3:175:LYS:HD2	4.07	0.57
47:M0:66:GLU:OE1	47:M0:69:ARG:NH2	2.44	0.57
52:M6:72:HIS:O	52:M6:74:ARG:HD3	2.04	0.57
53:M7:88:VAL:O	53:M7:92:GLN:HG2	2.04	0.57
62:N6:3:LYS:NZ	62:N6:5:SER:O	3.23	0.57
71:O5:21:LEU:HD11	71:O5:55:LEU:HD21	1.86	0.57
2:S0:124:THR:HG22	2:S0:174:TRP:HE1	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1429:G:C2	41:L4:99:MET:HE2	2.39	0.57
36:1:612:U:H2'	36:1:613:G:H8	1.69	0.57
1:2:1370:U:O4	86:2:2120:OHX:N1	2.38	0.57
1:2:1471:A:OP1	7:S5:185:ARG:NH1	2.37	0.57
1:2:1718:G:OP2	86:2:2082:OHX:N1	2.37	0.57
1:2:532:U:H2'	1:2:533:U:O4'	2.04	0.57
36:5:2101:C:HO2'	36:5:2102:U:P	2.28	0.57
1:6:213:A:OP2	86:6:2150:OHX:N1	2.37	0.57
86:6:2121:OHX:N2	86:6:2171:OHX:N5	2.52	0.57
10:S8:10:LYS:HG2	13:C1:133:LYS:HE3	1.87	0.57
18:C6:10:PHE:CE2	1:6:1379:C:H5'	431.61	0.57
26:D4:124:ARG:NH2	1:6:151:G:O6	319.47	0.57
45:L8:195:SER:O	45:L8:197:VAL:N	2.33	0.57
46:L9:87:LYS:HZ1	46:L9:191:LEU:HD21	14.51	0.57
49:M3:94:GLY:HA3	49:M3:119:TYR:OH	2.55	0.57
52:M6:79:ILE:HG21	52:M6:138:LEU:HD11	2.27	0.57
54:M8:89:ASP:OD1	54:M8:90:ASP:N	2.37	0.57
58:N2:90:ARG:HH11	58:N2:90:ARG:HB3	4.16	0.57
62:N6:103:LYS:HZ2	36:5:221:A:N6	79.49	0.57
62:N6:112:ASP:H	62:N6:115:ARG:HB2	1.69	0.57
70:O4:99:LYS:O	70:O4:103:LYS:HG2	2.05	0.57
71:O5:4:VAL:HG21	71:O5:9:LEU:HD11	2.32	0.57
75:O9:9:ILE:O	75:O9:12:LYS:N	3.04	0.57
5:S3:64:ARG:O	5:S3:66:ILE:N	2.37	0.57
10:S8:138:ASN:OD1	10:S8:138:ASN:N	2.37	0.57
36:1:1246:G:H8	36:1:1246:G:OP1	1.86	0.57
36:1:1808:G:O6	86:1:3979:OHX:N3	2.37	0.57
86:1:3968:OHX:N6	86:1:4155:OHX:N4	2.52	0.57
36:1:503:C:OP1	43:L6:26:ARG:NH1	2.37	0.57
1:2:1761:U:O2'	1:2:1762:A:OP2	2.17	0.57
1:6:44:U:OP2	1:6:437:A:N6	2.38	0.57
1:6:909:U:H2'	1:6:910:C:H6	1.69	0.57
13:C1:46:LYS:O	13:C1:50:GLU:HG2	4.71	0.57
32:E0:4:VAL:HG12	32:E0:5:HIS:ND1	3.76	0.57
41:L4:145:ILE:HD11	41:L4:148:ILE:HG13	2.00	0.57
43:L6:165:LEU:HD11	69:O3:102:LEU:HD11	2.10	0.57
46:L9:13:PRO:HD2	46:L9:16:VAL:HG22	1.87	0.57
46:L9:93:VAL:O	46:L9:177:ASP:HA	2.04	0.57
50:M4:115:PHE:O	50:M4:119:GLN:HG3	2.07	0.57
50:M4:72:LEU:HD22	50:M4:73:PRO:HD2	2.49	0.57
36:1:413:U:OP1	53:M7:30:ARG:NH2	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:186:LYS:HD2	4:S2:189:GLN:OE1	3.78	0.57
6:S4:45:ILE:HD12	6:S4:61:VAL:HG21	2.71	0.57
10:S8:154:SER:O	10:S8:156:VAL:N	2.38	0.57
36:1:20:A:OP2	71:O5:90:ARG:NH1	2.38	0.57
36:1:269:G:H5'	51:M5:120:TRP:CE3	2.40	0.57
36:1:1674:G:OP2	86:1:3943:OHX:N2	2.37	0.57
36:5:2732:G:OP2	86:5:4221:OHX:N1	2.37	0.57
36:5:437:G:N2	36:5:622:A:H61	2.02	0.57
1:6:1405:G:H2'	1:6:1406:A:C8	2.39	0.57
12:C0:5:LYS:NZ	14:C2:39:ASP:OD2	4.25	0.57
14:C2:66:VAL:HG11	14:C2:71:ILE:HD12	1.99	0.57
24:D2:24:GLN:NE2	29:D7:4:VAL:HA	3.22	0.57
27:D5:54:VAL:HG13	27:D5:57:TYR:CD1	2.40	0.57
39:L2:204:MET:O	39:L2:212:GLY:HA2	2.21	0.57
40:L3:60:LEU:HD21	40:L3:62:ARG:HE	1.69	0.57
42:L5:122:VAL:HG23	42:L5:123:GLU:N	3.09	0.57
45:L8:33:ASN:O	45:L8:35:GLY:N	3.36	0.57
45:L8:72:PRO:HG2	45:L8:75:ILE:HD12	1.86	0.57
46:L9:38:LEU:HD13	46:L9:71:VAL:HG22	2.75	0.57
49:M3:179:PHE:HA	49:M3:182:ILE:HD13	1.87	0.57
61:N5:46:TYR:HD2	71:O5:75:TYR:HB3	1.86	0.57
67:O1:43:HIS:O	67:O1:44:MET:HE2	4.38	0.57
36:1:1408:G:OP2	68:O2:31:ASN:ND2	2.38	0.57
72:O6:79:SER:HB3	72:O6:82:ARG:HB2	6.29	0.57
73:O7:58:THR:O	73:O7:61:THR:HG23	2.07	0.57
75:O9:44:TRP:CH2	75:O9:45:ARG:HD3	2.39	0.57
2:S0:189:VAL:HG22	2:S0:190:ASP:H	1.70	0.57
9:S7:21:ALA:O	9:S7:24:PHE:HB2	2.30	0.57
11:S9:29:LYS:HG3	32:E0:44:PHE:CE1	4.49	0.57
34:SR:22:SER:N	34:SR:291:SER:OG	2.34	0.57
36:1:1119:C:OP2	86:1:3950:OHX:N1	2.38	0.57
36:1:2318:U:O4	86:1:4037:OHX:N2	2.38	0.57
36:1:2717:U:OP1	86:1:3980:OHX:N6	2.37	0.57
86:1:4196:OHX:N6	86:O1:201:OHX:N3	2.53	0.57
36:1:999:G:N3	36:1:1002:A:N6	2.53	0.57
36:5:1155:C:O2'	36:5:1197:A:N1	2.35	0.57
17:C5:122:THR:HG21	1:6:1455:G:OP1	369.32	0.57
1:6:138:A:H62	1:6:266:A:N6	2.02	0.57
6:S4:29:PRO:HD3	1:6:448:C:OP1	373.52	0.57
10:S8:185:GLU:HG2	13:C1:23:PRO:HG3	1.87	0.57
1:2:862:A:N7	15:C3:64:ARG:NH2	2.52	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:143:ARG:O	20:C8:144:ARG:HB2	4.54	0.57
23:D1:71:ARG:O	23:D1:75:ASN:HB2	4.73	0.57
24:D2:15:ASN:ND2	24:D2:72:CYS:O	5.32	0.57
27:D5:55:PRO:HG3	27:D5:88:ILE:HG23	6.35	0.57
28:D6:23:CYS:HB2	28:D6:74:CYS:HB3	1.85	0.57
42:L5:187:THR:O	42:L5:189:GLU:N	2.37	0.57
45:L8:50:VAL:HG22	45:L8:52:TRP:CE2	2.39	0.57
50:M4:49:PRO:HG3	50:M4:78:THR:HG23	3.52	0.57
74:O8:26:LYS:NZ	74:O8:28:ASN:OD1	2.78	0.57
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CZ3	2.89	0.57
4:S2:148:LEU:HA	23:D1:4:ASP:HB2	2.11	0.57
8:S6:58:LYS:C	8:S6:59:GLN:HE21	2.91	0.57
36:1:1245:A:H3'	36:1:1246:G:H5''	1.85	0.57
36:1:1480:G:H4'	36:1:1481:A:OP1	2.03	0.57
36:1:1636:U:H5''	63:N7:73:LYS:NZ	2.19	0.57
36:1:1846:C:OP1	36:1:1849:C:N4	2.37	0.57
36:1:2209:U:H6	36:1:2209:U:OP2	1.88	0.57
36:1:3084:C:H2'	36:1:3085:G:O4'	2.05	0.57
1:2:93:A:H1'	6:S4:3:ARG:HB3	1.87	0.57
36:5:707:U:H2'	36:5:708:G:H5''	1.87	0.57
1:6:1316:G:HO2'	1:6:1401:A:HO2'	1.51	0.57
1:6:1695:G:H21	1:6:1706:C:H41	1.51	0.57
22:D0:118:VAL:HG13	22:D0:119:ALA:H	2.48	0.57
22:D0:24:ILE:HG23	22:D0:116:VAL:HG22	1.85	0.57
39:L2:204:MET:HB2	39:L2:208:ASP:HB2	1.85	0.57
40:L3:46:PHE:CD1	40:L3:208:VAL:HG21	2.79	0.57
43:L6:154:LEU:HA	43:L6:157:GLN:OE1	2.05	0.57
50:M4:121:MET:HG3	36:5:3214:U:C4	281.87	0.57
61:N5:105:VAL:HG13	61:N5:130:TYR:CD2	2.39	0.57
77:Q1:4:LYS:HG2	77:Q1:5:TRP:CE3	3.85	0.57
2:S0:122:ILE:HG23	2:S0:144:ILE:HB	2.09	0.57
8:S6:120:GLU:HG3	8:S6:125:THR:HG22	2.79	0.57
34:SR:149:ASP:HB2	34:SR:175:ASP:HB3	1.87	0.57
36:1:900:G:H1'	36:1:1589:A:N6	2.20	0.57
36:1:2617:U:H5	36:1:2621:G:OP2	1.88	0.57
39:L2:70:ARG:HH22	36:5:2522:G:H1	173.20	0.57
36:5:3121:U:H1'	36:5:3122:A:H5''	1.86	0.57
36:5:1383:G:O6	86:5:3938:OHX:N2	2.37	0.57
36:5:1070:U:O4	86:5:4114:OHX:N6	2.38	0.57
36:5:696:C:HO2'	36:5:697:A:H8	1.51	0.57
1:6:1458:G:H5''	1:6:1459:C:OP2	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:830:U:H2'	1:6:831:U:H5'	1.85	0.57
38:8:79:A:H2'	38:8:80:A:O4'	2.05	0.57
38:8:83:C:H4'	38:8:85:G:N3	2.19	0.57
17:C5:87:PRO:HD3	17:C5:112:LEU:HD22	1.86	0.57
25:D3:27:ASN:O	25:D3:31:LYS:HG2	2.05	0.57
25:D3:56:LYS:HE3	25:D3:96:VAL:HG23	1.87	0.57
1:2:590:C:H5''	32:E0:43:ARG:HH12	1.70	0.57
33:E1:135:HIS:ND1	33:E1:138:ARG:HD2	2.20	0.57
43:L6:39:VAL:O	43:L6:87:THR:OG1	2.67	0.57
45:L8:134:TYR:CG	45:L8:190:VAL:HG11	3.85	0.57
48:M1:150:ASN:O	48:M1:152:HIS:N	2.35	0.57
48:M1:16:LYS:HE3	48:M1:130:VAL:HG11	1.85	0.57
49:M3:36:ARG:HG2	49:M3:39:ARG:HH21	1.70	0.57
57:N1:126:VAL:HG23	57:N1:127:GLN:H	1.69	0.57
59:N3:120:LYS:H	59:N3:137:VAL:CG2	2.16	0.57
5:S3:137:VAL:HG22	5:S3:151:LYS:HE2	1.87	0.57
36:5:279:U:H2'	36:5:280:U:C6	2.40	0.57
36:5:3074:G:OP1	86:5:4122:OHX:N4	2.38	0.57
1:6:1227:A:H4'	1:6:1228:G:H5'	1.86	0.57
1:6:151:G:N2	1:6:163:G:N2	2.53	0.57
1:6:158:U:O2'	1:6:159:U:H3'	2.05	0.57
13:C1:37:ASN:HA	13:C1:44:THR:HG21	1.87	0.57
15:C3:151:ASN:O	86:C3:201:OHX:N6	3.29	0.57
20:C8:132:ARG:NH2	1:6:1173:C:OP1	343.42	0.57
24:D2:18:GLU:HG2	24:D2:65:LEU:HG	2.65	0.57
28:D6:84:VAL:O	28:D6:86:VAL:N	2.37	0.57
7:S5:161:ASP:OD2	30:D8:42:ARG:NH2	2.38	0.57
39:L2:227:ARG:HG2	39:L2:239:ALA:HB2	1.86	0.57
42:L5:236:LEU:HA	42:L5:239:ILE:HD12	1.87	0.57
42:L5:22:ARG:HG2	42:L5:28:THR:OG1	2.05	0.57
46:L9:90:MET:HE2	46:L9:179:ILE:HG22	1.86	0.57
68:O2:97:ALA:HB3	68:O2:100:ILE:HG12	1.85	0.57
79:Q3:36:ARG:HH11	79:Q3:48:LYS:HE3	6.85	0.57
2:S0:167:LYS:HE3	2:S0:168:HIS:HD2	1.70	0.57
1:2:579:A:C8	5:S3:178:ARG:HD2	2.38	0.57
34:SR:219:GLU:OE1	34:SR:235:SER:OG	2.18	0.57
36:1:2379:U:H2'	36:1:2380:U:H6	1.70	0.56
36:1:847:A:H2'	36:1:848:A:C8	2.40	0.56
1:2:1175:U:H2'	1:2:1176:G:C8	2.40	0.56
1:2:28:A:H2'	1:2:29:U:C6	2.40	0.56
36:5:2217:U:H2'	36:5:2218:G:H8	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:116:ARG:HH21	36:5:2618:G:P	228.59	0.56
36:5:322:U:H5''	36:5:323:A:OP1	2.05	0.56
1:6:1697:G:H8	1:6:1705:C:N3	2.02	0.56
1:6:235:G:H2'	1:6:236:A:H8	1.70	0.56
11:S9:89:ASP:HB3	1:6:660:G:N2	443.87	0.56
14:C2:119:SER:OG	1:6:1228:G:OP1	464.08	0.56
16:C4:90:ARG:HA	16:C4:128:LYS:NZ	2.20	0.56
17:C5:110:GLU:HG3	20:C8:119:ILE:HD11	1.86	0.56
20:C8:30:TYR:O	20:C8:33:THR:OG1	2.53	0.56
22:D0:97:VAL:HG13	22:D0:98:GLN:H	2.21	0.56
42:L5:39:GLN:OE1	42:L5:40:HIS:N	2.75	0.56
45:L8:41:GLN:HG3	45:L8:42:PRO:HD2	2.29	0.56
55:M9:104:ARG:HE	55:M9:105:LEU:N	2.02	0.56
36:1:1051:U:H4'	57:N1:19:PHE:CD2	2.39	0.56
58:N2:89:LEU:HB3	58:N2:93:ILE:HD12	2.99	0.56
2:S0:53:THR:HA	2:S0:161:PRO:HG2	2.65	0.56
3:S1:48:VAL:HG13	3:S1:61:LEU:HD21	1.85	0.56
36:1:2771:U:O2'	36:1:2772:C:O5'	2.23	0.56
36:1:3087:A:P	86:1:4180:OHX:N5	2.78	0.56
1:2:103:A:H4'	1:2:104:A:OP2	2.05	0.56
1:2:1656:U:H5''	1:2:1657:U:O5'	2.05	0.56
55:M9:8:LYS:NZ	36:5:1473:G:OP2	124.36	0.56
36:5:2255:A:H5'	36:5:2261:G:N2	2.20	0.56
36:5:2993:G:H2'	36:5:3142:A:N6	2.19	0.56
1:6:1623:C:H2'	1:6:1624:C:C6	2.40	0.56
18:C6:44:LEU:O	18:C6:47:LYS:HB2	2.09	0.56
25:D3:73:ARG:HH21	25:D3:84:THR:HG22	2.01	0.56
16:C4:112:ILE:HB	28:D6:57:SER:OG	2.05	0.56
40:L3:53:MET:HG3	40:L3:77:THR:HG22	2.86	0.56
42:L5:122:VAL:HG23	42:L5:123:GLU:H	3.53	0.56
37:3:49:G:C5	42:L5:58:LYS:HG3	2.40	0.56
54:M8:40:THR:C	54:M8:42:ALA:H	2.08	0.56
60:N4:4:GLU:HG2	60:N4:30:ARG:HD3	1.86	0.56
61:N5:63:ILE:HD11	61:N5:84:PHE:CD1	2.40	0.56
79:Q3:74:ALA:O	79:Q3:78:THR:HG23	2.15	0.56
2:S0:120:LEU:HD12	2:S0:121:VAL:H	1.70	0.56
2:S0:179:ARG:HG2	2:S0:183:ARG:HD2	2.72	0.56
2:S0:7:PHE:HZ	23:D1:43:GLY:HA2	2.36	0.56
8:S6:64:LYS:O	8:S6:67:VAL:HG22	2.06	0.56
9:S7:5:GLN:O	9:S7:8:ILE:HG22	4.20	0.56
36:1:656:A:H2'	36:1:657:A:C8	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:154:G:H5'	8:S6:108:VAL:HG21	1.86	0.56
1:2:339:C:OP2	10:S8:10:LYS:NZ	2.24	0.56
1:2:625:C:H2'	1:2:626:U:C6	2.40	0.56
37:3:11:A:H4'	37:3:13:A:C8	2.40	0.56
38:4:79:A:O3'	38:4:80:A:H4'	2.04	0.56
36:5:1015:U:O3'	36:5:1016:C:H2'	2.06	0.56
36:5:2562:A:N6	36:5:2579:G:O2'	2.38	0.56
10:S8:172:ARG:NH1	1:6:330:G:OP2	280.34	0.56
15:C3:103:GLU:O	15:C3:106:ARG:NH2	2.39	0.56
15:C3:12:SER:HB3	1:6:956:C:OP2	334.88	0.56
18:C6:60:PHE:HA	18:C6:63:ILE:HG13	2.97	0.56
21:C9:73:VAL:HG12	21:C9:77:ASN:HD21	1.70	0.56
2:S0:158:VAL:H	23:D1:69:LEU:HD12	2.89	0.56
41:L4:157:GLU:HG2	41:L4:209:TYR:HB2	2.25	0.56
41:L4:35:VAL:HG21	41:L4:244:LEU:HD21	1.86	0.56
41:L4:354:VAL:O	41:L4:358:THR:HG23	3.31	0.56
48:M1:96:PHE:CD1	48:M1:160:VAL:HG23	3.50	0.56
48:M1:81:GLU:OE2	48:M1:89:TYR:OH	2.89	0.56
49:M3:35:ARG:HG2	49:M3:35:ARG:HH11	1.69	0.56
57:N1:127:GLN:HA	36:5:1095:U:O2	257.57	0.56
63:N7:50:PRO:HD3	63:N7:68:ILE:HG12	2.37	0.56
70:O4:74:ARG:HG2	70:O4:75:ALA:N	2.71	0.56
72:O6:62:ARG:HH22	72:O6:98:ARG:HH11	1.53	0.56
2:S0:169:SER:O	2:S0:173:ILE:HG12	2.05	0.56
7:S5:143:ARG:HD3	30:D8:55:VAL:HG11	1.88	0.56
8:S6:131:LYS:O	60:N4:83:THR:N	2.39	0.56
10:S8:103:GLN:HB3	10:S8:164:ARG:HG2	1.86	0.56
11:S9:133:HIS:CD2	11:S9:162:SER:HB2	2.81	0.56
20:C8:145:ARG:HD3	35:SM:68:ARG:NH2	3.31	0.56
36:1:1367:G:OP1	68:O2:45:ARG:NH2	2.38	0.56
36:1:1561:G:O6	36:1:1579:C:N4	2.39	0.56
36:1:269:G:H5''	51:M5:14:LYS:HE2	1.87	0.56
36:1:2850:G:O6	86:1:4074:OHX:N6	2.38	0.56
58:N2:82:LYS:NZ	36:5:1686:U:O4	163.31	0.56
36:5:2207:A:H2'	36:5:2208:A:O4'	2.06	0.56
36:5:271:C:H2'	36:5:272:G:O4'	2.05	0.56
36:5:501:A:H2'	36:5:502:U:C6	2.41	0.56
1:6:1081:A:H8	1:6:1081:A:OP2	1.89	0.56
1:6:1354:G:H5'	1:6:1355:C:OP2	2.05	0.56
4:S2:206:THR:HG21	1:6:14:C:OP2	375.43	0.56
1:6:450:U:H2'	1:6:451:A:C8	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:54:LEU:HB3	15:C3:60:VAL:CG1	3.61	0.56
23:D1:71:ARG:HG3	23:D1:83:TRP:CH2	2.41	0.56
24:D2:103:ILE:HD11	24:D2:126:LEU:HD13	1.86	0.56
7:S5:161:ASP:O	30:D8:44:VAL:HA	2.06	0.56
39:L2:60:LYS:HG2	39:L2:75:ILE:HD13	5.97	0.56
36:1:73:C:O2	49:M3:59:ARG:HD3	2.06	0.56
59:N3:12:ARG:HG3	59:N3:13:ILE:N	4.10	0.56
67:O1:20:LEU:HD21	67:O1:31:ARG:HB3	1.87	0.56
67:O1:80:ASN:HA	67:O1:90:PHE:CE2	5.88	0.56
72:O6:5:THR:OG1	72:O6:7:ILE:HG12	2.05	0.56
73:O7:25:ARG:HB3	73:O7:25:ARG:HH11	3.84	0.56
8:S6:163:THR:HA	8:S6:168:THR:HG22	3.86	0.56
11:S9:92:LYS:HB2	11:S9:95:TYR:HD2	8.11	0.56
36:1:1286:A:O2'	36:1:1287:A:OP2	2.21	0.56
36:1:979:U:H1'	36:1:980:A:C5	2.41	0.56
1:2:1350:U:OP1	18:C6:68:ARG:NH2	2.39	0.56
1:2:1480:G:H3'	1:2:1481:C:C6	2.41	0.56
1:2:16:G:O6	4:S2:203:LYS:HE2	2.05	0.56
68:O2:64:LYS:HD2	36:5:1404:G:H5''	179.94	0.56
36:5:180:C:H2'	36:5:181:U:C6	2.40	0.56
36:5:1953:G:O6	36:5:2094:C:N4	2.39	0.56
20:C8:134:ARG:O	20:C8:136:GLN:N	3.68	0.56
20:C8:6:GLN:O	27:D5:42:LEU:HD13	2.05	0.56
42:L5:244:HIS:O	42:L5:248:ARG:HG3	2.06	0.56
50:M4:72:LEU:HD13	50:M4:73:PRO:HD2	1.88	0.56
51:M5:46:ASP:OD1	51:M5:50:ARG:NH2	2.39	0.56
52:M6:3:VAL:HG13	52:M6:4:GLU:N	2.15	0.56
57:N1:95:HIS:O	57:N1:96:ILE:HD13	2.05	0.56
64:N8:28:HIS:CE1	64:N8:32:ARG:CZ	2.89	0.56
3:S1:164:ILE:O	3:S1:168:ILE:HG13	2.78	0.56
11:S9:129:ILE:HA	11:S9:134:ILE:CG1	4.12	0.56
1:2:330:G:OP2	10:S8:172:ARG:NH1	2.39	0.56
1:6:1237:G:N2	1:6:1248:C:O2	2.38	0.56
21:C9:68:ARG:NH1	1:6:1521:G:O6	413.67	0.56
1:6:492:A:H2'	1:6:493:U:H5''	1.87	0.56
14:C2:72:ILE:O	14:C2:76:GLU:HB2	2.37	0.56
16:C4:81:VAL:H	16:C4:115:ILE:HG22	1.69	0.56
19:C7:8:THR:HG21	1:6:1330:G:N2	418.79	0.56
48:M1:171:VAL:HG13	48:M1:172:LEU:H	1.71	0.56
50:M4:118:PHE:O	50:M4:122:VAL:HG23	2.05	0.56
41:L4:299:ILE:HG22	54:M8:39:ARG:HB3	2.29	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1719:G:OP1	55:M9:110:ARG:NH2	2.38	0.56
36:1:1456:A:N7	67:O1:26:LYS:HE2	2.21	0.56
48:M1:60:ARG:HH11	78:Q2:104:LEU:C	4.05	0.56
2:S0:41:ARG:HB2	2:S0:47:VAL:HG23	1.88	0.56
2:S0:87:LEU:HD12	2:S0:97:PRO:HB2	1.87	0.56
3:S1:143:THR:O	3:S1:208:GLN:NE2	2.94	0.56
3:S1:36:SER:O	3:S1:38:PHE:N	2.37	0.56
7:S5:73:THR:HG22	7:S5:74:ALA:H	2.42	0.56
9:S7:93:LEU:HD21	9:S7:129:LEU:HD23	1.88	0.56
36:1:3022:G:O2'	36:1:3031:G:O6	2.19	0.56
36:1:317:A:OP2	72:O6:30:LYS:NZ	2.36	0.56
36:1:965:A:H5''	49:M3:4:SER:HB3	1.88	0.56
1:2:1528:U:OP1	7:S5:109:LYS:HG2	2.06	0.56
36:5:1661:G:H2'	36:5:1662:G:C8	2.41	0.56
36:5:1716:U:H5'	36:5:1716:U:H6	1.71	0.56
1:6:913:G:N7	36:5:2205:U:C2	2.73	0.56
36:5:381:U:O4	86:5:4129:OHX:N5	2.39	0.56
86:5:3980:OHX:N4	86:5:4200:OHX:N3	2.54	0.56
1:6:906:A:H2'	1:6:907:A:C8	2.41	0.56
18:C6:114:ARG:O	18:C6:116:LEU:N	2.39	0.56
32:E0:17:GLN:OE1	1:6:563:U:H4'	383.82	0.56
41:L4:99:MET:HE1	36:5:1429:G:C5	122.23	0.56
42:L5:115:LEU:HD22	42:L5:115:LEU:H	1.70	0.56
43:L6:142:ASP:O	43:L6:146:ILE:HG12	2.04	0.56
36:1:2899:C:C5	46:L9:171:ASP:HA	2.41	0.56
50:M4:55:ARG:HD3	56:N0:70:THR:HB	1.87	0.56
60:N4:62:GLY:O	60:N4:64:THR:OG1	2.21	0.56
62:N6:125:LYS:O	62:N6:126:LEU:HG	2.97	0.56
65:N9:23:LYS:HB3	65:N9:24:PRO:CD	2.83	0.56
71:O5:85:THR:HB	71:O5:88:LEU:HB2	1.87	0.56
73:O7:14:LYS:HD2	75:O9:51:ILE:HD11	1.92	0.56
7:S5:156:ARG:HA	7:S5:157:ARG:HE	3.06	0.56
8:S6:63:MET:HA	8:S6:98:ARG:O	2.16	0.56
9:S7:67:LEU:HA	9:S7:70:PHE:HB2	1.88	0.56
36:1:1382:G:OP2	41:L4:188:ARG:NH1	2.38	0.56
36:1:2510:U:HO2'	36:1:2511:A:H8	1.53	0.56
36:1:263:C:H2'	36:1:264:G:O4'	2.06	0.56
36:1:707:U:C2'	36:1:708:G:H5''	2.36	0.56
1:2:304:U:H2'	1:2:305:C:C6	2.40	0.56
1:6:156:A:H2'	1:6:157:A:O4'	2.05	0.56
28:D6:10:ARG:NE	1:6:1795:U:O2	328.95	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:212:GLY:O	39:L2:214:GLY:N	4.09	0.56
55:M9:99:LEU:HD22	55:M9:103:ARG:HG3	4.61	0.56
58:N2:55:THR:HG22	58:N2:57:THR:HG22	7.15	0.56
2:S0:63:ILE:HD13	23:D1:34:ILE:HG21	2.84	0.56
6:S4:159:THR:HG21	6:S4:228:ILE:H	1.71	0.56
35:SM:64:LYS:C	35:SM:66:ALA:H	2.40	0.56
36:1:132:C:H2'	36:1:133:U:H5''	1.88	0.56
36:1:1655:G:H1'	36:1:1800:A:H61	1.71	0.56
36:1:1874:A:H5''	55:M9:18:GLY:HA3	1.88	0.56
36:1:564:G:H2'	36:1:565:U:C6	2.41	0.56
36:1:565:U:H2'	36:1:566:G:C8	2.40	0.56
36:1:748:U:H2'	36:1:749:C:C6	2.41	0.56
36:5:22:G:H1'	38:8:104:A:N3	2.21	0.56
77:Q1:1:MET:HA	1:6:1783:C:OP1	313.29	0.56
86:6:2060:OHX:N2	86:6:2147:OHX:N4	2.54	0.56
86:6:2121:OHX:N4	86:6:2171:OHX:N3	2.54	0.56
1:6:58:U:O2'	1:6:451:A:N3	2.38	0.56
1:6:538:A:H2	1:6:540:G:H22	1.52	0.56
13:C1:46:LYS:HE2	1:6:846:G:N2	312.21	0.56
1:6:86:A:OP2	86:6:2188:OHX:N1	2.38	0.56
22:D0:58:LEU:HD23	1:6:1516:A:C8	443.97	0.56
26:D4:113:ASN:HA	26:D4:116:LYS:HD3	1.87	0.56
46:L9:106:LYS:HE3	46:L9:107:ASP:H	4.34	0.56
49:M3:52:ASP:N	49:M3:52:ASP:OD1	2.58	0.56
57:N1:100:LYS:HB3	36:5:990:U:H4'	258.14	0.56
58:N2:92:TRP:O	58:N2:93:ILE:HG13	3.81	0.56
61:N5:77:GLU:HG2	61:N5:133:LEU:HD23	3.28	0.56
61:N5:64:GLU:HG3	61:N5:86:VAL:C	2.94	0.56
63:N7:97:SER:OG	63:N7:98:THR:N	3.94	0.56
36:1:1114:U:H5''	64:N8:22:ILE:HD13	1.87	0.56
71:O5:101:THR:HG22	71:O5:104:GLN:N	2.18	0.56
71:O5:94:LYS:O	71:O5:98:SER:OG	3.26	0.56
78:Q2:71:ARG:HH21	78:Q2:80:ARG:HH11	1.52	0.56
3:S1:105:PHE:H	3:S1:214:LYS:HE2	1.70	0.56
7:S5:97:LEU:O	7:S5:99:MET:N	3.17	0.56
36:1:1029:G:H2'	36:1:1030:A:C8	2.41	0.56
1:2:520:A:H2'	1:2:521:A:C8	2.40	0.56
1:2:896:U:C4'	16:C4:38:THR:HG21	2.36	0.56
36:5:1013:G:C2	36:5:1014:U:H1'	2.41	0.56
36:5:2209:U:H4'	36:5:2210:G:OP1	2.06	0.56
36:5:2516:U:O2	36:5:2594:C:N4	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2123:G:N7	86:5:4102:OHX:N1	2.53	0.56
18:C6:139:GLN:NE2	1:6:1465:C:OP1	352.53	0.56
8:S6:87:ARG:NH1	1:6:159:U:O2'	320.78	0.56
1:2:929:A:H1'	16:C4:124:ASP:H	1.71	0.56
19:C7:15:ALA:HA	19:C7:18:GLU:HB2	1.88	0.56
19:C7:28:PHE:HA	19:C7:55:THR:HG21	1.89	0.56
1:2:1480:G:H4'	21:C9:11:ALA:HB1	1.88	0.56
1:2:533:U:H4'	26:D4:33:ALA:HB2	1.86	0.56
39:L2:45:VAL:HG22	39:L2:84:THR:HA	2.02	0.56
36:1:2948:C:O2'	40:L3:242:THR:HG22	2.06	0.56
42:L5:234:ASP:OD2	42:L5:234:ASP:N	2.39	0.56
44:L7:134:VAL:O	44:L7:229:PHE:HA	2.72	0.56
44:L7:236:ILE:O	44:L7:240:VAL:HG23	2.18	0.56
47:M0:191:LYS:O	47:M0:197:VAL:HG22	3.07	0.56
56:N0:1:MET:HB2	56:N0:118:PHE:CD1	2.41	0.56
62:N6:120:GLN:OE1	62:N6:126:LEU:HA	7.45	0.56
2:S0:184:LEU:O	2:S0:186:GLY:N	2.80	0.56
3:S1:125:VAL:HG11	3:S1:173:THR:HG22	3.32	0.56
5:S3:142:LEU:H	5:S3:142:LEU:HD22	5.14	0.56
5:S3:223:LYS:HD3	34:SR:193:ILE:HD11	1.87	0.56
34:SR:27:ALA:HA	34:SR:296:ALA:HB2	2.58	0.56
36:1:2503:G:HO2'	36:1:2504:U:H5	1.53	0.56
36:1:3033:A:H2'	36:1:3034:C:C6	2.41	0.56
36:1:3106:A:H2'	36:1:3107:U:O4'	2.05	0.56
36:1:3128:G:OP2	86:1:4166:OHX:N6	2.39	0.56
1:2:639:U:P	9:S7:117:THR:HG1	2.29	0.56
1:2:652:G:H1	1:2:682:C:H42	1.54	0.56
36:5:1246:G:O2'	36:5:1264:G:OP2	2.23	0.56
36:5:1276:U:OP2	86:5:4009:OHX:N1	2.39	0.56
36:5:253:A:HO2'	36:5:254:A:H8	1.53	0.56
51:M5:50:ARG:NH1	36:5:267:G:H4'	111.72	0.56
36:5:3198:U:H4'	36:5:3199:G:OP2	2.04	0.56
1:6:550:A:OP2	86:6:2050:OHX:N2	2.39	0.56
1:6:825:U:O2'	1:6:826:U:H6	1.89	0.56
12:C0:72:GLY:O	12:C0:75:TYR:N	2.39	0.56
12:C0:88:PRO:O	12:C0:90:THR:N	2.39	0.56
14:C2:31:VAL:HG21	14:C2:136:ILE:HD11	2.52	0.56
21:C9:117:SER:HB2	21:C9:123:ARG:HE	2.38	0.56
23:D1:74:GLN:NE2	23:D1:82:VAL:HG12	2.20	0.56
31:D9:49:ASP:OD1	31:D9:49:ASP:N	4.01	0.56
32:E0:39:LEU:O	32:E0:43:ARG:HB2	2.42	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:16:THR:HG22	41:L4:18:ASN:H	1.71	0.56
45:L8:156:ASP:O	45:L8:183:LYS:HE3	7.48	0.56
78:Q2:63:LYS:HE2	78:Q2:87:ARG:NH2	2.21	0.56
3:S1:175:GLU:O	3:S1:187:LYS:NZ	2.34	0.56
4:S2:121:VAL:O	4:S2:125:ILE:HG13	2.05	0.56
36:1:2278:C:H2'	36:1:2279:A:H5''	1.87	0.55
1:2:1000:C:H2'	1:2:1002:G:OP2	2.06	0.55
1:2:190:C:N4	1:2:196:G:O6	2.40	0.55
1:2:396:G:N2	1:2:399:A:OP2	2.39	0.55
1:2:811:A:H5'	1:2:816:G:O2'	2.05	0.55
51:M5:4:TYR:OH	36:5:148:G:OP2	110.09	0.55
36:5:1807:G:C6	36:5:1808:G:N1	2.74	0.55
66:O0:57:GLU:OE2	36:5:2552:C:N4	242.52	0.55
54:M8:181:SER:HB3	36:5:2790:A:OP2	183.23	0.55
36:5:3227:A:H2'	36:5:3228:C:H5'	1.88	0.55
18:C6:47:LYS:HZ1	18:C6:114:ARG:HG2	1.71	0.55
20:C8:4:VAL:HG21	27:D5:82:HIS:CG	3.07	0.55
23:D1:74:GLN:NE2	23:D1:81:ASN:O	2.39	0.55
30:D8:13:ILE:HD11	30:D8:31:GLU:HB2	1.88	0.55
33:E1:127:GLY:O	33:E1:129:GLY:N	2.39	0.55
40:L3:218:ILE:HG13	40:L3:276:THR:HG23	3.00	0.55
40:L3:53:MET:CG	40:L3:77:THR:HG22	2.57	0.55
43:L6:38:THR:HG23	43:L6:90:LYS:HE2	5.32	0.55
45:L8:128:LYS:HG3	36:5:120:G:N7	99.59	0.55
48:M1:10:ARG:HA	48:M1:134:PRO:HD2	3.44	0.55
49:M3:18:TRP:C	49:M3:20:GLU:H	2.09	0.55
53:M7:50:GLN:OE1	53:M7:56:ARG:NH2	2.33	0.55
59:N3:13:ILE:HD11	59:N3:54:LEU:HB3	1.88	0.55
66:O0:16:LEU:HB2	66:O0:98:SER:HB2	3.21	0.55
11:S9:118:LEU:HD23	11:S9:158:PHE:CE1	3.59	0.55
11:S9:90:LYS:HG2	11:S9:95:TYR:CD1	4.64	0.55
36:1:1211:U:H2'	36:1:1212:A:C8	2.41	0.55
36:1:1413:G:N7	86:1:4121:OHX:N4	2.55	0.55
36:1:1498:A:H2'	36:1:1499:C:H6	1.71	0.55
36:1:1620:U:H2'	36:1:1621:A:C8	2.40	0.55
36:1:979:U:H1'	36:1:980:A:C4	2.41	0.55
1:2:985:G:N7	86:2:2024:OHX:N4	2.53	0.55
1:2:74:U:O2'	1:2:75:U:OP2	2.22	0.55
1:2:829:A:O2'	1:2:830:U:OP2	2.22	0.55
1:2:830:U:O2'	1:2:831:U:H6	1.89	0.55
70:O4:37:LYS:NZ	36:5:1591:G:OP1	160.35	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:53:SER:OG	1:6:163:G:H4'	293.71	0.55
16:C4:85:ALA:H	16:C4:119:THR:CG2	2.16	0.55
22:D0:80:GLU:HG3	31:D9:54:LYS:NZ	2.21	0.55
27:D5:60:VAL:HG13	27:D5:101:TYR:HB2	2.70	0.55
27:D5:65:LEU:HB3	27:D5:71:ILE:HD12	1.88	0.55
36:1:2162:U:OP1	39:L2:234:LYS:HE2	2.06	0.55
42:L5:219:PHE:HD2	42:L5:223:PHE:HD1	1.53	0.55
44:L7:222:HIS:CE1	44:L7:224:ILE:HD12	3.10	0.55
48:M1:37:LEU:O	48:M1:41:SER:OG	2.18	0.55
36:1:3215:A:H8	50:M4:121:MET:HE1	1.70	0.55
54:M8:67:ILE:HG12	54:M8:81:VAL:HG21	1.88	0.55
55:M9:17:VAL:CG1	55:M9:21:LYS:HB2	2.35	0.55
56:N0:133:ALA:HA	56:N0:141:LYS:NZ	2.19	0.55
61:N5:105:VAL:HG11	61:N5:126:LEU:HD13	1.88	0.55
63:N7:55:LYS:O	63:N7:57:HIS:N	3.06	0.55
71:O5:21:LEU:HD21	71:O5:51:ILE:HG23	1.87	0.55
6:S4:12:LEU:HD21	11:S9:4:ALA:HB2	1.87	0.55
7:S5:133:VAL:HG22	7:S5:198:LEU:HD22	4.54	0.55
8:S6:55:GLY:O	8:S6:63:MET:HG3	2.06	0.55
36:1:1311:G:N2	52:M6:86:GLY:O	2.38	0.55
1:2:484:C:H42	1:2:503:G:H22	1.55	0.55
38:4:85:G:H3'	38:4:85:G:H8	1.72	0.55
36:5:1564:U:H2'	36:5:1565:G:H8	1.71	0.55
36:5:929:A:H2'	36:5:930:U:C6	2.41	0.55
1:6:67:A:O2'	1:6:69:G:OP1	2.11	0.55
1:6:853:G:H2'	1:6:854:U:C6	2.41	0.55
38:8:102:U:H2'	38:8:103:G:C8	2.41	0.55
54:M8:135:GLN:CD	54:M8:135:GLN:H	2.32	0.55
54:M8:64:VAL:HG22	54:M8:96:PHE:CE2	2.41	0.55
71:O5:92:LEU:HB3	71:O5:96:GLU:HG3	1.89	0.55
2:S0:61:ALA:HA	2:S0:64:ILE:HD12	1.89	0.55
3:S1:28:GLU:OE2	3:S1:94:LYS:NZ	2.40	0.55
6:S4:86:PHE:O	6:S4:87:MET:HB2	2.04	0.55
11:S9:134:ILE:HA	11:S9:158:PHE:HA	1.88	0.55
34:SR:106:HIS:ND1	34:SR:128:ASP:OD2	2.84	0.55
36:1:1833:G:OP1	75:O9:10:LYS:HD3	2.06	0.55
36:1:3354:U:OP1	36:1:3356:G:H5'	2.07	0.55
1:2:1237:G:N1	1:2:1248:C:N3	2.34	0.55
1:2:1338:C:H1'	1:2:1410:A:C4	2.41	0.55
1:2:1795:U:O2	28:D6:10:ARG:HD2	2.06	0.55
36:5:1352:A:H1'	36:5:1353:U:H5'	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1573:G:C5	36:5:1574:C:H1'	2.41	0.55
86:5:3980:OHX:N6	86:5:4200:OHX:N5	2.54	0.55
1:6:1230:A:C8	1:6:1258:U:C4	2.93	0.55
1:6:231:U:H2'	1:6:232:U:H2'	1.88	0.55
1:6:872:G:H2'	1:6:873:U:O4'	2.07	0.55
13:C1:133:LYS:NZ	1:6:324:U:OP1	292.38	0.55
16:C4:25:ASP:N	16:C4:55:SER:HB3	2.21	0.55
19:C7:5:ARG:HB2	19:C7:10:LYS:HE2	4.04	0.55
19:C7:71:PHE:HE1	19:C7:73:LEU:HD22	1.70	0.55
24:D2:125:ILE:HG12	24:D2:126:LEU:H	1.70	0.55
26:D4:122:GLY:O	26:D4:125:LEU:N	2.63	0.55
30:D8:36:THR:OG1	30:D8:37:SER:N	2.39	0.55
41:L4:209:TYR:CZ	41:L4:229:ASN:HB2	2.40	0.55
42:L5:64:ILE:HD12	42:L5:109:THR:HG21	1.88	0.55
57:N1:104:GLU:HG2	36:5:989:A:O2'	257.45	0.55
57:N1:68:THR:CG2	57:N1:71:SER:HB2	2.37	0.55
68:O2:4:LEU:HD22	68:O2:91:THR:HG23	1.88	0.55
7:S5:42:LEU:HD21	7:S5:45:LYS:HD2	1.88	0.55
36:1:1807:G:C6	36:1:1808:G:N1	2.75	0.55
36:1:339:C:OP1	36:1:1380:G:O2'	2.21	0.55
36:1:385:A:H2'	36:1:386:A:C8	2.42	0.55
1:2:1460:A:C8	17:C5:128:HIS:HB3	2.41	0.55
58:N2:103:TYR:OH	36:5:1677:G:OP2	147.33	0.55
36:5:2211:U:H5	36:5:2234:G:O6	1.89	0.55
77:Q1:23:ARG:NH1	36:5:2278:C:OP1	264.75	0.55
78:Q2:13:LYS:NZ	36:5:2718:U:OP1	195.89	0.55
36:5:776:U:C5	36:5:2719:U:O2	2.60	0.55
86:6:2060:OHX:N1	86:6:2147:OHX:N4	2.54	0.55
12:C0:32:HIS:NE2	12:C0:35:ILE:HB	2.22	0.55
18:C6:128:LYS:HE2	1:6:1417:A:O3'	393.43	0.55
21:C9:117:SER:HB2	21:C9:123:ARG:HB3	1.88	0.55
40:L3:35:ASP:HA	40:L3:184:ASN:ND2	3.18	0.55
41:L4:144:LYS:H	41:L4:144:LYS:HE3	5.59	0.55
41:L4:188:ARG:O	41:L4:193:LYS:HE3	2.07	0.55
47:M0:54:SER:HB2	47:M0:135:ILE:HD11	2.14	0.55
55:M9:5:ARG:NH1	36:5:1471:U:OP1	120.88	0.55
59:N3:2:SER:N	59:N3:56:ASP:OD1	4.40	0.55
66:O0:63:SER:OG	66:O0:65:THR:OG1	2.10	0.55
70:O4:38:LEU:HD23	36:5:1741:A:H4'	173.81	0.55
70:O4:56:THR:HA	70:O4:62:TYR:OH	2.06	0.55
73:O7:21:ARG:NH1	73:O7:37:CYS:O	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:41:ARG:NH1	2:S0:45:VAL:HG21	2.76	0.55
4:S2:52:THR:OG1	4:S2:53:ILE:N	3.70	0.55
6:S4:195:ILE:HG22	6:S4:196:VAL:N	2.82	0.55
1:2:154:G:OP1	8:S6:2:LYS:NZ	2.39	0.55
10:S8:61:GLU:HG2	10:S8:62:THR:HG23	2.56	0.55
36:1:1108:U:H2'	36:1:1109:U:H6	1.70	0.55
36:1:1323:G:O3'	56:N0:2:ALA:HA	2.06	0.55
36:1:209:A:H4'	36:1:211:A:C8	2.42	0.55
36:1:2631:U:OP1	36:1:2757:U:O2'	2.23	0.55
1:2:1748:G:O6	86:2:2104:OHX:N4	2.38	0.55
1:2:358:U:O2'	1:2:360:A:H5''	2.06	0.55
1:2:900:A:H4'	1:2:916:U:H1'	1.88	0.55
36:5:2970:C:H4'	36:5:2971:A:N1	2.21	0.55
44:L7:60:ARG:NH2	36:5:516:A:O3'	303.99	0.55
1:6:1342:C:O2'	1:6:1343:U:H5'	2.07	0.55
1:6:1151:A:O3'	1:6:1766:A:N6	2.40	0.55
1:6:196:G:N3	1:6:197:A:H1'	2.22	0.55
1:6:76:A:H3'	86:6:2192:OHX:N1	2.22	0.55
47:M0:19:LYS:HG3	47:M0:26:VAL:HG11	2.34	0.55
48:M1:117:ASP:OD2	48:M1:119:SER:OG	2.20	0.55
48:M1:23:VAL:HG11	48:M1:29:ARG:HG2	1.88	0.55
61:N5:57:LEU:HD23	61:N5:61:LYS:HG2	6.11	0.55
70:O4:57:LEU:HG	70:O4:62:TYR:HE1	3.49	0.55
74:O8:46:ARG:HA	74:O8:51:LEU:HD12	2.90	0.55
2:S0:202:TYR:HD2	2:S0:202:TYR:H	1.79	0.55
3:S1:135:LEU:HA	3:S1:217:LEU:O	2.07	0.55
34:SR:123:ILE:HG23	34:SR:133:VAL:HG22	3.42	0.55
34:SR:74:THR:HG23	34:SR:79:TYR:H	1.71	0.55
36:1:111:C:O2'	36:1:112:U:H5'	2.06	0.55
86:1:3968:OHX:N3	86:1:4155:OHX:N4	2.54	0.55
36:1:562:C:OP2	50:M4:77:ARG:NH1	2.39	0.55
1:2:1738:U:H2'	1:2:1739:C:C6	2.42	0.55
1:2:1789:G:C8	1:2:1789:G:H5''	2.42	0.55
1:2:68:A:H5'	8:S6:160:ARG:HH12	1.71	0.55
36:5:1615:C:H2'	36:5:1616:U:H6	1.71	0.55
36:5:2882:U:H2'	36:5:2883:U:C6	2.42	0.55
1:6:1030:A:H4'	1:6:1031:U:OP2	2.07	0.55
1:6:1535:U:O2'	1:6:1536:G:O5'	2.24	0.55
1:6:604:A:OP2	86:6:2151:OHX:N4	2.40	0.55
1:6:521:A:H2'	1:6:522:U:O4'	2.07	0.55
86:8:216:OHX:N6	86:8:225:OHX:N4	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:5:HIS:CE1	15:C3:121:ARG:HG3	2.42	0.55
17:C5:25:LEU:HA	17:C5:28:MET:HE2	1.89	0.55
24:D2:86:ILE:HD12	24:D2:87:GLU:HG3	1.88	0.55
39:L2:59:ALA:O	39:L2:61:VAL:HG23	2.07	0.55
40:L3:227:GLU:HG3	40:L3:270:ARG:HB3	4.13	0.55
41:L4:23:PRO:O	41:L4:25:VAL:N	2.39	0.55
41:L4:205:PRO:HB3	41:L4:247:PHE:CD2	2.42	0.55
41:L4:22:LEU:HD11	41:L4:26:PHE:HB2	1.87	0.55
36:1:3124:G:H5'	46:L9:40:HIS:ND1	2.22	0.55
48:M1:109:HIS:HD2	48:M1:114:ILE:HG21	1.86	0.55
48:M1:94:ARG:C	48:M1:96:PHE:H	2.10	0.55
36:1:729:C:O2'	54:M8:79:LYS:HE2	2.07	0.55
59:N3:89:ASP:OD1	59:N3:89:ASP:N	2.75	0.55
62:N6:32:SER:HA	62:N6:49:PRO:HA	2.04	0.55
78:Q2:100:LYS:HZ2	78:Q2:100:LYS:H	1.54	0.55
3:S1:171:ILE:HD13	3:S1:196:GLU:HG2	1.89	0.55
1:2:7:G:O6	4:S2:205:ARG:NH2	2.39	0.55
4:S2:90:THR:O	4:S2:92:ALA:N	2.39	0.55
11:S9:77:ILE:O	11:S9:81:VAL:HG23	2.38	0.55
36:1:1349:G:O2'	36:1:1350:A:O4'	2.24	0.55
36:1:1492:G:O2'	75:O9:48:LYS:NZ	2.40	0.55
36:1:2112:U:H4'	36:1:2113:A:H5'	1.88	0.55
36:1:2683:U:H2'	36:1:2684:C:C6	2.42	0.55
36:1:3165:A:H61	36:1:3285:C:H42	1.53	0.55
36:1:496:C:H2'	36:1:497:C:O4'	2.06	0.55
1:2:1291:G:H8	1:2:1291:G:O5'	1.90	0.55
1:2:1637:C:O2'	35:SM:94:HIS:HE1	1.89	0.55
36:5:2507:C:O2'	36:5:2508:U:OP1	2.20	0.55
36:5:3241:G:H2'	36:5:3245:A:C8	2.41	0.55
33:E1:82:LYS:HE2	1:6:1447:C:C4	380.07	0.55
1:6:1151:A:H4'	1:6:1766:A:N7	2.22	0.55
9:S7:104:ARG:NH1	1:6:745:U:O4	353.31	0.55
15:C3:16:ILE:HD12	1:6:959:U:H4'	346.69	0.55
15:C3:40:TYR:O	15:C3:45:LEU:HB2	2.47	0.55
17:C5:108:ARG:H	17:C5:111:MET:HE3	3.52	0.55
26:D4:29:HIS:HB3	26:D4:32:ARG:HB2	6.64	0.55
30:D8:49:ARG:HG2	30:D8:52:ASP:OD1	3.57	0.55
39:L2:142:ASP:OD2	39:L2:142:ASP:N	2.38	0.55
41:L4:89:ALA:O	41:L4:91:GLY:N	2.39	0.55
42:L5:107:ARG:NH2	42:L5:169:GLY:O	2.39	0.55
44:L7:108:LEU:HD23	44:L7:115:THR:HG23	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:98:ALA:HA	52:M6:101:ARG:NH1	2.20	0.55
59:N3:58:VAL:HG22	59:N3:76:ALA:HB3	2.47	0.55
73:O7:28:HIS:CG	73:O7:31:LYS:HB2	2.42	0.55
79:Q3:3:LYS:HD2	79:Q3:5:THR:O	3.43	0.55
3:S1:218:LEU:HD23	3:S1:219:LYS:HB2	1.87	0.55
5:S3:132:LYS:HE3	5:S3:192:PRO:HD2	3.61	0.55
10:S8:105:ASP:O	10:S8:107:THR:N	2.37	0.55
36:1:138:U:H2'	36:1:139:G:C8	2.42	0.55
36:1:2986:U:H2'	36:1:2987:A:C8	2.42	0.55
1:2:1068:C:H2'	1:2:1069:A:H8	1.70	0.55
1:2:1160:A:H2'	1:2:1161:C:C6	2.42	0.55
1:2:1340:U:O4'	1:2:1378:U:H5'	2.07	0.55
1:2:1002:G:N1	1:2:1761:U:OP1	2.28	0.55
1:2:393:C:H2'	1:2:394:C:C6	2.42	0.55
39:L2:7:ASN:O	36:5:2163:C:H4'	185.46	0.55
36:5:3041:U:H2'	36:5:3042:U:H6	1.70	0.55
43:L6:24:ALA:N	36:5:607:A:OP1	245.58	0.55
12:C0:32:HIS:HB3	12:C0:34:GLU:O	6.90	0.55
22:D0:103:ILE:HA	22:D0:106:ILE:HG22	3.26	0.55
44:L7:228:SER:HA	44:L7:232:ARG:HH21	2.69	0.55
46:L9:86:TYR:CD1	46:L9:151:VAL:HG13	2.64	0.55
51:M5:172:ARG:NH2	36:5:63:A:OP1	103.63	0.55
61:N5:82:LEU:HD11	61:N5:126:LEU:HD11	1.89	0.55
64:N8:128:ARG:HB2	72:O6:8:ALA:CB	4.49	0.55
64:N8:22:ILE:H	64:N8:22:ILE:HD12	1.81	0.55
69:O3:16:TYR:CG	69:O3:25:PRO:HA	2.79	0.55
9:S7:132:PRO:O	9:S7:133:THR:OG1	4.55	0.55
10:S8:12:SER:OG	10:S8:14:THR:OG1	2.54	0.55
11:S9:3:ARG:HG2	11:S9:3:ARG:HH21	4.09	0.55
11:S9:38:ASN:HB3	11:S9:40:LYS:N	2.21	0.55
11:S9:49:LEU:HD22	11:S9:53:ARG:HG3	2.78	0.55
36:1:1631:C:H5''	36:1:1632:A:H5''	1.87	0.55
36:1:1740:U:H1'	36:1:1741:A:C2	2.38	0.55
36:1:2180:G:P	39:L2:174:ARG:HH22	2.29	0.55
1:2:416:A:H4'	1:2:417:A:OP2	2.07	0.55
1:2:545:A:H4'	1:2:546:U:OP1	2.05	0.55
36:5:1445:U:H5''	36:5:1446:A:OP2	2.06	0.55
36:5:2696:A:H2'	36:5:2697:A:C8	2.42	0.55
36:5:408:A:N6	38:8:15:G:H1'	2.22	0.55
86:8:216:OHX:N5	86:8:225:OHX:N1	2.55	0.55
17:C5:18:ARG:NH1	20:C8:90:ASN:O	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:30:TYR:HE2	20:C8:40:ARG:HH11	1.53	0.55
24:D2:53:ILE:HG13	24:D2:54:ASP:N	2.21	0.55
30:D8:10:ALA:HB2	30:D8:56:LEU:HD11	3.06	0.55
39:L2:213:GLY:HA2	36:5:2967:A:OP1	207.94	0.55
43:L6:170:LYS:HB3	43:L6:172:HIS:CE1	2.41	0.55
44:L7:191:VAL:HG12	44:L7:192:GLY:N	3.84	0.55
45:L8:121:SER:O	45:L8:123:GLN:N	3.78	0.55
46:L9:106:LYS:O	46:L9:109:ALA:HB2	2.45	0.55
46:L9:111:PHE:HD1	46:L9:127:PRO:HA	1.76	0.55
46:L9:31:ARG:HG2	46:L9:149:ASN:ND2	2.22	0.55
49:M3:36:ARG:HG3	49:M3:39:ARG:HH21	2.73	0.55
50:M4:119:GLN:O	50:M4:123:LEU:HD12	3.03	0.55
55:M9:96:ILE:HG22	55:M9:100:ARG:HD2	4.26	0.55
59:N3:108:GLU:HB3	59:N3:128:ARG:HH11	3.58	0.55
60:N4:4:GLU:HG3	60:N4:30:ARG:NH1	4.20	0.55
49:M3:138:VAL:HB	71:O5:118:ILE:HB	1.89	0.55
2:S0:109:ASN:O	2:S0:112:THR:HG22	2.07	0.55
3:S1:143:THR:HB	3:S1:205:PHE:HE1	1.72	0.55
4:S2:137:ILE:HD12	4:S2:215:PHE:CE2	5.36	0.55
6:S4:9:LEU:HB2	6:S4:30:ARG:HB2	1.89	0.55
7:S5:36:ALA:HB1	7:S5:42:LEU:HD12	5.00	0.55
8:S6:114:VAL:HG12	8:S6:115:LYS:HG2	4.74	0.55
36:1:2294:U:OP2	59:N3:71:LYS:HE2	2.07	0.54
36:1:2383:C:H5'	52:M6:71:PHE:HE2	1.73	0.54
36:1:3248:C:O5'	36:1:3248:C:H6	1.90	0.54
1:2:192:U:O2'	1:2:193:U:O4'	2.25	0.54
1:2:759:U:OP1	86:2:2159:OHX:N1	2.40	0.54
36:5:1345:G:N7	86:5:4068:OHX:N5	2.55	0.54
36:5:191:U:H2'	36:5:192:C:H6	1.72	0.54
36:5:2734:A:OP1	86:5:4048:OHX:N6	2.40	0.54
36:5:2762:A:OP2	86:5:3991:OHX:N5	2.40	0.54
1:6:46:A:N6	1:6:433:C:H4'	2.22	0.54
1:6:828:U:H2'	1:6:829:A:H5''	1.90	0.54
16:C4:43:THR:HG23	16:C4:46:MET:HG3	1.89	0.54
17:C5:75:PRO:HA	17:C5:93:VAL:HB	3.22	0.54
31:D9:19:ARG:HD2	31:D9:32:ARG:HD2	1.87	0.54
39:L2:40:TYR:HA	39:L2:91:GLY:HA3	1.88	0.54
41:L4:144:LYS:CG	41:L4:145:ILE:H	4.42	0.54
45:L8:161:GLU:OE2	51:M5:26:ARG:NH2	3.47	0.54
50:M4:22:LEU:HD13	50:M4:32:LEU:HD23	1.88	0.54
64:N8:128:ARG:CB	72:O6:8:ALA:HB2	3.12	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:4:C:O2'	11:S9:17:ARG:NH1	2.39	0.54
1:2:996:U:O2	1:2:1008:G:N2	2.29	0.54
37:3:60:G:H2'	37:3:61:G:C8	2.42	0.54
36:5:2112:U:O2	86:5:3978:OHX:N1	2.39	0.54
36:5:792:G:H2'	36:5:793:C:C6	2.42	0.54
1:6:1488:G:O2'	1:6:1494:C:O2	2.19	0.54
24:D2:32:LYS:HG3	1:6:637:C:OP1	363.35	0.54
15:C3:65:VAL:O	15:C3:67:THR:N	4.22	0.54
28:D6:88:SER:OG	28:D6:89:ARG:N	2.39	0.54
1:2:1235:C:C2	33:E1:138:ARG:NH2	2.75	0.54
42:L5:196:ARG:HB3	42:L5:196:ARG:HH11	1.72	0.54
47:M0:156:ARG:HG2	47:M0:163:GLN:HG2	1.88	0.54
48:M1:38:GLU:C	48:M1:40:LEU:H	2.10	0.54
49:M3:9:ILE:HD13	64:N8:52:TYR:CE1	2.42	0.54
52:M6:68:ARG:NH1	36:5:2988:C:OP1	217.14	0.54
56:N0:155:ARG:HG2	56:N0:172:TYR:HB2	1.89	0.54
58:N2:76:LEU:O	58:N2:80:THR:HG23	2.07	0.54
59:N3:89:ASP:OD1	59:N3:91:VAL:HG13	2.07	0.54
38:4:135:G:OP2	61:N5:56:ARG:NH2	2.40	0.54
61:N5:96:LYS:O	61:N5:100:LYS:HB2	2.24	0.54
62:N6:60:ARG:HG3	62:N6:103:LYS:HD2	1.88	0.54
65:N9:14:ARG:HH12	65:N9:18:ARG:NH1	3.20	0.54
67:O1:80:ASN:HA	67:O1:90:PHE:HE2	6.74	0.54
68:O2:16:LYS:HE3	68:O2:18:LYS:HG2	1.89	0.54
4:S2:118:ALA:HB3	4:S2:124:ALA:HB2	1.89	0.54
6:S4:57:ASN:HB2	6:S4:60:GLU:HG3	3.64	0.54
8:S6:22:HIS:HA	8:S6:25:ARG:HH11	1.71	0.54
11:S9:171:ARG:CZ	11:S9:174:ARG:HD3	4.29	0.54
5:S3:222:VAL:HG11	34:SR:229:LYS:HA	3.50	0.54
34:SR:69:GLN:O	34:SR:83:ALA:HB3	2.08	0.54
36:1:1767:C:H2'	36:1:1768:U:C6	2.42	0.54
36:1:3033:A:H2'	36:1:3034:C:H6	1.72	0.54
36:1:773:G:O6	86:1:3884:OHX:N6	2.40	0.54
1:2:1665:U:O4	86:2:2136:OHX:N4	2.41	0.54
1:2:648:G:O6	1:2:686:C:N4	2.38	0.54
55:M9:85:ARG:HH21	36:5:1916:U:H4'	228.71	0.54
36:5:238:A:H2'	36:5:239:G:C8	2.42	0.54
36:5:2971:A:H5''	36:5:2972:G:C5'	2.36	0.54
36:5:878:G:C2	36:5:2980:U:H5'	2.42	0.54
53:M7:69:ARG:NH2	36:5:2991:A:N3	194.47	0.54
51:M5:172:ARG:HD2	36:5:30:G:O5'	110.59	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3343:G:N2	36:5:3362:A:H2	2.03	0.54
1:6:152:U:C2	1:6:163:G:N2	2.75	0.54
86:6:2121:OHX:N6	86:6:2171:OHX:N3	2.56	0.54
38:8:83:C:H4'	38:8:85:G:C2	2.42	0.54
13:C1:109:VAL:HG12	13:C1:137:PHE:HB2	2.56	0.54
15:C3:22:ALA:HB1	15:C3:23:PRO:HA	1.94	0.54
17:C5:102:PHE:HZ	1:6:1241:G:H5''	384.80	0.54
18:C6:46:PHE:O	18:C6:50:GLU:HG3	2.07	0.54
20:C8:89:GLN:NE2	1:6:1548:G:H1'	375.15	0.54
41:L4:138:ARG:HB3	41:L4:138:ARG:NH1	3.96	0.54
41:L4:33:ASP:O	41:L4:37:THR:HG23	2.06	0.54
42:L5:160:PHE:O	42:L5:180:PHE:HE1	1.90	0.54
42:L5:211:LEU:HD22	42:L5:215:ASP:HB3	2.38	0.54
49:M3:16:LYS:O	49:M3:17:HIS:HB2	4.62	0.54
63:N7:27:LYS:HB3	63:N7:42:LEU:HB2	3.02	0.54
43:L6:13:GLU:OE2	68:O2:88:HIS:HA	2.88	0.54
70:O4:3:GLN:HE22	70:O4:30:LEU:H	1.55	0.54
3:S1:91:VAL:HG23	3:S1:96:LEU:HB3	1.89	0.54
6:S4:192:ILE:HG13	6:S4:243:GLY:HA3	1.89	0.54
8:S6:44:GLU:N	8:S6:44:GLU:OE2	2.40	0.54
36:1:1854:C:OP2	86:1:4030:OHX:N5	2.41	0.54
36:1:2746:A:C6	42:L5:148:ILE:HD12	2.42	0.54
36:1:718:G:H3'	36:1:719:U:C5'	2.38	0.54
36:5:439:C:O2	36:5:493:G:N2	2.29	0.54
86:6:2060:OHX:N1	86:6:2147:OHX:N3	2.56	0.54
1:6:1010:C:OP2	86:6:2171:OHX:N3	2.41	0.54
1:2:1553:G:O6	17:C5:43:ARG:HD3	2.06	0.54
18:C6:50:GLU:OE1	18:C6:112:TYR:OH	2.24	0.54
40:L3:243:HIS:ND1	40:L3:244:ARG:HG3	2.22	0.54
41:L4:98:ARG:HD3	41:L4:102:PRO:HG3	1.90	0.54
44:L7:150:LYS:HD3	44:L7:244:ASN:ND2	2.22	0.54
46:L9:37:ASN:OD1	46:L9:39:LYS:HB2	2.66	0.54
47:M0:72:ALA:O	47:M0:76:MET:HG3	3.89	0.54
79:Q3:8:VAL:HB	79:Q3:11:THR:HG22	1.90	0.54
4:S2:51:THR:HG22	4:S2:52:THR:HG23	1.90	0.54
5:S3:24:PHE:HZ	5:S3:72:LEU:HD13	1.71	0.54
7:S5:117:THR:HG21	7:S5:194:LEU:HD13	1.97	0.54
8:S6:98:ARG:HD3	8:S6:99:GLY:N	2.23	0.54
36:1:1391:C:C2	68:O2:103:LYS:HD3	2.42	0.54
36:1:1743:G:H2'	36:1:1744:G:H8	1.73	0.54
36:1:1941:C:O2'	36:1:3344:A:N6	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2724:U:OP1	57:N1:57:TYR:OH	2.20	0.54
1:2:544:A:H5''	1:2:545:A:OP2	2.07	0.54
38:4:103:G:O6	86:4:224:OHX:N4	2.41	0.54
36:5:1839:A:N6	36:5:1843:C:C2	2.76	0.54
36:5:1881:A:OP2	86:5:4032:OHX:N6	2.41	0.54
39:L2:193:ARG:NH1	36:5:2174:G:OP2	190.30	0.54
40:L3:332:ARG:HH22	36:5:3304:U:P	206.48	0.54
36:5:528:U:H2'	36:5:529:A:C8	2.42	0.54
28:D6:10:ARG:HG3	1:6:1797:A:OP1	331.93	0.54
15:C3:3:ARG:NE	15:C3:3:ARG:HA	2.82	0.54
20:C8:15:LEU:HD23	20:C8:22:VAL:O	3.45	0.54
20:C8:23:ASP:O	20:C8:26:ILE:HG23	2.07	0.54
24:D2:8:ALA:HA	24:D2:74:VAL:HG11	1.87	0.54
27:D5:95:HIS:HE1	27:D5:97:LYS:HG3	3.24	0.54
31:D9:8:PHE:HE2	1:6:1217:A:H61	418.54	0.54
40:L3:173:GLN:O	40:L3:175:LYS:N	2.37	0.54
40:L3:238:LEU:HB3	40:L3:242:THR:HG21	2.71	0.54
40:L3:257:PRO:HG2	40:L3:261:MET:CE	2.38	0.54
40:L3:3:HIS:O	40:L3:5:LYS:N	2.40	0.54
41:L4:358:THR:HA	41:L4:361:HIS:HB2	2.22	0.54
49:M3:80:VAL:HG13	49:M3:85:LEU:O	2.58	0.54
50:M4:55:ARG:HD3	56:N0:70:THR:OG1	2.74	0.54
59:N3:24:ASN:O	59:N3:99:ALA:HA	2.08	0.54
66:O0:25:LEU:O	66:O0:29:SER:OG	3.25	0.54
2:S0:69:ASN:HB3	2:S0:71:GLU:OE2	2.07	0.54
1:2:858:G:OP1	9:S7:116:ARG:NH2	2.40	0.54
34:SR:222:LEU:HD23	34:SR:234:LEU:HD13	1.87	0.54
36:1:2205:U:H5'	36:1:2206:G:OP2	2.08	0.54
36:1:2748:A:O2'	42:L5:48:LYS:HE2	2.08	0.54
36:1:2927:C:H2'	36:1:2928:C:C6	2.42	0.54
36:1:643:U:OP1	36:1:1116:G:O2'	2.17	0.54
1:2:1619:C:H1'	30:D8:22:ARG:HH21	1.73	0.54
75:O9:45:ARG:HH22	36:5:1841:A:H1'	132.08	0.54
1:6:539:G:OP2	1:6:539:G:H8	1.90	0.54
37:7:113:C:C4	37:7:114:U:C4	2.96	0.54
16:C4:13:VAL:HG23	16:C4:77:THR:H	5.03	0.54
18:C6:93:HIS:HA	18:C6:97:VAL:HG23	2.07	0.54
24:D2:86:ILE:HD12	24:D2:87:GLU:H	1.72	0.54
26:D4:91:LEU:HB3	26:D4:97:ALA:HB3	3.13	0.54
29:D7:19:HIS:HD2	29:D7:21:LEU:N	6.04	0.54
41:L4:52:VAL:HG11	41:L4:99:MET:HE3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:56:THR:HG21	37:7:26:C:H5''	294.66	0.54
43:L6:14:ASP:N	43:L6:14:ASP:OD2	3.96	0.54
44:L7:233:GLU:OE1	56:N0:38:LYS:NZ	2.99	0.54
47:M0:210:ILE:HA	47:M0:217:PHE:CE2	2.42	0.54
49:M3:157:ARG:NH1	64:N8:146:GLU:OE2	2.85	0.54
51:M5:119:TYR:OH	51:M5:131:GLU:OE1	2.34	0.54
54:M8:96:PHE:CD2	54:M8:97:PRO:HD2	2.67	0.54
59:N3:18:PRO:HA	59:N3:51:ALA:HA	1.89	0.54
59:N3:67:PRO:C	59:N3:69:LEU:H	2.83	0.54
62:N6:100:HIS:ND1	62:N6:102:SER:OG	3.05	0.54
62:N6:3:LYS:O	62:N6:4:GLN:NE2	4.60	0.54
69:O3:13:HIS:O	69:O3:95:GLY:N	2.57	0.54
2:S0:183:ARG:HA	2:S0:188:LEU:HB2	2.85	0.54
4:S2:59:HIS:CE1	4:S2:238:SER:HA	4.00	0.54
5:S3:162:GLN:OE1	5:S3:165:ASN:ND2	2.33	0.54
10:S8:154:SER:O	10:S8:157:GLU:N	2.40	0.54
36:1:2528:G:N7	86:1:4182:OHX:N3	2.55	0.54
36:1:2422:C:H42	36:1:2608:G:H1	1.55	0.54
36:1:3152:U:O2'	36:1:3153:U:H5'	2.07	0.54
86:2:2090:OHX:N5	86:2:2131:OHX:N6	2.56	0.54
1:2:365:G:N7	86:2:2105:OHX:N5	2.55	0.54
40:L3:334:ARG:NH2	36:5:3304:U:O3'	212.76	0.54
86:5:3980:OHX:N2	86:5:4200:OHX:N1	2.56	0.54
1:6:1263:G:H2'	1:6:1264:G:O4'	2.08	0.54
10:S8:137:LYS:NZ	1:6:192:U:O4	263.72	0.54
9:S7:107:ARG:NH1	1:6:741:C:O2'	344.50	0.54
37:7:107:C:H2'	37:7:108:A:C8	2.42	0.54
17:C5:75:PRO:HA	17:C5:93:VAL:HG12	1.90	0.54
21:C9:39:THR:HA	21:C9:100:ILE:HD12	3.75	0.54
24:D2:81:VAL:HG12	24:D2:82:LYS:O	5.27	0.54
27:D5:42:LEU:O	27:D5:46:LYS:HB2	2.08	0.54
28:D6:75:VAL:O	28:D6:79:ILE:N	2.29	0.54
42:L5:106:ALA:O	42:L5:110:LEU:HD22	3.37	0.54
45:L8:160:ILE:HG23	45:L8:164:VAL:HG13	4.24	0.54
45:L8:90:THR:HG22	45:L8:214:LEU:HG	5.51	0.54
50:M4:37:GLU:OE1	56:N0:72:VAL:HB	2.36	0.54
63:N7:3:LYS:HE3	66:O0:36:GLN:HG3	1.89	0.54
64:N8:66:ALA:HB1	64:N8:69:TRP:HB2	4.62	0.54
67:O1:12:TYR:O	67:O1:72:ARG:HD2	2.08	0.54
71:O5:49:LYS:O	71:O5:52:ALA:N	3.13	0.54
75:O9:5:LYS:HD3	75:O9:13:MET:CE	2.48	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:213:ARG:HG2	3:S1:214:LYS:HE3	1.89	0.54
4:S2:116:LYS:HG2	4:S2:127:ALA:HB3	1.90	0.54
6:S4:49:ARG:NH2	6:S4:50:ASN:OD1	4.43	0.54
11:S9:162:SER:OG	11:S9:163:PRO:O	2.25	0.54
36:1:1582:C:O2'	36:1:1583:A:O5'	2.24	0.54
86:1:3968:OHX:N5	86:1:4155:OHX:N1	2.56	0.54
1:2:176:C:OP1	86:2:2073:OHX:N3	2.40	0.54
1:2:325:G:H5'	13:C1:80:MET:HE3	1.90	0.54
74:O8:17:ARG:NH2	36:5:1824:U:O3'	138.38	0.54
36:5:2169:G:O6	86:5:3956:OHX:N5	2.40	0.54
1:6:1039:A:O2'	1:6:1040:G:OP2	2.25	0.54
1:6:1497:U:H2'	1:6:1498:G:H8	1.72	0.54
1:6:1649:G:N7	86:6:2110:OHX:N2	2.56	0.54
86:6:2060:OHX:N2	86:6:2147:OHX:N6	2.56	0.54
14:C2:93:ASP:HB3	14:C2:96:GLN:HB2	3.66	0.54
21:C9:20:SER:OG	21:C9:21:PHE:N	3.48	0.54
40:L3:88:GLY:O	40:L3:161:LEU:N	2.44	0.54
36:1:610:G:C8	41:L4:312:VAL:HG21	2.42	0.54
46:L9:74:LEU:O	46:L9:78:MET:HG3	3.37	0.54
49:M3:59:ARG:NH1	36:5:73:C:N3	94.96	0.54
62:N6:27:ARG:NH1	62:N6:76:LEU:O	2.40	0.54
63:N7:47:GLU:HG2	63:N7:69:LYS:HG2	3.65	0.54
77:Q1:16:LYS:O	77:Q1:20:VAL:HG23	3.33	0.54
78:Q2:71:ARG:NH2	78:Q2:80:ARG:HD3	2.77	0.54
79:Q3:13:LYS:HE3	79:Q3:14:TYR:CZ	2.43	0.54
3:S1:158:SER:HA	3:S1:161:ILE:HD12	2.74	0.54
3:S1:185:THR:O	3:S1:189:ILE:HG13	2.08	0.54
4:S2:215:PHE:O	4:S2:218:ILE:HG13	2.08	0.54
34:SR:203:THR:OG1	34:SR:204:ALA:N	2.40	0.54
34:SR:74:THR:OG1	34:SR:76:ASP:OD1	2.52	0.54
36:1:1384:U:O2'	36:1:1385:C:H5'	2.08	0.54
36:1:1796:G:H5''	36:1:1797:A:OP1	2.08	0.54
86:1:4000:OHX:N6	86:1:4171:OHX:N5	2.55	0.54
1:2:1041:G:OP1	86:2:2148:OHX:N5	2.40	0.54
1:2:1165:G:C6	1:2:1166:A:C6	2.96	0.54
1:2:1229:G:O2'	1:2:1255:G:N2	2.41	0.54
1:2:1664:C:H42	1:2:1737:G:H1	1.55	0.54
36:5:174:C:H2'	36:5:175:C:C6	2.42	0.54
36:5:1944:U:H2'	36:5:1945:A:C8	2.42	0.54
36:5:2771:U:H2'	36:5:2772:C:C6	2.42	0.54
36:5:2320:A:OP2	86:5:4077:OHX:N5	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:956:U:H2'	36:5:957:C:H6	1.73	0.54
1:6:513:U:H2'	1:6:514:G:C8	2.42	0.54
1:2:866:G:OP1	15:C3:2:GLY:HA3	2.08	0.54
18:C6:143:ARG:HH22	35:SM:84:LYS:NZ	2.06	0.54
24:D2:5:SER:HB3	24:D2:8:ALA:HB3	2.51	0.54
26:D4:10:ARG:HB3	1:6:778:G:O6	427.09	0.54
45:L8:225:LYS:O	45:L8:229:VAL:HG23	2.08	0.54
47:M0:46:PHE:CD1	47:M0:140:THR:HA	3.03	0.54
58:N2:58:GLU:OE2	58:N2:60:GLY:N	5.55	0.54
58:N2:77:LYS:HE2	58:N2:81:LYS:HE3	5.14	0.54
63:N7:36:HIS:CD2	63:N7:74:VAL:HG11	2.89	0.54
2:S0:183:ARG:NH2	2:S0:191:ARG:O	2.41	0.54
6:S4:159:THR:HG22	6:S4:227:VAL:HB	1.90	0.54
36:1:249:U:H1'	36:1:250:U:C2	2.43	0.54
36:1:2726:C:O2'	36:1:2727:A:H2'	2.08	0.54
36:1:2898:G:H5''	36:1:2899:C:C5'	2.39	0.54
36:1:2947:G:H4'	36:1:2947:G:OP2	2.07	0.54
36:1:361:A:H5'	73:O7:35:SER:OG	2.08	0.54
36:1:434:U:O4	86:1:4163:OHX:N5	2.41	0.54
1:2:1226:A:O2'	1:2:1227:A:OP1	2.24	0.54
1:2:224:C:H2'	1:2:225:A:C8	2.43	0.54
1:2:702:G:O2'	1:2:703:G:H8	1.90	0.54
36:5:2697:A:H2'	36:5:2698:G:C8	2.43	0.54
36:5:2960:C:H2'	36:5:2961:G:C8	2.43	0.54
50:M4:129:TYR:HE1	36:5:3229:G:N3	288.23	0.54
12:C0:51:SER:OG	1:6:1219:A:N3	432.10	0.54
1:6:187:G:H4'	1:6:188:A:OP1	2.07	0.54
86:6:2121:OHX:N6	86:6:2171:OHX:N5	2.55	0.54
1:6:737:A:H2'	1:6:738:G:H8	1.72	0.54
1:2:1410:A:H5''	18:C6:118:ILE:HD13	1.90	0.54
20:C8:35:ILE:HB	20:C8:38:VAL:HG22	2.02	0.54
23:D1:85:TYR:CD1	29:D7:6:ASP:HB2	2.83	0.54
25:D3:13:ARG:HA	25:D3:16:ARG:HD3	1.89	0.54
25:D3:23:ARG:O	25:D3:26:GLU:HB2	2.08	0.54
28:D6:4:LYS:HE3	28:D6:5:ARG:NH2	3.22	0.54
36:1:2880:U:H1'	40:L3:250:ALA:HB3	1.89	0.54
42:L5:261:THR:HG23	42:L5:264:GLN:HE21	1.73	0.54
43:L6:31:ARG:NH1	69:O3:107:ILE:HG22	5.81	0.54
46:L9:24:ILE:HD13	46:L9:37:ASN:HB2	3.40	0.54
49:M3:75:PHE:H	49:M3:97:VAL:HA	1.73	0.54
52:M6:10:ASP:OD2	52:M6:37:ARG:NH2	2.69	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:65:ASN:O	52:M6:68:ARG:HG2	2.29	0.54
61:N5:115:ARG:NH1	61:N5:115:ARG:HG3	2.91	0.54
62:N6:103:LYS:NZ	36:5:221:A:H61	78.75	0.54
69:O3:41:ALA:HB3	69:O3:74:THR:HG22	1.89	0.54
76:Q0:114:LYS:HG2	76:Q0:115:CYS:N	2.53	0.54
3:S1:83:LYS:HD2	3:S1:106:THR:HG23	4.74	0.54
7:S5:94:THR:HG22	7:S5:114:ILE:CG1	2.79	0.54
11:S9:62:ARG:CZ	11:S9:68:LYS:HD3	3.29	0.54
11:S9:92:LYS:HB2	11:S9:95:TYR:CD2	8.41	0.54
34:SR:216:LYS:HA	34:SR:239:GLU:HG3	1.89	0.54
36:1:1043:C:O3'	47:M0:90:ARG:NH1	2.41	0.53
36:1:1495:U:C5	36:1:1835:A:N1	2.73	0.53
36:1:2407:C:H1'	36:1:2818:U:O2	2.08	0.53
36:1:341:G:N7	41:L4:195:ARG:NH2	2.53	0.53
36:1:86:G:C5	49:M3:13:HIS:ND1	2.76	0.53
36:1:953:G:N2	36:1:1116:G:H2'	2.23	0.53
1:2:1482:C:OP2	1:2:1521:G:N2	2.41	0.53
1:2:1624:C:H2'	1:2:1625:C:H6	1.73	0.53
38:4:85:G:C8	38:4:85:G:H3'	2.43	0.53
36:5:1501:U:O2'	36:5:1502:C:H5'	2.07	0.53
36:5:1556:C:H5''	36:5:2169:G:H22	1.73	0.53
36:5:160:G:H2'	36:5:161:G:O4'	2.09	0.53
36:5:1742:U:H2'	36:5:1743:G:C8	2.42	0.53
36:5:1819:U:H2'	36:5:1820:U:H5'	1.90	0.53
37:7:8:G:C6	37:7:9:C:C4	2.96	0.53
20:C8:140:THR:HA	20:C8:143:ARG:NH1	2.68	0.53
20:C8:54:LEU:HD12	20:C8:54:LEU:H	3.98	0.53
22:D0:105:GLN:HA	22:D0:108:ILE:HD13	7.32	0.53
23:D1:71:ARG:HG3	23:D1:83:TRP:CZ2	2.62	0.53
25:D3:109:ARG:O	25:D3:112:LYS:HE3	5.13	0.53
26:D4:116:LYS:HE2	1:6:57:G:OP2	338.47	0.53
26:D4:45:ALA:HB1	26:D4:50:ALA:HB3	4.88	0.53
27:D5:95:HIS:ND1	27:D5:96:SER:O	2.41	0.53
40:L3:187:SER:O	40:L3:190:GLU:N	2.40	0.53
41:L4:300:ARG:CG	41:L4:300:ARG:HH11	2.97	0.53
42:L5:177:GLU:O	42:L5:179:ARG:N	2.41	0.53
42:L5:242:SER:O	42:L5:245:GLU:HB2	3.87	0.53
45:L8:78:PHE:C	45:L8:80:TYR:H	2.12	0.53
46:L9:67:ALA:HA	46:L9:70:THR:HG23	1.90	0.53
56:N0:137:ARG:HG2	56:N0:139:TYR:CZ	2.68	0.53
58:N2:37:LEU:HD12	58:N2:37:LEU:H	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:11:ASP:HB3	62:N6:14:LYS:HG3	4.10	0.53
62:N6:47:ALA:O	62:N6:122:LYS:NZ	2.35	0.53
71:O5:24:LEU:HA	71:O5:27:GLU:HB2	1.90	0.53
1:2:1097:U:O2'	4:S2:159:THR:OG1	2.16	0.53
11:S9:51:LYS:HB3	11:S9:54:ARG:HH11	1.73	0.53
34:SR:305:TYR:CD2	34:SR:311:ARG:HD2	2.88	0.53
34:SR:95:ALA:O	34:SR:97:GLY:N	4.89	0.53
36:1:2232:A:H2'	36:1:2233:A:C8	2.44	0.53
36:1:2707:C:H2'	36:1:2708:C:H6	1.73	0.53
1:2:2:A:H5'	1:2:2:A:H8	1.74	0.53
1:2:582:U:H3'	1:2:583:C:C5	2.43	0.53
37:3:46:A:OP1	42:L5:158:ARG:HG2	2.08	0.53
36:5:1190:A:C8	36:5:1193:A:H1'	2.44	0.53
36:5:246:U:H2'	36:5:247:C:H5''	1.90	0.53
36:5:3195:U:H1'	36:5:3196:U:OP1	2.08	0.53
36:5:48:A:O4'	36:5:50:U:C6	2.60	0.53
17:C5:86:VAL:HB	17:C5:87:PRO:HD2	3.51	0.53
18:C6:26:LYS:NZ	1:6:1364:G:O3'	436.60	0.53
19:C7:50:ILE:O	19:C7:54:THR:HG23	2.08	0.53
21:C9:28:LEU:CD1	21:C9:29:GLU:H	2.21	0.53
23:D1:62:ARG:HH22	24:D2:20:THR:HG22	1.92	0.53
24:D2:24:GLN:NE2	29:D7:5:GLN:H	2.06	0.53
32:E0:14:VAL:O	32:E0:18:THR:HG23	2.07	0.53
40:L3:86:VAL:HG21	40:L3:198:HIS:HB3	1.90	0.53
40:L3:19:ARG:HB3	40:L3:232:ARG:HH12	1.73	0.53
40:L3:25:ILE:HD13	40:L3:25:ILE:N	2.22	0.53
41:L4:162:THR:HA	41:L4:218:ALA:O	2.08	0.53
44:L7:36:ALA:HA	44:L7:39:GLU:HG3	1.88	0.53
50:M4:70:PHE:HE2	50:M4:72:LEU:HD23	1.72	0.53
51:M5:113:LEU:HB3	51:M5:134:LEU:HD23	1.89	0.53
36:1:1213:G:H4'	56:N0:90:MET:HG3	1.90	0.53
58:N2:104:ARG:NH2	36:5:1758:G:H5'	119.32	0.53
65:N9:9:ALA:O	65:N9:12:GLN:HB2	2.09	0.53
71:O5:53:CYS:O	71:O5:57:VAL:HG23	2.09	0.53
72:O6:25:LYS:HB2	72:O6:28:TYR:HD2	1.94	0.53
36:1:2139:A:H62	73:O7:4:GLY:HA3	1.74	0.53
7:S5:40:ILE:HG23	7:S5:42:LEU:HD22	1.90	0.53
34:SR:211:ILE:HG22	34:SR:223:TRP:HD1	1.73	0.53
36:1:3095:U:H2'	36:1:3096:C:H6	1.73	0.53
86:1:4029:OHX:N6	86:1:4042:OHX:N3	2.57	0.53
1:2:1760:G:C2'	1:2:1761:U:H5'	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:207:U:O2	10:S8:178:ARG:NH1	2.39	0.53
1:2:623:A:OP1	86:2:2156:OHX:N1	2.41	0.53
1:2:352:A:OP2	1:2:352:A:H8	1.92	0.53
1:2:416:A:H5''	1:2:417:A:N7	2.24	0.53
1:2:859:A:C6	15:C3:73:ARG:HD3	2.42	0.53
36:5:1317:A:OP1	86:5:4100:OHX:N1	2.42	0.53
36:5:2273:G:O2'	36:5:2311:G:O6	2.15	0.53
36:5:2342:U:H5''	36:5:3089:C:O2'	2.08	0.53
1:6:1161:C:H2'	1:6:1162:C:H6	1.73	0.53
1:6:1600:A:H4'	1:6:1601:G:OP1	2.08	0.53
1:6:1720:G:O6	86:6:2094:OHX:N4	2.42	0.53
15:C3:129:TYR:HB3	15:C3:134:VAL:HG22	1.89	0.53
39:L2:42:ARG:HA	39:L2:88:ILE:O	2.30	0.53
41:L4:141:ARG:O	41:L4:144:LYS:NZ	9.03	0.53
42:L5:56:THR:O	42:L5:58:LYS:N	2.40	0.53
36:1:1103:A:C8	44:L7:158:LYS:HD3	2.42	0.53
44:L7:239:LEU:O	44:L7:242:SER:OG	2.67	0.53
41:L4:106:TRP:CZ2	49:M3:19:GLN:HG2	4.23	0.53
52:M6:108:ILE:HG12	52:M6:108:ILE:O	4.79	0.53
53:M7:59:PRO:HG3	53:M7:76:PHE:CD1	2.58	0.53
53:M7:60:PHE:O	53:M7:64:ASN:ND2	2.98	0.53
56:N0:2:ALA:HB3	56:N0:32:SER:HB3	1.89	0.53
61:N5:67:ILE:CD1	61:N5:121:LYS:HG3	2.66	0.53
66:O0:24:THR:HG22	66:O0:91:SER:HB3	2.69	0.53
66:O0:24:THR:HG23	66:O0:91:SER:HB3	1.89	0.53
69:O3:3:GLU:HG3	69:O3:4:SER:H	1.74	0.53
3:S1:131:ASP:HB3	3:S1:180:THR:CG2	2.38	0.53
6:S4:159:THR:HG1	6:S4:226:PHE:HE1	1.57	0.53
36:1:1073:U:O2'	65:N9:49:GLY:HA3	2.08	0.53
36:1:1240:A:H3'	36:1:1241:U:H5'	1.91	0.53
36:1:2355:G:H4'	53:M7:139:TYR:CZ	2.43	0.53
86:1:3968:OHX:N5	86:1:4155:OHX:N2	2.56	0.53
36:5:247:C:N3	36:5:248:U:H1'	2.24	0.53
36:5:3276:G:OP2	36:5:3276:G:H2'	2.07	0.53
36:5:1170:A:OP2	86:5:4004:OHX:N4	2.41	0.53
39:L2:181:LYS:HZ3	36:5:860:G:P	214.56	0.53
42:L5:265:TYR:OH	37:7:121:U:OP2	311.24	0.53
14:C2:61:VAL:HA	14:C2:89:ILE:HG22	1.89	0.53
22:D0:62:VAL:HG22	22:D0:85:ARG:HG3	1.89	0.53
22:D0:20:ILE:O	22:D0:94:GLU:HA	5.69	0.53
40:L3:50:LYS:HG2	40:L3:332:ARG:HA	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:64:GLN:HG3	44:L7:68:ASP:OD2	2.09	0.53
45:L8:131:ALA:HB3	45:L8:133:LYS:HE2	5.65	0.53
56:N0:23:LYS:O	56:N0:24:LEU:HB2	2.06	0.53
57:N1:63:VAL:HG12	57:N1:64:VAL:N	2.79	0.53
38:4:113:U:H5''	75:O9:7:PHE:HB3	1.91	0.53
4:S2:41:LEU:HD11	4:S2:56:ILE:HG12	2.51	0.53
9:S7:131:PHE:O	9:S7:133:THR:OG1	2.26	0.53
1:2:400:A:H8	10:S8:24:LYS:O	1.92	0.53
36:1:2747:A:H2'	36:1:2748:A:C8	2.44	0.53
36:1:3094:A:H2'	36:1:3095:U:C6	2.43	0.53
36:1:7:C:H2'	36:1:8:C:C6	2.43	0.53
1:2:1477:G:H2'	1:2:1478:G:C8	2.44	0.53
1:2:1657:U:H1'	1:2:1658:G:OP2	2.08	0.53
36:5:112:U:O2'	36:5:113:C:OP2	2.24	0.53
36:5:1772:U:H5''	36:5:1773:C:H5'	1.91	0.53
36:5:776:U:H5	36:5:2719:U:O2	1.92	0.53
16:C4:11:SER:OG	16:C4:12:GLN:N	4.30	0.53
1:2:1417:A:O3'	18:C6:128:LYS:HE2	2.08	0.53
19:C7:34:LEU:O	19:C7:38:ILE:HG22	2.08	0.53
19:C7:54:THR:O	19:C7:58:MET:HB2	2.09	0.53
26:D4:12:VAL:HG22	26:D4:23:PHE:HB3	3.05	0.53
41:L4:351:PRO:HB3	44:L7:70:LYS:HB3	1.90	0.53
44:L7:160:ARG:HD2	44:L7:203:TRP:CD1	2.44	0.53
48:M1:80:LEU:HD13	48:M1:167:TYR:OH	2.69	0.53
50:M4:94:TRP:CE2	50:M4:100:ALA:HB2	2.44	0.53
56:N0:13:ARG:NH1	37:7:73:C:O2	305.24	0.53
62:N6:3:LYS:HG3	62:N6:8:VAL:HG13	1.89	0.53
64:N8:16:SER:HA	36:5:942:U:N3	169.12	0.53
70:O4:71:THR:HG22	70:O4:78:GLY:H	1.73	0.53
75:O9:15:LYS:O	75:O9:19:GLN:HG3	2.57	0.53
2:S0:80:THR:O	2:S0:82:GLY:N	2.93	0.53
3:S1:30:PHE:HB3	3:S1:96:LEU:HD22	3.53	0.53
8:S6:28:PHE:CZ	8:S6:104:PRO:HB3	3.41	0.53
8:S6:57:ASP:O	8:S6:59:GLN:N	2.96	0.53
1:2:323:A:OP2	10:S8:10:LYS:HA	2.08	0.53
36:1:1064:A:H4'	36:1:1065:A:O5'	2.07	0.53
36:1:3043:C:OP2	59:N3:48:ARG:NH2	2.42	0.53
86:1:3968:OHX:N3	86:1:4155:OHX:N1	2.57	0.53
1:2:190:C:N4	1:2:196:G:C6	2.77	0.53
1:2:399:A:H4'	6:S4:3:ARG:HG2	1.89	0.53
38:4:104:A:C8	38:4:105:A:C8	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:83:C:H1'	38:4:85:G:N2	2.24	0.53
36:5:2563:G:H2'	36:5:2564:G:O4'	2.09	0.53
36:5:3132:C:H2'	36:5:3133:C:C6	2.44	0.53
36:5:621:A:H2'	36:5:622:A:H8	1.73	0.53
36:5:688:G:H8	36:5:688:G:O5'	1.90	0.53
36:5:955:U:H2'	36:5:956:U:H6	1.68	0.53
1:6:333:A:C6	1:6:334:G:C6	2.97	0.53
1:6:500:C:O2'	1:6:501:U:O4'	2.27	0.53
1:6:587:C:H2'	1:6:588:U:O4'	2.09	0.53
1:6:922:G:H2'	1:6:923:A:C8	2.43	0.53
14:C2:43:ARG:HA	14:C2:121:VAL:HG12	2.84	0.53
20:C8:120:ARG:O	35:SM:57:ASN:ND2	3.20	0.53
22:D0:27:THR:HG23	22:D0:113:ASP:OD1	3.69	0.53
26:D4:125:LEU:O	26:D4:129:VAL:HG23	2.09	0.53
40:L3:235:THR:HG23	40:L3:236:LYS:O	2.56	0.53
44:L7:229:PHE:CD1	44:L7:229:PHE:C	3.08	0.53
45:L8:210:ALA:O	45:L8:214:LEU:HB2	2.57	0.53
47:M0:177:ASP:N	47:M0:177:ASP:OD2	3.50	0.53
55:M9:23:TRP:HB3	55:M9:51:VAL:HG22	1.89	0.53
61:N5:37:THR:OG1	61:N5:38:LEU:N	2.41	0.53
61:N5:86:VAL:HG21	61:N5:95:ILE:HG12	3.33	0.53
68:O2:9:ILE:HG12	68:O2:63:THR:HB	1.90	0.53
73:O7:31:LYS:O	73:O7:33:THR:HG22	2.38	0.53
77:Q1:13:LEU:HD11	77:Q1:17:ARG:CZ	2.39	0.53
78:Q2:77:CYS:O	78:Q2:79:THR:N	2.69	0.53
3:S1:35:PRO:HB3	3:S1:231:LEU:HD21	5.17	0.53
5:S3:114:ALA:O	5:S3:116:ARG:N	3.17	0.53
7:S5:89:ILE:HD12	7:S5:90:ILE:H	1.73	0.53
11:S9:153:GLU:HA	11:S9:156:ILE:HD11	1.89	0.53
34:SR:93:ASP:HB3	34:SR:96:THR:HG22	1.90	0.53
36:1:1540:U:OP1	86:1:4016:OHX:N1	2.42	0.53
36:1:2093:A:N3	36:1:2093:A:H3'	2.24	0.53
36:1:2983:C:OP1	86:1:4187:OHX:N3	2.41	0.53
1:2:1114:G:O2'	1:2:1130:G:O6	2.23	0.53
1:2:1490:C:H4'	1:2:1491:U:OP1	2.08	0.53
1:2:1585:U:N3	1:2:1611:A:H2	2.03	0.53
1:2:1760:G:H2'	1:2:1761:U:H5'	1.90	0.53
1:2:874:C:OP1	86:2:2033:OHX:N2	2.41	0.53
1:2:356:G:OP2	86:2:2036:OHX:N6	2.41	0.53
36:5:128:G:H2'	36:5:129:U:O4'	2.09	0.53
36:5:2921:U:H2'	36:5:2923:U:H5''	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:629:U:H2'	36:5:630:A:C8	2.44	0.53
13:C1:75:VAL:HG22	13:C1:84:ILE:HD12	1.90	0.53
15:C3:70:LYS:NZ	1:6:963:A:OP2	331.22	0.53
16:C4:108:SER:OG	16:C4:109:GLY:N	2.42	0.53
19:C7:14:LYS:HG3	19:C7:69:ILE:HG22	3.10	0.53
23:D1:51:VAL:HG11	23:D1:78:LEU:HD21	3.56	0.53
29:D7:47:PHE:CE1	29:D7:49:HIS:HB2	2.44	0.53
40:L3:92:TYR:O	40:L3:155:ALA:HA	2.11	0.53
40:L3:95:THR:C	40:L3:97:ARG:H	2.12	0.53
42:L5:166:ALA:HB1	42:L5:171:LEU:HD12	1.91	0.53
42:L5:27:LYS:HE2	48:M1:143:ARG:HH12	1.73	0.53
46:L9:57:VAL:HG23	46:L9:68:LEU:HG	1.92	0.53
48:M1:100:GLY:HA3	48:M1:154:THR:HB	2.76	0.53
51:M5:22:LEU:O	51:M5:26:ARG:HG3	2.09	0.53
55:M9:62:ARG:NH2	36:5:3068:U:OP2	172.43	0.53
61:N5:25:LYS:HD3	61:N5:27:ARG:NH1	2.24	0.53
62:N6:60:ARG:HB2	62:N6:103:LYS:HB3	2.08	0.53
69:O3:52:VAL:HG22	69:O3:66:VAL:HG22	2.14	0.53
72:O6:26:ILE:O	72:O6:28:TYR:N	2.42	0.53
36:1:1573:G:N2	36:1:1574:C:O2'	2.42	0.53
36:1:846:A:H2'	36:1:847:A:O4'	2.09	0.53
1:2:795:U:C5	1:2:796:A:C8	2.97	0.53
1:2:887:A:H1'	16:C4:122:PRO:HB3	1.90	0.53
36:5:1615:C:H2'	36:5:1616:U:C6	2.43	0.53
37:7:110:G:C6	37:7:111:U:C4	2.97	0.53
12:C0:15:LEU:HD13	12:C0:21:VAL:HG23	1.89	0.53
13:C1:17:PRO:HB2	13:C1:18:HIS:CE1	5.04	0.53
1:2:867:G:H5'	15:C3:4:MET:HE3	1.91	0.53
17:C5:108:ARG:O	17:C5:111:MET:HG3	3.13	0.53
27:D5:40:VAL:HA	27:D5:75:LEU:HD13	3.56	0.53
39:L2:70:ARG:NH1	39:L2:72:ARG:HG2	2.23	0.53
40:L3:21:ARG:HG2	40:L3:269:GLN:HG2	1.90	0.53
41:L4:205:PRO:HD2	41:L4:225:VAL:HG22	1.91	0.53
46:L9:162:GLN:HG3	46:L9:163:GLN:N	2.22	0.53
50:M4:22:LEU:HB3	50:M4:64:VAL:HG13	2.51	0.53
53:M7:64:ASN:O	53:M7:67:ILE:HG12	3.98	0.53
53:M7:67:ILE:HD11	36:5:1447:G:H3'	164.95	0.53
56:N0:26:ARG:NH1	57:N1:150:THR:HG21	2.90	0.53
59:N3:66:LYS:CD	59:N3:68:GLU:HB2	6.05	0.53
61:N5:25:LYS:HD2	61:N5:25:LYS:H	1.74	0.53
61:N5:74:LYS:O	61:N5:78:ASP:HB2	3.13	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:36:SER:OG	3:S1:231:LEU:O	2.26	0.53
5:S3:65:ARG:O	5:S3:69:LEU:HB2	2.69	0.53
6:S4:146:THR:OG1	6:S4:146:THR:O	4.37	0.53
7:S5:53:VAL:HB	7:S5:59:VAL:HG22	1.90	0.53
8:S6:163:THR:HA	8:S6:168:THR:HA	1.90	0.53
36:1:598:A:OP1	44:L7:41:ARG:NH1	2.42	0.53
36:1:684:G:OP2	49:M3:28:GLN:NE2	2.41	0.53
1:2:119:A:H1'	1:2:397:A:C4	2.44	0.53
36:5:1853:U:O4	86:5:4041:OHX:N4	2.42	0.53
36:5:3084:C:H2'	36:5:3085:G:O4'	2.09	0.53
1:6:219:A:H2'	1:6:831:U:O2	2.09	0.53
15:C3:115:LEU:HD22	15:C3:119:GLU:OE1	2.72	0.53
16:C4:137:LEU:HD23	87:6:2205:3K8:H20	302.20	0.53
22:D0:70:THR:HG23	1:6:1280:C:O2'	388.17	0.53
23:D1:42:GLU:O	23:D1:44:ARG:N	2.33	0.53
25:D3:100:ASP:O	25:D3:101:GLU:HB3	4.75	0.53
26:D4:29:HIS:CE1	26:D4:34:ASN:HA	3.62	0.53
27:D5:71:ILE:HG22	27:D5:75:LEU:HD12	1.90	0.53
40:L3:19:ARG:HB3	40:L3:232:ARG:NH1	2.31	0.53
42:L5:184:ASP:CG	42:L5:187:THR:HG23	2.29	0.53
45:L8:190:VAL:O	45:L8:191:ASN:HB2	2.09	0.53
42:L5:41:LYS:HB2	57:N1:68:THR:O	2.08	0.53
49:M3:2:ALA:N	64:N8:31:GLY:O	4.08	0.53
66:O0:15:ALA:O	66:O0:18:ILE:HG22	2.09	0.53
67:O1:50:ARG:HD3	67:O1:90:PHE:CD2	2.44	0.53
70:O4:8:ARG:HH21	70:O4:31:ARG:HD2	3.15	0.53
9:S7:126:LEU:HD13	9:S7:173:TYR:CD2	3.03	0.53
11:S9:108:ARG:HH21	11:S9:145:SER:HB3	3.40	0.53
11:S9:29:LYS:O	11:S9:33:GLU:HB2	2.09	0.53
34:SR:16:HIS:NE2	34:SR:43:ILE:HG12	2.50	0.53
36:1:1528:G:H2'	36:1:1529:A:O4'	2.09	0.53
36:1:1951:C:H5'	36:1:1952:G:OP1	2.09	0.53
36:1:2592:G:H4'	36:1:2594:C:C2	2.43	0.53
36:1:2882:U:H2'	36:1:2883:U:C6	2.43	0.53
36:1:3215:A:O5'	50:M4:121:MET:HE1	2.09	0.53
36:1:3317:U:H4'	36:1:3318:G:O5'	2.09	0.53
1:2:121:U:H1'	6:S4:33:ALA:HB3	1.90	0.53
1:2:1248:C:H2'	1:2:1249:U:C6	2.44	0.53
1:2:16:G:H2'	1:2:17:C:C6	2.43	0.53
86:2:2044:OHX:N4	86:2:2098:OHX:N6	2.57	0.53
37:3:85:G:O6	86:3:216:OHX:N4	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1249:G:H2'	36:5:1250:G:C8	2.41	0.53
36:5:2093:A:H3'	36:5:2093:A:N3	2.23	0.53
36:5:2192:C:O2'	36:5:2312:A:N1	2.33	0.53
36:5:2816:G:C8	36:5:2869:U:H3'	2.44	0.53
78:Q2:45:ARG:NH2	36:5:283:G:OP2	146.78	0.53
36:5:1310:G:O6	86:5:4028:OHX:N4	2.41	0.53
36:5:979:U:C2	36:5:980:A:N3	2.77	0.53
1:6:938:G:N7	86:6:2106:OHX:N3	2.56	0.53
1:2:959:U:H5'	15:C3:15:ALA:O	2.09	0.53
31:D9:21:CYS:SG	31:D9:23:VAL:HB	2.49	0.53
42:L5:40:HIS:HB3	42:L5:43:LYS:HD2	3.81	0.53
45:L8:136:LEU:HD22	51:M5:3:ALA:HB2	1.90	0.53
50:M4:17:VAL:HA	50:M4:35:ILE:O	2.08	0.53
51:M5:154:PRO:O	51:M5:157:LYS:HG3	4.23	0.53
53:M7:116:HIS:O	53:M7:149:VAL:N	2.39	0.53
63:N7:121:ARG:O	63:N7:125:GLY:HA2	5.41	0.53
69:O3:86:ARG:HH12	36:5:498:A:H5'	216.27	0.53
79:Q3:18:TYR:H	36:5:2131:A:H61	227.09	0.53
3:S1:117:TRP:HE1	3:S1:152:ARG:NH2	2.07	0.53
6:S4:105:VAL:HG11	6:S4:245:LYS:H	2.50	0.53
6:S4:77:ARG:HD2	6:S4:82:TYR:CE1	4.62	0.53
1:2:1473:U:O2'	7:S5:103:ASN:ND2	2.42	0.53
8:S6:114:VAL:HG12	8:S6:115:LYS:HD3	1.90	0.53
10:S8:10:LYS:HE3	1:6:339:C:P	284.34	0.53
11:S9:149:ARG:O	11:S9:151:ASP:N	2.41	0.53
36:1:1445:U:H5''	36:1:1446:A:OP2	2.09	0.52
36:1:2561:A:O2'	36:1:2562:A:O5'	2.27	0.52
36:1:603:A:H2'	36:1:604:G:O4'	2.09	0.52
1:2:1148:C:H2'	1:2:1149:G:C8	2.44	0.52
1:2:641:G:H1	1:2:693:U:H3	1.56	0.52
68:O2:44:ARG:NH1	36:5:1145:G:OP1	206.83	0.52
70:O4:83:ASN:ND2	36:5:1709:C:OP1	215.60	0.52
36:5:201:A:OP2	86:5:3989:OHX:N1	2.42	0.52
36:5:3279:A:C2'	36:5:3280:U:H5'	2.39	0.52
36:5:3280:U:O2'	36:5:3281:U:H5''	2.09	0.52
86:5:3980:OHX:N6	86:5:4200:OHX:N3	2.57	0.52
1:6:11:A:N1	1:6:1143:A:H2	2.07	0.52
1:6:246:G:C6	1:6:247:A:C6	2.97	0.52
1:6:256:A:H2'	1:6:257:A:O4'	2.09	0.52
1:6:711:U:H5'	1:6:712:G:OP2	2.09	0.52
12:C0:30:ALA:HA	12:C0:38:LYS:HG2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:125:SER:OG	16:C4:126:THR:N	2.84	0.52
1:2:901:G:N1	16:C4:54:GLU:OE2	2.34	0.52
17:C5:98:ASN:HD21	17:C5:101:ALA:HB3	4.51	0.52
19:C7:10:LYS:HE3	1:6:1316:G:H4'	407.23	0.52
19:C7:115:LEU:HD13	19:C7:116:LYS:H	1.74	0.52
24:D2:30:SER:HB2	24:D2:61:ILE:HG13	1.91	0.52
25:D3:23:ARG:HB2	25:D3:29:TYR:CE1	3.22	0.52
46:L9:41:ILE:HD13	46:L9:67:ALA:HB1	3.52	0.52
52:M6:27:LEU:HD11	52:M6:102:LEU:HB2	1.90	0.52
53:M7:38:GLY:H	53:M7:114:VAL:HG13	1.74	0.52
55:M9:90:PRO:HB2	55:M9:93:VAL:HG23	1.89	0.52
58:N2:50:LEU:HB3	58:N2:54:VAL:HG23	1.91	0.52
59:N3:24:ASN:N	59:N3:98:ASN:O	2.42	0.52
63:N7:46:ILE:HD11	63:N7:48:ARG:C	2.29	0.52
73:O7:66:TYR:OH	73:O7:73:ARG:NH2	3.46	0.52
1:2:1773:C:OP1	77:Q1:3:ALA:HB3	2.08	0.52
2:S0:165:ARG:HH11	2:S0:165:ARG:HA	1.74	0.52
4:S2:40:LYS:HG3	4:S2:247:ALA:O	7.20	0.52
4:S2:96:THR:OG1	4:S2:97:ARG:N	3.55	0.52
7:S5:153:GLY:O	7:S5:155:ALA:N	2.42	0.52
1:2:354:C:H5''	10:S8:16:ALA:HB2	1.91	0.52
34:SR:123:ILE:HD11	34:SR:156:VAL:HG23	2.22	0.52
36:1:1240:A:H61	36:1:1244:A:C5'	2.21	0.52
36:1:1234:G:N2	36:1:1254:C:N3	2.52	0.52
86:1:3873:OHX:N5	51:M5:91:GLU:OE2	2.42	0.52
36:1:900:G:H1'	36:1:1589:A:H61	1.74	0.52
1:2:1347:U:O2	1:2:1516:A:H5'	2.09	0.52
1:2:1657:U:C4	86:2:2089:OHX:N4	2.78	0.52
36:5:1806:A:H2'	36:5:1807:G:O4'	2.09	0.52
36:5:277:G:H2'	36:5:278:U:C6	2.44	0.52
36:5:3287:U:H2'	36:5:3288:G:H5'	1.91	0.52
50:M4:77:ARG:NH1	36:5:562:C:OP2	346.36	0.52
1:6:789:A:H3'	1:6:790:U:H6	1.75	0.52
1:6:836:U:H2'	1:6:837:G:C8	2.44	0.52
1:6:848:C:H2'	1:6:849:C:C6	2.44	0.52
38:8:74:U:O2	86:8:220:OHX:N5	2.41	0.52
14:C2:76:GLU:OE2	14:C2:90:LYS:NZ	2.29	0.52
21:C9:16:ASN:HA	21:C9:56:LYS:NZ	2.34	0.52
24:D2:103:ILE:H	24:D2:103:ILE:HD13	4.93	0.52
27:D5:47:TYR:CZ	27:D5:51:LEU:HD11	2.95	0.52
41:L4:209:TYR:CE2	41:L4:229:ASN:HB2	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:76:ALA:HB3	42:L5:109:THR:HG22	1.91	0.52
45:L8:139:VAL:O	45:L8:143:ILE:HG13	2.29	0.52
36:1:1128:U:H5'	47:M0:4:ARG:NH2	2.24	0.52
48:M1:155:THR:OG1	48:M1:158:ASP:HB3	3.90	0.52
48:M1:71:VAL:HG11	48:M1:75:LYS:HG2	3.05	0.52
36:1:2338:C:C1'	59:N3:49:LEU:HD12	2.39	0.52
70:O4:41:ARG:HG2	70:O4:56:THR:HG21	1.92	0.52
76:Q0:77:ILE:HG22	76:Q0:78:ILE:H	1.74	0.52
6:S4:86:PHE:CE2	6:S4:102:VAL:HG23	2.88	0.52
6:S4:15:PRO:HG2	6:S4:18:TRP:CZ2	2.69	0.52
7:S5:215:ASP:O	7:S5:219:ARG:N	2.41	0.52
10:S8:36:THR:HG21	10:S8:173:PRO:HB2	1.98	0.52
11:S9:117:GLY:O	11:S9:119:ALA:N	2.47	0.52
35:SM:78:ASP:O	35:SM:80:ALA:N	3.39	0.52
34:SR:132:LYS:HD3	34:SR:140:CYS:SG	2.50	0.52
36:1:1048:A:H2'	47:M0:22:TYR:CE1	2.43	0.52
36:1:1781:C:H2'	36:1:1782:U:C6	2.42	0.52
36:1:2225:U:H2'	36:1:2226:U:C6	2.45	0.52
36:1:2358:A:H2'	36:1:2359:C:O4'	2.09	0.52
36:1:3195:U:O2'	36:1:3196:U:H5'	2.09	0.52
1:2:1067:C:H2'	1:2:1068:C:H6	1.70	0.52
1:2:1248:C:H2'	1:2:1249:U:H6	1.73	0.52
1:2:1362:U:H1'	1:2:1363:U:C5	2.43	0.52
1:2:1524:A:N3	1:2:1590:G:O2'	2.34	0.52
1:2:1556:A:C5	1:2:1560:U:C2	2.97	0.52
1:2:526:A:H2'	1:2:527:A:O4'	2.09	0.52
1:2:802:G:H21	24:D2:107:SER:HB3	1.74	0.52
36:5:209:A:H4'	36:5:211:A:C8	2.45	0.52
40:L3:329:PRO:HA	36:5:3047:U:H5'	233.42	0.52
44:L7:70:LYS:NZ	36:5:519:A:OP2	313.09	0.52
1:6:40:A:O2'	86:6:2108:OHX:N4	2.42	0.52
15:C3:113:PHE:HD1	15:C3:114:ARG:HH11	2.64	0.52
17:C5:127:ARG:O	17:C5:130:ARG:NH1	4.04	0.52
19:C7:104:ASN:O	19:C7:107:SER:HB3	2.09	0.52
40:L3:361:THR:HG22	40:L3:371:GLN:OE1	2.13	0.52
42:L5:143:LYS:HG3	42:L5:172:TYR:HD2	2.12	0.52
79:Q3:7:LYS:O	79:Q3:27:LYS:NZ	2.43	0.52
5:S3:167:PHE:CE1	5:S3:192:PRO:HB3	2.91	0.52
7:S5:148:ARG:HD2	7:S5:155:ALA:HB3	1.91	0.52
11:S9:124:HIS:CE1	11:S9:128:LEU:HD11	3.90	0.52
36:1:2666:C:OP2	36:1:2687:G:N1	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:277:G:OP1	86:1:3873:OHX:N5	2.41	0.52
36:1:2984:C:H2'	36:1:2985:C:H6	1.75	0.52
86:1:4000:OHX:N3	86:1:4171:OHX:N1	2.58	0.52
36:1:656:A:H2'	36:1:657:A:H8	1.72	0.52
1:2:1657:U:C2	86:2:2089:OHX:N1	2.77	0.52
1:2:480:G:H22	1:2:509:G:H1'	1.72	0.52
1:2:488:G:N2	1:2:500:C:O2	2.43	0.52
1:2:514:G:H1	1:2:543:C:H5	1.57	0.52
1:2:857:U:O2	1:2:857:U:H2'	2.10	0.52
37:3:89:G:N2	37:3:92:A:OP2	2.42	0.52
38:4:9:A:H2'	38:4:10:A:C8	2.45	0.52
36:5:1018:G:H2'	36:5:1019:G:O4'	2.10	0.52
36:5:2922:G:H5''	36:5:2923:U:OP2	2.09	0.52
36:5:3241:G:H2'	36:5:3245:A:H8	1.74	0.52
1:6:1291:G:N2	1:6:1291:G:OP2	2.41	0.52
28:D6:95:ARG:HG2	1:6:1797:A:H5'	342.84	0.52
15:C3:113:PHE:HA	15:C3:116:ILE:HD12	2.36	0.52
1:2:916:U:H3	16:C4:41:ARG:NH2	2.06	0.52
17:C5:68:PRO:O	86:C5:201:OHX:N5	6.35	0.52
21:C9:102:ARG:O	21:C9:105:LEU:N	3.31	0.52
25:D3:10:ASN:O	25:D3:12:ALA:N	2.41	0.52
27:D5:43:ASP:O	27:D5:46:LYS:N	2.42	0.52
28:D6:79:ILE:HA	28:D6:84:VAL:HG21	1.91	0.52
29:D7:54:VAL:O	29:D7:63:LEU:HB2	2.09	0.52
41:L4:230:VAL:HG21	41:L4:254:ALA:HA	2.58	0.52
45:L8:67:ILE:HG23	45:L8:237:ILE:HD12	1.90	0.52
47:M0:76:MET:CE	47:M0:138:VAL:HG11	2.39	0.52
48:M1:171:VAL:O	48:M1:172:LEU:HB2	2.09	0.52
55:M9:66:HIS:O	55:M9:69:SER:HB3	3.11	0.52
59:N3:87:ARG:HH12	59:N3:137:VAL:HG11	1.94	0.52
63:N7:10:VAL:O	63:N7:83:THR:HG22	2.21	0.52
63:N7:95:VAL:HG23	63:N7:96:VAL:HG23	6.33	0.52
67:O1:55:LEU:HB2	67:O1:95:PRO:HD3	1.91	0.52
69:O3:49:ILE:HG23	69:O3:100:ILE:HG13	2.00	0.52
38:4:38:U:C4	71:O5:89:ARG:HD2	2.44	0.52
79:Q3:6:LYS:HG2	79:Q3:7:LYS:HG3	5.30	0.52
3:S1:111:ARG:HB3	28:D6:68:TYR:CD2	2.44	0.52
6:S4:15:PRO:HG2	6:S4:18:TRP:CE2	2.44	0.52
1:2:1167:G:OP1	7:S5:101:GLY:HA3	2.10	0.52
11:S9:2:PRO:HD2	1:6:461:G:OP1	359.24	0.52
34:SR:273:ASP:OD1	34:SR:275:ARG:NH1	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:50:ASP:O	34:SR:52:GLN:N	2.40	0.52
36:1:1064:A:H5''	36:1:1066:G:O4'	2.10	0.52
36:1:1613:A:H2'	36:1:1614:C:H6	1.73	0.52
36:1:1481:A:O2'	36:1:1858:A:C2	2.62	0.52
36:1:2379:U:H2'	36:1:2380:U:C6	2.43	0.52
36:1:3118:C:H4'	76:Q0:106:ARG:NH2	2.18	0.52
36:1:1599:G:OP1	86:1:4083:OHX:N5	2.42	0.52
36:1:729:C:H2'	36:1:730:C:H6	1.73	0.52
1:2:1068:C:H2'	1:2:1069:A:C8	2.44	0.52
1:2:1393:C:H2'	1:2:1394:G:O4'	2.10	0.52
38:4:83:C:H1'	38:4:85:G:H21	1.75	0.52
36:5:2298:U:O4	36:5:2923:U:H5	1.93	0.52
36:5:2953:U:H2'	36:5:2954:U:H2'	1.92	0.52
86:5:3975:OHX:N4	86:5:4245:OHX:N2	2.57	0.52
19:C7:52:GLY:HA3	1:6:1389:C:O2'	422.65	0.52
8:S6:94:ARG:NH2	1:6:407:A:H5'	288.80	0.52
18:C6:55:VAL:HG21	18:C6:105:LEU:HG	1.92	0.52
19:C7:88:VAL:HG22	19:C7:89:SER:O	5.06	0.52
1:2:1479:A:OP1	21:C9:57:ARG:NH1	2.42	0.52
24:D2:103:ILE:HA	24:D2:112:ASP:HA	1.91	0.52
25:D3:126:LYS:HA	25:D3:131:SER:HA	2.25	0.52
40:L3:160:VAL:HG22	40:L3:183:LEU:HD13	5.72	0.52
41:L4:212:ASP:OD1	41:L4:216:VAL:HG22	2.09	0.52
45:L8:81:THR:OG1	45:L8:181:LYS:HB2	2.98	0.52
49:M3:42:ARG:O	49:M3:46:ILE:HG12	2.74	0.52
64:N8:104:THR:HG21	64:N8:112:ILE:HD11	2.12	0.52
67:O1:19:ARG:HD3	67:O1:35:GLU:CG	2.40	0.52
71:O5:34:GLN:HB3	71:O5:38:ARG:HD2	4.78	0.52
3:S1:103:MET:H	3:S1:215:VAL:HG13	2.23	0.52
9:S7:60:ILE:HD12	9:S7:92:PHE:CZ	2.45	0.52
1:2:1274:C:H5	35:SM:95:SER:HA	1.72	0.52
34:SR:159:ASN:O	34:SR:161:LYS:N	4.94	0.52
36:1:156:G:O2'	36:1:157:A:H4'	2.10	0.52
36:1:1765:U:H5''	55:M9:43:LYS:HE2	1.91	0.52
36:1:2221:G:N2	36:1:2224:A:OP2	2.38	0.52
36:1:2921:U:H2'	36:1:2923:U:H5''	1.91	0.52
36:1:718:G:OP2	36:1:718:G:H8	1.92	0.52
1:2:1483:A:H2'	1:2:1484:G:C8	2.44	0.52
1:2:1536:G:C6	1:2:1538:U:H1'	2.45	0.52
1:2:482:U:H2'	1:2:483:A:C8	2.45	0.52
1:2:793:A:H8	1:2:793:A:OP2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:892:A:H2'	1:2:893:U:C6	2.45	0.52
37:3:19:C:H2'	37:3:20:A:C8	2.42	0.52
86:5:4013:OHX:N3	86:5:4202:OHX:N5	2.57	0.52
13:C1:69:LYS:HB3	13:C1:71:LEU:HD21	3.21	0.52
15:C3:91:LEU:HB3	15:C3:122:ILE:HG12	1.91	0.52
24:D2:36:LYS:HD3	24:D2:39:GLN:OE1	3.39	0.52
4:S2:230:TRP:CD2	24:D2:68:ARG:HD3	2.49	0.52
25:D3:137:LYS:O	25:D3:139:LYS:N	3.35	0.52
41:L4:195:ARG:O	41:L4:196:ASN:HB2	2.16	0.52
42:L5:119:TYR:OH	42:L5:135:VAL:HG12	2.10	0.52
42:L5:269:SER:O	42:L5:270:LYS:HB2	4.61	0.52
44:L7:160:ARG:HB2	44:L7:203:TRP:CD2	2.77	0.52
36:1:119:U:C2	45:L8:138:HIS:CE1	2.98	0.52
46:L9:13:PRO:HG2	46:L9:16:VAL:HG11	3.12	0.52
49:M3:6:ASN:O	54:M8:164:ARG:NH1	3.08	0.52
59:N3:10:LYS:NZ	59:N3:56:ASP:OD1	2.75	0.52
63:N7:21:LYS:HE2	63:N7:47:GLU:O	2.08	0.52
3:S1:77:GLU:O	3:S1:79:HIS:N	2.40	0.52
8:S6:49:VAL:HB	8:S6:115:LYS:HG3	4.95	0.52
9:S7:96:ARG:NH1	9:S7:128:ASP:OD2	2.36	0.52
10:S8:5:ARG:HG3	10:S8:28:GLU:O	2.92	0.52
34:SR:202:LEU:HA	34:SR:212:ALA:O	2.10	0.52
36:1:1110:U:H2'	36:1:1111:U:C6	2.45	0.52
36:1:1235:U:H4'	36:1:1236:G:H5'	1.90	0.52
36:1:191:U:H2'	36:1:192:C:H6	1.73	0.52
36:1:284:A:OP1	78:Q2:41:ARG:NH1	2.43	0.52
36:1:3309:G:H5''	36:1:3309:G:N3	2.25	0.52
1:2:825:U:H3	1:2:847:A:H61	1.57	0.52
1:2:872:G:H2'	1:2:873:U:O4'	2.10	0.52
66:O0:53:LYS:HE2	36:5:2552:C:H5	242.06	0.52
36:5:2308:C:O2	86:5:4242:OHX:N1	2.43	0.52
36:5:702:C:O2	36:5:788:C:H4'	2.10	0.52
1:6:1451:C:H2'	1:6:1452:U:H6	1.75	0.52
1:6:1515:A:O2'	1:6:1517:U:OP2	2.21	0.52
1:6:407:A:H2'	1:6:408:C:C6	2.44	0.52
1:6:692:C:H2'	1:6:693:U:O4'	2.10	0.52
1:6:729:G:O2'	1:6:730:G:O5'	2.28	0.52
37:7:112:G:OP2	86:7:222:OHX:N2	2.43	0.52
29:D7:2:VAL:O	29:D7:3:LEU:HB2	2.64	0.52
29:D7:46:VAL:HG13	29:D7:54:VAL:HG21	2.41	0.52
41:L4:104:LYS:HD2	41:L4:106:TRP:CZ2	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:112:LYS:HD3	36:5:682:U:C5	112.84	0.52
41:L4:220:ARG:HG3	41:L4:221:ASN:N	2.24	0.52
37:3:22:A:H1'	42:L5:272:TYR:CZ	2.45	0.52
42:L5:281:GLU:O	42:L5:285:ARG:HG3	2.10	0.52
45:L8:97:TYR:O	45:L8:132:VAL:HG12	2.09	0.52
46:L9:7:GLU:HB2	46:L9:56:ALA:HB2	1.90	0.52
46:L9:94:TYR:CE2	46:L9:98:PRO:HA	2.52	0.52
50:M4:32:LEU:HD11	50:M4:94:TRP:CG	2.45	0.52
51:M5:10:LEU:HD22	51:M5:19:LEU:HD13	1.92	0.52
52:M6:12:LYS:HG2	52:M6:40:GLU:HB3	4.57	0.52
54:M8:165:ILE:HG21	54:M8:168:THR:HG22	2.14	0.52
55:M9:180:LYS:HA	55:M9:183:ALA:HB3	1.92	0.52
63:N7:26:VAL:HG12	63:N7:89:VAL:HG21	2.98	0.52
64:N8:2:PRO:HG2	64:N8:5:PHE:CE2	3.07	0.52
65:N9:32:LEU:O	65:N9:35:VAL:HB	2.10	0.52
7:S5:49:GLU:O	7:S5:51:VAL:HG23	2.09	0.52
10:S8:8:ARG:HG3	10:S8:8:ARG:O	2.09	0.52
11:S9:72:GLU:OE2	1:6:761:G:O2'	397.44	0.52
36:1:1447:G:H3'	53:M7:67:ILE:CD1	2.35	0.52
36:1:1636:U:H5''	63:N7:73:LYS:HZ2	1.75	0.52
36:1:2234:G:O6	86:1:4041:OHX:N1	2.43	0.52
36:1:3013:U:H2'	36:1:3014:U:C6	2.45	0.52
36:1:3228:C:H4'	36:1:3229:G:O5'	2.08	0.52
36:1:345:G:OP1	36:1:1429:G:N2	2.39	0.52
1:2:1080:U:O2'	1:2:1081:A:H5'	2.09	0.52
1:2:1590:G:H2'	1:2:1591:C:H6	1.75	0.52
1:2:198:A:H5''	1:2:199:G:OP2	2.10	0.52
1:2:542:A:H2'	1:2:544:A:C8	2.45	0.52
1:2:72:A:C2	1:2:73:U:N3	2.77	0.52
1:2:968:U:O3'	1:2:1032:G:N2	2.43	0.52
36:5:1838:G:H4'	36:5:1839:A:N3	2.25	0.52
36:5:2799:A:H5''	36:5:2800:G:O5'	2.09	0.52
1:6:1037:C:H2'	1:6:1038:U:H6	1.75	0.52
1:6:1754:A:H4'	1:6:1755:A:O5'	2.09	0.52
1:6:72:A:H2'	1:6:73:U:C1'	2.39	0.52
12:C0:29:GLN:HB3	12:C0:39:ASN:CB	2.39	0.52
15:C3:96:VAL:O	15:C3:100:LYS:HG2	5.46	0.52
21:C9:112:GLY:O	21:C9:127:ASN:HB3	2.74	0.52
22:D0:104:THR:HG22	22:D0:116:VAL:HG11	3.67	0.52
30:D8:44:VAL:HG12	30:D8:54:LEU:HD21	1.92	0.52
41:L4:139:GLY:O	41:L4:140:HIS:HB2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:74:ILE:HG13	41:L4:75:PRO:HD2	4.82	0.52
42:L5:184:ASP:HB3	42:L5:187:THR:O	2.10	0.52
49:M3:31:LYS:NZ	36:5:326:U:OP1	87.96	0.52
51:M5:23:GLN:HG2	51:M5:122:ASN:HD21	1.74	0.52
54:M8:176:ARG:NH1	64:N8:46:ASP:OD2	2.43	0.52
56:N0:26:ARG:HB3	57:N1:150:THR:HG22	4.64	0.52
62:N6:27:ARG:HG2	62:N6:78:PHE:CE1	2.45	0.52
68:O2:77:ALA:HB3	68:O2:81:ASP:OD2	3.69	0.52
70:O4:58:ARG:HG3	70:O4:59:PRO:HD2	1.97	0.52
72:O6:26:ILE:O	72:O6:29:LYS:N	2.51	0.52
72:O6:33:ALA:O	72:O6:34:SER:HB3	2.49	0.52
77:Q1:21:ARG:HD2	1:6:1653:C:O3'	284.18	0.52
77:Q1:9:ARG:NH1	77:Q1:9:ARG:HG3	2.40	0.52
2:S0:172:LEU:O	2:S0:176:LEU:HG	2.09	0.52
5:S3:31:GLU:O	5:S3:54:ARG:NH2	4.22	0.52
6:S4:126:VAL:HG13	6:S4:158:ASP:O	2.17	0.52
7:S5:128:ASN:O	7:S5:131:GLN:N	2.91	0.52
7:S5:91:GLU:OE2	7:S5:107:LYS:NZ	2.37	0.52
9:S7:91:ILE:HD12	9:S7:92:PHE:H	2.67	0.52
34:SR:80:ALA:O	34:SR:91:LEU:HD12	2.09	0.52
36:1:1229:G:H1	36:1:1280:C:H42	1.58	0.52
36:1:156:G:OP2	72:O6:27:SER:OG	2.24	0.52
36:1:2225:U:H2'	36:1:2226:U:H6	1.74	0.52
36:1:2620:G:H2'	36:1:2621:G:H8	1.75	0.52
36:1:3239:G:O6	86:1:3964:OHX:N6	2.43	0.52
1:2:1479:A:H2'	1:2:1480:G:H8	1.75	0.52
1:2:417:A:H4'	1:2:418:G:O5'	2.09	0.52
1:2:491:C:N3	1:2:496:G:N2	2.57	0.52
1:2:795:U:H5	1:2:796:A:N7	2.08	0.52
37:3:61:G:H2'	37:3:62:U:H6	1.74	0.52
36:5:1409:G:O6	86:5:4164:OHX:N6	2.43	0.52
36:5:123:A:C6	36:5:150:A:C5	2.98	0.52
36:5:1565:G:N2	36:5:1566:A:H1'	2.25	0.52
36:5:2518:C:H2'	36:5:2519:A:H8	1.74	0.52
36:5:2949:U:O2'	36:5:2950:G:H5'	2.10	0.52
36:5:304:G:N3	36:5:304:G:H5'	2.25	0.52
36:5:549:U:H2'	36:5:550:A:C8	2.44	0.52
1:6:1178:G:H2'	1:6:1179:G:O4'	2.10	0.52
1:6:1488:G:H3'	1:6:1515:A:H61	1.75	0.52
1:6:755:A:O2'	1:6:756:A:OP1	2.25	0.52
1:6:808:U:H2'	1:6:809:A:C8	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:97:C:H1'	1:6:426:G:H5'	1.90	0.52
12:C0:15:LEU:HG	12:C0:68:LEU:HD22	1.91	0.52
13:C1:2:SER:O	13:C1:3:THR:OG1	4.72	0.52
14:C2:31:VAL:HG23	14:C2:132:GLU:HB2	1.91	0.52
18:C6:81:ILE:O	18:C6:85:ILE:HD12	2.10	0.52
39:L2:36:GLU:O	39:L2:91:GLY:HA2	2.10	0.52
42:L5:8:LYS:HE2	36:5:2687:G:OP1	308.69	0.52
55:M9:148:ASP:OD1	55:M9:151:ARG:NH2	2.40	0.52
58:N2:59:ASP:OD1	58:N2:62:VAL:N	4.96	0.52
64:N8:3:SER:O	64:N8:6:THR:HG22	2.09	0.52
67:O1:94:GLU:HB2	67:O1:95:PRO:HD2	2.46	0.52
70:O4:44:CYS:SG	70:O4:81:CYS:HB3	2.50	0.52
3:S1:48:VAL:HG11	3:S1:61:LEU:HD22	3.56	0.52
5:S3:164:VAL:HG13	5:S3:168:ILE:HD11	1.90	0.52
7:S5:205:SER:C	7:S5:207:THR:H	2.14	0.52
8:S6:176:GLN:HG3	8:S6:177:ARG:H	1.75	0.52
35:SM:88:ARG:HG2	35:SM:91:THR:CG2	2.39	0.52
34:SR:16:HIS:ND1	34:SR:39:ASP:OD2	2.95	0.52
36:1:1765:U:H4'	36:1:1765:U:OP1	2.10	0.52
36:1:2193:U:H5'	36:1:2194:G:H5'	1.91	0.52
86:1:4000:OHX:N5	86:1:4171:OHX:N5	2.57	0.52
36:1:73:C:N3	49:M3:59:ARG:NH1	2.58	0.52
36:1:856:G:C6	36:1:857:G:N1	2.78	0.52
1:2:1291:G:H5'	4:S2:119:LYS:HE3	1.92	0.52
1:2:868:G:H1	1:2:960:U:H3	1.58	0.52
36:5:1566:A:H2'	36:5:1567:U:H5'	1.92	0.52
19:C7:60:ARG:NH1	1:6:1401:A:OP1	411.31	0.52
1:6:1511:U:H2'	1:6:1512:G:H8	1.75	0.52
1:6:1523:G:H5'	1:6:1523:G:N3	2.26	0.52
13:C1:36:LYS:HD3	1:6:248:U:H4'	311.08	0.52
12:C0:21:VAL:HB	12:C0:66:TYR:HB2	2.37	0.52
13:C1:21:ASN:N	13:C1:21:ASN:OD1	3.21	0.52
16:C4:117:ASP:OD2	16:C4:119:THR:OG1	2.23	0.52
26:D4:55:VAL:HG12	26:D4:75:VAL:HG13	7.44	0.52
39:L2:105:GLY:HA2	39:L2:139:HIS:CE1	3.74	0.52
39:L2:190:ARG:HB3	39:L2:191:LEU:HD23	6.40	0.52
40:L3:68:HIS:CD2	40:L3:69:LYS:HG3	2.45	0.52
45:L8:126:SER:O	36:5:120:G:N2	93.75	0.52
45:L8:25:PRO:HG2	45:L8:27:THR:HB	1.92	0.52
47:M0:193:ASP:O	47:M0:195:ALA:N	2.91	0.52
47:M0:205:SER:O	47:M0:209:ASN:HB2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:38:THR:HG22	57:N1:30:TYR:HB3	1.90	0.52
58:N2:16:THR:HG22	58:N2:64:THR:OG1	5.62	0.52
63:N7:35:SER:OG	63:N7:36:HIS:N	2.43	0.52
63:N7:57:HIS:CD2	63:N7:65:ARG:HH12	3.51	0.52
67:O1:27:LYS:O	67:O1:31:ARG:HB2	2.21	0.52
68:O2:40:SER:O	68:O2:44:ARG:HG3	2.13	0.52
79:Q3:7:LYS:HD2	36:5:1926:C:H2'	252.35	0.52
1:2:7:G:N7	4:S2:205:ARG:NH1	2.58	0.52
7:S5:118:LEU:HD23	7:S5:129:PRO:HB2	2.74	0.52
8:S6:148:SER:O	8:S6:151:ASP:HB2	3.41	0.52
8:S6:22:HIS:HA	8:S6:25:ARG:NH1	2.25	0.52
36:1:1149:G:O6	86:1:4165:OHX:N6	2.43	0.51
36:1:2174:G:OP2	39:L2:193:ARG:NH1	2.38	0.51
36:1:3006:A:OP2	52:M6:148:LYS:NZ	2.41	0.51
36:1:3337:G:H2'	36:1:3338:C:H6	1.75	0.51
36:5:1567:U:H2'	36:5:1568:U:H4'	1.92	0.51
36:5:2580:A:O2'	86:5:4133:OHX:N1	2.43	0.51
1:6:1015:U:OP1	86:6:2056:OHX:N3	2.44	0.51
1:6:25:C:OP2	1:6:25:C:H4'	2.10	0.51
1:6:542:A:H1'	1:6:543:C:H5'	1.91	0.51
1:6:615:A:O2'	1:6:621:A:N1	2.37	0.51
26:D4:83:LYS:HA	26:D4:91:LEU:HD11	1.92	0.51
33:E1:103:LEU:HD23	33:E1:105:TYR:HB2	2.84	0.51
41:L4:293:SER:O	41:L4:297:SER:OG	2.19	0.51
41:L4:82:THR:HG23	41:L4:84:ARG:H	2.11	0.51
45:L8:224:ASP:N	45:L8:224:ASP:OD1	3.05	0.51
49:M3:105:ASN:OD1	49:M3:107:GLU:HG2	2.41	0.51
58:N2:37:LEU:O	58:N2:41:ILE:HG13	2.13	0.51
63:N7:104:PRO:O	63:N7:107:ARG:N	2.78	0.51
4:S2:81:MET:HB2	4:S2:101:VAL:HG12	1.90	0.51
36:1:1307:G:C2	36:1:1308:A:C2	2.98	0.51
36:1:2416:U:H2'	36:1:2417:U:C6	2.45	0.51
36:1:2435:G:N7	36:1:2593:A:H2'	2.25	0.51
86:1:4029:OHX:N4	86:1:4042:OHX:N1	2.58	0.51
36:1:600:G:N7	86:1:4095:OHX:N1	2.58	0.51
1:2:614:C:OP2	25:D3:5:LYS:NZ	2.34	0.51
36:5:1014:U:C3'	36:5:1015:U:H5'	2.41	0.51
76:Q0:113:ARG:NH1	36:5:1298:C:O3'	290.41	0.51
72:O6:82:ARG:NH2	36:5:271:C:O2	130.83	0.51
86:5:4013:OHX:N3	86:5:4202:OHX:N1	2.58	0.51
49:M3:59:ARG:HG2	36:5:73:C:O2'	94.35	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1315:U:OP1	1:6:1328:G:N2	2.38	0.51
1:6:1350:U:H2'	1:6:1351:G:H8	1.76	0.51
86:6:2060:OHX:N5	86:6:2147:OHX:N3	2.59	0.51
14:C2:59:LEU:HB3	14:C2:123:VAL:HB	2.51	0.51
21:C9:26:GLY:O	21:C9:28:LEU:HG	2.11	0.51
22:D0:22:ILE:HD12	22:D0:118:VAL:HG23	1.92	0.51
25:D3:98:GLU:O	25:D3:99:ASN:HB2	2.21	0.51
43:L6:102:ASN:OD1	43:L6:104:GLU:HB3	2.09	0.51
43:L6:62:THR:OG1	43:L6:78:ARG:HD3	4.70	0.51
48:M1:28:ASP:O	48:M1:32:ARG:HB2	2.84	0.51
49:M3:168:ARG:HA	49:M3:171:ARG:HB2	1.92	0.51
50:M4:113:THR:CB	50:M4:116:GLU:HG3	2.76	0.51
52:M6:182:ASN:O	52:M6:185:ALA:N	2.98	0.51
57:N1:105:PHE:O	57:N1:109:VAL:HG23	2.67	0.51
57:N1:92:ARG:NH1	36:5:2736:A:OP1	235.18	0.51
59:N3:11:PHE:HB2	59:N3:88:ARG:NH1	2.64	0.51
61:N5:135:ILE:O	61:N5:139:ILE:HG22	2.09	0.51
63:N7:16:GLY:O	63:N7:18:TYR:N	2.43	0.51
64:N8:74:ASN:HD22	64:N8:115:LYS:H	1.56	0.51
68:O2:64:LYS:HG2	68:O2:65:PHE:CE2	3.40	0.51
73:O7:65:ARG:HG3	73:O7:65:ARG:NH1	2.19	0.51
3:S1:222:LYS:HD3	3:S1:223:PHE:H	1.74	0.51
8:S6:208:TYR:C	8:S6:210:GLN:H	3.12	0.51
9:S7:105:THR:O	9:S7:107:ARG:N	4.33	0.51
9:S7:30:SER:O	9:S7:34:LEU:HB2	2.11	0.51
35:SM:48:ARG:HH12	36:5:1017:C:H5''	337.32	0.51
36:1:3344:A:H2	36:1:3361:G:N2	2.08	0.51
36:1:381:U:O4	86:1:4060:OHX:N4	2.43	0.51
36:1:975:C:H2'	36:1:976:U:C6	2.45	0.51
1:2:1317:C:H2'	1:2:1318:G:O4'	2.10	0.51
1:2:1291:G:H21	1:2:1324:G:H22	1.58	0.51
1:2:372:G:H1'	1:2:612:U:O2	2.10	0.51
1:2:393:C:H2'	1:2:394:C:H6	1.75	0.51
1:2:553:G:C6	1:2:554:C:N3	2.79	0.51
1:2:619:A:H5'	1:2:620:A:OP2	2.10	0.51
1:2:700:C:H42	1:2:738:G:H1	1.58	0.51
1:2:826:U:H2'	1:2:827:C:C6	2.44	0.51
36:5:118:U:O2	36:5:121:A:H5'	2.11	0.51
36:5:1714:A:H2	36:5:1727:G:N3	2.09	0.51
36:5:3033:A:H2'	36:5:3034:C:C6	2.45	0.51
1:6:1150:G:O6	86:6:2115:OHX:N5	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:406:G:H1'	38:8:16:G:N2	2.26	0.51
15:C3:42:ARG:NH1	15:C3:80:LEU:HD11	5.68	0.51
16:C4:30:VAL:HG22	16:C4:39:ILE:HG13	1.92	0.51
16:C4:81:VAL:HG13	16:C4:115:ILE:HG23	3.33	0.51
18:C6:99:GLU:O	18:C6:102:LYS:N	2.53	0.51
18:C6:126:PRO:O	18:C6:128:LYS:HE3	2.10	0.51
26:D4:19:ALA:HB1	26:D4:81:GLU:HG2	1.92	0.51
26:D4:94:TYR:HB2	26:D4:96:LEU:HD12	1.90	0.51
47:M0:3:ARG:NH2	47:M0:63:GLU:HG3	2.25	0.51
48:M1:132:ASN:HA	48:M1:154:THR:HG21	1.92	0.51
51:M5:182:ASN:HB2	51:M5:183:THR:HG22	3.40	0.51
36:1:1543:G:OP1	51:M5:35:VAL:HG23	2.11	0.51
51:M5:73:ARG:HB3	51:M5:75:VAL:HG22	3.33	0.51
55:M9:96:ILE:O	55:M9:100:ARG:HG3	2.11	0.51
63:N7:26:VAL:O	63:N7:93:LYS:NZ	2.40	0.51
64:N8:96:LYS:O	64:N8:98:THR:N	2.44	0.51
68:O2:24:ARG:HG2	68:O2:25:TYR:CZ	2.63	0.51
38:4:67:U:H5''	73:O7:84:SER:O	2.09	0.51
79:Q3:58:SER:O	79:Q3:61:LYS:NZ	2.95	0.51
2:S0:30:GLN:NE2	2:S0:149:LEU:HD13	2.26	0.51
3:S1:138:PHE:CD2	3:S1:214:LYS:HB3	2.49	0.51
6:S4:129:VAL:HB	6:S4:139:VAL:HG12	1.92	0.51
7:S5:222:LYS:HE3	7:S5:225:ARG:NH1	2.25	0.51
34:SR:218:GLY:HA2	34:SR:238:ASP:O	2.10	0.51
36:1:1555:U:O2'	36:1:2169:G:N2	2.43	0.51
1:2:1061:A:H2'	1:2:1062:A:H5'	1.93	0.51
36:5:1262:G:H5''	36:5:1263:A:OP2	2.11	0.51
36:5:172:G:N3	36:5:172:G:H2'	2.26	0.51
40:L3:130:PHE:CE1	36:5:3149:G:H4'	221.13	0.51
36:5:186:U:OP2	86:5:3912:OHX:N4	2.43	0.51
86:5:3980:OHX:N2	86:5:4200:OHX:N5	2.59	0.51
36:5:879:U:O2	36:5:2357:A:H1'	2.10	0.51
1:6:1268:G:H1'	1:6:1448:G:H5''	1.91	0.51
1:6:1271:G:H2'	1:6:1272:U:O4'	2.11	0.51
1:6:1588:G:OP1	86:6:2125:OHX:N2	2.43	0.51
1:6:1765:A:OP2	86:6:2127:OHX:N4	2.43	0.51
1:6:1518:C:OP2	86:6:2144:OHX:N1	2.43	0.51
10:S8:29:LEU:HD12	1:6:400:A:N6	297.26	0.51
1:6:65:A:H2	1:6:84:A:H62	1.58	0.51
15:C3:55:ARG:HD2	15:C3:56:ASP:OD2	2.11	0.51
17:C5:76:VAL:O	17:C5:95:GLY:N	2.69	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:65:GLU:HG2	20:C8:68:ARG:NH2	2.96	0.51
21:C9:114:VAL:HG21	21:C9:122:ARG:HB3	1.92	0.51
21:C9:52:GLY:O	21:C9:54:PHE:N	2.35	0.51
22:D0:83:GLU:CD	22:D0:85:ARG:HH21	2.14	0.51
28:D6:85:ARG:O	28:D6:86:VAL:HB	2.09	0.51
31:D9:15:GLY:O	31:D9:17:GLY:N	3.02	0.51
32:E0:29:LYS:HG3	32:E0:30:PRO:HD2	4.71	0.51
41:L4:237:GLN:O	41:L4:246:ARG:HG3	2.09	0.51
42:L5:86:TYR:CE1	42:L5:247:ILE:HA	2.46	0.51
42:L5:289:LYS:O	42:L5:292:ALA:HB3	2.88	0.51
46:L9:47:LYS:HB2	50:M4:7:VAL:HB	1.92	0.51
48:M1:81:GLU:OE1	48:M1:167:TYR:HE2	2.65	0.51
49:M3:105:ASN:ND2	49:M3:108:ILE:HD13	5.25	0.51
50:M4:47:ASP:CG	50:M4:55:ARG:HB2	2.31	0.51
52:M6:85:ARG:HD3	52:M6:90:HIS:ND1	3.45	0.51
53:M7:112:LEU:HA	53:M7:151:THR:O	2.46	0.51
56:N0:29:ILE:HD12	56:N0:40:ARG:HB3	1.92	0.51
57:N1:42:ILE:HG12	57:N1:96:ILE:HD11	2.05	0.51
62:N6:14:LYS:HE3	36:5:335:G:OP2	76.59	0.51
66:O0:53:LYS:HE3	66:O0:57:GLU:OE1	4.01	0.51
36:1:1405:U:OP2	68:O2:59:SER:OG	2.29	0.51
72:O6:56:ARG:HH22	72:O6:76:ARG:NH1	5.14	0.51
74:O8:5:ILE:CG2	74:O8:54:LEU:HB2	2.60	0.51
3:S1:29:TRP:NE1	3:S1:47:LEU:HG	2.24	0.51
4:S2:243:TYR:HB3	4:S2:246:GLU:HB2	1.92	0.51
5:S3:46:THR:HB	5:S3:84:ILE:HG12	1.93	0.51
8:S6:50:PHE:HB3	8:S6:111:LEU:HB3	2.38	0.51
10:S8:163:GLY:HA3	36:1:3354:U:H1'	1.93	0.51
36:1:138:U:H2'	36:1:139:G:H8	1.75	0.51
36:1:1798:A:H2'	36:1:1799:A:C8	2.46	0.51
1:2:17:C:H2'	1:2:18:C:C6	2.45	0.51
86:2:2044:OHX:N2	86:2:2098:OHX:N5	2.58	0.51
1:2:246:G:H1'	13:C1:40:LEU:HD13	1.92	0.51
1:2:309:C:H2'	1:2:310:C:C6	2.44	0.51
41:L4:93:MET:HB2	36:5:658:G:H21	144.82	0.51
1:6:1142:A:H2'	1:6:1143:A:C8	2.45	0.51
33:E1:134:ASN:N	1:6:1251:U:H4'	441.73	0.51
5:S3:185:LYS:HE2	1:6:1278:G:OP1	405.26	0.51
1:6:1645:G:H22	1:6:1756:A:H2	1.57	0.51
16:C4:132:ARG:HB3	1:6:1787:C:OP2	292.74	0.51
1:6:725:U:H2'	1:6:726:C:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:846:G:H2'	1:6:847:A:C8	2.46	0.51
17:C5:119:PHE:HA	35:SM:57:ASN:ND2	2.82	0.51
18:C6:45:ARG:O	18:C6:48:VAL:HG12	2.29	0.51
18:C6:7:VAL:HG22	18:C6:8:GLN:H	4.75	0.51
21:C9:12:GLN:O	21:C9:16:ASN:HB2	2.96	0.51
21:C9:52:GLY:C	21:C9:54:PHE:H	2.14	0.51
24:D2:86:ILE:HD12	24:D2:87:GLU:N	2.24	0.51
26:D4:109:LYS:O	26:D4:112:LYS:N	3.12	0.51
44:L7:173:LEU:HD23	44:L7:178:ILE:HG21	1.92	0.51
45:L8:57:ARG:O	45:L8:61:GLN:HG3	3.25	0.51
48:M1:38:GLU:O	48:M1:40:LEU:N	2.41	0.51
49:M3:54:LEU:HD13	49:M3:75:PHE:CZ	2.45	0.51
54:M8:178:ARG:HD3	64:N8:50:PRO:HB2	3.10	0.51
57:N1:38:ASP:O	57:N1:64:VAL:HG23	2.11	0.51
61:N5:115:ARG:NH1	61:N5:119:THR:OG1	2.52	0.51
62:N6:59:VAL:HG12	62:N6:103:LYS:O	2.11	0.51
62:N6:3:LYS:HD2	62:N6:8:VAL:HG23	4.75	0.51
67:O1:20:LEU:HD11	67:O1:32:ALA:HB2	2.13	0.51
3:S1:138:PHE:HD2	3:S1:214:LYS:HB3	1.75	0.51
5:S3:220:PRO:O	5:S3:221:SER:OG	2.23	0.51
7:S5:162:VAL:HG22	7:S5:167:ARG:HG2	3.31	0.51
7:S5:37:GLN:OE1	18:C6:53:LEU:HD22	2.41	0.51
7:S5:43:PHE:N	7:S5:46:TRP:H	2.74	0.51
34:SR:132:LYS:HD2	34:SR:134:TRP:CZ2	2.45	0.51
34:SR:238:ASP:OD2	34:SR:258:THR:HG23	2.11	0.51
36:1:1544:G:O6	86:1:4055:OHX:N4	2.43	0.51
86:1:4029:OHX:N4	86:1:4042:OHX:N3	2.58	0.51
36:5:1032:C:H5'	36:5:1033:U:OP2	2.11	0.51
36:5:1110:U:H2'	36:5:1111:U:C6	2.44	0.51
71:O5:95:PHE:CD2	36:5:136:G:H5'	63.02	0.51
55:M9:99:LEU:HD13	36:5:1722:U:H5''	224.81	0.51
86:6:2060:OHX:N5	86:6:2147:OHX:N6	2.58	0.51
1:6:102:U:O4	1:6:360:A:H2'	2.10	0.51
1:6:485:A:N6	1:6:486:G:N3	2.59	0.51
1:6:799:A:H2'	1:6:800:U:O4'	2.11	0.51
3:S1:69:CYS:SG	16:C4:114:ARG:HD3	2.51	0.51
17:C5:60:LEU:HD23	17:C5:76:VAL:HG21	3.26	0.51
18:C6:82:ARG:HH12	18:C6:114:ARG:HB2	2.08	0.51
16:C4:114:ARG:HA	28:D6:62:TYR:CE1	2.46	0.51
39:L2:95:SER:OG	39:L2:97:ASN:OD1	2.28	0.51
46:L9:44:THR:HG22	36:5:3186:A:N3	326.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:24:VAL:HG12	51:M5:199:LEU:HB2	1.93	0.51
49:M3:59:ARG:O	49:M3:59:ARG:HG3	4.33	0.51
51:M5:74:PRO:HA	36:5:2166:A:O4'	152.42	0.51
57:N1:57:TYR:CG	57:N1:89:LEU:HD21	2.47	0.51
64:N8:6:THR:CG2	64:N8:9:ARG:HG2	2.90	0.51
73:O7:39:TYR:CD2	73:O7:40:PRO:HA	2.45	0.51
79:Q3:87:ARG:O	79:Q3:90:VAL:HG22	3.84	0.51
2:S0:184:LEU:HD12	23:D1:45:ALA:HB2	1.92	0.51
5:S3:151:LYS:HE3	1:6:1424:A:OP2	399.39	0.51
11:S9:125:ALA:O	11:S9:129:ILE:HG13	2.11	0.51
34:SR:117:LYS:N	34:SR:117:LYS:HD2	2.25	0.51
19:C7:22:PRO:HA	34:SR:216:LYS:NZ	2.25	0.51
1:2:1517:U:OP2	1:2:1518:C:N4	2.42	0.51
1:2:142:G:N2	1:2:173:A:H2	2.05	0.51
1:2:881:A:H2'	1:2:882:U:O4'	2.10	0.51
36:1:407:A:C2	38:4:17:A:H1'	2.46	0.51
36:5:308:A:H5'	36:5:2223:A:O2'	2.11	0.51
36:5:687:U:H2'	36:5:688:G:C8	2.46	0.51
8:S6:191:ARG:NH1	1:6:177:U:H1'	318.57	0.51
1:6:484:C:H42	1:6:503:G:N2	2.09	0.51
38:8:23:U:H6	38:8:23:U:O5'	1.94	0.51
21:C9:115:GLU:O	21:C9:117:SER:N	2.44	0.51
23:D1:41:GLU:N	23:D1:41:GLU:OE1	2.44	0.51
24:D2:11:LEU:HD12	24:D2:74:VAL:HB	1.91	0.51
16:C4:107:ARG:HH12	28:D6:52:ASP:CG	4.79	0.51
29:D7:80:ARG:HG2	29:D7:81:ARG:N	2.26	0.51
41:L4:138:ARG:HB3	41:L4:138:ARG:HH11	3.32	0.51
44:L7:180:SER:H	44:L7:183:ASP:HB2	1.76	0.51
51:M5:38:ARG:HD3	51:M5:39:ALA:N	2.26	0.51
52:M6:124:LEU:HD11	56:N0:167:ARG:HH21	1.76	0.51
53:M7:125:GLN:HB2	53:M7:141:SER:HB2	1.92	0.51
55:M9:98:ARG:HD3	55:M9:133:LYS:O	4.68	0.51
60:N4:45:ASN:O	60:N4:48:ARG:HG3	2.11	0.51
9:S7:164:TYR:OH	9:S7:165:LYS:HE2	3.01	0.51
10:S8:16:ALA:HB2	1:6:354:C:H5''	297.59	0.51
34:SR:200:ASN:O	34:SR:201:THR:HG22	2.11	0.51
36:1:2771:U:H2'	36:1:2772:C:O2	2.11	0.51
36:1:3251:U:H2'	36:1:3252:G:C8	2.45	0.51
36:1:501:A:H5''	43:L6:28:GLN:HE21	1.75	0.51
36:1:524:U:OP1	50:M4:77:ARG:NH2	2.44	0.51
1:2:1158:C:OP2	86:2:2171:OHX:N5	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1480:G:H3'	1:2:1481:C:H6	1.75	0.51
1:2:1607:G:H2'	1:2:1608:U:C6	2.46	0.51
1:2:889:U:H2'	1:2:890:C:O4'	2.11	0.51
1:2:996:U:H3	1:2:1008:G:H1	1.59	0.51
36:5:119:U:H4'	36:5:120:G:H3'	1.92	0.51
36:5:181:U:H1'	36:5:236:G:N2	2.26	0.51
36:5:2425:G:H2'	36:5:2426:U:O4'	2.10	0.51
86:5:3980:OHX:N4	86:5:4200:OHX:N1	2.59	0.51
1:6:56:U:O4	1:6:92:A:H4'	2.11	0.51
15:C3:119:GLU:HG3	15:C3:141:TYR:HE2	3.89	0.51
15:C3:65:VAL:C	15:C3:67:THR:H	3.21	0.51
16:C4:41:ARG:O	16:C4:42:VAL:HG22	2.11	0.51
16:C4:91:THR:C	16:C4:93:THR:H	2.09	0.51
20:C8:49:LYS:HG3	20:C8:81:ILE:HD11	2.45	0.51
22:D0:95:ALA:HB1	22:D0:99:ILE:HG13	3.32	0.51
32:E0:30:PRO:O	32:E0:35:TYR:HB2	2.10	0.51
40:L3:13:HIS:HD1	40:L3:15:GLY:H	1.59	0.51
41:L4:99:MET:HG3	41:L4:102:PRO:HB3	1.93	0.51
42:L5:279:LYS:HE3	42:L5:282:ARG:NH1	2.21	0.51
45:L8:82:LEU:HD12	45:L8:83:ASP:H	1.75	0.51
46:L9:48:VAL:HG21	46:L9:52:LEU:HD13	2.63	0.51
36:1:2679:A:HO2'	48:M1:52:TYR:HH	1.59	0.51
50:M4:134:ALA:O	50:M4:136:ALA:N	2.69	0.51
52:M6:148:LYS:HB2	52:M6:149:TYR:CE2	2.45	0.51
59:N3:120:LYS:H	59:N3:137:VAL:HG23	1.76	0.51
60:N4:9:SER:HB2	60:N4:51:TRP:CZ3	2.76	0.51
63:N7:12:VAL:HG12	63:N7:13:VAL:O	2.11	0.51
73:O7:18:LEU:HA	73:O7:25:ARG:H	1.76	0.51
75:O9:21:ARG:HD3	75:O9:22:PRO:O	2.10	0.51
79:Q3:49:ARG:HD2	79:Q3:50:GLY:N	2.26	0.51
2:S0:50:VAL:HA	2:S0:53:THR:HB	2.32	0.51
3:S1:121:ILE:HG12	3:S1:161:ILE:HG23	1.92	0.51
3:S1:76:SER:OG	3:S1:77:GLU:N	3.13	0.51
6:S4:202:ASP:OD2	6:S4:202:ASP:N	2.43	0.51
6:S4:227:VAL:O	6:S4:228:ILE:HG12	2.11	0.51
7:S5:58:LEU:HD11	7:S5:167:ARG:NH1	2.71	0.51
7:S5:222:LYS:HG3	7:S5:225:ARG:CZ	2.41	0.51
11:S9:31:ALA:HA	11:S9:36:LEU:HD12	2.15	0.51
34:SR:178:VAL:HG23	34:SR:192:PHE:O	4.30	0.51
36:1:3121:U:H1'	36:1:3122:A:H5''	1.93	0.51
36:1:409:A:OP2	86:1:4054:OHX:N5	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1532:U:OP2	27:D5:77:ARG:NH1	2.43	0.51
36:5:1000:C:C2	36:5:1045:C:N4	2.78	0.51
36:5:1804:A:H2'	36:5:1805:C:C6	2.45	0.51
36:5:648:C:N4	36:5:2375:G:H5'	2.26	0.51
40:L3:174:LYS:N	36:5:3314:A:OP1	203.95	0.51
86:5:4057:OHX:N3	86:5:4201:OHX:N6	2.58	0.51
36:5:621:A:H2'	36:5:622:A:C8	2.46	0.51
1:6:1003:A:O2'	1:6:1005:A:N6	2.38	0.51
1:6:1273:G:H4'	1:6:1274:C:H5''	1.92	0.51
1:6:1714:A:H2'	1:6:1715:G:O4'	2.10	0.51
1:6:829:A:OP1	1:6:829:A:H4'	2.09	0.51
37:7:55:A:H2'	37:7:56:A:O4'	2.10	0.51
2:S0:88:LYS:NZ	19:C7:82:ASP:O	4.94	0.51
21:C9:14:PHE:HZ	21:C9:132:LEU:HG	1.76	0.51
1:2:780:A:C8	26:D4:8:ARG:HB3	2.46	0.51
44:L7:51:TYR:O	44:L7:54:GLU:HB3	2.11	0.51
45:L8:95:ASN:ND2	45:L8:98:ARG:HH12	5.14	0.51
36:1:767:U:H5'	49:M3:186:ARG:CZ	2.41	0.51
51:M5:6:TYR:CD2	72:O6:40:VAL:HG13	2.74	0.51
52:M6:68:ARG:HH12	36:5:2988:C:P	215.00	0.51
59:N3:127:PRO:O	59:N3:131:SER:N	3.03	0.51
59:N3:48:ARG:NH1	59:N3:48:ARG:HG3	2.29	0.51
64:N8:88:ASP:OD2	64:N8:88:ASP:N	4.49	0.51
68:O2:21:HIS:CE1	68:O2:24:ARG:HD2	2.46	0.51
72:O6:62:ARG:HH12	72:O6:98:ARG:HD2	1.76	0.51
78:Q2:100:LYS:NZ	78:Q2:100:LYS:H	2.08	0.51
1:2:297:U:H5''	6:S4:37:LYS:HD3	1.93	0.51
7:S5:59:VAL:HG12	7:S5:60:ASP:H	1.76	0.51
34:SR:111:MET:H	34:SR:126:SER:HA	1.75	0.51
34:SR:291:SER:O	34:SR:304:GLY:N	2.41	0.51
36:1:1562:C:H2'	36:1:1563:C:C6	2.46	0.51
36:1:2207:A:C2'	36:1:2208:A:H5'	2.41	0.51
36:1:2396:G:OP1	36:1:2397:A:H4'	2.10	0.51
86:2:2090:OHX:N3	86:2:2131:OHX:N6	2.58	0.51
1:2:505:A:N3	1:2:505:A:H2'	2.26	0.51
1:2:523:G:OP1	26:D4:60:PHE:HB2	2.11	0.51
1:2:6:G:OP2	4:S2:205:ARG:HD2	2.11	0.51
38:4:79:A:H2'	38:4:80:A:C1'	2.39	0.51
36:5:252:U:H4'	36:5:253:A:C5'	2.40	0.51
79:Q3:4:ARG:HD2	36:5:837:A:OP2	238.64	0.51
1:6:1497:U:C2	1:6:1498:G:C8	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1688:U:H2'	1:6:1689:A:C8	2.46	0.51
1:6:837:G:O6	86:6:2101:OHX:N1	2.44	0.51
1:6:315:A:O2'	86:6:2160:OHX:N1	2.44	0.51
1:6:235:G:H2'	1:6:236:A:C8	2.46	0.51
12:C0:87:VAL:O	12:C0:89:ALA:N	4.97	0.51
15:C3:105:ASN:HB3	1:6:879:G:O2'	275.94	0.51
25:D3:93:LEU:HG	25:D3:93:LEU:O	2.11	0.51
26:D4:14:SER:HB2	26:D4:21:LYS:HE3	1.92	0.51
29:D7:36:LYS:HB3	29:D7:43:ILE:HG23	1.93	0.51
29:D7:44:THR:HB	29:D7:63:LEU:HD11	4.18	0.51
1:2:1594:G:H5''	31:D9:33:LYS:HG3	1.93	0.51
40:L3:188:ILE:O	40:L3:191:LYS:HB2	2.11	0.51
41:L4:202:ARG:HA	41:L4:202:ARG:NE	2.26	0.51
45:L8:133:LYS:HB2	45:L8:199:ALA:O	3.15	0.51
47:M0:86:HIS:ND1	47:M0:139:ARG:NH1	2.59	0.51
53:M7:109:ALA:O	53:M7:111:LYS:N	2.44	0.51
53:M7:67:ILE:N	53:M7:67:ILE:HD13	3.49	0.51
56:N0:151:PRO:C	56:N0:153:PRO:HD3	2.31	0.51
57:N1:13:TYR:O	86:N1:201:OHX:N5	2.44	0.51
64:N8:14:HIS:N	64:N8:14:HIS:ND1	2.59	0.51
36:1:40:A:N7	64:N8:29:PRO:O	2.44	0.51
66:O0:57:GLU:OE1	66:O0:69:TYR:OH	3.09	0.51
3:S1:126:THR:HA	3:S1:136:ARG:HA	2.27	0.51
6:S4:26:CYS:HB2	6:S4:27:TYR:CE2	4.76	0.51
7:S5:144:GLU:HA	7:S5:162:VAL:HG12	1.92	0.51
8:S6:48:TYR:CE2	8:S6:121:LEU:HD22	4.40	0.51
10:S8:184:LEU:HD21	10:S8:192:TYR:CD2	5.38	0.51
35:SM:134:ASP:O	35:SM:134:ASP:OD1	2.29	0.51
34:SR:64:HIS:CE1	34:SR:84:SER:HB3	2.96	0.51
36:1:2419:A:H1'	36:1:2804:A:O4'	2.11	0.50
36:1:3192:U:O4	86:1:4127:OHX:N1	2.44	0.50
86:1:4204:OHX:N4	38:4:16:G:OP1	2.44	0.50
1:2:1381:U:H1'	1:2:1516:A:N6	2.26	0.50
36:5:1176:C:H2'	36:5:1177:G:N2	2.26	0.50
36:5:1556:C:C5	36:5:2169:G:C4	2.99	0.50
36:5:529:A:H2'	36:5:530:G:O4'	2.10	0.50
36:5:541:U:H2'	36:5:542:G:C8	2.46	0.50
36:5:985:U:H2'	36:5:986:U:H6	1.76	0.50
1:6:700:C:H2'	1:6:701:U:C6	2.46	0.50
21:C9:79:LEU:HD23	21:C9:80:TYR:CE2	3.45	0.50
21:C9:89:ARG:HB3	21:C9:90:PRO:HD2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:23:ARG:HA	24:D2:65:LEU:HD22	1.92	0.50
25:D3:14:LYS:O	25:D3:18:HIS:HB3	4.32	0.50
29:D7:61:THR:HG23	29:D7:62:ILE:O	2.11	0.50
42:L5:148:ILE:HG13	42:L5:159:VAL:HG11	2.67	0.50
42:L5:36:LEU:HD23	36:5:2748:A:N3	254.30	0.50
45:L8:195:SER:O	45:L8:195:SER:OG	2.27	0.50
52:M6:22:VAL:HG11	52:M6:120:VAL:HG11	2.26	0.50
54:M8:57:ILE:HG12	54:M8:147:ARG:HD2	1.92	0.50
59:N3:48:ARG:NH2	36:5:3043:C:OP2	251.34	0.50
67:O1:41:LYS:HA	67:O1:46:THR:HG23	4.15	0.50
69:O3:60:ARG:NH2	69:O3:60:ARG:HB2	2.26	0.50
74:O8:73:LEU:HG	74:O8:74:LYS:H	1.76	0.50
2:S0:9:LEU:HD13	2:S0:10:THR:O	3.08	0.50
4:S2:101:VAL:HG22	4:S2:115:ILE:HG12	1.95	0.50
4:S2:237:VAL:HB	4:S2:242:ILE:CD1	2.91	0.50
5:S3:114:ALA:O	5:S3:117:ARG:N	2.94	0.50
7:S5:89:ILE:HD12	7:S5:90:ILE:N	2.42	0.50
10:S8:8:ARG:HH21	10:S8:21:PHE:N	2.09	0.50
11:S9:78:ARG:HG3	11:S9:79:ARG:N	2.36	0.50
36:1:3294:A:H5'	40:L3:128:LYS:HG3	1.93	0.50
36:1:1019:G:O6	86:1:4057:OHX:N1	2.44	0.50
36:1:621:A:O2'	86:1:4163:OHX:N1	2.44	0.50
36:5:1502:C:N3	36:5:1513:G:O6	2.44	0.50
41:L4:60:THR:HG23	36:5:364:G:OP1	128.59	0.50
86:5:4057:OHX:N5	86:5:4201:OHX:N6	2.60	0.50
1:6:1063:U:H2'	1:6:1064:G:H8	1.76	0.50
1:6:1408:G:H2'	1:6:1409:G:O4'	2.11	0.50
1:6:1414:U:O2'	86:6:2048:OHX:N5	2.45	0.50
1:6:1672:G:H2'	1:6:1673:G:C8	2.46	0.50
1:6:300:A:H2'	1:6:301:A:C8	2.46	0.50
1:6:452:A:OP2	86:6:2062:OHX:N1	2.44	0.50
1:6:453:U:O2	1:6:453:U:H3'	2.11	0.50
1:6:542:A:H1'	1:6:543:C:P	2.50	0.50
18:C6:52:LEU:HD22	18:C6:60:PHE:CZ	2.47	0.50
20:C8:44:ASN:HD21	20:C8:48:LYS:HE3	1.76	0.50
1:2:871:G:O2'	29:D7:66:PRO:HB2	2.12	0.50
30:D8:13:ILE:HD12	30:D8:29:ARG:HG2	4.32	0.50
30:D8:13:ILE:HD11	30:D8:31:GLU:HG3	4.08	0.50
39:L2:200:ARG:HG3	36:5:2147:A:OP1	207.65	0.50
42:L5:143:LYS:HE3	42:L5:145:PHE:HZ	2.92	0.50
36:1:2586:G:C5	45:L8:241:LYS:HB2	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:171:ASP:HA	36:5:2899:C:C5	322.62	0.50
49:M3:89:TYR:CE1	49:M3:93:ILE:HD11	4.07	0.50
54:M8:71:LEU:CD1	54:M8:99:THR:HG21	2.42	0.50
62:N6:39:LEU:HD13	62:N6:43:TYR:HE2	1.75	0.50
62:N6:74:TYR:CD1	62:N6:77:LYS:HG3	2.47	0.50
64:N8:60:TYR:CE2	64:N8:63:LYS:HG3	2.46	0.50
72:O6:83:ALA:O	72:O6:87:VAL:HG23	2.11	0.50
2:S0:140:ASN:ND2	4:S2:60:SER:O	3.81	0.50
4:S2:90:THR:HB	4:S2:93:GLY:CA	2.41	0.50
34:SR:260:ILE:HB	34:SR:274:LEU:HB2	1.93	0.50
36:1:1818:U:H2'	36:1:1819:U:O4'	2.11	0.50
36:1:2245:C:O2'	39:L2:221:LYS:HA	2.11	0.50
36:1:2357:A:H2'	36:1:2358:A:H8	1.77	0.50
36:1:2413:A:H2'	36:1:2414:G:C8	2.46	0.50
1:2:1786:G:OP1	16:C4:136:ARG:NH2	2.44	0.50
36:5:1235:U:C4'	36:5:1236:G:H5'	2.34	0.50
36:5:1366:A:C2	36:5:1367:G:C4	3.00	0.50
73:O7:75:LYS:HE2	36:5:181:U:O3'	50.63	0.50
36:5:2897:A:H2'	36:5:2899:C:C5'	2.41	0.50
36:5:300:G:O6	86:5:4193:OHX:N2	2.45	0.50
86:5:4057:OHX:N1	86:5:4201:OHX:N2	2.59	0.50
1:6:30:G:H2'	1:6:31:C:C6	2.47	0.50
1:6:454:U:H3'	1:6:455:C:C6	2.45	0.50
18:C6:127:LYS:HA	18:C6:134:ALA:HA	1.93	0.50
19:C7:20:TYR:CE1	19:C7:38:ILE:HD11	2.46	0.50
22:D0:15:GLN:O	22:D0:16:GLN:NE2	3.65	0.50
22:D0:57:ARG:HG3	22:D0:89:ARG:CZ	2.53	0.50
25:D3:134:ALA:HB1	25:D3:140:LYS:HB2	2.47	0.50
27:D5:55:PRO:HG3	27:D5:88:ILE:HD12	6.34	0.50
39:L2:206:PRO:HD3	39:L2:212:GLY:O	4.11	0.50
42:L5:40:HIS:CD2	42:L5:42:ALA:H	2.10	0.50
43:L6:66:SER:O	43:L6:68:PRO:HA	4.05	0.50
44:L7:217:PRO:HA	86:5:4004:OHX:N5	262.35	0.50
46:L9:48:VAL:HG22	46:L9:52:LEU:HB3	1.93	0.50
47:M0:10:ARG:HG2	47:M0:11:TYR:CD1	3.25	0.50
67:O1:72:ARG:HD3	67:O1:104:LEU:HD12	1.94	0.50
67:O1:46:THR:HG21	67:O1:91:SER:OG	2.11	0.50
3:S1:201:THR:HG21	3:S1:207:LEU:HD22	1.93	0.50
7:S5:43:PHE:HB3	7:S5:46:TRP:HD1	5.82	0.50
10:S8:192:TYR:O	10:S8:196:LEU:HB2	2.11	0.50
20:C8:120:ARG:NH2	35:SM:58:GLU:OE1	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1608:C:H2'	36:1:1609:C:C6	2.46	0.50
36:1:1701:C:H2'	36:1:1702:U:O4'	2.11	0.50
36:1:230:U:H2'	36:1:231:G:O4'	2.11	0.50
36:1:36:C:H2'	36:1:37:U:H5'	1.92	0.50
36:1:976:U:H5'	54:M8:144:ARG:HH12	1.76	0.50
1:2:12:U:H2'	1:2:13:C:C6	2.46	0.50
1:2:477:A:H2'	1:2:478:A:C8	2.42	0.50
1:2:651:G:N7	86:2:2103:OHX:N6	2.59	0.50
1:2:795:U:C5	1:2:796:A:N7	2.80	0.50
44:L7:208:SER:HB2	36:5:1334:U:H1'	240.81	0.50
62:N6:12:ARG:HD3	36:5:215:G:H5''	87.44	0.50
36:5:2434:U:C4'	36:5:2435:G:H5''	2.41	0.50
36:5:283:G:O6	36:5:304:G:H1'	2.10	0.50
36:5:1895:A:O2'	36:5:3053:G:H4'	2.10	0.50
36:5:1450:G:OP1	86:5:4231:OHX:N4	2.44	0.50
36:5:441:U:H2'	36:5:442:G:C8	2.47	0.50
36:5:807:A:N7	36:5:2411:U:O2'	2.37	0.50
39:L2:181:LYS:HB3	36:5:860:G:C5	212.96	0.50
1:6:1175:U:H2'	1:6:1176:G:H8	1.75	0.50
14:C2:118:ALA:HA	1:6:1227:A:H3'	461.61	0.50
1:6:278:U:OP2	1:6:278:U:H2'	2.11	0.50
1:6:470:A:H8	1:6:470:A:H5''	1.76	0.50
1:6:66:U:O2'	1:6:67:A:H5''	2.10	0.50
1:6:800:U:H2'	1:6:801:G:C8	2.47	0.50
15:C3:114:ARG:NH1	15:C3:114:ARG:HG2	2.26	0.50
15:C3:26:PHE:CE2	15:C3:66:ILE:HD13	2.46	0.50
16:C4:115:ILE:HG21	28:D6:44:ILE:HG21	7.17	0.50
19:C7:58:MET:HA	19:C7:61:ILE:HD12	1.93	0.50
19:C7:77:GLU:HG2	19:C7:80:ARG:HH21	7.51	0.50
26:D4:60:PHE:O	1:6:523:G:H5'	412.99	0.50
30:D8:32:PHE:O	30:D8:34:GLU:N	3.58	0.50
1:2:1198:G:O3'	31:D9:40:ARG:NH2	2.43	0.50
36:1:3001:C:HO2'	40:L3:118:PHE:HE2	1.57	0.50
41:L4:334:PHE:HA	41:L4:339:LEU:HD11	3.02	0.50
41:L4:77:VAL:HB	41:L4:85:SER:HA	1.93	0.50
43:L6:89:THR:HG21	50:M4:115:PHE:HB2	2.01	0.50
44:L7:27:ALA:O	44:L7:31:ALA:N	2.41	0.50
44:L7:52:GLN:O	44:L7:56:GLU:HG2	2.11	0.50
36:1:516:A:O3'	44:L7:60:ARG:NH2	2.43	0.50
46:L9:87:LYS:HE3	46:L9:187:ILE:HA	3.77	0.50
48:M1:14:ILE:HD12	48:M1:14:ILE:H	4.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:39:GLU:N	52:M6:39:GLU:OE1	2.37	0.50
36:1:2790:A:OP2	54:M8:181:SER:HB3	2.12	0.50
54:M8:62:VAL:HG13	54:M8:66:ARG:HD3	1.93	0.50
57:N1:138:SER:C	57:N1:139:ARG:HG3	4.42	0.50
44:L7:77:VAL:HG22	57:N1:139:ARG:HG2	1.91	0.50
61:N5:82:LEU:HD11	61:N5:135:ILE:HD12	5.10	0.50
3:S1:127:VAL:HG13	3:S1:176:VAL:HG11	1.94	0.50
5:S3:142:LEU:O	5:S3:144:ALA:N	2.40	0.50
7:S5:136:ALA:HA	7:S5:201:ALA:O	2.11	0.50
8:S6:67:VAL:O	8:S6:68:LEU:HB2	2.28	0.50
9:S7:104:ARG:HD3	9:S7:104:ARG:H	1.76	0.50
9:S7:164:TYR:CE1	9:S7:165:LYS:HG2	2.49	0.50
36:1:1051:U:H4'	57:N1:19:PHE:CE2	2.46	0.50
86:1:3968:OHX:N6	86:1:4155:OHX:N2	2.59	0.50
1:2:1105:C:H41	25:D3:4:GLY:CA	2.22	0.50
1:2:1426:C:H5''	35:SM:93:ARG:HH12	1.77	0.50
42:L5:43:LYS:HE2	36:5:1078:U:OP1	231.78	0.50
36:5:3232:G:H2'	36:5:3233:C:O4'	2.11	0.50
36:5:541:U:H2'	36:5:542:G:H8	1.76	0.50
51:M5:176:LYS:HE2	36:5:66:A:N3	96.61	0.50
36:5:920:A:OP1	36:5:922:U:H5	1.94	0.50
36:5:953:G:H2'	36:5:1117:G:H5''	1.92	0.50
1:6:1050:G:O6	86:6:2195:OHX:N4	2.45	0.50
1:6:355:G:OP1	86:6:2067:OHX:N5	2.44	0.50
1:6:368:U:H2'	1:6:369:A:H5'	1.92	0.50
32:E0:31:LYS:HE3	1:6:545:A:OP1	419.24	0.50
1:6:950:C:H2'	1:6:951:A:C8	2.46	0.50
16:C4:30:VAL:HG12	16:C4:39:ILE:HG13	4.35	0.50
16:C4:54:GLU:CD	1:6:901:G:H22	281.85	0.50
17:C5:15:HIS:O	17:C5:21:ASP:HA	2.10	0.50
17:C5:75:PRO:HG3	17:C5:93:VAL:HG11	4.64	0.50
20:C8:49:LYS:NZ	20:C8:80:LYS:O	2.35	0.50
2:S0:62:ARG:HH21	23:D1:39:VAL:HG22	1.77	0.50
24:D2:115:GLU:HA	24:D2:118:ARG:NH1	2.25	0.50
24:D2:30:SER:HA	24:D2:34:ILE:HD12	1.94	0.50
40:L3:166:ILE:O	40:L3:169:THR:HG22	2.76	0.50
41:L4:148:ILE:HA	41:L4:149:PRO:C	2.45	0.50
46:L9:81:GLY:O	46:L9:85:GLY:HA2	2.37	0.50
47:M0:74:LYS:O	47:M0:78:THR:HG23	4.92	0.50
51:M5:35:VAL:O	51:M5:64:VAL:HA	2.11	0.50
54:M8:176:ARG:HG3	36:5:2763:U:H5'	181.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:172:ARG:NH1	1:6:852:C:OP1	322.04	0.50
59:N3:128:ARG:CZ	59:N3:128:ARG:HB3	3.43	0.50
59:N3:80:ARG:NE	59:N3:97:ASP:OD2	2.43	0.50
64:N8:60:TYR:CD2	64:N8:63:LYS:HG3	2.46	0.50
76:Q0:96:CYS:HA	76:Q0:121:LEU:HD23	1.94	0.50
3:S1:83:LYS:N	3:S1:104:ASP:O	2.44	0.50
8:S6:162:VAL:N	8:S6:169:TYR:O	2.70	0.50
9:S7:143:LEU:HB2	9:S7:147:ASN:O	3.37	0.50
11:S9:109:LEU:CB	11:S9:146:PHE:HB3	2.41	0.50
35:SM:107:ASN:CG	35:SM:112:ASP:HB3	2.32	0.50
34:SR:52:GLN:OE1	34:SR:53:LYS:HG2	2.11	0.50
36:1:1047:A:N3	36:1:2633:U:O2'	2.44	0.50
36:1:1603:A:OP1	55:M9:38:ARG:NH1	2.45	0.50
36:1:3227:A:C2'	36:1:3228:C:H5'	2.42	0.50
36:1:398:A:C4	53:M7:3:ARG:NH2	2.77	0.50
36:1:440:A:OP2	36:1:440:A:H8	1.94	0.50
1:2:1254:U:H5	14:C2:46:ARG:NH1	2.09	0.50
36:5:1308:A:C8	36:5:1308:A:OP2	2.63	0.50
36:5:163:C:H2'	36:5:164:A:O4'	2.11	0.50
36:5:1638:A:H2	36:5:1736:G:N3	2.10	0.50
36:5:1817:G:O2'	36:5:1818:U:OP2	2.26	0.50
36:5:1506:A:H1'	36:5:1848:G:O6	2.12	0.50
36:5:1952:G:N1	36:5:1953:G:N7	2.59	0.50
1:6:913:G:C8	36:5:2205:U:C4	3.00	0.50
36:5:2257:C:H6	36:5:2257:C:O5'	1.94	0.50
36:5:2947:G:OP2	36:5:2947:G:H4'	2.11	0.50
86:5:4003:OHX:N4	86:5:4093:OHX:N2	2.59	0.50
8:S6:179:VAL:HG21	1:6:140:A:H1'	327.43	0.50
1:6:1584:G:H22	1:6:1611:A:P	2.35	0.50
1:6:417:A:H5'	1:6:418:G:C5	2.46	0.50
1:6:482:U:H2'	1:6:483:A:C8	2.46	0.50
18:C6:113:ASP:HA	18:C6:116:LEU:HD22	1.94	0.50
19:C7:27:ASP:CG	34:SR:38:ARG:HH22	2.14	0.50
19:C7:41:ILE:HD13	19:C7:47:ARG:HA	1.93	0.50
15:C3:18:TYR:O	24:D2:56:HIS:HD2	1.95	0.50
25:D3:13:ARG:O	25:D3:17:VAL:HG12	5.81	0.50
40:L3:147:GLU:O	40:L3:151:ILE:HD12	4.25	0.50
44:L7:203:TRP:CD1	44:L7:204:PRO:HD2	2.65	0.50
41:L4:325:LEU:O	44:L7:41:ARG:NH2	2.45	0.50
45:L8:178:ALA:HB2	45:L8:218:ILE:HG12	1.93	0.50
47:M0:171:TRP:O	47:M0:174:THR:HG22	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:21:VAL:HB	50:M4:63:VAL:HG13	1.93	0.50
51:M5:35:VAL:HG23	36:5:1543:G:OP1	140.77	0.50
36:1:1312:C:O2	52:M6:87:MET:HE3	2.12	0.50
53:M7:67:ILE:HD12	53:M7:82:ARG:NH1	4.07	0.50
57:N1:78:LYS:HG2	57:N1:87:LYS:HG3	1.94	0.50
61:N5:45:LYS:HG2	71:O5:75:TYR:CD2	2.47	0.50
61:N5:58:ASP:O	61:N5:62:VAL:HG23	2.15	0.50
65:N9:55:ALA:O	65:N9:58:LYS:HB2	3.64	0.50
79:Q3:56:THR:HB	79:Q3:63:THR:HG23	1.94	0.50
5:S3:162:GLN:HG3	1:6:1333:C:C4'	427.09	0.50
6:S4:166:SER:O	6:S4:168:LYS:N	2.36	0.50
6:S4:95:THR:O	6:S4:97:GLU:N	2.45	0.50
36:1:2309:A:H8	36:1:2309:A:OP1	1.95	0.50
36:1:2712:U:H2'	36:1:2713:U:C6	2.46	0.50
36:1:2871:G:H5''	36:1:2872:A:H5'	1.94	0.50
36:1:2947:G:C2	40:L3:250:ALA:HB1	2.47	0.50
36:1:3189:G:C2'	36:1:3190:C:H5'	2.42	0.50
36:1:3349:C:H42	36:1:3356:G:H1	1.60	0.50
36:1:439:C:H3'	36:1:440:A:C8	2.46	0.50
1:2:1281:G:H2'	1:2:1282:U:H6	1.76	0.50
1:2:887:A:H2'	1:2:888:U:H6	1.76	0.50
42:L5:178:ASN:HD21	36:5:2746:A:H5'	252.15	0.50
19:C7:105:GLN:O	19:C7:109:LEU:N	2.65	0.50
19:C7:20:TYR:CD1	19:C7:38:ILE:HD12	3.46	0.50
20:C8:29:VAL:HG22	20:C8:44:ASN:HA	4.12	0.50
21:C9:54:PHE:CE2	21:C9:104:VAL:HG22	2.46	0.50
22:D0:96:PRO:O	22:D0:100:VAL:HG23	2.12	0.50
40:L3:283:TYR:CZ	40:L3:325:LYS:HG3	3.02	0.50
48:M1:106:ILE:HG12	48:M1:106:ILE:O	2.10	0.50
50:M4:122:VAL:O	50:M4:126:GLN:HG3	2.12	0.50
50:M4:32:LEU:HD11	50:M4:94:TRP:CD1	2.47	0.50
52:M6:16:VAL:CG2	52:M6:43:ILE:HG12	2.75	0.50
53:M7:126:ARG:HD3	53:M7:140:GLU:OE2	2.11	0.50
59:N3:74:MET:SD	59:N3:102:ILE:HD13	2.52	0.50
62:N6:54:ASP:OD1	62:N6:110:HIS:N	2.61	0.50
66:O0:45:ALA:O	66:O0:48:THR:HG22	2.12	0.50
70:O4:22:VAL:HG13	70:O4:30:LEU:HD22	1.93	0.50
7:S5:180:ARG:HG3	1:6:1473:U:H3	350.16	0.50
1:2:741:C:O2	9:S7:107:ARG:NH1	2.45	0.50
10:S8:29:LEU:HD12	1:6:400:A:H61	296.74	0.50
10:S8:37:LYS:HE3	10:S8:95:THR:OG1	5.07	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:29:LYS:O	11:S9:33:GLU:HG2	4.43	0.50
35:SM:99:LYS:O	35:SM:100:THR:HG22	2.12	0.50
36:1:2155:G:O2'	39:L2:227:ARG:NH2	2.45	0.50
36:1:776:U:C5	36:1:2719:U:O2	2.63	0.50
36:1:3088:G:H2'	36:1:3089:C:O4'	2.11	0.50
36:1:54:C:O2'	36:1:1547:G:H1'	2.11	0.50
36:1:839:C:H4'	36:1:1724:U:H2'	1.94	0.50
1:2:1450:U:OP2	86:2:2062:OHX:N5	2.44	0.50
1:2:1672:G:N7	86:2:2044:OHX:N5	2.60	0.50
1:2:693:U:H5'	1:2:694:U:H5'	1.93	0.50
55:M9:9:ARG:NH2	36:5:1603:A:OP1	110.25	0.50
36:5:2207:A:N6	36:5:2236:G:H1	2.08	0.50
36:5:2405:C:O2	36:5:2819:A:N1	2.45	0.50
40:L3:250:ALA:HB1	36:5:2947:G:C2	219.82	0.50
36:5:1090:G:O6	86:5:4192:OHX:N5	2.44	0.50
86:5:4013:OHX:N6	86:5:4202:OHX:N5	2.60	0.50
86:5:3975:OHX:N1	86:5:4245:OHX:N5	2.60	0.50
36:5:501:A:H2'	36:5:502:U:H6	1.76	0.50
1:6:151:G:H2'	1:6:152:U:H6	1.75	0.50
1:6:272:U:O2'	1:6:273:G:OP2	2.25	0.50
1:6:820:U:O2'	1:6:821:U:H5''	2.12	0.50
38:8:107:G:OP2	86:8:230:OHX:N1	2.44	0.50
1:2:866:G:H5''	15:C3:3:ARG:H	1.77	0.50
17:C5:90:ILE:HD11	17:C5:112:LEU:HD21	1.94	0.50
19:C7:99:VAL:CB	19:C7:118:PRO:HB2	2.41	0.50
22:D0:35:GLU:OE2	22:D0:89:ARG:NH2	2.45	0.50
41:L4:152:VAL:CG2	41:L4:172:VAL:HG21	2.38	0.50
47:M0:171:TRP:HE3	47:M0:178:ARG:HB3	2.73	0.50
55:M9:163:ARG:CZ	55:M9:163:ARG:HB2	3.88	0.50
57:N1:57:TYR:CD1	57:N1:89:LEU:HD21	2.46	0.50
62:N6:103:LYS:NZ	36:5:221:A:N6	79.26	0.50
64:N8:66:ALA:HA	64:N8:69:TRP:N	4.33	0.50
64:N8:74:ASN:ND2	64:N8:115:LYS:H	2.10	0.50
71:O5:86:ARG:O	71:O5:90:ARG:HG2	2.25	0.50
74:O8:42:LYS:HG2	74:O8:55:VAL:HG22	1.93	0.50
76:Q0:109:ASN:ND2	76:Q0:119:ASN:HB3	3.08	0.50
2:S0:74:VAL:CG2	2:S0:118:PRO:HB3	2.67	0.50
3:S1:144:ARG:HD2	3:S1:208:GLN:HB3	4.21	0.50
4:S2:66:PHE:O	4:S2:69:ILE:N	2.45	0.50
9:S7:79:ARG:HB2	9:S7:79:ARG:NH1	3.06	0.50
11:S9:102:GLU:HA	11:S9:105:LEU:HB2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:21:THR:HG23	34:SR:37:SER:HA	1.93	0.50
34:SR:5:GLU:HA	34:SR:317:THR:HA	2.73	0.50
36:1:1878:G:C2'	36:1:1879:A:H5'	2.41	0.50
36:1:2993:G:H2'	36:1:3142:A:N6	2.27	0.50
36:1:3030:G:N7	86:1:4072:OHX:N6	2.60	0.50
36:1:634:C:H4'	68:O2:47:ARG:NH1	2.27	0.50
1:2:1147:A:H2'	1:2:1148:C:C6	2.47	0.50
1:2:15:U:H2'	1:2:16:G:O4'	2.12	0.50
1:2:1784:C:H2'	1:2:1785:U:C6	2.47	0.50
1:2:225:A:H2'	1:2:226:A:O4'	2.12	0.50
1:2:346:G:O6	86:2:2125:OHX:N5	2.45	0.50
38:4:45:C:H2'	38:4:46:G:O4'	2.12	0.50
46:L9:70:THR:HG22	36:5:3113:A:H1'	328.49	0.50
73:O7:45:ARG:NH2	36:5:361:A:O3'	123.32	0.50
86:5:4057:OHX:N5	86:5:4201:OHX:N2	2.59	0.50
1:6:1620:C:H2'	1:6:1621:U:H6	1.76	0.50
15:C3:92:ILE:O	15:C3:96:VAL:HG23	2.11	0.50
16:C4:82:LYS:HG2	16:C4:118:VAL:HG11	3.71	0.50
17:C5:28:MET:HE1	17:C5:33:PHE:HB2	1.94	0.50
26:D4:42:GLU:O	26:D4:46:GLU:HG3	2.12	0.50
41:L4:296:GLN:HA	41:L4:299:ILE:HD11	3.12	0.50
44:L7:140:SER:O	44:L7:144:ILE:HG13	2.97	0.50
46:L9:149:ASN:OD1	46:L9:149:ASN:N	2.44	0.50
48:M1:17:LEU:HD11	48:M1:19:LEU:HG	4.39	0.50
50:M4:123:LEU:HA	50:M4:126:GLN:HB2	2.59	0.50
52:M6:41:LEU:HB3	52:M6:138:LEU:HD22	1.92	0.50
52:M6:46:GLU:HG2	52:M6:48:PHE:H	1.76	0.50
57:N1:68:THR:OG1	57:N1:69:LYS:N	2.45	0.50
57:N1:71:SER:HB3	57:N1:91:LEU:O	2.12	0.50
63:N7:22:LYS:NZ	63:N7:132:SER:O	2.42	0.50
57:N1:82:ASN:O	65:N9:21:ILE:HA	2.12	0.50
65:N9:7:HIS:O	36:5:1135:A:H5'	226.52	0.50
2:S0:131:GLN:O	2:S0:135:GLU:HG3	3.88	0.50
6:S4:161:LYS:HB3	6:S4:170:THR:O	5.20	0.50
7:S5:25:LEU:HB3	18:C6:27:GLY:O	3.70	0.50
7:S5:76:ARG:HG3	7:S5:79:ASN:ND2	2.25	0.50
10:S8:22:ARG:HD2	10:S8:23:LYS:O	4.87	0.50
11:S9:45:ILE:HG22	11:S9:101:VAL:HG12	1.93	0.50
34:SR:74:THR:C	34:SR:76:ASP:H	2.95	0.50
36:1:1103:A:H2'	36:1:1103:A:N3	2.27	0.49
36:1:2836:C:H5	36:1:2852:C:N4	1.98	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:849:C:H2'	36:1:850:U:C6	2.47	0.49
1:2:1340:U:H5'	1:2:1340:U:O2	2.12	0.49
1:2:1739:C:H2'	1:2:1740:A:C8	2.47	0.49
1:2:252:U:H5'	6:S4:131:LEU:O	2.12	0.49
1:2:269:G:C6	1:2:287:G:C6	3.00	0.49
1:2:792:U:C2'	1:2:793:A:H5'	2.41	0.49
36:5:2533:G:N2	36:5:2546:C:O2	2.42	0.49
36:5:3089:C:H2'	36:5:3090:U:O4'	2.11	0.49
36:5:2309:A:H4'	86:5:4200:OHX:N4	2.27	0.49
86:5:4013:OHX:N4	86:5:4202:OHX:N1	2.60	0.49
36:5:61:A:H2'	36:5:62:A:O4'	2.12	0.49
1:6:1172:G:H2'	1:6:1173:C:O4'	2.11	0.49
1:6:282:C:H2'	1:6:283:U:O4'	2.12	0.49
1:6:417:A:H4'	1:6:418:G:O5'	2.12	0.49
1:6:836:U:H2'	1:6:837:G:H8	1.77	0.49
38:8:81:U:H3	38:8:83:C:H5	1.60	0.49
17:C5:51:SER:OG	17:C5:52:LYS:N	4.66	0.49
18:C6:129:PHE:CE1	22:D0:78:THR:HA	2.49	0.49
20:C8:30:TYR:OH	20:C8:40:ARG:NH1	3.15	0.49
22:D0:72:ASN:OD1	22:D0:73:GLY:N	4.43	0.49
24:D2:7:LEU:HD12	24:D2:33:VAL:HG12	1.92	0.49
39:L2:236:GLY:O	39:L2:238:ILE:HD12	5.16	0.49
40:L3:250:ALA:HB3	36:5:2880:U:O2	223.92	0.49
40:L3:25:ILE:H	40:L3:25:ILE:CD1	2.24	0.49
41:L4:283:THR:OG1	41:L4:289:ILE:HD11	3.48	0.49
41:L4:317:PRO:HB3	41:L4:324:LEU:HA	2.21	0.49
41:L4:49:ALA:HA	41:L4:109:TRP:CZ2	2.46	0.49
41:L4:99:MET:SD	41:L4:102:PRO:HA	2.52	0.49
42:L5:294:ALA:O	42:L5:296:GLN:N	2.40	0.49
43:L6:166:LYS:NZ	36:5:3214:U:H6	272.44	0.49
43:L6:35:VAL:O	43:L6:38:THR:OG1	2.44	0.49
44:L7:25:GLN:HA	44:L7:29:GLU:HB2	1.94	0.49
45:L8:83:ASP:OD2	45:L8:86:THR:N	2.84	0.49
46:L9:17:THR:OG1	46:L9:17:THR:O	2.65	0.49
52:M6:102:LEU:HD12	52:M6:103:LYS:H	1.76	0.49
55:M9:172:ARG:O	55:M9:176:ARG:HG2	2.10	0.49
56:N0:131:LYS:HB2	56:N0:134:ASP:OD2	2.11	0.49
58:N2:99:LYS:HG3	58:N2:102:GLU:HB2	1.94	0.49
59:N3:128:ARG:HB3	59:N3:128:ARG:NH2	4.18	0.49
38:4:131:A:H5''	61:N5:93:TYR:CE2	2.47	0.49
62:N6:91:ASN:C	62:N6:93:ALA:H	2.15	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2303:A:P	77:Q1:23:ARG:HH22	2.35	0.49
77:Q1:2:ARG:HG2	77:Q1:4:LYS:HG2	1.94	0.49
6:S4:87:MET:SD	6:S4:123:LEU:HB3	3.40	0.49
7:S5:116:HIS:O	7:S5:120:ILE:HG13	2.12	0.49
7:S5:68:ILE:HD13	7:S5:69:PHE:H	5.40	0.49
9:S7:111:LYS:O	9:S7:112:ARG:HB2	2.12	0.49
10:S8:8:ARG:HD2	10:S8:21:PHE:HD1	1.77	0.49
34:SR:135:THR:HG23	34:SR:141:LEU:HD11	1.94	0.49
36:1:1528:G:N3	36:1:1588:A:H2	2.10	0.49
36:1:2289:U:H2'	36:1:2290:C:C6	2.45	0.49
1:2:1107:G:C6	1:2:1108:G:C6	3.00	0.49
1:2:386:G:C6	1:2:387:A:N6	2.80	0.49
1:2:582:U:H3'	1:2:583:C:C6	2.47	0.49
1:2:705:U:H2'	1:2:706:A:H8	1.77	0.49
37:3:3:U:H2'	37:3:4:U:C6	2.47	0.49
37:3:64:A:H3'	47:M0:204:GLY:O	2.12	0.49
47:M0:22:TYR:CE1	36:5:1048:A:H2'	267.93	0.49
57:N1:102:ARG:NH2	36:5:1061:A:O3'	237.58	0.49
45:L8:142:LEU:HD23	36:5:117:U:C4	106.98	0.49
36:5:1196:C:OP1	86:5:4239:OHX:N6	2.45	0.49
45:L8:241:LYS:HB2	36:5:2586:G:N7	184.41	0.49
36:5:3194:C:H2'	36:5:3195:U:H3'	1.94	0.49
1:6:1053:G:N7	86:6:2196:OHX:N4	2.60	0.49
1:6:483:A:H2'	1:6:484:C:O4'	2.12	0.49
1:6:74:U:H3'	1:6:75:U:H3'	1.93	0.49
24:D2:82:LYS:H	24:D2:85:ASP:HB2	1.77	0.49
26:D4:86:GLU:OE1	26:D4:90:ARG:NH1	4.10	0.49
28:D6:62:TYR:CG	28:D6:63:ALA:N	2.89	0.49
39:L2:118:GLU:HG3	39:L2:126:LEU:HD21	2.10	0.49
40:L3:59:ASP:OD1	40:L3:71:GLU:HG3	3.50	0.49
40:L3:77:THR:HG23	40:L3:326:GLY:O	2.14	0.49
41:L4:181:VAL:HG21	41:L4:224:GLY:HA3	1.92	0.49
41:L4:264:SER:C	41:L4:266:THR:H	2.16	0.49
41:L4:300:ARG:O	41:L4:300:ARG:HG2	3.89	0.49
44:L7:239:LEU:HD22	44:L7:243:MET:SD	2.52	0.49
45:L8:246:MET:HE3	45:L8:249:ARG:HH21	1.76	0.49
50:M4:22:LEU:HD12	50:M4:31:LYS:O	2.12	0.49
51:M5:122:ASN:OD1	51:M5:123:GLN:N	2.45	0.49
53:M7:18:ARG:HG2	53:M7:147:GLU:HB3	5.02	0.49
53:M7:25:SER:HB3	53:M7:28:ASN:HB2	1.94	0.49
55:M9:102:LEU:O	55:M9:106:LEU:HB2	2.38	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:117:ARG:H	64:N8:137:LYS:HE2	1.77	0.49
68:O2:60:ASN:OD1	68:O2:62:LYS:HB2	2.72	0.49
70:O4:20:ILE:HD11	70:O4:34:HIS:CE1	2.47	0.49
75:O9:2:ALA:HB1	75:O9:5:LYS:HZ3	1.78	0.49
2:S0:36:TYR:CD1	2:S0:161:PRO:HG3	2.46	0.49
2:S0:29:VAL:O	2:S0:30:GLN:HB3	4.14	0.49
5:S3:168:ILE:HG22	5:S3:189:MET:HA	2.39	0.49
6:S4:156:VAL:O	6:S4:157:ASN:HB2	2.12	0.49
6:S4:121:TYR:OH	6:S4:235:TYR:O	2.43	0.49
6:S4:46:VAL:O	6:S4:50:ASN:HB2	2.33	0.49
36:1:2973:G:N7	86:1:4097:OHX:N2	2.59	0.49
36:1:2984:C:H2'	36:1:2985:C:C6	2.47	0.49
86:1:4029:OHX:N2	86:1:4042:OHX:N1	2.61	0.49
36:1:830:A:O2'	36:1:1866:C:H2'	2.13	0.49
37:3:111:U:OP1	42:L5:276:LYS:HE3	2.12	0.49
36:5:1716:U:O2'	36:5:1717:U:O5'	2.25	0.49
36:5:189:G:C2	36:5:191:U:C4	3.00	0.49
36:5:191:U:H2'	36:5:192:C:C6	2.47	0.49
36:5:3132:C:H2'	36:5:3133:C:H6	1.78	0.49
36:5:3078:U:O2'	86:5:4197:OHX:N1	2.45	0.49
54:M8:151:ARG:HD2	36:5:781:G:OP1	160.01	0.49
1:6:197:A:H2'	1:6:198:A:C8	2.48	0.49
16:C4:123:SER:HB2	1:6:885:G:H21	286.39	0.49
38:8:16:G:O6	86:8:215:OHX:N6	2.45	0.49
16:C4:30:VAL:O	16:C4:39:ILE:HG12	3.15	0.49
19:C7:33:ARG:HD2	34:SR:109:ASP:OD2	2.63	0.49
39:L2:112:ILE:CD1	39:L2:168:VAL:HG12	5.09	0.49
39:L2:3:ARG:HD3	36:5:911:C:N4	178.87	0.49
42:L5:254:LYS:HD2	42:L5:255:PRO:O	4.45	0.49
46:L9:96:HIS:O	46:L9:98:PRO:HD3	2.13	0.49
48:M1:33:ALA:HB2	48:M1:123:PHE:CE1	3.28	0.49
54:M8:120:GLU:CD	54:M8:130:ARG:HH22	2.16	0.49
59:N3:15:LEU:HD13	59:N3:51:ALA:HB3	1.93	0.49
61:N5:91:ASN:O	61:N5:95:ILE:HG13	2.12	0.49
62:N6:57:LEU:HD23	62:N6:66:GLN:O	2.64	0.49
67:O1:70:ARG:O	67:O1:71:LEU:HD23	2.66	0.49
3:S1:133:TYR:CZ	3:S1:181:LEU:HD12	4.33	0.49
3:S1:137:ILE:HD11	3:S1:172:LEU:HB3	1.94	0.49
3:S1:113:MET:SD	3:S1:209:ASN:ND2	2.85	0.49
8:S6:7:TYR:HB3	8:S6:12:SER:HB2	2.07	0.49
36:1:1567:U:H5	36:1:1568:U:C2	2.31	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2259:A:OP2	86:1:3929:OHX:N2	2.46	0.49
36:1:2689:A:H2'	36:1:2689:A:N3	2.27	0.49
36:1:664:U:H5'	41:L4:107:ARG:HA	1.93	0.49
1:2:1207:C:H42	1:2:1456:C:H5	1.60	0.49
1:2:1776:A:H2'	1:2:1777:G:C8	2.48	0.49
39:L2:230:VAL:HG21	36:5:2424:A:N1	183.12	0.49
36:5:3160:U:H2'	36:5:3161:C:C6	2.46	0.49
1:6:1098:U:H6	1:6:1098:U:H5''	1.77	0.49
1:6:373:G:N7	86:6:2186:OHX:N3	2.60	0.49
37:7:25:G:H2'	37:7:26:C:O4'	2.12	0.49
38:8:15:G:C6	38:8:16:G:N1	2.81	0.49
36:5:407:A:C2	38:8:17:A:H1'	2.48	0.49
15:C3:61:THR:OG1	15:C3:62:GLN:N	2.76	0.49
18:C6:127:LYS:HE2	18:C6:132:LYS:O	4.68	0.49
19:C7:104:ASN:HA	19:C7:107:SER:HB3	3.47	0.49
20:C8:145:ARG:HB3	35:SM:68:ARG:NH1	3.57	0.49
21:C9:63:ARG:NH1	21:C9:67:MET:SD	2.85	0.49
21:C9:73:VAL:HG12	21:C9:77:ASN:ND2	2.27	0.49
39:L2:66:PRO:HB2	39:L2:67:TYR:CE2	2.47	0.49
40:L3:66:LYS:HE2	40:L3:70:ARG:HH22	3.79	0.49
41:L4:138:ARG:NH2	41:L4:240:PRO:HB2	2.27	0.49
42:L5:146:LEU:HD13	42:L5:148:ILE:HD13	4.92	0.49
44:L7:217:PRO:O	86:5:4004:OHX:N6	258.83	0.49
36:1:2644:C:O2	47:M0:116:ARG:HD3	2.13	0.49
49:M3:143:ALA:O	49:M3:146:PRO:HD3	2.12	0.49
52:M6:3:VAL:HG13	52:M6:4:GLU:HG3	1.94	0.49
36:1:744:A:H1'	54:M8:141:ARG:HD3	1.94	0.49
55:M9:85:ARG:NH2	36:5:1916:U:H4'	228.62	0.49
58:N2:67:SER:OG	58:N2:68:THR:N	2.51	0.49
61:N5:38:LEU:HD11	61:N5:40:LEU:HD13	1.95	0.49
64:N8:116:GLY:HA2	64:N8:137:LYS:HE2	1.94	0.49
65:N9:21:ILE:C	65:N9:22:LYS:HZ1	7.43	0.49
63:N7:82:PRO:HB2	66:O0:62:LEU:HD13	2.31	0.49
69:O3:67:MET:HE3	69:O3:89:LEU:HD23	1.95	0.49
77:Q1:9:ARG:NH2	1:6:1642:G:O3'	306.58	0.49
5:S3:157:LEU:HD23	5:S3:187:LYS:HD3	1.93	0.49
7:S5:112:ARG:HD3	27:D5:95:HIS:NE2	2.27	0.49
7:S5:56:ALA:O	7:S5:57:SER:OG	2.25	0.49
8:S6:175:ILE:HB	8:S6:178:LEU:HD13	4.16	0.49
9:S7:140:VAL:HG22	9:S7:150:GLN:HG2	1.94	0.49
35:SM:88:ARG:HG2	35:SM:91:THR:HG23	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1158:A:O5'	36:1:1158:A:H8	1.94	0.49
36:1:1485:G:N2	70:O4:4:ARG:HD2	2.28	0.49
36:1:249:U:O2	36:1:250:U:N3	2.36	0.49
36:1:2501:U:H4'	36:1:2502:A:OP1	2.12	0.49
36:1:2808:A:H4'	36:1:2809:C:O5'	2.11	0.49
36:1:3074:G:OP1	86:1:4036:OHX:N1	2.46	0.49
36:1:658:G:OP1	86:1:4043:OHX:N4	2.45	0.49
1:2:1254:U:OP2	14:C2:46:ARG:NH1	2.45	0.49
1:2:68:A:OP1	8:S6:160:ARG:NH2	2.32	0.49
45:L8:138:HIS:CE1	36:5:119:U:C2	104.28	0.49
36:5:2102:U:H2'	36:5:2103:U:C6	2.47	0.49
36:5:2659:G:H4'	36:5:2751:G:O2'	2.13	0.49
36:5:330:G:OP2	86:5:4051:OHX:N1	2.45	0.49
73:O7:55:ARG:NH1	36:5:353:G:O6	112.69	0.49
36:5:996:A:C2	36:5:1054:A:C4	3.00	0.49
1:6:1208:A:N1	1:6:1455:G:N2	2.59	0.49
1:6:149:C:H2'	1:6:150:U:H6	1.78	0.49
1:6:234:G:H2'	1:6:235:G:O4'	2.12	0.49
1:6:542:A:H1'	1:6:543:C:OP1	2.13	0.49
1:6:647:G:H1	1:6:687:G:H22	1.59	0.49
1:6:697:C:H2'	1:6:698:U:H6	1.77	0.49
14:C2:119:SER:OG	14:C2:120:VAL:N	2.46	0.49
21:C9:63:ARG:O	21:C9:67:MET:HG3	4.99	0.49
39:L2:80:GLU:HG3	79:Q3:66:GLY:HA2	1.94	0.49
41:L4:262:TRP:O	41:L4:276:LEU:HD11	3.25	0.49
46:L9:49:ASN:HD21	46:L9:52:LEU:HB2	1.77	0.49
53:M7:4:TYR:HH	53:M7:16:SER:HG	3.64	0.49
55:M9:17:VAL:HG12	55:M9:18:GLY:O	2.12	0.49
62:N6:120:GLN:NE2	62:N6:126:LEU:HA	9.32	0.49
63:N7:110:ALA:O	63:N7:114:VAL:HG23	2.12	0.49
64:N8:84:GLU:O	64:N8:87:ARG:HB2	3.37	0.49
64:N8:93:SER:OG	64:N8:93:SER:O	2.30	0.49
75:O9:44:TRP:CZ3	75:O9:45:ARG:HD3	2.48	0.49
78:Q2:71:ARG:HE	78:Q2:80:ARG:HH11	1.60	0.49
79:Q3:36:ARG:O	79:Q3:45:LYS:HD3	3.85	0.49
2:S0:63:ILE:O	2:S0:66:ALA:HB3	2.12	0.49
4:S2:90:THR:HG22	4:S2:94:GLN:O	8.57	0.49
6:S4:4:GLY:HA3	1:6:93:A:O2'	330.11	0.49
6:S4:71:LYS:O	6:S4:90:ILE:HA	3.18	0.49
36:1:3095:U:H2'	36:1:3096:C:C6	2.47	0.49
1:2:289:U:H2'	1:2:290:G:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:121:U:O2'	38:4:122:U:H5'	2.12	0.49
36:5:155:G:H5''	36:5:156:G:C8	2.48	0.49
36:5:2718:U:H2'	36:5:2719:U:C6	2.48	0.49
36:5:2916:U:H5	36:5:2935:U:HO2'	1.59	0.49
36:5:2964:G:N7	86:5:3984:OHX:N6	2.60	0.49
19:C7:59:LYS:HE2	1:6:1393:C:OP2	421.67	0.49
1:6:661:A:N3	1:6:670:U:N3	2.61	0.49
61:N5:56:ARG:NH2	38:8:135:G:OP2	81.95	0.49
36:5:408:A:H61	38:8:15:G:H1'	1.75	0.49
18:C6:36:ILE:O	18:C6:39:VAL:HG23	2.35	0.49
24:D2:29:PRO:O	24:D2:30:SER:HB3	2.12	0.49
1:2:1797:A:OP2	28:D6:10:ARG:HG2	2.13	0.49
29:D7:11:THR:OG1	29:D7:14:SER:HB3	3.55	0.49
29:D7:31:TYR:CE2	29:D7:33:LEU:HD21	3.37	0.49
39:L2:57:PRO:HG2	39:L2:170:ALA:HB3	1.94	0.49
42:L5:109:THR:OG1	42:L5:110:LEU:N	2.44	0.49
46:L9:105:GLU:OE2	46:L9:108:GLY:HA2	2.12	0.49
47:M0:16:PRO:HG3	47:M0:128:ARG:HH11	3.62	0.49
47:M0:87:LEU:HD23	47:M0:138:VAL:HG13	1.95	0.49
50:M4:101:LYS:O	50:M4:104:ALA:HB3	3.03	0.49
52:M6:73:PHE:CD1	52:M6:78:ARG:HG2	2.46	0.49
86:1:3974:OHX:N2	53:M7:138:LYS:HE2	2.28	0.49
55:M9:3:ASN:O	55:M9:3:ASN:ND2	4.11	0.49
61:N5:103:TYR:HB3	61:N5:135:ILE:HD11	4.74	0.49
65:N9:28:LYS:HG3	65:N9:29:TYR:CD1	2.47	0.49
70:O4:71:THR:HG22	70:O4:78:GLY:N	2.44	0.49
3:S1:128:LYS:HE3	3:S1:132:ASP:OD1	2.12	0.49
3:S1:181:LEU:O	3:S1:185:THR:N	2.30	0.49
11:S9:110:GLN:NE2	11:S9:126:ARG:HG3	2.47	0.49
11:S9:34:PHE:HD1	11:S9:111:THR:HG21	2.05	0.49
11:S9:120:LYS:O	11:S9:121:SER:HB3	2.13	0.49
36:1:1204:A:H2	36:1:2834:G:N3	2.10	0.49
36:1:1613:A:H2'	36:1:1614:C:C6	2.47	0.49
36:1:1720:U:OP2	55:M9:110:ARG:NH1	2.35	0.49
36:1:2532:U:H3	36:1:2547:A:H61	1.61	0.49
36:1:2992:U:OP1	36:1:3310:A:O2'	2.22	0.49
36:1:273:A:N7	86:1:3988:OHX:N6	2.60	0.49
36:1:629:U:H2'	36:1:630:A:C8	2.47	0.49
1:2:1022:C:H4'	1:2:1125:A:H61	1.77	0.49
1:2:1586:A:H2'	1:2:1587:A:O4'	2.12	0.49
1:2:1002:G:N2	1:2:1760:G:O3'	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:67:A:O2'	1:2:69:G:OP1	2.23	0.49
1:2:911:U:H5'	1:2:912:U:OP1	2.13	0.49
1:2:927:C:H2'	1:2:928:U:C6	2.47	0.49
37:3:45:A:H2'	37:3:46:A:H8	1.77	0.49
36:5:2505:U:H2'	36:5:2506:U:C4	2.48	0.49
36:5:677:A:H4'	36:5:678:G:O5'	2.12	0.49
36:5:771:A:H2'	36:5:772:U:O4'	2.12	0.49
1:6:1037:C:H2'	1:6:1038:U:C6	2.48	0.49
19:C7:71:PHE:CZ	19:C7:74:GLN:HB2	5.61	0.49
20:C8:145:ARG:HE	20:C8:145:ARG:HA	3.99	0.49
20:C8:35:ILE:HB	20:C8:38:VAL:CG2	2.43	0.49
20:C8:56:LYS:HD2	20:C8:61:LEU:HD23	2.99	0.49
1:2:1531:G:N2	21:C9:48:GLN:OE1	2.30	0.49
41:L4:184:SER:HB2	41:L4:202:ARG:HG2	2.09	0.49
36:1:211:A:OP1	41:L4:220:ARG:HD2	2.12	0.49
41:L4:261:VAL:HG12	41:L4:271:LYS:HE2	1.95	0.49
42:L5:48:LYS:NZ	36:5:2748:A:O2'	245.57	0.49
48:M1:16:LYS:O	48:M1:130:VAL:HG12	2.13	0.49
48:M1:133:ARG:NH2	48:M1:158:ASP:OD2	2.46	0.49
50:M4:17:VAL:HG11	50:M4:74:ARG:HA	2.18	0.49
50:M4:43:LYS:HE3	56:N0:96:ASP:OD2	4.27	0.49
51:M5:167:THR:O	51:M5:170:LYS:HB3	2.87	0.49
51:M5:91:GLU:O	51:M5:93:LYS:HE3	2.12	0.49
53:M7:2:ALA:O	53:M7:3:ARG:HB2	2.51	0.49
36:1:1764:U:H5''	55:M9:43:LYS:NZ	2.27	0.49
57:N1:136:ARG:HG2	57:N1:139:ARG:NH2	5.53	0.49
60:N4:6:ASP:HB3	60:N4:11:ALA:H	2.34	0.49
68:O2:19:ARG:HD3	68:O2:28:VAL:HG13	3.36	0.49
79:Q3:38:ASP:OD1	79:Q3:45:LYS:HB3	2.12	0.49
2:S0:79:ARG:NH1	2:S0:164:ASN:O	2.42	0.49
3:S1:157:GLN:H	3:S1:160:HIS:HB2	1.76	0.49
4:S2:59:HIS:CD2	4:S2:238:SER:HA	2.48	0.49
4:S2:57:PHE:CZ	4:S2:138:PRO:HD3	2.73	0.49
5:S3:194:LYS:O	5:S3:196:ARG:N	2.52	0.49
6:S4:195:ILE:O	6:S4:210:ILE:HA	5.02	0.49
6:S4:3:ARG:HG2	1:6:399:A:C4'	319.47	0.49
35:SM:47:ALA:HB2	36:1:2678:A:C8	2.47	0.49
34:SR:70:ASP:CB	34:SR:112:SER:HA	2.42	0.49
36:1:1615:C:H2'	36:1:1616:U:H6	1.78	0.49
36:1:2653:C:O2'	36:1:2657:A:N6	2.45	0.49
36:1:3384:U:H2'	36:1:3385:U:C6	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:824:C:H2'	36:1:825:U:C6	2.47	0.49
36:1:806:A:C4	36:1:936:A:C2	3.01	0.49
86:2:2044:OHX:N4	86:2:2098:OHX:N3	2.60	0.49
1:2:604:A:OP1	86:2:2167:OHX:N1	2.46	0.49
37:3:22:A:H2'	37:3:23:A:C8	2.48	0.49
36:5:1069:C:H2'	36:5:1070:U:H6	1.78	0.49
36:5:1096:U:H4'	36:5:1097:G:O5'	2.11	0.49
36:5:2271:A:H2'	36:5:2272:G:O4'	2.13	0.49
51:M5:14:LYS:NZ	36:5:269:G:H5''	132.30	0.49
36:5:2796:G:H4'	36:5:2798:C:C6	2.48	0.49
36:5:589:A:H1'	36:5:1337:A:H5''	1.93	0.49
1:6:1001:A:C6	1:6:1002:G:C6	3.01	0.49
1:6:1358:G:H2'	1:6:1359:C:C6	2.47	0.49
22:D0:89:ARG:NH2	1:6:1383:G:OP1	445.68	0.49
8:S6:92:ARG:NH2	1:6:1674:C:OP1	291.57	0.49
1:6:595:G:H2'	1:6:596:C:C6	2.48	0.49
62:N6:52:ARG:NH1	38:8:71:A:O2'	35.03	0.49
12:C0:46:LEU:HD23	12:C0:66:TYR:CD2	2.47	0.49
1:2:1608:U:OP1	18:C6:15:SER:OG	2.30	0.49
18:C6:31:VAL:HA	18:C6:67:VAL:O	2.98	0.49
20:C8:41:ARG:NE	21:C9:46:PRO:HD3	2.28	0.49
27:D5:42:LEU:HD12	27:D5:43:ASP:H	1.78	0.49
42:L5:55:PHE:CZ	42:L5:158:ARG:HB3	4.83	0.49
42:L5:95:TRP:CH2	42:L5:181:PRO:HD3	4.69	0.49
45:L8:82:LEU:HD21	45:L8:218:ILE:HD11	1.95	0.49
47:M0:51:HIS:O	47:M0:165:ILE:HA	2.41	0.49
36:1:1547:G:OP1	51:M5:105:ARG:NH1	2.46	0.49
52:M6:189:ASP:N	52:M6:189:ASP:OD1	2.45	0.49
54:M8:125:ASP:O	54:M8:129:VAL:HG23	2.13	0.49
36:1:1720:U:P	55:M9:110:ARG:HH12	2.35	0.49
56:N0:1:MET:HE3	56:N0:32:SER:HB3	1.94	0.49
59:N3:17:LEU:HD21	59:N3:98:ASN:ND2	2.27	0.49
36:1:1637:A:OP2	63:N7:73:LYS:NZ	2.44	0.49
5:S3:116:ARG:HB2	5:S3:116:ARG:NH1	5.43	0.49
7:S5:87:CYS:HB3	7:S5:92:ARG:HD2	2.94	0.49
1:2:66:U:C5	8:S6:173:PRO:HG3	2.47	0.49
34:SR:225:LEU:O	34:SR:228:LYS:HG3	2.12	0.49
34:SR:236:ALA:O	34:SR:238:ASP:N	2.98	0.49
34:SR:22:SER:OG	34:SR:70:ASP:HA	2.61	0.49
36:1:1322:U:OP1	56:N0:117:ARG:HD2	2.12	0.49
36:1:1573:G:H2'	36:1:1573:G:N3	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2558:U:O2'	36:1:2559:U:H5'	2.13	0.49
36:1:2723:U:H2'	36:1:2724:U:C6	2.48	0.49
36:1:507:U:H2'	36:1:508:U:C6	2.48	0.49
36:1:873:C:H5''	36:1:874:U:H4'	1.95	0.49
1:2:1773:C:H2'	1:2:1774:G:C8	2.46	0.49
1:2:245:U:O4	86:2:2093:OHX:N5	2.46	0.49
1:2:581:U:OP1	35:SM:108:GLN:NE2	2.46	0.49
1:2:795:U:H5	1:2:796:A:C8	2.31	0.49
38:4:23:U:OP1	62:N6:16:ARG:NH2	2.43	0.49
36:5:1765:U:H2'	36:5:1766:G:O4'	2.13	0.49
36:5:2771:U:O2'	36:5:2772:C:O4'	2.20	0.49
36:5:938:C:OP1	36:5:963:G:H5'	2.13	0.49
68:O2:33:ARG:NH1	36:5:944:C:H4'	161.27	0.49
21:C9:3:GLY:HA3	1:6:1364:G:N2	430.20	0.49
86:6:2121:OHX:N4	86:6:2171:OHX:N1	2.60	0.49
32:E0:56:MET:HG2	1:6:590:C:H5'	417.38	0.49
39:L2:51:ASP:HB2	39:L2:58:LEU:HG	1.93	0.49
39:L2:70:ARG:NH1	39:L2:72:ARG:HH21	6.85	0.49
40:L3:344:THR:O	40:L3:344:THR:HG22	4.76	0.49
41:L4:309:ARG:NH2	41:L4:312:VAL:HB	2.28	0.49
42:L5:270:LYS:C	42:L5:272:TYR:H	2.90	0.49
42:L5:58:LYS:HD2	42:L5:93:THR:OG1	2.12	0.49
43:L6:5:LYS:O	43:L6:6:ALA:HB3	2.13	0.49
44:L7:166:ASN:OD1	44:L7:181:ILE:N	2.43	0.49
45:L8:149:LYS:HD2	45:L8:201:THR:O	5.20	0.49
46:L9:163:GLN:O	46:L9:165:CYS:N	2.45	0.49
47:M0:47:PRO:HB3	47:M0:171:TRP:CZ2	2.48	0.49
47:M0:45:GLU:HG2	47:M0:46:PHE:CD1	2.48	0.49
50:M4:38:ILE:HD11	56:N0:150:PHE:CE2	2.47	0.49
53:M7:67:ILE:HG22	53:M7:80:LYS:HB3	1.94	0.49
36:1:2763:U:H5'	54:M8:176:ARG:HG3	1.95	0.49
45:L8:46:LEU:HG	61:N5:28:THR:O	3.53	0.49
61:N5:80:ASN:ND2	61:N5:126:LEU:HB2	2.27	0.49
67:O1:44:MET:O	67:O1:46:THR:HG22	5.45	0.49
70:O4:56:THR:OG1	70:O4:56:THR:O	2.31	0.49
6:S4:159:THR:CG2	6:S4:227:VAL:HB	2.42	0.49
9:S7:77:LEU:HD22	9:S7:81:LEU:HD11	1.95	0.49
10:S8:31:ARG:NH2	1:6:333:A:OP1	298.11	0.49
35:SM:54:PRO:HB2	35:SM:59:GLY:HA2	2.19	0.49
36:1:951:A:C4	36:1:1369:A:C2	3.01	0.49
36:1:653:A:C2	36:1:1443:G:C4	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1782:U:H2'	36:1:1783:U:O4'	2.13	0.49
36:1:2616:C:C2'	36:1:2617:U:H5'	2.42	0.49
36:1:3006:A:H2'	36:1:3007:U:O4'	2.13	0.49
36:1:3039:C:OP1	40:L3:65:SER:OG	2.22	0.49
36:1:3217:C:H2'	36:1:3217:C:O2	2.12	0.49
36:1:2960:C:OP1	86:1:3998:OHX:N4	2.46	0.49
36:1:722:G:O6	86:1:4012:OHX:N6	2.45	0.49
36:1:980:A:H2'	36:1:981:U:N1	2.28	0.49
1:2:1111:G:C2	1:2:1112:G:H1'	2.48	0.49
1:2:1283:U:OP1	86:2:2114:OHX:N2	2.46	0.49
1:2:1151:A:H4'	1:2:1766:A:C5	2.47	0.49
36:5:1815:U:O2'	36:5:1816:A:OP2	2.25	0.49
36:5:2518:C:H2'	36:5:2519:A:C8	2.48	0.49
36:5:2610:G:H2'	36:5:2611:U:O4'	2.12	0.49
1:6:1082:C:OP2	1:6:1082:C:H3'	2.13	0.49
14:C2:45:LEU:HB2	1:6:1228:G:OP1	462.75	0.49
1:6:150:U:H2'	1:6:151:G:O4'	2.13	0.49
1:6:1535:U:H4'	1:6:1535:U:OP1	2.13	0.49
1:6:921:U:O4	86:6:2179:OHX:N3	2.45	0.49
12:C0:23:ALA:CB	12:C0:64:TYR:HB2	3.77	0.49
14:C2:32:LEU:O	14:C2:36:LEU:N	2.45	0.49
14:C2:60:VAL:HG22	14:C2:122:VAL:HG22	1.95	0.49
22:D0:70:THR:HB	22:D0:72:ASN:O	4.94	0.49
25:D3:3:LYS:HE2	1:6:1100:G:OP1	354.42	0.49
39:L2:101:VAL:C	39:L2:102:LEU:HD12	2.34	0.49
39:L2:187:HIS:ND1	39:L2:190:ARG:NH1	4.51	0.49
39:L2:219:ILE:HD13	39:L2:223:SER:HB3	2.30	0.49
40:L3:120:LYS:HD3	36:5:3000:A:H5''	201.28	0.49
40:L3:46:PHE:CE2	40:L3:205:VAL:HG22	2.47	0.49
44:L7:222:HIS:CE1	44:L7:224:ILE:HG13	2.48	0.49
51:M5:138:GLN:HA	51:M5:143:ARG:HH11	1.78	0.49
51:M5:153:ASP:OD2	51:M5:155:VAL:HG22	2.13	0.49
51:M5:35:VAL:HG23	36:5:1543:G:P	140.13	0.49
53:M7:94:LEU:HD23	53:M7:146:ILE:HB	2.30	0.49
53:M7:88:VAL:O	53:M7:92:GLN:HG3	3.36	0.49
55:M9:101:VAL:HA	55:M9:104:ARG:NH1	2.28	0.49
69:O3:6:ARG:HG3	69:O3:8:TYR:CD1	2.95	0.49
78:Q2:12:CYS:SG	78:Q2:74:CYS:SG	3.17	0.49
2:S0:107:PHE:O	2:S0:115:PHE:HE2	3.03	0.49
2:S0:126:PRO:HB2	2:S0:152:PRO:HG2	1.94	0.49
3:S1:32:ILE:HG13	3:S1:96:LEU:HD21	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:87:ARG:HH22	3:S1:220:GLN:HG2	1.78	0.49
5:S3:44:THR:HG23	5:S3:45:LYS:HD3	5.51	0.49
5:S3:98:ALA:O	5:S3:102:ALA:N	2.93	0.49
9:S7:69:GLY:HA2	9:S7:72:LYS:HE3	1.95	0.49
11:S9:59:LEU:O	11:S9:62:ARG:HG3	2.12	0.49
35:SM:102:THR:CG2	35:SM:105:LYS:HB2	2.42	0.49
34:SR:6:VAL:N	34:SR:316:MET:O	3.13	0.49
36:1:157:A:C8	72:O6:26:ILE:HG12	2.48	0.48
36:1:255:A:O2'	36:1:256:G:H5'	2.12	0.48
36:1:2651:G:H4'	36:1:2652:U:OP2	2.12	0.48
36:1:290:G:H2'	36:1:291:C:H6	1.76	0.48
1:2:1000:C:O2'	1:2:1002:G:N7	2.32	0.48
1:2:1391:A:H2'	1:2:1392:U:C6	2.48	0.48
1:2:186:C:H42	1:2:199:G:H1	1.59	0.48
1:2:1642:G:O6	86:2:2023:OHX:N6	2.45	0.48
1:2:73:U:H1'	1:2:74:U:H5'	1.95	0.48
1:2:862:A:C2	1:2:963:A:C4	3.00	0.48
1:2:929:A:H5''	1:2:930:A:OP2	2.12	0.48
36:5:1070:U:C4	36:5:1071:U:C4	3.01	0.48
57:N1:127:GLN:HG2	36:5:1095:U:H3	260.50	0.48
36:5:1769:G:C2	36:5:1770:G:C8	3.01	0.48
36:5:3127:A:H2'	36:5:3128:G:O4'	2.12	0.48
86:5:4035:OHX:N1	86:5:4083:OHX:N2	2.60	0.48
1:6:1071:U:H2'	1:6:1072:C:C6	2.48	0.48
1:6:1535:U:H1'	1:6:1536:G:C2	2.47	0.48
1:6:1698:G:H1'	1:6:1699:G:OP1	2.13	0.48
16:C4:35:GLY:HA3	1:6:919:A:H5'	269.52	0.48
14:C2:73:LYS:HE3	33:E1:108:VAL:HG13	1.95	0.48
15:C3:50:ILE:HG22	15:C3:54:LEU:HD12	1.94	0.48
20:C8:18:LEU:HD21	20:C8:70:VAL:HG13	1.94	0.48
4:S2:143:TYR:O	24:D2:98:GLN:NE2	2.66	0.48
26:D4:9:THR:HG21	26:D4:48:TYR:OH	2.12	0.48
27:D5:56:THR:HA	27:D5:103:ARG:HH11	1.77	0.48
27:D5:82:HIS:C	27:D5:84:GLU:H	3.13	0.48
36:1:911:C:H42	39:L2:3:ARG:HD3	1.77	0.48
39:L2:49:VAL:HG12	39:L2:58:LEU:HB2	3.02	0.48
41:L4:36:HIS:O	41:L4:40:THR:HG23	2.22	0.48
42:L5:152:ARG:CG	42:L5:152:ARG:HH11	2.71	0.48
43:L6:135:VAL:O	43:L6:139:LYS:HG3	2.13	0.48
43:L6:58:LEU:HD12	43:L6:78:ARG:HD2	1.94	0.48
44:L7:58:ALA:O	44:L7:61:ASN:HB2	2.26	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:203:VAL:CG1	45:L8:207:ASP:HB2	4.16	0.48
52:M6:195:ALA:O	52:M6:197:LEU:N	2.46	0.48
52:M6:38:ALA:O	52:M6:41:LEU:HB3	3.19	0.48
53:M7:36:ILE:CD1	53:M7:95:LEU:HD11	2.43	0.48
56:N0:125:LYS:HG3	56:N0:126:VAL:N	2.60	0.48
56:N0:77:VAL:HG13	56:N0:126:VAL:HG22	1.94	0.48
58:N2:59:ASP:HB3	58:N2:62:VAL:HG12	1.95	0.48
59:N3:85:TRP:CE2	59:N3:93:LEU:HD21	2.69	0.48
67:O1:72:ARG:O	67:O1:96:VAL:HG13	2.14	0.48
69:O3:73:ARG:HG3	69:O3:82:ARG:HD2	2.01	0.48
71:O5:70:TYR:CE1	71:O5:77:PRO:HD3	2.64	0.48
72:O6:30:LYS:HE3	36:5:266:A:H2'	102.70	0.48
78:Q2:2:VAL:HG13	78:Q2:91:PHE:HA	1.93	0.48
2:S0:88:LYS:HB3	2:S0:202:TYR:CZ	2.67	0.48
2:S0:74:VAL:HA	2:S0:96:THR:O	2.76	0.48
3:S1:173:THR:O	3:S1:177:GLN:NE2	2.46	0.48
1:2:1587:A:O2'	7:S5:104:ASN:OD1	2.16	0.48
7:S5:90:ILE:O	7:S5:94:THR:HG23	2.37	0.48
8:S6:28:PHE:CZ	8:S6:104:PRO:HG3	2.48	0.48
9:S7:23:ALA:O	9:S7:27:LEU:HG	2.12	0.48
10:S8:25:ARG:O	10:S8:28:GLU:HG2	2.46	0.48
11:S9:114:TYR:HA	11:S9:119:ALA:HB3	1.95	0.48
34:SR:309:VAL:HB	34:SR:311:ARG:HH12	2.73	0.48
34:SR:42:LEU:O	34:SR:43:ILE:HD13	2.26	0.48
36:1:2898:G:H5''	36:1:2899:C:H5'	1.95	0.48
36:1:2986:U:H2'	36:1:2987:A:H8	1.78	0.48
36:1:3178:A:C2	52:M6:115:LYS:HD3	2.46	0.48
36:1:3203:U:H2'	36:1:3204:C:C6	2.49	0.48
36:1:370:U:H4'	36:1:404:G:H5'	1.95	0.48
1:2:1274:C:H5	35:SM:96:ARG:H	1.61	0.48
1:2:425:A:H8	1:2:425:A:H5'	1.77	0.48
1:2:738:G:H2'	1:2:739:G:H8	1.79	0.48
1:2:739:G:O6	86:2:2096:OHX:N4	2.47	0.48
36:5:2180:G:H2'	36:5:2181:C:C6	2.48	0.48
36:5:3264:G:N2	36:5:3265:C:H1'	2.28	0.48
36:5:2973:G:N7	86:5:4120:OHX:N1	2.61	0.48
36:5:643:U:OP1	36:5:1116:G:O2'	2.30	0.48
36:5:873:C:H5''	36:5:874:U:O5'	2.13	0.48
49:M3:15:ARG:NH2	36:5:96:G:H5'	152.53	0.48
1:6:1638:G:C2	1:6:1639:C:H1'	2.48	0.48
29:D7:20:LYS:NZ	1:6:958:U:OP2	347.08	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:80:TYR:HD2	21:C9:101:ASN:HD21	1.60	0.48
21:C9:20:SER:OG	21:C9:24:ARG:NH2	7.49	0.48
31:D9:46:LYS:O	31:D9:50:ILE:HG13	2.60	0.48
41:L4:91:GLY:O	41:L4:94:CYS:HB2	3.43	0.48
42:L5:178:ASN:ND2	36:5:2746:A:H5'	252.24	0.48
42:L5:271:LYS:HD3	42:L5:271:LYS:HA	4.21	0.48
45:L8:141:ALA:HA	45:L8:144:GLU:HB2	2.51	0.48
42:L5:294:ALA:HB1	47:M0:217:PHE:HB3	1.95	0.48
52:M6:27:LEU:HD13	52:M6:98:ALA:O	2.12	0.48
54:M8:153:PHE:O	54:M8:161:LYS:HG2	4.96	0.48
56:N0:104:GLU:O	56:N0:108:GLN:HG2	2.14	0.48
63:N7:10:VAL:HG11	63:N7:129:TRP:HZ3	2.11	0.48
63:N7:61:LYS:O	63:N7:64:LYS:N	2.91	0.48
64:N8:115:LYS:NZ	36:5:783:A:OP1	150.17	0.48
68:O2:103:LYS:O	68:O2:106:VAL:HG13	2.13	0.48
68:O2:122:PRO:O	68:O2:123:LYS:HB2	2.13	0.48
72:O6:9:ILE:HD13	72:O6:10:GLY:N	4.88	0.48
76:Q0:95:VAL:HG12	76:Q0:96:CYS:O	2.69	0.48
2:S0:41:ARG:HE	2:S0:45:VAL:HB	1.78	0.48
2:S0:56:LYS:NZ	2:S0:158:VAL:HA	2.63	0.48
2:S0:87:LEU:HD21	2:S0:99:ALA:HB2	5.29	0.48
4:S2:245:ASP:N	4:S2:245:ASP:OD1	2.44	0.48
7:S5:150:GLY:O	7:S5:152:GLY:N	2.75	0.48
9:S7:74:GLN:NE2	9:S7:92:PHE:HB2	2.28	0.48
11:S9:110:GLN:HA	11:S9:129:ILE:HD11	1.93	0.48
11:S9:162:SER:O	11:S9:167:ALA:HB3	2.13	0.48
11:S9:83:VAL:HG23	11:S9:85:VAL:HG23	1.95	0.48
35:SM:52:PRO:O	35:SM:54:PRO:HD3	4.93	0.48
36:1:1019:G:H2'	36:1:1020:G:O4'	2.13	0.48
36:1:2206:G:N2	36:1:2207:A:C8	2.81	0.48
36:1:2718:U:H2'	36:1:2719:U:C6	2.48	0.48
36:1:2799:A:H5''	36:1:2800:G:O5'	2.12	0.48
36:1:3160:U:H2'	36:1:3161:C:C6	2.47	0.48
36:1:34:A:H2'	36:1:35:A:C8	2.48	0.48
36:1:539:C:H2'	36:1:540:U:H6	1.78	0.48
1:2:1053:G:H2'	1:2:1054:U:C6	2.48	0.48
1:2:1677:C:H2'	1:2:1678:A:O4'	2.13	0.48
36:5:1238:C:H2'	36:5:1239:C:O4'	2.14	0.48
43:L6:5:LYS:HD3	36:5:1423:C:H1'	142.15	0.48
36:5:2612:U:H2'	36:5:2613:U:O4'	2.14	0.48
36:5:2794:G:H1'	36:5:2795:U:C6	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2718:U:OP2	86:5:4070:OHX:N6	2.47	0.48
1:6:1239:U:O4	86:6:2097:OHX:N5	2.44	0.48
1:6:1735:U:O4	86:6:2124:OHX:N5	2.46	0.48
10:S8:2:GLY:N	1:6:393:C:OP2	292.24	0.48
1:6:652:G:N2	1:6:682:C:O2	2.46	0.48
71:O5:83:LYS:HA	38:8:38:U:C5	66.28	0.48
15:C3:55:ARG:HD2	15:C3:56:ASP:OD1	3.94	0.48
19:C7:10:LYS:HD3	19:C7:53:TYR:CZ	2.48	0.48
24:D2:50:PHE:HB3	24:D2:63:VAL:HG22	2.29	0.48
29:D7:35:VAL:HG12	29:D7:63:LEU:HD22	2.73	0.48
39:L2:140:ASN:ND2	39:L2:142:ASP:HB3	5.84	0.48
41:L4:16:THR:HG23	41:L4:18:ASN:N	3.27	0.48
41:L4:290:ILE:HG23	54:M8:35:PHE:CE2	2.47	0.48
45:L8:164:VAL:O	45:L8:167:PRO:HD2	2.12	0.48
45:L8:71:VAL:HG22	45:L8:76:ALA:HB2	1.95	0.48
47:M0:130:ASP:OD1	47:M0:131:ILE:N	3.67	0.48
50:M4:15:VAL:HG13	56:N0:150:PHE:O	2.13	0.48
69:O3:106:ASN:ND2	69:O3:106:ASN:O	3.37	0.48
71:O5:89:ARG:HH11	71:O5:89:ARG:HG2	1.81	0.48
4:S2:140:ARG:HH21	4:S2:226:THR:HG21	2.17	0.48
5:S3:183:GLY:O	5:S3:184:ILE:HD13	2.77	0.48
6:S4:35:PRO:HB3	6:S4:143:ASP:O	2.65	0.48
7:S5:216:GLU:OE2	7:S5:219:ARG:HD3	3.37	0.48
7:S5:56:ALA:O	7:S5:58:LEU:N	3.19	0.48
9:S7:141:ARG:HG3	9:S7:141:ARG:HH11	2.46	0.48
36:1:1713:G:O6	66:O0:28:LYS:HD3	2.14	0.48
36:1:345:G:OP1	36:1:1429:G:N1	2.45	0.48
36:1:1231:A:OP2	86:1:4084:OHX:N5	2.46	0.48
36:1:829:U:H3	36:1:895:A:H61	1.61	0.48
1:2:443:C:O2	1:2:445:A:N6	2.45	0.48
1:2:93:A:O2'	6:S4:4:GLY:HA3	2.14	0.48
38:4:35:C:OP1	71:O5:85:THR:HG21	2.13	0.48
36:5:1021:G:N1	36:5:1032:C:O2	2.46	0.48
36:5:1439:U:H2'	36:5:1440:G:O4'	2.14	0.48
36:5:174:C:H42	36:5:244:G:H1	1.62	0.48
36:5:1901:A:O3'	36:5:2918:G:H5'	2.13	0.48
1:6:1225:U:H2'	1:6:1226:A:H8	1.79	0.48
18:C6:9:THR:HA	1:6:1340:U:O4	434.32	0.48
1:6:997:G:C2	1:6:998:A:H1'	2.48	0.48
37:7:3:U:H2'	37:7:4:U:H6	1.78	0.48
22:D0:22:ILE:HG22	22:D0:93:LEU:HB2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:58:ARG:O	27:D5:102:THR:HG23	3.62	0.48
30:D8:27:GLN:OE1	30:D8:64:ARG:NH1	5.61	0.48
36:1:2242:A:H5'	39:L2:243:THR:HG23	1.94	0.48
40:L3:148:LEU:HA	40:L3:148:LEU:HD12	2.30	0.48
40:L3:239:PRO:O	40:L3:242:THR:HG23	2.26	0.48
40:L3:305:ILE:HD11	40:L3:321:PHE:CD2	2.48	0.48
41:L4:141:ARG:O	41:L4:143:GLU:N	4.10	0.48
41:L4:263:GLY:HA3	41:L4:269:SER:HB2	2.90	0.48
42:L5:178:ASN:HA	42:L5:183:TRP:CG	2.75	0.48
43:L6:78:ARG:HD3	43:L6:106:PHE:CD2	2.48	0.48
48:M1:137:ARG:HD3	37:7:28:C:OP1	302.82	0.48
48:M1:137:ARG:O	48:M1:141:ARG:HG2	2.46	0.48
49:M3:129:ASN:OD1	49:M3:130:GLY:N	4.99	0.48
53:M7:27:LYS:HG2	53:M7:63:PHE:CG	2.80	0.48
68:O2:71:HIS:CE1	68:O2:118:LYS:HD3	2.49	0.48
71:O5:68:GLN:C	71:O5:70:TYR:H	2.15	0.48
70:O4:10:ARG:HD2	75:O9:4:GLN:HE22	2.24	0.48
78:Q2:52:GLY:O	78:Q2:54:THR:HG23	2.30	0.48
4:S2:218:ILE:O	4:S2:221:THR:OG1	2.31	0.48
6:S4:88:ASP:HA	6:S4:122:LYS:NZ	2.27	0.48
1:2:164:A:N3	8:S6:13:GLN:NE2	2.62	0.48
9:S7:162:ILE:O	9:S7:164:TYR:N	4.05	0.48
9:S7:96:ARG:HB3	1:6:856:A:N6	365.16	0.48
10:S8:135:LYS:O	10:S8:136:SER:HB2	4.60	0.48
20:C8:145:ARG:CB	35:SM:68:ARG:HH12	3.18	0.48
36:1:1070:U:O4	86:1:4099:OHX:N3	2.46	0.48
36:1:1299:U:H2'	36:1:1300:G:O4'	2.14	0.48
36:1:3246:G:O6	86:1:4106:OHX:N4	2.46	0.48
36:1:1170:A:OP2	86:1:3954:OHX:N5	2.46	0.48
36:1:2236:G:OP1	86:1:4117:OHX:N6	2.47	0.48
36:1:884:A:OP1	73:O7:5:THR:HG23	2.14	0.48
1:2:1546:G:OP1	20:C8:123:ARG:HD2	2.13	0.48
1:2:25:C:H4'	1:2:25:C:OP2	2.13	0.48
1:2:539:G:OP2	1:2:539:G:H8	1.96	0.48
37:3:71:G:H2'	37:3:72:A:C8	2.49	0.48
36:5:1151:U:H3'	36:5:1152:G:C8	2.48	0.48
36:5:1785:U:H2'	36:5:1786:G:C8	2.48	0.48
45:L8:241:LYS:HD3	36:5:2586:G:C8	183.38	0.48
53:M7:69:ARG:NH1	36:5:3308:C:N3	189.86	0.48
86:5:4068:OHX:N5	86:5:4146:OHX:N2	2.61	0.48
1:6:1141:G:H2'	1:6:1142:A:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1270:G:H1	1:6:1440:C:H42	1.62	0.48
28:D6:5:ARG:HG2	1:6:1796:C:C6	341.35	0.48
14:C2:46:ARG:HH21	14:C2:50:LYS:HE2	1.78	0.48
23:D1:35:ASN:HB3	23:D1:50:TYR:CD1	2.49	0.48
28:D6:50:VAL:O	28:D6:53:LEU:HB3	2.14	0.48
28:D6:84:VAL:HG13	28:D6:85:ARG:N	2.27	0.48
36:1:610:G:O6	41:L4:309:ARG:NH2	2.45	0.48
44:L7:43:ILE:O	44:L7:47:ARG:HG3	3.41	0.48
44:L7:77:VAL:CG2	57:N1:139:ARG:HG2	2.43	0.48
44:L7:93:ASN:N	44:L7:93:ASN:OD1	2.43	0.48
45:L8:130:TYR:CD1	45:L8:202:GLU:HB3	2.48	0.48
46:L9:114:VAL:HB	46:L9:124:ARG:HB2	1.95	0.48
48:M1:117:ASP:O	48:M1:120:ILE:HG22	2.14	0.48
49:M3:61:PRO:HD3	49:M3:70:ARG:HH21	2.43	0.48
51:M5:121:VAL:HG11	51:M5:131:GLU:HG3	2.94	0.48
51:M5:23:GLN:HG2	51:M5:122:ASN:ND2	2.29	0.48
66:O0:16:LEU:HD22	66:O0:19:LYS:HE3	1.95	0.48
66:O0:78:GLY:HA2	66:O0:87:VAL:HG13	1.95	0.48
67:O1:20:LEU:CD2	67:O1:31:ARG:HB3	2.42	0.48
36:1:1802:C:O2'	70:O4:59:PRO:O	2.19	0.48
2:S0:104:PRO:HA	2:S0:135:GLU:OE2	2.92	0.48
3:S1:36:SER:HB3	3:S1:231:LEU:O	4.19	0.48
5:S3:190:ARG:HH12	5:S3:195:SER:HA	3.20	0.48
5:S3:41:VAL:HA	5:S3:46:THR:HG23	3.11	0.48
6:S4:246:LEU:HD21	6:S4:254:ARG:NH1	2.29	0.48
9:S7:51:VAL:HG22	9:S7:55:LYS:O	2.54	0.48
35:SM:64:LYS:O	35:SM:66:ALA:N	2.63	0.48
36:1:1802:C:H2'	36:1:1803:C:C6	2.49	0.48
36:1:3306:U:H5''	40:L3:21:ARG:NH1	2.28	0.48
36:1:551:A:O2'	36:1:552:G:O5'	2.31	0.48
36:1:612:U:H2'	36:1:613:G:C8	2.48	0.48
36:1:677:A:H4'	36:1:678:G:O5'	2.12	0.48
1:2:704:C:OP2	1:2:704:C:H3'	2.14	0.48
1:2:760:A:H2'	1:2:761:G:O4'	2.14	0.48
86:5:4003:OHX:N4	86:5:4093:OHX:N1	2.62	0.48
36:5:54:C:O2'	36:5:1547:G:H1'	2.12	0.48
36:5:608:A:H5''	36:5:609:G:OP2	2.14	0.48
1:6:986:G:OP2	86:6:2120:OHX:N2	2.47	0.48
1:6:486:G:H4'	1:6:486:G:OP1	2.13	0.48
1:6:887:A:H2'	1:6:888:U:C6	2.49	0.48
38:8:157:U:H2'	38:8:158:U:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:113:LYS:HB2	38:8:84:C:H1'	19.56	0.48
16:C4:94:PRO:HB2	16:C4:99:GLN:HE22	1.79	0.48
1:2:1211:A:H1'	17:C5:99:GLY:O	2.12	0.48
26:D4:15:ASN:OD1	26:D4:17:LEU:HB2	5.02	0.48
33:E1:130:VAL:HG13	33:E1:143:LYS:HB3	4.50	0.48
40:L3:256:HIS:HA	40:L3:257:PRO:C	2.42	0.48
41:L4:181:VAL:HG11	41:L4:224:GLY:CA	3.15	0.48
46:L9:94:TYR:CD2	46:L9:98:PRO:HA	2.69	0.48
47:M0:80:SER:O	47:M0:84:ALA:HB2	2.13	0.48
48:M1:101:ASN:HB3	48:M1:129:VAL:O	2.13	0.48
56:N0:89:ASN:OD1	57:N1:156:TYR:N	2.44	0.48
59:N3:85:TRP:CZ2	59:N3:93:LEU:HD21	2.75	0.48
61:N5:105:VAL:HA	61:N5:130:TYR:CE2	2.48	0.48
63:N7:22:LYS:HE2	63:N7:129:TRP:CH2	2.49	0.48
67:O1:65:LYS:HD3	36:5:3058:U:H3	180.27	0.48
76:Q0:98:LYS:HD3	76:Q0:118:THR:HG21	1.95	0.48
77:Q1:4:LYS:O	77:Q1:7:LYS:HB3	2.82	0.48
86:1:3971:OHX:N2	78:Q2:50:PHE:O	2.47	0.48
2:S0:120:LEU:HD21	2:S0:144:ILE:HD11	2.51	0.48
3:S1:193:ILE:O	3:S1:197:ILE:HG12	2.13	0.48
4:S2:38:VAL:HG22	4:S2:39:THR:H	1.78	0.48
6:S4:158:ASP:OD1	6:S4:158:ASP:N	2.46	0.48
8:S6:10:ASN:HB3	8:S6:128:THR:HA	2.15	0.48
9:S7:141:ARG:NH2	9:S7:143:LEU:HD22	2.29	0.48
9:S7:29:ASN:O	9:S7:30:SER:OG	2.27	0.48
11:S9:105:LEU:HD13	11:S9:108:ARG:HD2	1.96	0.48
34:SR:93:ASP:HB2	34:SR:100:TYR:CE1	2.49	0.48
36:1:128:G:H2'	36:1:129:U:O4'	2.14	0.48
36:1:1645:U:H2'	36:1:1646:G:H5'	1.96	0.48
36:1:2217:U:H2'	36:1:2218:G:H8	1.79	0.48
36:1:3006:A:C2	36:1:3141:A:C4	3.01	0.48
36:1:1852:G:N7	86:1:3975:OHX:N3	2.62	0.48
1:2:1017:U:H2'	1:2:1018:U:H6	1.74	0.48
1:2:1193:A:OP1	1:2:1193:A:H8	1.97	0.48
1:2:1388:A:H4'	1:2:1389:C:O5'	2.13	0.48
1:2:138:A:H62	1:2:266:A:H61	1.61	0.48
1:2:387:A:OP2	1:2:387:A:H8	1.96	0.48
1:2:59:C:H1'	1:2:60:U:C5	2.49	0.48
38:4:23:U:C4'	62:N6:17:LYS:HG2	2.43	0.48
36:5:138:U:H2'	36:5:139:G:C8	2.49	0.48
36:5:1586:G:OP1	86:5:3993:OHX:N3	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1782:U:H2'	36:5:1783:U:H6	1.79	0.48
36:5:242:C:H2'	36:5:243:G:H8	1.77	0.48
40:L3:129:ALA:O	36:5:3150:A:H5'	211.41	0.48
36:5:2274:U:OP1	86:5:3986:OHX:N6	2.47	0.48
36:5:437:G:OP2	36:5:437:G:H8	1.97	0.48
36:5:529:A:O2'	36:5:530:G:H5'	2.13	0.48
1:6:276:C:O2'	1:6:277:U:H5''	2.14	0.48
1:6:482:U:H3	1:6:505:A:H61	1.59	0.48
1:6:538:A:H8	1:6:543:C:H41	1.51	0.48
1:6:914:G:OP2	1:6:914:G:H8	1.97	0.48
37:7:23:A:O2'	37:7:121:U:O3'	2.15	0.48
61:N5:56:ARG:HG2	38:8:134:G:OP1	78.56	0.48
1:2:632:U:OP1	13:C1:102:LYS:HG3	2.13	0.48
14:C2:46:ARG:O	14:C2:49:THR:OG1	3.16	0.48
22:D0:20:ILE:HG13	22:D0:96:PRO:HA	2.92	0.48
23:D1:3:ASN:ND2	23:D1:7:GLN:HB3	4.52	0.48
25:D3:130:VAL:HG11	25:D3:143:PRO:HD3	2.61	0.48
40:L3:111:SER:OG	40:L3:113:GLU:HB2	2.13	0.48
40:L3:361:THR:HG23	40:L3:371:GLN:O	2.35	0.48
44:L7:160:ARG:HD2	44:L7:203:TRP:CE2	2.49	0.48
45:L8:163:VAL:O	45:L8:166:LEU:HB2	2.54	0.48
45:L8:68:ARG:HA	45:L8:236:GLY:O	4.34	0.48
46:L9:18:VAL:HB	46:L9:27:VAL:HG22	1.95	0.48
46:L9:75:VAL:HA	46:L9:78:MET:CE	2.56	0.48
47:M0:74:LYS:HE3	47:M0:74:LYS:HB2	1.62	0.48
47:M0:39:LYS:HA	47:M0:86:HIS:ND1	2.28	0.48
51:M5:150:TRP:HZ3	51:M5:156:HIS:CD2	2.32	0.48
52:M6:124:LEU:O	52:M6:128:ARG:HB2	2.24	0.48
36:1:2115:G:O2'	55:M9:82:LYS:HE3	2.14	0.48
56:N0:40:ARG:HD2	56:N0:40:ARG:HA	1.55	0.48
44:L7:73:GLY:O	57:N1:143:THR:HB	2.16	0.48
59:N3:2:SER:N	59:N3:56:ASP:HA	3.52	0.48
67:O1:41:LYS:HE3	67:O1:47:ASP:HA	4.05	0.48
69:O3:15:SER:HA	69:O3:94:PHE:CE1	2.48	0.48
73:O7:64:MET:O	73:O7:68:LYS:HG3	2.14	0.48
4:S2:94:GLN:O	4:S2:95:ARG:HB2	4.49	0.48
5:S3:116:ARG:O	5:S3:120:TYR:HB2	2.13	0.48
6:S4:43:PRO:HB2	6:S4:46:VAL:HG23	2.61	0.48
7:S5:54:LYS:HD2	7:S5:135:ASP:OD2	4.93	0.48
7:S5:20:PHE:CE1	7:S5:34:GLN:HB3	3.07	0.48
7:S5:43:PHE:HB3	7:S5:46:TRP:CD1	5.32	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:129:LEU:HA	9:S7:129:LEU:HD23	1.91	0.48
36:1:1843:C:H2'	36:1:1844:C:H6	1.78	0.48
36:1:1940:G:H2'	36:1:1941:C:O4'	2.13	0.48
36:1:2097:U:H2'	36:1:2098:C:C6	2.49	0.48
36:1:2180:G:H2'	36:1:2181:C:C6	2.49	0.48
36:1:2664:C:OP2	48:M1:142:LYS:HE2	2.13	0.48
36:1:2743:A:H2'	36:1:2744:U:O4'	2.13	0.48
36:1:2898:G:H5''	36:1:2899:C:O5'	2.13	0.48
36:1:1171:G:O6	86:1:3954:OHX:N2	2.46	0.48
36:1:438:A:C2	36:1:620:U:H5	2.31	0.48
1:2:478:A:O2'	11:S9:124:HIS:ND1	2.45	0.48
36:5:2103:U:H2'	36:5:2104:A:H8	1.78	0.48
1:6:1054:U:H2'	1:6:1055:U:O4'	2.14	0.48
1:6:1255:G:O2'	1:6:1256:A:H8	1.97	0.48
1:6:678:A:N7	1:6:679:U:N3	2.62	0.48
1:6:719:U:N3	1:6:721:U:H5	2.12	0.48
12:C0:74:GLU:O	12:C0:77:ARG:HB3	2.13	0.48
15:C3:36:GLN:HA	15:C3:39:LYS:HB3	3.62	0.48
17:C5:85:ILE:HD11	17:C5:116:LEU:HD23	1.94	0.48
18:C6:40:GLU:HA	18:C6:42:GLU:N	2.28	0.48
18:C6:52:LEU:HD23	18:C6:60:PHE:CE1	4.35	0.48
19:C7:13:SER:HA	19:C7:54:THR:HG22	2.02	0.48
19:C7:24:LEU:HD23	19:C7:34:LEU:HD13	1.96	0.48
25:D3:12:ALA:O	25:D3:16:ARG:HG3	2.14	0.48
31:D9:21:CYS:C	31:D9:23:VAL:H	2.59	0.48
41:L4:300:ARG:NH1	41:L4:300:ARG:HG2	4.02	0.48
42:L5:119:TYR:CZ	42:L5:135:VAL:HG12	2.49	0.48
43:L6:64:LEU:O	43:L6:65:ILE:HD13	5.38	0.48
45:L8:222:PHE:O	45:L8:223:ALA:HB2	4.61	0.48
47:M0:216:TYR:CD2	47:M0:217:PHE:N	2.81	0.48
47:M0:24:ARG:CG	47:M0:24:ARG:HH11	2.27	0.48
47:M0:17:TYR:CE1	47:M0:98:ARG:HD3	2.75	0.48
51:M5:14:LYS:HE2	51:M5:120:TRP:CZ3	2.88	0.48
40:L3:94:GLU:HB3	52:M6:152:VAL:HG21	1.95	0.48
56:N0:84:ARG:HG3	36:5:1295:G:OP1	293.92	0.48
60:N4:14:TYR:O	60:N4:17:ARG:HB3	2.14	0.48
67:O1:13:THR:HG22	67:O1:72:ARG:NH2	4.64	0.48
67:O1:90:PHE:HB3	67:O1:91:SER:H	3.68	0.48
68:O2:123:LYS:HA	68:O2:126:LEU:HB2	1.94	0.48
70:O4:46:ASP:OD1	70:O4:80:ARG:HD2	2.14	0.48
73:O7:88:ALA:O	86:O7:105:OHX:N4	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:11:PHE:HD1	74:O8:12:LEU:HD22	3.26	0.48
86:1:3971:OHX:N6	78:Q2:46:LYS:O	2.46	0.48
2:S0:102:PHE:CZ	2:S0:106:SER:HB2	2.49	0.48
2:S0:147:THR:OG1	2:S0:159:ALA:HB1	2.14	0.48
9:S7:10:SER:OG	9:S7:10:SER:O	2.26	0.48
34:SR:19:TRP:CG	34:SR:38:ARG:HD2	2.48	0.48
36:1:1412:G:OP1	68:O2:105:ARG:NH2	2.47	0.48
36:1:1623:G:OP2	86:1:4038:OHX:N1	2.46	0.48
36:1:1823:A:H2'	36:1:1824:U:H6	1.79	0.48
36:1:1942:U:O2'	36:1:3345:G:O2'	2.30	0.48
36:1:2280:A:H5''	36:1:2281:A:OP2	2.14	0.48
36:1:2413:A:H2'	36:1:2414:G:H8	1.78	0.48
36:1:2662:G:H2'	36:1:2663:G:C8	2.48	0.48
1:2:1207:C:N4	1:2:1456:C:H5	2.12	0.48
1:2:1553:G:N2	1:2:1555:A:H3'	2.28	0.48
1:2:276:C:O2'	1:2:277:U:H5''	2.14	0.48
1:2:330:G:C6	1:2:331:A:C6	3.02	0.48
1:2:708:C:C2	1:2:709:C:H5	2.32	0.48
1:2:711:U:H1'	1:2:712:G:H5'	1.96	0.48
1:6:1374:C:H2'	1:6:1375:A:H8	1.78	0.48
1:6:1459:C:OP2	1:6:1459:C:H6	1.96	0.48
1:6:189:C:C2'	1:6:190:C:H5'	2.43	0.48
10:S8:141:ARG:NH2	1:6:196:G:N7	280.32	0.48
1:6:832:U:OP2	86:6:2202:OHX:N6	2.46	0.48
1:6:28:A:H2'	1:6:29:U:O4'	2.14	0.48
1:6:689:G:H2'	1:6:690:G:O4'	2.13	0.48
1:6:723:G:H5'	1:6:724:C:OP2	2.14	0.48
16:C4:24:ASN:O	16:C4:25:ASP:HB2	2.14	0.48
18:C6:38:LEU:O	18:C6:40:GLU:N	2.59	0.48
18:C6:41:PRO:HB2	18:C6:44:LEU:HB2	1.96	0.48
1:2:600:U:OP2	25:D3:108:GLY:HA2	2.13	0.48
29:D7:15:GLU:HA	29:D7:18:LYS:HD3	1.95	0.48
30:D8:64:ARG:NH2	30:D8:65:ARG:HB3	7.48	0.48
40:L3:345:ASN:CG	40:L3:347:SER:HB2	2.33	0.48
41:L4:181:VAL:HG12	41:L4:182:LEU:N	2.29	0.48
42:L5:55:PHE:CZ	42:L5:158:ARG:HG3	2.49	0.48
42:L5:205:SER:OG	42:L5:206:GLN:N	3.67	0.48
43:L6:46:ARG:HG3	43:L6:46:ARG:HH11	2.64	0.48
45:L8:231:LYS:HB2	45:L8:231:LYS:HE3	3.59	0.48
47:M0:86:HIS:HB3	47:M0:139:ARG:CG	2.64	0.48
49:M3:124:ILE:HD11	49:M3:126:PHE:CE1	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:27:ASP:OD1	49:M3:31:LYS:HD2	4.68	0.48
52:M6:172:ARG:HA	52:M6:175:THR:HG22	1.94	0.48
64:N8:19:LYS:HD2	64:N8:25:HIS:ND1	2.29	0.48
72:O6:55:ARG:O	72:O6:58:ILE:HD13	2.14	0.48
78:Q2:17:CYS:HG	78:Q2:77:CYS:CB	3.25	0.48
79:Q3:54:ILE:O	79:Q3:54:ILE:HG12	4.71	0.48
2:S0:112:THR:O	2:S0:115:PHE:HB2	2.13	0.48
2:S0:120:LEU:HD12	2:S0:121:VAL:N	2.28	0.48
2:S0:87:LEU:HD13	2:S0:87:LEU:HA	3.07	0.48
4:S2:103:VAL:HG22	4:S2:113:LEU:HD23	1.96	0.48
1:2:13:C:OP1	4:S2:84:LYS:NZ	2.47	0.48
5:S3:113:LEU:HD13	5:S3:117:ARG:HH11	3.39	0.48
6:S4:194:THR:O	6:S4:195:ILE:HB	2.13	0.48
36:1:2357:A:H2'	36:1:2358:A:C8	2.49	0.48
36:1:705:A:H62	64:N8:74:ASN:ND2	2.07	0.48
36:1:789:A:H2'	36:1:790:U:C6	2.49	0.48
36:1:979:U:H1'	36:1:980:A:N9	2.27	0.48
1:2:513:U:H2'	1:2:514:G:C8	2.49	0.48
36:5:135:C:H4'	36:5:136:G:OP2	2.14	0.48
36:5:1576:G:C8	36:5:1577:G:C8	3.02	0.48
36:5:1927:G:N2	36:5:1928:G:C8	2.82	0.48
78:Q2:19:LYS:HA	36:5:2741:C:H4'	207.79	0.48
86:5:4068:OHX:N3	86:5:4146:OHX:N6	2.62	0.48
36:5:420:G:O5'	36:5:420:G:OP2	2.32	0.48
36:5:648:C:C4	36:5:2375:G:H5'	2.48	0.48
4:S2:88:LYS:HG2	1:6:1145:U:O2'	380.61	0.48
1:6:1280:C:H2'	1:6:1281:G:C8	2.49	0.48
1:6:1751:C:H2'	1:6:1752:U:O4'	2.13	0.48
1:6:188:A:H2'	1:6:189:C:O4'	2.14	0.48
1:6:1631:A:OP2	86:6:2168:OHX:N3	2.46	0.48
1:6:345:U:H1'	1:6:346:G:C8	2.49	0.48
1:6:862:A:C2	1:6:963:A:C4	3.02	0.48
38:8:26:U:H2'	38:8:27:U:C6	2.49	0.48
12:C0:50:THR:HG22	12:C0:55:VAL:HG13	1.95	0.48
14:C2:131:ASP:OD1	14:C2:132:GLU:HG2	2.14	0.48
16:C4:99:GLN:HB3	28:D6:46:GLU:OE2	2.14	0.48
21:C9:57:ARG:HH22	21:C9:80:TYR:HB3	2.97	0.48
41:L4:287:THR:HG22	36:5:1349:G:OP2	174.21	0.48
45:L8:245:LYS:HG2	45:L8:245:LYS:O	2.28	0.48
47:M0:169:LYS:H	47:M0:169:LYS:CD	3.35	0.48
49:M3:59:ARG:O	49:M3:60:ALA:HB3	4.56	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:149:ASN:O	51:M5:152:CYS:HB2	2.45	0.48
54:M8:60:PRO:CG	54:M8:144:ARG:HA	2.41	0.48
55:M9:166:ASN:HD21	55:M9:170:ARG:NH1	7.89	0.48
58:N2:21:SER:HB2	58:N2:22:PRO:HD3	1.95	0.48
58:N2:50:LEU:HG	58:N2:50:LEU:H	2.17	0.48
59:N3:83:LYS:HE2	59:N3:84:SER:N	2.29	0.48
74:O8:62:ALA:O	74:O8:66:ILE:HG12	3.62	0.48
74:O8:69:LEU:HD12	74:O8:70:PRO:HD2	1.95	0.48
78:Q2:47:GLN:NE2	78:Q2:53:GLN:HA	2.35	0.48
5:S3:106:LYS:HG2	5:S3:110:LEU:HD12	1.95	0.48
6:S4:163:ASP:HB3	6:S4:167:GLY:O	4.51	0.48
7:S5:63:GLN:HE22	7:S5:66:GLN:HB2	2.82	0.48
8:S6:174:LYS:HG3	1:6:79:C:H1'	341.90	0.48
8:S6:72:ARG:HG2	8:S6:98:ARG:HA	1.96	0.48
10:S8:99:ALA:HB3	1:6:329:G:H5'	270.86	0.48
34:SR:22:SER:HB2	34:SR:70:ASP:HA	1.94	0.48
34:SR:70:ASP:OD1	34:SR:71:CYS:N	2.47	0.48
36:1:1394:A:H4'	36:1:1420:C:H4'	1.96	0.47
36:1:2352:A:N6	36:1:2353:G:C6	2.82	0.47
36:1:517:G:P	44:L7:60:ARG:HH22	2.36	0.47
36:1:54:C:H5''	36:1:1548:C:H1'	1.96	0.47
1:2:108:A:H2'	1:2:109:G:C8	2.48	0.47
1:2:1140:G:H2'	1:2:1141:G:H8	1.77	0.47
1:2:1450:U:H2'	1:2:1451:C:H6	1.77	0.47
1:2:1572:G:H8	7:S5:185:ARG:HH12	1.62	0.47
1:2:1662:G:O2'	1:2:1663:G:H5'	2.14	0.47
1:2:190:C:O2'	1:2:191:C:H5'	2.14	0.47
37:3:20:A:C4	37:3:60:G:N2	2.82	0.47
36:5:1818:U:H2'	36:5:1819:U:H6	1.77	0.47
36:5:1819:U:O4	86:5:4052:OHX:N5	2.47	0.47
36:5:3155:U:H4'	36:5:3156:U:OP2	2.14	0.47
36:5:397:A:H5''	36:5:398:A:H5'	1.95	0.47
86:5:4057:OHX:N3	86:5:4201:OHX:N4	2.62	0.47
44:L7:60:ARG:HH22	36:5:517:G:P	306.06	0.47
36:5:696:C:O2'	36:5:697:A:H8	1.97	0.47
1:6:1390:U:HO2'	1:6:1391:A:H8	1.62	0.47
20:C8:143:ARG:NH2	1:6:1462:G:N7	338.44	0.47
77:Q1:16:LYS:NZ	1:6:1750:A:OP1	287.93	0.47
1:6:404:G:H2'	1:6:405:C:C6	2.49	0.47
12:C0:16:PHE:O	12:C0:88:PRO:HA	2.13	0.47
12:C0:29:GLN:HB3	12:C0:39:ASN:HB3	2.25	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:80:LEU:HB2	12:C0:82:LEU:HG	1.95	0.47
13:C1:109:VAL:HG11	13:C1:125:VAL:HG11	2.25	0.47
13:C1:55:ASP:OD2	13:C1:58:CYS:HB2	2.42	0.47
15:C3:119:GLU:CG	15:C3:141:TYR:HE2	3.13	0.47
15:C3:73:ARG:HD3	1:6:859:A:C5	330.82	0.47
17:C5:102:PHE:CZ	1:6:1241:G:H5''	384.09	0.47
22:D0:34:LEU:HD23	22:D0:35:GLU:HG2	8.72	0.47
26:D4:45:ALA:HB2	26:D4:55:VAL:HG21	1.96	0.47
29:D7:33:LEU:HD13	29:D7:79:PHE:HB2	4.08	0.47
33:E1:127:GLY:C	33:E1:129:GLY:H	2.18	0.47
39:L2:182:ALA:HB2	36:5:2148:U:O2'	211.34	0.47
36:1:3151:U:OP1	40:L3:128:LYS:NZ	2.47	0.47
40:L3:306:THR:OG1	40:L3:316:GLU:O	2.23	0.47
42:L5:229:ASP:HB2	42:L5:231:ILE:HG12	3.60	0.47
44:L7:116:PHE:CZ	44:L7:144:ILE:HG12	2.49	0.47
44:L7:76:TYR:HE2	44:L7:78:GLU:HG3	1.79	0.47
45:L8:159:PRO:HB2	45:L8:161:GLU:OE2	3.36	0.47
48:M1:47:GLN:OE1	48:M1:64:LYS:HD3	2.28	0.47
48:M1:60:ARG:O	48:M1:63:GLU:HB2	2.14	0.47
52:M6:184:THR:OG1	52:M6:185:ALA:N	4.51	0.47
54:M8:176:ARG:HA	54:M8:182:LYS:O	2.27	0.47
56:N0:171:PHE:O	56:N0:172:TYR:C	4.13	0.47
57:N1:76:ILE:O	57:N1:87:LYS:N	2.79	0.47
68:O2:32:TRP:CZ2	68:O2:53:PRO:HD2	2.48	0.47
71:O5:26:LYS:O	71:O5:30:GLU:HG3	2.14	0.47
74:O8:23:ALA:HB2	74:O8:73:LEU:HD21	1.96	0.47
2:S0:52:LYS:HB3	23:D1:82:VAL:HG23	1.95	0.47
4:S2:139:ILE:HD11	4:S2:218:ILE:HG21	2.21	0.47
4:S2:42:GLY:HA2	4:S2:68:ILE:HD11	1.96	0.47
1:2:448:C:H4'	6:S4:28:ALA:O	2.14	0.47
7:S5:144:GLU:OE2	7:S5:225:ARG:NH2	4.04	0.47
36:1:3335:A:H2'	36:1:3336:A:C8	2.48	0.47
36:1:650:C:O5'	36:1:650:C:H6	1.96	0.47
1:2:1538:U:HO2'	1:2:1539:G:H8	1.62	0.47
1:2:1169:G:N1	1:2:1575:G:OP2	2.36	0.47
1:2:249:U:H3'	1:2:250:C:H5'	1.97	0.47
36:5:1039:U:H2'	36:5:1040:A:C8	2.49	0.47
36:5:1481:A:H2'	36:5:1481:A:N3	2.28	0.47
75:O9:5:LYS:NZ	36:5:1493:G:N7	116.27	0.47
36:5:1614:C:H2'	36:5:1615:C:C6	2.47	0.47
36:5:1879:A:N3	36:5:1879:A:H2'	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2217:U:H2'	36:5:2218:G:C8	2.49	0.47
86:5:4003:OHX:N3	86:5:4093:OHX:N5	2.62	0.47
1:6:1179:G:C6	1:6:1180:C:N3	2.82	0.47
1:6:978:A:H2'	1:6:979:A:O4'	2.15	0.47
38:8:132:G:C6	38:8:133:G:N7	2.82	0.47
12:C0:77:ARG:NH1	12:C0:84:GLU:HA	2.29	0.47
17:C5:85:ILE:HA	17:C5:89:MET:SD	2.54	0.47
18:C6:39:VAL:HG12	18:C6:41:PRO:HD2	3.46	0.47
20:C8:120:ARG:HD2	35:SM:61:ILE:HD11	1.96	0.47
20:C8:8:GLN:O	20:C8:10:SER:N	3.33	0.47
26:D4:39:GLU:HG2	26:D4:43:LYS:HE2	1.96	0.47
27:D5:54:VAL:HG11	27:D5:83:LEU:HD13	3.23	0.47
31:D9:22:ARG:HG2	31:D9:38:ILE:HD13	2.02	0.47
40:L3:53:MET:HE1	40:L3:327:CYS:CB	2.54	0.47
41:L4:222:VAL:HA	41:L4:223:PRO:HD3	1.81	0.47
42:L5:211:LEU:O	42:L5:215:ASP:N	3.47	0.47
48:M1:82:ARG:CG	48:M1:112:LEU:HB2	2.44	0.47
50:M4:127:LYS:O	50:M4:130:THR:HG23	3.87	0.47
50:M4:23:ILE:HD11	50:M4:53:VAL:HG21	2.82	0.47
50:M4:57:ALA:HB2	56:N0:97:VAL:HG21	1.96	0.47
52:M6:14:HIS:O	52:M6:41:LEU:HD12	2.65	0.47
54:M8:170:ARG:NH2	64:N8:59:ARG:HA	2.29	0.47
55:M9:151:ARG:O	55:M9:155:LEU:HG	4.96	0.47
56:N0:24:LEU:HD21	57:N1:141:VAL:HG21	2.72	0.47
57:N1:41:ASP:HB2	57:N1:97:LYS:HE3	5.86	0.47
58:N2:80:THR:O	58:N2:84:LEU:HG	2.14	0.47
61:N5:79:GLY:O	61:N5:81:ILE:HD12	2.32	0.47
62:N6:16:ARG:NH1	36:5:216:G:OP1	83.80	0.47
63:N7:135:ARG:HH21	63:N7:135:ARG:CB	3.39	0.47
67:O1:61:LYS:HB3	67:O1:61:LYS:HE2	4.72	0.47
71:O5:86:ARG:HG3	71:O5:90:ARG:CZ	2.80	0.47
3:S1:103:MET:HB3	3:S1:215:VAL:HG12	2.51	0.47
4:S2:152:HIS:CD2	4:S2:152:HIS:H	2.31	0.47
6:S4:25:GLY:HA3	1:6:447:U:O2'	374.95	0.47
7:S5:166:ARG:HA	7:S5:169:ASN:HB2	2.52	0.47
34:SR:281:TYR:HB3	34:SR:285:ALA:HB3	2.22	0.47
36:1:1321:G:O3'	56:N0:117:ARG:NH2	2.48	0.47
36:1:1581:C:H2'	36:1:1582:C:C5'	2.45	0.47
36:1:1751:G:H5''	74:O8:26:LYS:HE3	1.96	0.47
36:1:317:A:C2	36:1:318:A:C4	3.02	0.47
36:1:270:U:O2'	36:1:318:A:H1'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3218:A:H4'	36:1:3219:G:O5'	2.15	0.47
1:2:1233:G:O2'	33:E1:145:HIS:HB2	2.15	0.47
1:2:226:A:H2'	1:2:227:U:H5'	1.96	0.47
1:2:373:G:N7	86:2:2158:OHX:N6	2.62	0.47
1:2:526:A:C6	1:2:527:A:C5	3.02	0.47
1:2:859:A:C5	15:C3:73:ARG:HD3	2.49	0.47
70:O4:59:PRO:HD3	36:5:1654:A:O2'	167.82	0.47
36:5:196:G:C2	36:5:199:A:C8	3.03	0.47
36:5:2676:A:H4'	36:5:2677:G:O5'	2.14	0.47
36:5:2712:U:HO2'	36:5:2743:A:HO2'	1.53	0.47
36:5:2947:G:N2	36:5:2948:C:C2	2.82	0.47
86:5:4013:OHX:N6	86:5:4202:OHX:N2	2.63	0.47
36:5:1549:U:O4	86:5:4203:OHX:N2	2.48	0.47
36:5:756:U:H2'	36:5:757:C:C6	2.49	0.47
1:6:1701:A:H62	1:6:1702:A:H2	1.62	0.47
1:6:269:G:H1	1:6:286:C:H42	1.62	0.47
18:C6:82:ARG:NH1	18:C6:114:ARG:O	3.24	0.47
20:C8:13:HIS:O	20:C8:14:ILE:HG22	4.03	0.47
20:C8:36:LYS:HB3	20:C8:102:ALA:O	2.66	0.47
20:C8:88:ARG:NH1	20:C8:112:ASP:OD2	3.25	0.47
1:2:1433:G:C8	31:D9:41:GLN:HG2	2.49	0.47
39:L2:30:ARG:HH22	39:L2:33:ASP:CG	2.17	0.47
40:L3:205:VAL:O	40:L3:207:SER:N	2.75	0.47
42:L5:41:LYS:HA	42:L5:41:LYS:HD3	3.42	0.47
44:L7:106:LEU:HD23	44:L7:106:LEU:HA	1.64	0.47
44:L7:125:GLU:OE1	44:L7:128:LYS:HE3	2.14	0.47
36:1:121:A:C2	45:L8:129:PRO:HB3	2.50	0.47
46:L9:49:ASN:ND2	46:L9:52:LEU:HB2	2.29	0.47
47:M0:171:TRP:CD2	47:M0:181:TYR:HD2	2.33	0.47
47:M0:210:ILE:HG12	47:M0:217:PHE:CZ	2.49	0.47
54:M8:158:HIS:H	54:M8:186:VAL:CG1	2.31	0.47
55:M9:23:TRP:O	55:M9:50:ILE:HA	2.15	0.47
36:1:3043:C:P	59:N3:48:ARG:HH22	2.37	0.47
72:O6:57:LEU:HD21	72:O6:73:ALA:HB2	1.96	0.47
36:1:817:A:H8	73:O7:15:SER:HG	1.62	0.47
73:O7:72:ARG:O	73:O7:75:LYS:N	2.47	0.47
74:O8:62:ALA:O	74:O8:66:ILE:HG13	2.13	0.47
79:Q3:73:THR:CG2	79:Q3:76:ALA:H	2.24	0.47
2:S0:119:ARG:NE	4:S2:240:LEU:HD23	4.17	0.47
10:S8:114:GLU:HG2	10:S8:119:GLN:O	5.39	0.47
1:2:353:A:O3'	10:S8:14:THR:HG21	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:182:ASN:O	34:SR:186:PHE:HA	2.40	0.47
36:1:2405:C:O2	36:1:2819:A:N1	2.48	0.47
36:1:107:A:H1'	36:1:325:A:N3	2.29	0.47
36:5:1093:A:C2	36:5:1096:U:C2	3.02	0.47
36:5:2400:G:H5''	36:5:2401:A:OP2	2.14	0.47
36:5:2528:G:H1	36:5:2582:C:H42	1.63	0.47
36:5:3306:U:H2'	36:5:3307:A:H5''	1.94	0.47
86:5:4057:OHX:N1	86:5:4201:OHX:N4	2.62	0.47
36:5:420:G:OP1	36:5:420:G:OP2	2.33	0.47
1:6:1255:G:H4'	1:6:1256:A:OP1	2.15	0.47
1:6:1572:G:H2'	1:6:1572:G:N3	2.30	0.47
1:6:1740:A:H2'	1:6:1741:U:C6	2.49	0.47
28:D6:79:ILE:HD12	1:6:1794:A:H1'	331.12	0.47
38:8:76:C:H2'	38:8:77:A:O4'	2.14	0.47
15:C3:102:LEU:HD23	15:C3:102:LEU:HA	1.96	0.47
19:C7:28:PHE:CE2	19:C7:32:LYS:HD3	2.84	0.47
20:C8:113:LEU:HD21	20:C8:127:HIS:CE1	2.50	0.47
20:C8:91:ASP:OD1	20:C8:92:ILE:N	2.47	0.47
2:S0:7:PHE:CZ	23:D1:43:GLY:HA2	2.78	0.47
32:E0:48:THR:OG1	32:E0:49:LEU:HD22	3.53	0.47
36:1:2202:C:O2'	39:L2:240:ALA:O	2.26	0.47
40:L3:313:HIS:O	40:L3:333:LYS:HE3	2.88	0.47
41:L4:219:LEU:O	41:L4:222:VAL:HG13	2.15	0.47
43:L6:144:ALA:O	43:L6:147:ALA:HB3	2.62	0.47
36:1:1048:A:H2'	47:M0:22:TYR:CZ	2.50	0.47
50:M4:121:MET:O	50:M4:125:LYS:HG2	2.15	0.47
50:M4:128:ARG:O	50:M4:128:ARG:HG2	2.13	0.47
51:M5:136:ASP:OD2	51:M5:138:GLN:HG2	2.89	0.47
53:M7:26:PHE:HE1	53:M7:120:ASN:HA	1.80	0.47
55:M9:146:LYS:HD3	55:M9:146:LYS:HA	4.25	0.47
61:N5:137:ASN:HA	61:N5:141:TYR:H	3.89	0.47
64:N8:112:ILE:HB	64:N8:130:VAL:HG12	1.95	0.47
64:N8:47:LYS:HE2	64:N8:48:TYR:CZ	2.48	0.47
64:N8:73:LEU:HD21	64:N8:78:LEU:HA	1.97	0.47
64:N8:7:LYS:HA	64:N8:7:LYS:HD3	1.60	0.47
64:N8:92:LYS:HG2	64:N8:92:LYS:H	1.54	0.47
79:Q3:26:VAL:HG12	79:Q3:30:GLU:HG3	1.96	0.47
2:S0:31:VAL:HG23	2:S0:150:ASP:HA	1.97	0.47
4:S2:175:GLY:HA3	11:S9:97:LEU:O	3.11	0.47
6:S4:194:THR:HG21	6:S4:231:GLN:OE1	4.15	0.47
9:S7:41:LEU:HB3	9:S7:70:PHE:CE2	3.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:43:PHE:HB2	9:S7:61:PHE:O	2.15	0.47
10:S8:34:ALA:O	10:S8:36:THR:HG22	4.06	0.47
11:S9:102:GLU:CD	11:S9:102:GLU:H	2.77	0.47
35:SM:68:ARG:NH2	1:6:1460:A:OP2	332.56	0.47
36:1:1397:C:C2'	36:1:1398:U:H5'	2.44	0.47
36:1:2248:C:OP2	86:1:3878:OHX:N3	2.47	0.47
36:1:2213:A:H2	36:1:2601:A:N3	2.13	0.47
36:1:3215:A:N6	50:M4:122:VAL:HG13	2.30	0.47
36:1:2402:A:OP2	86:1:4087:OHX:N6	2.47	0.47
1:2:1107:G:O2'	1:2:1108:G:H5'	2.15	0.47
1:2:1147:A:H2'	1:2:1148:C:H6	1.79	0.47
1:2:1410:A:H2'	1:2:1411:A:O4'	2.15	0.47
1:2:1496:U:HO2'	1:2:1497:U:H6	1.61	0.47
1:2:1685:G:C2	1:2:1717:G:C6	3.02	0.47
1:2:1794:A:H1'	28:D6:79:ILE:HD12	1.97	0.47
86:2:2044:OHX:N2	86:2:2098:OHX:N6	2.62	0.47
1:2:1385:G:N7	86:2:2132:OHX:N3	2.62	0.47
1:2:230:C:H2'	1:2:231:U:H5''	1.96	0.47
36:5:1556:C:H2'	36:5:2169:G:C6	2.49	0.47
36:5:1641:U:O2'	36:5:1642:A:H3'	2.14	0.47
36:5:3134:A:OP1	86:5:3927:OHX:N5	2.48	0.47
43:L6:130:ILE:HG12	36:5:3269:U:C5	248.02	0.47
86:5:4035:OHX:N1	86:5:4083:OHX:N4	2.62	0.47
1:6:218:A:H61	1:6:829:A:H2	1.63	0.47
1:6:477:A:N7	1:6:538:A:N1	2.62	0.47
11:S9:149:ARG:NH1	1:6:765:G:C6	428.58	0.47
1:6:926:A:H2'	1:6:927:C:C6	2.49	0.47
12:C0:70:GLU:HA	12:C0:73:VAL:HB	1.97	0.47
13:C1:33:ARG:NH2	13:C1:48:ALA:O	4.96	0.47
14:C2:45:LEU:O	14:C2:49:THR:HG23	2.41	0.47
1:2:952:A:O2'	15:C3:114:ARG:HG3	2.14	0.47
1:2:1340:U:O4	18:C6:9:THR:HA	2.14	0.47
1:2:1539:G:O4'	20:C8:40:ARG:NH1	2.48	0.47
23:D1:1:MET:SD	23:D1:10:GLU:HB3	2.54	0.47
23:D1:40:ASP:HB3	23:D1:46:ILE:HD11	2.36	0.47
24:D2:118:ARG:NH1	1:6:686:C:O3'	400.20	0.47
24:D2:125:ILE:HG12	24:D2:126:LEU:N	2.29	0.47
25:D3:133:LEU:HD13	25:D3:137:LYS:HE3	2.92	0.47
25:D3:23:ARG:HH11	25:D3:23:ARG:HG3	1.79	0.47
28:D6:19:LYS:HG3	28:D6:20:PRO:HD2	1.95	0.47
32:E0:33:ARG:NH2	1:6:478:A:H5'	436.76	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:125:ALA:HB1	41:L4:238:LEU:HB3	2.26	0.47
44:L7:88:ARG:HA	44:L7:134:VAL:HG12	2.30	0.47
45:L8:151:VAL:HG13	45:L8:199:ALA:HB2	3.08	0.47
36:1:1044:U:OP1	47:M0:90:ARG:NH1	2.47	0.47
48:M1:14:ILE:CD1	48:M1:14:ILE:H	4.33	0.47
54:M8:94:PHE:CE1	64:N8:119:PRO:HD3	2.49	0.47
62:N6:5:SER:OG	62:N6:8:VAL:HG12	2.15	0.47
62:N6:74:TYR:CE2	62:N6:77:LYS:HD2	5.22	0.47
63:N7:14:VAL:HG22	70:O4:86:LYS:HG3	4.75	0.47
70:O4:96:GLU:O	70:O4:99:LYS:HB2	2.26	0.47
74:O8:7:ASP:HB3	74:O8:10:GLN:HB3	1.96	0.47
2:S0:180:GLU:O	2:S0:184:LEU:HD23	2.13	0.47
2:S0:202:TYR:O	2:S0:203:PHE:HD2	1.98	0.47
5:S3:176:LEU:H	5:S3:176:LEU:HD12	1.80	0.47
5:S3:44:THR:O	5:S3:45:LYS:HB2	4.43	0.47
5:S3:79:TYR:CD1	5:S3:84:ILE:HB	2.39	0.47
7:S5:28:PRO:O	7:S5:29:ILE:HB	4.53	0.47
7:S5:43:PHE:N	7:S5:46:TRP:O	3.14	0.47
7:S5:53:VAL:O	7:S5:55:ASP:N	3.04	0.47
8:S6:3:LEU:O	8:S6:15:THR:HA	2.60	0.47
10:S8:188:GLU:OE2	13:C1:15:LYS:NZ	2.61	0.47
36:1:999:G:O2'	36:1:1000:C:H5'	2.15	0.47
36:1:1135:A:OP1	65:N9:6:ASN:HB2	2.14	0.47
36:1:1668:G:H4'	70:O4:22:VAL:HG12	1.97	0.47
36:1:1881:A:H2'	36:1:1882:G:H8	1.80	0.47
36:1:2206:G:OP2	36:1:2206:G:H8	1.97	0.47
36:1:2426:U:O4	86:1:3862:OHX:N1	2.48	0.47
36:1:2562:A:OP2	63:N7:56:LYS:NZ	2.35	0.47
36:1:391:A:C5	36:1:392:G:C8	3.03	0.47
36:1:829:U:H3	36:1:895:A:H62	1.57	0.47
36:1:92:G:H5'	36:1:93:C:O5'	2.15	0.47
1:2:1354:G:H5'	1:2:1355:C:OP2	2.14	0.47
1:2:25:C:OP2	1:2:26:A:H2'	2.14	0.47
1:2:703:G:H2'	1:2:704:C:H5'	1.95	0.47
37:3:30:G:C6	37:3:31:U:C4	3.02	0.47
1:6:1614:A:C6	1:6:1615:C:N4	2.83	0.47
1:6:62:A:HO2'	1:6:268:C:HO2'	1.62	0.47
1:6:352:A:OP2	1:6:352:A:H8	1.96	0.47
1:6:664:U:O2'	1:6:665:U:O5'	2.31	0.47
14:C2:67:THR:C	14:C2:69:ALA:H	2.18	0.47
28:D6:79:ILE:HG23	28:D6:84:VAL:HG21	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:584:C:H1'	32:E0:18:THR:HG21	1.95	0.47
32:E0:30:PRO:HB2	32:E0:34:ALA:HB3	2.38	0.47
33:E1:136:LYS:O	33:E1:138:ARG:HB2	2.15	0.47
39:L2:79:ASN:ND2	39:L2:166:ILE:O	3.05	0.47
40:L3:370:PHE:HD1	40:L3:375:GLU:HG2	1.80	0.47
41:L4:181:VAL:O	41:L4:182:LEU:CB	2.62	0.47
41:L4:44:LYS:O	41:L4:47:ARG:HD2	2.14	0.47
42:L5:156:GLY:N	42:L5:179:ARG:O	2.45	0.47
42:L5:40:HIS:HD2	42:L5:42:ALA:N	2.00	0.47
44:L7:158:LYS:HD2	44:L7:159:GLN:H	3.51	0.47
45:L8:177:TYR:CE1	45:L8:222:PHE:HB3	3.10	0.47
46:L9:92:TYR:CD1	46:L9:179:ILE:HG12	2.49	0.47
46:L9:37:ASN:O	46:L9:37:ASN:ND2	4.93	0.47
46:L9:73:SER:O	46:L9:76:ASP:HB2	2.14	0.47
50:M4:128:ARG:HG2	50:M4:132:LYS:HG3	1.97	0.47
51:M5:144:ARG:O	51:M5:145:ASP:HB3	2.14	0.47
55:M9:46:LYS:NZ	36:5:1766:G:C8	101.52	0.47
44:L7:120:THR:HB	57:N1:132:PRO:HB2	1.96	0.47
57:N1:14:MET:SD	57:N1:58:GLN:HG2	2.54	0.47
42:L5:34:LYS:HD3	57:N1:30:TYR:CE2	2.49	0.47
61:N5:92:LYS:HE2	61:N5:110:VAL:O	2.14	0.47
70:O4:82:ALA:O	70:O4:86:LYS:N	2.92	0.47
66:O0:54:SER:HB3	70:O4:94:LEU:HD13	1.97	0.47
71:O5:45:LYS:O	71:O5:49:LYS:HG2	4.74	0.47
78:Q2:22:GLN:O	78:Q2:75:VAL:HG22	2.27	0.47
3:S1:184:LEU:HD13	3:S1:188:LEU:HG	1.97	0.47
3:S1:39:GLU:HG3	3:S1:40:ASN:N	2.30	0.47
3:S1:58:SER:O	3:S1:60:ALA:N	2.48	0.47
6:S4:136:VAL:HG21	6:S4:148:ARG:HH22	1.80	0.47
6:S4:62:LYS:HD2	6:S4:66:MET:HG2	4.58	0.47
8:S6:164:LYS:N	8:S6:167:LYS:O	2.47	0.47
34:SR:112:SER:HB3	34:SR:155:ARG:HH22	1.79	0.47
34:SR:14:GLU:HG3	34:SR:309:VAL:HG13	4.58	0.47
36:1:1103:A:H62	36:1:1363:A:H1'	1.79	0.47
36:1:1260:A:H1'	36:1:1280:C:H1'	1.95	0.47
36:1:1560:G:O2'	36:1:1561:G:H5'	2.14	0.47
36:1:2206:G:N3	36:1:2206:G:H2'	2.29	0.47
36:1:2567:C:C2'	36:1:2568:C:H5'	2.45	0.47
36:1:2822:U:H2'	36:1:2823:G:O4'	2.15	0.47
36:1:325:A:H5''	36:1:326:U:OP2	2.15	0.47
36:1:1389:G:OP2	86:1:3968:OHX:N4	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:627:U:H2'	36:1:628:A:C8	2.50	0.47
36:1:761:A:N1	36:1:771:A:H1'	2.29	0.47
36:1:978:G:O2'	36:1:979:U:O2	2.24	0.47
1:2:1234:A:H1'	33:E1:145:HIS:O	2.15	0.47
1:2:1516:A:O2'	1:2:1517:U:H5'	2.15	0.47
36:5:1530:U:OP1	86:5:3993:OHX:N1	2.48	0.47
36:5:1786:G:H2'	36:5:1787:A:C8	2.50	0.47
78:Q2:9:LYS:O	36:5:2713:U:H3'	223.42	0.47
36:5:2628:A:H1'	36:5:2798:C:C2	2.50	0.47
36:5:3152:U:O2	86:5:4228:OHX:N5	2.48	0.47
86:5:4205:OHX:N6	86:8:226:OHX:N5	2.63	0.47
1:6:1773:C:H2'	1:6:1774:G:C8	2.50	0.47
1:6:880:C:OP2	86:6:2109:OHX:N2	2.48	0.47
32:E0:43:ARG:HH12	1:6:590:C:H5''	417.67	0.47
15:C3:47:PRO:HA	15:C3:50:ILE:HD12	1.96	0.47
15:C3:84:ILE:HG22	15:C3:135:LEU:HD21	1.96	0.47
18:C6:78:VAL:O	18:C6:81:ILE:HG12	2.45	0.47
21:C9:37:VAL:O	21:C9:46:PRO:HB3	2.56	0.47
23:D1:64:GLU:O	23:D1:68:SER:HB2	2.14	0.47
27:D5:54:VAL:HG22	27:D5:57:TYR:CE1	2.49	0.47
27:D5:55:PRO:C	27:D5:57:TYR:H	2.16	0.47
31:D9:13:ARG:NH2	1:6:1554:U:OP1	412.95	0.47
41:L4:144:LYS:H	41:L4:144:LYS:CE	5.84	0.47
42:L5:200:PHE:HB3	42:L5:237:GLU:HG3	1.96	0.47
42:L5:55:PHE:CE2	42:L5:158:ARG:HG3	2.49	0.47
46:L9:7:GLU:OE1	46:L9:54:LYS:HD3	3.67	0.47
46:L9:99:ILE:HG22	46:L9:101:VAL:HG23	3.23	0.47
36:1:2645:G:OP2	47:M0:117:GLY:HA2	2.15	0.47
47:M0:184:LYS:HE3	47:M0:189:GLU:OE1	2.15	0.47
49:M3:48:PRO:HA	49:M3:137:GLN:HB2	1.95	0.47
49:M3:74:GLY:HA3	49:M3:98:ASP:HB2	2.21	0.47
51:M5:104:GLU:O	51:M5:108:ARG:HG3	3.86	0.47
51:M5:184:LYS:C	51:M5:186:GLY:H	2.83	0.47
52:M6:12:LYS:HB3	56:N0:167:ARG:NH2	4.37	0.47
67:O1:10:ARG:HG2	67:O1:108:VAL:HA	1.96	0.47
67:O1:77:ARG:HG2	67:O1:89:LEU:HD23	2.39	0.47
71:O5:85:THR:O	71:O5:89:ARG:HB2	2.14	0.47
74:O8:32:ASN:HD21	74:O8:36:LYS:HB2	1.79	0.47
10:S8:26:LYS:O	10:S8:28:GLU:N	3.04	0.47
36:1:1094:U:H6	36:1:1094:U:H3'	1.79	0.47
36:1:1141:C:O2'	36:1:1153:A:N3	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1615:C:H2'	36:1:1616:U:C6	2.49	0.47
36:1:2216:G:OP1	72:O6:75:LYS:NZ	2.25	0.47
36:1:2334:U:H2'	36:1:2335:G:H5''	1.96	0.47
36:1:2633:U:H2'	36:1:2634:U:O4'	2.15	0.47
36:1:2767:U:H2'	36:1:2768:U:C6	2.50	0.47
36:1:355:A:H2'	36:1:356:C:O4'	2.15	0.47
36:1:367:A:OP1	86:1:3880:OHX:N2	2.48	0.47
1:2:579:A:N7	5:S3:178:ARG:HD2	2.29	0.47
1:2:808:U:H2'	1:2:809:A:C8	2.50	0.47
36:5:1813:A:H2'	36:5:1814:A:H5''	1.97	0.47
36:5:2418:G:O6	86:5:4251:OHX:N2	2.48	0.47
51:M5:90:ASN:ND2	36:5:2424:A:OP1	166.27	0.47
36:5:3053:G:O6	86:5:4174:OHX:N6	2.48	0.47
50:M4:106:ARG:HD3	36:5:3209:A:C8	293.32	0.47
86:5:3993:OHX:N4	38:8:112:U:O2	2.47	0.47
1:6:1334:U:H2'	1:6:1335:U:O4'	2.14	0.47
1:6:1671:A:H2'	1:6:1672:G:O4'	2.15	0.47
1:6:760:A:H2'	1:6:761:G:O4'	2.14	0.47
1:6:926:A:H1'	1:6:988:A:C2	2.50	0.47
13:C1:93:TYR:HB2	13:C1:100:TYR:HE1	2.52	0.47
17:C5:125:PRO:O	17:C5:126:VAL:HB	2.22	0.47
17:C5:69:GLU:OE1	86:C5:201:OHX:N6	2.48	0.47
18:C6:41:PRO:O	18:C6:42:GLU:HB3	2.14	0.47
20:C8:31:ALA:O	20:C8:34:THR:HG22	2.31	0.47
25:D3:51:GLY:O	25:D3:101:GLU:HA	3.15	0.47
25:D3:109:ARG:HB3	25:D3:112:LYS:HB2	1.96	0.47
26:D4:11:LYS:HB2	26:D4:24:VAL:HG23	2.24	0.47
28:D6:23:CYS:O	28:D6:25:ASN:N	3.06	0.47
28:D6:5:ARG:HB2	28:D6:5:ARG:HE	1.61	0.47
40:L3:2:SER:O	40:L3:3:HIS:CB	2.68	0.47
40:L3:30:LYS:NZ	36:5:3139:A:OP2	235.16	0.47
42:L5:144:VAL:HG13	42:L5:173:VAL:HG22	1.96	0.47
45:L8:128:LYS:HG3	36:5:120:G:C5	99.09	0.47
45:L8:63:LYS:HA	45:L8:63:LYS:HE3	1.96	0.47
45:L8:95:ASN:HD21	45:L8:98:ARG:HH22	2.90	0.47
46:L9:5:GLN:O	46:L9:5:GLN:HG3	2.14	0.47
54:M8:166:LEU:HD23	54:M8:166:LEU:HA	1.54	0.47
54:M8:178:ARG:HA	54:M8:178:ARG:HD2	2.40	0.47
61:N5:105:VAL:HG12	61:N5:130:TYR:CD2	3.84	0.47
62:N6:5:SER:C	62:N6:7:ASP:H	2.69	0.47
64:N8:91:LEU:HD12	64:N8:121:VAL:HG21	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:O2:20:HIS:O	68:O2:21:HIS:HB2	2.17	0.47
76:Q0:99:CYS:O	76:Q0:100:TYR:HB2	2.37	0.47
79:Q3:83:ILE:HG22	79:Q3:87:ARG:NH1	2.30	0.47
2:S0:11:PRO:O	2:S0:15:GLN:HG3	2.15	0.47
2:S0:64:ILE:HD12	2:S0:181:VAL:HG11	3.00	0.47
2:S0:193:GLN:O	2:S0:195:TRP:N	2.47	0.47
2:S0:202:TYR:O	2:S0:203:PHE:CG	3.67	0.47
1:2:1145:U:O2'	4:S2:89:GLN:O	2.25	0.47
5:S3:23:GLU:CD	12:C0:61:TRP:HE1	2.18	0.47
7:S5:97:LEU:HA	7:S5:97:LEU:HD23	1.76	0.47
10:S8:122:GLY:N	10:S8:157:GLU:OE2	2.46	0.47
11:S9:45:ILE:HD12	11:S9:105:LEU:HD13	5.68	0.47
34:SR:136:ILE:H	34:SR:136:ILE:HD13	1.78	0.47
36:1:1834:U:OP1	75:O9:5:LYS:HE3	2.15	0.47
36:1:2185:G:O2'	36:1:2314:U:OP2	2.29	0.47
36:1:3019:U:C4	36:1:3020:U:C4	3.02	0.47
36:1:3187:A:C2	36:1:3188:G:H1'	2.50	0.47
36:1:650:C:O2'	36:1:651:G:H5'	2.14	0.47
1:2:1603:U:H2'	1:2:1604:U:C6	2.50	0.47
86:2:2090:OHX:N1	86:2:2131:OHX:N4	2.63	0.47
1:2:788:A:C4	6:S4:19:LEU:HD13	2.50	0.47
1:2:93:A:H4'	1:2:94:U:OP2	2.15	0.47
36:5:2971:A:H4'	36:5:2972:G:OP2	2.15	0.47
36:5:3189:G:H2'	36:5:3190:C:O4'	2.15	0.47
86:5:4068:OHX:N3	86:5:4146:OHX:N4	2.62	0.47
1:6:1652:C:H2'	1:6:1653:C:H6	1.80	0.47
5:S3:72:LEU:HD22	12:C0:65:TYR:HB3	2.35	0.47
14:C2:131:ASP:OD1	14:C2:132:GLU:N	2.39	0.47
15:C3:4:MET:HG2	15:C3:5:HIS:CD2	3.01	0.47
16:C4:107:ARG:HB2	16:C4:107:ARG:HH21	3.06	0.47
16:C4:112:ILE:H	28:D6:57:SER:HA	1.80	0.47
16:C4:31:THR:HA	16:C4:38:THR:HA	3.16	0.47
1:2:1400:A:H4'	19:C7:60:ARG:HH22	1.80	0.47
1:2:1401:A:OP1	19:C7:60:ARG:NH1	2.48	0.47
19:C7:71:PHE:C	19:C7:73:LEU:H	2.19	0.47
25:D3:43:PHE:CE1	25:D3:49:ALA:HB3	2.50	0.47
28:D6:35:ALA:O	28:D6:36:ILE:HG22	2.14	0.47
39:L2:44:ILE:HG23	39:L2:87:PHE:CD1	2.63	0.47
48:M1:15:GLU:CD	48:M1:132:ASN:HD22	2.17	0.47
49:M3:168:ARG:O	49:M3:172:LEU:HB2	2.15	0.47
52:M6:189:ASP:O	52:M6:193:GLN:HG3	2.16	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:77:VAL:HG21	57:N1:139:ARG:HD3	3.04	0.47
59:N3:87:ARG:NH2	59:N3:137:VAL:HG21	2.25	0.47
61:N5:109:LYS:HB2	61:N5:109:LYS:HE3	1.60	0.47
61:N5:25:LYS:HD3	61:N5:27:ARG:HH11	1.79	0.47
63:N7:81:LEU:HA	63:N7:81:LEU:HD22	1.70	0.47
69:O3:39:GLN:CD	69:O3:39:GLN:H	2.54	0.47
73:O7:5:THR:HA	73:O7:8:PHE:CD2	2.49	0.47
46:L9:95:ALA:O	76:Q0:77:ILE:HG12	8.42	0.47
3:S1:70:LEU:HD21	3:S1:79:HIS:CE1	2.49	0.47
1:2:1291:G:H5'	4:S2:119:LYS:HD2	1.96	0.47
4:S2:132:ALA:O	4:S2:135:SER:OG	2.44	0.47
4:S2:227:PRO:HA	4:S2:230:TRP:CD1	2.50	0.47
5:S3:195:SER:O	5:S3:197:THR:N	2.48	0.47
36:1:1720:U:OP2	55:M9:120:TYR:OH	2.25	0.47
36:1:3337:G:H2'	36:1:3338:C:C6	2.50	0.47
86:1:4053:OHX:N6	86:1:4162:OHX:N3	2.63	0.47
1:2:1291:G:N2	1:2:1324:G:N2	2.59	0.47
1:2:1524:A:H2	1:2:1590:G:H1'	1.79	0.47
1:2:1657:U:N3	86:2:2089:OHX:N4	2.62	0.47
1:2:882:U:H2'	1:2:883:C:C6	2.50	0.47
36:5:1020:G:H2'	36:5:1021:G:O4'	2.15	0.47
36:5:2263:C:OP1	86:5:3958:OHX:N2	2.48	0.47
36:5:235:A:H2'	36:5:236:G:O4'	2.14	0.47
86:5:3975:OHX:N1	86:5:4245:OHX:N2	2.63	0.47
36:5:177:U:OP2	86:5:4019:OHX:N6	2.48	0.47
36:5:7:C:H2'	36:5:8:C:C6	2.50	0.47
1:6:1429:G:H2'	1:6:1430:U:C6	2.50	0.47
1:6:15:U:H2'	1:6:16:G:O4'	2.15	0.47
1:6:271:A:H5'	1:6:272:U:OP2	2.15	0.47
3:S1:65:VAL:CG1	1:6:920:U:H5''	264.93	0.47
13:C1:80:MET:HE2	13:C1:83:THR:HB	3.94	0.47
16:C4:19:ILE:HD11	16:C4:105:LEU:HD21	1.95	0.47
23:D1:40:ASP:OD1	23:D1:44:ARG:NH1	2.48	0.47
25:D3:48:HIS:CD2	25:D3:105:ALA:HB2	2.50	0.47
29:D7:36:LYS:O	29:D7:77:THR:HG22	3.52	0.47
33:E1:86:THR:C	33:E1:87:THR:HG1	2.79	0.47
39:L2:202:VAL:HG23	39:L2:211:HIS:HB3	1.95	0.47
39:L2:70:ARG:CZ	39:L2:72:ARG:HH21	7.12	0.47
42:L5:113:LEU:HD12	42:L5:113:LEU:HA	2.17	0.47
37:3:31:U:H4'	42:L5:218:ARG:NH2	2.30	0.47
48:M1:85:LYS:O	48:M1:88:GLU:N	2.41	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:89:TYR:HB3	48:M1:169:ALA:CB	2.45	0.47
49:M3:128:ARG:NH1	71:O5:112:PRO:HG3	3.23	0.47
49:M3:14:PHE:CE1	36:5:665:A:H1'	133.20	0.47
54:M8:159:LYS:HD2	54:M8:159:LYS:HA	3.24	0.47
55:M9:105:LEU:HD22	55:M9:138:LEU:HD13	1.97	0.47
55:M9:93:VAL:O	55:M9:97:ARG:HG3	2.47	0.47
57:N1:132:PRO:HD3	36:5:1098:A:O2'	256.84	0.47
63:N7:87:LEU:HB2	63:N7:127:ASN:ND2	2.29	0.47
63:N7:76:ASN:HB3	63:N7:79:HIS:ND1	2.30	0.47
67:O1:31:ARG:O	67:O1:35:GLU:HB2	2.31	0.47
3:S1:133:TYR:CE1	3:S1:220:GLN:HB3	2.49	0.47
3:S1:139:ALA:HB2	3:S1:172:LEU:HD11	2.24	0.47
3:S1:206:PRO:O	3:S1:207:LEU:HB2	2.15	0.47
4:S2:102:VAL:HG11	4:S2:129:ILE:HG12	1.97	0.47
4:S2:159:THR:HG21	1:6:1097:U:O3'	383.43	0.47
4:S2:153:SER:OG	4:S2:195:ASP:O	2.20	0.47
5:S3:38:GLU:OE1	5:S3:40:ARG:NE	2.45	0.47
7:S5:73:THR:HG22	7:S5:74:ALA:N	2.52	0.47
7:S5:82:PHE:CD1	30:D8:49:ARG:HD2	3.60	0.47
11:S9:65:LYS:HA	11:S9:70:LEU:HD11	2.18	0.47
34:SR:42:LEU:HD21	34:SR:82:SER:HB3	1.95	0.47
18:C6:99:GLU:OE2	34:SR:60:SER:HB2	2.31	0.47
36:1:1547:G:OP1	51:M5:108:ARG:NH2	2.42	0.47
36:1:2209:U:C6	36:1:2209:U:OP2	2.67	0.47
36:1:2278:C:C2'	36:1:2279:A:H5''	2.44	0.47
36:1:283:G:OP2	36:1:285:A:H4'	2.15	0.47
36:1:3382:U:O2	36:1:3382:U:H2'	2.14	0.47
86:1:4000:OHX:N4	86:1:4171:OHX:N1	2.62	0.47
36:1:2973:G:O6	86:1:4097:OHX:N2	2.48	0.47
36:1:612:U:OP1	43:L6:21:THR:HB	2.15	0.47
1:2:274:G:C2	1:2:275:C:H1'	2.50	0.47
1:2:741:C:HO2'	1:2:742:U:H6	1.60	0.47
1:2:902:G:H8	1:2:902:G:O5'	1.98	0.47
36:5:2279:A:H2'	36:5:2288:G:O6	2.15	0.47
69:O3:56:SER:OG	36:5:3170:A:OP2	202.86	0.47
36:5:51:A:H2'	36:5:52:A:O4'	2.15	0.47
36:5:707:U:C2'	36:5:708:G:H5''	2.44	0.47
1:6:1243:G:N3	1:6:1243:G:H5''	2.30	0.47
77:Q1:21:ARG:NH1	1:6:1654:G:OP1	281.88	0.47
1:6:63:G:H4'	1:6:170:U:C5	2.50	0.47
1:6:794:U:H4'	1:6:795:U:OP2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:8:89:A:H4'	38:8:90:U:OP1	2.15	0.47
5:S3:23:GLU:HG2	12:C0:61:TRP:NE1	4.38	0.47
17:C5:39:ALA:HA	17:C5:42:ARG:HH11	1.80	0.47
17:C5:67:ALA:HB2	17:C5:73:PRO:HA	2.99	0.47
19:C7:46:LEU:HD22	19:C7:50:ILE:HG13	1.97	0.47
25:D3:53:VAL:O	25:D3:74:VAL:HA	2.15	0.47
26:D4:29:HIS:N	26:D4:29:HIS:CD2	4.34	0.47
27:D5:47:TYR:CE2	27:D5:51:LEU:HD11	3.41	0.47
28:D6:45:VAL:O	28:D6:46:GLU:HG2	3.76	0.47
28:D6:87:ARG:HD2	1:6:1797:A:C6	344.01	0.47
36:1:2157:G:O6	39:L2:151:PRO:HG2	2.15	0.47
45:L8:108:ARG:O	45:L8:111:LYS:HB2	2.14	0.47
46:L9:13:PRO:HG2	46:L9:16:VAL:HG13	1.97	0.47
46:L9:41:ILE:HD11	46:L9:67:ALA:HB1	1.97	0.47
86:1:3908:OHX:N6	51:M5:32:GLN:O	2.48	0.47
52:M6:58:LEU:HA	52:M6:58:LEU:HD12	1.97	0.47
52:M6:94:ARG:HH11	52:M6:94:ARG:HG2	1.78	0.47
40:L3:67:PHE:CE1	59:N3:88:ARG:HB2	3.09	0.47
63:N7:4:PHE:HE2	66:O0:63:SER:HB3	2.09	0.47
36:1:1065:A:O4'	65:N9:28:LYS:HE3	2.15	0.47
70:O4:61:GLN:O	70:O4:64:THR:OG1	2.62	0.47
70:O4:47:CYS:HB3	70:O4:84:CYS:SG	2.55	0.47
71:O5:31:LEU:O	71:O5:35:LYS:N	2.46	0.47
72:O6:98:ARG:HB3	72:O6:99:ARG:H	4.06	0.47
78:Q2:73:GLU:HG3	78:Q2:80:ARG:HG2	4.16	0.47
2:S0:90:ALA:HB2	2:S0:97:PRO:HB3	2.95	0.47
4:S2:203:LYS:HG2	4:S2:206:THR:HG23	1.97	0.47
5:S3:12:VAL:O	5:S3:16:VAL:HG23	2.33	0.47
9:S7:15:GLU:O	9:S7:19:GLN:HG2	2.14	0.47
34:SR:278:PHE:HB3	34:SR:281:TYR:CD1	2.49	0.47
36:1:1363:A:OP2	86:1:4042:OHX:N6	2.48	0.46
36:1:1662:G:N2	36:1:1788:C:O2	2.48	0.46
36:1:208:C:O2'	36:1:209:A:H5'	2.16	0.46
36:1:3120:C:HO2'	36:1:3121:U:H6	1.62	0.46
86:1:4053:OHX:N2	86:1:4162:OHX:N1	2.63	0.46
36:1:70:A:N1	36:1:313:A:O2'	2.45	0.46
1:2:972:G:O2'	36:1:847:A:N1	2.43	0.46
1:2:1535:U:O2'	1:2:1536:G:H5''	2.15	0.46
1:2:331:A:H5'	10:S8:33:PRO:HA	1.97	0.46
1:2:45:U:C2	1:2:436:A:N6	2.84	0.46
1:2:57:G:O6	86:2:2046:OHX:N3	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:702:G:O2'	1:2:703:G:O4'	2.32	0.46
37:3:79:A:C2	37:3:102:A:C4	3.03	0.46
36:5:1120:A:H2'	36:5:1121:U:C6	2.50	0.46
36:5:1815:U:O2'	36:5:1816:A:P	2.73	0.46
36:5:1841:A:O2'	36:5:1842:A:H5''	2.15	0.46
36:5:2812:C:H2'	36:5:2813:A:C8	2.50	0.46
86:5:4068:OHX:N1	86:5:4146:OHX:N2	2.63	0.46
56:N0:146:LYS:HA	36:5:534:U:O2	349.44	0.46
1:6:1080:U:H3	1:6:1091:A:H2	1.63	0.46
1:6:1091:A:H4'	1:6:1092:A:O5'	2.15	0.46
1:6:1320:U:O2	1:6:1322:A:H5'	2.15	0.46
1:6:340:U:H2'	1:6:341:A:C8	2.50	0.46
36:5:997:A:H4'	37:7:80:G:H5'	1.96	0.46
13:C1:100:TYR:O	25:D3:10:ASN:HA	2.14	0.46
15:C3:72:MET:O	15:C3:75:LEU:N	3.30	0.46
15:C3:94:LYS:O	15:C3:97:SER:N	2.97	0.46
16:C4:17:ALA:HA	16:C4:30:VAL:HG22	5.36	0.46
17:C5:39:ALA:HA	17:C5:42:ARG:NH1	2.30	0.46
22:D0:42:VAL:HG13	22:D0:52:LYS:HE3	1.96	0.46
24:D2:15:ASN:ND2	24:D2:71:LYS:HG2	4.68	0.46
26:D4:5:VAL:HG12	26:D4:6:THR:H	1.80	0.46
39:L2:120:PRO:HB3	39:L2:161:ASP:O	2.86	0.46
39:L2:20:THR:HA	39:L2:23:ARG:HD2	1.96	0.46
40:L3:10:ARG:HD3	40:L3:11:HIS:N	3.86	0.46
36:1:2941:A:N7	40:L3:255:TRP:CE2	2.82	0.46
36:1:3139:A:OP1	40:L3:274:SER:OG	2.33	0.46
41:L4:191:LYS:HG3	41:L4:194:TYR:CE2	5.21	0.46
41:L4:93:MET:CE	41:L4:93:MET:H	4.19	0.46
41:L4:93:MET:H	41:L4:93:MET:HE2	4.49	0.46
54:M8:177:GLY:HA2	54:M8:184:PHE:CD2	2.76	0.46
64:N8:76:ASP:HB2	64:N8:115:LYS:HB3	1.97	0.46
66:O0:13:LYS:HZ1	66:O0:103:THR:HG21	2.76	0.46
69:O3:51:TYR:HD2	69:O3:67:MET:HG3	1.80	0.46
71:O5:13:SER:OG	71:O5:15:GLU:HG3	2.14	0.46
74:O8:13:GLU:H	74:O8:13:GLU:HG3	2.30	0.46
78:Q2:45:ARG:O	78:Q2:48:SER:HB2	2.15	0.46
3:S1:22:ASP:O	3:S1:24:PHE:N	2.46	0.46
6:S4:5:PRO:HG2	6:S4:7:LYS:HZ3	1.80	0.46
8:S6:53:SER:O	8:S6:110:ALA:HB3	2.14	0.46
36:1:1501:U:H6	36:1:1501:U:O5'	1.97	0.46
36:1:1767:C:H2'	36:1:1768:U:H6	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2257:C:H2'	36:1:2258:U:O4'	2.16	0.46
36:1:259:C:O5'	36:1:259:C:H6	1.98	0.46
36:1:2707:C:H2'	36:1:2708:C:C6	2.49	0.46
36:1:2775:U:H2'	36:1:2776:C:C6	2.49	0.46
36:1:2778:G:C2'	36:1:2779:A:H5'	2.46	0.46
1:2:1565:C:H2'	1:2:1566:U:O4'	2.15	0.46
1:2:438:A:H1'	1:2:466:U:O2	2.15	0.46
1:2:67:A:H3'	1:2:69:G:H8	1.80	0.46
1:2:984:G:H2'	1:2:985:G:O4'	2.16	0.46
36:5:1239:C:H3'	36:5:1240:A:H8	1.78	0.46
75:O9:10:LYS:HE3	36:5:1834:U:OP2	107.12	0.46
1:6:1068:C:H2'	1:6:1069:A:H8	1.79	0.46
20:C8:136:GLN:NE2	1:6:1544:U:OP1	354.66	0.46
25:D3:65:ASN:ND2	1:6:574:G:O6	364.26	0.46
16:C4:126:THR:HG21	1:6:888:U:H1'	274.56	0.46
15:C3:132:VAL:HG23	15:C3:134:VAL:CG1	2.53	0.46
15:C3:93:LYS:HG3	15:C3:150:VAL:HG11	1.97	0.46
18:C6:4:VAL:HG12	18:C6:23:LYS:HB2	7.18	0.46
1:2:1389:C:O2'	19:C7:52:GLY:HA3	2.15	0.46
21:C9:3:GLY:H	1:6:1360:A:H4'	426.23	0.46
22:D0:23:ARG:HD3	22:D0:92:ASP:OD1	2.15	0.46
24:D2:104:LEU:HD23	24:D2:125:ILE:HA	5.29	0.46
24:D2:36:LYS:O	24:D2:40:VAL:HG23	2.15	0.46
29:D7:31:TYR:HE2	29:D7:33:LEU:HD21	2.47	0.46
33:E1:130:VAL:HG22	33:E1:143:LYS:HG2	5.00	0.46
39:L2:243:THR:HG23	36:5:2242:A:H5'	232.96	0.46
40:L3:3:HIS:O	40:L3:3:HIS:CD2	2.67	0.46
41:L4:136:LEU:HA	41:L4:136:LEU:HD23	1.50	0.46
41:L4:16:THR:HG22	41:L4:18:ASN:N	2.31	0.46
42:L5:233:ALA:O	42:L5:236:LEU:N	2.42	0.46
45:L8:78:PHE:O	45:L8:80:TYR:N	2.43	0.46
48:M1:37:LEU:HD22	48:M1:37:LEU:HA	2.67	0.46
50:M4:70:PHE:CE2	50:M4:72:LEU:HD23	2.51	0.46
55:M9:149:ALA:O	55:M9:152:GLU:HB3	2.37	0.46
57:N1:122:GLN:O	57:N1:124:VAL:HG22	6.83	0.46
36:1:1095:U:N3	57:N1:127:GLN:OE1	2.42	0.46
61:N5:103:TYR:HE1	61:N5:139:ILE:HD12	1.80	0.46
64:N8:85:ASP:O	64:N8:89:GLN:HG3	2.14	0.46
67:O1:36:ILE:O	67:O1:39:PHE:N	2.49	0.46
43:L6:11:PRO:HG2	68:O2:91:THR:HG21	2.48	0.46
36:1:1821:U:C2	70:O4:67:LYS:HB2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:59:ALA:O	74:O8:62:ALA:HB3	2.43	0.46
74:O8:78:LEU:HA	74:O8:78:LEU:HD13	1.54	0.46
1:2:1277:G:H5'	5:S3:140:GLY:HA2	1.97	0.46
5:S3:48:VAL:HB	5:S3:86:LEU:HD12	1.97	0.46
6:S4:191:ARG:HH11	6:S4:245:LYS:HD3	1.80	0.46
7:S5:158:GLN:HG2	30:D8:66:LEU:HD11	2.19	0.46
1:2:79:C:H4'	8:S6:173:PRO:O	2.16	0.46
36:1:1581:C:H2'	36:1:1582:C:H5'	1.97	0.46
36:1:1769:G:H5'	36:1:1770:G:OP2	2.15	0.46
36:1:2209:U:P	36:1:2209:U:H6	2.37	0.46
36:1:274:G:H2'	36:1:275:U:O4'	2.16	0.46
36:1:438:A:H8	36:1:438:A:OP2	1.98	0.46
36:1:685:G:OP1	49:M3:35:ARG:HG2	2.15	0.46
56:N0:115:ARG:NH1	36:5:1295:G:O2'	294.63	0.46
36:5:1355:A:H1'	36:5:1356:U:OP2	2.14	0.46
36:5:1556:C:H5''	36:5:2169:G:N2	2.30	0.46
1:6:1267:G:H2'	1:6:1268:G:H8	1.80	0.46
1:6:398:G:O5'	1:6:398:G:H8	1.99	0.46
1:6:526:A:N6	1:6:527:A:C6	2.84	0.46
26:D4:112:LYS:NZ	1:6:57:G:OP1	344.87	0.46
14:C2:66:VAL:HB	14:C2:67:THR:H	1.47	0.46
15:C3:119:GLU:OE2	15:C3:141:TYR:OH	4.98	0.46
15:C3:131:THR:HG22	15:C3:132:VAL:HG13	1.97	0.46
16:C4:127:ARG:HG3	16:C4:127:ARG:HH11	4.51	0.46
19:C7:88:VAL:HG22	19:C7:89:SER:H	1.80	0.46
29:D7:36:LYS:HG2	29:D7:43:ILE:HA	5.41	0.46
40:L3:187:SER:HB2	40:L3:188:ILE:HD12	1.97	0.46
41:L4:135:VAL:O	41:L4:140:HIS:HB2	2.17	0.46
44:L7:147:LEU:HD22	44:L7:205:PHE:CD1	3.45	0.46
47:M0:19:LYS:HG3	47:M0:26:VAL:CG1	2.71	0.46
52:M6:124:LEU:HA	52:M6:124:LEU:HD12	1.60	0.46
52:M6:167:TYR:OH	52:M6:171:LYS:HE3	2.16	0.46
56:N0:91:TYR:OH	56:N0:93:GLU:OE2	2.31	0.46
57:N1:83:ARG:NH1	57:N1:85:LEU:HD21	2.31	0.46
59:N3:119:GLY:HA2	59:N3:137:VAL:HG23	1.97	0.46
59:N3:86:ARG:HB2	59:N3:92:PHE:CE1	2.50	0.46
61:N5:81:ILE:HG13	61:N5:125:ARG:HA	2.48	0.46
62:N6:33:ALA:HB2	62:N6:101:PRO:HB2	2.90	0.46
66:O0:98:SER:OG	66:O0:100:ILE:HG13	2.15	0.46
69:O3:21:ARG:O	69:O3:22:VAL:HG23	2.16	0.46
39:L2:172:GLY:HA3	79:Q3:67:GLY:HA2	3.85	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:122:ILE:HA	2:S0:144:ILE:O	2.38	0.46
2:S0:177:LEU:O	2:S0:181:VAL:HG13	2.98	0.46
3:S1:119:THR:HG1	3:S1:155:TYR:HD1	1.62	0.46
4:S2:38:VAL:N	4:S2:65:GLU:OE1	2.84	0.46
7:S5:37:GLN:HG2	7:S5:69:PHE:CZ	3.20	0.46
8:S6:78:THR:HG22	8:S6:79:LYS:H	1.81	0.46
36:1:1175:C:O2'	52:M6:87:MET:HB3	2.15	0.46
36:1:1614:C:H2'	36:1:1615:C:H6	1.79	0.46
36:1:2689:A:C8	36:1:2702:A:C6	3.04	0.46
36:1:2807:U:O3'	36:1:2808:A:H3'	2.15	0.46
1:2:1481:C:O2'	1:2:1482:C:O5'	2.21	0.46
1:2:256:A:H2'	1:2:257:A:O4'	2.15	0.46
1:2:277:U:H6	1:2:279:G:N2	2.13	0.46
38:4:85:G:O2'	38:4:86:U:O5'	2.24	0.46
36:5:1037:C:H2'	36:5:1038:C:C6	2.50	0.46
36:5:1913:A:N3	36:5:2120:A:H2'	2.30	0.46
36:5:2765:C:H2'	36:5:2766:U:H6	1.80	0.46
36:5:3314:A:O2'	36:5:3315:G:H5'	2.15	0.46
33:E1:97:LYS:HE2	1:6:1231:U:C5	436.89	0.46
33:E1:143:LYS:HD3	1:6:1254:U:OP1	456.68	0.46
1:6:626:U:H2'	1:6:627:C:C6	2.47	0.46
1:6:777:C:C6	1:6:777:C:H5''	2.51	0.46
1:6:818:C:O2'	1:6:819:G:H5'	2.15	0.46
12:C0:1:MET:HG2	12:C0:2:LEU:N	2.29	0.46
12:C0:55:VAL:HA	12:C0:68:LEU:HA	2.83	0.46
15:C3:2:GLY:HA2	1:6:866:G:OP1	333.38	0.46
17:C5:20:VAL:HG12	17:C5:24:LYS:HB2	1.96	0.46
19:C7:71:PHE:CD1	19:C7:73:LEU:HB3	2.50	0.46
22:D0:58:LEU:HD23	1:6:1516:A:H8	444.45	0.46
25:D3:44:GLY:H	25:D3:78:LYS:HZ2	2.32	0.46
26:D4:40:LEU:O	26:D4:44:LEU:HB2	2.74	0.46
26:D4:40:LEU:O	26:D4:44:LEU:HD12	2.15	0.46
31:D9:33:LYS:HE2	31:D9:34:TYR:CZ	4.38	0.46
31:D9:6:VAL:O	31:D9:8:PHE:N	4.56	0.46
39:L2:90:ALA:HB2	39:L2:101:VAL:HG13	2.35	0.46
40:L3:53:MET:HE1	40:L3:327:CYS:HB2	1.97	0.46
40:L3:3:HIS:O	40:L3:4:ARG:C	2.56	0.46
41:L4:23:PRO:O	41:L4:24:ALA:HB3	2.25	0.46
42:L5:97:ALA:O	42:L5:101:THR:OG1	2.25	0.46
61:N5:135:ILE:HD13	61:N5:135:ILE:HA	1.65	0.46
36:1:1375:G:O6	64:N8:10:LYS:HE2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:132:LYS:O	64:N8:136:GLU:HG3	2.16	0.46
67:O1:31:ARG:HD3	67:O1:31:ARG:HA	1.79	0.46
68:O2:34:LYS:O	68:O2:36:LYS:HD3	2.77	0.46
69:O3:12:LYS:HD2	69:O3:12:LYS:HA	1.63	0.46
49:M3:170:LEU:HB3	72:O6:9:ILE:HD11	1.98	0.46
74:O8:11:PHE:CD1	74:O8:12:LEU:HD23	2.50	0.46
2:S0:88:LYS:HE2	2:S0:201:LEU:HD11	5.39	0.46
3:S1:128:LYS:NZ	3:S1:132:ASP:HB3	2.31	0.46
3:S1:59:ASP:HA	3:S1:62:LYS:HZ1	1.80	0.46
4:S2:99:LYS:HA	4:S2:117:THR:HA	2.09	0.46
6:S4:248:ILE:H	6:S4:248:ILE:HD13	1.80	0.46
6:S4:24:SER:OG	6:S4:24:SER:O	2.31	0.46
6:S4:57:ASN:CB	6:S4:60:GLU:H	2.62	0.46
8:S6:142:ARG:NH2	8:S6:149:LYS:O	6.11	0.46
8:S6:26:VAL:O	8:S6:30:LYS:HD2	2.16	0.46
36:1:1433:A:H2	68:O2:25:TYR:CD2	2.34	0.46
36:1:3384:U:H2'	36:1:3385:U:H6	1.79	0.46
36:1:906:A:OP1	86:1:3996:OHX:N1	2.48	0.46
1:2:1291:G:H5'	4:S2:119:LYS:CE	2.45	0.46
1:2:1732:A:H2'	1:2:1733:C:C6	2.50	0.46
1:2:262:U:H2'	1:2:263:C:O4'	2.16	0.46
1:2:538:A:H8	1:2:543:C:C4	2.33	0.46
1:2:552:G:C6	1:2:553:G:C6	3.04	0.46
1:2:701:U:H3	1:2:737:A:H61	1.63	0.46
1:2:976:G:C6	1:2:1023:A:C4	3.03	0.46
45:L8:105:LYS:NZ	36:5:123:A:OP1	90.88	0.46
36:5:2256:A:OP2	36:5:2256:A:H2'	2.15	0.46
36:5:2651:G:H4'	36:5:2652:U:OP2	2.16	0.46
1:6:1225:U:O2	1:6:1230:A:O2'	2.34	0.46
33:E1:135:HIS:HB3	1:6:1250:U:O2'	431.42	0.46
1:6:1481:C:H4'	1:6:1482:C:OP1	2.14	0.46
1:6:1590:G:H2'	1:6:1591:C:H6	1.80	0.46
1:6:1783:C:H2'	1:6:1784:C:C6	2.50	0.46
1:6:191:C:O2'	1:6:192:U:O5'	2.32	0.46
1:6:245:U:O4	86:6:2123:OHX:N4	2.48	0.46
1:6:217:A:O2'	1:6:218:A:H8	1.99	0.46
1:6:281:G:C6	1:6:282:C:C4	3.04	0.46
1:6:542:A:N7	1:6:543:C:H2'	2.30	0.46
1:6:578:U:H4'	1:6:579:A:H5'	1.97	0.46
11:S9:7:THR:HG21	1:6:758:U:OP1	383.40	0.46
37:7:22:A:H5''	37:7:23:A:OP2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:8:121:U:O2'	38:8:122:U:H5'	2.16	0.46
16:C4:32:ASP:O	16:C4:35:GLY:N	2.35	0.46
21:C9:28:LEU:O	21:C9:29:GLU:HB2	2.59	0.46
20:C8:41:ARG:NH1	21:C9:38:LYS:HG3	2.30	0.46
26:D4:104:SER:HB3	26:D4:107:GLN:HB2	1.98	0.46
26:D4:49:LYS:N	26:D4:49:LYS:HD3	3.39	0.46
27:D5:71:ILE:CG2	27:D5:76:ALA:HB2	3.75	0.46
1:2:1792:G:O5'	28:D6:3:LYS:HA	2.15	0.46
28:D6:87:ARG:HD3	1:6:1796:C:OP1	345.39	0.46
39:L2:90:ALA:CB	39:L2:101:VAL:HG13	3.05	0.46
41:L4:22:LEU:HA	41:L4:23:PRO:HD3	1.69	0.46
41:L4:330:TYR:HB2	44:L7:45:LEU:HD23	3.30	0.46
42:L5:53:VAL:O	42:L5:54:ARG:HD3	2.29	0.46
43:L6:52:VAL:HG13	43:L6:65:ILE:HG23	4.67	0.46
47:M0:156:ARG:HD3	47:M0:163:GLN:O	2.15	0.46
48:M1:36:VAL:HG21	48:M1:123:PHE:HD2	1.80	0.46
51:M5:71:ARG:NH1	36:5:1546:A:N7	137.40	0.46
52:M6:110:PRO:HA	52:M6:113:ASP:OD2	2.14	0.46
52:M6:67:THR:HG23	52:M6:67:THR:O	3.37	0.46
57:N1:14:MET:CE	57:N1:55:LYS:HB2	2.69	0.46
59:N3:23:MET:SD	59:N3:78:VAL:HG22	2.97	0.46
8:S6:158:ILE:HD12	60:N4:85:ALA:HB2	3.75	0.46
64:N8:47:LYS:HE2	64:N8:48:TYR:CE2	2.50	0.46
66:O0:13:LYS:HE3	66:O0:103:THR:HG21	1.96	0.46
68:O2:115:LEU:HB3	68:O2:117:ILE:HD12	2.96	0.46
69:O3:26:ASN:HA	69:O3:88:ASN:OD1	2.16	0.46
36:1:1739:U:O3'	70:O4:56:THR:HG23	2.16	0.46
79:Q3:38:ASP:HA	79:Q3:45:LYS:HA	1.97	0.46
79:Q3:62:LYS:HZ2	36:5:2554:A:H62	217.57	0.46
2:S0:170:ILE:HD12	2:S0:170:ILE:H	1.79	0.46
2:S0:28:ASN:ND2	2:S0:28:ASN:O	2.31	0.46
4:S2:57:PHE:CE1	4:S2:138:PRO:HD3	2.50	0.46
6:S4:10:LYS:HD3	1:6:381:C:OP1	358.45	0.46
8:S6:73:ILE:HD12	8:S6:75:LEU:HD21	2.43	0.46
9:S7:50:ASP:HA	9:S7:56:LYS:HA	1.98	0.46
11:S9:78:ARG:HH11	11:S9:82:ARG:HH21	1.63	0.46
35:SM:74:LYS:HB2	35:SM:74:LYS:HE2	4.57	0.46
34:SR:129:LYS:HG2	34:SR:149:ASP:O	2.29	0.46
34:SR:176:LYS:HB3	34:SR:195:HIS:O	2.15	0.46
34:SR:13:LEU:HB2	34:SR:310:ILE:HB	2.75	0.46
36:1:1946:A:H5''	55:M9:136:ARG:HH12	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2359:C:H2'	36:1:2360:C:C6	2.50	0.46
36:1:2995:A:C3'	36:1:2996:U:H5''	2.46	0.46
86:1:4000:OHX:N6	86:1:4171:OHX:N2	2.64	0.46
1:2:1146:G:C6	1:2:1147:A:C6	3.02	0.46
1:2:1465:C:C4	1:2:1466:G:C8	3.04	0.46
1:2:196:G:O2'	1:2:197:A:OP2	2.28	0.46
1:2:906:A:OP2	16:C4:51:ASP:HB3	2.16	0.46
38:4:57:C:O2'	38:4:58:G:H5'	2.15	0.46
36:5:1108:U:H2'	36:5:1109:U:C6	2.51	0.46
36:5:1221:A:H4'	36:5:1222:G:OP2	2.16	0.46
36:5:1622:U:H2'	36:5:1623:G:H8	1.81	0.46
42:L5:176:SER:OG	36:5:2747:A:OP1	244.07	0.46
36:5:2812:C:H2'	36:5:2813:A:H8	1.80	0.46
36:5:3017:A:H2'	36:5:3018:C:C6	2.51	0.46
86:5:4035:OHX:N3	86:5:4083:OHX:N4	2.63	0.46
86:5:4205:OHX:N4	86:8:226:OHX:N1	2.64	0.46
36:5:549:U:O4	86:5:4015:OHX:N4	2.48	0.46
36:5:979:U:H1'	36:5:980:A:N9	2.29	0.46
1:6:1102:G:H2'	1:6:1103:U:O4'	2.16	0.46
1:6:1534:G:H4'	1:6:1536:G:O6	2.15	0.46
1:6:1545:A:H2'	1:6:1546:G:C8	2.51	0.46
1:6:356:G:OP2	86:6:2067:OHX:N6	2.49	0.46
1:6:450:U:H2'	1:6:451:A:H8	1.80	0.46
1:6:454:U:H5''	1:6:455:C:C5	2.44	0.46
1:6:478:A:C2	1:6:511:A:C2	3.04	0.46
1:6:555:A:O2'	1:6:556:A:H5'	2.15	0.46
1:6:829:A:H61	1:6:843:U:H3	1.64	0.46
1:6:811:A:C2	1:6:858:G:H1'	2.51	0.46
1:6:919:A:H2'	1:6:920:U:C6	2.51	0.46
1:6:957:G:C6	1:6:958:U:C4	3.04	0.46
38:8:145:U:H2'	38:8:146:U:O4'	2.15	0.46
15:C3:140:LYS:HG3	15:C3:141:TYR:N	4.45	0.46
17:C5:79:HIS:O	17:C5:81:ARG:N	2.44	0.46
18:C6:109:PHE:O	18:C6:112:TYR:N	3.31	0.46
19:C7:71:PHE:O	19:C7:73:LEU:N	2.44	0.46
20:C8:110:ARG:CZ	20:C8:114:GLU:HG3	4.09	0.46
20:C8:94:ASP:OD1	20:C8:98:TYR:OH	2.31	0.46
22:D0:99:ILE:O	22:D0:103:ILE:HB	2.16	0.46
24:D2:113:HIS:O	24:D2:117:ARG:HB2	2.58	0.46
24:D2:7:LEU:HD23	24:D2:7:LEU:HA	3.44	0.46
26:D4:89:TYR:O	26:D4:93:ARG:HG3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:36:ILE:HG21	28:D6:78:ALA:HB2	1.97	0.46
23:D1:71:ARG:NE	29:D7:4:VAL:HG11	2.62	0.46
39:L2:183:GLY:O	39:L2:186:PHE:HB3	2.27	0.46
40:L3:123:TYR:CE2	40:L3:124:LYS:HG3	2.50	0.46
40:L3:86:VAL:HA	40:L3:162:VAL:HG12	2.92	0.46
41:L4:26:PHE:CD1	41:L4:130:ALA:HB2	3.21	0.46
42:L5:40:HIS:CE1	42:L5:42:ALA:HB3	3.76	0.46
43:L6:164:SER:OG	69:O3:4:SER:HB2	2.16	0.46
44:L7:151:ARG:HD2	44:L7:244:ASN:OD1	3.88	0.46
45:L8:200:LEU:HA	45:L8:200:LEU:HD23	1.59	0.46
49:M3:57:VAL:HG12	49:M3:69:VAL:HG22	1.98	0.46
51:M5:21:PHE:O	51:M5:25:VAL:HG23	2.67	0.46
52:M6:34:VAL:HB	52:M6:103:LYS:HB2	2.29	0.46
53:M7:41:LEU:O	53:M7:45:GLN:HG3	2.15	0.46
56:N0:13:ARG:O	56:N0:22:PRO:HG2	2.16	0.46
63:N7:21:LYS:HD3	63:N7:47:GLU:HA	3.63	0.46
36:1:937:G:OP2	64:N8:26:ARG:HB3	2.14	0.46
68:O2:119:VAL:O	68:O2:122:PRO:HD3	2.50	0.46
68:O2:19:ARG:HD3	68:O2:28:VAL:CG1	3.82	0.46
70:O4:94:LEU:O	70:O4:98:GLN:HB2	2.73	0.46
71:O5:6:ALA:HB1	71:O5:10:ARG:NH2	2.52	0.46
72:O6:54:GLU:HA	72:O6:90:MET:HE3	4.12	0.46
72:O6:71:LYS:HE2	72:O6:71:LYS:HB3	2.10	0.46
4:S2:205:ARG:HD2	1:6:6:G:OP2	379.37	0.46
5:S3:93:ASP:N	5:S3:93:ASP:OD2	2.49	0.46
6:S4:226:PHE:C	6:S4:226:PHE:CD1	2.89	0.46
6:S4:227:VAL:HB	6:S4:228:ILE:H	1.52	0.46
9:S7:74:GLN:HE22	9:S7:92:PHE:HB2	1.79	0.46
34:SR:115:ILE:HG12	34:SR:116:ASP:H	1.81	0.46
34:SR:155:ARG:H	34:SR:155:ARG:HH11	1.62	0.46
34:SR:174:ASN:OD1	34:SR:198:ASN:HB3	2.58	0.46
34:SR:201:THR:HG21	34:SR:243:LEU:N	2.30	0.46
36:1:1069:C:H2'	36:1:1070:U:H6	1.79	0.46
36:1:1063:G:C6	36:1:1097:G:C5	3.04	0.46
36:1:1482:A:H4'	36:1:1483:G:OP2	2.14	0.46
36:1:1595:U:C2	36:1:1596:C:C5	3.03	0.46
36:1:1602:A:OP2	55:M9:38:ARG:HG3	2.16	0.46
36:1:171:G:H2'	36:1:172:G:O4'	2.16	0.46
36:1:2585:G:N3	38:4:151:C:H5	2.13	0.46
36:1:2617:U:C5	36:1:2621:G:OP2	2.68	0.46
36:1:2657:A:C2	36:1:2694:A:C8	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3192:U:H2'	36:1:3193:C:C6	2.51	0.46
36:1:373:A:N1	36:1:394:G:H4'	2.30	0.46
36:1:1650:G:N7	86:1:4137:OHX:N6	2.63	0.46
36:1:709:A:H1'	64:N8:57:GLY:HA2	1.98	0.46
1:2:1015:U:H5''	1:2:1016:C:OP2	2.16	0.46
1:2:1475:A:H2'	1:2:1476:C:O4'	2.16	0.46
1:2:768:C:H2'	1:2:769:A:O4'	2.15	0.46
1:2:888:U:H1'	16:C4:126:THR:HG21	1.98	0.46
38:4:143:U:H2'	38:4:144:G:O4'	2.16	0.46
38:4:62:C:H4'	38:4:63:G:O5'	2.16	0.46
71:O5:95:PHE:N	36:5:135:C:O2'	57.16	0.46
36:5:1596:C:O2'	36:5:1696:A:N3	2.47	0.46
55:M9:56:THR:HG22	36:5:1873:U:OP1	149.30	0.46
36:5:2748:A:OP1	86:5:4163:OHX:N5	2.49	0.46
36:5:1656:A:O2'	86:5:4179:OHX:N2	2.49	0.46
36:5:354:U:OP1	86:5:4205:OHX:N5	2.48	0.46
36:5:701:G:H2'	36:5:702:C:C6	2.51	0.46
1:6:1171:A:H2'	1:6:1172:G:C8	2.50	0.46
6:S4:66:MET:HB3	1:6:454:U:C4	376.39	0.46
12:C0:47:GLN:O	12:C0:47:GLN:NE2	5.08	0.46
13:C1:5:LEU:HD22	13:C1:5:LEU:H	4.44	0.46
13:C1:64:VAL:HG21	13:C1:138:ASN:HD22	1.81	0.46
15:C3:42:ARG:C	15:C3:44:GLY:H	2.50	0.46
17:C5:34:VAL:O	17:C5:42:ARG:HG2	2.16	0.46
19:C7:101:ASN:HA	19:C7:120:SER:O	2.15	0.46
19:C7:51:ALA:O	19:C7:54:THR:OG1	3.34	0.46
15:C3:18:TYR:CZ	24:D2:56:HIS:CE1	3.03	0.46
40:L3:115:LYS:HA	40:L3:118:PHE:HD1	2.12	0.46
41:L4:120:TYR:CE2	41:L4:277:PRO:HB3	2.50	0.46
41:L4:234:ASN:OD1	41:L4:236:LEU:N	2.47	0.46
41:L4:23:PRO:HG2	41:L4:26:PHE:HE2	1.80	0.46
45:L8:86:THR:O	45:L8:90:THR:HG23	5.03	0.46
49:M3:89:TYR:CE1	49:M3:93:ILE:HG13	2.51	0.46
51:M5:120:TRP:CZ2	51:M5:122:ASN:HA	2.51	0.46
53:M7:27:LYS:HD3	53:M7:63:PHE:HB3	1.97	0.46
56:N0:27:MET:HG2	57:N1:151:LEU:O	2.16	0.46
60:N4:23:ARG:NH2	60:N4:25:ASP:OD1	3.43	0.46
69:O3:35:VAL:HG13	69:O3:40:ASP:HB3	2.16	0.46
69:O3:45:LEU:HA	69:O3:71:VAL:HG12	2.37	0.46
71:O5:119:LYS:HD2	71:O5:119:LYS:HA	1.88	0.46
2:S0:55:GLU:OE2	23:D1:80:LYS:N	3.08	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:54:GLU:HA	4:S2:57:PHE:HB2	1.98	0.46
8:S6:175:ILE:HG12	8:S6:175:ILE:H	1.46	0.46
9:S7:20:VAL:HG22	9:S7:85:PHE:CE1	2.51	0.46
10:S8:96:LEU:HD13	10:S8:179:CYS:SG	2.56	0.46
34:SR:198:ASN:O	34:SR:215:GLY:HA3	2.16	0.46
34:SR:21:THR:HG23	34:SR:36:ALA:O	3.17	0.46
34:SR:29:GLN:HG3	34:SR:32:LEU:HB3	1.97	0.46
36:1:1255:C:H2'	36:1:1256:G:H8	1.81	0.46
36:1:1895:A:O2'	36:1:3053:G:H4'	2.16	0.46
36:1:1918:C:OP2	86:1:4010:OHX:N2	2.48	0.46
36:1:2267:C:H2'	36:1:2268:U:O4'	2.16	0.46
36:1:3173:G:O6	69:O3:92:LYS:HG2	2.16	0.46
36:1:3335:A:H8	36:1:3335:A:H5'	1.81	0.46
36:1:361:A:O4'	36:1:814:U:H4'	2.16	0.46
36:1:900:G:H2'	36:1:901:G:C8	2.51	0.46
1:2:1600:A:O2'	1:2:1602:C:N4	2.48	0.46
1:2:228:G:OP1	1:2:228:G:H4'	2.15	0.46
1:2:765:G:C6	11:S9:82:ARG:NH1	2.82	0.46
37:3:92:A:C5	37:3:93:C:H1'	2.51	0.46
36:5:129:U:H2'	36:5:130:A:C8	2.51	0.46
59:N3:63:LYS:HZ3	36:5:2295:A:P	270.93	0.46
36:5:2381:G:C2'	36:5:2382:G:H5'	2.46	0.46
57:N1:17:ARG:HG3	36:5:2700:G:H5''	265.60	0.46
72:O6:86:LYS:NZ	36:5:296:A:OP1	140.63	0.46
36:5:3316:A:H5''	36:5:3318:G:N2	2.30	0.46
36:5:374:A:N3	36:5:376:G:H5''	2.30	0.46
86:5:4037:OHX:N6	86:5:4240:OHX:N2	2.64	0.46
36:5:887:G:H2'	36:5:888:A:C8	2.51	0.46
1:6:1228:G:H2'	1:6:1228:G:N3	2.30	0.46
1:6:1030:A:C5	1:6:1792:G:C6	3.03	0.46
1:6:188:A:H3'	1:6:189:C:H6	1.81	0.46
1:6:190:C:O2'	1:6:191:C:O5'	2.34	0.46
1:6:72:A:H2'	1:6:73:U:O4'	2.15	0.46
1:6:884:A:H2'	1:6:885:G:C8	2.51	0.46
1:6:975:C:H2'	1:6:976:G:O4'	2.16	0.46
14:C2:45:LEU:H	14:C2:120:VAL:HG23	5.50	0.46
15:C3:114:ARG:HD3	15:C3:117:LEU:HD12	1.97	0.46
15:C3:18:TYR:O	15:C3:19:SER:HB2	4.70	0.46
17:C5:122:THR:CG2	1:6:1558:U:H3	366.31	0.46
1:2:1584:G:C8	18:C6:122:ARG:HB3	2.50	0.46
18:C6:32:ASN:N	18:C6:67:VAL:O	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:50:LEU:HG	22:D0:94:GLU:O	2.16	0.46
2:S0:185:ARG:HG3	23:D1:45:ALA:O	2.16	0.46
28:D6:4:LYS:O	28:D6:5:ARG:HB2	2.14	0.46
33:E1:144:CYS:C	33:E1:146:SER:N	2.69	0.46
39:L2:202:VAL:HA	39:L2:211:HIS:O	2.98	0.46
40:L3:112:ASP:O	40:L3:114:VAL:N	2.48	0.46
40:L3:292:ALA:HB1	40:L3:295:ALA:HB3	1.98	0.46
36:1:2663:G:H4'	42:L5:152:ARG:NH1	2.31	0.46
42:L5:294:ALA:C	42:L5:296:GLN:H	2.18	0.46
43:L6:69:PHE:CZ	36:5:3267:A:H2'	258.55	0.46
44:L7:229:PHE:C	44:L7:229:PHE:HD1	2.61	0.46
44:L7:51:TYR:HE2	44:L7:183:ASP:OD1	2.68	0.46
45:L8:126:SER:HA	45:L8:127:PRO:HD3	1.72	0.46
45:L8:170:CYS:HB3	45:L8:175:VAL:O	2.15	0.46
45:L8:61:GLN:HA	45:L8:64:ILE:HG13	2.19	0.46
36:1:3024:A:H4'	46:L9:97:PHE:CE2	2.51	0.46
47:M0:102:MET:HE3	47:M0:102:MET:HB2	1.86	0.46
49:M3:144:THR:O	49:M3:146:PRO:HD3	3.42	0.46
49:M3:97:VAL:HG12	49:M3:98:ASP:N	2.31	0.46
50:M4:22:LEU:HD22	50:M4:94:TRP:CH2	2.64	0.46
51:M5:44:ARG:HH12	36:5:269:G:P	126.11	0.46
52:M6:10:ASP:HA	52:M6:36:VAL:HG23	1.98	0.46
58:N2:50:LEU:O	58:N2:52:ASN:N	2.48	0.46
59:N3:34:LEU:HA	59:N3:34:LEU:HD23	1.72	0.46
59:N3:46:LEU:HD12	59:N3:46:LEU:HA	1.69	0.46
62:N6:3:LYS:C	62:N6:4:GLN:HE21	5.76	0.46
64:N8:74:ASN:CG	64:N8:115:LYS:HB2	2.36	0.46
64:N8:122:PRO:HB3	64:N8:142:GLY:O	3.49	0.46
66:O0:76:GLU:HA	66:O0:79:THR:HB	2.68	0.46
71:O5:9:LEU:HB3	71:O5:17:LEU:HD21	1.98	0.46
36:1:2139:A:H62	73:O7:4:GLY:CA	2.28	0.46
74:O8:32:ASN:O	74:O8:34:ALA:N	2.49	0.46
74:O8:61:LYS:H	74:O8:61:LYS:HG2	3.03	0.46
78:Q2:78:LYS:HG2	78:Q2:79:THR:N	2.33	0.46
2:S0:163:ASN:HD21	2:S0:165:ARG:HG3	1.81	0.46
3:S1:232:HIS:HB3	3:S1:233:GLY:H	2.12	0.46
3:S1:61:LEU:O	3:S1:63:GLY:N	2.48	0.46
4:S2:130:ILE:O	4:S2:134:LEU:HD22	2.16	0.46
4:S2:137:ILE:HG12	4:S2:138:PRO:CD	2.44	0.46
4:S2:177:GLY:N	4:S2:195:ASP:HB3	2.31	0.46
9:S7:162:ILE:HB	9:S7:169:PHE:HE2	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:9:LEU:O	9:S7:9:LEU:HD23	2.15	0.46
34:SR:195:HIS:CE1	34:SR:214:ALA:HA	2.51	0.46
36:1:123:A:C6	36:1:150:A:C5	3.03	0.46
36:1:1655:G:H1'	36:1:1800:A:N6	2.31	0.46
36:1:1706:C:H2'	36:1:1707:A:O4'	2.15	0.46
36:1:1927:G:P	79:Q3:6:LYS:H	2.39	0.46
36:1:2911:A:H4'	36:1:2912:G:C8	2.50	0.46
36:1:2943:G:OP2	40:L3:2:SER:HB2	2.15	0.46
36:1:352:A:H61	36:1:365:A:H5''	1.80	0.46
86:1:3944:OHX:N2	52:M6:67:THR:HG21	2.31	0.46
86:2:2075:OHX:N3	86:2:2161:OHX:N5	2.64	0.46
1:2:222:A:H2'	1:2:223:U:C6	2.50	0.46
1:2:463:U:H2'	1:2:464:A:C8	2.51	0.46
1:2:696:C:H1'	1:2:697:C:H2'	1.98	0.46
1:2:763:G:C6	1:2:764:U:C4	3.03	0.46
38:4:152:G:H2'	38:4:153:U:O4'	2.16	0.46
36:5:1566:A:C2'	36:5:1567:U:H5'	2.46	0.46
36:5:1911:A:H8	36:5:1911:A:O5'	1.99	0.46
47:M0:64:ALA:HB2	36:5:2853:A:O3'	295.76	0.46
36:5:874:U:H5''	36:5:2950:G:OP1	2.16	0.46
51:M5:172:ARG:NH1	36:5:29:C:O3'	105.54	0.46
86:5:4068:OHX:N5	86:5:4146:OHX:N6	2.64	0.46
36:5:937:G:C6	36:5:2410:U:H5''	2.50	0.46
36:5:94:G:H2'	36:5:95:A:O4'	2.16	0.46
1:6:1140:G:OP2	86:6:2072:OHX:N3	2.48	0.46
1:6:138:A:H2'	1:6:139:C:H5'	1.98	0.46
7:S5:185:ARG:HD3	1:6:1471:A:OP1	334.90	0.46
22:D0:58:LEU:HD22	1:6:1516:A:H5''	442.80	0.46
1:6:1579:U:H2'	1:6:1580:C:C6	2.51	0.46
10:S8:178:ARG:NH1	1:6:207:U:O2	288.25	0.46
1:6:485:A:C6	1:6:486:G:H1'	2.51	0.46
1:6:719:U:C4	1:6:721:U:H5	2.34	0.46
19:C7:19:ARG:HG3	19:C7:20:TYR:CD1	2.51	0.46
19:C7:4:VAL:HA	1:6:1402:G:OP1	404.29	0.46
23:D1:17:CYS:HB2	23:D1:56:SER:HB3	2.13	0.46
25:D3:79:ASN:HD22	25:D3:81:LYS:HG3	1.81	0.46
26:D4:120:GLY:O	26:D4:122:GLY:N	3.94	0.46
40:L3:258:ALA:O	40:L3:259:HIS:CD2	2.86	0.46
41:L4:238:LEU:HA	41:L4:238:LEU:HD23	1.71	0.46
41:L4:74:ILE:HG21	41:L4:94:CYS:SG	2.56	0.46
37:3:27:A:P	42:L5:57:ASN:H	2.39	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:26:VAL:O	44:L7:30:ARG:HB3	2.80	0.46
47:M0:178:ARG:H	47:M0:178:ARG:HG2	1.37	0.46
47:M0:65:LEU:HA	47:M0:65:LEU:HD23	2.10	0.46
48:M1:73:GLY:O	48:M1:75:LYS:N	2.49	0.46
49:M3:133:PRO:O	49:M3:135:ALA:N	3.43	0.46
51:M5:140:LYS:HB3	51:M5:144:ARG:NH1	2.31	0.46
51:M5:84:PRO:HA	51:M5:87:GLN:OE1	3.80	0.46
52:M6:138:LEU:HA	52:M6:138:LEU:HD12	1.62	0.46
61:N5:92:LYS:HD3	61:N5:110:VAL:O	4.53	0.46
64:N8:111:LYS:HD2	64:N8:129:PHE:HB3	3.33	0.46
64:N8:60:TYR:CD2	64:N8:63:LYS:HD2	4.38	0.46
66:O0:99:ASP:HB2	66:O0:103:THR:CG2	2.46	0.46
67:O1:55:LEU:O	67:O1:58:ALA:HB3	2.37	0.46
43:L6:13:GLU:HA	68:O2:4:LEU:HD21	1.97	0.46
71:O5:62:GLN:O	71:O5:65:ALA:HB3	2.16	0.46
73:O7:16:HIS:HA	73:O7:27:PHE:O	2.47	0.46
75:O9:23:LEU:HD22	75:O9:24:PRO:CD	2.39	0.46
78:Q2:32:LYS:O	78:Q2:33:ALA:HB3	4.59	0.46
3:S1:113:MET:HE3	3:S1:211:HIS:CD2	4.40	0.46
5:S3:27:ARG:HD2	12:C0:60:SER:HB2	3.43	0.46
10:S8:48:THR:HG21	10:S8:54:LYS:HB2	1.98	0.46
35:SM:68:ARG:HD3	1:6:1460:A:P	335.39	0.46
34:SR:21:THR:HA	34:SR:291:SER:OG	2.16	0.46
36:1:653:A:H61	36:1:1442:U:H3	1.64	0.46
36:1:1577:G:H2'	36:1:1578:C:O4'	2.15	0.46
36:1:1741:A:C2	36:1:1742:U:C4	3.04	0.46
36:1:1902:G:C6	36:1:1903:U:C2	3.05	0.46
36:1:2778:G:H2'	36:1:2779:A:H5'	1.97	0.46
36:1:2948:C:H2'	36:1:2949:U:C6	2.51	0.46
36:1:3078:U:H4'	36:1:3079:U:O5'	2.09	0.46
36:1:1752:A:OP2	86:1:4045:OHX:N3	2.48	0.46
36:1:551:A:C4	36:1:552:G:C8	3.04	0.46
1:2:1483:A:H61	1:2:1591:C:H1'	1.80	0.46
1:2:1765:A:OP2	86:2:2092:OHX:N5	2.49	0.46
1:2:488:G:OP1	1:2:488:G:H4'	2.15	0.46
1:2:733:A:H4'	1:2:734:A:C5	2.51	0.46
36:5:1243:G:O6	36:5:1244:A:N6	2.43	0.46
36:5:1393:A:N3	36:5:1419:A:O2'	2.46	0.46
36:5:2299:A:OP2	86:5:3962:OHX:N1	2.49	0.46
36:5:2584:G:H5'	36:5:2585:G:OP2	2.15	0.46
36:5:2628:A:C2	36:5:2629:U:H1'	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:24:G:OP2	86:5:3909:OHX:N6	2.49	0.46
86:5:4003:OHX:N6	86:5:4093:OHX:N5	2.64	0.46
36:5:1852:G:N7	86:5:4041:OHX:N6	2.64	0.46
64:N8:40:HIS:CD2	36:5:40:A:C2	180.76	0.46
1:6:1324:G:N7	86:6:2104:OHX:N2	2.63	0.46
1:6:1725:U:H2'	1:6:1726:G:O4'	2.16	0.46
1:6:1783:C:H2'	1:6:1784:C:H6	1.81	0.46
1:6:219:A:O2'	1:6:220:A:O5'	2.31	0.46
37:7:71:G:H2'	37:7:72:A:C8	2.51	0.46
14:C2:56:GLU:HB3	14:C2:124:LYS:HG2	1.98	0.46
15:C3:13:SER:OG	15:C3:14:SER:N	2.89	0.46
15:C3:54:LEU:O	15:C3:60:VAL:HG13	4.97	0.46
15:C3:60:VAL:O	15:C3:60:VAL:HG22	4.71	0.46
15:C3:65:VAL:HG23	15:C3:66:ILE:N	3.15	0.46
18:C6:140:LYS:NZ	1:6:1192:C:O2'	361.35	0.46
24:D2:83:ILE:HG13	24:D2:117:ARG:HH12	1.81	0.46
26:D4:3:ASP:C	26:D4:5:VAL:H	2.19	0.46
27:D5:85:LYS:HG3	27:D5:86:GLU:N	2.30	0.46
7:S5:82:PHE:CE1	30:D8:49:ARG:HD2	3.54	0.46
33:E1:88:PRO:HA	33:E1:89:LYS:HA	4.84	0.46
39:L2:174:ARG:HB3	39:L2:174:ARG:HE	1.58	0.46
39:L2:44:ILE:HD12	39:L2:62:VAL:HG13	2.10	0.46
39:L2:59:ALA:N	39:L2:76:PHE:O	2.49	0.46
36:1:2814:G:OP1	41:L4:73:ARG:NH2	2.49	0.46
42:L5:40:HIS:CD2	57:N1:69:LYS:HA	2.51	0.46
42:L5:99:TYR:CD2	42:L5:199:ILE:HG12	2.85	0.46
43:L6:93:VAL:HG13	43:L6:93:VAL:O	2.16	0.46
44:L7:27:ALA:CA	44:L7:30:ARG:HB3	2.45	0.46
45:L8:108:ARG:O	45:L8:112:GLU:HG2	2.15	0.46
47:M0:169:LYS:H	47:M0:169:LYS:HD2	3.73	0.46
48:M1:17:LEU:HD23	48:M1:76:ALA:HB1	4.13	0.46
49:M3:153:ASP:OD2	49:M3:154:VAL:N	2.38	0.46
51:M5:197:LEU:HA	51:M5:197:LEU:HD12	2.18	0.46
56:N0:152:LEU:N	56:N0:153:PRO:HD3	2.47	0.46
56:N0:155:ARG:O	56:N0:170:THR:HG22	3.09	0.46
56:N0:1:MET:SD	56:N0:36:ILE:HD13	2.56	0.46
57:N1:114:ALA:O	57:N1:116:ARG:N	2.49	0.46
49:M3:9:ILE:HD11	64:N8:45:MET:HE1	2.59	0.46
73:O7:69:HIS:ND1	73:O7:72:ARG:NH2	2.62	0.46
77:Q1:9:ARG:CG	77:Q1:9:ARG:HH11	2.46	0.46
2:S0:185:ARG:H	23:D1:45:ALA:H	2.19	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:161:LYS:HB2	4:S2:166:THR:HB	2.94	0.46
5:S3:32:GLU:HG2	5:S3:57:ASP:CB	3.29	0.46
5:S3:72:LEU:HD22	12:C0:65:TYR:HD1	2.03	0.46
6:S4:62:LYS:HD2	6:S4:66:MET:CE	4.03	0.46
7:S5:143:ARG:HG2	30:D8:55:VAL:HB	3.67	0.46
7:S5:24:VAL:O	7:S5:25:LEU:HD13	3.36	0.46
9:S7:120:ALA:O	9:S7:124:LYS:HG2	2.57	0.46
34:SR:238:ASP:OD2	34:SR:258:THR:OG1	3.74	0.46
36:1:1282:G:C6	36:1:1283:C:C4	3.04	0.45
36:1:2208:A:N1	86:1:4041:OHX:N4	2.64	0.45
36:1:2247:G:OP1	86:1:3878:OHX:N1	2.49	0.45
36:1:2444:C:H3'	36:1:2445:A:H5''	1.98	0.45
36:1:2878:G:H5''	40:L3:5:LYS:HE2	1.98	0.45
36:1:368:G:OP1	86:1:3880:OHX:N1	2.48	0.45
36:1:872:U:H2'	36:1:873:C:C6	2.51	0.45
1:2:1114:G:O6	86:2:2074:OHX:N5	2.49	0.45
1:2:1195:C:N4	18:C6:143:ARG:HA	2.30	0.45
1:2:1445:G:C5	33:E1:91:ILE:HB	2.50	0.45
1:2:1527:C:H2'	1:2:1528:U:C6	2.50	0.45
1:2:30:G:H2'	1:2:31:C:C6	2.51	0.45
1:2:740:A:C2'	1:2:741:C:H5''	2.45	0.45
1:2:778:G:H3'	1:2:780:A:C2	2.50	0.45
36:5:1157:G:H2'	36:5:1158:A:O4'	2.15	0.45
36:5:1355:A:H4'	36:5:1356:U:O5'	2.16	0.45
73:O7:3:LYS:HB3	36:5:2138:A:C4	170.53	0.45
36:5:244:G:H8	36:5:244:G:OP2	1.99	0.45
36:5:2960:C:H2'	36:5:2961:G:H8	1.81	0.45
36:5:3295:A:H2'	36:5:3296:A:C8	2.51	0.45
36:5:378:A:N7	36:5:391:A:H2	2.14	0.45
1:6:1391:A:H2'	1:6:1392:U:C6	2.50	0.45
1:6:1756:A:H2'	1:6:1757:G:H8	1.80	0.45
1:6:16:G:H2'	1:6:17:C:C6	2.52	0.45
1:6:696:C:H4'	1:6:697:C:C6	2.50	0.45
1:6:628:G:N1	1:6:970:A:OP2	2.40	0.45
37:7:38:U:HO2'	37:7:40:C:H5	1.60	0.45
14:C2:81:ASP:HA	14:C2:82:PRO:HD3	1.66	0.45
15:C3:98:VAL:HG12	15:C3:115:LEU:HG	2.10	0.45
3:S1:66:VAL:HG22	16:C4:34:SER:HA	1.97	0.45
18:C6:52:LEU:HD23	18:C6:60:PHE:CZ	3.43	0.45
20:C8:4:VAL:HG11	27:D5:82:HIS:ND1	3.51	0.45
20:C8:61:LEU:HD22	20:C8:65:GLU:OE1	3.73	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:3:GLY:HA3	1:6:1364:G:H22	429.74	0.45
18:C6:34:SER:OG	21:C9:7:ARG:O	3.16	0.45
21:C9:93:HIS:O	21:C9:94:ILE:HD12	2.16	0.45
22:D0:58:LEU:CD1	22:D0:88:LYS:HD2	2.47	0.45
26:D4:14:SER:O	26:D4:16:PRO:HD3	2.16	0.45
1:2:1795:U:H3	28:D6:10:ARG:HG3	1.81	0.45
28:D6:30:ILE:HG13	28:D6:31:PRO:HD2	2.10	0.45
39:L2:70:ARG:HH11	39:L2:72:ARG:CG	2.23	0.45
40:L3:116:ARG:HG2	40:L3:175:LYS:CB	2.91	0.45
40:L3:97:ARG:NH1	36:5:3244:A:C6	245.71	0.45
41:L4:42:VAL:C	41:L4:44:LYS:H	2.52	0.45
36:1:2401:A:O3'	41:L4:68:GLY:HA2	2.15	0.45
41:L4:74:ILE:HD11	41:L4:93:MET:HE3	6.46	0.45
42:L5:131:LEU:HA	42:L5:131:LEU:HD13	3.46	0.45
43:L6:65:ILE:HA	43:L6:65:ILE:HD13	4.12	0.45
45:L8:203:VAL:HG13	45:L8:207:ASP:HB2	3.56	0.45
46:L9:83:THR:OG1	46:L9:84:LYS:N	2.70	0.45
48:M1:131:MET:HB3	48:M1:131:MET:HE3	2.18	0.45
48:M1:24:GLY:HA2	36:5:2680:A:C2	308.43	0.45
49:M3:76:THR:OG1	49:M3:79:GLU:HG3	2.16	0.45
51:M5:184:LYS:C	51:M5:186:GLY:N	3.18	0.45
54:M8:165:ILE:HD12	54:M8:167:SER:O	5.34	0.45
36:1:1917:C:P	55:M9:85:ARG:HH22	2.39	0.45
55:M9:99:LEU:O	55:M9:103:ARG:HB2	2.16	0.45
57:N1:79:MET:HA	57:N1:84:TYR:HA	1.98	0.45
63:N7:103:GLN:HA	63:N7:104:PRO:HD3	1.68	0.45
64:N8:91:LEU:HA	64:N8:121:VAL:HG21	1.98	0.45
54:M8:92:ARG:HG2	64:N8:76:ASP:O	2.84	0.45
70:O4:81:CYS:SG	70:O4:81:CYS:O	2.92	0.45
76:Q0:95:VAL:HA	76:Q0:101:ALA:O	2.17	0.45
3:S1:113:MET:CE	3:S1:209:ASN:HB3	4.25	0.45
4:S2:214:ALA:O	4:S2:218:ILE:HG13	3.16	0.45
4:S2:50:ILE:HD11	4:S2:239:PRO:HB3	1.96	0.45
6:S4:226:PHE:HD1	6:S4:226:PHE:C	2.19	0.45
6:S4:55:ALA:HB1	6:S4:60:GLU:HB3	1.97	0.45
9:S7:64:VAL:HG12	9:S7:65:PRO:N	2.65	0.45
10:S8:38:ILE:HA	10:S8:60:ILE:O	2.15	0.45
5:S3:117:ARG:NH1	35:SM:126:ASP:OD1	2.48	0.45
34:SR:110:VAL:HA	34:SR:126:SER:HB2	1.99	0.45
36:1:979:U:H1'	36:1:980:A:N7	2.31	0.45
1:2:1783:C:H2'	1:2:1784:C:H6	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:315:A:C2	1:2:353:A:C5	3.03	0.45
1:2:647:G:N2	1:2:688:G:C2	2.84	0.45
36:5:1135:A:C2	36:5:1136:A:C8	3.05	0.45
52:M6:148:LYS:NZ	36:5:3006:A:OP2	249.96	0.45
36:5:2787:G:OP2	86:5:4036:OHX:N6	2.48	0.45
44:L7:67:ARG:NH2	36:5:517:G:H5'	308.64	0.45
68:O2:33:ARG:HG3	36:5:945:C:OP1	170.17	0.45
28:D6:82:ARG:NH2	1:6:1153:G:OP2	331.98	0.45
1:6:12:U:H1'	1:6:1300:A:N3	2.31	0.45
1:6:1391:A:C8	1:6:1412:G:C6	3.04	0.45
1:6:1603:U:H2'	1:6:1604:U:C6	2.51	0.45
1:6:1700:C:O2	1:6:1700:C:H2'	2.16	0.45
1:6:42:G:OP2	1:6:438:A:N6	2.50	0.45
1:6:482:U:H2'	1:6:483:A:H8	1.80	0.45
37:7:33:U:H2'	37:7:34:C:O4'	2.17	0.45
38:8:130:C:H2'	38:8:131:A:C8	2.51	0.45
38:8:145:U:H2'	38:8:146:U:C6	2.50	0.45
15:C3:85:PRO:HG2	15:C3:129:TYR:CE2	2.55	0.45
16:C4:121:VAL:O	1:6:886:U:O2'	287.29	0.45
17:C5:90:ILE:HG21	17:C5:109:PRO:HG3	2.42	0.45
7:S5:37:GLN:CD	18:C6:53:LEU:HD22	2.67	0.45
19:C7:45:ARG:NH2	1:6:1331:A:OP1	413.04	0.45
20:C8:36:LYS:HA	20:C8:36:LYS:HD3	1.48	0.45
20:C8:6:GLN:O	20:C8:7:GLU:HB2	2.60	0.45
13:C1:99:ARG:HB2	25:D3:12:ALA:HB2	1.98	0.45
41:L4:271:LYS:HB2	41:L4:274:TYR:HB3	2.18	0.45
45:L8:109:LEU:O	45:L8:113:ALA:N	2.42	0.45
45:L8:228:GLU:OE2	45:L8:231:LYS:NZ	4.90	0.45
46:L9:84:LYS:O	46:L9:188:THR:HG23	2.15	0.45
48:M1:90:GLN:HG2	48:M1:170:ASP:HB2	1.97	0.45
49:M3:55:ARG:O	49:M3:115:ARG:NH2	2.82	0.45
53:M7:112:LEU:HD12	53:M7:112:LEU:HA	1.67	0.45
55:M9:96:ILE:HG23	36:5:1722:U:O4'	217.62	0.45
59:N3:81:GLN:O	59:N3:82:ALA:HB3	2.16	0.45
64:N8:95:SER:HB2	64:N8:97:GLU:OE2	3.56	0.45
75:O9:33:ASN:CG	75:O9:34:THR:H	2.20	0.45
3:S1:22:ASP:C	3:S1:24:PHE:H	2.19	0.45
4:S2:49:LYS:HB3	4:S2:243:TYR:CD2	2.52	0.45
5:S3:212:LYS:NZ	5:S3:212:LYS:HB2	3.95	0.45
6:S4:21:ASP:HB2	1:6:773:C:OP1	388.61	0.45
7:S5:172:ILE:O	7:S5:176:THR:HG23	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:46:VAL:N	10:S8:54:LYS:O	2.42	0.45
35:SM:22:PRO:HB3	48:M1:38:GLU:OE1	2.16	0.45
34:SR:128:ASP:OD1	34:SR:130:THR:OG1	3.07	0.45
36:1:1507:G:C8	53:M7:129:THR:HG22	2.51	0.45
36:1:1919:G:N7	86:1:4010:OHX:N5	2.64	0.45
36:1:2206:G:H1	36:1:2237:C:H42	1.63	0.45
36:1:372:A:H2'	36:1:373:A:O4'	2.16	0.45
86:1:4025:OHX:N2	86:1:4145:OHX:N5	2.64	0.45
1:2:1762:A:C1'	1:2:1783:C:H5'	2.46	0.45
1:2:28:A:H2'	1:2:29:U:H6	1.78	0.45
1:2:46:A:N6	1:2:433:C:H4'	2.31	0.45
1:2:637:C:OP1	24:D2:32:LYS:HG3	2.16	0.45
1:2:766:U:C4	1:2:769:A:C8	3.05	0.45
51:M5:2:GLY:HA3	36:5:116:A:OP2	107.18	0.45
44:L7:159:GLN:HA	36:5:1362:G:O2'	217.25	0.45
36:5:1915:A:H2'	36:5:1916:U:C6	2.51	0.45
36:5:209:A:H4'	36:5:211:A:N7	2.30	0.45
36:5:2224:A:H5''	36:5:2225:U:OP2	2.16	0.45
36:5:2234:G:N7	86:5:3964:OHX:N1	2.63	0.45
36:5:2344:U:H2'	36:5:2345:A:C8	2.50	0.45
36:5:1662:G:O6	86:5:3921:OHX:N1	2.50	0.45
49:M3:13:HIS:NE2	36:5:98:G:N7	139.15	0.45
1:6:307:G:H2'	1:6:308:C:H5''	1.98	0.45
1:6:830:U:C2'	1:6:831:U:H5'	2.45	0.45
1:6:635:A:C2	1:6:863:A:C8	3.05	0.45
12:C0:14:TYR:CE1	12:C0:18:GLU:HG3	2.59	0.45
12:C0:24:LYS:HB2	12:C0:63:TYR:CE1	2.62	0.45
15:C3:138:ASN:O	15:C3:140:LYS:N	3.40	0.45
1:2:887:A:C1'	16:C4:122:PRO:HB3	2.46	0.45
1:2:901:G:H22	16:C4:54:GLU:CD	2.20	0.45
17:C5:123:TYR:OH	20:C8:122:HIS:NE2	2.29	0.45
18:C6:34:SER:HB3	18:C6:35:PRO:HD2	1.98	0.45
19:C7:109:LEU:O	19:C7:113:LEU:HB2	4.55	0.45
20:C8:29:VAL:HG12	20:C8:30:TYR:CD1	4.28	0.45
26:D4:2:SER:N	26:D4:32:ARG:HD3	4.42	0.45
41:L4:179:LEU:HD22	41:L4:183:LYS:HG2	2.81	0.45
42:L5:143:LYS:HE3	42:L5:145:PHE:CZ	3.70	0.45
42:L5:289:LYS:HD3	47:M0:206:LEU:HD23	1.98	0.45
42:L5:58:LYS:HA	42:L5:93:THR:HB	1.97	0.45
45:L8:54:GLU:O	45:L8:58:VAL:HG23	2.64	0.45
48:M1:26:SER:HB3	48:M1:64:LYS:O	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:77:LEU:HD23	49:M3:77:LEU:HA	2.29	0.45
50:M4:24:LYS:HG2	50:M4:62:GLN:C	2.37	0.45
52:M6:110:PRO:O	52:M6:111:PRO:C	3.39	0.45
54:M8:169:GLY:O	54:M8:172:PHE:HB2	2.17	0.45
56:N0:115:ARG:HD2	56:N0:115:ARG:N	2.50	0.45
57:N1:27:LEU:HD22	57:N1:27:LEU:HA	1.86	0.45
58:N2:54:VAL:HG12	58:N2:67:SER:HA	1.98	0.45
59:N3:40:LYS:HD3	59:N3:59:MET:CE	2.47	0.45
60:N4:4:GLU:HG3	60:N4:30:ARG:HH11	3.99	0.45
69:O3:13:HIS:HB3	69:O3:93:THR:O	2.17	0.45
70:O4:3:GLN:CD	70:O4:30:LEU:HB2	2.69	0.45
72:O6:29:LYS:N	72:O6:29:LYS:HE3	5.50	0.45
73:O7:50:GLY:O	73:O7:53:ALA:HB3	2.17	0.45
78:Q2:35:LEU:HG	78:Q2:35:LEU:O	3.51	0.45
2:S0:76:ILE:HG23	2:S0:98:ILE:HB	2.06	0.45
4:S2:139:ILE:HG13	4:S2:218:ILE:HD13	1.99	0.45
4:S2:67:GLN:OE1	4:S2:67:GLN:N	2.52	0.45
8:S6:58:LYS:HG2	8:S6:105:ASP:O	2.17	0.45
8:S6:57:ASP:C	8:S6:59:GLN:H	2.79	0.45
11:S9:122:VAL:O	11:S9:125:ALA:HB3	2.16	0.45
11:S9:129:ILE:O	11:S9:142:ASN:HA	2.76	0.45
11:S9:83:VAL:HA	11:S9:149:ARG:HA	1.97	0.45
1:2:581:U:O4	35:SM:115:LYS:NZ	2.49	0.45
34:SR:67:ILE:O	34:SR:84:SER:OG	2.11	0.45
36:1:1016:C:H1'	36:1:1028:U:C2	2.51	0.45
36:1:1103:A:H1'	36:1:1104:G:P	2.57	0.45
36:1:1429:G:C6	41:L4:99:MET:HE2	2.51	0.45
36:1:2174:G:OP2	39:L2:18:SER:OG	2.34	0.45
36:1:251:G:H4'	36:1:252:U:OP1	2.16	0.45
36:1:2998:U:H3	36:1:3150:A:H61	1.63	0.45
86:1:3973:OHX:N1	86:1:4154:OHX:N4	2.65	0.45
36:1:790:U:H2'	36:1:791:A:O4'	2.16	0.45
1:2:138:A:N6	1:2:266:A:H61	2.14	0.45
1:2:1619:C:H2'	1:2:1620:C:H6	1.80	0.45
1:2:191:C:O2'	1:2:192:U:O5'	2.30	0.45
1:2:2:A:C8	1:2:2:A:H5'	2.51	0.45
1:2:301:A:C6	1:2:302:U:C4	3.05	0.45
1:2:422:G:N7	86:2:2107:OHX:N5	2.65	0.45
1:2:538:A:C8	1:2:543:C:C4	3.04	0.45
1:2:61:A:C8	1:2:269:G:O2'	2.70	0.45
1:2:717:C:H2'	1:2:718:U:H5''	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:862:A:H8	1:2:862:A:OP2	2.00	0.45
36:5:1613:A:H2'	36:5:1614:C:C6	2.51	0.45
36:5:1638:A:N1	36:5:1736:G:O2'	2.37	0.45
36:5:1883:A:C6	36:5:1884:A:C5	3.05	0.45
36:5:2111:G:H4'	36:5:2112:U:OP2	2.15	0.45
36:5:2537:U:O2'	36:5:2538:U:O4'	2.27	0.45
36:5:28:C:O2'	36:5:61:A:H1'	2.17	0.45
36:5:2951:G:O2'	36:5:2952:G:H5'	2.17	0.45
36:5:3156:U:O2'	36:5:3157:U:O2	2.31	0.45
1:6:1079:U:C4	1:6:1080:U:C4	3.04	0.45
1:6:137:U:H2'	1:6:137:U:H6	1.50	0.45
1:6:1382:A:C4	1:6:1383:G:N7	2.85	0.45
1:6:1402:G:C6	1:6:1403:C:C4	3.05	0.45
1:6:1688:U:O2	1:6:1713:G:N2	2.47	0.45
1:6:1724:U:O4	86:6:2092:OHX:N5	2.48	0.45
1:6:722:G:O2'	1:6:723:G:H5''	2.17	0.45
86:5:4110:OHX:N5	38:8:139:U:O4	2.49	0.45
1:2:325:G:H4'	13:C1:83:THR:HG21	1.96	0.45
15:C3:26:PHE:CZ	15:C3:28:LEU:HB2	2.52	0.45
87:2:2179:3K8:H4	16:C4:137:LEU:HD22	1.98	0.45
16:C4:89:THR:O	16:C4:128:LYS:HE3	4.11	0.45
18:C6:52:LEU:HA	18:C6:60:PHE:CE1	2.98	0.45
22:D0:68:ARG:NH2	22:D0:77:LYS:HA	2.39	0.45
23:D1:9:VAL:HG22	23:D1:10:GLU:H	1.82	0.45
24:D2:31:SER:O	24:D2:34:ILE:N	2.94	0.45
25:D3:29:TYR:CZ	25:D3:33:LEU:HD13	3.11	0.45
1:2:778:G:H22	26:D4:10:ARG:CZ	2.28	0.45
28:D6:22:ARG:HD2	28:D6:29:SER:HA	2.26	0.45
1:2:1798:U:C5	28:D6:38:ARG:NH2	2.84	0.45
30:D8:12:VAL:HA	30:D8:30:VAL:HG12	2.36	0.45
31:D9:5:ASN:CG	31:D9:7:TRP:NE1	2.68	0.45
33:E1:139:LEU:HB2	33:E1:151:ASN:HA	1.98	0.45
39:L2:79:ASN:ND2	39:L2:165:VAL:HG22	2.30	0.45
40:L3:221:THR:O	40:L3:272:TYR:HA	2.34	0.45
40:L3:339:ARG:HG2	40:L3:340:LYS:O	2.26	0.45
40:L3:57:VAL:HB	40:L3:358:TRP:HB3	2.75	0.45
40:L3:363:SER:OG	40:L3:364:LYS:N	2.98	0.45
40:L3:56:ILE:HD12	40:L3:56:ILE:HA	1.90	0.45
41:L4:316:ASN:HA	41:L4:317:PRO:HD3	2.55	0.45
44:L7:62:ILE:O	44:L7:65:ALA:HB3	2.71	0.45
44:L7:77:VAL:HG22	57:N1:139:ARG:O	2.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:68:ARG:HG2	45:L8:68:ARG:H	1.93	0.45
48:M1:141:ARG:O	48:M1:145:LYS:HE2	2.35	0.45
53:M7:4:TYR:OH	53:M7:16:SER:OG	3.71	0.45
46:L9:1:MET:SD	56:N0:138:GLN:HG2	2.57	0.45
63:N7:9:LYS:O	63:N7:25:ILE:HD12	3.19	0.45
67:O1:20:LEU:O	67:O1:28:ARG:NH2	3.13	0.45
75:O9:37:TYR:O	36:5:351:A:N6	93.80	0.45
2:S0:82:GLY:O	2:S0:86:VAL:HG22	2.17	0.45
3:S1:142:PHE:O	3:S1:207:LEU:HA	2.25	0.45
6:S4:153:ASN:N	6:S4:153:ASN:OD1	2.31	0.45
6:S4:212:ASP:C	6:S4:214:LEU:H	2.34	0.45
7:S5:23:VAL:HG11	18:C6:57:LEU:HD13	3.16	0.45
8:S6:10:ASN:ND2	8:S6:127:THR:O	3.35	0.45
8:S6:58:LYS:HE3	8:S6:105:ASP:O	2.16	0.45
9:S7:48:GLU:OE1	9:S7:56:LYS:HD3	4.38	0.45
10:S8:27:PHE:CD2	10:S8:27:PHE:C	2.99	0.45
17:C5:130:ARG:HD3	35:SM:74:LYS:HG2	1.99	0.45
34:SR:81:LEU:HD21	34:SR:122:ILE:HD13	1.97	0.45
34:SR:159:ASN:C	34:SR:161:LYS:H	4.79	0.45
34:SR:201:THR:CB	34:SR:242:SER:HA	2.47	0.45
34:SR:241:PHE:O	34:SR:255:ALA:HB3	2.17	0.45
36:1:1245:A:C3'	36:1:1246:G:H5''	2.47	0.45
36:1:1306:G:C6	52:M6:62:THR:HA	2.51	0.45
36:1:1836:C:N4	75:O9:3:ALA:HB2	2.32	0.45
36:1:2406:C:H2'	36:1:2407:C:C6	2.51	0.45
36:1:2623:G:H2'	36:1:2624:G:H8	1.80	0.45
36:1:2842:U:C5	36:1:2843:U:C5	3.04	0.45
36:1:3004:C:O2'	36:1:3005:A:H5'	2.16	0.45
36:1:3110:C:O3'	46:L9:155:SER:HB2	2.17	0.45
36:1:3275:U:O2'	36:1:3276:G:OP1	2.27	0.45
36:1:578:A:H5''	36:1:579:G:O5'	2.16	0.45
1:2:1092:A:O2'	1:2:1094:G:N7	2.43	0.45
1:2:1315:U:OP1	1:2:1328:G:N2	2.47	0.45
1:2:1541:G:C5	1:2:1542:G:C6	3.05	0.45
36:5:1258:U:O2	36:5:1260:A:H8	1.99	0.45
36:5:2376:G:H2'	36:5:2377:G:C8	2.52	0.45
36:5:2561:A:O2'	36:5:2562:A:H5''	2.15	0.45
36:5:570:A:H2'	36:5:571:U:O4'	2.17	0.45
1:6:1003:A:H4'	1:6:1004:U:O5'	2.15	0.45
1:6:1252:C:H2'	1:6:1253:U:O4'	2.17	0.45
5:S3:144:ALA:HB2	1:6:579:A:N1	391.40	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:2:LEU:HB3	12:C0:3:MET:H	4.33	0.45
12:C0:49:LEU:O	12:C0:54:TYR:HB2	2.16	0.45
13:C1:108:PRO:HG2	13:C1:134:THR:O	2.76	0.45
14:C2:123:VAL:CG1	14:C2:126:TRP:HB3	2.47	0.45
15:C3:76:LYS:HB3	15:C3:76:LYS:HE3	1.69	0.45
16:C4:30:VAL:HG13	16:C4:39:ILE:O	2.15	0.45
20:C8:123:ARG:CG	20:C8:133:VAL:HG21	2.45	0.45
21:C9:77:ASN:OD1	21:C9:98:GLY:HA2	2.16	0.45
26:D4:121:THR:HG22	26:D4:123:LYS:N	6.48	0.45
26:D4:29:HIS:HE1	26:D4:34:ASN:HA	4.01	0.45
27:D5:57:TYR:N	27:D5:57:TYR:CD2	3.07	0.45
31:D9:43:PHE:O	31:D9:47:ALA:N	2.50	0.45
40:L3:291:GLU:O	40:L3:292:ALA:HB3	2.16	0.45
43:L6:56:LYS:HG2	43:L6:57:HIS:O	3.55	0.45
46:L9:117:PHE:CE1	46:L9:165:CYS:HB3	3.01	0.45
46:L9:57:VAL:HG13	46:L9:64:HIS:CE1	2.62	0.45
47:M0:45:GLU:HG2	47:M0:46:PHE:CE1	2.51	0.45
49:M3:120:GLN:HA	49:M3:123:ILE:HG12	1.98	0.45
49:M3:120:GLN:HB3	49:M3:120:GLN:HE21	1.64	0.45
49:M3:153:ASP:OD1	49:M3:157:ARG:NH2	2.48	0.45
51:M5:14:LYS:HZ1	36:5:269:G:H5''	131.54	0.45
53:M7:138:LYS:HD2	53:M7:140:GLU:OE1	2.16	0.45
55:M9:82:LYS:HE3	36:5:2115:G:O2'	208.29	0.45
61:N5:136:ALA:O	61:N5:139:ILE:HB	4.80	0.45
62:N6:77:LYS:NZ	75:O9:31:THR:OG1	4.01	0.45
71:O5:15:GLU:OE2	71:O5:15:GLU:N	4.44	0.45
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CH2	2.97	0.45
3:S1:105:PHE:CE2	3:S1:213:ARG:HA	2.51	0.45
3:S1:63:GLY:HA2	3:S1:88:VAL:O	2.16	0.45
4:S2:140:ARG:HG3	4:S2:155:ALA:HB2	1.97	0.45
4:S2:144:TRP:CE2	4:S2:173:PRO:HG3	2.51	0.45
4:S2:115:ILE:HG21	4:S2:208:GLU:OE1	2.97	0.45
6:S4:128:LYS:HA	6:S4:156:VAL:HG22	1.98	0.45
8:S6:28:PHE:CE1	8:S6:104:PRO:HG3	2.52	0.45
8:S6:193:LEU:HA	8:S6:193:LEU:HD23	1.75	0.45
8:S6:56:ASN:N	8:S6:56:ASN:OD1	2.50	0.45
10:S8:100:ALA:HB3	10:S8:169:ILE:HG12	2.83	0.45
34:SR:192:PHE:HD1	34:SR:223:TRP:CE3	2.33	0.45
34:SR:195:HIS:HE2	34:SR:213:SER:C	2.19	0.45
36:1:1675:G:H2'	36:1:1676:A:H8	1.78	0.45
36:1:2876:C:H2'	36:1:2877:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3106:A:H61	36:1:3128:G:H1'	1.80	0.45
36:1:535:G:C6	36:1:555:U:N3	2.85	0.45
36:1:718:G:H3'	36:1:719:U:H5''	1.99	0.45
36:1:880:G:O6	36:1:883:A:H5''	2.17	0.45
1:2:1607:G:H2'	1:2:1608:U:H6	1.80	0.45
1:2:1643:U:H2'	1:2:1644:C:O4'	2.17	0.45
1:2:275:C:H2'	1:2:276:C:C5	2.51	0.45
1:2:38:C:C2'	1:2:39:A:H5'	2.47	0.45
1:2:514:G:N1	1:2:543:C:H5	2.15	0.45
1:2:830:U:C2	1:2:831:U:C5	3.04	0.45
68:O2:58:GLY:HA3	36:5:1339:C:O2'	189.75	0.45
36:5:189:G:H2'	36:5:224:C:OP1	2.17	0.45
36:5:192:C:H2'	36:5:193:C:C6	2.52	0.45
36:5:2204:C:H4'	36:5:2205:U:OP1	2.17	0.45
36:5:3343:G:N2	36:5:3362:A:C2	2.75	0.45
36:5:2319:U:O4	86:5:3998:OHX:N2	2.50	0.45
36:5:436:A:H3'	36:5:437:G:C8	2.51	0.45
1:6:1157:A:H2'	1:6:1160:A:N7	2.32	0.45
1:6:139:C:C2	1:6:176:C:C2	3.04	0.45
1:6:417:A:O5'	1:6:417:A:H8	1.98	0.45
1:6:431:C:H2'	1:6:432:G:O4'	2.17	0.45
1:6:484:C:N4	1:6:503:G:H1	2.15	0.45
15:C3:56:ASP:O	29:D7:46:VAL:HA	2.41	0.45
16:C4:92:LYS:HD2	16:C4:121:VAL:HG22	6.62	0.45
18:C6:41:PRO:HG2	18:C6:44:LEU:HD12	1.97	0.45
20:C8:92:ILE:HG23	20:C8:93:THR:HG23	2.98	0.45
21:C9:57:ARG:HH11	21:C9:57:ARG:CG	2.30	0.45
25:D3:10:ASN:C	25:D3:12:ALA:H	2.19	0.45
27:D5:99:ALA:O	27:D5:100:ILE:HG12	2.16	0.45
28:D6:68:TYR:N	28:D6:68:TYR:CD2	2.84	0.45
33:E1:135:HIS:CE1	33:E1:138:ARG:HE	4.91	0.45
39:L2:46:LYS:O	39:L2:47:GLN:HB2	2.15	0.45
40:L3:166:ILE:HD13	40:L3:173:GLN:HG2	2.25	0.45
40:L3:56:ILE:HG23	40:L3:57:VAL:N	2.80	0.45
41:L4:259:ASP:OD1	41:L4:259:ASP:N	3.00	0.45
42:L5:198:TYR:CE1	42:L5:203:HIS:CD2	3.04	0.45
43:L6:55:LEU:HA	43:L6:55:LEU:HD23	1.67	0.45
44:L7:165:ASP:OD2	44:L7:166:ASN:N	3.15	0.45
47:M0:193:ASP:CG	47:M0:198:LYS:HE3	2.37	0.45
52:M6:162:VAL:O	52:M6:165:ALA:HB3	2.35	0.45
54:M8:67:ILE:HD13	54:M8:101:VAL:HG21	2.44	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:115:ARG:HH11	61:N5:115:ARG:CG	2.85	0.45
68:O2:125:ARG:O	68:O2:127:ALA:N	2.50	0.45
71:O5:118:ILE:O	71:O5:119:LYS:HB2	2.27	0.45
71:O5:57:VAL:O	71:O5:61:GLN:HG3	2.92	0.45
72:O6:74:LYS:HD2	72:O6:80:PHE:CD2	2.40	0.45
74:O8:11:PHE:HD1	74:O8:12:LEU:HD23	1.81	0.45
7:S5:94:THR:HA	7:S5:97:LEU:HB2	1.98	0.45
9:S7:62:VAL:HG13	9:S7:63:PRO:HD2	1.98	0.45
34:SR:113:VAL:HG13	34:SR:114:ASP:H	1.82	0.45
36:1:1233:G:H22	36:1:1255:C:N4	2.14	0.45
36:1:1927:G:OP1	79:Q3:8:VAL:HG13	2.17	0.45
36:1:210:U:C2	36:1:230:U:H4'	2.51	0.45
36:1:2632:G:C6	36:1:2647:A:C6	3.05	0.45
36:1:2798:C:H5''	36:1:2799:A:OP1	2.17	0.45
36:1:3200:G:C5	36:1:3201:C:C5	3.05	0.45
36:1:3323:A:O5'	36:1:3323:A:H8	2.00	0.45
36:1:974:G:H2'	36:1:975:C:C6	2.52	0.45
1:2:1057:U:H1'	1:2:1058:U:H2'	1.97	0.45
1:2:1684:U:O2	1:2:1718:G:N2	2.48	0.45
1:2:735:C:H1'	1:2:736:C:H5''	1.98	0.45
1:2:110:U:O2'	1:2:797:G:H1'	2.17	0.45
36:5:1464:G:N2	36:5:1466:G:H3'	2.31	0.45
36:5:1468:A:C6	36:5:1469:C:N4	2.85	0.45
36:5:167:U:H3	36:5:255:A:H2	1.65	0.45
36:5:1782:U:H2'	36:5:1783:U:C6	2.52	0.45
36:5:1784:G:H2'	36:5:1785:U:O4'	2.17	0.45
36:5:1858:A:HO2'	36:5:1859:A:P	2.40	0.45
36:5:372:A:C6	36:5:373:A:C6	3.04	0.45
36:5:508:U:H2'	36:5:509:U:C6	2.52	0.45
44:L7:33:ARG:NH1	36:5:596:C:OP1	237.16	0.45
36:5:602:A:H2'	36:5:603:A:C8	2.52	0.45
1:6:1081:A:H1'	1:6:1082:C:H5	1.82	0.45
1:6:1120:U:H2'	1:6:1121:C:C6	2.51	0.45
1:6:1203:A:C4	1:6:1556:A:C2	3.05	0.45
20:C8:139:LYS:HB2	1:6:1458:G:OP2	353.12	0.45
1:6:538:A:C8	1:6:543:C:N4	2.69	0.45
38:8:100:U:OP2	86:8:218:OHX:N2	2.50	0.45
17:C5:130:ARG:H	35:SM:74:LYS:HD2	5.61	0.45
17:C5:53:PRO:O	17:C5:56:PHE:HB3	2.17	0.45
18:C6:32:ASN:OD1	18:C6:69:VAL:HG23	2.17	0.45
20:C8:139:LYS:O	20:C8:143:ARG:NH1	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:58:LEU:HA	23:D1:12:TYR:HE1	2.43	0.45
26:D4:124:ARG:O	26:D4:127:LYS:HE2	2.17	0.45
1:2:521:A:H1'	26:D4:34:ASN:HD21	1.81	0.45
39:L2:137:ILE:HG12	39:L2:147:ARG:CG	3.67	0.45
39:L2:130:SER:HA	39:L2:169:ILE:HG22	1.98	0.45
39:L2:214:GLY:O	39:L2:215:ASN:HB2	4.56	0.45
40:L3:187:SER:O	40:L3:188:ILE:C	2.54	0.45
40:L3:205:VAL:O	40:L3:208:VAL:HG23	2.16	0.45
41:L4:140:HIS:CD2	41:L4:247:PHE:H	3.06	0.45
42:L5:286:VAL:HG13	47:M0:206:LEU:HD21	2.88	0.45
47:M0:39:LYS:HB2	47:M0:86:HIS:CE1	2.51	0.45
48:M1:30:LEU:HD21	48:M1:67:VAL:HG13	1.97	0.45
49:M3:59:ARG:HD3	36:5:73:C:C2	92.74	0.45
53:M7:30:ARG:HD3	53:M7:30:ARG:C	2.62	0.45
54:M8:122:ILE:HD11	54:M8:130:ARG:CZ	3.24	0.45
54:M8:138:LEU:HD13	54:M8:140:LEU:HD21	2.73	0.45
55:M9:38:ARG:O	55:M9:42:ARG:HB2	2.17	0.45
55:M9:99:LEU:O	55:M9:99:LEU:HD22	2.16	0.45
57:N1:91:LEU:HD12	57:N1:96:ILE:HD11	1.98	0.45
61:N5:59:SER:O	61:N5:63:ILE:HG22	2.16	0.45
68:O2:103:LYS:O	68:O2:106:VAL:HG22	3.92	0.45
69:O3:57:LYS:HE3	69:O3:57:LYS:HB3	2.68	0.45
69:O3:73:ARG:HH21	69:O3:82:ARG:CZ	2.30	0.45
69:O3:91:ALA:HA	69:O3:94:PHE:CE2	2.52	0.45
72:O6:43:LEU:O	72:O6:47:ILE:HG13	2.16	0.45
74:O8:11:PHE:O	74:O8:15:THR:HG23	2.53	0.45
75:O9:23:LEU:O	75:O9:25:GLN:NE2	2.50	0.45
2:S0:110:TYR:HA	2:S0:115:PHE:CZ	2.51	0.45
2:S0:9:LEU:HD23	2:S0:54:TRP:CD2	2.52	0.45
3:S1:194:ASN:O	3:S1:197:ILE:HB	2.17	0.45
5:S3:10:LYS:HG2	5:S3:11:LEU:HD23	2.54	0.45
6:S4:171:ASP:OD1	6:S4:172:PHE:N	2.49	0.45
1:2:401:A:H4'	6:S4:3:ARG:HD3	1.99	0.45
7:S5:145:ASP:OD2	7:S5:146:THR:N	2.50	0.45
9:S7:31:SER:HA	9:S7:35:LYS:HB3	4.14	0.45
34:SR:228:LYS:O	34:SR:229:LYS:HG3	2.16	0.45
36:1:1347:U:H4'	41:L4:305:ALA:HB2	1.99	0.45
36:1:1656:A:H4'	36:1:1657:C:O5'	2.16	0.45
36:1:2144:A:C4	36:1:2281:A:N6	2.85	0.45
36:1:2902:A:OP1	46:L9:170:LYS:HE3	2.17	0.45
36:1:956:U:OP1	86:1:4124:OHX:N1	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:75:G:H5'	49:M3:58:VAL:HG13	1.99	0.45
1:2:1407:U:H2'	1:2:1408:G:O4'	2.16	0.45
1:2:147:A:H2'	1:2:148:A:O4'	2.17	0.45
1:2:540:G:O3'	1:2:541:A:H3'	2.17	0.45
36:5:240:U:O2'	36:5:241:G:H8	1.99	0.45
78:Q2:89:LYS:HB2	36:5:2653:C:OP1	237.10	0.45
36:5:314:U:O4	86:5:4193:OHX:N5	2.49	0.45
36:5:3174:A:H2'	36:5:3175:U:C5'	2.44	0.45
36:5:3309:G:H2'	36:5:3310:A:H5'	1.99	0.45
36:5:422:A:N1	36:5:2362:C:O2'	2.43	0.45
1:6:1273:G:O5'	1:6:1274:C:H3'	2.17	0.45
1:6:633:U:H2'	1:6:634:G:O4'	2.17	0.45
1:6:82:U:H2'	1:6:83:G:O4'	2.17	0.45
38:8:104:A:C8	38:8:105:A:C8	3.04	0.45
13:C1:118:GLN:OE1	13:C1:146:ALA:HA	2.17	0.45
13:C1:17:PRO:HG3	13:C1:63:LEU:HD11	1.98	0.45
13:C1:37:ASN:HA	13:C1:44:THR:CG2	2.45	0.45
13:C1:7:VAL:O	13:C1:9:SER:N	2.99	0.45
15:C3:128:TYR:O	15:C3:132:VAL:HG22	2.17	0.45
23:D1:79:LEU:HD23	23:D1:79:LEU:HA	1.66	0.45
24:D2:23:ARG:H	24:D2:24:GLN:NE2	4.26	0.45
24:D2:65:LEU:HD13	24:D2:65:LEU:H	1.82	0.45
4:S2:230:TRP:NE1	24:D2:68:ARG:HB2	4.29	0.45
26:D4:55:VAL:HG12	26:D4:75:VAL:HG22	6.91	0.45
27:D5:38:HIS:CE1	27:D5:70:LYS:HD3	2.52	0.45
28:D6:87:ARG:HD2	1:6:1797:A:N1	344.93	0.45
40:L3:188:ILE:O	40:L3:192:VAL:HG12	2.16	0.45
40:L3:194:TRP:CE2	40:L3:198:HIS:CE1	3.10	0.45
40:L3:14:LEU:HD13	40:L3:262:TRP:CH2	2.52	0.45
40:L3:299:ASP:O	40:L3:300:ARG:HB2	2.16	0.45
40:L3:2:SER:N	36:5:2940:A:N7	237.74	0.45
41:L4:181:VAL:O	41:L4:182:LEU:HB2	2.16	0.45
41:L4:3:ARG:NH1	41:L4:22:LEU:HD12	2.31	0.45
41:L4:26:PHE:HA	41:L4:127:ALA:HA	2.25	0.45
41:L4:72:ALA:O	41:L4:76:ARG:NH1	3.08	0.45
43:L6:80:ASN:O	43:L6:82:ARG:N	2.50	0.45
46:L9:111:PHE:CD1	46:L9:127:PRO:HA	2.52	0.45
47:M0:23:ASN:HB3	47:M0:24:ARG:H	1.60	0.45
47:M0:36:LEU:HD11	47:M0:69:ARG:HD3	1.99	0.45
48:M1:48:SER:N	48:M1:66:ALA:O	2.98	0.45
51:M5:36:ILE:HG12	51:M5:64:VAL:HG23	3.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:108:ILE:HA	52:M6:109:PRO:HD2	2.32	0.45
50:M4:105:GLN:NE2	52:M6:198:GLY:O	4.35	0.45
56:N0:133:ALA:HA	56:N0:141:LYS:HZ1	1.81	0.45
57:N1:130:ARG:HD3	36:5:1098:A:OP2	254.05	0.45
58:N2:104:ARG:NH1	58:N2:106:ALA:HB2	4.21	0.45
59:N3:6:ALA:HB2	59:N3:126:TRP:CH2	2.98	0.45
61:N5:79:GLY:C	61:N5:81:ILE:HD12	2.60	0.45
62:N6:88:GLU:OE1	62:N6:88:GLU:N	4.45	0.45
36:1:3275:U:C5'	69:O3:68:TRP:HZ2	2.27	0.45
71:O5:24:LEU:HB3	71:O5:51:ILE:HG12	3.10	0.45
71:O5:88:LEU:HA	71:O5:88:LEU:HD23	1.65	0.45
74:O8:36:LYS:HA	74:O8:37:PRO:HD3	2.33	0.45
78:Q2:61:LYS:HB3	78:Q2:61:LYS:HE2	1.65	0.45
3:S1:223:PHE:CE1	3:S1:225:VAL:HG12	4.70	0.45
4:S2:177:GLY:H	4:S2:195:ASP:HB3	1.82	0.45
5:S3:25:PHE:HD2	5:S3:37:VAL:HG21	4.59	0.45
6:S4:136:VAL:HG21	6:S4:148:ARG:NH2	2.32	0.45
6:S4:22:LYS:HG2	6:S4:23:LEU:HD13	1.98	0.45
6:S4:62:LYS:HA	6:S4:62:LYS:HD3	3.63	0.45
10:S8:67:TRP:HA	10:S8:183:ILE:HG23	5.55	0.45
1:2:512:A:OP2	11:S9:172:VAL:HG13	2.16	0.45
11:S9:68:LYS:O	11:S9:72:GLU:N	2.48	0.45
20:C8:128:PHE:CD2	35:SM:61:ILE:HG22	2.52	0.45
34:SR:245:PHE:CD1	34:SR:252:LEU:HD13	2.53	0.45
34:SR:85:TRP:HA	34:SR:109:ASP:HA	1.99	0.45
36:1:1339:C:H2'	36:1:1340:G:O4'	2.16	0.45
36:1:1608:C:H2'	36:1:1609:C:H6	1.82	0.45
36:1:1787:A:N6	36:1:1788:C:C4	2.85	0.45
36:1:199:A:C4	36:1:201:A:C8	3.05	0.45
36:1:2611:U:H2'	36:1:2612:U:C6	2.52	0.45
36:1:2630:C:H1'	36:1:2758:A:N3	2.32	0.45
36:1:2830:G:H1'	36:1:2861:U:C2	2.52	0.45
86:1:4025:OHX:N4	86:1:4145:OHX:N3	2.64	0.45
36:1:673:U:O2'	36:1:674:G:H5'	2.17	0.45
36:1:98:G:O6	49:M3:11:LYS:NZ	2.48	0.45
1:2:1019:A:OP2	15:C3:107:LYS:HE3	2.17	0.45
1:2:1150:G:O2'	1:2:1151:A:OP2	2.32	0.45
1:2:11:A:C2'	1:2:12:U:H5'	2.47	0.45
1:2:197:A:H2'	1:2:198:A:C8	2.51	0.45
1:2:328:A:H2'	1:2:329:G:O4'	2.17	0.45
1:2:337:G:H3'	13:C1:133:LYS:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:410:A:H2	1:2:423:G:H22	1.65	0.45
1:2:622:A:H4'	1:2:623:A:OP1	2.17	0.45
36:5:1237:G:H22	36:5:1251:A:H2	1.65	0.45
36:5:189:G:H3'	36:5:224:C:OP2	2.17	0.45
36:5:2104:A:H2'	36:5:2105:G:H8	1.82	0.45
36:5:421:G:OP1	86:5:4021:OHX:N2	2.50	0.45
1:6:1163:A:N6	1:6:1164:G:C6	2.85	0.45
17:C5:122:THR:HB	1:6:1558:U:H3	365.61	0.45
1:6:447:U:C4	1:6:448:C:C4	3.05	0.45
1:6:53:G:H2'	1:6:54:C:O4'	2.17	0.45
1:6:704:C:H2'	1:6:705:U:O4'	2.16	0.45
13:C1:74:THR:HG22	13:C1:122:ILE:HG13	1.98	0.45
14:C2:62:LEU:HA	14:C2:120:VAL:HA	1.98	0.45
18:C6:53:LEU:HG	18:C6:53:LEU:H	1.67	0.45
24:D2:25:VAL:HG23	24:D2:63:VAL:HB	1.98	0.45
28:D6:23:CYS:C	28:D6:25:ASN:H	2.42	0.45
30:D8:64:ARG:HH21	30:D8:65:ARG:HD2	7.91	0.45
33:E1:135:HIS:HB2	33:E1:138:ARG:CB	2.47	0.45
39:L2:80:GLU:HB2	39:L2:170:ALA:HA	2.29	0.45
40:L3:35:ASP:OD2	40:L3:37:ARG:HD2	2.23	0.45
41:L4:47:ARG:NH1	41:L4:109:TRP:O	2.50	0.45
44:L7:156:ILE:HG13	44:L7:161:VAL:HG21	4.62	0.45
36:1:2563:G:H5''	45:L8:27:THR:HG23	1.99	0.45
46:L9:134:ILE:HD12	46:L9:146:LEU:HG	4.23	0.45
48:M1:151:SER:O	48:M1:152:HIS:CB	3.05	0.45
49:M3:185:LYS:HG2	49:M3:189:GLU:OE1	2.17	0.45
49:M3:91:ARG:NH1	49:M3:97:VAL:HB	2.32	0.45
51:M5:190:THR:O	51:M5:194:GLN:HG3	2.17	0.45
51:M5:53:TYR:O	51:M5:54:LYS:HD2	2.48	0.45
52:M6:68:ARG:NH1	36:5:2988:C:P	215.86	0.45
53:M7:129:THR:HG23	53:M7:139:TYR:HB2	1.99	0.45
54:M8:53:PHE:CD1	54:M8:53:PHE:N	2.83	0.45
1:2:852:C:OP1	55:M9:172:ARG:HD3	2.17	0.45
56:N0:75:PHE:N	56:N0:94:ILE:O	2.46	0.45
57:N1:139:ARG:NH2	57:N1:139:ARG:HG2	4.48	0.45
44:L7:75:TYR:HB2	57:N1:141:VAL:HG22	1.99	0.45
59:N3:45:ARG:O	59:N3:46:LEU:C	2.63	0.45
61:N5:100:LYS:HZ2	61:N5:107:VAL:H	1.65	0.45
61:N5:131:ASP:O	61:N5:135:ILE:HG22	5.78	0.45
62:N6:5:SER:HB3	62:N6:8:VAL:HG13	3.39	0.45
63:N7:95:VAL:HG11	63:N7:113:VAL:HG21	3.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:41:LYS:O	67:O1:45:GLY:HA2	2.89	0.45
70:O4:55:SER:O	70:O4:62:TYR:OH	2.64	0.45
70:O4:57:LEU:HB2	70:O4:61:GLN:HB2	2.73	0.45
3:S1:119:THR:HB	3:S1:143:THR:CG2	2.47	0.45
3:S1:62:LYS:O	3:S1:88:VAL:HB	2.17	0.45
6:S4:199:GLU:OE1	6:S4:201:HIS:NE2	4.60	0.45
6:S4:11:ARG:HG3	6:S4:27:TYR:C	2.38	0.45
9:S7:130:VAL:HG11	9:S7:154:LEU:HD21	3.97	0.45
36:1:1558:A:O3'	61:N5:34:LEU:HB3	2.17	0.45
36:1:1940:G:OP1	55:M9:80:LYS:HE3	2.17	0.45
36:1:3330:A:H2'	36:1:3331:U:H6	1.82	0.45
36:1:930:U:H2'	36:1:931:C:C6	2.52	0.45
1:2:1365:C:N4	1:2:1366:U:O4	2.50	0.45
1:2:240:U:OP1	1:2:240:U:H4'	2.17	0.45
1:2:264:G:N7	86:2:2034:OHX:N1	2.65	0.45
1:2:301:A:H2'	1:2:302:U:O4'	2.16	0.45
1:2:477:A:N7	1:2:538:A:N1	2.65	0.45
1:2:52:U:H2'	1:2:53:G:H8	1.78	0.45
1:2:540:G:O2'	1:2:541:A:OP1	2.31	0.45
1:2:81:G:C6	1:2:82:U:N3	2.85	0.45
36:5:999:G:C6	36:5:1000:C:N4	2.85	0.45
36:5:1441:G:O2'	36:5:1442:U:H5'	2.17	0.45
36:5:2594:C:H2'	36:5:2595:A:O4'	2.17	0.45
36:5:3027:A:H2'	36:5:3028:G:O4'	2.17	0.45
36:5:499:G:H2'	36:5:500:C:C6	2.52	0.45
1:6:1007:C:C2'	1:6:1008:G:H5'	2.47	0.45
1:6:151:G:H2'	1:6:152:U:C6	2.51	0.45
1:6:1699:G:N2	1:6:1701:A:H5''	2.32	0.45
1:6:1715:G:C6	1:6:1716:C:N4	2.85	0.45
1:6:193:U:C4	1:6:195:G:C8	3.04	0.45
1:6:74:U:H5''	1:6:75:U:OP2	2.17	0.45
13:C1:64:VAL:HG21	13:C1:138:ASN:ND2	2.32	0.45
3:S1:77:GLU:OE1	16:C4:114:ARG:NH2	2.50	0.45
18:C6:66:ARG:HH21	18:C6:68:ARG:NE	2.14	0.45
19:C7:44:LYS:O	19:C7:48:ASN:N	3.00	0.45
22:D0:18:GLN:O	22:D0:96:PRO:HA	2.17	0.45
24:D2:15:ASN:ND2	24:D2:72:CYS:H	2.73	0.45
29:D7:62:ILE:CG1	29:D7:63:LEU:H	2.29	0.45
41:L4:318:LEU:CD1	44:L7:146:GLN:HB3	3.51	0.45
41:L4:64:SER:OG	41:L4:73:ARG:O	3.33	0.45
44:L7:184:LEU:HD11	44:L7:202:LEU:HD21	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:134:TYR:CD1	45:L8:190:VAL:HG11	3.44	0.45
46:L9:188:THR:O	46:L9:189:GLU:HB2	4.56	0.45
46:L9:41:ILE:HD11	46:L9:67:ALA:CB	2.47	0.45
49:M3:192:GLU:O	49:M3:194:GLU:N	2.50	0.45
49:M3:7:LEU:HA	49:M3:7:LEU:HD23	1.62	0.45
51:M5:173:GLY:O	51:M5:183:THR:OG1	2.82	0.45
53:M7:138:LYS:HE2	53:M7:140:GLU:OE1	4.22	0.45
53:M7:141:SER:O	53:M7:143:PRO:HD3	2.65	0.45
53:M7:16:SER:HB3	53:M7:149:VAL:HG22	1.99	0.45
53:M7:67:ILE:HB	53:M7:80:LYS:HD2	2.54	0.45
54:M8:122:ILE:HD11	54:M8:130:ARG:NH1	3.75	0.45
55:M9:164:LEU:O	55:M9:168:ALA:N	3.33	0.45
57:N1:14:MET:HE1	57:N1:55:LYS:HA	2.12	0.45
62:N6:120:GLN:OE1	62:N6:126:LEU:HD23	5.83	0.45
62:N6:70:ILE:HA	62:N6:82:VAL:HG22	2.91	0.45
36:1:2617:U:H3'	65:N9:3:LYS:HD3	1.99	0.45
72:O6:51:SER:O	72:O6:55:ARG:HG3	3.02	0.45
73:O7:87:SER:C	86:O7:105:OHX:N1	2.71	0.45
73:O7:63:ARG:O	73:O7:68:LYS:HE2	2.17	0.45
74:O8:32:ASN:HD21	74:O8:34:ALA:HB3	5.24	0.45
2:S0:21:ASN:OD1	2:S0:24:LEU:HD22	4.52	0.45
6:S4:11:ARG:O	6:S4:12:LEU:HB2	2.17	0.45
6:S4:159:THR:HG22	6:S4:173:ILE:HG13	4.28	0.45
7:S5:142:PRO:HG2	7:S5:170:GLN:OE1	2.55	0.45
10:S8:65:PHE:HA	10:S8:181:GLY:O	2.32	0.45
11:S9:45:ILE:HA	11:S9:45:ILE:HD13	1.81	0.45
34:SR:283:LYS:HG3	34:SR:284:ALA:N	4.93	0.45
34:SR:307:ASP:OD2	34:SR:311:ARG:NH2	3.68	0.45
36:1:1334:U:H5''	44:L7:206:LYS:HB3	1.97	0.44
36:1:2136:C:O2'	36:1:2137:U:H5'	2.18	0.44
36:1:789:A:H2'	36:1:790:U:H6	1.83	0.44
1:2:1229:G:O2'	1:2:1255:G:N1	2.50	0.44
1:2:1762:A:H1'	1:2:1783:C:H5'	1.98	0.44
1:2:1754:A:O2'	86:2:2058:OHX:N5	2.50	0.44
1:2:499:U:H2'	1:2:499:U:H6	1.41	0.44
1:2:717:C:N4	1:2:720:G:H22	2.13	0.44
1:2:730:G:H21	1:2:731:C:C5'	2.29	0.44
36:5:1100:U:H2'	36:5:1101:G:O4'	2.17	0.44
36:5:127:G:H2'	36:5:128:G:C8	2.51	0.44
36:5:2257:C:H2'	36:5:2258:U:H6	1.81	0.44
36:5:2689:A:N3	36:5:2689:A:H2'	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:158:LYS:NZ	36:5:2852:C:N3	307.97	0.44
36:5:3266:G:C6	36:5:3267:A:C6	3.05	0.44
36:5:3375:A:OP2	86:5:3960:OHX:N3	2.49	0.44
86:5:3975:OHX:N3	86:5:4245:OHX:N2	2.65	0.44
36:5:2560:C:O2	86:5:4033:OHX:N2	2.51	0.44
1:6:1017:U:H2'	1:6:1018:U:C6	2.52	0.44
1:6:1499:G:H2'	1:6:1500:C:O4'	2.17	0.44
1:6:926:A:H2'	1:6:927:C:H6	1.82	0.44
1:6:956:C:H2'	1:6:957:G:C8	2.52	0.44
48:M1:152:HIS:HE1	37:7:55:A:N3	325.74	0.44
15:C3:40:TYR:HB3	15:C3:45:LEU:HD12	3.45	0.44
15:C3:54:LEU:O	15:C3:60:VAL:HB	2.17	0.44
18:C6:103:ASN:HA	18:C6:106:LYS:HB2	3.08	0.44
20:C8:113:LEU:HA	20:C8:113:LEU:HD23	1.58	0.44
20:C8:127:HIS:NE2	20:C8:133:VAL:HG11	3.04	0.44
22:D0:24:ILE:HG13	22:D0:116:VAL:HG13	1.97	0.44
33:E1:147:VAL:HG23	33:E1:148:TYR:CD1	2.51	0.44
42:L5:261:THR:OG1	42:L5:264:GLN:HG3	2.17	0.44
42:L5:281:GLU:O	42:L5:284:ALA:HB3	2.61	0.44
42:L5:56:THR:OG1	42:L5:59:ASP:HB3	2.18	0.44
43:L6:102:ASN:OD1	43:L6:104:GLU:N	2.50	0.44
46:L9:166:ARG:O	46:L9:167:VAL:C	3.77	0.44
55:M9:11:ALA:O	55:M9:15:VAL:HG23	2.17	0.44
61:N5:28:THR:OG1	61:N5:29:SER:N	3.62	0.44
61:N5:64:GLU:HB2	61:N5:85:GLN:HG2	2.21	0.44
72:O6:60:LEU:HA	72:O6:60:LEU:HD23	1.85	0.44
77:Q1:4:LYS:HG2	77:Q1:5:TRP:CZ3	4.15	0.44
2:S0:154:GLU:N	2:S0:154:GLU:OE1	2.36	0.44
3:S1:146:GLN:O	3:S1:148:ASN:N	2.59	0.44
3:S1:180:THR:N	3:S1:183:GLN:HB2	5.05	0.44
4:S2:162:CYS:H	4:S2:213:ALA:HB2	2.28	0.44
7:S5:51:VAL:HG11	7:S5:130:ILE:HG23	6.13	0.44
8:S6:134:GLY:HA3	8:S6:158:ILE:HG21	1.99	0.44
11:S9:102:GLU:HA	11:S9:105:LEU:HD23	3.10	0.44
35:SM:123:ALA:O	35:SM:126:ASP:HB2	2.16	0.44
34:SR:274:LEU:HD13	34:SR:313:TRP:CD2	2.52	0.44
36:1:1336:U:OP2	86:1:4042:OHX:N4	2.50	0.44
36:1:1611:G:H2'	36:1:1612:A:O4'	2.18	0.44
36:1:1745:C:H2'	36:1:1746:U:O4'	2.17	0.44
36:1:2552:C:C5	66:O0:53:LYS:HE3	2.52	0.44
36:1:633:C:H2'	36:1:634:C:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:729:C:H2'	36:1:730:C:C6	2.52	0.44
1:2:1003:A:C4	1:2:1005:A:C6	3.04	0.44
1:2:1756:A:H8	1:2:1756:A:OP2	2.00	0.44
1:2:196:G:O2'	1:2:197:A:P	2.74	0.44
1:2:460:A:H5'	1:2:461:G:OP2	2.17	0.44
1:2:720:G:H2'	1:2:720:G:N3	2.32	0.44
1:2:771:A:OP1	11:S9:9:SER:OG	2.34	0.44
36:5:1230:G:OP2	86:5:4009:OHX:N6	2.51	0.44
36:5:1365:G:OP2	86:5:4031:OHX:N3	2.50	0.44
36:5:1814:A:OP1	86:5:4182:OHX:N3	2.50	0.44
36:5:1940:G:H2'	36:5:1941:C:O4'	2.18	0.44
39:L2:224:THR:HG21	36:5:2201:G:H21	222.85	0.44
36:5:2514:U:C6	36:5:2514:U:OP1	2.65	0.44
36:5:549:U:H2'	36:5:550:A:H8	1.81	0.44
1:6:1626:U:O4	86:6:2201:OHX:N5	2.50	0.44
1:6:250:C:H5'	1:6:250:C:H6	1.82	0.44
1:6:525:A:C6	1:6:526:A:C6	3.06	0.44
1:6:577:G:C8	1:6:577:G:H3'	2.52	0.44
1:6:649:U:H2'	1:6:650:U:C5	2.48	0.44
11:S9:149:ARG:HD2	1:6:765:G:N7	428.05	0.44
37:7:8:G:C5	37:7:9:C:C4	3.04	0.44
12:C0:2:LEU:HD22	12:C0:2:LEU:HA	4.22	0.44
15:C3:114:ARG:HA	15:C3:114:ARG:HD3	1.72	0.44
18:C6:39:VAL:HB	18:C6:45:ARG:HD3	1.98	0.44
19:C7:12:ALA:O	19:C7:15:ALA:HB3	3.08	0.44
20:C8:96:LYS:HB2	20:C8:98:TYR:CE2	2.52	0.44
21:C9:86:ARG:HB2	21:C9:89:ARG:HB2	2.57	0.44
26:D4:57:VAL:HG22	26:D4:60:PHE:CE2	2.52	0.44
28:D6:10:ARG:CB	28:D6:34:LYS:HA	2.74	0.44
31:D9:46:LYS:HA	31:D9:46:LYS:HD3	1.89	0.44
40:L3:227:GLU:HG3	40:L3:270:ARG:CD	3.86	0.44
36:1:3048:A:C5'	40:L3:53:MET:HE3	2.47	0.44
40:L3:81:THR:CG2	40:L3:81:THR:O	3.51	0.44
47:M0:10:ARG:HH11	47:M0:10:ARG:HD2	1.58	0.44
48:M1:65:ILE:O	48:M1:65:ILE:HG12	2.18	0.44
49:M3:10:LEU:HA	49:M3:10:LEU:HD23	2.09	0.44
52:M6:19:LEU:O	52:M6:23:VAL:HG23	2.17	0.44
53:M7:60:PHE:HB3	53:M7:64:ASN:HB3	2.12	0.44
53:M7:95:LEU:HA	53:M7:95:LEU:HD23	1.76	0.44
41:L4:302:ALA:HB2	54:M8:39:ARG:CZ	2.47	0.44
36:1:1721:U:H3'	55:M9:103:ARG:HH21	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:136:ARG:HD3	57:N1:139:ARG:CZ	3.88	0.44
47:M0:169:LYS:NZ	57:N1:158:THR:OG1	2.50	0.44
59:N3:67:PRO:C	59:N3:69:LEU:N	3.21	0.44
61:N5:38:LEU:HD22	61:N5:39:LYS:N	2.32	0.44
63:N7:64:LYS:HD2	36:5:1812:G:O6	185.32	0.44
64:N8:47:LYS:C	64:N8:49:HIS:H	2.56	0.44
66:O0:13:LYS:HZ2	66:O0:103:THR:HG21	3.65	0.44
43:L6:7:PRO:HD3	68:O2:74:PHE:CE1	4.18	0.44
36:1:1857:C:O2'	70:O4:5:VAL:HG12	2.18	0.44
71:O5:43:LYS:O	71:O5:46:THR:HG23	2.18	0.44
71:O5:95:PHE:CG	36:5:136:G:H5'	61.65	0.44
2:S0:9:LEU:HA	2:S0:54:TRP:NE1	3.54	0.44
3:S1:34:ALA:HA	3:S1:98:THR:HG22	1.98	0.44
3:S1:55:LYS:HD3	3:S1:55:LYS:HA	2.05	0.44
3:S1:30:PHE:CZ	3:S1:94:LYS:HA	2.52	0.44
5:S3:217:ILE:HG22	5:S3:218:LEU:H	1.81	0.44
5:S3:74:GLN:O	5:S3:79:TYR:N	3.23	0.44
6:S4:230:GLU:HB2	6:S4:233:LYS:NZ	4.75	0.44
8:S6:155:ASP:OD2	8:S6:155:ASP:N	3.07	0.44
9:S7:102:PRO:HD3	9:S7:112:ARG:HD3	2.67	0.44
9:S7:117:THR:HG22	9:S7:120:ALA:H	2.21	0.44
9:S7:99:LEU:HD12	9:S7:116:ARG:HG2	1.98	0.44
10:S8:184:LEU:HD21	10:S8:192:TYR:HD2	4.79	0.44
1:2:393:C:OP2	10:S8:2:GLY:N	2.49	0.44
34:SR:161:LYS:HB3	34:SR:161:LYS:HE3	2.11	0.44
34:SR:199:ILE:HA	34:SR:215:GLY:HA3	1.99	0.44
34:SR:224:ASN:HD21	34:SR:226:ALA:HB3	5.22	0.44
34:SR:19:TRP:CB	34:SR:38:ARG:HD2	2.47	0.44
36:1:1132:C:C2	36:1:1133:A:C8	3.06	0.44
36:1:1556:C:O2	36:1:2169:G:C2	2.70	0.44
36:1:2320:A:H2	79:Q3:16:VAL:HG13	1.82	0.44
36:1:279:U:H2'	36:1:280:U:C6	2.52	0.44
36:1:2844:C:H5''	36:1:2845:A:OP2	2.17	0.44
36:1:289:A:C2	51:M5:93:LYS:HG3	2.53	0.44
36:1:3066:U:H2'	36:1:3067:C:C6	2.52	0.44
36:1:3060:C:H1'	36:1:3332:U:H1'	1.99	0.44
86:1:4053:OHX:N4	86:1:4162:OHX:N1	2.65	0.44
36:1:3:U:H2'	36:1:4:U:O4'	2.17	0.44
36:1:928:C:H2'	36:1:929:A:C8	2.53	0.44
1:2:1401:A:O3'	19:C7:10:LYS:NZ	2.49	0.44
1:2:1404:C:H2'	1:2:1405:G:H8	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1619:C:H2'	1:2:1620:C:C6	2.53	0.44
86:2:2075:OHX:N6	86:2:2161:OHX:N2	2.64	0.44
1:2:254:A:H2'	1:2:255:U:H6	1.82	0.44
40:L3:259:HIS:HE1	36:5:2366:C:H5'	218.76	0.44
53:M7:69:ARG:CZ	36:5:2389:C:H1'	189.47	0.44
36:5:243:G:O2'	36:5:244:G:H5'	2.16	0.44
36:5:2683:U:H2'	36:5:2684:C:C6	2.52	0.44
36:5:277:G:H2'	36:5:278:U:H6	1.81	0.44
36:5:975:C:H2'	36:5:976:U:H6	1.82	0.44
1:6:219:A:N6	1:6:843:U:C2	2.85	0.44
7:S5:108:LEU:HD22	18:C6:43:ILE:HD11	4.97	0.44
21:C9:101:ASN:O	21:C9:104:VAL:N	2.50	0.44
21:C9:28:LEU:HD22	21:C9:30:VAL:HG22	1.98	0.44
22:D0:28:SER:OG	22:D0:29:THR:N	2.50	0.44
27:D5:71:ILE:HG23	27:D5:73:GLY:H	7.61	0.44
33:E1:90:LYS:H	33:E1:90:LYS:HG3	4.58	0.44
33:E1:94:LYS:HB3	33:E1:95:HIS:H	1.55	0.44
39:L2:143:GLU:O	39:L2:145:LYS:HG2	2.17	0.44
39:L2:219:ILE:HG22	39:L2:221:LYS:O	2.17	0.44
39:L2:44:ILE:HG23	39:L2:87:PHE:CE1	2.53	0.44
39:L2:96:LEU:O	79:Q3:87:ARG:HD3	2.25	0.44
41:L4:142:VAL:HB	41:L4:145:ILE:HG12	2.75	0.44
41:L4:180:LYS:HE2	41:L4:180:LYS:HB3	1.89	0.44
41:L4:264:SER:O	41:L4:266:THR:N	2.50	0.44
45:L8:101:THR:N	45:L8:104:GLU:OE1	2.46	0.44
45:L8:251:LYS:O	45:L8:255:SER:HB2	2.17	0.44
46:L9:163:GLN:O	46:L9:166:ARG:HG3	2.65	0.44
46:L9:161:LEU:HD13	46:L9:179:ILE:HG21	1.99	0.44
49:M3:47:ALA:HB1	49:M3:48:PRO:CD	2.44	0.44
50:M4:53:VAL:HA	50:M4:54:PRO:HD3	1.68	0.44
53:M7:48:LEU:HA	53:M7:48:LEU:HD23	1.68	0.44
54:M8:133:LYS:HB2	54:M8:135:GLN:NE2	3.08	0.44
54:M8:65:SER:HA	54:M8:93:ILE:HD13	1.98	0.44
58:N2:29:ASP:HA	58:N2:30:PRO:HD3	1.80	0.44
59:N3:120:LYS:N	59:N3:137:VAL:HG23	2.32	0.44
65:N9:23:LYS:HA	65:N9:23:LYS:HD2	1.71	0.44
73:O7:28:HIS:O	73:O7:32:LYS:N	2.48	0.44
76:Q0:98:LYS:HD2	76:Q0:118:THR:HG21	2.82	0.44
2:S0:103:THR:HA	2:S0:104:PRO:HD3	1.71	0.44
3:S1:144:ARG:HG3	3:S1:145:LYS:O	2.18	0.44
4:S2:111:VAL:O	4:S2:136:VAL:HA	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:29:ILE:HA	7:S5:30:PRO:HD3	1.88	0.44
8:S6:58:LYS:HG3	8:S6:105:ASP:O	3.66	0.44
9:S7:133:THR:HG21	9:S7:159:VAL:HA	3.00	0.44
11:S9:142:ASN:ND2	26:D4:64:PHE:HZ	2.68	0.44
5:S3:144:ALA:HB1	35:SM:101:ASP:OD2	2.18	0.44
34:SR:21:THR:O	34:SR:36:ALA:HB3	2.17	0.44
34:SR:33:LEU:O	34:SR:45:TRP:HD1	2.00	0.44
36:1:1452:A:N3	36:1:2346:C:O2'	2.39	0.44
36:1:2534:G:C2	36:1:2535:A:N7	2.85	0.44
36:1:2705:A:OP2	86:1:3865:OHX:N1	2.50	0.44
36:1:439:C:H5'	36:1:440:A:OP2	2.18	0.44
1:2:1253:U:O2'	33:E1:143:LYS:HA	2.17	0.44
1:2:1651:A:N1	1:2:1749:A:H2	2.15	0.44
1:2:736:C:C2'	1:2:737:A:H5'	2.47	0.44
1:2:792:U:H2'	1:2:793:A:H5'	2.00	0.44
1:2:97:C:H2'	1:2:98:U:C6	2.52	0.44
42:L5:140:ARG:HD3	36:5:1080:A:OP1	226.66	0.44
36:5:253:A:O2'	36:5:254:A:H8	1.99	0.44
36:5:2836:C:C5	36:5:2852:C:N4	2.76	0.44
36:5:2981:U:O2'	36:5:2982:A:H5'	2.16	0.44
36:5:27:C:O2'	36:5:327:A:N3	2.43	0.44
36:5:3393:U:H2'	36:5:3394:U:C6	2.53	0.44
86:5:4013:OHX:N4	86:5:4202:OHX:N2	2.65	0.44
1:6:1557:U:O2'	1:6:1558:U:H2'	2.16	0.44
1:6:1698:G:HO2'	1:6:1699:G:P	2.38	0.44
1:6:268:C:O2'	1:6:269:G:H5'	2.17	0.44
15:C3:127:ARG:NH2	1:6:629:U:OP1	307.40	0.44
1:6:80:A:H8	1:6:80:A:OP2	2.01	0.44
37:7:78:U:OP1	86:7:219:OHX:N5	2.50	0.44
13:C1:105:LYS:HD2	1:6:306:U:P	322.62	0.44
16:C4:96:PRO:O	16:C4:99:GLN:HG2	2.18	0.44
18:C6:50:GLU:HA	18:C6:53:LEU:HD11	3.04	0.44
2:S0:39:ASN:HD22	19:C7:105:GLN:HB3	1.82	0.44
19:C7:107:SER:O	19:C7:110:VAL:HG23	3.44	0.44
20:C8:17:LEU:O	20:C8:20:THR:N	3.08	0.44
22:D0:28:SER:HB2	22:D0:112:VAL:HA	1.99	0.44
24:D2:28:ARG:HA	24:D2:29:PRO:HA	1.81	0.44
4:S2:230:TRP:CE2	24:D2:68:ARG:HD3	2.92	0.44
36:1:911:C:N4	39:L2:3:ARG:HD3	2.33	0.44
40:L3:188:ILE:HD12	40:L3:189:SER:H	1.82	0.44
42:L5:155:THR:HB	42:L5:179:ARG:HH11	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:22:ARG:O	43:L6:23:LYS:HG2	2.42	0.44
46:L9:9:GLN:HB3	46:L9:52:LEU:HD21	3.20	0.44
47:M0:76:MET:HE2	47:M0:138:VAL:HG11	2.00	0.44
37:3:43:U:H4'	48:M1:140:ARG:O	2.17	0.44
49:M3:182:ILE:CD1	49:M3:182:ILE:H	2.25	0.44
49:M3:46:ILE:HG23	49:M3:46:ILE:HD12	2.70	0.44
36:1:1547:G:P	51:M5:105:ARG:NH1	2.90	0.44
52:M6:80:PHE:HD2	52:M6:104:VAL:HG11	2.24	0.44
54:M8:86:THR:CG2	54:M8:105:ARG:HB2	2.42	0.44
56:N0:128:GLU:O	56:N0:128:GLU:HG2	3.55	0.44
56:N0:89:ASN:CG	57:N1:156:TYR:H	2.20	0.44
61:N5:34:LEU:HD13	61:N5:34:LEU:O	2.18	0.44
61:N5:93:TYR:CE2	38:8:131:A:H5''	105.69	0.44
64:N8:63:LYS:HE2	64:N8:65:GLN:OE1	3.47	0.44
65:N9:58:LYS:HA	65:N9:58:LYS:HD2	1.71	0.44
36:1:2552:C:H5	66:O0:53:LYS:HE3	1.83	0.44
75:O9:9:ILE:HA	75:O9:9:ILE:HD13	1.75	0.44
79:Q3:84:ARG:NH1	79:Q3:88:GLU:OE1	2.51	0.44
3:S1:26:ARG:HD2	3:S1:49:ASN:OD1	2.60	0.44
5:S3:45:LYS:HE2	5:S3:45:LYS:HB2	1.79	0.44
6:S4:65:LEU:HD23	6:S4:70:VAL:CG1	2.48	0.44
8:S6:109:LEU:HD23	8:S6:109:LEU:HA	1.81	0.44
8:S6:176:GLN:HG2	1:6:169:A:C5'	327.70	0.44
8:S6:20:ASP:CB	8:S6:23:ARG:HG3	3.94	0.44
9:S7:166:LEU:HD21	9:S7:183:PHE:HB2	1.99	0.44
9:S7:77:LEU:O	9:S7:81:LEU:HG	2.17	0.44
11:S9:97:LEU:HA	11:S9:97:LEU:HD23	1.84	0.44
35:SM:34:LYS:HA	35:SM:34:LYS:HD3	3.10	0.44
34:SR:19:TRP:HB2	34:SR:38:ARG:HG3	2.16	0.44
34:SR:24:ALA:HB2	34:SR:72:THR:HA	1.98	0.44
36:1:2280:A:H5''	36:1:2281:A:P	2.57	0.44
36:1:2795:U:O2	36:1:2800:G:H1'	2.17	0.44
36:1:2842:U:OP1	36:1:2844:C:N4	2.50	0.44
36:1:2989:U:H2'	36:1:2990:G:O4'	2.17	0.44
36:1:938:C:OP1	36:1:963:G:H5'	2.17	0.44
1:2:1409:G:N2	1:2:1411:A:H3'	2.33	0.44
1:2:144:U:O2'	1:2:145:A:H5'	2.16	0.44
1:2:161:U:OP2	8:S6:87:ARG:NH2	2.50	0.44
1:2:489:C:H2'	1:2:490:C:C6	2.52	0.44
1:2:549:G:OP2	86:2:2026:OHX:N2	2.50	0.44
1:2:563:U:H4'	32:E0:17:GLN:NE2	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:781:U:P	26:D4:9:THR:HG1	2.40	0.44
1:2:843:U:H2'	1:2:844:A:C8	2.50	0.44
1:2:917:U:HO2'	16:C4:29:HIS:CE1	2.31	0.44
38:4:136:G:OP1	61:N5:48:SER:HB3	2.17	0.44
38:4:91:C:H2'	38:4:92:A:C8	2.52	0.44
36:5:2406:C:H2'	36:5:2407:C:C6	2.52	0.44
36:5:2943:G:H2'	36:5:2944:U:O4'	2.17	0.44
36:5:355:A:H2'	36:5:356:C:O4'	2.18	0.44
55:M9:87:ALA:O	86:5:4007:OHX:N5	204.61	0.44
86:5:4037:OHX:N3	86:5:4240:OHX:N5	2.66	0.44
36:5:578:A:H5''	36:5:579:G:O5'	2.17	0.44
36:5:926:A:C5	36:5:927:C:C4	3.06	0.44
36:5:94:G:H2'	36:5:95:A:C8	2.53	0.44
1:6:12:U:H2'	1:6:13:C:C6	2.52	0.44
5:S3:162:GLN:HG3	1:6:1333:C:H4'	427.57	0.44
1:6:162:A:H2'	1:6:163:G:C8	2.53	0.44
1:6:1652:C:H2'	1:6:1653:C:C6	2.52	0.44
1:6:491:C:H42	1:6:497:G:H21	1.65	0.44
1:6:708:C:H2'	1:6:709:C:O4'	2.17	0.44
1:6:72:A:H2'	1:6:73:U:H1'	1.99	0.44
1:6:793:A:H3'	1:6:794:U:H5'	1.99	0.44
38:8:68:G:OP1	86:8:216:OHX:N3	2.50	0.44
38:8:6:U:H2'	38:8:7:U:C6	2.53	0.44
13:C1:91:LEU:HA	13:C1:91:LEU:HD23	2.88	0.44
1:2:1228:G:N1	14:C2:67:THR:HB	2.31	0.44
15:C3:55:ARG:HD3	29:D7:47:PHE:CG	2.53	0.44
17:C5:112:LEU:HA	17:C5:112:LEU:HD23	1.99	0.44
17:C5:126:VAL:O	17:C5:127:ARG:HD3	4.63	0.44
21:C9:45:MET:HE3	21:C9:45:MET:HB3	1.85	0.44
22:D0:74:GLU:HG2	1:6:1429:G:H1'	378.34	0.44
40:L3:145:GLU:HA	40:L3:145:GLU:OE2	2.69	0.44
40:L3:384:LYS:O	86:L3:404:OHX:N6	54.90	0.44
42:L5:221:GLU:O	42:L5:224:LYS:HB2	2.17	0.44
42:L5:22:ARG:HG2	42:L5:28:THR:CB	2.47	0.44
48:M1:9:MET:O	48:M1:11:ASP:N	3.33	0.44
49:M3:93:ILE:HA	49:M3:93:ILE:HD13	1.55	0.44
50:M4:19:ARG:HA	50:M4:19:ARG:HD3	2.25	0.44
51:M5:31:ARG:HG3	51:M5:129:TYR:OH	2.93	0.44
56:N0:40:ARG:O	56:N0:43:TYR:HB3	2.18	0.44
58:N2:50:LEU:O	58:N2:53:ALA:N	2.49	0.44
63:N7:54:THR:HG22	63:N7:57:HIS:CE1	2.70	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:36:ILE:HD12	67:O1:59:ILE:HD11	1.97	0.44
71:O5:15:GLU:HA	71:O5:18:ALA:HB3	2.78	0.44
71:O5:73:LYS:HD2	71:O5:73:LYS:HA	3.64	0.44
36:1:817:A:C4	73:O7:13:ASN:O	2.71	0.44
73:O7:39:TYR:CG	73:O7:40:PRO:HA	2.52	0.44
78:Q2:83:LEU:HD22	78:Q2:84:THR:H	1.83	0.44
3:S1:103:MET:HB3	3:S1:215:VAL:CG1	2.64	0.44
5:S3:37:VAL:O	5:S3:38:GLU:HB3	2.18	0.44
7:S5:41:LYS:HB3	7:S5:41:LYS:HE2	2.61	0.44
8:S6:14:LYS:HD3	8:S6:16:PHE:CE1	2.52	0.44
8:S6:25:ARG:HG3	8:S6:28:PHE:CD1	2.52	0.44
10:S8:184:LEU:HD23	10:S8:184:LEU:O	2.17	0.44
17:C5:126:VAL:HG13	35:SM:71:ASN:HD21	1.82	0.44
36:1:2631:U:H4'	36:1:2697:A:H2	1.82	0.44
36:1:2656:A:C8	36:1:2658:G:C8	3.06	0.44
36:1:49:A:C2	36:1:279:U:H4'	2.52	0.44
36:1:3:U:C2	38:4:157:U:C2	3.05	0.44
36:1:873:C:O3'	36:1:875:G:H5'	2.18	0.44
1:2:1036:A:H2'	1:2:1037:C:O4'	2.17	0.44
1:2:1592:A:C6	1:2:1593:A:C6	3.05	0.44
1:2:919:A:H2'	1:2:920:U:C6	2.52	0.44
36:5:2189:U:C5	36:5:2190:U:C5	3.06	0.44
36:5:1017:C:H42	36:5:2671:A:P	2.40	0.44
36:5:3228:C:H4'	36:5:3229:G:O5'	2.17	0.44
36:5:3377:G:O6	86:5:4090:OHX:N1	2.50	0.44
86:5:4035:OHX:N5	86:5:4083:OHX:N2	2.65	0.44
86:5:4035:OHX:N3	86:5:4083:OHX:N6	2.65	0.44
36:5:3290:G:N7	86:5:4104:OHX:N5	2.65	0.44
86:5:3975:OHX:N1	86:5:4245:OHX:N1	2.66	0.44
54:M8:93:ILE:HG23	36:5:784:A:C6	150.02	0.44
36:5:927:C:H2'	36:5:928:C:H6	1.82	0.44
14:C2:43:ARG:HG3	1:6:1227:A:C2	461.91	0.44
1:6:1657:U:O5'	1:6:1658:G:H5''	2.17	0.44
1:6:485:A:C5	1:6:486:G:H1'	2.53	0.44
1:6:894:U:H2'	1:6:895:G:C8	2.52	0.44
37:7:80:G:H2'	37:7:81:U:O4'	2.18	0.44
13:C1:57:LYS:HB2	13:C1:110:HIS:CE1	2.52	0.44
13:C1:18:HIS:O	86:6:2126:OHX:N3	293.95	0.44
14:C2:138:GLU:OE1	14:C2:142:GLN:HB3	2.17	0.44
7:S5:76:ARG:HG3	18:C6:122:ARG:NH2	5.98	0.44
7:S5:27:THR:HG23	18:C6:28:LEU:HB2	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:6:THR:O	19:C7:9:VAL:HB	2.64	0.44
21:C9:16:ASN:HA	21:C9:56:LYS:HZ3	2.51	0.44
21:C9:86:ARG:HG3	21:C9:90:PRO:O	3.28	0.44
2:S0:62:ARG:NH2	23:D1:39:VAL:HG22	2.32	0.44
2:S0:36:TYR:OH	23:D1:66:ASP:OD2	2.24	0.44
24:D2:110:ILE:HG12	24:D2:126:LEU:HD11	2.96	0.44
24:D2:38:LEU:HA	24:D2:38:LEU:HD23	1.83	0.44
26:D4:121:THR:HG22	26:D4:123:LYS:H	5.67	0.44
26:D4:20:ARG:C	26:D4:21:LYS:HD2	2.38	0.44
26:D4:76:TYR:CE1	26:D4:86:GLU:HG2	3.20	0.44
40:L3:21:ARG:HG3	36:5:2991:A:OP1	209.83	0.44
40:L3:358:TRP:CH2	60:N4:15:PRO:HD2	2.53	0.44
41:L4:23:PRO:HB3	41:L4:258:LEU:HB3	2.13	0.44
45:L8:79:GLN:HG2	45:L8:80:TYR:N	2.37	0.44
47:M0:58:GLU:OE1	47:M0:161:GLY:HA3	2.27	0.44
47:M0:97:LEU:O	47:M0:123:HIS:N	2.48	0.44
51:M5:115:VAL:O	51:M5:159:ARG:NH1	3.49	0.44
52:M6:18:ARG:O	52:M6:22:VAL:HG13	2.17	0.44
52:M6:77:SER:O	52:M6:80:PHE:HB3	2.18	0.44
56:N0:23:LYS:HB3	56:N0:25:PHE:CE2	2.52	0.44
57:N1:84:TYR:O	57:N1:85:LEU:HD23	2.17	0.44
59:N3:13:ILE:CD1	59:N3:54:LEU:HB3	2.48	0.44
60:N4:4:GLU:HG2	60:N4:30:ARG:CD	2.47	0.44
62:N6:55:GLU:HB2	62:N6:108:LYS:HB2	1.99	0.44
62:N6:71:SER:OG	62:N6:72:SER:N	2.51	0.44
64:N8:79:TRP:CE3	64:N8:82:ILE:HD12	2.63	0.44
36:1:1408:G:P	68:O2:33:ARG:NH2	2.90	0.44
69:O3:2:ALA:HB1	69:O3:4:SER:O	5.94	0.44
2:S0:105:GLY:O	2:S0:112:THR:HG21	2.17	0.44
10:S8:54:LYS:HG2	10:S8:175:GLN:O	2.17	0.44
10:S8:184:LEU:HB3	10:S8:189:LEU:HD13	5.57	0.44
10:S8:34:ALA:HB2	10:S8:56:ARG:HG3	2.00	0.44
11:S9:105:LEU:O	11:S9:108:ARG:HG3	2.65	0.44
11:S9:59:LEU:O	11:S9:62:ARG:HB2	3.57	0.44
36:1:1144:U:H1'	36:1:1145:G:C8	2.53	0.44
36:1:155:G:H5''	36:1:156:G:C8	2.53	0.44
36:1:2339:C:P	59:N3:48:ARG:HG2	2.58	0.44
36:1:3333:G:N2	36:1:3369:G:O2'	2.51	0.44
36:1:439:C:H5'	36:1:440:A:C8	2.52	0.44
36:1:636:C:O2'	36:1:637:C:H3'	2.18	0.44
36:1:716:A:N6	64:N8:117:ARG:HG3	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:971:G:H2'	36:1:972:A:O4'	2.18	0.44
1:2:1497:U:O4	1:2:1511:U:C2	2.71	0.44
86:2:2090:OHX:N1	86:2:2131:OHX:N2	2.65	0.44
36:5:1208:U:O2	36:5:1208:U:H2'	2.16	0.44
36:5:1307:G:O2'	36:5:1308:A:OP2	2.30	0.44
36:5:138:U:H2'	36:5:139:G:H8	1.81	0.44
36:5:1686:U:O2	36:5:1688:U:H1'	2.18	0.44
63:N7:133:LYS:HE3	36:5:1807:G:OP1	197.62	0.44
36:5:199:A:C4	36:5:201:A:C8	3.06	0.44
36:5:2307:G:H4'	36:5:2308:C:OP2	2.18	0.44
36:5:2665:U:H4'	36:5:2666:C:OP1	2.18	0.44
36:5:2941:A:O5'	36:5:2943:G:H4'	2.17	0.44
36:5:2954:U:H6	36:5:2954:U:HO2'	1.61	0.44
36:5:668:G:OP1	86:5:4144:OHX:N1	2.51	0.44
86:5:4068:OHX:N1	86:5:4146:OHX:N4	2.66	0.44
36:5:599:C:H2'	36:5:600:G:O4'	2.17	0.44
1:6:1681:A:H2	1:6:1720:G:H21	1.64	0.44
1:6:17:C:H2'	1:6:18:C:C6	2.53	0.44
1:6:419:G:N7	86:6:2118:OHX:N1	2.65	0.44
1:6:488:G:H21	1:6:499:U:H3	1.65	0.44
32:E0:28:LYS:HD3	1:6:542:A:N1	428.85	0.44
1:6:583:C:OP1	86:6:2050:OHX:N6	2.51	0.44
1:6:879:G:H8	1:6:879:G:O5'	2.00	0.44
37:7:3:U:H2'	37:7:4:U:C6	2.52	0.44
13:C1:86:ILE:HD11	13:C1:125:VAL:HG11	3.76	0.44
17:C5:43:ARG:HG2	17:C5:47:ARG:HD2	2.00	0.44
18:C6:86:ALA:O	18:C6:90:VAL:HG13	2.18	0.44
19:C7:79:GLU:HA	19:C7:82:ASP:OD2	2.18	0.44
22:D0:83:GLU:HG3	22:D0:85:ARG:HE	1.82	0.44
23:D1:62:ARG:HH12	24:D2:20:THR:HB	2.67	0.44
26:D4:52:LYS:C	26:D4:54:ALA:H	2.21	0.44
28:D6:95:ARG:NH1	1:6:1796:C:O2'	341.28	0.44
7:S5:143:ARG:NH1	30:D8:57:MET:SD	2.87	0.44
30:D8:58:GLU:HB3	30:D8:61:ARG:HG3	7.33	0.44
1:2:1253:U:H4'	33:E1:143:LYS:N	2.33	0.44
40:L3:151:ILE:O	40:L3:155:ALA:HB3	2.40	0.44
40:L3:265:ALA:C	40:L3:266:ARG:HG2	2.33	0.44
40:L3:282:ILE:HD13	40:L3:322:ILE:HD12	2.00	0.44
40:L3:323:MET:CE	40:L3:356:LEU:HD11	2.88	0.44
41:L4:5:GLN:HA	41:L4:20:LEU:O	2.18	0.44
42:L5:211:LEU:HD23	42:L5:211:LEU:HA	1.68	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:108:LEU:CD2	44:L7:115:THR:HG23	2.48	0.44
44:L7:47:ARG:NH1	44:L7:183:ASP:OD2	2.45	0.44
45:L8:108:ARG:O	45:L8:112:GLU:N	2.75	0.44
45:L8:134:TYR:CD2	45:L8:190:VAL:HG11	4.65	0.44
46:L9:55:VAL:O	46:L9:68:LEU:HD21	2.71	0.44
48:M1:8:PRO:CG	48:M1:9:MET:H	3.18	0.44
49:M3:42:ARG:O	49:M3:46:ILE:HB	2.17	0.44
50:M4:113:THR:H	50:M4:116:GLU:HG3	3.60	0.44
52:M6:110:PRO:C	52:M6:112:TYR:N	2.85	0.44
55:M9:88:ARG:HG2	55:M9:88:ARG:H	3.59	0.44
56:N0:80:ARG:HB3	56:N0:122:HIS:HB2	2.00	0.44
65:N9:10:HIS:O	65:N9:12:GLN:NE2	2.51	0.44
68:O2:105:ARG:HD2	68:O2:125:ARG:HD3	2.72	0.44
36:1:1368:U:H5'	68:O2:43:ARG:NH1	2.32	0.44
69:O3:3:GLU:HG3	69:O3:4:SER:N	2.32	0.44
71:O5:10:ARG:HG3	71:O5:57:VAL:HG13	2.00	0.44
3:S1:104:ASP:OD1	3:S1:214:LYS:HG3	3.66	0.44
5:S3:215:GLU:HA	5:S3:216:PRO:HD2	2.18	0.44
8:S6:31:ARG:HH21	8:S6:68:LEU:CD1	4.12	0.44
9:S7:163:ASP:O	9:S7:166:LEU:HB2	2.17	0.44
35:SM:23:LYS:H	35:SM:23:LYS:CD	2.24	0.44
35:SM:48:ARG:HA	36:5:1019:G:OP1	334.16	0.44
36:1:1823:A:H2'	36:1:1824:U:C6	2.53	0.44
36:1:2197:C:C2	36:1:2241:U:C4	3.06	0.44
36:1:2273:G:N2	36:1:2311:G:H2'	2.32	0.44
36:1:26:A:C4	36:1:330:G:C8	3.06	0.44
36:1:1443:G:O6	86:1:3974:OHX:N3	2.50	0.44
36:1:409:A:OP2	86:1:4054:OHX:N6	2.50	0.44
36:1:677:A:OP1	54:M8:89:ASP:HB3	2.18	0.44
36:1:77:A:H5'	49:M3:100:ARG:CZ	2.48	0.44
1:2:1096:C:H2'	1:2:1096:C:O2	2.18	0.44
1:2:1622:G:H2'	1:2:1623:C:C6	2.52	0.44
86:2:2075:OHX:N4	86:2:2161:OHX:N1	2.65	0.44
1:2:577:G:H3'	1:2:577:G:C8	2.52	0.44
1:2:639:U:H5''	9:S7:101:LYS:HB2	1.99	0.44
38:4:7:U:H2'	38:4:8:C:C6	2.53	0.44
38:4:93:U:H2'	38:4:94:C:O4'	2.17	0.44
36:5:1027:A:N7	36:5:1029:G:C2	2.86	0.44
36:5:2425:G:H2'	36:5:2426:U:C6	2.52	0.44
36:5:2437:G:H2'	36:5:2438:A:O4'	2.17	0.44
36:5:3364:C:H2'	36:5:3365:U:H6	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1291:G:N3	1:6:1291:G:H5''	2.32	0.44
1:6:1435:G:H4'	1:6:1436:A:H5'	1.99	0.44
12:C0:25:LYS:NZ	1:6:1435:G:N7	419.18	0.44
1:6:1584:G:N2	1:6:1611:A:OP2	2.37	0.44
1:6:1762:A:O2'	1:6:1783:C:H5'	2.18	0.44
1:6:432:G:H2'	1:6:433:C:O4'	2.17	0.44
11:S9:164:PHE:CE2	1:6:512:A:H4'	452.86	0.44
18:C6:28:LEU:HG	18:C6:64:ASP:CG	2.38	0.44
19:C7:37:GLU:HG3	34:SR:150:TRP:HE1	1.82	0.44
21:C9:61:VAL:O	21:C9:65:ILE:HG13	2.17	0.44
21:C9:79:LEU:HD23	21:C9:80:TYR:CZ	3.09	0.44
23:D1:13:VAL:HA	23:D1:14:PRO:HD3	1.88	0.44
26:D4:88:THR:O	26:D4:92:VAL:HG22	4.31	0.44
27:D5:66:VAL:HG22	27:D5:71:ILE:HG22	5.89	0.44
28:D6:23:CYS:CB	28:D6:74:CYS:HB3	2.48	0.44
31:D9:6:VAL:HG23	31:D9:7:TRP:CE3	2.53	0.44
39:L2:15:ILE:HD12	39:L2:15:ILE:HA	4.70	0.44
36:1:2163:C:H4'	39:L2:7:ASN:O	2.18	0.44
40:L3:46:PHE:HD1	40:L3:208:VAL:HG21	2.44	0.44
41:L4:107:ARG:HG2	41:L4:108:LYS:N	2.32	0.44
41:L4:93:MET:O	36:5:1438:U:H1'	141.64	0.44
41:L4:98:ARG:HD2	41:L4:98:ARG:HH11	1.56	0.44
43:L6:26:ARG:HB3	43:L6:27:PRO:HD2	2.35	0.44
44:L7:228:SER:HA	44:L7:232:ARG:NH2	3.02	0.44
45:L8:53:PRO:HB2	45:L8:55:TYR:CE2	2.81	0.44
36:1:36:C:OP2	51:M5:83:LYS:HE2	2.17	0.44
51:M5:66:VAL:CG2	51:M5:98:LEU:HD12	2.48	0.44
52:M6:48:PHE:CE1	52:M6:52:LEU:HD11	3.16	0.44
54:M8:69:ARG:HG3	36:5:784:A:N7	158.43	0.44
55:M9:20:ARG:HG2	36:5:1875:G:OP2	137.05	0.44
56:N0:13:ARG:HB3	56:N0:13:ARG:HE	1.30	0.44
47:M0:169:LYS:HG2	57:N1:159:PHE:HA	1.99	0.44
42:L5:67:SER:HB3	57:N1:31:LEU:HD11	1.99	0.44
57:N1:36:VAL:HG22	57:N1:64:VAL:O	4.97	0.44
61:N5:34:LEU:HD22	61:N5:35:PRO:O	2.42	0.44
70:O4:38:LEU:H	70:O4:38:LEU:HD12	3.08	0.44
2:S0:139:VAL:O	2:S0:141:ILE:HG13	2.88	0.44
3:S1:160:HIS:O	3:S1:164:ILE:HG13	2.18	0.44
4:S2:137:ILE:HD12	4:S2:215:PHE:CZ	5.25	0.44
4:S2:90:THR:C	4:S2:92:ALA:N	2.71	0.44
5:S3:21:LEU:HD23	5:S3:21:LEU:HA	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:29:LEU:HD22	5:S3:58:VAL:HG22	3.12	0.44
6:S4:36:HIS:CG	6:S4:85:GLY:HA3	2.53	0.44
7:S5:43:PHE:CZ	7:S5:90:ILE:HG21	2.63	0.44
8:S6:20:ASP:O	8:S6:21:GLU:C	2.69	0.44
9:S7:21:ALA:O	9:S7:25:VAL:HG23	4.02	0.44
10:S8:56:ARG:NH2	1:6:332:U:OP2	287.13	0.44
11:S9:134:ILE:HG12	11:S9:135:ALA:N	2.31	0.44
20:C8:145:ARG:CG	35:SM:68:ARG:HH22	3.79	0.44
34:SR:173:GLY:O	34:SR:199:ILE:HG13	2.33	0.44
36:1:1492:G:OP1	73:O7:14:LYS:NZ	2.48	0.44
36:1:2255:A:H5'	36:1:2261:G:N2	2.32	0.44
36:1:2554:A:C8	36:1:2554:A:H5'	2.53	0.44
36:1:993:G:N3	36:1:2637:A:H2'	2.32	0.44
36:1:282:G:H3'	36:1:282:G:C8	2.52	0.44
36:1:590:G:C2	36:1:610:G:H2'	2.52	0.44
1:2:1164:G:OP1	7:S5:166:ARG:NH2	2.51	0.44
1:2:1167:G:H2'	1:2:1168:U:C6	2.53	0.44
1:2:1437:U:H5'	5:S3:176:LEU:HD23	2.00	0.44
1:2:1524:A:C6	1:2:1525:A:C6	3.06	0.44
1:2:833:U:OP2	86:2:2141:OHX:N4	2.51	0.44
1:2:39:A:HO2'	1:2:40:A:P	2.38	0.44
1:2:67:A:H3'	1:2:69:G:C8	2.52	0.44
1:2:887:A:H2'	1:2:888:U:C6	2.52	0.44
1:2:911:U:O2'	1:2:915:A:H1'	2.18	0.44
1:2:947:U:H2'	1:2:948:G:C8	2.52	0.44
37:3:42:A:C5	37:3:43:U:C5	3.06	0.44
36:5:1080:A:O2'	36:5:1081:U:H5'	2.18	0.44
36:5:1239:C:H3'	36:5:1240:A:C8	2.53	0.44
36:5:826:G:OP1	36:5:1590:G:H4'	2.18	0.44
36:5:1729:A:H4'	36:5:1730:G:OP2	2.18	0.44
40:L3:247:ARG:HD3	36:5:1888:U:OP1	209.77	0.44
39:L2:224:THR:HG23	36:5:2202:C:O4'	218.95	0.44
36:5:2693:C:H1'	36:5:2706:G:H5''	1.99	0.44
36:5:2993:G:C6	36:5:3142:A:C4	3.05	0.44
36:5:1192:C:C5	86:5:4094:OHX:N6	2.86	0.44
36:5:750:G:H2'	36:5:751:A:H8	1.83	0.44
73:O7:13:ASN:O	36:5:817:A:C4	139.81	0.44
1:6:217:A:HO2'	1:6:218:A:H8	1.64	0.44
1:6:555:A:C8	1:6:555:A:H3'	2.53	0.44
1:6:647:G:H22	1:6:687:G:N2	2.15	0.44
1:6:901:G:N1	1:6:902:G:C6	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:3:MET:SD	12:C0:8:ARG:NH1	2.91	0.44
18:C6:14:LYS:HE2	1:6:1584:G:N7	395.43	0.44
22:D0:58:LEU:HD12	22:D0:88:LYS:HD2	2.00	0.44
27:D5:89:ILE:HB	27:D5:101:TYR:HB3	1.99	0.44
28:D6:90:GLU:CD	28:D6:90:GLU:H	3.04	0.44
24:D2:24:GLN:OE1	29:D7:4:VAL:HA	2.17	0.44
39:L2:34:TYR:O	39:L2:35:ALA:C	2.55	0.44
40:L3:117:ARG:HA	40:L3:175:LYS:HD3	3.21	0.44
40:L3:375:GLU:O	40:L3:378:ALA:HB3	2.18	0.44
41:L4:131:VAL:CG1	41:L4:134:LEU:HG	2.48	0.44
41:L4:193:LYS:HE3	41:L4:193:LYS:HB2	2.68	0.44
41:L4:324:LEU:O	41:L4:327:LEU:O	2.66	0.44
42:L5:111:GLN:CA	42:L5:116:ASP:HB3	4.32	0.44
42:L5:37:VAL:HG11	57:N1:31:LEU:HD21	2.00	0.44
42:L5:57:ASN:N	42:L5:57:ASN:OD1	4.08	0.44
43:L6:136:GLU:O	43:L6:139:LYS:N	2.51	0.44
44:L7:24:GLU:O	44:L7:26:VAL:N	2.51	0.44
49:M3:164:GLU:OE2	49:M3:164:GLU:HA	4.01	0.44
49:M3:9:ILE:HD13	64:N8:52:TYR:HE1	1.81	0.44
51:M5:21:PHE:HD2	51:M5:22:LEU:HD12	2.32	0.44
57:N1:64:VAL:HG12	57:N1:66:ASN:H	2.09	0.44
59:N3:109:MET:HB3	59:N3:109:MET:HE3	1.84	0.44
59:N3:17:LEU:HD21	59:N3:98:ASN:CG	2.43	0.44
60:N4:2:LYS:HG3	60:N4:3:VAL:O	2.18	0.44
63:N7:15:ARG:HG3	63:N7:15:ARG:HH11	1.83	0.44
36:1:716:A:C6	64:N8:117:ARG:HG3	2.53	0.44
65:N9:14:ARG:CZ	65:N9:18:ARG:HD2	2.47	0.44
65:N9:38:LYS:HG3	65:N9:38:LYS:O	4.43	0.44
65:N9:59:LYS:HB2	65:N9:59:LYS:HE3	4.73	0.44
73:O7:48:ASN:HA	73:O7:54:LYS:HZ1	2.54	0.44
2:S0:188:LEU:HB3	2:S0:189:VAL:H	1.58	0.44
4:S2:106:ASP:OD1	4:S2:108:ASN:N	2.50	0.44
4:S2:218:ILE:H	4:S2:218:ILE:HG13	2.24	0.44
5:S3:168:ILE:HA	5:S3:188:ILE:O	2.54	0.44
5:S3:80:ALA:O	5:S3:83:THR:HG23	2.18	0.44
6:S4:13:ALA:O	6:S4:39:ARG:NH2	2.51	0.44
8:S6:24:ILE:O	8:S6:26:VAL:N	2.73	0.44
9:S7:39:ARG:N	9:S7:40:PRO:HD2	2.32	0.44
10:S8:54:LYS:HD3	10:S8:175:GLN:OE1	2.18	0.44
11:S9:101:VAL:HG23	11:S9:102:GLU:OE2	2.17	0.44
11:S9:121:SER:HB3	11:S9:124:HIS:CB	4.14	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:243:LEU:HD23	34:SR:254:ALA:HA	2.00	0.44
36:1:1317:A:O2'	36:1:1318:A:H3'	2.18	0.43
36:1:1470:U:H2'	36:1:1471:U:H6	1.83	0.43
36:1:1481:A:H2'	36:1:1858:A:H1'	1.99	0.43
36:1:1734:G:H2'	36:1:1735:G:O4'	2.18	0.43
36:1:1952:G:H5'	36:1:1953:G:OP2	2.17	0.43
36:1:2667:A:C2	36:1:2668:U:H1'	2.53	0.43
36:1:3174:A:H2'	36:1:3175:U:H5'	1.99	0.43
36:1:3292:A:C6	36:1:3293:U:N3	2.86	0.43
36:1:3296:A:H2'	36:1:3297:U:O4'	2.18	0.43
36:1:385:A:H2'	36:1:386:A:H8	1.81	0.43
86:1:4029:OHX:N2	86:1:4042:OHX:N5	2.65	0.43
36:1:402:A:C6	53:M7:21:TYR:CE2	3.05	0.43
86:1:4083:OHX:N2	86:1:4153:OHX:N4	2.66	0.43
36:1:727:G:H2'	36:1:728:G:O4'	2.17	0.43
36:1:981:U:HO2'	36:1:982:C:P	2.41	0.43
1:2:1184:A:H2	1:2:1454:G:N3	2.16	0.43
1:2:1266:U:H2'	1:2:1267:G:C8	2.52	0.43
1:2:274:G:N1	1:2:275:C:O2	2.51	0.43
1:2:445:A:H1'	1:2:525:A:OP1	2.18	0.43
1:2:936:G:O6	28:D6:15:ARG:HG3	2.17	0.43
1:2:959:U:H5'	29:D7:28:PRO:HB3	1.99	0.43
38:4:133:G:O6	86:4:228:OHX:N5	2.51	0.43
38:4:85:G:C8	38:4:85:G:C3'	3.01	0.43
36:5:1270:A:H3'	36:5:1271:A:H8	1.83	0.43
36:5:1947:G:H5''	36:5:1948:G:OP2	2.18	0.43
36:5:25:U:O4	86:5:3909:OHX:N5	2.51	0.43
36:5:2726:C:O2'	36:5:2727:A:H2'	2.18	0.43
36:5:2986:U:H2'	36:5:2987:A:C8	2.53	0.43
36:5:3166:C:H42	36:5:3284:G:H1	1.66	0.43
36:5:3289:G:H2'	36:5:3290:G:O4'	2.18	0.43
36:5:528:U:H2'	36:5:529:A:H8	1.83	0.43
1:6:1063:U:C2	1:6:1064:G:C8	3.06	0.43
1:6:1159:C:H5''	1:6:1160:A:H5'	2.00	0.43
1:6:1535:U:HO2'	1:6:1536:G:P	2.41	0.43
1:6:292:U:H2'	1:6:293:U:C6	2.53	0.43
1:6:350:U:H5''	1:6:352:A:H5'	1.99	0.43
1:6:75:U:C2	1:6:76:A:C8	3.06	0.43
1:6:961:U:H2'	1:6:962:C:H6	1.79	0.43
12:C0:31:LYS:HA	12:C0:37:THR:O	2.22	0.43
13:C1:57:LYS:HD2	13:C1:131:ILE:HG23	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:28:LEU:O	18:C6:29:ILE:HG13	4.05	0.43
2:S0:50:VAL:HG22	19:C7:109:LEU:HD21	1.99	0.43
21:C9:135:ILE:HD12	21:C9:136:ALA:N	2.33	0.43
23:D1:69:LEU:HD23	23:D1:69:LEU:HA	2.31	0.43
16:C4:111:ARG:NH2	28:D6:57:SER:O	2.47	0.43
40:L3:205:VAL:C	40:L3:207:SER:N	2.85	0.43
40:L3:306:THR:HA	40:L3:307:PRO:HD3	1.88	0.43
41:L4:112:LYS:O	36:5:790:U:H4'	122.27	0.43
41:L4:316:ASN:C	41:L4:317:PRO:O	2.56	0.43
41:L4:330:TYR:CE2	44:L7:49:ALA:HA	2.53	0.43
42:L5:178:ASN:HA	42:L5:183:TRP:CD1	3.38	0.43
45:L8:90:THR:HG21	45:L8:152:LEU:HD21	2.00	0.43
46:L9:92:TYR:N	46:L9:92:TYR:CD1	2.84	0.43
47:M0:99:ILE:HG22	47:M0:123:HIS:HB2	1.99	0.43
47:M0:24:ARG:H	47:M0:24:ARG:HG3	3.54	0.43
47:M0:62:SER:O	47:M0:65:LEU:HB2	2.79	0.43
48:M1:141:ARG:O	48:M1:145:LYS:HG3	3.03	0.43
48:M1:96:PHE:CE1	48:M1:160:VAL:HG23	4.19	0.43
52:M6:176:LYS:O	52:M6:178:VAL:N	3.63	0.43
52:M6:54:TYR:O	52:M6:57:PHE:HB3	2.38	0.43
54:M8:44:PHE:CD2	54:M8:134:GLY:HA3	2.53	0.43
56:N0:137:ARG:HD3	36:5:1213:G:OP1	324.47	0.43
56:N0:45:LEU:HD22	56:N0:45:LEU:HA	2.21	0.43
56:N0:96:ASP:OD1	56:N0:97:VAL:HG23	2.17	0.43
58:N2:11:ILE:O	58:N2:68:THR:HG22	6.46	0.43
58:N2:19:VAL:O	58:N2:22:PRO:HD2	2.17	0.43
62:N6:55:GLU:OE2	62:N6:69:LYS:HB2	6.99	0.43
63:N7:115:LYS:O	63:N7:119:GLU:HG3	2.18	0.43
64:N8:36:GLY:HA3	64:N8:40:HIS:CE1	2.55	0.43
66:O0:30:THR:HB	66:O0:91:SER:HB2	1.99	0.43
66:O0:34:LEU:HD12	66:O0:34:LEU:HA	2.09	0.43
67:O1:10:ARG:HG2	67:O1:108:VAL:HG22	2.00	0.43
68:O2:20:HIS:HB2	68:O2:50:ILE:HD11	2.58	0.43
68:O2:35:GLN:HB3	68:O2:43:ARG:HB2	2.22	0.43
68:O2:4:LEU:HD23	68:O2:91:THR:HG23	2.55	0.43
70:O4:58:ARG:HG2	70:O4:58:ARG:HH11	1.83	0.43
62:N6:127:GLU:O	71:O5:68:GLN:HG3	52.24	0.43
72:O6:54:GLU:OE2	72:O6:86:LYS:NZ	2.51	0.43
2:S0:23:HIS:CE1	2:S0:24:LEU:HD13	3.78	0.43
4:S2:170:ILE:O	4:S2:196:VAL:HG23	2.33	0.43
4:S2:61:LEU:HA	4:S2:61:LEU:HD23	1.68	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:41:LEU:HD12	4:S2:68:ILE:HD13	2.00	0.43
5:S3:22:ASN:O	5:S3:26:THR:HB	2.18	0.43
1:2:756:A:H1'	6:S4:12:LEU:O	2.17	0.43
7:S5:214:LYS:HA	7:S5:217:LEU:HD12	3.14	0.43
8:S6:27:PHE:O	8:S6:30:LYS:HG3	2.21	0.43
8:S6:46:LYS:HD2	8:S6:118:GLU:OE2	5.23	0.43
34:SR:195:HIS:NE2	34:SR:213:SER:O	2.46	0.43
36:1:1109:U:H2'	36:1:1110:U:C6	2.53	0.43
36:1:1481:A:H2'	36:1:1481:A:N3	2.34	0.43
36:1:1626:U:H2'	36:1:1627:U:C6	2.53	0.43
36:1:1694:U:H2'	36:1:1695:U:C6	2.53	0.43
36:1:2591:A:O2'	36:1:2592:G:H5'	2.18	0.43
36:1:2616:C:H2'	36:1:2617:U:H5'	2.00	0.43
36:1:2656:A:C4	36:1:2658:G:N7	2.86	0.43
36:1:2714:G:H5''	36:1:2714:G:C8	2.53	0.43
36:1:2881:C:H2'	36:1:2882:U:C6	2.53	0.43
86:1:4083:OHX:N6	86:1:4153:OHX:N4	2.67	0.43
36:1:796:U:H2'	36:1:797:U:C6	2.54	0.43
1:2:1053:G:H2'	1:2:1054:U:H6	1.81	0.43
1:2:1134:C:H2'	1:2:1135:U:O4'	2.18	0.43
1:2:151:G:N2	1:2:164:A:C5	2.86	0.43
1:2:901:G:C6	1:2:902:G:C6	3.06	0.43
36:5:1263:A:N3	36:5:1263:A:H2'	2.32	0.43
36:5:1415:U:H2'	36:5:1416:C:O4'	2.18	0.43
36:5:1614:C:H2'	36:5:1615:C:H6	1.84	0.43
36:5:1703:U:N3	36:5:1740:U:O2	2.51	0.43
36:5:1771:C:H2'	36:5:1772:U:O4'	2.18	0.43
36:5:2397:A:H8	36:5:2941:A:N1	2.15	0.43
70:O4:102:LYS:NZ	36:5:2552:C:OP1	230.24	0.43
36:5:2767:U:H2'	36:5:2768:U:C6	2.53	0.43
51:M5:93:LYS:HG3	36:5:289:A:C2	145.79	0.43
86:5:4191:OHX:N5	86:5:4193:OHX:N6	2.65	0.43
36:5:945:C:H2'	36:5:946:U:O4'	2.18	0.43
1:6:1773:C:H2'	1:6:1774:G:H8	1.84	0.43
10:S8:33:PRO:HA	1:6:331:A:H5'	276.85	0.43
1:6:454:U:OP1	1:6:455:C:N4	2.49	0.43
1:6:829:A:O2'	1:6:830:U:O5'	2.34	0.43
15:C3:15:ALA:O	1:6:959:U:H5''	350.82	0.43
12:C0:34:GLU:O	12:C0:35:ILE:HB	4.41	0.43
16:C4:117:ASP:OD1	16:C4:119:THR:HG23	2.18	0.43
16:C4:136:ARG:H	16:C4:136:ARG:HG2	1.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:6:THR:OG1	19:C7:7:LYS:N	2.51	0.43
20:C8:84:TRP:HA	20:C8:89:GLN:OE1	2.18	0.43
21:C9:11:ALA:HA	21:C9:63:ARG:HH21	1.83	0.43
21:C9:94:ILE:HA	21:C9:94:ILE:HD13	3.52	0.43
28:D6:28:LYS:HG2	28:D6:29:SER:O	2.40	0.43
28:D6:60:PRO:O	28:D6:62:TYR:N	2.51	0.43
32:E0:28:LYS:HE2	1:6:542:A:H61	430.33	0.43
33:E1:121:CYS:HB2	33:E1:132:LEU:HD21	3.04	0.43
40:L3:332:ARG:O	40:L3:333:LYS:HB2	2.29	0.43
40:L3:61:ASP:OD1	40:L3:68:HIS:HE1	2.38	0.43
41:L4:182:LEU:HA	41:L4:182:LEU:HD12	2.03	0.43
42:L5:219:PHE:HD2	42:L5:223:PHE:CD1	2.36	0.43
43:L6:131:LYS:HG2	43:L6:133:GLU:HB3	2.00	0.43
44:L7:96:PRO:O	44:L7:100:ARG:HB2	2.18	0.43
47:M0:52:LEU:HA	47:M0:52:LEU:HD23	1.83	0.43
49:M3:48:PRO:HB2	71:O5:117:ALA:HB2	2.18	0.43
49:M3:67:ARG:HG3	49:M3:67:ARG:H	1.49	0.43
52:M6:34:VAL:HG11	52:M6:112:TYR:CE1	2.54	0.43
36:1:3277:U:H2'	53:M7:175:ARG:HH22	1.82	0.43
53:M7:36:ILE:HD11	53:M7:95:LEU:HD11	2.00	0.43
54:M8:162:ALA:HA	54:M8:163:PRO:HD2	1.83	0.43
59:N3:120:LYS:H	59:N3:137:VAL:HG21	1.83	0.43
59:N3:87:ARG:HB2	59:N3:89:ASP:OD1	2.22	0.43
59:N3:92:PHE:CE1	36:5:3051:U:H1'	245.91	0.43
62:N6:84:LYS:O	62:N6:86:THR:HG23	3.17	0.43
64:N8:127:ALA:O	64:N8:148:ILE:HG12	2.49	0.43
64:N8:6:THR:HG23	64:N8:8:THR:H	2.15	0.43
64:N8:88:ASP:O	64:N8:92:LYS:HG2	2.18	0.43
71:O5:115:LYS:HB2	71:O5:115:LYS:NZ	2.33	0.43
71:O5:4:VAL:HG13	71:O5:50:SER:OG	2.17	0.43
74:O8:77:ARG:O	74:O8:78:LEU:HB2	2.18	0.43
3:S1:171:ILE:O	3:S1:175:GLU:HG2	2.18	0.43
3:S1:172:LEU:HA	3:S1:172:LEU:HD23	1.71	0.43
6:S4:124:GLY:HA2	6:S4:142:HIS:HE1	1.83	0.43
6:S4:207:LEU:HD23	6:S4:207:LEU:HA	2.22	0.43
6:S4:95:THR:HG22	26:D4:16:PRO:HB2	2.00	0.43
7:S5:43:PHE:CG	7:S5:44:ASN:N	2.95	0.43
7:S5:41:LYS:O	7:S5:67:PRO:HB2	2.18	0.43
8:S6:77:LEU:HA	8:S6:77:LEU:HD23	2.01	0.43
9:S7:79:ARG:HB2	9:S7:79:ARG:HH11	2.81	0.43
11:S9:54:ARG:HB3	11:S9:54:ARG:HE	2.03	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:92:LYS:O	11:S9:95:TYR:N	4.95	0.43
17:C5:127:ARG:HH12	35:SM:66:ALA:CB	4.36	0.43
34:SR:126:SER:OG	34:SR:127:ARG:N	2.51	0.43
36:1:1120:A:H2'	36:1:1121:U:C6	2.53	0.43
36:1:1230:G:H1	36:1:1279:C:N4	2.11	0.43
36:1:1362:G:H21	44:L7:158:LYS:HZ1	1.65	0.43
36:1:1602:A:C6	36:1:1603:A:C6	3.06	0.43
36:1:2369:G:H2'	36:1:2370:G:C8	2.52	0.43
36:1:3166:C:H2'	36:1:3167:A:O4'	2.18	0.43
36:1:3393:U:H2'	36:1:3394:U:C6	2.53	0.43
86:1:3956:OHX:N1	86:1:4139:OHX:N3	2.66	0.43
1:2:1091:A:H5''	1:2:1091:A:N3	2.33	0.43
1:2:840:U:O2'	1:2:841:U:H5''	2.18	0.43
1:2:861:U:H5'	1:2:862:A:OP2	2.19	0.43
1:2:918:U:H2'	1:2:919:A:C8	2.54	0.43
1:2:929:A:N6	1:2:930:A:N1	2.66	0.43
37:3:113:C:C4	37:3:114:U:C4	3.07	0.43
36:5:115:A:H2'	36:5:265:A:N3	2.33	0.43
36:5:1234:G:H2'	36:5:1235:U:C5	2.53	0.43
36:5:1241:U:O2'	36:5:1242:G:O5'	2.31	0.43
55:M9:9:ARG:NH2	36:5:1602:A:O3'	108.04	0.43
36:5:1610:G:C6	36:5:1611:G:C6	3.06	0.43
36:5:856:G:C6	36:5:857:G:N1	2.86	0.43
36:5:978:G:N2	36:5:1104:G:C4	2.87	0.43
1:6:1062:A:H3'	1:6:1063:U:C6	2.53	0.43
1:6:1333:C:H2'	1:6:1334:U:C6	2.53	0.43
1:6:1469:A:H4'	1:6:1541:G:H4'	2.00	0.43
1:6:1699:G:H2'	1:6:1700:C:H5'	2.00	0.43
1:6:484:C:H42	1:6:503:G:H1	1.65	0.43
1:6:576:G:H4'	1:6:580:A:C4	2.53	0.43
37:7:11:A:O2'	37:7:13:A:H2'	2.19	0.43
13:C1:5:LEU:HA	13:C1:5:LEU:HD23	1.78	0.43
15:C3:87:ASP:HB3	15:C3:125:LEU:HD11	4.66	0.43
16:C4:37:GLU:HA	1:6:895:G:O2'	258.97	0.43
18:C6:82:ARG:NH1	18:C6:114:ARG:HB2	2.64	0.43
19:C7:23:LYS:HB3	19:C7:34:LEU:HD11	2.01	0.43
22:D0:100:VAL:O	22:D0:104:THR:HG23	2.27	0.43
24:D2:106:THR:HG21	24:D2:121:VAL:HG23	4.13	0.43
24:D2:10:ALA:HB1	24:D2:27:ILE:HD12	1.99	0.43
25:D3:130:VAL:HG21	25:D3:143:PRO:HD3	2.01	0.43
28:D6:44:ILE:HD13	28:D6:65:PRO:HG2	4.22	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:42:ARG:HH11	30:D8:56:LEU:HD13	1.83	0.43
31:D9:16:LYS:H	31:D9:16:LYS:HG2	2.31	0.43
33:E1:83:LYS:O	33:E1:84:VAL:HG12	2.18	0.43
43:L6:8:LYS:HD3	43:L6:8:LYS:HA	4.54	0.43
36:1:86:G:N7	49:M3:13:HIS:ND1	2.65	0.43
49:M3:178:LYS:HD3	49:M3:179:PHE:CE2	2.53	0.43
49:M3:25:HIS:HD2	51:M5:199:LEU:O	2.00	0.43
51:M5:85:THR:HG21	36:5:45:A:OP1	156.56	0.43
52:M6:18:ARG:HA	36:5:1181:U:O4	266.73	0.43
53:M7:132:ALA:O	53:M7:133:HIS:HB2	2.30	0.43
54:M8:29:LEU:HA	54:M8:29:LEU:HD23	2.33	0.43
55:M9:102:LEU:HD22	55:M9:138:LEU:HD12	2.00	0.43
58:N2:90:ARG:HG2	58:N2:90:ARG:H	2.58	0.43
59:N3:13:ILE:HD13	59:N3:13:ILE:HG21	1.89	0.43
63:N7:46:ILE:HD11	63:N7:49:TYR:HA	2.07	0.43
65:N9:17:HIS:O	65:N9:20:GLY:HA2	2.18	0.43
66:O0:103:THR:HB	66:O0:104:LEU:H	1.54	0.43
68:O2:115:LEU:HA	68:O2:115:LEU:HD23	1.89	0.43
70:O4:65:VAL:HG13	70:O4:69:HIS:ND1	2.33	0.43
71:O5:89:ARG:HD2	38:8:38:U:C4	68.47	0.43
72:O6:56:ARG:O	72:O6:60:LEU:HD22	5.54	0.43
76:Q0:92:ASP:O	76:Q0:105:PRO:HG3	2.17	0.43
2:S0:32:HIS:ND1	2:S0:32:HIS:C	2.72	0.43
3:S1:107:THR:OG1	3:S1:108:ASP:N	2.82	0.43
3:S1:48:VAL:CG1	3:S1:61:LEU:HD21	2.48	0.43
4:S2:161:LYS:HA	4:S2:165:VAL:O	2.18	0.43
1:2:581:U:OP2	5:S3:143:ARG:NH1	2.51	0.43
6:S4:185:GLY:N	6:S4:189:LEU:HD13	2.33	0.43
6:S4:42:LEU:HD23	6:S4:42:LEU:HA	1.86	0.43
7:S5:160:VAL:HG12	30:D8:43:ASN:HB3	2.44	0.43
11:S9:134:ILE:HD13	11:S9:141:VAL:O	3.18	0.43
11:S9:25:ASP:O	11:S9:29:LYS:HD2	4.04	0.43
35:SM:34:LYS:NZ	36:1:2692:A:O2'	2.51	0.43
36:1:1307:G:C4	52:M6:60:LYS:HD3	2.54	0.43
36:1:1657:C:C5	36:1:1797:A:H5''	2.52	0.43
36:1:1949:G:H2'	36:1:1950:U:C6	2.53	0.43
36:1:2135:U:O2'	36:1:2136:C:H5'	2.18	0.43
36:1:2395:G:H5''	40:L3:255:TRP:CD1	2.53	0.43
36:1:2424:A:H2'	36:1:2425:G:O4'	2.19	0.43
36:1:3015:G:C5	36:1:3040:A:C2	3.07	0.43
36:1:3055:U:C2	36:1:3085:G:N1	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1317:A:OP1	86:1:4062:OHX:N2	2.52	0.43
1:2:1151:A:H2'	1:2:1152:A:H8	1.82	0.43
1:2:1339:C:O2'	1:2:1341:A:C8	2.69	0.43
86:2:2075:OHX:N4	86:2:2161:OHX:N2	2.66	0.43
1:2:886:U:H2'	1:2:887:A:O4'	2.18	0.43
37:3:55:A:H2'	37:3:56:A:O4'	2.19	0.43
38:4:126:A:O2'	38:4:129:C:N4	2.51	0.43
36:5:1184:A:OP2	86:5:4100:OHX:N6	2.51	0.43
36:5:1507:G:N3	36:5:1507:G:H5'	2.33	0.43
36:5:1597:C:C4'	36:5:1696:A:H1'	2.49	0.43
36:5:2573:G:H5'	36:5:2574:G:OP2	2.19	0.43
36:5:2950:G:C5	36:5:2979:U:C4	3.07	0.43
36:5:3253:G:N7	86:5:4241:OHX:N1	2.66	0.43
86:5:4037:OHX:N6	86:5:4240:OHX:N5	2.65	0.43
86:5:4036:OHX:N1	86:5:4121:OHX:N3	2.65	0.43
86:5:4205:OHX:N6	86:8:226:OHX:N3	2.66	0.43
36:5:612:U:H2'	36:5:613:G:H8	1.83	0.43
36:5:824:C:H2'	36:5:825:U:C6	2.53	0.43
1:6:15:U:C4	1:6:16:G:C5	3.06	0.43
1:6:1381:U:OP1	86:6:2178:OHX:N6	2.52	0.43
12:C0:45:ALA:O	12:C0:49:LEU:HD23	2.96	0.43
16:C4:25:ASP:H	16:C4:55:SER:HB3	1.84	0.43
20:C8:80:LYS:HA	20:C8:80:LYS:HD2	1.74	0.43
21:C9:4:VAL:HG21	21:C9:140:LEU:CD1	2.48	0.43
26:D4:3:ASP:O	26:D4:5:VAL:N	2.50	0.43
31:D9:44:ARG:NH2	1:6:1280:C:H5'	399.51	0.43
33:E1:109:ASP:O	33:E1:111:GLU:N	2.51	0.43
40:L3:218:ILE:CG1	40:L3:276:THR:HG23	2.55	0.43
40:L3:250:ALA:HB3	36:5:2880:U:H1'	224.03	0.43
42:L5:102:GLY:O	42:L5:105:ILE:HG22	2.34	0.43
43:L6:154:LEU:HA	43:L6:154:LEU:HD23	1.83	0.43
44:L7:147:LEU:HD23	44:L7:147:LEU:HA	1.52	0.43
41:L4:316:ASN:ND2	44:L7:150:LYS:HG3	2.34	0.43
46:L9:110:LYS:HB2	46:L9:110:LYS:HE3	4.71	0.43
48:M1:78:GLU:O	48:M1:82:ARG:HG3	5.01	0.43
48:M1:82:ARG:HB3	48:M1:82:ARG:HH11	4.69	0.43
49:M3:64:LYS:HD2	64:N8:69:TRP:CD1	2.53	0.43
53:M7:94:LEU:HA	53:M7:94:LEU:HD12	1.91	0.43
55:M9:77:GLY:HA3	36:5:1939:G:OP1	218.65	0.43
44:L7:74:SER:HB3	57:N1:141:VAL:O	2.18	0.43
62:N6:39:LEU:HD21	62:N6:107:THR:O	2.98	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1075:A:C6	65:N9:45:HIS:CE1	3.06	0.43
67:O1:19:ARG:HD3	67:O1:35:GLU:HG2	2.00	0.43
68:O2:105:ARG:HE	68:O2:124:GLY:HA3	1.84	0.43
68:O2:17:PHE:CD1	68:O2:53:PRO:HD3	2.72	0.43
70:O4:20:ILE:HA	70:O4:20:ILE:HD13	1.66	0.43
72:O6:86:LYS:HD3	72:O6:86:LYS:HA	1.63	0.43
74:O8:66:ILE:HG12	74:O8:66:ILE:H	3.28	0.43
78:Q2:65:THR:OG1	78:Q2:87:ARG:HD3	2.19	0.43
3:S1:183:GLN:O	3:S1:187:LYS:N	2.51	0.43
3:S1:41:ARG:O	3:S1:43:VAL:HG23	2.19	0.43
4:S2:139:ILE:CG2	4:S2:141:ARG:HG2	2.48	0.43
4:S2:157:LYS:HG2	4:S2:170:ILE:HG23	3.98	0.43
5:S3:133:GLY:HA2	5:S3:155:GLY:HA3	3.16	0.43
7:S5:125:THR:H	27:D5:58:ARG:NH1	2.15	0.43
8:S6:48:TYR:CD2	8:S6:117:GLY:HA3	2.71	0.43
34:SR:152:SER:HB2	34:SR:172:ALA:HB3	5.12	0.43
34:SR:238:ASP:N	34:SR:238:ASP:OD1	2.50	0.43
36:1:1286:A:N3	36:1:1287:A:H1'	2.33	0.43
36:1:651:G:O2'	36:1:1435:A:OP1	2.29	0.43
36:1:1804:A:H2'	36:1:1805:C:C6	2.53	0.43
36:1:1815:U:O2'	36:1:1816:A:P	2.77	0.43
36:1:3271:G:OP1	53:M7:171:ARG:HG2	2.18	0.43
36:1:436:A:H8	36:1:436:A:O5'	2.01	0.43
36:1:840:C:O4'	55:M9:128:LYS:HE2	2.19	0.43
1:2:1341:A:H1'	34:SR:65:SER:OG	2.18	0.43
1:2:1483:A:C6	1:2:1484:G:C6	3.06	0.43
1:2:1579:U:H2'	1:2:1580:C:H6	1.83	0.43
1:2:159:U:H5'	26:D4:117:LYS:HB3	2.01	0.43
36:5:174:C:H2'	36:5:175:C:H6	1.81	0.43
36:5:1657:C:N4	36:5:1798:A:OP2	2.42	0.43
36:5:1863:G:N1	36:5:1866:C:OP2	2.34	0.43
36:5:284:A:H4'	36:5:285:A:C2	2.54	0.43
36:5:2888:U:C6	36:5:2911:A:N6	2.87	0.43
36:5:2962:U:OP1	86:5:3980:OHX:N4	2.51	0.43
51:M5:172:ARG:NH1	36:5:30:G:P	107.04	0.43
43:L6:69:PHE:CE1	36:5:3268:A:C4	257.43	0.43
86:5:4037:OHX:N4	86:5:4240:OHX:N1	2.66	0.43
36:5:2317:A:OP2	86:5:4189:OHX:N6	2.51	0.43
36:5:764:U:H6	36:5:764:U:O5'	2.02	0.43
1:6:1202:A:H2'	1:6:1203:A:H5''	2.00	0.43
1:6:1427:A:O2'	1:6:1428:G:OP1	2.28	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1740:A:H2'	1:6:1741:U:H6	1.84	0.43
1:6:639:U:O4	1:6:695:U:C6	2.72	0.43
1:6:83:G:H8	1:6:83:G:O5'	2.02	0.43
1:6:876:G:H1'	1:6:944:A:O4'	2.18	0.43
1:6:892:A:H2'	1:6:893:U:O4'	2.17	0.43
12:C0:10:LYS:HA	12:C0:13:GLN:HB3	2.94	0.43
12:C0:33:GLU:H	12:C0:33:GLU:CD	2.21	0.43
1:2:896:U:O4'	16:C4:38:THR:HG21	2.18	0.43
18:C6:27:GLY:HA2	18:C6:63:ILE:O	2.47	0.43
18:C6:68:ARG:C	18:C6:68:ARG:HE	5.50	0.43
18:C6:97:VAL:HG12	18:C6:98:ASP:N	2.36	0.43
19:C7:27:ASP:OD2	34:SR:38:ARG:NH2	2.48	0.43
2:S0:200:ASP:HB2	19:C7:85:VAL:HG13	2.00	0.43
20:C8:8:GLN:HB3	20:C8:9:GLY:H	3.21	0.43
24:D2:30:SER:OG	24:D2:31:SER:N	2.56	0.43
25:D3:103:LEU:HA	25:D3:103:LEU:HD23	2.15	0.43
25:D3:116:ASP:O	25:D3:118:PRO:HD3	2.19	0.43
26:D4:63:GLN:HG3	26:D4:64:PHE:O	2.46	0.43
27:D5:83:LEU:HA	27:D5:83:LEU:HD23	1.90	0.43
28:D6:33:ASP:OD1	28:D6:34:LYS:N	2.50	0.43
40:L3:210:GLU:O	40:L3:213:GLU:HB2	2.77	0.43
40:L3:238:LEU:HD12	40:L3:238:LEU:HA	2.40	0.43
40:L3:47:LEU:HB3	40:L3:164:THR:HG22	2.09	0.43
41:L4:20:LEU:H	41:L4:20:LEU:HG	1.99	0.43
42:L5:136:GLU:CD	42:L5:136:GLU:N	5.02	0.43
42:L5:258:LYS:O	42:L5:259:LYS:HG2	2.18	0.43
42:L5:21:ARG:O	42:L5:25:GLU:HG3	2.18	0.43
44:L7:175:LYS:HD2	44:L7:176:TYR:CZ	2.54	0.43
44:L7:55:TYR:CE2	44:L7:141:TYR:CE2	3.07	0.43
45:L8:240:ASN:HA	45:L8:243:GLN:HB2	1.99	0.43
45:L8:73:PRO:HA	45:L8:76:ALA:HB3	2.23	0.43
47:M0:93:PRO:HA	47:M0:126:ALA:O	2.57	0.43
47:M0:76:MET:HE1	47:M0:148:VAL:HG13	2.22	0.43
49:M3:119:TYR:HD1	49:M3:145:PHE:CE2	2.68	0.43
49:M3:31:LYS:O	49:M3:35:ARG:HB2	2.19	0.43
51:M5:41:ARG:HE	51:M5:41:ARG:HB3	1.54	0.43
53:M7:71:ALA:O	53:M7:73:GLY:N	2.86	0.43
58:N2:17:VAL:HB	58:N2:63:VAL:HG23	3.21	0.43
64:N8:12:ARG:HH22	36:5:661:G:P	149.98	0.43
66:O0:13:LYS:O	66:O0:17:VAL:HG23	2.31	0.43
69:O3:11:GLY:O	69:O3:98:VAL:N	2.56	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:17:GLN:HB3	69:O3:27:VAL:HB	2.01	0.43
70:O4:10:ARG:HD2	75:O9:4:GLN:NE2	2.58	0.43
70:O4:60:ARG:O	70:O4:60:ARG:HG3	2.18	0.43
71:O5:54:VAL:O	71:O5:58:ILE:HG13	2.38	0.43
2:S0:102:PHE:O	2:S0:103:THR:HB	2.35	0.43
2:S0:184:LEU:HA	2:S0:184:LEU:HD13	2.12	0.43
3:S1:32:ILE:HD11	3:S1:46:THR:OG1	2.19	0.43
3:S1:69:CYS:SG	3:S1:71:ALA:HB3	2.58	0.43
6:S4:160:VAL:HG23	6:S4:172:PHE:HB3	2.00	0.43
7:S5:32:GLU:HA	7:S5:35:GLN:HB2	2.01	0.43
10:S8:31:ARG:HH21	10:S8:48:THR:HG22	2.35	0.43
36:1:1004:U:C2	36:1:1005:G:C8	3.07	0.43
36:1:1680:G:H2'	36:1:1681:U:H6	1.83	0.43
36:1:2255:A:OP2	36:1:2261:G:N1	2.48	0.43
36:1:2282:U:O2	36:1:2310:U:H4'	2.19	0.43
36:1:3317:U:O2'	86:1:4020:OHX:N3	2.51	0.43
86:1:4060:OHX:N3	86:1:4173:OHX:N1	2.66	0.43
86:1:4025:OHX:N6	86:1:4145:OHX:N5	2.65	0.43
36:1:819:U:OP1	73:O7:10:LYS:NZ	2.51	0.43
1:2:1006:C:H2'	87:2:2179:3K8:H19	1.99	0.43
1:2:1459:C:H6	1:2:1459:C:OP2	2.02	0.43
1:2:1550:A:C6	1:2:1562:G:C6	3.06	0.43
1:2:179:A:H2'	1:2:180:A:O4'	2.19	0.43
1:2:1369:U:O4	86:2:2095:OHX:N5	2.52	0.43
1:2:498:G:C5	1:2:499:U:O4	2.72	0.43
1:2:743:U:OP1	9:S7:108:GLN:N	2.37	0.43
1:2:755:A:H2'	1:2:756:A:C8	2.53	0.43
37:3:87:G:OP1	44:L7:221:LYS:NZ	2.52	0.43
36:5:1242:G:H2'	36:5:1243:G:O4'	2.17	0.43
36:5:1252:A:N6	36:5:1264:G:OP1	2.50	0.43
36:5:1317:A:C4	36:5:1319:G:N7	2.87	0.43
36:5:2533:G:H2'	36:5:2534:G:C8	2.53	0.43
45:L8:241:LYS:HB2	36:5:2586:G:C5	183.99	0.43
36:5:734:C:H2'	36:5:735:A:O4'	2.19	0.43
36:5:926:A:H2'	36:5:927:C:C6	2.54	0.43
36:5:937:G:N3	36:5:963:G:H1'	2.34	0.43
1:6:1280:C:H2'	1:6:1281:G:H8	1.83	0.43
1:6:1398:U:H4'	1:6:1399:C:OP2	2.18	0.43
1:6:1576:A:H2'	1:6:1577:A:O4'	2.19	0.43
1:6:1603:U:H2'	1:6:1604:U:H6	1.84	0.43
38:8:78:G:H2'	38:8:79:A:O4'	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:29:HIS:HB3	16:C4:41:ARG:CG	2.45	0.43
17:C5:123:TYR:OH	20:C8:126:ARG:NH1	3.32	0.43
20:C8:109:LEU:O	20:C8:113:LEU:HG	2.55	0.43
20:C8:61:LEU:HA	20:C8:65:GLU:OE1	2.94	0.43
21:C9:34:VAL:HG23	21:C9:53:TRP:CZ2	2.54	0.43
25:D3:37:ALA:O	25:D3:41:SER:HB3	3.66	0.43
28:D6:64:LEU:HA	28:D6:65:PRO:HD3	1.71	0.43
30:D8:66:LEU:HA	30:D8:66:LEU:HD23	1.83	0.43
31:D9:5:ASN:C	31:D9:7:TRP:H	2.22	0.43
40:L3:73:VAL:HG13	59:N3:90:GLY:HA3	2.26	0.43
41:L4:98:ARG:HD2	41:L4:99:MET:O	2.19	0.43
42:L5:270:LYS:O	42:L5:273:ARG:HB3	3.25	0.43
46:L9:41:ILE:O	46:L9:41:ILE:HD13	2.19	0.43
46:L9:92:TYR:N	46:L9:92:TYR:CD2	4.05	0.43
48:M1:112:LEU:HD11	48:M1:127:PHE:HZ	2.94	0.43
48:M1:153:LYS:HG2	48:M1:153:LYS:O	5.04	0.43
49:M3:131:LYS:NZ	49:M3:131:LYS:HB3	2.34	0.43
49:M3:25:HIS:O	51:M5:201:ARG:HD2	2.48	0.43
51:M5:124:ASP:OD2	51:M5:127:TYR:N	2.89	0.43
51:M5:69:GLY:O	36:5:290:G:H4'	145.38	0.43
54:M8:60:PRO:HG2	54:M8:144:ARG:CA	2.48	0.43
56:N0:166:LYS:O	56:N0:167:ARG:CB	2.67	0.43
60:N4:63:ILE:O	60:N4:65:GLU:N	2.83	0.43
64:N8:90:TYR:CD1	64:N8:100:PRO:HG3	2.54	0.43
66:O0:101:LEU:HA	66:O0:101:LEU:HD22	1.87	0.43
69:O3:21:ARG:O	36:5:634:C:H5'	222.99	0.43
70:O4:80:ARG:HG3	70:O4:88:ARG:HH21	2.07	0.43
70:O4:8:ARG:HE	70:O4:31:ARG:HD2	3.56	0.43
78:Q2:46:LYS:HD3	78:Q2:54:THR:HB	2.27	0.43
78:Q2:83:LEU:HD23	78:Q2:84:THR:H	2.81	0.43
3:S1:223:PHE:O	3:S1:224:ASP:HB3	2.90	0.43
5:S3:23:GLU:O	5:S3:26:THR:N	2.51	0.43
5:S3:21:LEU:HD22	5:S3:25:PHE:CE2	2.53	0.43
7:S5:45:LYS:HD3	7:S5:45:LYS:HA	1.28	0.43
8:S6:160:ARG:NH2	1:6:66:U:O2'	343.23	0.43
1:2:811:A:N7	9:S7:111:LYS:HB2	2.33	0.43
11:S9:28:LEU:O	11:S9:28:LEU:HD22	2.19	0.43
11:S9:3:ARG:N	11:S9:3:ARG:HD3	2.60	0.43
35:SM:94:HIS:N	35:SM:94:HIS:ND1	2.67	0.43
34:SR:291:SER:HB2	34:SR:304:GLY:HA3	2.01	0.43
36:1:1063:G:N7	36:1:1097:G:H2'	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1389:G:N1	36:1:1419:A:N6	2.67	0.43
36:1:150:A:C4	36:1:151:A:C8	3.07	0.43
36:1:1785:U:H2'	36:1:1786:G:C8	2.54	0.43
36:1:180:C:H2'	36:1:181:U:H6	1.81	0.43
36:1:1845:G:C5'	36:1:1845:G:H8	2.31	0.43
36:1:304:G:H5'	36:1:304:G:N3	2.34	0.43
36:1:3112:G:O6	36:1:3120:C:H5''	2.18	0.43
36:1:35:A:O2'	36:1:36:C:H5'	2.18	0.43
36:1:419:G:N7	86:1:3869:OHX:N6	2.67	0.43
36:1:1194:G:OP1	86:1:3959:OHX:N1	2.51	0.43
36:1:863:C:H2'	36:1:864:G:O4'	2.18	0.43
36:1:908:G:H4'	36:1:909:G:O5'	2.18	0.43
36:1:980:A:H2'	36:1:981:U:C1'	2.49	0.43
1:2:1149:G:H1'	1:2:1765:A:C4	2.54	0.43
1:2:1183:A:C6	1:2:1184:A:N1	2.87	0.43
1:2:1366:U:OP1	18:C6:30:LYS:HD2	2.19	0.43
1:2:86:A:O2'	1:2:147:A:N3	2.42	0.43
1:2:1560:U:C4	1:2:1561:U:C4	3.06	0.43
1:2:1584:G:O2'	1:2:1610:G:O6	2.19	0.43
1:2:638:U:O3'	9:S7:117:THR:OG1	2.34	0.43
1:2:735:C:OP2	1:2:735:C:H2'	2.18	0.43
1:2:76:A:H2'	1:2:80:A:H62	1.84	0.43
37:3:107:C:H2'	37:3:108:A:H8	1.82	0.43
37:3:1:G:C4	42:L5:266:ALA:HA	2.54	0.43
36:5:1017:C:H2'	36:5:1017:C:OP2	2.18	0.43
36:5:1168:U:O2'	36:5:1169:A:H5'	2.19	0.43
68:O2:33:ARG:HH22	36:5:1408:G:P	159.14	0.43
36:5:1908:A:H2'	36:5:1909:A:O4'	2.17	0.43
36:5:2567:C:N4	36:5:2568:C:H41	2.17	0.43
40:L3:232:ARG:NH2	36:5:2989:U:O2'	214.74	0.43
36:5:585:A:H2'	36:5:586:C:C6	2.53	0.43
36:5:736:A:C5	36:5:737:G:H1'	2.54	0.43
36:5:830:A:O2'	36:5:1866:C:H2'	2.18	0.43
1:6:1003:A:H1'	1:6:1005:A:N7	2.32	0.43
1:6:615:A:H1'	1:6:1107:G:N2	2.34	0.43
1:6:1674:C:H2'	1:6:1675:C:C6	2.54	0.43
28:D6:32:LYS:NZ	1:6:930:A:OP1	310.36	0.43
1:2:846:G:C8	13:C1:46:LYS:HE3	2.54	0.43
21:C9:31:PRO:HD2	21:C9:54:PHE:CZ	2.53	0.43
1:2:1525:A:H5'	21:C9:93:HIS:HB2	2.00	0.43
22:D0:58:LEU:HD13	22:D0:88:LYS:HE3	3.57	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:D1:1:MET:O	23:D1:9:VAL:HG12	2.62	0.43
25:D3:108:GLY:O	25:D3:109:ARG:HG2	2.21	0.43
28:D6:90:GLU:OE1	28:D6:90:GLU:N	2.55	0.43
29:D7:24:LEU:HB3	29:D7:25:VAL:H	1.69	0.43
23:D1:85:TYR:CG	29:D7:6:ASP:HB2	3.37	0.43
33:E1:91:ILE:HG12	33:E1:92:LYS:HG2	6.49	0.43
36:1:3294:A:OP2	40:L3:126:LYS:HE2	2.19	0.43
41:L4:161:LYS:HA	41:L4:161:LYS:HD2	1.88	0.43
42:L5:25:GLU:HB2	42:L5:27:LYS:HG3	2.59	0.43
37:3:99:G:O2'	44:L7:128:LYS:NZ	2.48	0.43
46:L9:157:ASN:HD22	46:L9:157:ASN:C	2.21	0.43
47:M0:12:GLN:HG2	47:M0:59:GLN:HG2	2.70	0.43
49:M3:131:LYS:HG2	49:M3:131:LYS:H	1.50	0.43
49:M3:190:LYS:O	49:M3:193:ALA:HB3	2.62	0.43
49:M3:2:ALA:HB2	64:N8:31:GLY:O	2.19	0.43
49:M3:55:ARG:HG3	49:M3:72:GLY:O	2.19	0.43
49:M3:75:PHE:O	49:M3:79:GLU:HB2	2.18	0.43
50:M4:54:PRO:O	50:M4:56:GLN:HG2	2.18	0.43
56:N0:20:PRO:O	56:N0:21:GLU:HB2	2.19	0.43
58:N2:53:ALA:HB1	58:N2:68:THR:HG22	2.00	0.43
59:N3:120:LYS:HB2	59:N3:137:VAL:HG23	3.13	0.43
61:N5:106:ASP:HB2	61:N5:130:TYR:CE1	2.54	0.43
62:N6:52:ARG:O	62:N6:70:ILE:HB	2.18	0.43
63:N7:105:SER:N	63:N7:108:GLU:HG3	3.16	0.43
64:N8:121:VAL:HA	64:N8:122:PRO:HD3	2.15	0.43
64:N8:95:SER:O	64:N8:99:ALA:HB2	2.19	0.43
69:O3:53:TYR:HE1	69:O3:67:MET:HG3	3.61	0.43
70:O4:66:SER:HB3	70:O4:69:HIS:CE1	4.03	0.43
79:Q3:46:THR:HB	79:Q3:58:SER:HB2	2.01	0.43
79:Q3:32:GLN:HG2	79:Q3:70:THR:HB	2.00	0.43
2:S0:111:ILE:HA	2:S0:111:ILE:HD12	1.75	0.43
2:S0:13:ASP:O	2:S0:16:LEU:HB2	2.18	0.43
2:S0:32:HIS:O	2:S0:32:HIS:ND1	2.52	0.43
2:S0:7:PHE:HD2	2:S0:7:PHE:HA	1.70	0.43
5:S3:156:PHE:C	5:S3:157:LEU:HD12	2.39	0.43
6:S4:33:ALA:HB3	1:6:121:U:H1'	348.72	0.43
7:S5:156:ARG:HA	7:S5:157:ARG:HH21	4.55	0.43
7:S5:164:PRO:O	7:S5:168:VAL:HG23	2.18	0.43
7:S5:91:GLU:HA	7:S5:94:THR:HG23	2.01	0.43
11:S9:41:GLU:OE1	11:S9:126:ARG:NH2	2.52	0.43
11:S9:3:ARG:HH21	11:S9:3:ARG:CG	3.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:25:THR:HG21	34:SR:295:SER:HA	3.32	0.43
36:1:109:A:H4'	36:1:110:G:OP1	2.18	0.43
36:1:112:U:C2	36:1:320:G:C2	3.07	0.43
36:1:1355:A:H5''	36:1:1356:U:H5	1.84	0.43
36:1:1433:A:C2	68:O2:25:TYR:CD2	3.06	0.43
36:1:1861:G:O6	86:1:3992:OHX:N2	2.51	0.43
36:1:2523:A:C8	45:L8:51:LYS:HG3	2.54	0.43
36:1:3200:G:C6	36:1:3201:C:C4	3.07	0.43
36:1:3215:A:H8	50:M4:121:MET:CE	2.32	0.43
36:1:336:A:C2	36:1:337:G:C5	3.06	0.43
36:1:2278:C:OP1	86:1:3953:OHX:N3	2.51	0.43
1:2:1183:A:C5	1:2:1184:A:C6	3.07	0.43
1:2:1683:C:O2'	1:2:1684:U:O5'	2.35	0.43
1:2:209:U:H2'	1:2:210:A:H8	1.82	0.43
1:2:47:A:N1	1:2:386:G:H1'	2.34	0.43
1:2:491:C:H42	1:2:496:G:H1	1.65	0.43
1:2:481:A:H61	1:2:505:A:H62	1.64	0.43
37:3:72:A:C2	37:3:74:C:C6	3.06	0.43
36:5:1576:G:H5'	36:5:1577:G:OP2	2.18	0.43
36:5:1741:A:C6	36:5:1742:U:C2	3.06	0.43
36:5:2733:A:H2'	36:5:2734:A:O4'	2.19	0.43
36:5:2923:U:H2'	36:5:2924:U:C6	2.53	0.43
86:5:4131:OHX:N4	86:5:4148:OHX:N1	2.67	0.43
36:5:929:A:H2'	36:5:930:U:H6	1.82	0.43
36:5:964:G:OP1	86:5:4010:OHX:N3	2.52	0.43
1:6:1227:A:OP1	1:6:1228:G:H3'	2.18	0.43
20:C8:133:VAL:HG21	1:6:1546:G:OP1	356.05	0.43
1:6:196:G:O2'	1:6:197:A:OP2	2.30	0.43
1:6:329:G:H2'	1:6:330:G:H8	1.84	0.43
1:6:771:A:C2	1:6:772:G:H1'	2.53	0.43
17:C5:18:ARG:HH21	17:C5:38:PRO:HG3	1.84	0.43
22:D0:108:ILE:H	22:D0:108:ILE:HG13	1.54	0.43
22:D0:29:THR:HG22	22:D0:85:ARG:O	2.19	0.43
39:L2:166:ILE:H	39:L2:166:ILE:HG12	1.59	0.43
41:L4:100:PHE:O	41:L4:101:ALA:C	2.57	0.43
41:L4:130:ALA:O	41:L4:148:ILE:HG21	2.18	0.43
41:L4:361:HIS:ND1	41:L4:362:ASP:N	2.67	0.43
41:L4:92:ASN:HA	41:L4:98:ARG:O	2.18	0.43
45:L8:78:PHE:C	45:L8:80:TYR:N	2.72	0.43
46:L9:112:ILE:HD13	46:L9:161:LEU:HG	2.01	0.43
49:M3:17:HIS:O	49:M3:20:GLU:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:73:ARG:NH2	36:5:77:A:C8	81.28	0.43
51:M5:5:LYS:HE3	51:M5:8:GLU:OE2	2.19	0.43
52:M6:89:SER:O	52:M6:91:LYS:N	2.52	0.43
53:M7:41:LEU:O	53:M7:41:LEU:HD22	2.52	0.43
54:M8:54:LEU:HD23	54:M8:54:LEU:HA	1.82	0.43
54:M8:64:VAL:O	54:M8:96:PHE:HE2	2.02	0.43
55:M9:101:VAL:HG22	55:M9:104:ARG:NH1	2.34	0.43
55:M9:136:ARG:O	55:M9:140:GLU:HG3	2.19	0.43
55:M9:173:ARG:O	55:M9:177:VAL:HG23	2.18	0.43
44:L7:80:GLN:NE2	57:N1:136:ARG:H	4.23	0.43
58:N2:34:ALA:O	58:N2:38:ILE:HG13	2.64	0.43
58:N2:84:LEU:HA	58:N2:84:LEU:HD23	1.79	0.43
59:N3:80:ARG:O	59:N3:98:ASN:HA	2.52	0.43
63:N7:87:LEU:HD13	63:N7:127:ASN:HB3	3.36	0.43
65:N9:14:ARG:NH1	65:N9:18:ARG:HH11	3.64	0.43
71:O5:57:VAL:HA	71:O5:60:GLU:HB2	2.01	0.43
76:Q0:79:GLU:O	76:Q0:79:GLU:HG3	2.31	0.43
78:Q2:77:CYS:SG	78:Q2:79:THR:HG23	2.59	0.43
79:Q3:49:ARG:HD3	79:Q3:51:ALA:C	2.39	0.43
2:S0:96:THR:HA	2:S0:97:PRO:HD3	1.86	0.43
3:S1:175:GLU:HG3	3:S1:187:LYS:NZ	6.68	0.43
3:S1:72:ASP:OD2	16:C4:114:ARG:NH1	2.41	0.43
6:S4:210:ILE:HB	6:S4:218:PHE:CZ	2.81	0.43
6:S4:173:ILE:HD11	6:S4:235:TYR:CE1	2.54	0.43
7:S5:92:ARG:HB3	7:S5:172:ILE:CD1	2.48	0.43
7:S5:180:ARG:HB3	7:S5:180:ARG:HH11	1.83	0.43
9:S7:16:LEU:CD1	9:S7:48:GLU:HG3	3.79	0.43
9:S7:63:PRO:O	9:S7:64:VAL:HG23	2.44	0.43
9:S7:80:GLU:HA	9:S7:83:LYS:HE3	3.33	0.43
35:SM:83:LYS:HB3	35:SM:84:LYS:H	2.81	0.43
34:SR:37:SER:OG	34:SR:39:ASP:OD2	2.18	0.43
36:1:146:U:H5''	36:1:148:G:O4'	2.19	0.43
36:1:1659:U:H2'	36:1:1660:C:C6	2.54	0.43
36:1:1668:G:H2'	36:1:1669:C:O4'	2.18	0.43
36:1:2366:C:H5'	40:L3:259:HIS:CE1	2.54	0.43
36:1:2840:C:N4	36:1:2841:G:C6	2.87	0.43
36:1:3242:G:N2	36:1:3245:A:H5''	2.34	0.43
86:1:4079:OHX:N4	86:1:4149:OHX:N1	2.67	0.43
86:1:4025:OHX:N2	86:1:4145:OHX:N1	2.67	0.43
36:1:861:C:H2'	36:1:862:U:C6	2.53	0.43
36:1:878:G:O6	40:L3:243:HIS:NE2	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1025:A:H2'	1:2:1027:A:O5'	2.19	0.43
1:2:1091:A:H4'	1:2:1092:A:O5'	2.19	0.43
1:2:1244:A:O2'	1:2:1245:G:OP1	2.37	0.43
1:2:1578:U:O2'	1:2:1579:U:H5'	2.19	0.43
1:2:330:G:H2'	1:2:331:A:C8	2.54	0.43
1:2:702:G:C6	1:2:737:A:N6	2.87	0.43
1:2:775:G:H2'	1:2:776:G:O4'	2.19	0.43
1:2:883:C:H2'	1:2:884:A:C8	2.46	0.43
1:2:992:A:C2	1:2:1012:U:N3	2.69	0.43
36:5:1037:C:H2'	36:5:1038:C:H6	1.82	0.43
36:5:954:U:O4	36:5:1115:G:H1'	2.18	0.43
36:5:1165:A:H2'	36:5:1166:G:O4'	2.19	0.43
36:5:2101:C:H2'	36:5:2102:U:C6	2.54	0.43
36:5:2430:A:H2'	36:5:2431:C:C6	2.54	0.43
36:5:3010:U:OP2	86:5:4249:OHX:N4	2.51	0.43
86:5:4096:OHX:N3	86:5:4203:OHX:N1	2.67	0.43
36:5:756:U:H2'	36:5:757:C:H6	1.83	0.43
1:6:1147:A:H2'	1:6:1148:C:C6	2.53	0.43
12:C0:2:LEU:O	1:6:1257:U:H1'	439.90	0.43
1:6:1358:G:H2'	1:6:1359:C:H6	1.84	0.43
1:6:246:G:H2'	1:6:247:A:C8	2.54	0.43
6:S4:187:ARG:NH2	1:6:754:A:N7	375.01	0.43
42:L5:24:ARG:NH2	37:7:13:A:N3	292.34	0.43
12:C0:15:LEU:HD22	12:C0:68:LEU:HD13	4.60	0.43
13:C1:58:CYS:HA	13:C1:59:PRO:HD3	2.16	0.43
18:C6:137:ARG:HA	18:C6:137:ARG:NE	2.34	0.43
18:C6:38:LEU:HA	18:C6:38:LEU:HD23	2.14	0.43
25:D3:23:ARG:HD2	25:D3:26:GLU:OE1	2.18	0.43
26:D4:124:ARG:HB3	26:D4:124:ARG:HH11	1.84	0.43
28:D6:18:VAL:HG21	28:D6:33:ASP:H	2.26	0.43
30:D8:25:VAL:HG11	30:D8:66:LEU:HD12	2.01	0.43
40:L3:188:ILE:HA	40:L3:191:LYS:HD2	2.00	0.43
41:L4:131:VAL:O	41:L4:135:VAL:HG23	2.22	0.43
41:L4:298:ALA:HB1	54:M8:133:LYS:HE3	2.98	0.43
43:L6:18:LEU:N	43:L6:18:LEU:HD22	2.34	0.43
45:L8:148:ALA:C	45:L8:149:LYS:HG2	2.38	0.43
45:L8:165:PHE:HA	72:O6:47:ILE:HD13	2.32	0.43
45:L8:186:LEU:HA	45:L8:186:LEU:HD23	1.76	0.43
45:L8:25:PRO:HB2	45:L8:26:LEU:H	1.41	0.43
46:L9:121:LYS:HA	46:L9:121:LYS:HD2	1.78	0.43
46:L9:90:MET:C	46:L9:91:ARG:HG2	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:31:ILE:HG23	47:M0:31:ILE:O	2.19	0.43
48:M1:8:PRO:HD2	48:M1:10:ARG:H	1.84	0.43
48:M1:19:LEU:HD22	48:M1:125:MET:SD	3.42	0.43
50:M4:48:GLY:CA	50:M4:53:VAL:HG13	2.49	0.43
53:M7:169:THR:O	53:M7:173:ARG:HG2	2.19	0.43
54:M8:36:LEU:O	54:M8:40:THR:OG1	2.21	0.43
56:N0:24:LEU:HB2	57:N1:146:ASN:HD21	1.84	0.43
58:N2:100:THR:O	58:N2:102:GLU:HG3	2.56	0.43
59:N3:85:TRP:O	59:N3:92:PHE:HA	2.45	0.43
61:N5:115:ARG:HG2	61:N5:119:THR:O	2.19	0.43
67:O1:73:LEU:HD12	67:O1:73:LEU:H	1.84	0.43
36:1:1488:G:O2'	70:O4:10:ARG:O	2.35	0.43
71:O5:65:ALA:O	71:O5:69:LEU:HD23	2.49	0.43
2:S0:160:ILE:HA	2:S0:161:PRO:HD2	2.61	0.43
3:S1:49:ASN:O	3:S1:57:ALA:HB2	2.18	0.43
5:S3:42:THR:O	5:S3:44:THR:N	3.20	0.43
6:S4:158:ASP:HB3	6:S4:173:ILE:O	2.17	0.43
9:S7:98:ILE:HD13	9:S7:118:LEU:HD23	2.00	0.43
35:SM:124:GLN:O	35:SM:127:ALA:N	2.52	0.43
34:SR:74:THR:HG1	34:SR:76:ASP:CG	2.22	0.43
36:1:1049:C:H2'	36:1:1050:U:H6	1.83	0.43
36:1:1547:G:H2'	36:1:1548:C:C6	2.54	0.43
36:1:1763:U:H3'	36:1:1764:U:C5	2.53	0.43
36:1:2213:A:H2'	36:1:2214:A:C8	2.53	0.43
36:1:305:U:C5	36:1:2776:C:H1'	2.53	0.43
36:1:2877:G:H2'	36:1:2878:G:O4'	2.19	0.43
36:1:2884:C:H2'	36:1:2885:C:H6	1.83	0.43
36:1:2898:G:OP2	36:1:2899:C:H5'	2.19	0.43
36:1:593:C:C4	36:1:594:U:C4	3.07	0.43
1:2:119:A:H1'	1:2:397:A:C5	2.54	0.43
1:2:1498:G:O2'	1:2:1499:G:H5'	2.18	0.43
1:2:1599:C:O2	86:2:2110:OHX:N1	2.52	0.43
1:2:446:A:N6	1:2:461:G:H21	2.17	0.43
1:2:585:A:H2'	1:2:586:G:C8	2.54	0.43
1:2:585:A:N6	1:2:586:G:O6	2.52	0.43
1:2:66:U:H5'	8:S6:173:PRO:HA	2.00	0.43
38:4:121:U:H2'	38:4:122:U:H6	1.80	0.43
38:4:131:A:H2'	38:4:132:G:H8	1.84	0.43
38:4:157:U:H3'	38:4:158:U:C6	2.53	0.43
38:4:77:A:OP2	86:4:225:OHX:N2	2.52	0.43
56:N0:84:ARG:HG3	36:5:1295:G:P	294.26	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:193:ARG:NH2	36:5:2181:C:H5''	195.63	0.43
36:5:2198:A:OP2	86:5:4194:OHX:N4	2.52	0.43
36:5:2770:G:O2'	36:5:2771:U:H5'	2.19	0.43
40:L3:120:LYS:NZ	36:5:3001:C:OP1	203.88	0.43
36:5:314:U:H2'	36:5:315:C:H6	1.83	0.43
36:5:593:C:C4	36:5:594:U:C4	3.06	0.43
1:6:1199:G:OP1	1:6:1200:G:H8	2.01	0.43
1:6:1621:U:H2'	1:6:1622:G:C8	2.54	0.43
1:6:1674:C:H2'	1:6:1675:C:H6	1.84	0.43
1:6:1683:C:H2'	1:6:1684:U:O4'	2.19	0.43
1:6:577:G:H3'	1:6:577:G:H8	1.82	0.43
1:6:763:G:C5	1:6:764:U:C4	3.07	0.43
1:6:827:C:H2'	1:6:828:U:H6	1.82	0.43
1:6:912:U:OP1	1:6:913:G:O2'	2.32	0.43
61:N5:49:LYS:HE3	38:8:135:G:OP1	79.34	0.43
1:2:246:G:C2	13:C1:40:LEU:HD22	2.53	0.43
15:C3:109:LYS:H	15:C3:109:LYS:HG2	1.65	0.43
18:C6:19:VAL:O	18:C6:67:VAL:HA	2.19	0.43
18:C6:47:LYS:HA	18:C6:47:LYS:HD2	1.65	0.43
19:C7:96:SER:HA	19:C7:97:ASN:HA	1.55	0.43
21:C9:144:GLU:OE2	21:C9:144:GLU:N	2.52	0.43
22:D0:48:HIS:CE1	22:D0:50:LEU:HD13	2.54	0.43
23:D1:14:PRO:HB2	23:D1:23:ILE:HG23	2.30	0.43
24:D2:55:ASP:OD1	24:D2:57:ARG:HB2	2.95	0.43
25:D3:72:VAL:N	25:D3:85:ALA:O	2.40	0.43
30:D8:11:LYS:O	30:D8:31:GLU:N	2.57	0.43
1:2:558:U:OP2	32:E0:55:ARG:NH1	2.52	0.43
36:1:914:A:C2	39:L2:204:MET:HB3	2.54	0.43
39:L2:68:LYS:HD2	39:L2:70:ARG:HH21	5.31	0.43
40:L3:112:ASP:O	40:L3:113:GLU:C	2.57	0.43
40:L3:205:VAL:HA	40:L3:208:VAL:HG23	2.35	0.43
41:L4:170:LYS:HG3	41:L4:175:HIS:CB	2.95	0.43
41:L4:292:SER:HG	41:L4:295:ILE:N	2.10	0.43
42:L5:108:ARG:O	42:L5:111:GLN:HB3	2.19	0.43
42:L5:164:LYS:O	42:L5:164:LYS:HD3	2.19	0.43
42:L5:235:SER:O	42:L5:239:ILE:HG13	2.19	0.43
42:L5:258:LYS:N	42:L5:258:LYS:HD3	3.67	0.43
43:L6:51:ARG:HD2	43:L6:158:TYR:CZ	2.53	0.43
45:L8:136:LEU:HD11	45:L8:162:LEU:O	2.19	0.43
49:M3:89:TYR:O	49:M3:92:THR:OG1	2.34	0.43
51:M5:58:GLY:HA3	51:M5:142:ILE:CD1	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:22:ASP:HA	54:M8:27:LYS:HE3	2.27	0.43
54:M8:19:PRO:HD3	54:M8:30:VAL:HG21	2.62	0.43
36:1:1722:U:OP1	55:M9:100:ARG:HD3	2.19	0.43
55:M9:168:ALA:HB1	55:M9:172:ARG:CZ	2.48	0.43
55:M9:177:VAL:O	55:M9:181:ARG:HB2	2.21	0.43
56:N0:16:THR:HG23	56:N0:19:VAL:HB	2.00	0.43
60:N4:25:ASP:OD2	60:N4:25:ASP:N	4.16	0.43
62:N6:100:HIS:CG	62:N6:101:PRO:HD2	2.70	0.43
62:N6:104:LEU:HA	62:N6:104:LEU:HD23	1.76	0.43
63:N7:124:ALA:O	63:N7:126:LYS:N	2.52	0.43
65:N9:11:ASN:O	65:N9:15:LYS:HG3	2.19	0.43
2:S0:36:TYR:OH	2:S0:56:LYS:HE3	2.19	0.43
2:S0:59:LEU:O	2:S0:63:ILE:HG13	2.18	0.43
3:S1:131:ASP:N	3:S1:131:ASP:OD1	4.28	0.43
3:S1:189:ILE:H	3:S1:189:ILE:HG13	2.27	0.43
3:S1:113:MET:HE3	3:S1:209:ASN:HB3	5.22	0.43
5:S3:217:ILE:HB	5:S3:218:LEU:H	2.07	0.43
6:S4:18:TRP:O	6:S4:51:ARG:NH1	2.87	0.43
7:S5:120:ILE:O	7:S5:124:LEU:HD13	3.94	0.43
7:S5:177:ILE:HA	7:S5:180:ARG:NH1	2.34	0.43
9:S7:117:THR:O	9:S7:120:ALA:N	2.52	0.43
9:S7:8:ILE:HG23	9:S7:8:ILE:O	2.54	0.43
10:S8:136:SER:O	10:S8:140:GLU:HB2	2.19	0.43
11:S9:13:SER:HB2	11:S9:47:PHE:HD1	1.84	0.43
1:2:767:U:C5	11:S9:143:ILE:HD11	2.54	0.43
35:SM:31:SER:OG	35:SM:32:SER:N	2.87	0.43
36:1:1062:A:N3	57:N1:130:ARG:NH2	2.67	0.42
36:1:1488:G:C2	36:1:1489:A:C8	3.07	0.42
36:1:208:C:C2'	36:1:209:A:H5'	2.48	0.42
36:1:2777:G:C4	64:N8:60:TYR:CE1	3.06	0.42
36:1:3100:U:O2'	36:1:3101:G:OP2	2.32	0.42
36:1:3267:A:H2'	43:L6:69:PHE:CZ	2.53	0.42
36:1:830:A:OP1	86:1:4007:OHX:N4	2.52	0.42
1:2:1125:A:C5	1:2:1126:G:H1'	2.53	0.42
1:2:1226:A:HO2'	1:2:1227:A:P	2.41	0.42
1:2:1250:U:O2'	1:2:1251:U:OP1	2.33	0.42
1:2:1368:G:C6	1:2:1369:U:C4	3.07	0.42
1:2:1682:U:O2'	1:2:1683:C:H5'	2.19	0.42
1:2:1151:A:H4'	1:2:1766:A:N7	2.34	0.42
1:2:1783:C:H2'	1:2:1784:C:C6	2.54	0.42
86:2:2075:OHX:N6	86:2:2161:OHX:N5	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:591:A:C6	1:2:592:A:N6	2.87	0.42
37:3:47:C:O2'	37:3:48:U:H5'	2.18	0.42
38:4:36:G:N2	38:4:37:A:N1	2.67	0.42
36:5:1131:G:C4	36:5:2373:A:C2	3.07	0.42
36:5:114:A:H2'	36:5:115:A:O4'	2.19	0.42
36:5:1336:U:H2'	36:5:1337:A:C8	2.54	0.42
54:M8:38:ARG:NH2	36:5:1348:U:OP2	187.60	0.42
36:5:1352:A:H1'	36:5:1353:U:C5'	2.48	0.42
36:5:1818:U:H2'	36:5:1819:U:C6	2.53	0.42
36:5:2144:A:C4	36:5:2281:A:C6	3.07	0.42
36:5:270:U:O2'	36:5:318:A:H1'	2.19	0.42
36:5:93:C:OP2	36:5:2764:C:O2'	2.25	0.42
36:5:994:G:N2	36:5:1053:A:H2'	2.34	0.42
1:6:1220:C:H42	1:6:1263:G:H1	1.67	0.42
1:6:1420:C:H2'	1:6:1421:A:O4'	2.19	0.42
1:6:1609:U:H2'	1:6:1610:G:O4'	2.19	0.42
28:D6:6:ALA:N	1:6:1796:C:C5	344.53	0.42
1:6:1:U:C4	1:6:369:A:C6	3.08	0.42
1:6:542:A:OP1	1:6:544:A:C4	2.72	0.42
38:8:137:C:OP2	86:8:230:OHX:N4	2.52	0.42
36:5:419:G:N2	38:8:5:U:C2	2.87	0.42
12:C0:7:ASP:O	12:C0:11:ILE:HG12	2.19	0.42
13:C1:19:ILE:HD13	86:6:2126:OHX:N3	294.91	0.42
1:2:1227:A:C2	14:C2:43:ARG:HG2	2.54	0.42
15:C3:94:LYS:HG2	15:C3:118:ILE:HD13	2.00	0.42
16:C4:52:ARG:HG3	16:C4:53:ASP:OD1	4.29	0.42
17:C5:57:MET:O	17:C5:60:LEU:N	3.75	0.42
19:C7:87:GLU:O	19:C7:88:VAL:HG12	2.19	0.42
20:C8:54:LEU:H	20:C8:54:LEU:HD22	1.83	0.42
21:C9:4:VAL:HG11	21:C9:137:ALA:HB2	2.01	0.42
21:C9:45:MET:HE1	21:C9:46:PRO:HD2	2.01	0.42
21:C9:31:PRO:HD2	21:C9:54:PHE:CE1	2.54	0.42
24:D2:25:VAL:HG22	24:D2:65:LEU:HD21	5.23	0.42
28:D6:40:ALA:HB1	28:D6:42:ARG:NH2	4.01	0.42
30:D8:57:MET:HE2	30:D8:57:MET:HB3	1.80	0.42
22:D0:82:TYR:HH	31:D9:44:ARG:HD2	3.76	0.42
39:L2:180:LEU:HD23	39:L2:180:LEU:HA	1.72	0.42
40:L3:187:SER:O	40:L3:190:GLU:HB2	2.87	0.42
40:L3:227:GLU:HG3	40:L3:270:ARG:HE	3.61	0.42
40:L3:77:THR:HG23	40:L3:327:CYS:HA	2.04	0.42
40:L3:75:ALA:HB2	36:5:3049:A:C2	245.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:11:LEU:HD23	41:L4:11:LEU:HA	1.70	0.42
41:L4:207:VAL:HB	41:L4:227:THR:HG22	2.25	0.42
43:L6:96:VAL:HG13	43:L6:141:VAL:HG13	2.00	0.42
45:L8:160:ILE:O	45:L8:164:VAL:HG13	2.19	0.42
45:L8:203:VAL:HG12	45:L8:204:ARG:O	3.92	0.42
47:M0:208:ASN:CB	47:M0:211:ARG:HD2	2.50	0.42
51:M5:140:LYS:HD2	51:M5:144:ARG:NH2	2.98	0.42
36:1:1175:C:H1'	52:M6:87:MET:HG2	2.00	0.42
54:M8:159:LYS:HE2	54:M8:159:LYS:HB3	1.44	0.42
54:M8:178:ARG:HD3	54:M8:178:ARG:HA	1.60	0.42
56:N0:28:ARG:HE	56:N0:99:ARG:NH2	3.14	0.42
56:N0:1:MET:HE1	56:N0:32:SER:N	2.34	0.42
56:N0:52:LYS:HG3	56:N0:54:ALA:HB3	2.01	0.42
59:N3:127:PRO:O	59:N3:130:ALA:HB3	2.19	0.42
61:N5:34:LEU:HD23	61:N5:35:PRO:HD2	2.86	0.42
63:N7:18:TYR:HB3	63:N7:71:PHE:CZ	3.00	0.42
64:N8:135:GLU:O	64:N8:139:ARG:HG2	2.19	0.42
64:N8:70:LYS:N	64:N8:71:PRO:HD3	2.40	0.42
64:N8:74:ASN:ND2	64:N8:115:LYS:HB2	2.33	0.42
68:O2:64:LYS:O	68:O2:65:PHE:HB2	2.21	0.42
69:O3:22:VAL:HG12	69:O3:22:VAL:O	2.19	0.42
61:N5:46:TYR:CD2	71:O5:75:TYR:HB3	2.55	0.42
72:O6:26:ILE:HG13	72:O6:26:ILE:H	1.92	0.42
72:O6:94:ILE:HD13	72:O6:94:ILE:HA	4.28	0.42
73:O7:69:HIS:HB3	73:O7:72:ARG:HH21	2.69	0.42
74:O8:14:LEU:HD21	74:O8:52:TYR:CD2	4.71	0.42
74:O8:70:PRO:HB2	74:O8:73:LEU:HB2	2.01	0.42
2:S0:195:TRP:CZ2	2:S0:197:ILE:HD12	2.54	0.42
4:S2:72:LEU:HD12	4:S2:72:LEU:HA	1.77	0.42
9:S7:117:THR:HG22	9:S7:120:ALA:HB2	1.99	0.42
11:S9:13:SER:HB2	11:S9:47:PHE:CD1	2.54	0.42
11:S9:80:LEU:HB3	11:S9:86:LEU:HB2	2.29	0.42
34:SR:211:ILE:HG22	34:SR:223:TRP:CD1	2.53	0.42
36:1:2108:C:H1'	36:1:3344:A:H8	1.80	0.42
36:1:2190:U:C4	36:1:2191:U:C4	3.07	0.42
36:1:2206:G:OP2	36:1:2206:G:C8	2.72	0.42
36:1:3348:G:H2'	36:1:3349:C:C6	2.54	0.42
86:1:4025:OHX:N4	86:1:4145:OHX:N1	2.66	0.42
36:1:508:U:O4	86:1:4171:OHX:N5	2.53	0.42
36:1:833:G:H2'	36:1:834:U:O4'	2.20	0.42
1:2:711:U:H4'	1:2:712:G:OP1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:867:G:C5'	15:C3:4:MET:HE3	2.49	0.42
1:2:929:A:C8	16:C4:123:SER:HA	2.54	0.42
37:3:81:U:H2'	37:3:82:G:C8	2.54	0.42
38:4:104:A:H3'	38:4:105:A:C5'	2.49	0.42
36:5:1404:G:N2	36:5:1407:A:OP2	2.38	0.42
36:5:1792:C:HO2'	36:5:1794:G:H8	1.68	0.42
36:5:1910:A:H2'	36:5:1911:A:C8	2.54	0.42
36:5:190:U:C4	36:5:224:C:H1'	2.54	0.42
36:5:2541:U:H4'	36:5:2542:U:OP1	2.19	0.42
76:Q0:111:ARG:HH21	36:5:3120:C:H3'	321.27	0.42
36:5:633:C:H2'	36:5:634:C:O4'	2.19	0.42
36:5:662:U:H2'	36:5:663:C:C6	2.53	0.42
36:5:727:G:H2'	36:5:728:G:O4'	2.18	0.42
1:6:1051:G:H4'	1:6:1052:U:OP1	2.19	0.42
1:6:106:U:H2'	1:6:107:C:O4'	2.19	0.42
1:6:1263:G:C2	1:6:1264:G:H1'	2.54	0.42
1:6:1405:G:H2'	1:6:1406:A:H8	1.82	0.42
1:6:1617:U:H2'	1:6:1618:C:C6	2.54	0.42
1:6:647:G:H1	1:6:687:G:H1	1.67	0.42
1:6:838:G:C6	1:6:839:U:C4	3.07	0.42
1:6:939:A:N1	1:6:975:C:H1'	2.34	0.42
38:8:10:A:H2'	38:8:11:C:C6	2.53	0.42
13:C1:84:ILE:HG23	13:C1:111:VAL:HG11	2.16	0.42
10:S8:69:SER:HB2	13:C1:22:ASN:OD1	2.19	0.42
1:2:374:U:OP1	13:C1:96:LYS:HE3	2.19	0.42
17:C5:96:ILE:HD13	17:C5:116:LEU:O	2.19	0.42
20:C8:18:LEU:O	20:C8:20:THR:HG23	2.19	0.42
22:D0:103:ILE:HD13	22:D0:107:THR:HG21	2.01	0.42
23:D1:3:ASN:HB3	23:D1:7:GLN:O	2.20	0.42
39:L2:36:GLU:HG2	39:L2:90:ALA:O	2.21	0.42
40:L3:166:ILE:CD1	40:L3:173:GLN:HG2	2.49	0.42
40:L3:287:LYS:HE3	40:L3:287:LYS:HB3	3.78	0.42
41:L4:191:LYS:HB3	41:L4:191:LYS:HE2	3.47	0.42
41:L4:23:PRO:O	41:L4:259:ASP:HB3	5.50	0.42
42:L5:111:GLN:HA	42:L5:116:ASP:CG	2.40	0.42
47:M0:130:ASP:N	47:M0:133:GLN:OE1	3.67	0.42
47:M0:144:ASN:HA	47:M0:144:ASN:HD22	4.28	0.42
47:M0:16:PRO:C	47:M0:18:PRO:HD3	2.39	0.42
48:M1:116:TYR:CD2	48:M1:122:ILE:HD11	2.54	0.42
48:M1:164:LYS:HE3	48:M1:171:VAL:HG12	3.80	0.42
50:M4:17:VAL:HG12	50:M4:72:LEU:HB3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:155:VAL:O	51:M5:162:ARG:NH2	2.43	0.42
51:M5:181:ASN:C	51:M5:182:ASN:O	4.19	0.42
51:M5:204:LYS:HE2	51:M5:204:LYS:HB3	1.85	0.42
52:M6:22:VAL:HG21	52:M6:120:VAL:HG11	2.01	0.42
52:M6:182:ASN:O	52:M6:183:ALA:C	2.92	0.42
52:M6:8:VAL:HG22	52:M6:34:VAL:HG13	2.00	0.42
55:M9:164:LEU:HD22	55:M9:167:ARG:NH1	2.35	0.42
55:M9:169:ALA:HA	55:M9:172:ARG:HD2	2.01	0.42
61:N5:105:VAL:HG11	61:N5:126:LEU:HD22	2.01	0.42
63:N7:46:ILE:CD1	63:N7:49:TYR:HA	2.81	0.42
67:O1:55:LEU:HD22	67:O1:55:LEU:O	2.83	0.42
68:O2:19:ARG:NH1	68:O2:28:VAL:HG13	3.03	0.42
63:N7:136:PHE:CE1	70:O4:89:ILE:HG12	3.80	0.42
71:O5:47:VAL:O	71:O5:51:ILE:HG13	3.07	0.42
71:O5:50:SER:O	71:O5:54:VAL:HG23	2.46	0.42
72:O6:45:ARG:NH2	72:O6:50:LEU:HA	3.75	0.42
75:O9:23:LEU:HA	75:O9:24:PRO:HD2	2.20	0.42
79:Q3:36:ARG:HE	79:Q3:36:ARG:HB2	3.61	0.42
5:S3:218:LEU:HD23	5:S3:218:LEU:HA	2.22	0.42
6:S4:19:LEU:HD13	1:6:788:A:C4	393.43	0.42
7:S5:113:ILE:HD13	7:S5:190:ILE:HG13	4.60	0.42
7:S5:164:PRO:O	7:S5:167:ARG:HB2	2.19	0.42
7:S5:27:THR:HA	7:S5:28:PRO:HD2	2.40	0.42
8:S6:7:TYR:CE1	8:S6:125:THR:HA	2.89	0.42
8:S6:162:VAL:HG21	8:S6:171:LYS:HD3	4.27	0.42
9:S7:86:GLN:HG2	9:S7:87:ASP:H	1.83	0.42
1:2:511:A:H5'	11:S9:173:ALA:HB2	2.01	0.42
11:S9:182:GLU:HG3	11:S9:182:GLU:H	3.10	0.42
36:1:2105:G:O2'	36:1:2106:A:H5'	2.19	0.42
36:1:2631:U:H4'	36:1:2697:A:C2	2.54	0.42
36:1:3259:U:H5'	36:1:3259:U:C6	2.50	0.42
36:1:699:A:H2'	36:1:700:C:O4'	2.20	0.42
1:2:1719:A:N6	1:2:1720:G:C2	2.87	0.42
1:2:1727:G:H2'	1:2:1728:A:C8	2.53	0.42
1:2:229:U:H3	1:2:236:A:H61	1.68	0.42
1:2:287:G:O2'	1:2:288:A:P	2.77	0.42
1:2:111:U:C2	1:2:304:U:C4	3.08	0.42
1:2:411:C:H2'	1:2:412:A:O4'	2.19	0.42
1:2:955:A:H2'	1:2:956:C:O4'	2.19	0.42
37:3:49:G:O6	42:L5:58:LYS:NZ	2.47	0.42
36:5:1192:C:N4	36:5:1301:A:O3'	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1781:C:H2'	36:5:1782:U:H6	1.82	0.42
36:5:1949:G:H1	36:5:2097:U:H3	1.65	0.42
36:5:2225:U:H2'	36:5:2226:U:C6	2.54	0.42
36:5:2599:U:H2'	36:5:2600:C:C6	2.54	0.42
36:5:2660:G:O3'	36:5:2749:G:N2	2.52	0.42
36:5:3164:C:HO2'	36:5:3165:A:P	2.42	0.42
36:5:3167:A:H2'	36:5:3168:A:O4'	2.18	0.42
36:5:3178:A:H5''	36:5:3179:U:OP1	2.19	0.42
36:5:3362:A:C2	36:5:3363:U:C2	3.07	0.42
36:5:29:C:H4'	36:5:62:A:H4'	2.01	0.42
36:5:976:U:H2'	36:5:977:C:O4'	2.19	0.42
1:6:1082:C:H2'	1:6:1083:G:O4'	2.18	0.42
21:C9:122:ARG:NH2	1:6:1500:C:OP1	418.54	0.42
1:6:1641:C:H2'	1:6:1642:G:C8	2.54	0.42
1:6:491:C:N4	1:6:496:G:O6	2.52	0.42
1:6:853:G:H2'	1:6:854:U:H6	1.84	0.42
13:C1:6:THR:CB	13:C1:9:SER:HB3	2.49	0.42
16:C4:13:VAL:HG21	16:C4:75:GLY:O	3.41	0.42
17:C5:31:GLU:HG3	17:C5:32:ASP:H	1.85	0.42
18:C6:25:GLY:H	18:C6:63:ILE:HA	1.84	0.42
1:2:1383:G:H1'	22:D0:57:ARG:HH12	1.85	0.42
25:D3:86:PHE:HB2	25:D3:120:VAL:HG11	2.41	0.42
29:D7:47:PHE:CD1	29:D7:49:HIS:O	2.73	0.42
29:D7:6:ASP:OD1	29:D7:9:HIS:ND1	2.52	0.42
33:E1:108:VAL:HA	33:E1:113:LYS:O	2.18	0.42
40:L3:229:VAL:HG13	40:L3:235:THR:HG21	2.16	0.42
40:L3:252:ILE:HD12	40:L3:252:ILE:HA	1.51	0.42
40:L3:31:ALA:O	40:L3:339:ARG:NH1	2.48	0.42
40:L3:322:ILE:HD13	40:L3:322:ILE:HA	1.73	0.42
41:L4:177:ASP:O	41:L4:180:LYS:HB3	2.20	0.42
41:L4:192:GLY:O	41:L4:194:TYR:N	2.52	0.42
41:L4:205:PRO:HG2	41:L4:225:VAL:HG22	2.49	0.42
41:L4:26:PHE:HE2	41:L4:258:LEU:HD23	2.24	0.42
42:L5:108:ARG:CZ	42:L5:253:PHE:HB2	2.49	0.42
42:L5:270:LYS:HD3	37:7:22:A:N6	323.10	0.42
37:3:27:A:P	42:L5:57:ASN:HD22	2.42	0.42
44:L7:32:ALA:O	44:L7:35:ALA:HB3	4.22	0.42
45:L8:136:LEU:HD23	45:L8:136:LEU:HA	2.16	0.42
45:L8:239:GLY:O	45:L8:240:ASN:C	3.10	0.42
46:L9:163:GLN:C	46:L9:165:CYS:N	2.73	0.42
46:L9:188:THR:HG22	46:L9:189:GLU:HG2	8.31	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:10:ILE:HD13	46:L9:75:VAL:HG11	2.93	0.42
47:M0:176:LEU:HD12	47:M0:181:TYR:HA	2.00	0.42
47:M0:77:THR:HG22	47:M0:82:ARG:HA	2.03	0.42
48:M1:166:LYS:HD3	48:M1:167:TYR:CD1	2.55	0.42
48:M1:89:TYR:O	48:M1:169:ALA:HB1	2.30	0.42
50:M4:19:ARG:HB3	50:M4:35:ILE:HD12	2.51	0.42
50:M4:27:GLN:HG2	50:M4:27:GLN:H	1.56	0.42
52:M6:138:LEU:O	52:M6:141:LEU:N	2.93	0.42
36:1:412:G:O2'	53:M7:119:VAL:O	2.33	0.42
54:M8:122:ILE:HG21	54:M8:122:ILE:HD13	4.12	0.42
49:M3:8:PRO:HA	54:M8:164:ARG:O	2.43	0.42
64:N8:46:ASP:N	64:N8:46:ASP:OD1	2.51	0.42
72:O6:52:PRO:HA	72:O6:55:ARG:HH11	2.50	0.42
6:S4:9:LEU:CB	6:S4:30:ARG:HB2	2.85	0.42
8:S6:68:LEU:O	8:S6:69:LEU:HB2	2.18	0.42
9:S7:122:HIS:HA	9:S7:125:ILE:HD12	2.04	0.42
9:S7:9:LEU:HD21	9:S7:17:GLU:HB3	2.13	0.42
11:S9:146:PHE:O	11:S9:147:MET:HB2	2.31	0.42
35:SM:44:PRO:HA	36:1:2678:A:C4	2.55	0.42
36:1:1100:U:H2'	36:1:1101:G:O4'	2.19	0.42
36:1:1481:A:OP1	36:1:1481:A:O4'	2.37	0.42
36:1:1618:G:H2'	36:1:1619:A:O4'	2.20	0.42
36:1:1667:A:O5'	36:1:1667:A:H8	2.02	0.42
36:1:1844:C:H2'	36:1:1845:G:H5''	2.00	0.42
36:1:2137:U:OP2	36:1:2142:A:N6	2.42	0.42
36:1:2590:A:C4	36:1:2591:A:C8	3.06	0.42
36:1:3082:C:H2'	36:1:3083:G:C8	2.54	0.42
36:1:2809:C:O2'	86:1:4142:OHX:N6	2.52	0.42
36:1:561:C:H2'	36:1:562:C:C6	2.55	0.42
36:1:679:U:H2'	36:1:680:G:C8	2.55	0.42
36:1:766:U:H4'	36:1:767:U:O5'	2.18	0.42
36:1:936:A:H5''	36:1:937:G:OP1	2.19	0.42
1:2:1173:C:OP1	20:C8:132:ARG:NH1	2.52	0.42
1:2:1224:A:H2'	1:2:1225:U:H6	1.84	0.42
1:2:1302:U:OP1	4:S2:88:LYS:NZ	2.40	0.42
1:2:158:U:O2'	1:2:159:U:H3'	2.19	0.42
1:2:1643:U:H5'	77:Q1:9:ARG:NH2	2.33	0.42
1:2:358:U:HO2'	1:2:360:A:H5''	1.84	0.42
1:2:494:U:O2'	1:2:495:C:O5'	2.28	0.42
1:2:647:G:N2	1:2:687:G:H1	2.17	0.42
1:2:89:G:C6	1:2:90:C:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:6:C:OP1	42:L5:54:ARG:NE	2.39	0.42
36:5:1106:G:H2'	36:5:1107:C:O4'	2.19	0.42
36:5:1108:U:H2'	36:5:1109:U:H6	1.83	0.42
36:5:1280:C:H2'	36:5:1281:G:O4'	2.19	0.42
36:5:1295:G:H2'	36:5:1296:C:C6	2.54	0.42
64:N8:3:SER:OG	36:5:1430:U:O4	139.04	0.42
36:5:1680:G:C5	36:5:1681:U:C5	3.08	0.42
36:5:2581:U:O2'	36:5:2582:C:H5'	2.19	0.42
36:5:113:C:C2	36:5:319:A:C2	3.07	0.42
36:5:2171:G:O6	86:5:4250:OHX:N2	2.52	0.42
64:N8:8:THR:HG21	36:5:662:U:OP1	149.19	0.42
36:5:711:A:H5''	36:5:712:G:OP2	2.18	0.42
36:5:945:C:H2'	36:5:946:U:C6	2.54	0.42
1:6:1118:G:O6	86:6:2176:OHX:N2	2.53	0.42
1:6:114:C:H6	1:6:114:C:H5'	1.84	0.42
35:SM:68:ARG:HD3	1:6:1460:A:OP1	335.44	0.42
1:6:1529:C:H2'	1:6:1530:C:C6	2.53	0.42
1:6:565:C:H4'	1:6:566:C:O5'	2.18	0.42
71:O5:2:ALA:HB2	38:8:80:A:H4'	24.83	0.42
15:C3:22:ALA:HB1	15:C3:23:PRO:CA	2.49	0.42
15:C3:46:THR:HG23	15:C3:49:GLN:OE1	2.43	0.42
1:2:1241:G:H1'	17:C5:79:HIS:CG	2.54	0.42
18:C6:55:VAL:O	18:C6:59:LYS:HD3	2.62	0.42
18:C6:18:ALA:CB	18:C6:69:VAL:HG13	2.61	0.42
26:D4:106:GLN:HA	26:D4:109:LYS:HD2	2.02	0.42
26:D4:63:GLN:N	26:D4:68:LYS:O	2.39	0.42
33:E1:103:LEU:HD13	33:E1:131:PHE:HD2	5.25	0.42
33:E1:123:ASN:O	33:E1:126:CYS:N	2.48	0.42
40:L3:10:ARG:HD3	40:L3:11:HIS:H	4.27	0.42
40:L3:255:TRP:O	40:L3:255:TRP:HD1	2.02	0.42
40:L3:5:LYS:HG2	40:L3:6:TYR:CE1	2.65	0.42
44:L7:219:LYS:O	44:L7:228:SER:HB2	2.65	0.42
45:L8:123:GLN:C	45:L8:125:ALA:H	3.26	0.42
47:M0:9:TYR:CD1	47:M0:97:LEU:HD13	2.54	0.42
49:M3:171:ARG:HE	49:M3:171:ARG:HB3	4.30	0.42
50:M4:123:LEU:HB3	52:M6:190:VAL:HG13	6.69	0.42
55:M9:105:LEU:HD21	55:M9:139:VAL:HG13	6.23	0.42
55:M9:35:ALA:O	55:M9:37:SER:N	4.03	0.42
56:N0:134:ASP:O	56:N0:136:LYS:HG2	2.56	0.42
36:1:2724:U:H4'	57:N1:54:HIS:CE1	2.54	0.42
61:N5:103:TYR:O	61:N5:105:VAL:HG23	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:5:LYS:O	67:O1:6:ASP:HB2	2.19	0.42
64:N8:14:HIS:ND1	68:O2:36:LYS:HE2	3.11	0.42
68:O2:55:ILE:HB	36:5:947:G:H5'	186.41	0.42
69:O3:59:VAL:HB	69:O3:60:ARG:H	1.56	0.42
71:O5:59:ASN:O	71:O5:63:ARG:HG3	2.18	0.42
73:O7:27:PHE:HA	73:O7:34:CYS:HA	2.02	0.42
75:O9:9:ILE:HD12	75:O9:9:ILE:HG23	1.84	0.42
76:Q0:78:ILE:HG23	76:Q0:83:LYS:HB2	2.01	0.42
78:Q2:14:GLY:O	78:Q2:18:ARG:HG3	4.69	0.42
78:Q2:3:ASN:HA	78:Q2:92:GLU:O	2.20	0.42
79:Q3:19:GLY:HA2	36:5:1925:U:O2	239.54	0.42
2:S0:31:VAL:N	2:S0:149:LEU:O	2.49	0.42
3:S1:71:ALA:HB2	3:S1:79:HIS:C	2.40	0.42
7:S5:82:PHE:CE2	30:D8:49:ARG:HB3	2.54	0.42
8:S6:20:ASP:O	8:S6:23:ARG:N	2.97	0.42
11:S9:168:ARG:NE	11:S9:171:ARG:HH11	2.17	0.42
11:S9:49:LEU:HD23	11:S9:104:PHE:CE2	2.53	0.42
34:SR:153:GLN:HB3	34:SR:202:LEU:HD23	2.02	0.42
36:1:1170:A:H2'	36:1:1171:G:O4'	2.19	0.42
36:1:1286:A:H1'	36:1:1287:A:O4'	2.20	0.42
36:1:1717:U:H2'	36:1:1718:G:C8	2.54	0.42
36:1:1770:G:H5'	36:1:1771:C:OP2	2.19	0.42
36:1:1918:C:H2'	36:1:1919:G:C8	2.55	0.42
36:1:2925:C:H2'	36:1:2926:A:O4'	2.19	0.42
36:1:2933:A:C2	36:1:3014:U:H4'	2.54	0.42
36:1:3194:C:O2'	36:1:3195:U:H2'	2.20	0.42
36:1:376:G:H1'	36:1:400:G:N2	2.35	0.42
1:2:1120:U:H2'	1:2:1121:C:C6	2.55	0.42
1:2:1460:A:O2'	35:SM:72:ARG:NH2	2.52	0.42
1:2:1489:U:H5'	1:2:1494:C:H1'	2.00	0.42
1:2:1642:G:O3'	77:Q1:9:ARG:NH2	2.53	0.42
1:2:1746:A:H2'	1:2:1747:G:O4'	2.19	0.42
1:2:198:A:N3	1:2:198:A:H2'	2.34	0.42
1:2:740:A:N1	1:2:741:C:C4	2.88	0.42
58:N2:100:THR:HA	36:5:1677:G:OP1	140.94	0.42
36:5:2442:G:N1	36:5:2443:A:N7	2.67	0.42
36:5:260:C:H2'	36:5:261:U:H6	1.84	0.42
36:5:2694:A:C6	36:5:2695:A:C6	3.07	0.42
51:M5:96:ARG:HD2	36:5:31:C:H4'	124.17	0.42
36:5:3204:C:H2'	36:5:3205:G:C8	2.54	0.42
36:5:3274:A:C3'	36:5:3275:U:H5''	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3289:G:H4'	36:5:3290:G:OP1	2.19	0.42
36:5:3353:G:O2'	36:5:3356:G:OP2	2.37	0.42
36:5:3377:G:O6	86:5:4090:OHX:N2	2.52	0.42
36:5:370:U:O4	36:5:371:G:C6	2.72	0.42
86:5:4025:OHX:N4	86:5:4219:OHX:N3	2.67	0.42
36:5:914:A:O2'	36:5:2146:C:H4'	2.20	0.42
1:6:1545:A:H2'	1:6:1546:G:H8	1.84	0.42
1:6:777:C:H6	1:6:777:C:H5''	1.84	0.42
37:7:112:G:H2'	37:7:113:C:C6	2.55	0.42
14:C2:50:LYS:O	14:C2:54:ARG:HG2	2.96	0.42
15:C3:2:GLY:O	15:C3:3:ARG:HB3	2.19	0.42
1:2:961:U:H5''	15:C3:71:ILE:HD12	2.01	0.42
17:C5:69:GLU:HG2	17:C5:70:ASN:ND2	8.10	0.42
18:C6:16:ALA:HB2	18:C6:72:GLY:HA3	2.08	0.42
18:C6:26:LYS:H	18:C6:26:LYS:HG3	1.73	0.42
20:C8:124:GLY:O	20:C8:127:HIS:HB2	2.20	0.42
20:C8:56:LYS:HD3	20:C8:60:GLU:HG3	2.00	0.42
22:D0:41:ILE:HD11	22:D0:107:THR:HB	2.01	0.42
23:D1:15:ARG:NH1	23:D1:33:GLN:OE1	2.43	0.42
24:D2:5:SER:HB2	1:6:1101:G:O2'	353.18	0.42
24:D2:15:ASN:HD21	24:D2:72:CYS:H	2.27	0.42
24:D2:7:LEU:HD22	24:D2:11:LEU:HG	3.88	0.42
25:D3:125:VAL:CG1	25:D3:126:LYS:HG3	2.49	0.42
6:S4:56:LEU:HD21	26:D4:20:ARG:NH1	3.50	0.42
26:D4:61:ARG:O	26:D4:61:ARG:HG3	2.19	0.42
1:2:1795:U:O4	28:D6:9:GLY:HA2	2.19	0.42
39:L2:188:LYS:HD2	39:L2:189:TYR:CE2	6.33	0.42
40:L3:39:LYS:H	40:L3:39:LYS:HG2	1.60	0.42
40:L3:57:VAL:HG21	60:N4:15:PRO:HG2	2.02	0.42
41:L4:29:PRO:HG3	41:L4:279:HIS:ND1	3.26	0.42
42:L5:152:ARG:CG	42:L5:152:ARG:NH1	3.15	0.42
43:L6:148:GLU:OE2	43:L6:151:LYS:HE2	2.20	0.42
44:L7:207:LEU:O	36:5:1334:U:H5'	239.87	0.42
45:L8:72:PRO:HA	45:L8:73:PRO:HD3	1.79	0.42
45:L8:95:ASN:OD1	45:L8:98:ARG:NE	2.53	0.42
47:M0:30:LYS:HG3	47:M0:63:GLU:OE1	5.03	0.42
47:M0:73:ASN:O	47:M0:77:THR:HG23	2.18	0.42
49:M3:187:ALA:HA	49:M3:190:LYS:HB3	2.01	0.42
53:M7:23:ARG:HH21	53:M7:125:GLN:HB3	1.84	0.42
53:M7:67:ILE:HB	53:M7:80:LYS:CG	3.89	0.42
54:M8:65:SER:OG	54:M8:66:ARG:N	2.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:106:LEU:HD12	55:M9:106:LEU:HA	1.86	0.42
57:N1:14:MET:HE1	57:N1:55:LYS:HB2	2.02	0.42
62:N6:6:LEU:HA	62:N6:6:LEU:HD23	1.59	0.42
63:N7:23:VAL:HB	63:N7:43:VAL:HB	2.02	0.42
63:N7:48:ARG:NH2	63:N7:69:LYS:HD2	2.35	0.42
65:N9:21:ILE:HG22	65:N9:22:LYS:N	3.73	0.42
65:N9:7:HIS:CG	65:N9:8:THR:N	3.00	0.42
69:O3:89:LEU:HA	69:O3:89:LEU:HD23	1.78	0.42
70:O4:58:ARG:CG	70:O4:58:ARG:HH11	2.32	0.42
70:O4:58:ARG:NH1	36:5:1592:G:OP1	160.39	0.42
71:O5:85:THR:H	71:O5:88:LEU:HB2	1.83	0.42
75:O9:25:GLN:O	75:O9:28:ARG:HG3	2.67	0.42
2:S0:179:ARG:HH11	2:S0:183:ARG:NH1	2.18	0.42
2:S0:201:LEU:O	2:S0:203:PHE:N	2.51	0.42
3:S1:119:THR:HB	3:S1:143:THR:HG23	2.02	0.42
3:S1:195:LYS:HA	3:S1:198:GLU:HB3	2.00	0.42
3:S1:202:LYS:HE3	3:S1:202:LYS:HB2	1.90	0.42
3:S1:226:GLY:HA2	36:5:2536:A:H4'	257.31	0.42
6:S4:57:ASN:HB2	6:S4:60:GLU:H	1.97	0.42
7:S5:84:LYS:HD3	7:S5:92:ARG:HH22	4.85	0.42
9:S7:99:LEU:HD13	9:S7:108:GLN:HE22	13.54	0.42
9:S7:158:ASP:C	9:S7:160:GLN:N	2.91	0.42
9:S7:57:ALA:HA	9:S7:89:HIS:O	2.18	0.42
9:S7:94:ALA:HB3	9:S7:96:ARG:NH1	2.35	0.42
11:S9:143:ILE:HD13	1:6:768:C:C2	419.14	0.42
34:SR:205:SER:OG	34:SR:210:LEU:HB2	2.19	0.42
34:SR:231:MET:HB3	34:SR:232:TYR:H	1.66	0.42
36:1:1135:A:C2'	36:1:1136:A:H5'	2.49	0.42
36:1:1349:G:H22	36:1:1355:A:N6	2.16	0.42
36:1:1691:U:H2'	36:1:1692:U:C6	2.55	0.42
36:1:1748:G:C6	36:1:1749:A:C6	3.08	0.42
36:1:2389:C:H2'	36:1:2390:A:C8	2.54	0.42
36:1:250:U:C5	36:1:251:G:N7	2.87	0.42
36:1:2535:A:H3'	36:1:2536:A:C8	2.55	0.42
36:1:3169:U:H2'	36:1:3170:A:O4'	2.20	0.42
36:1:3193:C:H2'	36:1:3194:C:C6	2.55	0.42
86:1:4053:OHX:N2	86:1:4162:OHX:N5	2.68	0.42
86:1:3878:OHX:N6	86:1:4138:OHX:N5	2.67	0.42
36:1:898:U:H2'	36:1:899:U:O4'	2.19	0.42
1:2:1063:U:OP1	29:D7:72:LYS:NZ	2.52	0.42
1:2:1498:G:C2	1:2:1510:U:O2	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1566:U:H2'	1:2:1567:U:C6	2.51	0.42
1:2:1660:A:H5'	59:N3:67:PRO:HG2	2.01	0.42
86:2:2090:OHX:N3	86:2:2131:OHX:N4	2.68	0.42
1:2:538:A:H8	1:2:543:C:N4	2.18	0.42
1:2:651:G:C2	1:2:684:A:C6	3.07	0.42
36:5:1014:U:C2'	36:5:1015:U:H5'	2.50	0.42
36:5:1238:C:HO2'	36:5:1239:C:P	2.34	0.42
64:N8:4:ARG:NH2	36:5:1427:U:OP2	134.96	0.42
36:5:1443:G:O6	86:5:4011:OHX:N5	2.52	0.42
36:5:1561:G:H1	36:5:1578:C:N4	2.17	0.42
36:5:1595:U:C2	36:5:1596:C:C6	3.08	0.42
36:5:1798:A:H2'	36:5:1799:A:C8	2.55	0.42
36:5:2608:G:C2	36:5:2609:A:C8	3.08	0.42
36:5:637:C:H1'	36:5:638:C:C6	2.54	0.42
36:5:647:A:C2	36:5:2372:A:H2'	2.55	0.42
36:5:747:A:H2'	36:5:748:U:O4'	2.20	0.42
36:5:818:C:C4	36:5:819:U:C4	3.08	0.42
19:C7:49:LYS:HA	1:6:1389:C:H4'	421.99	0.42
1:6:1698:G:N2	1:6:1699:G:C5	2.87	0.42
1:6:412:A:H8	1:6:412:A:O5'	2.01	0.42
1:6:569:C:H2'	1:6:570:A:O4'	2.20	0.42
1:6:587:C:H2'	1:6:588:U:C6	2.54	0.42
28:D6:11:ASN:HB3	1:6:934:C:C6	332.92	0.42
12:C0:29:GLN:O	12:C0:30:ALA:HB3	2.20	0.42
12:C0:54:TYR:HA	12:C0:72:GLY:N	2.34	0.42
13:C1:34:TRP:O	13:C1:61:THR:HA	3.41	0.42
1:2:1073:G:H4'	15:C3:10:GLY:HA2	2.02	0.42
16:C4:38:THR:O	16:C4:39:ILE:HG23	2.20	0.42
16:C4:90:ARG:HB3	16:C4:91:THR:H	1.66	0.42
19:C7:85:VAL:HA	19:C7:86:PRO:HD2	3.96	0.42
20:C8:139:LYS:HG3	1:6:1459:C:N4	348.94	0.42
21:C9:65:ILE:HG23	21:C9:71:VAL:HG22	2.01	0.42
24:D2:50:PHE:CB	24:D2:63:VAL:HG22	3.02	0.42
24:D2:5:SER:O	24:D2:6:VAL:HB	4.51	0.42
26:D4:124:ARG:O	26:D4:127:LYS:HG3	2.18	0.42
27:D5:70:LYS:HA	27:D5:70:LYS:HD3	1.80	0.42
29:D7:37:CYS:HA	29:D7:38:PRO:HD3	2.23	0.42
33:E1:118:ARG:HB3	33:E1:119:ARG:H	3.45	0.42
40:L3:236:LYS:HG3	40:L3:237:LYS:N	2.35	0.42
40:L3:58:ARG:NE	40:L3:74:GLU:OE1	3.14	0.42
41:L4:234:ASN:OD1	41:L4:236:LEU:HB2	2.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:299:ILE:HG12	41:L4:299:ILE:H	1.55	0.42
41:L4:337:GLU:O	41:L4:339:LEU:HD23	2.19	0.42
41:L4:55:LYS:HD2	41:L4:59:GLN:CD	2.39	0.42
42:L5:144:VAL:CG1	42:L5:173:VAL:HG22	2.49	0.42
42:L5:34:LYS:O	42:L5:38:THR:HG23	2.20	0.42
43:L6:50:LYS:HG2	43:L6:74:VAL:CG2	4.43	0.42
44:L7:176:TYR:CZ	44:L7:197:GLN:HG2	2.53	0.42
44:L7:158:LYS:HG2	44:L7:203:TRP:HH2	1.84	0.42
44:L7:210:PRO:CA	44:L7:243:MET:HG2	2.49	0.42
46:L9:188:THR:OG1	46:L9:188:THR:O	2.36	0.42
36:1:3113:A:H1'	46:L9:70:THR:HG22	2.01	0.42
47:M0:23:ASN:O	47:M0:24:ARG:HB2	2.20	0.42
49:M3:24:VAL:O	49:M3:26:PHE:N	2.52	0.42
49:M3:61:PRO:HD3	49:M3:70:ARG:NH2	2.99	0.42
50:M4:20:VAL:HG22	50:M4:66:THR:OG1	2.20	0.42
51:M5:183:THR:OG1	51:M5:183:THR:O	2.87	0.42
55:M9:7:GLN:N	55:M9:7:GLN:OE1	2.52	0.42
56:N0:132:THR:O	56:N0:133:ALA:HB3	2.28	0.42
57:N1:114:ALA:O	57:N1:117:ALA:HB3	2.94	0.42
60:N4:85:ALA:O	60:N4:87:LEU:N	2.52	0.42
61:N5:96:LYS:HG3	61:N5:107:VAL:HB	2.74	0.42
49:M3:3:ILE:HG12	64:N8:34:MET:HE2	2.27	0.42
36:1:1074:U:H1'	65:N9:46:ALA:HB2	2.01	0.42
66:O0:74:ASN:HB2	66:O0:86:ARG:HG3	5.28	0.42
66:O0:25:LEU:HD22	66:O0:87:VAL:HG21	2.02	0.42
68:O2:78:ASN:HA	68:O2:108:ILE:HD11	2.01	0.42
68:O2:41:VAL:HG12	68:O2:46:PHE:CD2	2.63	0.42
49:M3:176:GLU:HG2	72:O6:11:LEU:HD23	2.79	0.42
75:O9:30:ARG:HG2	38:8:75:G:C8	64.38	0.42
79:Q3:17:ARG:HB2	79:Q3:18:TYR:CE1	2.55	0.42
3:S1:93:GLY:C	3:S1:95:ASN:H	2.82	0.42
4:S2:150:GLN:HA	4:S2:151:PRO:HD3	1.87	0.42
4:S2:169:LEU:HB3	4:S2:196:VAL:HG21	2.29	0.42
4:S2:139:ILE:HD11	4:S2:218:ILE:HB	2.02	0.42
5:S3:38:GLU:HB3	5:S3:49:ILE:HD12	3.27	0.42
6:S4:187:ARG:O	6:S4:187:ARG:HD3	2.20	0.42
7:S5:20:PHE:CZ	7:S5:22:PRO:HG3	5.22	0.42
8:S6:147:LEU:O	8:S6:148:SER:OG	2.24	0.42
8:S6:25:ARG:HG3	8:S6:28:PHE:HD1	1.85	0.42
9:S7:35:LYS:NZ	9:S7:36:ALA:H	2.18	0.42
10:S8:73:SER:O	10:S8:74:LYS:HD2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:126:ARG:HA	11:S9:129:ILE:HD12	2.01	0.42
11:S9:108:ARG:NH2	11:S9:145:SER:HB2	2.34	0.42
11:S9:178:ALA:O	11:S9:182:GLU:HB3	2.20	0.42
34:SR:145:LEU:HB2	34:SR:146:GLY:H	3.44	0.42
34:SR:222:LEU:O	34:SR:231:MET:HB2	3.06	0.42
34:SR:81:LEU:HD23	34:SR:91:LEU:HA	4.01	0.42
36:1:1369:A:H2'	36:1:1370:G:O4'	2.19	0.42
36:1:1496:C:C2	36:1:1521:G:N2	2.88	0.42
36:1:2544:U:H2'	36:1:2545:C:C6	2.55	0.42
36:1:2403:G:H5'	36:1:2872:A:C2	2.55	0.42
36:1:2932:U:O2	36:1:2934:A:C8	2.73	0.42
86:1:4025:OHX:N6	86:1:4145:OHX:N3	2.67	0.42
36:1:511:G:H2'	36:1:512:U:O4'	2.19	0.42
36:1:888:A:H2'	36:1:889:U:O4'	2.19	0.42
36:1:956:U:H2'	36:1:957:C:C6	2.55	0.42
1:2:1504:G:C6	1:2:1505:A:C6	3.07	0.42
1:2:1531:G:C6	1:2:1532:U:C4	3.07	0.42
1:2:1560:U:O4'	1:2:1560:U:O2	2.37	0.42
1:2:838:G:H2'	1:2:839:U:C6	2.53	0.42
1:2:850:A:H2'	1:2:851:U:C6	2.55	0.42
38:4:118:C:C2	38:4:136:G:C2	3.07	0.42
38:4:107:G:OP2	86:4:231:OHX:N2	2.52	0.42
38:4:97:A:C2	38:4:98:U:C2	3.08	0.42
36:5:242:C:H2'	36:5:243:G:C8	2.55	0.42
36:5:2440:G:N2	36:5:2508:U:C2	2.87	0.42
50:M4:77:ARG:HG3	36:5:561:C:OP1	347.16	0.42
36:5:712:G:H2'	36:5:713:U:C6	2.54	0.42
36:5:981:U:H2'	36:5:982:C:O4'	2.19	0.42
1:6:1671:A:OP2	86:6:2060:OHX:N3	2.52	0.42
1:6:119:A:H1'	1:6:397:A:C5	2.54	0.42
1:6:496:G:N7	1:6:497:G:N2	2.67	0.42
11:S9:146:PHE:HZ	1:6:765:G:N1	431.29	0.42
38:8:85:G:C2	38:8:87:G:N2	2.88	0.42
13:C1:6:THR:HB	13:C1:9:SER:HB3	2.01	0.42
20:C8:14:ILE:H	20:C8:24:GLY:H	1.66	0.42
20:C8:45:LEU:O	20:C8:48:LYS:N	3.29	0.42
21:C9:14:PHE:CZ	21:C9:132:LEU:HD13	5.19	0.42
22:D0:37:VAL:O	22:D0:41:ILE:HD13	2.20	0.42
24:D2:106:THR:HB	24:D2:122:SER:O	2.19	0.42
27:D5:39:ALA:HB1	27:D5:71:ILE:N	2.35	0.42
29:D7:75:GLU:HB2	29:D7:76:GLY:H	3.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:E1:103:LEU:HD23	33:E1:105:TYR:HD2	3.29	0.42
39:L2:200:ARG:C	39:L2:202:VAL:H	2.22	0.42
40:L3:262:TRP:HB3	52:M6:64:PHE:O	2.22	0.42
40:L3:95:THR:C	40:L3:97:ARG:N	2.73	0.42
41:L4:177:ASP:O	41:L4:181:VAL:HG23	3.40	0.42
41:L4:325:LEU:HA	41:L4:325:LEU:HD23	1.96	0.42
42:L5:75:LEU:CD2	42:L5:112:LYS:HE2	4.47	0.42
42:L5:158:ARG:HB2	37:7:46:A:OP1	278.38	0.42
42:L5:261:THR:H	42:L5:264:GLN:NE2	2.17	0.42
42:L5:47:PRO:HG2	42:L5:49:TYR:CE2	3.00	0.42
43:L6:55:LEU:HD11	43:L6:66:SER:HB2	2.53	0.42
44:L7:123:THR:O	44:L7:126:LEU:HB2	2.19	0.42
44:L7:123:THR:HA	44:L7:126:LEU:HD12	2.00	0.42
44:L7:239:LEU:O	44:L7:242:SER:N	2.52	0.42
45:L8:118:GLU:C	45:L8:120:LYS:N	2.73	0.42
45:L8:134:TYR:CD2	45:L8:134:TYR:N	3.04	0.42
36:1:1210:U:OP1	46:L9:62:ARG:NH1	2.52	0.42
46:L9:93:VAL:HG22	76:Q0:82:LEU:HB3	2.02	0.42
49:M3:92:THR:HB	71:O5:112:PRO:O	2.60	0.42
51:M5:49:ARG:HA	51:M5:53:TYR:HB3	2.36	0.42
52:M6:113:ASP:OD2	52:M6:113:ASP:N	2.52	0.42
52:M6:189:ASP:O	52:M6:192:LYS:N	2.53	0.42
52:M6:48:PHE:HE1	52:M6:52:LEU:HD11	2.76	0.42
53:M7:32:THR:O	53:M7:35:ALA:HB3	2.40	0.42
56:N0:84:ARG:HH22	36:5:1296:C:P	288.89	0.42
61:N5:63:ILE:HD13	61:N5:63:ILE:C	2.66	0.42
64:N8:13:GLY:HA2	36:5:943:U:H3'	163.35	0.42
67:O1:52:ALA:HB2	67:O1:92:TYR:CZ	2.54	0.42
68:O2:32:TRP:CE2	68:O2:53:PRO:HD2	2.54	0.42
75:O9:28:ARG:H	75:O9:28:ARG:HG2	1.60	0.42
2:S0:74:VAL:HG22	2:S0:96:THR:HG23	2.80	0.42
3:S1:81:PHE:CE1	3:S1:109:LYS:HE2	2.55	0.42
3:S1:124:ASN:N	3:S1:124:ASN:OD1	2.51	0.42
3:S1:85:LYS:O	3:S1:101:HIS:N	2.53	0.42
4:S2:53:ILE:HG13	4:S2:72:LEU:HB3	2.84	0.42
6:S4:92:LEU:HB3	6:S4:95:THR:CG2	3.73	0.42
7:S5:63:GLN:HB3	7:S5:64:VAL:H	1.56	0.42
8:S6:185:GLN:HA	8:S6:188:ARG:NH1	2.43	0.42
9:S7:42:GLN:HG2	9:S7:43:PHE:N	2.33	0.42
1:2:105:A:OP1	10:S8:18:ARG:HD3	2.20	0.42
10:S8:48:THR:HG21	10:S8:54:LYS:HE3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:84:HIS:CE1	10:S8:90:LEU:HD13	3.37	0.42
35:SM:138:ALA:O	35:SM:139:GLU:HB3	2.20	0.42
34:SR:222:LEU:HA	34:SR:222:LEU:HD13	1.90	0.42
34:SR:260:ILE:HD12	34:SR:274:LEU:HD12	2.97	0.42
36:1:101:G:C2'	36:1:102:C:H5'	2.50	0.42
36:1:1345:G:H8	36:1:1345:G:H5''	1.85	0.42
36:1:1593:A:C6	36:1:1594:A:C6	3.08	0.42
36:1:1688:U:H2'	36:1:1689:U:H6	1.79	0.42
36:1:2620:G:H2'	36:1:2621:G:C8	2.55	0.42
36:1:3045:G:O3'	40:L3:275:ARG:NH1	2.53	0.42
36:1:3060:C:H2'	36:1:3061:G:O4'	2.20	0.42
36:1:3112:G:O2'	46:L9:70:THR:HB	2.19	0.42
86:1:3973:OHX:N1	86:1:4154:OHX:N2	2.68	0.42
36:1:707:U:H2'	36:1:708:G:H5''	2.00	0.42
36:1:733:G:O6	86:1:4064:OHX:N2	2.52	0.42
1:2:131:C:HO2'	1:2:132:U:P	2.43	0.42
1:2:1445:G:C4	33:E1:91:ILE:HB	2.55	0.42
1:2:1535:U:OP1	1:2:1535:U:H4'	2.20	0.42
1:2:170:U:H6	1:2:267:U:HO2'	1.67	0.42
1:2:772:G:H5''	6:S4:23:LEU:HD21	2.02	0.42
38:4:6:U:H2'	38:4:7:U:C6	2.55	0.42
36:5:1340:G:H2'	36:5:1341:U:H6	1.85	0.42
36:5:1716:U:HO2'	36:5:1717:U:P	2.42	0.42
36:5:1763:U:H3'	36:5:1764:U:C5	2.55	0.42
36:5:22:G:O4'	38:8:104:A:H1'	2.19	0.42
36:5:2765:C:H2'	36:5:2766:U:C6	2.55	0.42
36:5:2985:C:H2'	36:5:2986:U:C6	2.55	0.42
86:5:4191:OHX:N1	86:5:4193:OHX:N4	2.66	0.42
1:6:127:G:H21	1:6:178:U:H1'	1.85	0.42
1:6:515:A:H2'	1:6:516:G:O4'	2.20	0.42
1:6:97:C:C1'	1:6:426:G:H5'	2.50	0.42
13:C1:91:LEU:HD22	13:C1:100:TYR:HB3	6.09	0.42
14:C2:68:GLU:C	14:C2:70:ASN:H	2.23	0.42
17:C5:89:MET:O	17:C5:107:ILE:HG13	3.24	0.42
21:C9:76:LEU:HB3	21:C9:101:ASN:HD22	1.84	0.42
22:D0:33:GLN:OE1	22:D0:33:GLN:N	2.74	0.42
22:D0:63:LEU:HB3	31:D9:34:TYR:CE2	2.54	0.42
24:D2:94:LEU:HD23	24:D2:94:LEU:HA	1.85	0.42
27:D5:46:LYS:HE2	27:D5:70:LYS:HD2	2.02	0.42
30:D8:50:GLU:O	30:D8:51:ASN:HB2	2.19	0.42
31:D9:54:LYS:HB3	31:D9:54:LYS:HE3	1.77	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:E1:126:CYS:O	33:E1:128:ALA:N	2.48	0.42
39:L2:96:LEU:HD11	39:L2:108:PRO:HD2	2.02	0.42
39:L2:131:GLY:H	39:L2:169:ILE:HG22	2.64	0.42
40:L3:169:THR:HG23	40:L3:170:PRO:N	2.62	0.42
41:L4:311:HIS:NE2	41:L4:314:LYS:HA	2.35	0.42
43:L6:41:ILE:HB	43:L6:85:ILE:HB	2.01	0.42
44:L7:26:VAL:C	44:L7:28:ALA:H	3.18	0.42
45:L8:94:PHE:HB3	45:L8:189:LEU:HD13	2.02	0.42
45:L8:213:LYS:HB2	45:L8:213:LYS:HE3	4.38	0.42
47:M0:4:ARG:NH2	47:M0:99:ILE:HG22	5.80	0.42
48:M1:150:ASN:HA	48:M1:153:LYS:HD2	2.01	0.42
51:M5:101:THR:O	51:M5:105:ARG:HG3	2.33	0.42
51:M5:137:PRO:HG2	51:M5:138:GLN:NE2	2.96	0.42
57:N1:17:ARG:HG3	36:5:2700:G:OP1	266.68	0.42
61:N5:42:ARG:C	61:N5:44:PRO:HD3	3.00	0.42
36:1:2557:A:H5'	63:N7:135:ARG:HH11	1.84	0.42
63:N7:41:ALA:HB2	63:N7:77:TYR:CE2	5.04	0.42
65:N9:28:LYS:HD3	65:N9:28:LYS:HA	1.82	0.42
68:O2:19:ARG:HH11	68:O2:28:VAL:HG13	3.04	0.42
71:O5:65:ALA:O	71:O5:68:GLN:N	3.61	0.42
71:O5:68:GLN:C	71:O5:70:TYR:N	2.72	0.42
78:Q2:35:LEU:O	78:Q2:36:PHE:HB2	2.20	0.42
79:Q3:24:ARG:HE	79:Q3:24:ARG:HB3	2.87	0.42
2:S0:124:THR:CG2	2:S0:174:TRP:HE1	2.36	0.42
2:S0:63:ILE:HD13	23:D1:34:ILE:CG2	3.08	0.42
3:S1:30:PHE:HD1	3:S1:96:LEU:HD22	1.85	0.42
5:S3:97:SER:O	5:S3:101:GLN:HG2	2.83	0.42
5:S3:37:VAL:HG11	5:S3:48:VAL:HG13	3.67	0.42
6:S4:57:ASN:O	6:S4:61:VAL:HG23	2.20	0.42
7:S5:72:HIS:HD2	7:S5:107:LYS:HG2	2.35	0.42
7:S5:192:GLU:O	7:S5:195:ALA:N	3.32	0.42
8:S6:153:VAL:HG22	8:S6:153:VAL:H	3.36	0.42
9:S7:91:ILE:HD12	9:S7:92:PHE:N	3.28	0.42
11:S9:113:VAL:HG21	11:S9:134:ILE:HG21	3.53	0.42
36:1:1493:G:OP2	36:1:1493:G:N2	2.51	0.42
36:1:1696:A:N6	36:1:1748:G:H2'	2.35	0.42
36:1:1875:G:H2'	36:1:1876:U:O4'	2.20	0.42
36:1:2585:G:N7	45:L8:47:SER:OG	2.52	0.42
36:1:2623:G:H2'	36:1:2624:G:C8	2.54	0.42
36:1:2624:G:H2'	36:1:2625:C:C6	2.55	0.42
36:1:2861:U:H2'	36:1:2862:U:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3164:C:C2	36:1:3165:A:C8	3.07	0.42
36:1:3383:G:H2'	36:1:3384:U:C6	2.55	0.42
86:1:4140:OHX:N1	86:1:4183:OHX:N5	2.68	0.42
36:1:792:G:H2'	36:1:793:C:C6	2.55	0.42
1:2:1010:C:H2'	1:2:1011:G:O4'	2.19	0.42
1:2:1345:A:H2'	1:2:1348:A:H62	1.84	0.42
1:2:1793:G:H1'	1:2:1794:A:H2'	2.01	0.42
86:2:2075:OHX:N3	86:2:2161:OHX:N1	2.67	0.42
1:2:385:A:H8	1:2:385:A:O5'	2.03	0.42
1:2:476:U:H5''	1:2:477:A:O4'	2.19	0.42
37:3:90:U:H2'	37:3:91:G:O4'	2.19	0.42
36:5:119:U:H4'	36:5:120:G:H5''	2.01	0.42
36:5:248:U:H2'	36:5:249:U:H5'	2.02	0.42
57:N1:87:LYS:HE3	36:5:2723:U:OP1	215.69	0.42
36:5:2822:U:H2'	36:5:2823:G:O4'	2.20	0.42
36:5:3393:U:H2'	36:5:3394:U:H6	1.85	0.42
86:5:4025:OHX:N2	86:5:4219:OHX:N5	2.68	0.42
36:5:2877:G:OP1	86:5:4056:OHX:N4	2.52	0.42
36:5:532:A:H2	36:5:560:G:H22	1.67	0.42
36:5:8:C:H2'	36:5:9:U:O4'	2.19	0.42
54:M8:8:LYS:HE2	36:5:950:G:OP1	199.70	0.42
1:6:1244:A:O2'	1:6:1245:G:O5'	2.24	0.42
1:6:1567:U:H2'	1:6:1568:C:H5'	2.02	0.42
1:6:570:A:H5''	1:6:571:G:OP2	2.19	0.42
38:8:85:G:H3'	38:8:85:G:H8	1.85	0.42
38:8:98:U:H5''	38:8:99:C:OP2	2.20	0.42
13:C1:73:GLY:HA3	13:C1:86:ILE:HG23	5.97	0.42
13:C1:94:ILE:HG12	25:D3:16:ARG:HD3	4.06	0.42
15:C3:16:ILE:HD12	15:C3:16:ILE:HA	4.31	0.42
18:C6:128:LYS:O	18:C6:137:ARG:NH2	3.22	0.42
21:C9:108:LEU:HA	21:C9:108:LEU:HD23	2.15	0.42
21:C9:88:VAL:HG23	1:6:1172:G:H21	354.84	0.42
23:D1:74:GLN:HE21	23:D1:74:GLN:HB2	1.67	0.42
25:D3:23:ARG:HD2	25:D3:23:ARG:HA	1.89	0.42
25:D3:8:GLY:O	25:D3:11:SER:OG	2.84	0.42
26:D4:129:VAL:O	26:D4:132:ARG:HB3	2.40	0.42
28:D6:47:ALA:O	28:D6:50:VAL:HG12	2.20	0.42
31:D9:25:SER:HB3	86:D9:102:OHX:N3	2.34	0.42
33:E1:97:LYS:HA	33:E1:97:LYS:HD2	2.65	0.42
39:L2:221:LYS:O	36:5:2245:C:H4'	218.44	0.42
36:1:2548:C:P	39:L2:93:LYS:NZ	2.92	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:173:LEU:HB3	44:L7:178:ILE:HB	2.02	0.42
44:L7:116:PHE:HB2	44:L7:199:ASN:OD1	2.47	0.42
36:1:1334:U:H1'	44:L7:208:SER:HB2	2.02	0.42
46:L9:92:TYR:CG	46:L9:142:ASP:HB3	2.87	0.42
46:L9:124:ARG:HB3	46:L9:164:ILE:HD13	4.61	0.42
48:M1:46:VAL:HG22	48:M1:68:HIS:CE1	2.54	0.42
49:M3:187:ALA:O	49:M3:190:LYS:HB3	2.48	0.42
50:M4:60:LEU:C	50:M4:62:GLN:H	2.24	0.42
36:1:1547:G:P	51:M5:105:ARG:HH12	2.43	0.42
53:M7:180:LYS:NZ	53:M7:180:LYS:HB3	2.35	0.42
55:M9:109:TYR:HB3	55:M9:115:ILE:HG23	2.02	0.42
55:M9:12:ALA:HB1	55:M9:17:VAL:O	2.20	0.42
55:M9:134:HIS:CE1	55:M9:137:ALA:HB2	2.61	0.42
55:M9:55:VAL:HG22	55:M9:55:VAL:H	1.63	0.42
56:N0:25:PHE:CD1	57:N1:151:LEU:HD21	2.93	0.42
58:N2:67:SER:OG	58:N2:69:ALA:N	2.89	0.42
59:N3:22:ILE:HG12	59:N3:35:TYR:HA	2.01	0.42
59:N3:69:LEU:HD12	59:N3:69:LEU:HA	1.97	0.42
61:N5:86:VAL:HG11	61:N5:95:ILE:HD11	2.39	0.42
62:N6:108:LYS:HD3	62:N6:108:LYS:HA	3.03	0.42
63:N7:46:ILE:HG12	63:N7:49:TYR:CE1	2.99	0.42
64:N8:94:ALA:HB1	64:N8:121:VAL:HG13	2.01	0.42
54:M8:170:ARG:HH22	64:N8:59:ARG:HA	1.84	0.42
69:O3:24:ASN:O	69:O3:26:ASN:N	2.52	0.42
72:O6:13:LYS:HB3	72:O6:13:LYS:HE3	1.89	0.42
38:4:57:C:OP2	73:O7:68:LYS:HE3	2.20	0.42
75:O9:10:LYS:HA	75:O9:13:MET:HE3	2.01	0.42
2:S0:167:LYS:HE3	2:S0:168:HIS:CD2	2.52	0.42
3:S1:67:GLU:HA	3:S1:84:ILE:O	2.20	0.42
4:S2:49:LYS:HD2	4:S2:243:TYR:CE1	2.61	0.42
6:S4:233:LYS:HZ2	6:S4:233:LYS:HB3	5.43	0.42
6:S4:65:LEU:HD23	6:S4:70:VAL:HG11	2.02	0.42
7:S5:107:LYS:O	7:S5:111:VAL:HG23	2.20	0.42
7:S5:90:ILE:HD13	7:S5:90:ILE:HA	2.33	0.42
8:S6:155:ASP:HB2	8:S6:156:PHE:CD1	2.55	0.42
9:S7:62:VAL:HA	9:S7:63:PRO:HD3	1.93	0.42
10:S8:196:LEU:HD23	10:S8:196:LEU:HA	4.26	0.42
34:SR:188:ILE:HD12	34:SR:188:ILE:HA	1.83	0.42
34:SR:34:LEU:HD12	34:SR:43:ILE:O	3.10	0.42
34:SR:47:LEU:HA	34:SR:47:LEU:HD23	1.81	0.42
36:1:1230:G:H2'	36:1:1231:A:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2289:U:O5'	36:1:2289:U:H6	2.02	0.42
36:1:2531:C:C4	36:1:2532:U:C4	3.08	0.42
36:1:2727:A:H4'	36:1:2728:G:OP2	2.20	0.42
36:1:3011:A:C5	40:L3:13:HIS:CD2	3.08	0.42
36:1:3015:G:N2	36:1:3040:A:H1'	2.35	0.42
36:1:3174:A:H2'	36:1:3175:U:C5'	2.50	0.42
36:1:352:A:N6	36:1:365:A:H5''	2.35	0.42
86:1:3973:OHX:N5	86:1:4154:OHX:N6	2.68	0.42
86:1:4066:OHX:N3	86:1:4113:OHX:N4	2.68	0.42
36:1:564:G:C5	36:1:565:U:C4	3.08	0.42
36:1:706:A:H4'	36:1:781:G:O2'	2.20	0.42
36:1:891:G:H2'	36:1:892:U:O4'	2.19	0.42
1:2:1483:A:C2	1:2:1607:G:H1'	2.54	0.42
1:2:1589:C:H2'	1:2:1590:G:C8	2.54	0.42
1:2:1756:A:C8	1:2:1756:A:OP2	2.73	0.42
1:2:1796:C:H4'	1:2:1797:A:OP2	2.20	0.42
1:2:902:G:O6	16:C4:54:GLU:OE1	2.38	0.42
36:5:1152:G:N2	36:5:1200:A:H61	2.17	0.42
36:5:1329:U:O2'	36:5:1330:A:H5''	2.20	0.42
55:M9:42:ARG:NH2	36:5:1601:U:OP2	104.63	0.42
36:5:1624:G:H2'	36:5:1625:A:H8	1.85	0.42
36:5:1906:G:N2	36:5:1909:A:N1	2.67	0.42
36:5:2213:A:N1	36:5:2429:G:H1'	2.35	0.42
36:5:3341:U:H5''	36:5:3342:A:OP2	2.20	0.42
36:5:415:G:OP2	86:5:4223:OHX:N4	2.53	0.42
36:5:92:G:OP2	36:5:93:C:H5''	2.20	0.42
1:6:867:G:O6	86:6:2058:OHX:N1	2.53	0.42
1:6:470:A:C8	1:6:470:A:H5''	2.53	0.42
1:6:829:A:N6	1:6:843:U:H3	2.18	0.42
1:6:841:U:H2'	1:6:842:C:O4'	2.19	0.42
38:8:104:A:C3'	38:8:105:A:H5''	2.49	0.42
15:C3:150:VAL:HG12	15:C3:151:ASN:OD1	2.20	0.42
15:C3:38:VAL:O	15:C3:42:ARG:HD2	2.20	0.42
17:C5:122:THR:HG22	17:C5:123:TYR:CD1	6.52	0.42
2:S0:198:MET:SD	19:C7:88:VAL:HG23	3.04	0.42
22:D0:68:ARG:NH1	1:6:1197:C:O2'	381.09	0.42
24:D2:21:GLY:O	29:D7:3:LEU:HD22	3.05	0.42
24:D2:5:SER:O	24:D2:7:LEU:N	3.01	0.42
25:D3:38:PHE:CE1	1:6:359:A:H1'	332.04	0.42
20:C8:11:PHE:CD1	27:D5:41:ILE:HG21	4.78	0.42
27:D5:44:GLN:O	27:D5:47:TYR:HB3	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:80:LEU:HD23	27:D5:80:LEU:HA	1.93	0.42
28:D6:11:ASN:HB3	1:6:934:C:H6	332.07	0.42
30:D8:9:LEU:O	30:D8:32:PHE:HA	2.20	0.42
31:D9:30:LEU:HD11	31:D9:37:ASN:HA	4.79	0.42
32:E0:31:LYS:H	32:E0:31:LYS:HG2	1.59	0.42
33:E1:123:ASN:O	33:E1:125:THR:N	2.53	0.42
33:E1:119:ARG:O	33:E1:132:LEU:HG	2.25	0.42
39:L2:112:ILE:O	39:L2:112:ILE:HG13	4.74	0.42
40:L3:212:ASN:O	40:L3:281:LYS:NZ	2.51	0.42
40:L3:56:ILE:HG22	40:L3:74:GLU:HB2	2.16	0.42
41:L4:330:TYR:O	41:L4:333:VAL:HG13	2.73	0.42
41:L4:345:GLU:HB3	41:L4:346:LYS:H	3.75	0.42
42:L5:117:GLU:HB3	42:L5:118:THR:H	2.89	0.42
36:1:986:U:O2'	44:L7:125:GLU:HB2	2.20	0.42
47:M0:180:GLU:OE2	47:M0:184:LYS:HD3	2.19	0.42
48:M1:85:LYS:HA	48:M1:89:TYR:CE2	2.54	0.42
48:M1:94:ARG:HB2	48:M1:95:ASN:H	1.72	0.42
49:M3:89:TYR:CZ	49:M3:93:ILE:HD11	3.33	0.42
51:M5:150:TRP:CZ3	51:M5:156:HIS:CD2	3.08	0.42
52:M6:121:PRO:C	52:M6:123:ALA:H	2.40	0.42
52:M6:10:ASP:CG	52:M6:37:ARG:HH21	2.60	0.42
53:M7:127:ARG:O	53:M7:139:TYR:N	2.96	0.42
55:M9:44:LEU:HD13	55:M9:44:LEU:HA	1.87	0.42
42:L5:37:VAL:CG1	57:N1:31:LEU:HD21	2.49	0.42
57:N1:54:HIS:CD2	36:5:2724:U:H4'	229.19	0.42
59:N3:45:ARG:HB3	59:N3:48:ARG:HB2	2.31	0.42
36:1:1493:G:O6	75:O9:2:ALA:HB2	2.20	0.42
79:Q3:29:LEU:O	79:Q3:33:GLN:HG2	3.79	0.42
2:S0:49:ASN:HB3	2:S0:52:LYS:HG3	2.42	0.42
4:S2:148:LEU:HB3	4:S2:174:ARG:HH22	1.85	0.42
4:S2:148:LEU:HD22	4:S2:148:LEU:HA	1.73	0.42
5:S3:18:TYR:CE2	31:D9:49:ASP:HB3	2.87	0.42
6:S4:179:LYS:N	6:S4:194:THR:O	2.53	0.42
8:S6:180:THR:HG23	8:S6:183:ARG:H	1.85	0.42
8:S6:214:LYS:HA	8:S6:217:SER:HB2	2.02	0.42
9:S7:41:LEU:HD22	9:S7:70:PHE:CD1	2.55	0.42
9:S7:97:ARG:CZ	9:S7:97:ARG:HB2	5.54	0.42
34:SR:171:SER:N	34:SR:179:LYS:O	2.41	0.42
34:SR:203:THR:HG23	34:SR:212:ALA:HB3	2.01	0.42
34:SR:38:ARG:HB3	34:SR:67:ILE:HG12	2.01	0.42
36:1:1295:G:H2'	36:1:1296:C:C6	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1554:U:H4'	36:1:1555:U:C5'	2.50	0.41
36:1:1908:A:H2'	36:1:1909:A:O4'	2.19	0.41
36:1:2269:U:C2	36:1:2272:G:C2	3.08	0.41
36:1:2367:A:H2'	36:1:2368:A:O4'	2.20	0.41
36:1:2881:C:H2'	36:1:2882:U:H6	1.84	0.41
36:1:3182:G:H2'	36:1:3183:A:O4'	2.20	0.41
36:1:3366:G:H2'	36:1:3367:C:C6	2.55	0.41
36:1:784:A:C6	54:M8:93:ILE:HG22	2.55	0.41
36:1:829:U:C2	36:1:894:G:C6	3.08	0.41
1:2:1095:U:O2	24:D2:12:ASN:ND2	2.52	0.41
1:2:1391:A:H2'	1:2:1392:U:H6	1.85	0.41
1:2:141:U:OP1	8:S6:149:LYS:NZ	2.37	0.41
1:2:1615:C:OP1	30:D8:18:ARG:NH2	2.45	0.41
1:2:196:G:C2	1:2:197:A:H1'	2.55	0.41
1:2:404:G:H2'	1:2:405:C:C6	2.55	0.41
1:2:574:G:O6	25:D3:65:ASN:ND2	2.47	0.41
1:2:710:U:H2'	1:2:711:U:H5'	2.01	0.41
1:2:707:A:H2	1:2:731:C:H2'	1.84	0.41
1:2:930:A:OP1	28:D6:32:LYS:NZ	2.53	0.41
37:3:28:C:OP2	42:L5:57:ASN:ND2	2.43	0.41
38:4:19:C:H2'	38:4:20:U:O4'	2.19	0.41
38:4:56:G:H2'	38:4:57:C:O4'	2.20	0.41
38:4:79:A:O5'	38:4:79:A:H8	2.03	0.41
36:5:1095:U:H4'	36:5:1096:U:H5''	2.02	0.41
36:5:1510:G:H8	36:5:1510:G:O5'	2.03	0.41
36:5:1529:A:H5''	36:5:1530:U:OP2	2.20	0.41
36:5:1711:C:H2'	36:5:1712:G:O4'	2.19	0.41
36:5:2655:U:H4'	36:5:2656:A:O4'	2.20	0.41
36:5:3153:U:H4'	36:5:3154:C:C5'	2.49	0.41
36:5:333:G:H1	38:8:30:C:H42	1.67	0.41
36:5:2108:C:H1'	36:5:3344:A:N3	2.35	0.41
36:5:550:A:H2'	36:5:551:A:C8	2.55	0.41
1:6:1212:G:C2	1:6:1213:G:C8	3.08	0.41
13:C1:10:GLU:HG2	1:6:327:U:O2'	270.88	0.41
9:S7:113:PRO:HD3	1:6:811:A:N6	345.07	0.41
1:6:845:G:H2'	1:6:846:G:C8	2.51	0.41
38:8:19:C:H2'	38:8:20:U:O4'	2.20	0.41
13:C1:118:GLN:HE21	13:C1:118:GLN:HB2	1.59	0.41
13:C1:86:ILE:HD11	13:C1:125:VAL:CG1	4.31	0.41
15:C3:125:LEU:HD23	15:C3:125:LEU:HA	2.12	0.41
17:C5:68:PRO:HG2	17:C5:71:GLU:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:18:ALA:HB3	18:C6:80:ALA:O	2.48	0.41
20:C8:145:ARG:HB3	20:C8:146:ALA:H	1.62	0.41
21:C9:35:ASP:N	21:C9:35:ASP:OD2	4.32	0.41
25:D3:107:PHE:CD2	25:D3:114:LYS:HB2	2.54	0.41
1:2:568:G:O5'	25:D3:90:ASP:HA	2.20	0.41
29:D7:23:THR:OG1	29:D7:26:GLN:HA	2.42	0.41
30:D8:22:ARG:HD3	30:D8:22:ARG:HA	1.72	0.41
31:D9:21:CYS:C	31:D9:23:VAL:N	2.95	0.41
33:E1:131:PHE:HB3	33:E1:132:LEU:H	1.73	0.41
39:L2:229:ALA:HB1	39:L2:233:GLN:HB2	2.49	0.41
40:L3:140:ASP:OD2	40:L3:141:GLY:N	4.09	0.41
43:L6:157:GLN:O	43:L6:158:TYR:C	2.58	0.41
46:L9:72:LYS:HE3	46:L9:76:ASP:OD2	2.20	0.41
47:M0:171:TRP:C	47:M0:171:TRP:CD1	2.93	0.41
47:M0:185:ARG:C	47:M0:187:ALA:H	2.24	0.41
48:M1:115:LYS:HB3	48:M1:116:TYR:H	1.87	0.41
35:SM:25:ILE:HG22	48:M1:46:VAL:HB	2.01	0.41
50:M4:20:VAL:HG13	50:M4:68:LEU:O	2.20	0.41
52:M6:25:LYS:HD3	52:M6:25:LYS:O	2.18	0.41
53:M7:37:ASN:C	53:M7:37:ASN:OD1	2.58	0.41
60:N4:8:PHE:CD2	60:N4:46:PRO:HG3	2.54	0.41
67:O1:20:LEU:HA	67:O1:20:LEU:HD23	1.75	0.41
69:O3:42:GLN:HA	69:O3:45:LEU:HG	2.02	0.41
79:Q3:88:GLU:HA	79:Q3:91:GLU:HG2	2.01	0.41
2:S0:163:ASN:HB3	2:S0:169:SER:OG	2.58	0.41
2:S0:178:ALA:HA	2:S0:181:VAL:HG22	2.39	0.41
3:S1:101:HIS:HA	3:S1:217:LEU:HD22	2.02	0.41
3:S1:81:PHE:CD1	3:S1:109:LYS:HG2	2.55	0.41
3:S1:149:GLN:NE2	3:S1:151:LYS:HE3	3.24	0.41
3:S1:166:LYS:HE2	3:S1:170:GLU:OE1	8.97	0.41
3:S1:178:GLY:O	3:S1:180:THR:N	2.53	0.41
6:S4:211:LYS:HE3	6:S4:211:LYS:HB2	4.05	0.41
6:S4:35:PRO:HB2	6:S4:36:HIS:CD2	2.54	0.41
8:S6:173:PRO:HB2	8:S6:174:LYS:H	1.60	0.41
9:S7:142:TYR:O	24:D2:49:GLU:HB2	2.45	0.41
9:S7:166:LEU:HA	9:S7:166:LEU:HD12	2.25	0.41
34:SR:224:ASN:ND2	34:SR:226:ALA:HB3	5.59	0.41
36:1:108:A:O2'	36:1:109:A:H2'	2.19	0.41
36:1:1094:U:H1'	36:1:1096:U:H2'	2.02	0.41
36:1:124:U:H2'	36:1:125:C:H6	1.83	0.41
36:1:1316:C:O4'	52:M6:130:LYS:HD3	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1501:U:O2'	36:1:1502:C:H5'	2.20	0.41
36:1:1642:A:O2'	36:1:1643:A:C8	2.73	0.41
36:1:1795:U:H4'	36:1:1796:G:C4	2.56	0.41
36:1:3128:G:OP2	86:1:4166:OHX:N2	2.53	0.41
86:1:3947:OHX:N2	86:1:4035:OHX:N6	2.69	0.41
36:1:40:A:C2	64:N8:40:HIS:CE1	3.08	0.41
36:1:412:G:C6	36:1:413:U:C4	3.08	0.41
36:1:391:A:OP2	86:1:4145:OHX:N1	2.52	0.41
86:1:4083:OHX:N6	86:1:4153:OHX:N3	2.68	0.41
36:1:547:G:N2	36:1:548:G:N3	2.67	0.41
36:1:802:C:H2'	36:1:803:C:H6	1.85	0.41
1:2:1308:G:C6	1:2:1309:C:C4	3.09	0.41
1:2:1511:U:H2'	1:2:1512:G:C8	2.55	0.41
1:2:1007:C:C1'	87:2:2179:3K8:H17	2.50	0.41
1:2:219:A:H5'	1:2:831:U:O2'	2.20	0.41
1:2:548:G:H2'	1:2:549:G:O4'	2.19	0.41
1:2:720:G:O2'	1:2:721:U:H5'	2.20	0.41
1:2:849:C:C2	1:2:850:A:C8	3.09	0.41
38:4:122:U:H2'	38:4:123:G:H8	1.84	0.41
38:4:81:U:O2	38:4:82:U:C5	2.73	0.41
36:5:1063:G:H2'	36:5:1097:G:N2	2.36	0.41
36:5:2101:C:O2'	36:5:2102:U:P	2.76	0.41
36:5:2115:G:H22	36:5:2120:A:H1'	1.85	0.41
36:5:2407:C:H2'	36:5:2408:U:C6	2.54	0.41
39:L2:70:ARG:NH2	36:5:2522:G:C6	174.71	0.41
36:5:297:G:C8	36:5:299:G:H1'	2.56	0.41
36:5:3241:G:N2	36:5:3245:A:H2'	2.35	0.41
40:L3:123:TYR:CD1	36:5:3315:G:H2'	181.33	0.41
86:5:4095:OHX:N6	86:7:220:OHX:N3	2.67	0.41
1:6:976:G:C6	1:6:1023:A:C4	3.08	0.41
1:6:1321:A:H4'	1:6:1322:A:O5'	2.20	0.41
1:6:1388:A:H4'	1:6:1389:C:O5'	2.21	0.41
1:6:1451:C:H2'	1:6:1452:U:C6	2.55	0.41
4:S2:179:VAL:HG11	1:6:2:A:H3'	390.89	0.41
1:6:803:A:O2'	1:6:804:A:OP2	2.36	0.41
1:6:907:A:C6	1:6:908:U:C4	3.09	0.41
12:C0:54:TYR:HA	12:C0:72:GLY:H	1.84	0.41
12:C0:58:GLN:HB3	12:C0:65:TYR:HB2	2.86	0.41
15:C3:20:ARG:O	15:C3:65:VAL:HB	2.64	0.41
7:S5:29:ILE:HG21	18:C6:57:LEU:HD11	2.02	0.41
19:C7:106:THR:O	19:C7:110:VAL:HG23	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:57:LEU:O	19:C7:61:ILE:HG13	2.20	0.41
20:C8:18:LEU:CD2	20:C8:70:VAL:HG13	2.50	0.41
21:C9:108:LEU:O	21:C9:111:ILE:HG22	2.20	0.41
21:C9:137:ALA:HA	21:C9:140:LEU:HD12	2.02	0.41
23:D1:11:LEU:HB2	23:D1:12:TYR:H	1.71	0.41
23:D1:71:ARG:HB2	23:D1:83:TRP:CE2	2.55	0.41
25:D3:19:ARG:NE	25:D3:19:ARG:HA	2.35	0.41
25:D3:41:SER:HA	25:D3:42:PRO:HD3	1.86	0.41
28:D6:60:PRO:C	28:D6:62:TYR:H	2.23	0.41
3:S1:111:ARG:HB3	28:D6:68:TYR:HB2	2.02	0.41
23:D1:87:ARG:C	29:D7:11:THR:HG23	2.40	0.41
1:2:586:G:H4'	32:E0:21:VAL:HG22	2.02	0.41
36:1:2988:C:O2	40:L3:266:ARG:NH1	2.53	0.41
40:L3:323:MET:HE2	40:L3:356:LEU:HD11	3.59	0.41
41:L4:150:LEU:HD23	41:L4:150:LEU:HA	1.81	0.41
42:L5:107:ARG:HA	42:L5:107:ARG:HE	1.85	0.41
43:L6:159:LEU:HD23	43:L6:159:LEU:HA	1.77	0.41
43:L6:40:LEU:HD11	43:L6:54:TYR:HB2	2.46	0.41
47:M0:19:LYS:NZ	47:M0:26:VAL:HG13	4.05	0.41
49:M3:126:PHE:HZ	49:M3:135:ALA:HB3	1.84	0.41
43:L6:176:PHE:HA	50:M4:114:ASP:HB2	2.64	0.41
52:M6:143:THR:OG1	52:M6:150:GLU:HB2	3.07	0.41
52:M6:166:GLU:O	52:M6:167:TYR:C	2.58	0.41
57:N1:93:VAL:HG22	57:N1:93:VAL:H	1.79	0.41
58:N2:36:TYR:OH	58:N2:82:LYS:HG2	2.21	0.41
58:N2:89:LEU:HB3	58:N2:93:ILE:HD11	2.00	0.41
8:S6:131:LYS:HB2	60:N4:81:PRO:O	2.20	0.41
61:N5:38:LEU:HD12	38:8:147:U:C4'	122.56	0.41
62:N6:74:TYR:CE1	62:N6:77:LYS:HG3	2.55	0.41
62:N6:90:VAL:HG23	62:N6:91:ASN:N	2.35	0.41
74:O8:10:GLN:HA	74:O8:13:GLU:OE1	2.21	0.41
75:O9:28:ARG:HA	75:O9:33:ASN:ND2	2.43	0.41
78:Q2:100:LYS:HE2	36:5:2657:A:OP2	259.37	0.41
2:S0:13:ASP:O	2:S0:16:LEU:N	2.99	0.41
3:S1:104:ASP:OD1	3:S1:214:LYS:HD3	2.20	0.41
3:S1:40:ASN:ND2	3:S1:42:ASN:O	2.54	0.41
4:S2:227:PRO:HA	4:S2:230:TRP:CE2	2.55	0.41
6:S4:100:ARG:NH2	6:S4:122:LYS:HA	2.90	0.41
6:S4:199:GLU:HB2	6:S4:207:LEU:HB2	2.01	0.41
8:S6:121:LEU:HD12	8:S6:121:LEU:HA	4.56	0.41
8:S6:202:ARG:O	8:S6:205:ALA:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:167:ALA:O	11:S9:168:ARG:HB2	2.20	0.41
11:S9:74:ASN:N	11:S9:74:ASN:OD1	3.89	0.41
11:S9:87:SER:HB2	11:S9:89:ASP:OD1	2.20	0.41
35:SM:77:THR:HG1	35:SM:79:SER:HG	3.13	0.41
1:2:577:G:C2	35:SM:99:LYS:HG2	2.55	0.41
36:1:1130:A:C8	36:1:1132:C:C6	3.08	0.41
36:1:1240:A:H3'	36:1:1241:U:C5'	2.49	0.41
36:1:1638:A:N3	36:1:1709:C:H1'	2.35	0.41
36:1:2567:C:O2'	36:1:2568:C:H5'	2.20	0.41
36:1:2723:U:OP1	57:N1:87:LYS:HD3	2.19	0.41
36:1:2954:U:H4'	36:1:2955:U:C5'	2.51	0.41
36:1:638:C:H2'	36:1:639:G:H8	1.85	0.41
36:1:915:A:H2'	36:1:915:A:N3	2.35	0.41
1:2:1175:U:H2'	1:2:1176:G:H8	1.84	0.41
1:2:1323:C:H2'	1:2:1324:G:O4'	2.20	0.41
1:2:482:U:H2'	1:2:483:A:H8	1.85	0.41
1:2:487:G:H3'	1:2:488:G:H5''	2.02	0.41
1:2:70:C:H6	1:2:70:C:O5'	2.03	0.41
37:3:107:C:H2'	37:3:108:A:C8	2.55	0.41
42:L5:15:ARG:NH2	36:5:1003:A:H1'	288.48	0.41
36:5:112:U:H2'	36:5:112:U:H6	1.61	0.41
36:5:1699:A:H2'	36:5:1700:G:C8	2.55	0.41
36:5:2171:G:H2'	36:5:2172:A:H8	1.86	0.41
36:5:229:G:C2	36:5:230:U:C2	3.08	0.41
36:5:2359:C:O5'	36:5:2359:C:H6	2.03	0.41
36:5:2387:A:OP2	86:5:4021:OHX:N4	2.54	0.41
86:5:4003:OHX:N6	86:5:4093:OHX:N2	2.67	0.41
36:5:2310:U:OP1	86:5:4200:OHX:N2	2.53	0.41
36:5:729:C:H6	36:5:729:C:O5'	2.04	0.41
1:6:1185:U:C2	1:6:1458:G:C8	3.09	0.41
1:6:1579:U:H2'	1:6:1580:C:H6	1.85	0.41
1:6:157:A:O2'	1:6:158:U:H5'	2.21	0.41
1:6:625:C:H2'	1:6:626:U:C6	2.54	0.41
38:8:73:U:H4'	38:8:90:U:OP1	2.21	0.41
15:C3:136:PRO:HA	15:C3:137:PRO:HD2	1.76	0.41
15:C3:64:ARG:HG2	15:C3:64:ARG:O	2.20	0.41
16:C4:86:THR:HB	16:C4:87:GLY:H	1.71	0.41
18:C6:83:GLN:HE22	18:C6:119:ALA:HA	1.85	0.41
18:C6:99:GLU:OE1	18:C6:102:LYS:NZ	4.15	0.41
20:C8:101:LEU:O	20:C8:105:VAL:HG12	5.04	0.41
20:C8:81:ILE:HG23	20:C8:82:PRO:HD2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:85:PHE:C	20:C8:86:LEU:HD12	2.40	0.41
21:C9:37:VAL:HG13	21:C9:38:LYS:N	2.41	0.41
25:D3:96:VAL:HB	25:D3:127:VAL:HG21	4.85	0.41
25:D3:30:LYS:O	25:D3:34:LEU:HG	2.20	0.41
26:D4:12:VAL:HG13	26:D4:23:PHE:HB3	2.02	0.41
6:S4:69:HIS:CD2	26:D4:17:LEU:HB2	2.55	0.41
26:D4:72:PHE:HE1	26:D4:74:LEU:HD23	1.85	0.41
27:D5:76:ALA:O	27:D5:79:ALA:HB3	2.52	0.41
28:D6:40:ALA:N	28:D6:69:ASN:O	2.51	0.41
29:D7:43:ILE:H	29:D7:43:ILE:HG12	2.20	0.41
31:D9:19:ARG:HB2	31:D9:30:LEU:HD11	2.03	0.41
32:E0:49:LEU:HD12	32:E0:51:ASN:HB3	2.01	0.41
32:E0:50:VAL:O	32:E0:52:GLY:N	2.54	0.41
39:L2:96:LEU:O	39:L2:96:LEU:HD23	2.20	0.41
40:L3:128:LYS:HB3	40:L3:128:LYS:HE2	3.84	0.41
40:L3:161:LEU:HD22	40:L3:178:LEU:HD11	2.01	0.41
40:L3:17:LEU:HD11	40:L3:233:TRP:HH2	2.48	0.41
40:L3:228:GLY:O	40:L3:232:ARG:HB3	2.76	0.41
40:L3:37:ARG:HA	40:L3:185:GLY:O	2.20	0.41
40:L3:55:THR:HG22	40:L3:56:ILE:H	1.85	0.41
41:L4:145:ILE:HA	41:L4:146:PRO:HD3	2.73	0.41
43:L6:54:TYR:HA	43:L6:65:ILE:HD13	6.28	0.41
44:L7:159:GLN:O	44:L7:160:ARG:C	2.57	0.41
47:M0:21:ARG:NH2	47:M0:22:TYR:OH	2.53	0.41
48:M1:83:GLY:O	48:M1:86:VAL:N	2.54	0.41
49:M3:129:ASN:HD22	49:M3:129:ASN:HA	1.63	0.41
51:M5:94:TYR:CZ	51:M5:96:ARG:HD3	2.82	0.41
53:M7:61:ARG:HH11	53:M7:61:ARG:HD2	1.72	0.41
56:N0:154:HIS:CE1	56:N0:170:THR:HG21	2.67	0.41
57:N1:96:ILE:HA	57:N1:96:ILE:HD13	1.67	0.41
59:N3:104:ASN:OD1	59:N3:104:ASN:C	2.84	0.41
62:N6:45:ILE:HD11	62:N6:48:LEU:HG	5.38	0.41
70:O4:94:LEU:HA	70:O4:94:LEU:HD23	2.11	0.41
74:O8:58:ASP:HB3	74:O8:61:LYS:CG	3.46	0.41
75:O9:23:LEU:HD22	75:O9:23:LEU:HA	1.79	0.41
78:Q2:71:ARG:HE	78:Q2:80:ARG:NH1	2.18	0.41
2:S0:29:VAL:HG13	2:S0:150:ASP:HB3	2.02	0.41
2:S0:168:HIS:H	2:S0:168:HIS:CD2	2.38	0.41
2:S0:193:GLN:HA	2:S0:194:PRO:HD3	2.65	0.41
3:S1:190:PRO:HG2	3:S1:192:VAL:HG23	2.24	0.41
3:S1:39:GLU:HB3	3:S1:74:GLN:HA	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:77:GLN:NE2	4:S2:105:GLY:O	2.53	0.41
4:S2:103:VAL:CG2	4:S2:113:LEU:HD23	2.50	0.41
4:S2:238:SER:HA	4:S2:239:PRO:HD2	2.47	0.41
9:S7:66:SER:O	9:S7:69:GLY:N	3.05	0.41
10:S8:193:LEU:O	10:S8:197:THR:HG23	3.00	0.41
11:S9:126:ARG:O	11:S9:130:THR:HG23	2.21	0.41
34:SR:259:GLY:HA3	34:SR:275:ARG:HH11	2.91	0.41
36:1:1237:G:H2'	36:1:1237:G:N3	2.34	0.41
36:1:1663:C:H42	36:1:1786:G:H1	1.68	0.41
36:1:1838:G:H4'	36:1:1839:A:N3	2.35	0.41
36:1:2195:C:O2'	36:1:2196:C:H5'	2.20	0.41
36:1:890:C:O2'	36:1:2324:A:N3	2.47	0.41
36:1:3040:A:OP1	59:N3:12:ARG:N	2.53	0.41
36:1:3189:G:H2'	36:1:3190:C:O4'	2.20	0.41
36:1:334:A:C2	36:1:335:G:C5	3.09	0.41
36:1:348:A:H4'	36:1:367:A:N6	2.35	0.41
36:1:1414:G:N7	86:1:4121:OHX:N2	2.68	0.41
86:1:4053:OHX:N6	86:1:4162:OHX:N5	2.68	0.41
36:1:439:C:O2	36:1:439:C:H2'	2.20	0.41
36:1:655:C:H5''	68:O2:26:HIS:HB2	2.02	0.41
36:1:867:G:C6	36:1:868:C:C4	3.09	0.41
1:2:1287:A:H4'	1:2:1288:G:OP1	2.18	0.41
1:2:1330:G:H2'	1:2:1331:A:O4'	2.20	0.41
1:2:1499:G:C2	1:2:1500:C:C2	3.08	0.41
1:2:1536:G:C5	1:2:1538:U:H1'	2.55	0.41
1:2:1484:G:O4'	1:2:1607:G:H4'	2.20	0.41
1:2:1773:C:H2'	1:2:1774:G:H8	1.85	0.41
1:2:260:U:H3'	1:2:261:U:H5''	2.02	0.41
1:2:278:U:OP1	1:2:279:G:N2	2.53	0.41
37:3:58:C:H2'	37:3:59:U:H6	1.85	0.41
36:5:1081:U:HO2'	36:5:1082:U:C5'	2.33	0.41
64:N8:21:ARG:HD2	36:5:1369:A:H5'	185.87	0.41
36:5:1759:C:N4	36:5:1760:A:N7	2.68	0.41
36:5:2298:U:C3'	36:5:2299:A:H5'	2.50	0.41
62:N6:4:GLN:N	36:5:229:G:OP1	68.67	0.41
36:5:2403:G:N2	36:5:2404:A:H62	2.19	0.41
36:5:2518:C:C2	36:5:2590:A:C2	3.08	0.41
40:L3:95:THR:HG22	36:5:3243:A:H4'	255.33	0.41
43:L6:130:ILE:HA	36:5:3269:U:C4	247.23	0.41
1:6:1070:C:H2'	1:6:1071:U:O4'	2.20	0.41
1:6:1318:G:N7	86:6:2165:OHX:N5	2.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:272:TYR:CE1	37:7:22:A:H1'	333.23	0.41
12:C0:3:MET:HB3	12:C0:8:ARG:HH12	4.49	0.41
16:C4:32:ASP:O	16:C4:34:SER:N	2.54	0.41
18:C6:79:TYR:O	18:C6:82:ARG:HG2	2.21	0.41
18:C6:93:HIS:ND1	18:C6:97:VAL:HG21	2.35	0.41
26:D4:87:PRO:HG2	26:D4:90:ARG:CZ	2.50	0.41
26:D4:87:PRO:HG2	26:D4:90:ARG:NE	2.34	0.41
28:D6:44:ILE:CD1	28:D6:44:ILE:H	2.31	0.41
40:L3:122:TRP:CE2	40:L3:127:LYS:HE3	2.55	0.41
40:L3:44:THR:HG23	40:L3:184:ASN:HB2	2.19	0.41
42:L5:153:THR:HG23	42:L5:160:PHE:CZ	2.54	0.41
49:M3:159:VAL:HG13	64:N8:144:VAL:HG13	2.01	0.41
50:M4:20:VAL:HG13	50:M4:68:LEU:HB2	2.01	0.41
52:M6:121:PRO:O	52:M6:124:LEU:HB2	2.92	0.41
55:M9:21:LYS:O	55:M9:53:LYS:HB2	2.20	0.41
55:M9:68:GLN:OE1	55:M9:71:ARG:NH1	5.33	0.41
41:L4:358:THR:O	56:N0:26:ARG:NE	2.68	0.41
64:N8:73:LEU:HB2	64:N8:109:TYR:CD2	2.62	0.41
66:O0:100:ILE:HG13	66:O0:101:LEU:H	3.60	0.41
68:O2:109:LEU:HA	68:O2:109:LEU:HD22	2.55	0.41
68:O2:64:LYS:HG2	68:O2:65:PHE:CD2	3.19	0.41
72:O6:40:VAL:O	72:O6:44:VAL:HG23	2.20	0.41
78:Q2:34:SER:OG	78:Q2:35:LEU:O	2.36	0.41
79:Q3:34:HIS:O	79:Q3:48:LYS:HE3	2.21	0.41
1:2:144:U:H5	8:S6:137:ARG:NH1	2.17	0.41
8:S6:145:PHE:HB2	8:S6:147:LEU:HD11	2.24	0.41
11:S9:159:ALA:HA	11:S9:160:PRO:HD3	2.59	0.41
35:SM:107:ASN:OD1	35:SM:112:ASP:HB3	2.20	0.41
35:SM:83:LYS:HB2	35:SM:84:LYS:H	1.64	0.41
34:SR:115:ILE:HG12	34:SR:116:ASP:N	2.36	0.41
34:SR:29:GLN:HA	34:SR:30:PRO:HD2	1.94	0.41
36:1:2426:U:H2'	36:1:2427:U:C6	2.55	0.41
36:1:2875:U:H3	36:1:2952:G:H1	1.67	0.41
36:1:2960:C:H2'	36:1:2961:G:H8	1.86	0.41
36:1:3020:U:O4	86:1:3986:OHX:N4	2.53	0.41
36:1:3133:C:H2'	36:1:3134:A:O4'	2.19	0.41
86:1:3956:OHX:N2	86:1:4139:OHX:N6	2.69	0.41
86:1:3973:OHX:N3	86:1:4154:OHX:N4	2.68	0.41
36:1:945:C:H2'	36:1:946:U:C6	2.55	0.41
1:2:1128:C:H2'	1:2:1129:U:O4'	2.20	0.41
1:2:1369:U:OP1	21:C9:119:LYS:NZ	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:144:U:O2'	1:2:145:A:H8	2.04	0.41
1:2:1486:G:C6	1:2:1522:U:H5	2.37	0.41
1:2:1487:A:H2'	1:2:1488:G:C8	2.56	0.41
1:2:1774:G:OP1	77:Q1:7:LYS:NZ	2.42	0.41
87:2:2179:3K8:H4	16:C4:137:LEU:CD2	2.50	0.41
1:2:260:U:H3'	1:2:261:U:C5'	2.50	0.41
1:2:312:A:C2	1:2:314:C:H2'	2.55	0.41
1:2:357:G:C2'	1:2:358:U:H5'	2.50	0.41
1:2:75:U:H2'	1:2:76:A:O4'	2.20	0.41
1:2:927:C:O2'	16:C4:125:SER:HB2	2.20	0.41
38:4:118:C:H2'	38:4:119:C:C6	2.56	0.41
55:M9:38:ARG:NH2	36:5:1603:A:OP1	112.21	0.41
36:5:2287:C:C5	36:5:2298:U:C2	3.08	0.41
40:L3:236:LYS:HD2	36:5:2340:U:OP1	233.71	0.41
36:5:3218:A:C2	36:5:3277:U:H1'	2.56	0.41
36:5:3364:C:C2	36:5:3365:U:C5	3.07	0.41
36:5:3378:C:H2'	36:5:3379:C:H6	1.85	0.41
36:5:2211:U:OP2	86:5:4225:OHX:N1	2.53	0.41
36:5:815:G:C6	36:5:906:A:C4	3.09	0.41
1:6:1203:A:OP2	86:6:2131:OHX:N4	2.53	0.41
1:6:1270:G:H1'	1:6:1447:C:O2	2.20	0.41
1:6:1317:C:H2'	1:6:1318:G:O4'	2.19	0.41
1:6:1309:C:O2'	1:6:1401:A:N1	2.49	0.41
1:6:328:A:H2'	1:6:329:G:O4'	2.21	0.41
1:6:540:G:O2'	1:6:542:A:H5'	2.21	0.41
1:6:647:G:N2	1:6:687:G:H22	2.18	0.41
1:6:761:G:O6	86:6:2084:OHX:N1	2.53	0.41
26:D4:10:ARG:NH1	1:6:778:G:N7	431.59	0.41
14:C2:131:ASP:HB2	14:C2:132:GLU:OE1	2.20	0.41
14:C2:56:GLU:HB3	14:C2:124:LYS:HE3	2.02	0.41
16:C4:43:THR:OG1	16:C4:44:GLY:N	2.53	0.41
17:C5:84:ILE:HD12	17:C5:84:ILE:HG23	1.78	0.41
17:C5:30:THR:HG23	17:C5:86:VAL:HG21	2.01	0.41
18:C6:12:LYS:HG2	18:C6:17:THR:HA	2.03	0.41
18:C6:60:PHE:HA	18:C6:63:ILE:HG12	2.03	0.41
18:C6:87:LYS:HA	18:C6:90:VAL:HG22	2.01	0.41
19:C7:108:ASP:O	19:C7:112:SER:HB2	3.08	0.41
19:C7:64:GLY:HA2	19:C7:65:PRO:HD2	2.59	0.41
19:C7:86:PRO:HB2	19:C7:88:VAL:H	6.20	0.41
20:C8:27:LYS:HA	20:C8:27:LYS:HD2	4.52	0.41
20:C8:28:ILE:HG13	20:C8:28:ILE:H	4.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:87:GLU:HG3	24:D2:87:GLU:H	1.56	0.41
25:D3:132:LEU:HD13	25:D3:132:LEU:HA	1.88	0.41
25:D3:31:LYS:HA	25:D3:31:LYS:HD3	2.08	0.41
26:D4:8:ARG:HH11	26:D4:26:ASP:HB3	3.41	0.41
1:2:531:C:O2	26:D4:62:THR:HG23	2.21	0.41
36:1:3312:U:C5'	40:L3:25:ILE:HD12	2.46	0.41
40:L3:284:ARG:H	40:L3:323:MET:HB3	2.56	0.41
40:L3:81:THR:HB	40:L3:205:VAL:HG21	2.02	0.41
41:L4:67:THR:OG1	36:5:2402:A:H2'	173.67	0.41
41:L4:93:MET:HE2	41:L4:93:MET:N	5.14	0.41
42:L5:95:TRP:CZ2	42:L5:161:GLY:HA2	2.55	0.41
43:L6:12:SER:OG	43:L6:14:ASP:HB2	2.21	0.41
43:L6:170:LYS:O	43:L6:173:MET:HB2	2.61	0.41
45:L8:105:LYS:O	45:L8:109:LEU:HB2	3.46	0.41
45:L8:153:ILE:HD13	45:L8:166:LEU:HB3	2.68	0.41
46:L9:29:GLY:HA3	46:L9:30:PRO:HD2	2.80	0.41
47:M0:38:LYS:HG3	47:M0:41:ALA:HB2	3.50	0.41
48:M1:49:LYS:HA	48:M1:64:LYS:H	1.86	0.41
49:M3:126:PHE:CE1	49:M3:133:PRO:HG2	2.55	0.41
49:M3:128:ARG:CZ	71:O5:112:PRO:HG3	3.47	0.41
36:1:98:G:N7	49:M3:13:HIS:NE2	2.68	0.41
52:M6:171:LYS:O	52:M6:175:THR:HG22	2.55	0.41
53:M7:64:ASN:O	53:M7:80:LYS:NZ	2.90	0.41
54:M8:115:VAL:O	54:M8:118:GLY:N	2.47	0.41
54:M8:83:VAL:O	54:M8:103:ALA:HA	2.20	0.41
61:N5:115:ARG:H	61:N5:115:ARG:HG2	1.72	0.41
62:N6:100:HIS:CD2	62:N6:101:PRO:HD2	2.91	0.41
63:N7:9:LYS:HD2	63:N7:83:THR:O	2.30	0.41
67:O1:16:LEU:HD12	67:O1:16:LEU:HA	1.89	0.41
69:O3:102:LEU:HD23	69:O3:102:LEU:HA	1.81	0.41
69:O3:38:PRO:HD3	69:O3:77:ASN:O	2.21	0.41
69:O3:15:SER:HA	69:O3:94:PHE:CD1	2.56	0.41
70:O4:56:THR:HA	70:O4:62:TYR:HH	1.86	0.41
4:S2:129:ILE:HG21	4:S2:129:ILE:HD13	1.86	0.41
4:S2:73:LEU:O	4:S2:76:LEU:HD22	2.55	0.41
5:S3:167:PHE:HD1	5:S3:190:ARG:HH11	1.69	0.41
5:S3:69:LEU:O	5:S3:73:VAL:HG23	2.21	0.41
5:S3:90:ARG:H	5:S3:90:ARG:HG2	1.67	0.41
6:S4:102:VAL:HG22	6:S4:182:TYR:CZ	2.76	0.41
10:S8:82:VAL:CG1	10:S8:101:ILE:HG22	3.69	0.41
10:S8:98:LYS:HA	10:S8:169:ILE:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:66:ASP:HA	11:S9:67:PRO:HD2	1.98	0.41
34:SR:10:ARG:HD3	34:SR:10:ARG:HA	4.77	0.41
34:SR:184:ASN:N	34:SR:184:ASN:OD1	2.53	0.41
36:1:2284:C:H5''	36:1:2285:C:OP2	2.20	0.41
36:1:2374:C:N4	36:1:2941:A:N3	2.69	0.41
36:1:2403:G:C2	36:1:2405:C:C4	3.08	0.41
36:1:2403:G:N2	36:1:2404:A:H62	2.19	0.41
36:1:2421:U:H2'	36:1:2422:C:O4'	2.20	0.41
36:1:2738:A:C6	36:1:2739:A:C5	3.09	0.41
36:1:3024:A:C6	36:1:3032:A:C8	3.08	0.41
36:1:310:U:H2'	36:1:311:C:O4'	2.21	0.41
36:1:3159:C:OP1	86:1:4148:OHX:N1	2.53	0.41
36:1:3202:G:H2'	36:1:3203:U:O4'	2.20	0.41
36:1:2299:A:OP1	86:1:3942:OHX:N1	2.53	0.41
86:1:4079:OHX:N2	86:1:4149:OHX:N1	2.67	0.41
86:1:3956:OHX:N1	86:1:4139:OHX:N4	2.68	0.41
36:1:995:U:C2	36:1:2637:A:C8	3.08	0.41
1:2:321:C:N4	1:2:1667:A:P	2.93	0.41
1:2:625:C:O2	1:2:974:A:N1	2.53	0.41
1:2:647:G:H22	1:2:687:G:H1	1.67	0.41
1:2:78:A:H1'	8:S6:175:ILE:HG12	2.03	0.41
86:1:4201:OHX:N4	38:4:140:G:OP1	2.53	0.41
71:O5:74:LYS:NZ	36:5:128:G:OP2	79.48	0.41
44:L7:206:LYS:HB3	36:5:1334:U:OP1	234.89	0.41
36:5:1818:U:H2'	36:5:1819:U:O4'	2.20	0.41
36:5:2683:U:H2'	36:5:2684:C:H6	1.85	0.41
36:5:2767:U:H2'	36:5:2768:U:H6	1.85	0.41
36:5:2273:G:O6	86:5:3980:OHX:N2	2.54	0.41
36:5:47:C:OP2	36:5:48:A:O2'	2.34	0.41
45:L8:193:LYS:HB3	36:5:7:C:H5''	122.49	0.41
51:M5:81:TYR:OH	36:5:908:G:H3'	165.10	0.41
1:6:1104:U:H2'	1:6:1105:C:O4'	2.21	0.41
1:6:1174:C:H2'	1:6:1175:U:O4'	2.20	0.41
1:6:1230:A:H8	1:6:1258:U:C4	2.35	0.41
1:6:136:C:H4'	1:6:137:U:OP2	2.20	0.41
1:6:1745:G:O6	86:6:2078:OHX:N4	2.53	0.41
1:6:517:U:H2'	1:6:518:A:O4'	2.21	0.41
11:S9:149:ARG:CZ	1:6:765:G:C5	428.38	0.41
1:2:1217:A:H5''	12:C0:1:MET:HG3	2.02	0.41
12:C0:46:LEU:HD12	12:C0:46:LEU:HA	1.79	0.41
17:C5:16:SER:HB3	17:C5:21:ASP:OD2	3.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:17:TYR:HB2	17:C5:25:LEU:HD11	2.25	0.41
21:C9:66:TYR:HA	21:C9:124:ILE:HB	2.16	0.41
1:2:638:U:OP2	24:D2:32:LYS:HD3	2.21	0.41
27:D5:38:HIS:HE1	27:D5:70:LYS:HA	1.85	0.41
27:D5:50:ILE:HD13	27:D5:50:ILE:HA	1.88	0.41
28:D6:2:PRO:HB2	28:D6:3:LYS:H	1.64	0.41
28:D6:44:ILE:H	28:D6:44:ILE:HD12	1.86	0.41
30:D8:41:VAL:O	30:D8:42:ARG:HD2	2.19	0.41
30:D8:48:VAL:HG12	30:D8:49:ARG:O	3.39	0.41
39:L2:149:ARG:HH22	39:L2:155:LYS:HE2	2.47	0.41
39:L2:150:LEU:HA	39:L2:150:LEU:HD23	2.11	0.41
39:L2:64:ARG:O	39:L2:66:PRO:HD3	2.20	0.41
40:L3:18:PRO:O	40:L3:20:LYS:N	3.06	0.41
40:L3:41:VAL:HG11	40:L3:194:TRP:CG	2.56	0.41
41:L4:158:SER:HA	41:L4:213:ASN:HB2	2.32	0.41
42:L5:95:TRP:HZ3	42:L5:156:GLY:O	8.37	0.41
44:L7:124:LEU:HA	44:L7:124:LEU:HD22	1.78	0.41
44:L7:55:TYR:O	44:L7:56:GLU:C	3.15	0.41
45:L8:116:VAL:HG21	45:L8:123:GLN:HA	2.03	0.41
45:L8:164:VAL:HG23	45:L8:165:PHE:N	2.34	0.41
46:L9:90:MET:HB3	46:L9:180:TYR:O	2.21	0.41
46:L9:1:MET:O	46:L9:2:LYS:HB2	2.20	0.41
48:M1:16:LYS:HB2	48:M1:72:ARG:HG2	2.03	0.41
49:M3:168:ARG:O	49:M3:168:ARG:HG3	2.20	0.41
49:M3:57:VAL:HG12	49:M3:58:VAL:H	1.85	0.41
49:M3:84:GLY:O	49:M3:85:LEU:HB3	2.60	0.41
51:M5:142:ILE:O	51:M5:144:ARG:O	2.38	0.41
52:M6:8:VAL:HA	52:M6:34:VAL:O	2.20	0.41
36:1:3185:U:O2	56:N0:169:SER:HA	2.20	0.41
56:N0:8:GLN:HB2	56:N0:64:ILE:HD11	2.97	0.41
59:N3:15:LEU:HD23	59:N3:15:LEU:HA	1.90	0.41
59:N3:93:LEU:HA	60:N4:20:LEU:O	2.28	0.41
60:N4:50:ALA:HA	60:N4:55:PHE:CD2	3.10	0.41
61:N5:142:ILE:HA	61:N5:142:ILE:HD13	1.72	0.41
61:N5:92:LYS:HE3	36:5:1831:U:OP2	103.82	0.41
62:N6:112:ASP:O	62:N6:116:LYS:HG3	2.21	0.41
62:N6:39:LEU:HA	62:N6:39:LEU:HD22	1.87	0.41
63:N7:27:LYS:HA	63:N7:28:PRO:HD2	2.35	0.41
63:N7:3:LYS:O	63:N7:6:LYS:HG3	2.21	0.41
70:O4:70:LYS:HD2	36:5:1804:A:H5'	170.37	0.41
74:O8:56:ILE:HG21	74:O8:62:ALA:HB2	3.10	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:134:LYS:O	2:S0:137:SER:OG	2.19	0.41
3:S1:176:VAL:HG12	3:S1:177:GLN:N	2.30	0.41
4:S2:147:ASN:HB3	23:D1:4:ASP:HA	2.02	0.41
4:S2:178:ILE:HB	4:S2:185:LYS:HG2	2.80	0.41
5:S3:64:ARG:HG2	5:S3:65:ARG:H	2.43	0.41
7:S5:187:ILE:H	7:S5:187:ILE:HG13	3.12	0.41
7:S5:62:VAL:HG13	7:S5:89:ILE:HG21	2.03	0.41
9:S7:73:VAL:O	9:S7:75:THR:N	2.53	0.41
11:S9:178:ALA:HA	11:S9:181:ALA:CB	3.87	0.41
36:1:1035:G:C6	36:1:1036:A:C6	3.08	0.41
36:1:1083:G:C6	36:1:1084:A:C6	3.09	0.41
36:1:1191:U:C2	52:M6:48:PHE:CE1	3.09	0.41
36:1:22:G:C2'	36:1:23:A:H5'	2.50	0.41
36:1:2510:U:O2'	36:1:2511:A:P	2.78	0.41
36:1:2659:G:H4'	36:1:2751:G:O2'	2.21	0.41
36:1:2874:G:C6	36:1:2945:G:C8	3.09	0.41
36:1:408:A:OP1	86:1:4054:OHX:N3	2.54	0.41
36:1:505:G:OP1	41:L4:320:ASN:ND2	2.33	0.41
36:1:643:U:O4	36:1:644:G:C6	2.74	0.41
1:2:1140:G:OP2	86:2:2065:OHX:N6	2.53	0.41
1:2:1163:A:C6	1:2:1164:G:C5	3.09	0.41
1:2:1417:A:H2'	1:2:1418:G:O4'	2.21	0.41
1:2:1459:C:O2	17:C5:128:HIS:NE2	2.43	0.41
1:2:1615:C:O2'	1:2:1616:G:OP2	2.37	0.41
1:2:1781:A:OP1	86:2:2052:OHX:N3	2.54	0.41
1:2:190:C:O2'	1:2:191:C:OP2	2.29	0.41
1:2:495:C:H3'	1:2:496:G:O4'	2.21	0.41
1:2:900:A:H2'	1:2:901:G:O4'	2.21	0.41
1:2:947:U:H6	1:2:947:U:O5'	2.02	0.41
1:2:999:U:C2'	1:2:1000:C:H5'	2.51	0.41
38:4:154:C:H2'	38:4:155:A:O4'	2.21	0.41
36:5:1152:G:H22	36:5:1200:A:H61	1.69	0.41
36:5:2251:G:H2'	36:5:2252:A:O4'	2.21	0.41
36:5:2590:A:C4	36:5:2591:A:C8	3.09	0.41
36:5:2805:G:O2'	36:5:2967:A:N1	2.51	0.41
36:5:3269:U:H5'	36:5:3271:G:O4'	2.20	0.41
36:5:2751:G:O6	86:5:4157:OHX:N3	2.54	0.41
86:5:4205:OHX:N2	86:8:226:OHX:N1	2.68	0.41
36:5:523:A:N6	36:5:570:A:C2	2.89	0.41
1:6:1281:G:H1	1:6:1426:C:N4	2.14	0.41
1:6:1406:A:H2'	1:6:1407:U:H6	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1698:G:N2	1:6:1699:G:C8	2.88	0.41
1:6:484:C:H42	1:6:503:G:H22	1.67	0.41
1:6:532:U:C4	1:6:533:U:C5	3.09	0.41
24:D2:107:SER:HA	1:6:804:A:C8	366.86	0.41
37:7:106:U:H2'	37:7:107:C:O4'	2.20	0.41
14:C2:130:THR:HB	14:C2:131:ASP:H	1.57	0.41
14:C2:140:PHE:HA	14:C2:140:PHE:HD2	2.10	0.41
17:C5:100:LYS:HB3	1:6:1183:A:C2	369.48	0.41
21:C9:4:VAL:HG21	21:C9:140:LEU:HD13	2.02	0.41
21:C9:23:GLN:HG3	21:C9:55:TYR:CZ	4.06	0.41
24:D2:94:LEU:HA	24:D2:95:PRO:HD3	1.82	0.41
26:D4:22:GLN:HA	26:D4:74:LEU:HA	2.02	0.41
28:D6:61:GLU:O	28:D6:62:TYR:HB3	2.20	0.41
30:D8:9:LEU:HA	30:D8:9:LEU:HD23	1.90	0.41
33:E1:99:LYS:HB3	33:E1:100:LEU:H	1.43	0.41
40:L3:45:SER:O	40:L3:181:ILE:HD13	2.20	0.41
40:L3:77:THR:CG2	40:L3:327:CYS:HA	2.66	0.41
41:L4:209:TYR:O	41:L4:230:VAL:HG22	2.41	0.41
41:L4:210:ALA:HB2	41:L4:254:ALA:N	2.60	0.41
43:L6:171:PRO:C	43:L6:173:MET:H	2.24	0.41
44:L7:123:THR:O	44:L7:126:LEU:N	2.54	0.41
45:L8:135:GLY:O	45:L8:139:VAL:HG23	2.21	0.41
45:L8:94:PHE:CZ	45:L8:200:LEU:HG	2.56	0.41
46:L9:13:PRO:HG2	46:L9:16:VAL:CG1	2.86	0.41
46:L9:87:LYS:NZ	46:L9:191:LEU:HD21	14.60	0.41
46:L9:90:MET:HE3	46:L9:90:MET:HB3	1.71	0.41
47:M0:38:LYS:CG	47:M0:41:ALA:HB2	2.75	0.41
48:M1:23:VAL:CG1	48:M1:29:ARG:HG2	2.50	0.41
53:M7:97:ASN:O	53:M7:100:ALA:HB3	2.52	0.41
53:M7:125:GLN:HB2	53:M7:141:SER:CB	2.51	0.41
53:M7:48:LEU:HD22	53:M7:88:VAL:HG13	2.86	0.41
44:L7:80:GLN:OE1	57:N1:136:ARG:HG2	2.21	0.41
58:N2:29:ASP:OD1	58:N2:32:SER:N	2.53	0.41
58:N2:43:VAL:HG21	58:N2:50:LEU:HA	2.02	0.41
59:N3:32:ARG:O	59:N3:32:ARG:HG3	2.16	0.41
59:N3:11:PHE:CD1	59:N3:88:ARG:HD2	2.56	0.41
40:L3:72:VAL:HA	59:N3:88:ARG:O	2.21	0.41
63:N7:123:GLN:H	63:N7:123:GLN:HG2	1.60	0.41
63:N7:36:HIS:N	63:N7:37:PRO:HD3	2.64	0.41
63:N7:5:LEU:HD13	63:N7:77:TYR:CE2	3.80	0.41
63:N7:63:ALA:O	63:N7:67:LYS:HE3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:27:LYS:HB3	64:N8:27:LYS:HE3	1.81	0.41
65:N9:22:LYS:HB2	65:N9:23:LYS:H	3.61	0.41
36:1:2618:G:O4'	65:N9:3:LYS:HE2	2.20	0.41
65:N9:45:HIS:CE1	36:5:1075:A:C6	194.02	0.41
68:O2:27:ARG:HB3	36:5:655:C:OP1	161.13	0.41
68:O2:47:ARG:HG2	68:O2:48:GLY:N	2.50	0.41
69:O3:103:TYR:HA	69:O3:105:SER:N	2.63	0.41
71:O5:41:LEU:O	71:O5:44:ILE:HG22	2.48	0.41
75:O9:36:ARG:HD3	75:O9:36:ARG:HA	3.95	0.41
78:Q2:55:LYS:HD2	36:5:92:G:O2'	175.00	0.41
79:Q3:10:ILE:HG23	79:Q3:11:THR:HG23	5.95	0.41
2:S0:41:ARG:HB2	2:S0:47:VAL:CG2	2.51	0.41
2:S0:62:ARG:HD3	23:D1:36:VAL:HG12	5.64	0.41
3:S1:158:SER:O	3:S1:162:ARG:HG3	2.20	0.41
3:S1:88:VAL:HA	3:S1:98:THR:HG22	5.51	0.41
4:S2:58:LEU:HB3	4:S2:59:HIS:ND1	2.35	0.41
5:S3:208:ILE:HD12	19:C7:16:LEU:HD21	2.02	0.41
5:S3:64:ARG:O	5:S3:67:ASN:N	2.37	0.41
7:S5:80:LYS:HE2	7:S5:80:LYS:HB3	4.64	0.41
9:S7:116:ARG:HD3	9:S7:116:ARG:HA	4.21	0.41
10:S8:76:THR:HG22	10:S8:108:PRO:CG	2.44	0.41
17:C5:130:ARG:NH1	35:SM:71:ASN:OD1	2.43	0.41
34:SR:134:TRP:HA	34:SR:139:GLN:O	2.20	0.41
36:1:1128:U:H5'	47:M0:4:ARG:HH22	1.85	0.41
36:1:1750:A:H4'	36:1:1751:G:H5'	2.03	0.41
36:1:2700:G:OP1	57:N1:17:ARG:HB2	2.21	0.41
36:1:2922:G:C2	36:1:2952:G:H1'	2.56	0.41
36:1:319:A:H4'	51:M5:51:LEU:HD23	2.01	0.41
36:1:674:G:O2'	41:L4:116:ASN:ND2	2.29	0.41
36:1:824:C:O2'	36:1:825:U:H5'	2.21	0.41
1:2:1459:C:H4'	17:C5:126:VAL:HG11	2.02	0.41
1:2:407:A:O2'	1:2:1671:A:N3	2.44	0.41
1:2:248:U:OP1	86:2:2093:OHX:N6	2.53	0.41
1:2:474:A:O2'	11:S9:37:LYS:HE2	2.20	0.41
1:2:948:G:H2'	1:2:949:C:O4'	2.20	0.41
57:N1:127:GLN:HG2	36:5:1095:U:N3	259.73	0.41
36:5:1338:C:H2'	36:5:1339:C:H6	1.85	0.41
36:5:1547:G:H2'	36:5:1548:C:C6	2.55	0.41
36:5:2278:C:C2	36:5:2307:G:C2	3.09	0.41
36:5:286:U:H2'	36:5:287:G:C8	2.56	0.41
36:5:3060:C:H2'	36:5:3061:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3288:G:O2'	36:5:3289:G:OP2	2.31	0.41
36:5:419:G:O3'	36:5:420:G:OP2	2.34	0.41
36:5:715:A:H4'	36:5:716:A:OP1	2.20	0.41
36:5:731:U:O5'	36:5:731:U:H6	2.03	0.41
1:6:1255:G:HO2'	1:6:1256:A:H8	1.69	0.41
1:6:1525:A:H2'	1:6:1526:A:O4'	2.20	0.41
1:6:1553:G:N2	1:6:1555:A:H3'	2.35	0.41
28:D6:28:LYS:NZ	1:6:1770:U:O4	312.77	0.41
1:6:176:C:OP1	86:6:2096:OHX:N6	2.53	0.41
1:6:271:A:H5'	1:6:272:U:P	2.61	0.41
26:D4:8:ARG:CZ	1:6:780:A:H2	436.99	0.41
1:6:809:A:C6	1:6:810:G:O6	2.73	0.41
38:8:108:C:H2'	38:8:109:A:O4'	2.21	0.41
12:C0:59:PHE:CZ	12:C0:62:GLN:HA	2.65	0.41
15:C3:20:ARG:HH11	15:C3:20:ARG:HG2	4.29	0.41
1:2:928:U:H4'	16:C4:124:ASP:OD1	2.21	0.41
18:C6:66:ARG:HH21	18:C6:68:ARG:HE	1.67	0.41
18:C6:91:ALA:O	18:C6:94:GLN:HB3	2.21	0.41
20:C8:126:ARG:CZ	20:C8:131:LEU:HD13	2.50	0.41
20:C8:46:VAL:O	20:C8:49:LYS:HB2	2.20	0.41
21:C9:25:GLN:O	21:C9:27:LYS:N	3.80	0.41
21:C9:87:GLY:C	21:C9:89:ARG:H	2.56	0.41
23:D1:36:VAL:HG12	23:D1:51:VAL:HB	2.02	0.41
23:D1:64:GLU:OE2	29:D7:2:VAL:HG13	2.85	0.41
26:D4:111:LYS:NZ	26:D4:115:ASP:OD2	6.99	0.41
27:D5:38:HIS:CE1	27:D5:39:ALA:HB2	2.56	0.41
27:D5:41:ILE:HG13	27:D5:42:LEU:H	1.85	0.41
1:2:545:A:OP1	32:E0:31:LYS:HG3	2.20	0.41
39:L2:225:ILE:HG21	39:L2:234:LYS:HA	2.01	0.41
39:L2:48:ILE:HD12	79:Q3:65:ALA:HB2	4.09	0.41
39:L2:66:PRO:HB2	39:L2:67:TYR:CD2	2.59	0.41
40:L3:296:THR:HG21	40:L3:357:LYS:C	2.41	0.41
40:L3:53:MET:HB3	36:5:3049:A:O4'	237.40	0.41
40:L3:5:LYS:HG2	40:L3:6:TYR:CD1	2.57	0.41
40:L3:76:VAL:HG11	40:L3:323:MET:HE2	2.03	0.41
41:L4:315:LYS:HE3	36:5:609:G:OP2	238.44	0.41
42:L5:246:ALA:HA	42:L5:249:ALA:HB3	2.79	0.41
36:1:2748:A:C2	42:L5:35:ARG:HB3	2.55	0.41
42:L5:5:LYS:HE2	42:L5:5:LYS:HA	2.03	0.41
43:L6:40:LEU:HD13	43:L6:84:VAL:CG1	2.51	0.41
44:L7:233:GLU:OE2	56:N0:35:VAL:HG22	3.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:111:LYS:HG2	45:L8:112:GLU:N	4.78	0.41
45:L8:181:LYS:HB2	45:L8:181:LYS:HE3	3.92	0.41
47:M0:87:LEU:HA	47:M0:87:LEU:HD23	1.91	0.41
48:M1:8:PRO:HD2	48:M1:10:ARG:HG2	2.17	0.41
49:M3:4:SER:HB3	36:5:965:A:H5''	175.23	0.41
51:M5:27:VAL:HB	51:M5:122:ASN:ND2	2.51	0.41
51:M5:99:ARG:O	51:M5:103:GLU:HG3	2.21	0.41
52:M6:130:LYS:HA	52:M6:131:PRO:HD3	1.92	0.41
52:M6:25:LYS:HA	52:M6:25:LYS:HD3	2.18	0.41
52:M6:3:VAL:CG1	52:M6:4:GLU:H	2.21	0.41
53:M7:26:PHE:CE1	53:M7:120:ASN:HA	2.56	0.41
53:M7:86:LYS:HE3	36:5:2354:C:OP1	135.74	0.41
55:M9:101:VAL:HG12	55:M9:102:LEU:N	2.35	0.41
56:N0:143:PHE:HA	56:N0:148:LEU:CD1	4.79	0.41
61:N5:109:LYS:HB2	61:N5:109:LYS:NZ	3.61	0.41
62:N6:60:ARG:HA	62:N6:60:ARG:HD3	1.75	0.41
62:N6:87:LYS:HB2	62:N6:97:ILE:HD11	3.23	0.41
63:N7:90:GLU:O	63:N7:93:LYS:HB2	2.29	0.41
67:O1:16:LEU:O	67:O1:20:LEU:N	2.51	0.41
68:O2:79:VAL:HG13	68:O2:111:ARG:HG2	2.02	0.41
46:L9:181:VAL:O	76:Q0:85:LEU:HD21	3.09	0.41
2:S0:41:ARG:HE	2:S0:45:VAL:CG2	2.34	0.41
3:S1:120:LEU:HD23	3:S1:121:ILE:N	2.35	0.41
6:S4:193:GLY:O	6:S4:194:THR:OG1	2.38	0.41
7:S5:203:LYS:O	7:S5:205:SER:N	3.12	0.41
8:S6:174:LYS:HG3	8:S6:174:LYS:O	2.20	0.41
10:S8:31:ARG:NH2	10:S8:48:THR:HG22	2.70	0.41
11:S9:116:LEU:HD12	11:S9:116:LEU:HA	2.31	0.41
11:S9:6:ARG:HD2	11:S9:6:ARG:HA	1.82	0.41
35:SM:60:ALA:O	35:SM:63:ASP:HB3	2.78	0.41
34:SR:216:LYS:HA	34:SR:239:GLU:CG	2.66	0.41
36:1:1121:U:C4	36:1:1122:U:C4	3.09	0.41
36:1:1339:C:H5'	68:O2:60:ASN:HA	2.03	0.41
36:1:1507:G:N7	53:M7:129:THR:CG2	2.83	0.41
36:1:1558:A:H1'	61:N5:34:LEU:HB2	2.03	0.41
36:1:1635:G:OP2	63:N7:107:ARG:NH2	2.54	0.41
36:1:2564:G:H2'	36:1:2565:U:O4'	2.20	0.41
36:1:2759:U:H6	36:1:2759:U:O5'	2.04	0.41
36:1:278:U:H2'	36:1:279:U:O4'	2.20	0.41
36:1:3199:G:C2	36:1:3200:G:C8	3.09	0.41
36:1:3282:U:H2'	36:1:3283:U:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:618:C:H2'	36:1:619:A:O4'	2.21	0.41
36:1:696:C:HO2'	36:1:697:A:H8	1.66	0.41
1:2:1351:G:C2	1:2:1375:A:C2	3.08	0.41
1:2:802:G:O6	86:2:2054:OHX:N3	2.53	0.41
1:2:226:A:C2'	1:2:227:U:H5'	2.50	0.41
1:2:498:G:C4	1:2:499:U:N3	2.88	0.41
1:2:755:A:HO2'	1:2:756:A:P	2.43	0.41
1:2:830:U:O2'	1:2:831:U:OP2	2.34	0.41
86:3:220:OHX:N3	86:3:225:OHX:N5	2.69	0.41
36:5:1312:C:H2'	36:5:1313:G:O4'	2.20	0.41
36:5:1742:U:H2'	36:5:1743:G:H8	1.84	0.41
55:M9:20:ARG:NH1	36:5:1873:U:OP2	147.98	0.41
36:5:212:G:C6	36:5:222:A:C5	3.09	0.41
36:5:2335:G:C2	36:5:2340:U:C4	3.09	0.41
42:L5:23:ARG:NH2	36:5:2703:A:OP2	283.42	0.41
36:5:3128:G:OP2	86:5:4161:OHX:N5	2.53	0.41
36:5:3366:G:C6	36:5:3367:C:N4	2.89	0.41
36:5:352:A:H61	36:5:365:A:H5''	1.85	0.41
36:5:518:G:O6	86:5:4075:OHX:N3	2.54	0.41
41:L4:312:VAL:HG21	36:5:610:G:C8	222.30	0.41
1:6:1438:G:H2'	1:6:1439:C:C6	2.56	0.41
25:D3:110:LYS:HE3	1:6:19:A:OP1	349.53	0.41
38:8:6:U:H2'	38:8:7:U:H6	1.85	0.41
38:8:92:A:H2'	38:8:93:U:O4'	2.21	0.41
14:C2:87:PRO:HA	14:C2:140:PHE:HE1	2.12	0.41
15:C3:64:ARG:HG3	15:C3:70:LYS:HD2	6.05	0.41
1:2:990:C:O2'	16:C4:127:ARG:HG2	2.20	0.41
1:2:1555:A:P	17:C5:47:ARG:NH2	2.94	0.41
18:C6:83:GLN:NE2	18:C6:118:ILE:O	2.54	0.41
18:C6:6:SER:OG	18:C6:7:VAL:N	4.11	0.41
1:2:1544:U:H4'	20:C8:132:ARG:CZ	2.50	0.41
20:C8:62:THR:OG1	20:C8:64:GLU:HB2	4.33	0.41
1:2:1477:G:H5''	21:C9:45:MET:O	2.20	0.41
21:C9:87:GLY:O	21:C9:89:ARG:N	3.32	0.41
22:D0:22:ILE:HG22	22:D0:93:LEU:H	1.86	0.41
23:D1:46:ILE:H	23:D1:46:ILE:HG13	1.75	0.41
26:D4:127:LYS:H	26:D4:127:LYS:HG3	1.63	0.41
27:D5:65:LEU:HA	27:D5:65:LEU:HD23	1.94	0.41
30:D8:33:LEU:HA	30:D8:33:LEU:HD23	1.83	0.41
7:S5:163:SER:HB3	30:D8:46:GLY:HA3	2.31	0.41
41:L4:73:ARG:HD3	41:L4:73:ARG:HH11	1.72	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:76:ARG:HA	41:L4:87:GLN:O	2.21	0.41
42:L5:278:SER:O	42:L5:280:GLU:N	3.17	0.41
42:L5:79:TYR:HB2	42:L5:81:HIS:CE1	2.56	0.41
44:L7:111:ILE:O	44:L7:112:ASN:HB2	2.34	0.41
45:L8:45:ASN:OD1	61:N5:26:VAL:HA	2.20	0.41
48:M1:34:SER:HA	48:M1:67:VAL:HG11	3.80	0.41
48:M1:87:LYS:HA	48:M1:87:LYS:HD3	3.66	0.41
49:M3:161:ASP:C	49:M3:163:GLY:N	3.01	0.41
50:M4:77:ARG:O	50:M4:81:VAL:HG23	2.21	0.41
51:M5:10:LEU:HD13	51:M5:19:LEU:HD11	3.74	0.41
51:M5:49:ARG:HD3	36:5:115:A:OP1	104.48	0.41
51:M5:93:LYS:O	51:M5:94:TYR:HB3	2.20	0.41
54:M8:71:LEU:HD23	54:M8:71:LEU:HA	2.29	0.41
56:N0:50:LYS:HA	56:N0:50:LYS:HD3	1.86	0.41
61:N5:73:MET:O	61:N5:77:GLU:HG3	3.73	0.41
64:N8:10:LYS:HD2	64:N8:10:LYS:HA	1.75	0.41
67:O1:40:ALA:O	67:O1:41:LYS:C	3.18	0.41
69:O3:60:ARG:CZ	69:O3:60:ARG:HB2	2.51	0.41
53:M7:169:THR:CG2	69:O3:60:ARG:HH11	2.34	0.41
69:O3:80:VAL:HG12	69:O3:81:VAL:H	2.16	0.41
71:O5:27:GLU:O	71:O5:30:GLU:HB3	4.01	0.41
74:O8:30:LYS:HD2	74:O8:40:GLN:NE2	2.82	0.41
75:O9:21:ARG:NH1	75:O9:24:PRO:HD3	3.84	0.41
36:1:1588:A:C6	75:O9:4:GLN:HG3	2.56	0.41
77:Q1:13:LEU:O	77:Q1:17:ARG:HG3	2.21	0.41
39:L2:181:LYS:HD3	79:Q3:18:TYR:OH	2.59	0.41
2:S0:110:TYR:HA	2:S0:115:PHE:CD2	3.06	0.41
2:S0:54:TRP:O	2:S0:57:LEU:N	2.96	0.41
3:S1:116:LYS:HE2	3:S1:117:TRP:HZ3	1.86	0.41
3:S1:70:LEU:HD13	3:S1:71:ALA:N	2.36	0.41
4:S2:140:ARG:HH22	4:S2:228:ASN:HD21	1.68	0.41
4:S2:38:VAL:O	4:S2:39:THR:OG1	2.23	0.41
5:S3:84:ILE:HD13	5:S3:85:VAL:N	2.50	0.41
6:S4:181:VAL:HG11	6:S4:225:VAL:HG13	2.94	0.41
6:S4:246:LEU:HD21	6:S4:254:ARG:HD2	2.01	0.41
7:S5:25:LEU:N	7:S5:25:LEU:HD22	2.33	0.41
1:2:152:U:H1'	8:S6:13:GLN:OE1	2.21	0.41
8:S6:22:HIS:CE1	8:S6:25:ARG:NH2	3.82	0.41
8:S6:63:MET:HE1	8:S6:106:LEU:CD1	2.51	0.41
10:S8:194:ARG:HD2	10:S8:195:ARG:HH12	2.93	0.41
10:S8:194:ARG:HH11	10:S8:195:ARG:HH22	8.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:126:ARG:O	11:S9:129:ILE:N	2.92	0.41
11:S9:53:ARG:O	11:S9:57:ARG:HG3	3.13	0.41
35:SM:76:VAL:HG12	35:SM:77:THR:O	2.21	0.41
34:SR:13:LEU:HD12	34:SR:310:ILE:HG21	3.32	0.41
36:1:1093:A:C2	36:1:1096:U:N3	2.89	0.41
36:1:941:G:O4'	36:1:1435:A:H1'	2.21	0.41
36:1:1711:C:H2'	36:1:1712:G:O4'	2.21	0.41
36:1:1899:G:N7	86:1:3927:OHX:N3	2.69	0.41
36:1:2298:U:O4	36:1:2923:U:C5	2.65	0.41
36:1:2536:A:H2'	36:1:2537:U:C5	2.56	0.41
36:1:2534:G:H1	36:1:2545:C:H42	1.67	0.41
36:1:256:G:N7	86:1:4158:OHX:N4	2.69	0.41
36:1:3099:C:O2'	36:1:3100:U:H5'	2.21	0.41
36:1:3163:A:O2'	36:1:3164:C:H5'	2.21	0.41
36:1:728:G:H21	54:M8:138:LEU:HD23	1.86	0.41
36:1:880:G:H8	36:1:882:A:OP2	2.04	0.41
36:1:966:U:N3	36:1:967:A:N7	2.69	0.41
1:2:1157:A:O2'	1:2:1158:C:OP1	2.31	0.41
1:2:1482:C:O2	1:2:1525:A:N6	2.53	0.41
86:2:2083:OHX:N3	86:2:2085:OHX:N1	2.69	0.41
1:2:685:A:HO2'	1:2:686:C:P	2.43	0.41
1:2:702:G:HO2'	1:2:703:G:H8	1.61	0.41
1:2:720:G:H1'	1:2:721:U:H5''	2.03	0.41
1:2:906:A:H2'	1:2:907:A:C8	2.55	0.41
36:1:1618:G:H4'	38:4:129:C:H1'	2.03	0.41
36:5:1456:A:H4'	36:5:1457:U:O5'	2.21	0.41
36:5:1648:A:H2'	36:5:1649:U:O4'	2.21	0.41
36:5:171:G:H1	36:5:247:C:H41	1.68	0.41
36:5:2233:A:H2'	36:5:2234:G:O4'	2.21	0.41
36:5:2616:C:H2'	36:5:2617:U:H5'	2.03	0.41
36:5:3078:U:H4'	36:5:3079:U:OP2	2.20	0.41
36:5:3364:C:H2'	36:5:3365:U:C6	2.55	0.41
73:O7:25:ARG:NH1	36:5:360:G:OP1	125.88	0.41
36:5:392:G:O6	86:5:4069:OHX:N3	2.54	0.41
36:5:888:A:H2'	36:5:889:U:O4'	2.20	0.41
36:5:917:A:C6	36:5:918:C:C4	3.09	0.41
1:6:1193:A:H8	1:6:1193:A:OP1	2.03	0.41
1:6:119:A:H1'	1:6:397:A:C4	2.56	0.41
1:6:1237:G:H2'	1:6:1238:A:C8	2.56	0.41
1:6:1514:U:H5''	1:6:1515:A:O4'	2.20	0.41
86:6:2126:OHX:N5	86:6:2150:OHX:N3	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:463:U:H2'	1:6:464:A:C8	2.56	0.41
42:L5:256:THR:HG23	37:7:119:U:OP1	293.15	0.41
51:M5:112:ASN:OD1	38:8:141:C:H1'	104.00	0.41
16:C4:129:LYS:HE3	16:C4:129:LYS:HB2	1.80	0.41
16:C4:84:ARG:HD3	16:C4:84:ARG:HH11	2.17	0.41
17:C5:31:GLU:HG3	17:C5:32:ASP:N	2.36	0.41
7:S5:27:THR:CG2	18:C6:30:LYS:HE3	2.50	0.41
2:S0:18:LEU:HD21	19:C7:106:THR:OG1	6.92	0.41
22:D0:93:LEU:HA	22:D0:93:LEU:HD23	2.15	0.41
24:D2:114:GLU:O	24:D2:118:ARG:HG3	2.24	0.41
24:D2:126:LEU:HD23	24:D2:126:LEU:HA	1.87	0.41
25:D3:9:LEU:HD23	25:D3:9:LEU:HA	2.52	0.41
27:D5:61:SER:H	27:D5:64:VAL:CB	2.83	0.41
28:D6:84:VAL:HG22	28:D6:85:ARG:C	2.40	0.41
1:2:1071:U:O2'	29:D7:19:HIS:HD2	2.04	0.41
30:D8:5:THR:O	30:D8:7:VAL:HG23	2.72	0.41
40:L3:211:GLN:HE21	40:L3:284:ARG:HA	1.86	0.41
40:L3:322:ILE:HD12	40:L3:322:ILE:HG23	1.84	0.41
41:L4:180:LYS:C	41:L4:181:VAL:O	2.57	0.41
41:L4:241:GLY:O	41:L4:242:ALA:HB3	2.66	0.41
41:L4:346:LYS:HA	41:L4:346:LYS:HD2	4.64	0.41
41:L4:3:ARG:HB2	41:L4:21:PRO:HB2	3.42	0.41
36:1:365:A:OP1	41:L4:84:ARG:HD3	2.21	0.41
42:L5:233:ALA:O	42:L5:236:LEU:HB2	2.58	0.41
43:L6:18:LEU:HB3	36:5:591:G:N2	219.61	0.41
36:1:1362:G:H21	44:L7:158:LYS:NZ	2.19	0.41
45:L8:211:LEU:HD22	45:L8:211:LEU:HA	4.36	0.41
46:L9:112:ILE:HG21	46:L9:112:ILE:HD13	1.82	0.41
48:M1:89:TYR:HB3	48:M1:169:ALA:HA	2.01	0.41
48:M1:95:ASN:OD1	48:M1:95:ASN:N	2.61	0.41
49:M3:144:THR:HG21	71:O5:118:ILE:HG21	2.02	0.41
55:M9:101:VAL:HG13	55:M9:104:ARG:NH1	2.36	0.41
56:N0:117:ARG:HG2	56:N0:117:ARG:H	2.29	0.41
56:N0:44:PHE:O	56:N0:48:LEU:HG	2.97	0.41
57:N1:106:LEU:HD12	57:N1:106:LEU:HA	1.90	0.41
42:L5:69:ILE:HD13	57:N1:28:SER:HB2	2.02	0.41
62:N6:28:ARG:HB2	62:N6:75:ARG:NH2	2.36	0.41
64:N8:111:LYS:HA	64:N8:129:PHE:O	2.60	0.41
73:O7:72:ARG:HB3	73:O7:72:ARG:HE	2.35	0.41
2:S0:101:ARG:HG3	2:S0:102:PHE:N	2.68	0.41
2:S0:124:THR:HG22	2:S0:174:TRP:NE1	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:198:MET:SD	2:S0:199:PRO:HD2	2.61	0.41
3:S1:23:PRO:O	3:S1:26:ARG:HB3	2.80	0.41
4:S2:49:LYS:HD3	4:S2:49:LYS:HA	1.87	0.41
4:S2:56:ILE:HD12	4:S2:56:ILE:H	2.83	0.41
4:S2:84:LYS:HA	4:S2:85:PRO:HD3	1.96	0.41
1:2:251:A:O2'	6:S4:130:GLN:HG2	2.20	0.41
7:S5:121:ILE:HG13	7:S5:195:ALA:HB1	2.54	0.41
8:S6:25:ARG:HA	8:S6:28:PHE:CD1	2.56	0.41
8:S6:31:ARG:HD2	8:S6:34:GLN:NE2	2.36	0.41
8:S6:31:ARG:HH11	8:S6:34:GLN:HE22	1.69	0.41
9:S7:173:TYR:CE1	9:S7:181:ILE:HD11	4.12	0.41
9:S7:50:ASP:OD1	9:S7:56:LYS:HE2	3.93	0.41
10:S8:65:PHE:O	10:S8:109:PHE:HZ	2.04	0.41
34:SR:112:SER:CB	34:SR:153:GLN:HA	2.52	0.41
36:1:1165:A:H2'	36:1:1166:G:O4'	2.21	0.41
36:1:1246:G:H1'	36:1:1264:G:H2'	2.02	0.41
36:1:1614:C:H2'	36:1:1615:C:C6	2.56	0.41
36:1:2180:G:O6	86:1:4018:OHX:N1	2.54	0.41
36:1:2191:U:H2'	36:1:2192:C:O4'	2.21	0.41
36:1:2662:G:H2'	36:1:2663:G:H8	1.86	0.41
36:1:3053:G:H2'	36:1:3054:U:O4'	2.21	0.41
1:2:1201:G:N2	1:2:1600:A:H5'	2.36	0.41
1:2:1357:A:C6	1:2:1367:G:C6	3.09	0.41
1:2:1487:A:H2'	1:2:1488:G:H8	1.85	0.41
86:2:2095:OHX:N4	86:2:2108:OHX:N1	2.68	0.41
1:2:301:A:C5	1:2:302:U:C4	3.09	0.41
1:2:599:A:H5'	25:D3:123:LYS:NZ	2.36	0.41
1:2:72:A:C2	1:2:73:U:C4	3.08	0.41
1:2:889:U:O5'	1:2:889:U:H6	2.03	0.41
37:3:62:U:O3'	42:L5:285:ARG:NH1	2.54	0.41
38:4:98:U:H2'	38:4:99:C:H5'	2.03	0.41
36:5:1424:C:H2'	36:5:1425:U:O4'	2.21	0.41
36:5:2101:C:H2'	36:5:2102:U:H6	1.86	0.41
36:5:2520:A:H2'	36:5:2521:U:H6	1.83	0.41
36:5:3282:U:H5'	36:5:3283:U:OP2	2.21	0.41
86:5:4131:OHX:N3	86:5:4148:OHX:N1	2.69	0.41
86:5:4191:OHX:N1	86:5:4193:OHX:N2	2.69	0.41
36:5:678:G:H2'	36:5:679:U:O4'	2.21	0.41
64:N8:67:HIS:NE2	36:5:71:A:OP2	118.86	0.41
36:5:872:U:H2'	36:5:873:C:C6	2.56	0.41
1:6:1697:G:H2'	1:6:1697:G:N3	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1122:G:O6	86:6:2162:OHX:N6	2.53	0.41
15:C3:16:ILE:CD1	1:6:959:U:H4'	347.11	0.41
51:M5:109:ARG:NH1	38:8:141:C:OP1	120.48	0.41
13:C1:53:TYR:CG	13:C1:113:PRO:HG2	2.56	0.41
16:C4:51:ASP:O	16:C4:54:GLU:HB2	2.20	0.41
17:C5:26:LEU:HA	17:C5:26:LEU:HD12	1.87	0.41
17:C5:56:PHE:CE1	17:C5:60:LEU:HD11	5.59	0.41
22:D0:31:VAL:O	22:D0:35:GLU:HB2	2.21	0.41
22:D0:95:ALA:HB1	22:D0:99:ILE:HG21	2.03	0.41
13:C1:101:GLU:OE1	25:D3:16:ARG:NH2	2.54	0.41
25:D3:46:SER:OG	25:D3:78:LYS:NZ	2.87	0.41
16:C4:103:ARG:HH12	28:D6:48:ALA:HB1	3.08	0.41
7:S5:225:ARG:NH2	30:D8:58:GLU:HB2	5.78	0.41
32:E0:46:ASN:O	32:E0:47:VAL:HG12	2.21	0.41
40:L3:121:ASN:HB2	36:5:3296:A:OP2	190.70	0.41
40:L3:188:ILE:CD1	40:L3:189:SER:H	2.34	0.41
41:L4:327:LEU:HA	44:L7:166:ASN:ND2	2.36	0.41
41:L4:39:PHE:O	41:L4:42:VAL:N	3.10	0.41
41:L4:44:LYS:CB	41:L4:47:ARG:HH11	3.61	0.41
42:L5:61:ILE:HG23	42:L5:79:TYR:CE1	2.56	0.41
43:L6:52:VAL:CG1	43:L6:65:ILE:HG23	5.02	0.41
44:L7:232:ARG:O	44:L7:235:PHE:HB2	2.20	0.41
44:L7:55:TYR:CD1	44:L7:55:TYR:N	3.23	0.41
47:M0:175:ASN:CG	47:M0:176:LEU:H	4.95	0.41
47:M0:117:GLY:O	86:M0:304:OHX:N3	2.54	0.41
49:M3:25:HIS:CD2	51:M5:200:TRP:CD2	3.37	0.41
52:M6:8:VAL:HG12	52:M6:117:ARG:HB3	2.33	0.41
52:M6:23:VAL:HG11	52:M6:84:LEU:HD11	2.03	0.41
52:M6:55:HIS:HA	52:M6:58:LEU:HB2	2.03	0.41
55:M9:28:GLU:HG3	55:M9:49:THR:HB	5.30	0.41
56:N0:158:LYS:HE2	56:N0:158:LYS:HB3	1.32	0.41
58:N2:98:THR:HG21	58:N2:104:ARG:HE	5.77	0.41
58:N2:31:ALA:O	58:N2:34:ALA:N	3.29	0.41
36:1:1687:U:C5	58:N2:42:LYS:HB2	2.55	0.41
58:N2:74:LYS:HA	58:N2:74:LYS:HD2	4.55	0.41
65:N9:24:PRO:HD2	65:N9:25:LYS:H	3.77	0.41
66:O0:100:ILE:HD12	66:O0:101:LEU:H	1.86	0.41
67:O1:6:ASP:O	67:O1:7:VAL:HB	2.20	0.41
71:O5:26:LYS:O	71:O5:29:ALA:HB3	2.30	0.41
72:O6:50:LEU:HD21	72:O6:93:ILE:HD13	5.69	0.41
74:O8:3:ARG:NH2	36:5:1824:U:OP1	149.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:56:LYS:HZ2	2:S0:158:VAL:HA	3.15	0.41
3:S1:70:LEU:HD22	3:S1:74:GLN:HB2	2.02	0.41
4:S2:52:THR:OG1	4:S2:54:GLU:HG2	2.41	0.41
5:S3:76:ARG:HA	5:S3:76:ARG:HD2	4.20	0.41
8:S6:106:LEU:HG	8:S6:106:LEU:H	2.15	0.41
8:S6:145:PHE:HB2	8:S6:147:LEU:CD1	2.73	0.41
8:S6:212:LEU:HA	8:S6:212:LEU:HD23	1.95	0.41
9:S7:31:SER:O	9:S7:33:GLU:N	4.03	0.41
35:SM:101:ASP:O	35:SM:102:THR:HB	2.21	0.41
34:SR:13:LEU:HB3	34:SR:45:TRP:CZ3	4.25	0.41
36:1:1057:A:C5	36:1:1058:U:C5	3.09	0.40
36:1:1355:A:H1'	36:1:1356:U:OP2	2.21	0.40
36:1:1491:A:H5'	73:O7:12:HIS:O	2.21	0.40
36:1:2166:A:OP2	51:M5:76:PRO:HA	2.21	0.40
36:1:2746:A:H2'	36:1:2747:A:O4'	2.20	0.40
36:1:3046:A:H2'	36:1:3047:U:O4'	2.20	0.40
36:1:3268:A:O2'	36:1:3269:U:O2	2.37	0.40
36:1:3393:U:H2'	36:1:3394:U:H6	1.86	0.40
36:1:34:A:O2'	36:1:810:A:O2'	2.31	0.40
36:1:667:C:H6	36:1:667:C:H5''	1.87	0.40
36:1:997:A:H2'	36:1:998:A:O4'	2.22	0.40
1:2:1143:A:O2'	1:2:1144:U:H5'	2.20	0.40
1:2:1172:G:C6	1:2:1173:C:C4	3.10	0.40
1:2:1334:U:H4'	31:D9:55:PHE:HB3	2.02	0.40
1:2:1542:G:H22	1:2:1568:C:H1'	1.85	0.40
1:2:1680:G:C2	1:2:1720:G:C2	3.09	0.40
1:2:432:G:H2'	1:2:433:C:O4'	2.21	0.40
1:2:693:U:H5'	1:2:694:U:C5'	2.50	0.40
1:2:706:A:C6	1:2:734:A:N6	2.89	0.40
1:2:71:A:N1	1:2:72:A:C6	2.89	0.40
1:2:738:G:H2'	1:2:739:G:C8	2.56	0.40
1:2:844:A:H2'	1:2:845:G:H8	1.85	0.40
36:5:1093:A:OP1	36:5:1093:A:H4'	2.21	0.40
36:5:1335:C:H2'	36:5:1336:U:C6	2.57	0.40
36:5:1455:U:C4	36:5:3078:U:O2	2.74	0.40
36:5:2358:A:H2'	36:5:2359:C:O4'	2.20	0.40
65:N9:33:LYS:NZ	36:5:2722:U:OP1	203.16	0.40
36:5:3011:A:N3	36:5:3012:A:H1'	2.36	0.40
36:5:3242:G:H5''	36:5:3245:A:H8	1.81	0.40
86:5:4036:OHX:N1	86:5:4121:OHX:N4	2.69	0.40
36:5:565:U:H2'	36:5:566:G:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:601:U:H2'	36:5:602:A:O4'	2.21	0.40
36:5:725:G:H5''	36:5:725:G:H8	1.87	0.40
36:5:912:G:H8	36:5:912:G:O5'	2.04	0.40
36:5:948:C:H2'	36:5:949:C:H6	1.86	0.40
1:6:1081:A:N1	1:6:1091:A:C2	2.89	0.40
1:6:1469:A:H2'	1:6:1470:C:C6	2.56	0.40
1:6:1679:G:O6	86:6:2189:OHX:N3	2.54	0.40
11:S9:133:HIS:HE1	1:6:512:A:O2'	446.84	0.40
1:6:829:A:HO2'	1:6:830:U:P	2.44	0.40
12:C0:43:ILE:O	12:C0:47:GLN:HB3	2.73	0.40
13:C1:100:TYR:CD2	13:C1:100:TYR:N	2.88	0.40
18:C6:87:LYS:HB3	18:C6:87:LYS:HE2	2.24	0.40
19:C7:82:ASP:O	19:C7:83:GLN:HB2	2.22	0.40
20:C8:132:ARG:H	20:C8:132:ARG:HG2	1.72	0.40
26:D4:98:GLU:OE1	26:D4:99:LYS:N	5.87	0.40
27:D5:41:ILE:HA	27:D5:41:ILE:HD12	1.98	0.40
28:D6:97:PRO:HG3	1:6:1798:U:H5'	341.02	0.40
40:L3:150:ARG:HH11	40:L3:150:ARG:CG	3.36	0.40
40:L3:275:ARG:HH11	40:L3:275:ARG:HD2	1.75	0.40
41:L4:208:VAL:HG12	41:L4:254:ALA:HB1	2.03	0.40
42:L5:122:VAL:O	42:L5:123:GLU:HB2	4.53	0.40
42:L5:184:ASP:OD2	42:L5:187:THR:HG23	2.22	0.40
45:L8:106:LYS:HE3	45:L8:106:LYS:HB3	1.84	0.40
45:L8:116:VAL:HG13	45:L8:123:GLN:H	1.86	0.40
45:L8:68:ARG:O	45:L8:69:LEU:HB2	4.52	0.40
46:L9:2:LYS:HA	46:L9:60:GLY:O	2.20	0.40
47:M0:115:MET:O	47:M0:115:MET:HG3	2.22	0.40
47:M0:142:ASP:C	47:M0:144:ASN:H	2.24	0.40
47:M0:76:MET:HB3	47:M0:85:PHE:CZ	2.56	0.40
49:M3:14:PHE:HB3	49:M3:18:TRP:CD1	2.76	0.40
51:M5:73:ARG:HA	51:M5:74:PRO:HD3	1.94	0.40
52:M6:137:THR:HG22	52:M6:138:LEU:N	2.36	0.40
53:M7:94:LEU:HB3	53:M7:148:LEU:HD21	2.26	0.40
54:M8:150:VAL:HA	54:M8:153:PHE:CD1	2.56	0.40
59:N3:128:ARG:N	59:N3:128:ARG:HD2	2.36	0.40
61:N5:106:ASP:O	61:N5:127:THR:HG23	2.27	0.40
61:N5:42:ARG:HD2	36:5:14:U:O3'	104.30	0.40
64:N8:71:PRO:HB2	64:N8:109:TYR:HA	2.03	0.40
64:N8:74:ASN:ND2	64:N8:113:LEU:HB2	2.36	0.40
64:N8:52:TYR:HD2	64:N8:53:PHE:CD1	2.40	0.40
65:N9:41:ARG:HE	65:N9:41:ARG:HB2	1.67	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:O0:73:GLY:O	66:O0:76:GLU:HG2	2.20	0.40
67:O1:12:TYR:CE1	67:O1:43:HIS:ND1	2.87	0.40
67:O1:54:GLU:HA	67:O1:57:GLN:HG3	3.13	0.40
67:O1:55:LEU:O	67:O1:59:ILE:HG13	2.34	0.40
36:1:639:G:OP1	68:O2:37:GLY:HA3	2.21	0.40
72:O6:35:ASN:OD1	72:O6:35:ASN:N	2.53	0.40
74:O8:33:LYS:HD3	74:O8:33:LYS:HA	1.84	0.40
1:2:1116:A:P	77:Q1:17:ARG:HH21	2.42	0.40
2:S0:110:TYR:HA	2:S0:115:PHE:CE1	2.56	0.40
3:S1:81:PHE:HB2	3:S1:82:ARG:H	1.67	0.40
4:S2:166:THR:HG23	4:S2:201:ASN:HB3	2.03	0.40
5:S3:219:ALA:HB1	5:S3:220:PRO:HD2	2.04	0.40
7:S5:21:THR:HA	7:S5:22:PRO:HD3	1.78	0.40
9:S7:126:LEU:HD12	9:S7:126:LEU:HA	2.32	0.40
1:2:856:A:H1'	9:S7:64:VAL:HG11	2.02	0.40
11:S9:140:ILE:HG13	26:D4:65:GLY:HA3	2.02	0.40
34:SR:144:LEU:HA	34:SR:144:LEU:HD23	4.49	0.40
34:SR:37:SER:C	34:SR:39:ASP:H	2.24	0.40
34:SR:44:SER:O	34:SR:58:VAL:HG13	4.96	0.40
36:1:1255:C:H2'	36:1:1256:G:C8	2.56	0.40
36:1:1301:A:H4'	36:1:1302:A:H5''	2.02	0.40
36:1:1316:C:N4	52:M6:131:PRO:HD3	2.36	0.40
36:1:1327:C:O2'	69:O3:76:GLY:HA2	2.20	0.40
36:1:1456:A:N1	36:1:1476:G:O2'	2.45	0.40
36:1:1696:A:OP2	86:1:4157:OHX:N3	2.54	0.40
36:1:1724:U:H1'	36:1:1725:C:C5	2.56	0.40
36:1:1768:U:H2'	36:1:1769:G:O4'	2.20	0.40
36:1:246:U:O2'	36:1:247:C:H5'	2.21	0.40
36:1:160:G:H1	36:1:261:U:H3	1.68	0.40
36:1:3190:C:H2'	36:1:3191:G:H8	1.86	0.40
36:1:324:A:H2'	36:1:325:A:C8	2.56	0.40
36:1:3356:G:C6	36:1:3357:U:C4	3.09	0.40
36:1:348:A:H4'	36:1:367:A:H62	1.85	0.40
36:1:371:G:H4'	36:1:396:A:N1	2.36	0.40
36:1:437:G:O2'	36:1:438:A:H5'	2.21	0.40
36:1:612:U:C2	36:1:613:G:C8	3.10	0.40
36:1:855:U:H2'	36:1:856:G:O4'	2.21	0.40
36:1:985:U:H5''	44:L7:98:LYS:HD3	2.03	0.40
1:2:1042:G:C2	1:2:1043:A:C8	3.09	0.40
1:2:1342:C:H5''	34:SR:102:ARG:NH1	2.35	0.40
1:2:1491:U:O2	1:2:1491:U:H5''	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1737:G:C6	1:2:1738:U:C4	3.09	0.40
1:2:61:A:H8	1:2:269:G:O2'	2.04	0.40
37:3:112:G:H2'	37:3:113:C:H6	1.84	0.40
36:5:1236:G:N2	36:5:1244:A:OP1	2.41	0.40
36:5:1251:A:H2'	36:5:1252:A:O4'	2.22	0.40
36:5:1348:U:C5	36:5:1355:A:N7	2.89	0.40
36:5:2093:A:O2'	36:5:2094:C:O4'	2.38	0.40
36:5:2148:U:H2'	36:5:2149:A:C4	2.56	0.40
36:5:2573:G:H2'	36:5:2574:G:O4'	2.21	0.40
36:5:2892:A:OP1	86:5:4130:OHX:N6	2.54	0.40
36:5:2948:C:H6	36:5:2948:C:O5'	2.04	0.40
86:5:4037:OHX:N4	86:5:4240:OHX:N2	2.69	0.40
36:5:59:G:H4'	36:5:60:A:H4'	2.02	0.40
36:5:731:U:H2'	36:5:732:C:H6	1.85	0.40
36:5:89:A:N6	36:5:98:G:C2	2.89	0.40
1:6:1372:U:H2'	1:6:1373:C:C6	2.55	0.40
1:6:1376:C:O2'	1:6:1377:U:H5'	2.21	0.40
1:6:1577:A:H2'	1:6:1578:U:O4'	2.22	0.40
1:6:356:G:OP2	86:6:2075:OHX:N5	2.54	0.40
1:6:586:G:C6	1:6:587:C:C4	3.09	0.40
1:6:670:U:H2'	1:6:670:U:H6	1.75	0.40
1:6:675:U:H2'	1:6:676:G:C8	2.57	0.40
1:6:997:G:H2'	1:6:998:A:O4'	2.22	0.40
15:C3:83:GLU:HG2	15:C3:83:GLU:H	1.52	0.40
17:C5:128:HIS:HB3	1:6:1460:A:N7	328.59	0.40
18:C6:28:LEU:C	18:C6:29:ILE:HG12	2.40	0.40
20:C8:5:VAL:HG23	27:D5:42:LEU:HD23	2.04	0.40
25:D3:72:VAL:O	25:D3:84:THR:HA	2.71	0.40
6:S4:54:TYR:CG	26:D4:17:LEU:HD12	4.71	0.40
27:D5:58:ARG:O	27:D5:102:THR:HG22	2.21	0.40
27:D5:46:LYS:HG2	27:D5:70:LYS:HD2	2.02	0.40
30:D8:21:SER:HB3	30:D8:67:ARG:HG2	6.63	0.40
39:L2:14:SER:OG	39:L2:15:ILE:N	2.69	0.40
39:L2:246:LEU:O	39:L2:247:ARG:HB2	4.79	0.40
39:L2:29:LEU:O	39:L2:123:ARG:NH2	3.04	0.40
39:L2:4:VAL:CG1	39:L2:8:GLN:HB2	2.51	0.40
40:L3:150:ARG:HH11	40:L3:150:ARG:HD2	1.75	0.40
40:L3:187:SER:OG	40:L3:190:GLU:HG3	2.22	0.40
36:1:2940:A:C8	40:L3:2:SER:N	2.88	0.40
41:L4:140:HIS:HA	41:L4:177:ASP:OD1	2.21	0.40
41:L4:219:LEU:O	41:L4:220:ARG:C	2.60	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:264:SER:C	41:L4:266:THR:N	2.74	0.40
42:L5:64:ILE:HD13	42:L5:144:VAL:HG21	2.99	0.40
43:L6:68:PRO:HG2	43:L6:71:VAL:CG2	3.17	0.40
44:L7:233:GLU:CD	56:N0:35:VAL:HG22	2.58	0.40
44:L7:89:ILE:HA	44:L7:89:ILE:HD13	1.68	0.40
45:L8:186:LEU:O	45:L8:190:VAL:HG23	5.78	0.40
45:L8:214:LEU:HA	45:L8:214:LEU:HD12	1.97	0.40
45:L8:50:VAL:HG22	45:L8:52:TRP:CD2	2.79	0.40
46:L9:84:LYS:HA	46:L9:188:THR:HG23	2.03	0.40
49:M3:18:TRP:C	49:M3:20:GLU:N	2.74	0.40
50:M4:96:ALA:O	50:M4:101:LYS:HE3	2.32	0.40
51:M5:112:ASN:O	51:M5:138:GLN:NE2	2.52	0.40
55:M9:175:GLN:O	55:M9:179:GLU:HG3	2.47	0.40
55:M9:8:LYS:HD2	55:M9:22:VAL:HG23	2.03	0.40
56:N0:155:ARG:HG3	56:N0:155:ARG:O	2.21	0.40
59:N3:3:GLY:HA3	59:N3:40:LYS:HB3	4.58	0.40
59:N3:87:ARG:HG2	59:N3:121:GLU:OE2	2.21	0.40
67:O1:11:GLU:HG2	67:O1:74:ARG:HB2	2.03	0.40
67:O1:10:ARG:NH1	67:O1:12:TYR:OH	3.13	0.40
67:O1:35:GLU:O	67:O1:38:LYS:HB3	2.22	0.40
69:O3:44:TYR:HA	69:O3:47:LYS:HG3	2.26	0.40
71:O5:62:GLN:O	71:O5:66:VAL:HG23	2.20	0.40
73:O7:36:SER:O	73:O7:45:ARG:HB3	2.21	0.40
78:Q2:54:THR:O	78:Q2:55:LYS:HG2	2.36	0.40
78:Q2:66:LYS:HE3	78:Q2:66:LYS:HB2	4.57	0.40
2:S0:125:ASP:HA	2:S0:126:PRO:HD2	1.92	0.40
2:S0:167:LYS:HB3	2:S0:168:HIS:H	1.53	0.40
3:S1:126:THR:CG2	3:S1:136:ARG:HE	2.41	0.40
4:S2:36:VAL:HA	4:S2:37:PRO:HD2	2.51	0.40
5:S3:225:TYR:HD2	34:SR:188:ILE:HG13	1.85	0.40
5:S3:43:PRO:O	5:S3:44:THR:HG22	4.78	0.40
6:S4:199:GLU:HG3	6:S4:207:LEU:HB2	2.03	0.40
6:S4:36:HIS:HD2	6:S4:83:PRO:O	2.84	0.40
11:S9:129:ILE:HG22	11:S9:142:ASN:HA	2.02	0.40
34:SR:128:ASP:O	34:SR:130:THR:HG23	2.21	0.40
34:SR:201:THR:HB	34:SR:242:SER:HA	2.02	0.40
34:SR:246:SER:O	34:SR:248:ASN:N	3.78	0.40
34:SR:50:ASP:H	34:SR:54:PHE:HA	2.22	0.40
36:1:1040:A:N3	47:M0:198:LYS:NZ	2.52	0.40
36:1:1916:U:H2'	36:1:1917:C:C6	2.57	0.40
36:1:197:G:C8	36:1:395:A:O4'	2.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2224:A:N1	36:1:2783:U:O2'	2.47	0.40
36:1:2971:A:N3	36:1:2971:A:H3'	2.37	0.40
36:1:3045:G:H2'	36:1:3046:A:O4'	2.21	0.40
36:1:3238:G:N2	36:1:3250:U:H1'	2.37	0.40
36:1:3290:G:C6	36:1:3291:G:C5	3.10	0.40
36:1:3392:U:H2'	36:1:3393:U:H6	1.86	0.40
36:1:274:G:O6	86:1:3988:OHX:N2	2.53	0.40
36:1:2400:G:OP1	86:1:4087:OHX:N2	2.54	0.40
36:1:711:A:N7	36:1:712:G:H1'	2.36	0.40
1:2:1132:A:OP1	25:D3:30:LYS:NZ	2.48	0.40
1:2:1230:A:C2'	1:2:1258:U:H5	2.34	0.40
1:2:1130:G:OP2	86:2:2074:OHX:N2	2.54	0.40
86:2:2083:OHX:N6	86:2:2085:OHX:N2	2.70	0.40
1:2:252:U:H2'	1:2:253:A:C8	2.56	0.40
1:2:639:U:OP1	9:S7:117:THR:OG1	2.40	0.40
1:2:830:U:O2'	1:2:831:U:P	2.79	0.40
52:M6:25:LYS:HG2	36:5:1175:C:H5''	252.96	0.40
36:5:1261:G:H5''	36:5:1262:G:OP1	2.21	0.40
36:5:1658:G:O6	86:5:4199:OHX:N4	2.54	0.40
36:5:1666:G:H2'	36:5:1667:A:C8	2.56	0.40
36:5:2224:A:N7	36:5:2225:U:H1'	2.36	0.40
36:5:2927:C:H2'	36:5:2928:C:C6	2.56	0.40
36:5:2966:G:C6	36:5:2967:A:N6	2.89	0.40
86:5:4191:OHX:N5	86:5:4193:OHX:N2	2.69	0.40
36:5:423:A:C6	36:5:424:G:C6	3.09	0.40
36:5:628:A:H2'	36:5:629:U:O4'	2.22	0.40
1:6:17:C:O2'	1:6:1137:A:N1	2.43	0.40
1:6:1267:G:H2'	1:6:1268:G:C8	2.56	0.40
1:6:1361:U:OP1	1:6:1361:U:H4'	2.20	0.40
1:6:1716:C:O2'	1:6:1717:G:O5'	2.37	0.40
1:6:207:U:H2'	1:6:208:U:H6	1.85	0.40
1:6:291:G:H2'	1:6:292:U:C6	2.56	0.40
1:6:699:U:O2	1:6:739:G:N2	2.44	0.40
11:S9:149:ARG:NE	1:6:765:G:N7	428.90	0.40
37:7:31:U:O2'	37:7:32:U:H5'	2.22	0.40
37:7:92:A:H5''	37:7:93:C:OP2	2.21	0.40
13:C1:125:VAL:HB	13:C1:137:PHE:HB3	2.67	0.40
13:C1:14:GLN:HB3	13:C1:54:ILE:HG13	4.10	0.40
13:C1:86:ILE:HD13	13:C1:86:ILE:HG21	2.35	0.40
17:C5:22:LEU:HD23	17:C5:23:GLU:H	5.41	0.40
22:D0:41:ILE:HG12	22:D0:103:ILE:HD12	3.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1430:U:H1'	22:D0:72:ASN:OD1	2.22	0.40
24:D2:73:GLY:HA3	24:D2:128:PHE:CZ	2.78	0.40
28:D6:18:VAL:HG11	28:D6:33:ASP:HB3	2.99	0.40
28:D6:42:ARG:O	28:D6:66:LYS:HB3	2.21	0.40
31:D9:30:LEU:HA	31:D9:39:CYS:HA	2.21	0.40
31:D9:31:ILE:HD13	31:D9:31:ILE:HA	1.88	0.40
36:1:1794:G:C6	39:L2:187:HIS:CD2	3.09	0.40
39:L2:65:ASP:HB2	39:L2:70:ARG:HG2	3.78	0.40
40:L3:122:TRP:CH2	40:L3:127:LYS:HG2	2.56	0.40
40:L3:62:ARG:N	40:L3:68:HIS:HD1	2.11	0.40
40:L3:88:GLY:HA2	40:L3:199:PHE:CE1	2.96	0.40
41:L4:193:LYS:HE3	41:L4:193:LYS:HB3	1.86	0.40
42:L5:79:TYR:CG	42:L5:81:HIS:CE1	3.71	0.40
43:L6:131:LYS:O	43:L6:135:VAL:HG23	3.10	0.40
44:L7:236:ILE:HD12	44:L7:236:ILE:HA	1.88	0.40
45:L8:237:ILE:HG13	45:L8:237:ILE:H	1.74	0.40
45:L8:49:TYR:HD2	36:5:2587:U:H4'	177.69	0.40
45:L8:64:ILE:O	45:L8:68:ARG:HG2	2.85	0.40
46:L9:13:PRO:HD3	46:L9:79:ILE:HG21	2.03	0.40
46:L9:27:VAL:HG12	46:L9:82:VAL:HG11	2.02	0.40
42:L5:293:LEU:HD22	47:M0:210:ILE:HG21	2.02	0.40
47:M0:216:TYR:CG	47:M0:217:PHE:N	2.88	0.40
48:M1:62:ASN:O	78:Q2:103:ALA:HB2	2.22	0.40
50:M4:127:LYS:O	50:M4:131:VAL:HG23	2.64	0.40
51:M5:118:SER:HB3	51:M5:132:VAL:HG13	2.03	0.40
45:L8:159:PRO:HG3	51:M5:43:THR:O	3.74	0.40
51:M5:84:PRO:HA	51:M5:87:GLN:HB2	2.64	0.40
52:M6:12:LYS:HD3	52:M6:37:ARG:NH2	2.36	0.40
53:M7:67:ILE:HD13	53:M7:67:ILE:H	4.01	0.40
55:M9:165:LYS:HB3	55:M9:165:LYS:HE3	1.67	0.40
36:1:1498:A:OP1	55:M9:6:THR:HG23	2.21	0.40
62:N6:56:VAL:HG13	62:N6:104:LEU:HD22	2.21	0.40
63:N7:62:VAL:O	63:N7:66:THR:OG1	2.46	0.40
66:O0:30:THR:HG21	66:O0:89:VAL:HG13	2.28	0.40
66:O0:45:ALA:O	66:O0:48:THR:OG1	4.89	0.40
67:O1:108:VAL:HG12	67:O1:110:GLU:OE1	3.23	0.40
68:O2:8:LYS:HB3	68:O2:8:LYS:HE2	4.17	0.40
79:Q3:83:ILE:HD13	79:Q3:83:ILE:HA	1.91	0.40
2:S0:139:VAL:HG22	2:S0:139:VAL:O	2.49	0.40
2:S0:62:ARG:CD	23:D1:36:VAL:HG12	6.20	0.40
3:S1:110:LEU:O	3:S1:113:MET:N	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:170:ILE:HA	4:S2:171:PRO:HD3	1.96	0.40
4:S2:59:HIS:NE2	4:S2:236:PRO:HB2	2.87	0.40
5:S3:113:LEU:HD13	5:S3:117:ARG:HD2	2.04	0.40
5:S3:48:VAL:HG23	5:S3:84:ILE:HD11	2.03	0.40
6:S4:102:VAL:HG22	6:S4:103:TYR:H	1.93	0.40
6:S4:174:LYS:HE3	6:S4:175:PHE:N	3.97	0.40
6:S4:244:ILE:HA	6:S4:244:ILE:HD12	3.04	0.40
6:S4:64:ILE:HG21	6:S4:64:ILE:HD13	2.12	0.40
1:2:72:A:N7	8:S6:169:TYR:HE2	2.20	0.40
8:S6:173:PRO:HG3	1:6:66:U:C5	333.93	0.40
8:S6:79:LYS:HB3	8:S6:79:LYS:HE3	1.91	0.40
9:S7:150:GLN:HB2	9:S7:181:ILE:HD12	2.04	0.40
10:S8:123:LYS:HB3	10:S8:123:LYS:HE3	1.95	0.40
10:S8:149:SER:O	13:C1:24:LYS:NZ	2.49	0.40
10:S8:170:SER:OG	10:S8:181:GLY:HA2	2.22	0.40
10:S8:8:ARG:NH2	10:S8:21:PHE:HB3	2.37	0.40
11:S9:124:HIS:CD2	1:6:479:C:H5'	451.42	0.40
36:1:1079:A:N6	36:1:1080:A:N1	2.68	0.40
36:1:1423:C:H2'	36:1:1424:C:C6	2.56	0.40
36:1:1686:U:O2	36:1:1688:U:H1'	2.21	0.40
36:1:1807:G:C6	36:1:1808:G:C6	3.10	0.40
36:1:2241:U:O2'	39:L2:243:THR:HG22	2.21	0.40
36:1:412:G:H1'	53:M7:120:ASN:HB3	2.03	0.40
36:1:501:A:H2'	36:1:502:U:C6	2.56	0.40
1:2:1039:A:O2'	1:2:1040:G:OP2	2.30	0.40
1:2:1238:A:H2'	1:2:1239:U:O4'	2.22	0.40
1:2:1431:C:H3'	1:2:1432:U:H5'	2.04	0.40
1:2:1527:C:H2'	1:2:1528:U:H6	1.86	0.40
1:2:1546:G:N7	20:C8:134:ARG:NH2	2.68	0.40
1:2:36:C:H2'	1:2:37:U:O4'	2.22	0.40
1:2:400:A:O5'	10:S8:25:ARG:HD3	2.21	0.40
1:2:425:A:C8	1:2:425:A:H5'	2.56	0.40
1:2:542:A:H8	1:2:543:C:H3'	1.86	0.40
1:2:794:U:H1'	1:2:795:U:OP1	2.21	0.40
38:4:15:G:C6	38:4:16:G:N1	2.90	0.40
36:5:1252:A:H2	36:5:1263:A:C2	2.39	0.40
36:5:113:C:C5	36:5:154:U:C2	3.09	0.40
36:5:2314:U:OP2	36:5:2314:U:H4'	2.21	0.40
36:5:2689:A:C8	36:5:2702:A:N6	2.89	0.40
36:5:2951:G:C2'	36:5:2952:G:H5'	2.51	0.40
36:5:3278:C:O5'	36:5:3278:C:H6	2.05	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:917:A:OP2	86:5:4226:OHX:N3	2.54	0.40
36:5:795:G:O2'	36:5:796:U:H5'	2.22	0.40
36:5:848:A:C5	36:5:849:C:H1'	2.57	0.40
36:5:994:G:H22	36:5:1053:A:H2'	1.86	0.40
1:6:1207:C:H42	1:6:1456:C:H5	1.68	0.40
1:6:1347:U:C2	1:6:1517:U:C5	3.09	0.40
1:6:1363:U:O2'	1:6:1364:G:H5'	2.21	0.40
21:C9:102:ARG:NH2	1:6:1502:G:N7	404.90	0.40
17:C5:47:ARG:NH2	1:6:1555:A:OP2	403.40	0.40
1:6:158:U:O2'	1:6:160:C:OP2	2.19	0.40
1:6:1620:C:H2'	1:6:1621:U:C6	2.56	0.40
1:6:1662:G:O6	86:6:2063:OHX:N6	2.54	0.40
1:6:543:C:O2	1:6:543:C:O4'	2.39	0.40
1:6:647:G:N2	1:6:688:G:N3	2.70	0.40
15:C3:114:ARG:HG3	1:6:952:A:O2'	299.60	0.40
13:C1:123:VAL:HG22	13:C1:142:VAL:HG22	3.61	0.40
13:C1:67:ARG:HD3	13:C1:67:ARG:N	2.50	0.40
14:C2:91:VAL:HG22	14:C2:92:ALA:H	4.48	0.40
15:C3:89:TYR:CZ	15:C3:150:VAL:HG13	2.56	0.40
16:C4:84:ARG:HB3	16:C4:118:VAL:HG23	3.18	0.40
17:C5:52:LYS:HG3	17:C5:53:PRO:HD3	2.03	0.40
17:C5:86:VAL:O	17:C5:89:MET:HG2	2.20	0.40
17:C5:77:ARG:HA	17:C5:95:GLY:HA3	2.58	0.40
18:C6:44:LEU:HA	18:C6:44:LEU:HD23	1.90	0.40
18:C6:36:ILE:HD11	18:C6:48:VAL:HG22	2.39	0.40
18:C6:49:TYR:O	18:C6:53:LEU:HG	2.21	0.40
19:C7:7:LYS:O	19:C7:11:ARG:N	2.36	0.40
22:D0:45:ALA:HB1	22:D0:50:LEU:HD22	2.03	0.40
22:D0:27:THR:HA	22:D0:87:HIS:O	2.37	0.40
22:D0:22:ILE:CG2	22:D0:93:LEU:HB2	2.51	0.40
25:D3:133:LEU:HD22	25:D3:133:LEU:HA	2.50	0.40
1:2:533:U:C4'	26:D4:33:ALA:HB2	2.51	0.40
30:D8:61:ARG:HH12	30:D8:63:ALA:HB2	3.89	0.40
39:L2:96:LEU:HD23	39:L2:96:LEU:HA	3.62	0.40
40:L3:114:VAL:O	40:L3:117:ARG:HB3	2.30	0.40
40:L3:173:GLN:O	40:L3:173:GLN:HG3	2.15	0.40
40:L3:340:LYS:NZ	40:L3:340:LYS:HB3	4.51	0.40
40:L3:95:THR:O	40:L3:97:ARG:N	2.54	0.40
41:L4:141:ARG:HA	41:L4:141:ARG:HD3	2.33	0.40
41:L4:271:LYS:HB2	41:L4:274:TYR:CB	2.76	0.40
41:L4:64:SER:CA	41:L4:75:PRO:HA	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:15:ARG:HD3	42:L5:15:ARG:HH11	1.75	0.40
43:L6:54:TYR:HA	43:L6:65:ILE:CD1	6.16	0.40
46:L9:52:LEU:HA	46:L9:52:LEU:HD23	1.94	0.40
50:M4:85:TRP:CH2	50:M4:90:VAL:HG11	4.28	0.40
51:M5:13:LYS:N	51:M5:13:LYS:HD3	2.69	0.40
51:M5:154:PRO:HA	51:M5:157:LYS:HD2	2.03	0.40
51:M5:168:GLY:O	51:M5:172:ARG:HB2	2.60	0.40
53:M7:36:ILE:HG12	53:M7:44:ALA:HB1	2.03	0.40
36:1:780:A:N6	54:M8:173:GLU:O	2.54	0.40
55:M9:31:GLU:HG3	55:M9:31:GLU:O	2.16	0.40
56:N0:48:LEU:HA	56:N0:48:LEU:HD23	1.80	0.40
60:N4:54:LEU:HD13	60:N4:54:LEU:HA	3.95	0.40
63:N7:41:ALA:O	63:N7:43:VAL:HG13	3.73	0.40
63:N7:78:ASN:OD1	66:O0:35:ARG:NH2	2.48	0.40
63:N7:81:LEU:HA	63:N7:82:PRO:HD3	2.60	0.40
64:N8:100:PRO:HG2	64:N8:123:VAL:HG12	4.42	0.40
64:N8:62:HIS:O	64:N8:62:HIS:CG	2.79	0.40
66:O0:18:ILE:HG12	66:O0:81:VAL:O	2.20	0.40
67:O1:14:ILE:HG13	67:O1:19:ARG:NH1	2.37	0.40
68:O2:24:ARG:HD3	68:O2:25:TYR:CZ	2.57	0.40
69:O3:10:LYS:O	69:O3:33:GLU:HB2	3.00	0.40
70:O4:104:VAL:HA	70:O4:107:GLU:HB2	2.03	0.40
76:Q0:104:PRO:HA	76:Q0:105:PRO:HD3	1.92	0.40
2:S0:157:ASP:O	2:S0:158:VAL:C	2.77	0.40
3:S1:84:ILE:HG22	3:S1:86:LEU:HD22	2.03	0.40
6:S4:98:ASN:HB2	6:S4:114:ILE:O	2.21	0.40
6:S4:30:ARG:HA	6:S4:31:PRO:HD2	2.38	0.40
8:S6:84:TYR:OH	8:S6:91:GLU:HG2	3.24	0.40
34:SR:216:LYS:C	34:SR:218:GLY:H	2.41	0.40
36:1:1184:A:C2	36:1:1323:G:C4	3.10	0.40
36:1:1232:C:H41	36:1:1261:G:H2'	1.87	0.40
36:1:1539:A:H2'	36:1:1540:U:H5'	2.04	0.40
36:1:2340:U:H2'	36:1:2341:A:H8	1.87	0.40
36:1:401:U:H4'	36:1:403:C:C2	2.56	0.40
86:1:4079:OHX:N2	86:1:4149:OHX:N5	2.70	0.40
36:1:692:A:C4	36:1:693:A:C8	3.10	0.40
36:1:92:G:O2'	78:Q2:55:LYS:HD3	2.22	0.40
36:1:955:U:H2'	36:1:956:U:C6	2.57	0.40
1:2:1142:A:H2'	1:2:1143:A:C8	2.56	0.40
1:2:1174:C:H2'	1:2:1175:U:O4'	2.20	0.40
1:2:1214:U:OP1	1:2:1246:C:H1'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1473:U:HO2'	1:2:1474:G:P	2.43	0.40
1:2:1603:U:O2'	1:2:1604:U:H5'	2.21	0.40
1:2:3:U:H5'	4:S2:198:THR:O	2.21	0.40
1:2:606:A:H5'	1:2:606:A:N3	2.36	0.40
37:3:13:A:O4'	37:3:112:G:C8	2.75	0.40
36:5:1622:U:H2'	36:5:1623:G:C8	2.56	0.40
36:5:2124:G:C2	36:5:2330:C:C2	3.10	0.40
36:5:2147:A:H2'	36:5:2148:U:O4'	2.22	0.40
36:5:2211:U:H2'	36:5:2212:C:O4'	2.21	0.40
36:5:2396:G:OP1	36:5:2397:A:H4'	2.22	0.40
36:5:2623:G:C4	36:5:2624:G:C8	3.10	0.40
36:5:3025:C:H2'	36:5:3026:G:O4'	2.22	0.40
36:5:32:U:O5'	36:5:32:U:H6	2.05	0.40
36:5:3389:U:OP2	36:5:3389:U:H2'	2.22	0.40
36:5:34:A:H3'	36:5:35:A:H8	1.86	0.40
36:5:378:A:C8	36:5:379:C:C5	3.10	0.40
36:5:518:G:N2	36:5:518:G:OP2	2.39	0.40
1:6:1080:U:O2'	1:6:1081:A:H5'	2.22	0.40
1:6:1565:C:H2'	1:6:1566:U:O4'	2.22	0.40
11:S9:124:HIS:CD2	1:6:478:A:O2'	449.52	0.40
11:S9:133:HIS:CE1	1:6:512:A:O2'	446.59	0.40
1:6:592:A:H2'	1:6:593:U:O4'	2.21	0.40
1:6:696:C:H4'	1:6:697:C:H6	1.86	0.40
1:6:946:U:H2'	1:6:947:U:O4'	2.22	0.40
37:7:4:U:H4'	37:7:26:C:C4'	2.52	0.40
15:C3:91:LEU:HD12	15:C3:125:LEU:HD12	2.34	0.40
16:C4:26:THR:HG21	16:C4:97:GLY:CA	2.47	0.40
20:C8:29:VAL:CG2	20:C8:44:ASN:HA	4.69	0.40
22:D0:50:LEU:O	22:D0:51:VAL:HG13	4.43	0.40
2:S0:66:ALA:HB2	23:D1:37:ALA:HB2	2.02	0.40
28:D6:12:LYS:HB3	28:D6:13:LYS:H	4.35	0.40
28:D6:97:PRO:N	28:D6:98:PRO:HD2	2.37	0.40
29:D7:53:ALA:HB1	29:D7:62:ILE:HD11	2.66	0.40
30:D8:8:THR:HB	30:D8:56:LEU:HD12	4.28	0.40
39:L2:129:ALA:O	39:L2:130:SER:C	2.72	0.40
39:L2:204:MET:HG3	39:L2:208:ASP:HB2	3.22	0.40
40:L3:227:GLU:HG3	40:L3:270:ARG:NE	4.08	0.40
40:L3:4:ARG:O	40:L3:5:LYS:CB	2.69	0.40
40:L3:53:MET:HE1	40:L3:327:CYS:HB3	2.34	0.40
41:L4:51:ALA:HA	41:L4:103:THR:OG1	2.22	0.40
41:L4:69:ARG:O	41:L4:70:ALA:HB3	2.38	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:146:LEU:HB3	36:5:2746:A:H2	258.92	0.40
42:L5:155:THR:HA	42:L5:179:ARG:HA	2.03	0.40
36:1:3268:A:O2'	43:L6:130:ILE:HD11	2.22	0.40
44:L7:136:TYR:O	44:L7:231:ASN:HA	2.61	0.40
45:L8:202:GLU:O	45:L8:203:VAL:HB	2.36	0.40
45:L8:36:ILE:HD13	45:L8:36:ILE:HG21	1.77	0.40
46:L9:102:ASN:HA	46:L9:136:PHE:CZ	2.56	0.40
46:L9:151:VAL:O	46:L9:155:SER:OG	2.26	0.40
46:L9:21:LYS:HA	50:M4:8:LYS:HG3	2.04	0.40
46:L9:23:ARG:HH21	46:L9:23:ARG:HD2	1.75	0.40
46:L9:75:VAL:O	46:L9:79:ILE:HG13	2.21	0.40
52:M6:15:LEU:HD23	52:M6:15:LEU:HA	1.86	0.40
53:M7:25:SER:CB	53:M7:28:ASN:HB2	2.56	0.40
53:M7:51:VAL:HA	53:M7:56:ARG:O	2.21	0.40
53:M7:67:ILE:HD12	53:M7:82:ARG:CZ	3.91	0.40
53:M7:69:ARG:NH2	36:5:2991:A:C2	194.17	0.40
54:M8:138:LEU:HA	54:M8:138:LEU:HD23	1.92	0.40
54:M8:42:ALA:HA	54:M8:43:PRO:HD3	1.83	0.40
57:N1:103:GLN:HG2	57:N1:104:GLU:N	2.33	0.40
57:N1:96:ILE:HA	57:N1:96:ILE:HD12	2.09	0.40
63:N7:12:VAL:HG22	63:N7:22:LYS:HG2	2.03	0.40
65:N9:52:LYS:HB2	65:N9:52:LYS:HE3	1.89	0.40
69:O3:8:TYR:CZ	69:O3:99:ARG:HG2	2.57	0.40
70:O4:57:LEU:HG	70:O4:62:TYR:CE1	3.43	0.40
71:O5:31:LEU:HD13	71:O5:47:VAL:HG11	2.04	0.40
73:O7:22:CYS:SG	73:O7:24:ARG:HG3	3.93	0.40
75:O9:3:ALA:O	75:O9:5:LYS:HE2	4.98	0.40
2:S0:58:VAL:O	2:S0:62:ARG:HB2	2.37	0.40
3:S1:208:GLN:HG2	3:S1:209:ASN:HB2	4.90	0.40
3:S1:228:LEU:O	3:S1:231:LEU:HB3	3.08	0.40
4:S2:116:LYS:HG3	4:S2:117:THR:N	2.75	0.40
5:S3:109:LEU:HD21	5:S3:115:ILE:HA	2.04	0.40
5:S3:64:ARG:NH2	5:S3:65:ARG:HD2	7.03	0.40
6:S4:68:ARG:HB3	6:S4:76:VAL:HG11	2.04	0.40
7:S5:143:ARG:HA	7:S5:167:ARG:HD3	2.10	0.40
34:SR:265:LEU:HA	34:SR:268:GLN:HG2	2.02	0.40
34:SR:85:TRP:N	34:SR:85:TRP:CD1	2.90	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1353:U:O2'	36:5:3165:A:OP1[2_546]	2.18	0.02

## 5.3 Torsion angles

### 5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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	
2	S0	204/251 (81%)	148 (72%)	39 (19%)	17 (8%)	1	6
2	s0	204/251 (81%)	148 (72%)	32 (16%)	24 (12%)	0	2
3	S1	212/254 (84%)	149 (70%)	34 (16%)	29 (14%)	0	1
3	s1	214/254 (84%)	178 (83%)	23 (11%)	13 (6%)	2	13
4	S2	215/253 (85%)	178 (83%)	26 (12%)	11 (5%)	2	18
4	s2	215/253 (85%)	169 (79%)	30 (14%)	16 (7%)	1	8
5	S3	221/239 (92%)	173 (78%)	28 (13%)	20 (9%)	1	5
5	s3	221/239 (92%)	176 (80%)	29 (13%)	16 (7%)	1	9
6	S4	258/260 (99%)	203 (79%)	38 (15%)	17 (7%)	1	11
6	s4	258/260 (99%)	209 (81%)	29 (11%)	20 (8%)	1	7
7	S5	204/224 (91%)	155 (76%)	28 (14%)	21 (10%)	0	3
7	s5	204/224 (91%)	156 (76%)	26 (13%)	22 (11%)	0	3
8	S6	224/236 (95%)	191 (85%)	22 (10%)	11 (5%)	2	19
8	s6	216/236 (92%)	179 (83%)	22 (10%)	15 (7%)	1	9
9	S7	182/189 (96%)	137 (75%)	25 (14%)	20 (11%)	0	3
9	s7	184/189 (97%)	140 (76%)	28 (15%)	16 (9%)	1	5
10	S8	184/200 (92%)	154 (84%)	21 (11%)	9 (5%)	2	19
10	s8	184/200 (92%)	161 (88%)	12 (6%)	11 (6%)	2	14
11	S9	183/196 (93%)	147 (80%)	24 (13%)	12 (7%)	1	11
11	s9	183/196 (93%)	149 (81%)	26 (14%)	8 (4%)	3	22
12	C0	94/105 (90%)	70 (74%)	18 (19%)	6 (6%)	1	11

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
12	c0	92/105 (88%)	66 (72%)	11 (12%)	15 (16%)	0	1
13	C1	153/155 (99%)	118 (77%)	17 (11%)	18 (12%)	0	2
13	c1	144/155 (93%)	114 (79%)	24 (17%)	6 (4%)	3	23
14	C2	122/142 (86%)	75 (62%)	21 (17%)	26 (21%)	0	0
14	c2	122/142 (86%)	71 (58%)	31 (25%)	20 (16%)	0	1
15	C3	148/150 (99%)	123 (83%)	12 (8%)	13 (9%)	1	5
15	c3	148/150 (99%)	115 (78%)	22 (15%)	11 (7%)	1	8
16	C4	125/136 (92%)	95 (76%)	15 (12%)	15 (12%)	0	2
16	c4	126/136 (93%)	104 (82%)	16 (13%)	6 (5%)	2	20
17	C5	122/141 (86%)	81 (66%)	28 (23%)	13 (11%)	0	3
17	c5	133/141 (94%)	90 (68%)	26 (20%)	17 (13%)	0	2
18	C6	139/142 (98%)	109 (78%)	20 (14%)	10 (7%)	1	9
18	c6	140/142 (99%)	112 (80%)	16 (11%)	12 (9%)	1	5
19	C7	116/136 (85%)	82 (71%)	25 (22%)	9 (8%)	1	7
19	c7	113/136 (83%)	87 (77%)	14 (12%)	12 (11%)	0	3
20	C8	143/145 (99%)	115 (80%)	15 (10%)	13 (9%)	1	4
20	c8	143/145 (99%)	117 (82%)	20 (14%)	6 (4%)	3	23
21	C9	141/143 (99%)	115 (82%)	20 (14%)	6 (4%)	3	23
21	c9	141/143 (99%)	115 (82%)	22 (16%)	4 (3%)	6	34
22	D0	105/120 (88%)	82 (78%)	20 (19%)	3 (3%)	5	33
22	d0	108/120 (90%)	84 (78%)	14 (13%)	10 (9%)	1	4
23	D1	85/87 (98%)	64 (75%)	15 (18%)	6 (7%)	1	9
23	d1	85/87 (98%)	70 (82%)	8 (9%)	7 (8%)	1	6
24	D2	127/129 (98%)	105 (83%)	20 (16%)	2 (2%)	11	50
24	d2	127/129 (98%)	113 (89%)	13 (10%)	1 (1%)	22	65
25	D3	142/144 (99%)	115 (81%)	14 (10%)	13 (9%)	1	4
25	d3	142/144 (99%)	123 (87%)	13 (9%)	6 (4%)	3	23
26	D4	132/134 (98%)	107 (81%)	19 (14%)	6 (4%)	3	21
26	d4	132/134 (98%)	100 (76%)	21 (16%)	11 (8%)	1	6
27	D5	68/107 (64%)	45 (66%)	13 (19%)	10 (15%)	0	1
27	d5	67/107 (63%)	52 (78%)	12 (18%)	3 (4%)	3	21

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
28	D6	95/97 (98%)	61 (64%)	17 (18%)	17 (18%)	0	0
28	d6	95/97 (98%)	71 (75%)	16 (17%)	8 (8%)	1	6
29	D7	79/81 (98%)	62 (78%)	11 (14%)	6 (8%)	1	8
29	d7	79/81 (98%)	59 (75%)	15 (19%)	5 (6%)	1	12
30	D8	61/66 (92%)	45 (74%)	11 (18%)	5 (8%)	1	6
30	d8	61/66 (92%)	46 (75%)	10 (16%)	5 (8%)	1	6
31	D9	51/55 (93%)	41 (80%)	7 (14%)	3 (6%)	2	15
31	d9	51/55 (93%)	37 (72%)	8 (16%)	6 (12%)	0	2
32	E0	58/60 (97%)	42 (72%)	12 (21%)	4 (7%)	1	9
33	E1	69/76 (91%)	34 (49%)	11 (16%)	24 (35%)	0	0
33	e1	74/76 (97%)	34 (46%)	22 (30%)	18 (24%)	0	0
34	SR	316/318 (99%)	238 (75%)	56 (18%)	22 (7%)	1	9
34	sR	316/318 (99%)	261 (83%)	39 (12%)	16 (5%)	2	18
35	SM	155/273 (57%)	109 (70%)	26 (17%)	20 (13%)	0	2
35	sM	98/273 (36%)	61 (62%)	23 (24%)	14 (14%)	0	1
39	L2	250/253 (99%)	218 (87%)	22 (9%)	10 (4%)	3	24
39	l2	250/253 (99%)	209 (84%)	26 (10%)	15 (6%)	2	14
40	L3	384/386 (100%)	333 (87%)	34 (9%)	17 (4%)	3	22
40	l3	384/386 (100%)	339 (88%)	32 (8%)	13 (3%)	4	28
41	L4	359/361 (99%)	302 (84%)	40 (11%)	17 (5%)	3	20
41	l4	359/361 (99%)	293 (82%)	40 (11%)	26 (7%)	1	9
42	L5	294/296 (99%)	239 (81%)	34 (12%)	21 (7%)	1	9
42	l5	292/296 (99%)	252 (86%)	32 (11%)	8 (3%)	6	35
43	L6	152/175 (87%)	134 (88%)	16 (10%)	2 (1%)	14	55
43	l6	153/175 (87%)	127 (83%)	23 (15%)	3 (2%)	9	44
44	L7	220/243 (90%)	195 (89%)	19 (9%)	6 (3%)	6	35
44	l7	221/243 (91%)	193 (87%)	23 (10%)	5 (2%)	7	40
45	L8	231/255 (91%)	188 (81%)	36 (16%)	7 (3%)	5	32
45	l8	229/255 (90%)	181 (79%)	31 (14%)	17 (7%)	1	8
46	L9	189/191 (99%)	156 (82%)	25 (13%)	8 (4%)	3	23
46	l9	189/191 (99%)	162 (86%)	23 (12%)	4 (2%)	8	42

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
47	M0	207/220 (94%)	172 (83%)	21 (10%)	14 (7%)	1	10
47	m0	209/220 (95%)	165 (79%)	30 (14%)	14 (7%)	1	10
48	M1	167/173 (96%)	127 (76%)	24 (14%)	16 (10%)	1	4
48	m1	167/173 (96%)	142 (85%)	10 (6%)	15 (9%)	1	5
49	M3	191/198 (96%)	156 (82%)	23 (12%)	12 (6%)	1	12
49	m3	192/198 (97%)	149 (78%)	25 (13%)	18 (9%)	1	4
50	M4	134/137 (98%)	115 (86%)	12 (9%)	7 (5%)	2	17
50	m4	135/137 (98%)	120 (89%)	13 (10%)	2 (2%)	12	51
51	M5	201/203 (99%)	179 (89%)	17 (8%)	5 (2%)	6	38
51	m5	201/203 (99%)	175 (87%)	17 (8%)	9 (4%)	3	21
52	M6	195/198 (98%)	176 (90%)	14 (7%)	5 (3%)	6	36
52	m6	195/198 (98%)	170 (87%)	18 (9%)	7 (4%)	4	27
53	M7	181/183 (99%)	150 (83%)	22 (12%)	9 (5%)	2	19
53	m7	153/183 (84%)	136 (89%)	12 (8%)	5 (3%)	4	29
54	M8	183/185 (99%)	157 (86%)	20 (11%)	6 (3%)	4	29
54	m8	183/185 (99%)	158 (86%)	23 (13%)	2 (1%)	17	58
55	M9	186/188 (99%)	158 (85%)	23 (12%)	5 (3%)	6	35
55	m9	186/188 (99%)	165 (89%)	20 (11%)	1 (0%)	32	74
56	N0	170/172 (99%)	150 (88%)	17 (10%)	3 (2%)	10	47
56	n0	170/172 (99%)	154 (91%)	15 (9%)	1 (1%)	28	72
57	N1	157/159 (99%)	132 (84%)	19 (12%)	6 (4%)	4	25
57	n1	157/159 (99%)	143 (91%)	13 (8%)	1 (1%)	28	72
58	N2	98/120 (82%)	77 (79%)	17 (17%)	4 (4%)	3	24
58	n2	96/120 (80%)	76 (79%)	14 (15%)	6 (6%)	1	12
59	N3	134/136 (98%)	120 (90%)	12 (9%)	2 (2%)	12	51
59	n3	134/136 (98%)	122 (91%)	9 (7%)	3 (2%)	8	41
60	N4	96/155 (62%)	69 (72%)	17 (18%)	10 (10%)	0	3
60	n4	133/155 (86%)	106 (80%)	17 (13%)	10 (8%)	1	8
61	N5	119/141 (84%)	103 (87%)	10 (8%)	6 (5%)	2	19
61	n5	118/141 (84%)	94 (80%)	15 (13%)	9 (8%)	1	8
62	N6	124/126 (98%)	110 (89%)	11 (9%)	3 (2%)	7	39

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
62	n6	124/126 (98%)	112 (90%)	7 (6%)	5 (4%)	3	24
63	N7	133/135 (98%)	108 (81%)	12 (9%)	13 (10%)	1	4
63	n7	133/135 (98%)	101 (76%)	21 (16%)	11 (8%)	1	6
64	N8	146/148 (99%)	120 (82%)	19 (13%)	7 (5%)	2	20
64	n8	146/148 (99%)	117 (80%)	21 (14%)	8 (6%)	2	16
65	N9	56/58 (97%)	47 (84%)	5 (9%)	4 (7%)	1	9
65	n9	56/58 (97%)	37 (66%)	13 (23%)	6 (11%)	0	3
66	O0	95/104 (91%)	86 (90%)	8 (8%)	1 (1%)	17	58
66	o0	98/104 (94%)	88 (90%)	9 (9%)	1 (1%)	18	61
67	O1	107/112 (96%)	96 (90%)	5 (5%)	6 (6%)	2	16
67	o1	107/112 (96%)	84 (78%)	15 (14%)	8 (8%)	1	8
68	O2	125/129 (97%)	106 (85%)	14 (11%)	5 (4%)	3	24
68	o2	125/129 (97%)	105 (84%)	15 (12%)	5 (4%)	3	24
69	O3	104/106 (98%)	94 (90%)	6 (6%)	4 (4%)	4	25
69	o3	104/106 (98%)	94 (90%)	7 (7%)	3 (3%)	5	33
70	O4	110/120 (92%)	90 (82%)	19 (17%)	1 (1%)	20	64
70	o4	110/120 (92%)	97 (88%)	10 (9%)	3 (3%)	6	35
71	O5	117/119 (98%)	104 (89%)	10 (8%)	3 (3%)	6	36
71	o5	117/119 (98%)	100 (86%)	14 (12%)	3 (3%)	6	36
72	O6	97/99 (98%)	72 (74%)	17 (18%)	8 (8%)	1	6
72	o6	97/99 (98%)	81 (84%)	11 (11%)	5 (5%)	2	17
73	O7	85/87 (98%)	72 (85%)	12 (14%)	1 (1%)	15	56
73	o7	85/87 (98%)	68 (80%)	12 (14%)	5 (6%)	2	15
74	O8	75/77 (97%)	61 (81%)	12 (16%)	2 (3%)	6	35
74	o8	75/77 (97%)	64 (85%)	8 (11%)	3 (4%)	3	24
75	O9	48/50 (96%)	42 (88%)	5 (10%)	1 (2%)	8	42
75	o9	48/50 (96%)	40 (83%)	8 (17%)	0	100	100
76	Q0	50/52 (96%)	44 (88%)	4 (8%)	2 (4%)	3	24
76	q0	50/52 (96%)	49 (98%)	0	1 (2%)	9	44
77	Q1	23/25 (92%)	22 (96%)	1 (4%)	0	100	100
77	q1	23/25 (92%)	20 (87%)	2 (9%)	1 (4%)	3	23

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
78	Q2	103/105 (98%)	76 (74%)	19 (18%)	8 (8%)	1	7
78	q2	103/105 (98%)	86 (84%)	14 (14%)	3 (3%)	5	33
79	Q3	89/91 (98%)	76 (85%)	10 (11%)	3 (3%)	4	28
79	q3	89/91 (98%)	81 (91%)	7 (8%)	1 (1%)	17	58
80	e0	60/62 (97%)	44 (73%)	8 (13%)	8 (13%)	0	1
81	p0	139/311 (45%)	110 (79%)	21 (15%)	8 (6%)	2	15
All	All	22333/24143 (92%)	18176 (81%)	2788 (12%)	1369 (6%)	2	13

All (1369) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	S0	4	PRO
2	S0	39	ASN
2	S0	66	ALA
2	S0	139	VAL
2	S0	158	VAL
2	S0	185	ARG
2	S0	190	ASP
2	S0	191	ARG
3	S1	49	ASN
3	S1	58	SER
3	S1	63	GLY
3	S1	93	GLY
3	S1	132	ASP
3	S1	158	SER
3	S1	179	SER
3	S1	206	PRO
4	S2	91	ARG
4	S2	248	SER
5	S3	44	THR
5	S3	65	ARG
5	S3	93	ASP
5	S3	211	PRO
5	S3	216	PRO
5	S3	220	PRO
6	S4	3	ARG
6	S4	96	ASN
6	S4	104	ASP
6	S4	167	GLY
6	S4	227	VAL

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Mol	Chain	Res	Type
6	S4	228	ILE
6	S4	258	GLN
7	S5	35	GLN
7	S5	39	GLU
7	S5	51	VAL
7	S5	58	LEU
7	S5	63	GLN
7	S5	101	GLY
7	S5	154	ALA
8	S6	173	PRO
8	S6	174	LYS
9	S7	30	SER
9	S7	31	SER
9	S7	64	VAL
9	S7	85	PHE
9	S7	110	GLN
9	S7	112	ARG
9	S7	131	PHE
9	S7	134	GLU
9	S7	159	VAL
10	S8	82	VAL
10	S8	155	SER
11	S9	98	ALA
11	S9	118	LEU
11	S9	134	ILE
11	S9	171	ARG
12	C0	87	VAL
12	C0	88	PRO
12	C0	89	ALA
13	C1	3	THR
13	C1	7	VAL
13	C1	29	LYS
13	C1	72	THR
13	C1	139	VAL
13	C1	140	VAL
13	C1	144	ALA
13	C1	154	ALA
14	C2	25	GLU
14	C2	91	VAL
14	C2	93	ASP
14	C2	126	TRP
15	C3	27	LYS

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Mol	Chain	Res	Type
15	C3	28	LEU
15	C3	68	GLY
16	C4	38	THR
16	C4	39	ILE
16	C4	42	VAL
16	C4	50	ALA
16	C4	92	LYS
16	C4	124	ASP
16	C4	125	SER
17	C5	22	LEU
17	C5	54	ALA
17	C5	125	PRO
17	C5	126	VAL
18	C6	41	PRO
18	C6	58	ASP
18	C6	59	LYS
19	C7	23	LYS
19	C7	26	LEU
19	C7	85	VAL
19	C7	86	PRO
19	C7	88	VAL
20	C8	7	GLU
20	C8	14	ILE
20	C8	61	LEU
20	C8	82	PRO
20	C8	91	ASP
20	C8	92	ILE
20	C8	134	ARG
21	C9	31	PRO
21	C9	53	TRP
23	D1	4	ASP
23	D1	6	GLY
24	D2	57	ARG
24	D2	83	ILE
25	D3	11	SER
25	D3	53	VAL
25	D3	54	LEU
25	D3	144	ARG
26	D4	6	THR
26	D4	60	PHE
27	D5	39	ALA
27	D5	56	THR

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Mol	Chain	Res	Type
27	D5	71	ILE
27	D5	86	GLU
28	D6	5	ARG
28	D6	45	VAL
28	D6	47	ALA
28	D6	65	PRO
28	D6	82	ARG
28	D6	84	VAL
28	D6	85	ARG
28	D6	86	VAL
29	D7	38	PRO
29	D7	62	ILE
30	D8	36	THR
32	E0	47	VAL
32	E0	51	ASN
33	E1	85	TYR
33	E1	87	THR
33	E1	98	VAL
33	E1	99	LYS
33	E1	102	VAL
33	E1	103	LEU
33	E1	138	ARG
34	SR	113	VAL
34	SR	155	ARG
34	SR	161	LYS
34	SR	188	ILE
34	SR	231	MET
34	SR	270	LEU
34	SR	271	VAL
35	SM	17	VAL
35	SM	18	VAL
35	SM	87	THR
35	SM	89	ARG
35	SM	102	THR
35	SM	139	GLU
35	SM	140	ASP
35	SM	166	VAL
35	SM	167	PRO
39	L2	47	GLN
40	L3	3	HIS
40	L3	4	ARG
40	L3	5	LYS

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Mol	Chain	Res	Type
40	L3	113	GLU
40	L3	140	ASP
40	L3	188	ILE
40	L3	347	SER
40	L3	385	LYS
41	L4	131	VAL
41	L4	292	SER
41	L4	338	LYS
42	L5	107	ARG
42	L5	108	ARG
42	L5	137	ASP
42	L5	233	ALA
42	L5	234	ASP
42	L5	258	LYS
43	L6	98	VAL
44	L7	24	GLU
44	L7	26	VAL
45	L8	25	PRO
46	L9	50	ASN
47	M0	145	LYS
47	M0	207	GLU
48	M1	8	PRO
48	M1	9	MET
48	M1	11	ASP
48	M1	39	GLN
48	M1	74	PRO
48	M1	94	ARG
48	M1	165	GLN
49	M3	47	ALA
49	M3	76	THR
49	M3	129	ASN
49	M3	141	ALA
50	M4	8	LYS
50	M4	9	ALA
50	M4	10	SER
51	M5	74	PRO
51	M5	75	VAL
51	M5	91	GLU
52	M6	111	PRO
53	M7	110	THR
53	M7	157	VAL
54	M8	41	ASP

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Mol	Chain	Res	Type
54	M8	99	THR
57	N1	126	VAL
57	N1	159	PHE
58	N2	51	GLY
60	N4	64	THR
60	N4	81	PRO
60	N4	86	SER
60	N4	97	LYS
61	N5	44	PRO
62	N6	52	ARG
62	N6	92	GLY
63	N7	17	ARG
63	N7	125	GLY
63	N7	129	TRP
64	N8	76	ASP
67	O1	5	LYS
68	O2	27	ARG
68	O2	127	ALA
71	O5	119	LYS
72	O6	28	TYR
72	O6	33	ALA
75	O9	4	GLN
76	Q0	78	ILE
78	Q2	60	LYS
78	Q2	100	LYS
2	s0	4	PRO
2	s0	29	VAL
2	s0	66	ALA
2	s0	103	THR
2	s0	158	VAL
2	s0	164	ASN
2	s0	186	GLY
2	s0	191	ARG
2	s0	203	PHE
2	s0	206	ASP
3	s1	106	THR
3	s1	107	THR
3	s1	147	ALA
3	s1	154	SER
3	s1	206	PRO
4	s2	92	ALA
4	s2	146	THR

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Mol	Chain	Res	Type
4	s2	234	PRO
5	s3	115	ILE
5	s3	211	PRO
5	s3	216	PRO
5	s3	217	ILE
5	s3	220	PRO
6	s4	12	LEU
6	s4	24	SER
6	s4	95	THR
6	s4	104	ASP
6	s4	117	GLU
6	s4	195	ILE
6	s4	196	VAL
7	s5	28	PRO
7	s5	35	GLN
7	s5	36	ALA
7	s5	126	ASP
7	s5	127	GLN
7	s5	184	PHE
7	s5	204	GLY
8	s6	21	GLU
8	s6	68	LEU
8	s6	153	VAL
8	s6	154	ARG
8	s6	173	PRO
8	s6	174	LYS
9	s7	30	SER
9	s7	63	PRO
9	s7	64	VAL
9	s7	67	LEU
9	s7	106	SER
9	s7	131	PHE
9	s7	155	ASP
9	s7	163	ASP
10	s8	62	THR
12	c0	32	HIS
12	c0	82	LEU
12	c0	83	PRO
12	c0	88	PRO
12	c0	92	ILE
12	c0	97	PRO
13	c1	133	LYS

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Mol	Chain	Res	Type
14	c2	22	VAL
14	c2	101	ALA
14	c2	115	VAL
15	c3	19	SER
15	c3	66	ILE
15	c3	139	TRP
15	c3	140	LYS
16	c4	132	ARG
17	c5	9	LYS
17	c5	17	TYR
17	c5	51	SER
17	c5	126	VAL
18	c6	39	VAL
18	c6	42	GLU
18	c6	116	LEU
19	c7	67	ARG
19	c7	86	PRO
19	c7	88	VAL
19	c7	99	VAL
19	c7	104	ASN
20	c8	91	ASP
20	c8	92	ILE
21	c9	34	VAL
22	d0	15	GLN
22	d0	51	VAL
22	d0	97	VAL
23	d1	4	ASP
25	d3	138	GLU
26	d4	30	PRO
26	d4	33	ALA
26	d4	53	ASP
27	d5	85	LYS
29	d7	38	PRO
29	d7	59	CYS
29	d7	60	SER
29	d7	75	GLU
31	d9	7	TRP
31	d9	19	ARG
80	e0	51	ASN
33	e1	84	VAL
33	e1	87	THR
33	e1	92	LYS

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Mol	Chain	Res	Type
33	e1	98	VAL
33	e1	102	VAL
33	e1	103	LEU
33	e1	106	TYR
33	e1	146	SER
34	sR	4	ASN
34	sR	163	ASP
34	sR	165	ASP
34	sR	279	ALA
34	sR	318	ALA
35	sM	50	ASN
35	sM	122	GLU
39	l2	56	ALA
39	l2	96	LEU
39	l2	194	ASN
39	l2	213	GLY
39	l2	238	ILE
40	l3	3	HIS
40	l3	129	ALA
40	l3	140	ASP
40	l3	142	ALA
40	l3	347	SER
41	l4	15	ALA
41	l4	90	PHE
41	l4	142	VAL
41	l4	145	ILE
41	l4	270	SER
41	l4	301	PRO
41	l4	302	ALA
41	l4	329	PRO
41	l4	330	TYR
41	l4	339	LEU
41	l4	342	LYS
41	l4	345	GLU
42	l5	115	LEU
42	l5	260	PHE
42	l5	270	LYS
43	l6	98	VAL
44	l7	159	GLN
45	l8	25	PRO
45	l8	26	LEU
45	l8	34	PHE

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Mol	Chain	Res	Type
45	l8	122	LYS
45	l8	223	ALA
45	l8	240	ASN
46	l9	167	VAL
47	m0	23	ASN
47	m0	220	GLN
48	m1	8	PRO
48	m1	9	MET
48	m1	10	ARG
48	m1	94	ARG
48	m1	95	ASN
48	m1	108	GLU
48	m1	115	LYS
48	m1	165	GLN
49	m3	47	ALA
49	m3	93	ILE
49	m3	134	GLU
49	m3	141	ALA
49	m3	152	THR
49	m3	162	ASN
50	m4	136	ALA
51	m5	184	LYS
52	m6	16	VAL
52	m6	110	PRO
52	m6	111	PRO
52	m6	177	LYS
53	m7	67	ILE
54	m8	99	THR
57	n1	122	GLN
58	n2	50	LEU
59	n3	42	SER
59	n3	68	GLU
60	n4	25	ASP
60	n4	71	ARG
60	n4	76	VAL
60	n4	133	THR
61	n5	40	LEU
61	n5	55	ASN
62	n6	84	LYS
62	n6	85	VAL
62	n6	125	LYS
63	n7	56	LYS

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Mol	Chain	Res	Type
63	n7	105	SER
63	n7	127	ASN
64	n8	6	THR
64	n8	76	ASP
65	n9	5	LYS
65	n9	21	ILE
65	n9	23	LYS
65	n9	39	PHE
66	o0	100	ILE
67	o1	7	VAL
68	o2	6	HIS
71	o5	119	LYS
72	o6	4	LYS
72	o6	64	SER
72	o6	98	ARG
73	o7	84	SER
79	q3	51	ALA
81	p0	93	LEU
81	p0	102	SER
81	p0	198	PRO
2	S0	5	ALA
2	S0	49	ASN
2	S0	94	GLY
2	S0	202	TYR
3	S1	37	THR
3	S1	54	LEU
3	S1	79	HIS
3	S1	81	PHE
3	S1	221	PRO
4	S2	148	LEU
5	S3	36	GLY
5	S3	40	ARG
5	S3	218	LEU
6	S4	26	CYS
7	S5	26	ALA
7	S5	43	PHE
7	S5	60	ASP
7	S5	64	VAL
7	S5	81	ARG
7	S5	127	GLN
7	S5	156	ARG
8	S6	20	ASP

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Mol	Chain	Res	Type
8	S6	54	GLY
8	S6	59	GLN
9	S7	29	ASN
9	S7	32	PRO
9	S7	36	ALA
9	S7	111	LYS
9	S7	132	PRO
9	S7	156	SER
10	S8	40	ALA
10	S8	120	THR
10	S8	152	ILE
10	S8	199	LYS
11	S9	117	GLY
11	S9	150	LEU
11	S9	170	GLY
12	C0	81	ASN
13	C1	55	ASP
13	C1	74	THR
13	C1	145	ALA
13	C1	146	ALA
14	C2	21	GLU
14	C2	66	VAL
14	C2	113	ARG
14	C2	127	GLY
15	C3	3	ARG
15	C3	13	SER
15	C3	19	SER
15	C3	22	ALA
15	C3	31	GLU
15	C3	138	ASN
16	C4	40	ALA
16	C4	86	THR
16	C4	126	THR
17	C5	80	MET
17	C5	101	ALA
18	C6	39	VAL
18	C6	113	ASP
18	C6	116	LEU
19	C7	87	GLU
20	C8	8	GLN
20	C8	60	GLU
20	C8	83	ALA

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Mol	Chain	Res	Type
20	C8	142	GLY
20	C8	144	ARG
21	C9	69	LYS
21	C9	126	GLU
23	D1	10	GLU
23	D1	11	LEU
23	D1	43	GLY
25	D3	4	GLY
25	D3	46	SER
25	D3	114	LYS
27	D5	43	ASP
27	D5	55	PRO
27	D5	62	VAL
27	D5	88	ILE
27	D5	97	LYS
28	D6	46	GLU
28	D6	63	ALA
29	D7	24	LEU
29	D7	63	LEU
31	D9	8	PHE
33	E1	84	VAL
33	E1	94	LYS
33	E1	106	TYR
33	E1	111	GLU
33	E1	118	ARG
33	E1	127	GLY
33	E1	128	ALA
34	SR	114	ASP
34	SR	189	GLU
34	SR	228	LYS
34	SR	295	SER
35	SM	154	TYR
39	L2	13	GLY
39	L2	234	LYS
39	L2	250	GLN
40	L3	83	PRO
40	L3	134	SER
40	L3	351	LEU
41	L4	146	PRO
41	L4	190	GLY
41	L4	232	SER
41	L4	268	ALA

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Mol	Chain	Res	Type
41	L4	320	ASN
42	L5	57	ASN
42	L5	178	ASN
42	L5	260	PHE
44	L7	175	LYS
45	L8	157	VAL
45	L8	209	ALA
46	L9	164	ILE
47	M0	117	GLY
47	M0	211	ARG
47	M0	220	GLN
48	M1	24	GLY
48	M1	114	ILE
48	M1	115	LYS
48	M1	151	SER
48	M1	152	HIS
48	M1	167	TYR
48	M1	173	ASP
49	M3	193	ALA
52	M6	16	VAL
52	M6	90	HIS
53	M7	159	LYS
53	M7	162	GLU
54	M8	98	LYS
54	M8	158	HIS
55	M9	146	LYS
56	N0	2	ALA
56	N0	167	ARG
57	N1	123	GLY
57	N1	124	VAL
58	N2	60	GLY
59	N3	69	LEU
60	N4	76	VAL
61	N5	23	ALA
61	N5	45	LYS
62	N6	84	LYS
63	N7	3	LYS
63	N7	30	ASP
63	N7	35	SER
63	N7	126	LYS
63	N7	128	GLN
64	N8	66	ALA

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Mol	Chain	Res	Type
65	N9	25	LYS
67	O1	6	ASP
67	O1	82	GLU
68	O2	12	LYS
68	O2	126	LEU
71	O5	40	SER
72	O6	27	SER
72	O6	34	SER
72	O6	64	SER
72	O6	78	GLY
73	O7	86	ALA
74	O8	18	ALA
74	O8	33	LYS
78	Q2	34	SER
78	Q2	104	LEU
79	Q3	51	ALA
2	s0	30	GLN
2	s0	81	PHE
2	s0	92	HIS
2	s0	95	ALA
2	s0	111	ILE
2	s0	185	ARG
2	s0	189	VAL
3	s1	43	VAL
3	s1	93	GLY
4	s2	95	ARG
4	s2	149	GLY
4	s2	163	GLY
5	s3	61	GLU
5	s3	90	ARG
5	s3	179	GLN
5	s3	221	SER
6	s4	3	ARG
6	s4	164	LEU
7	s5	37	GLN
7	s5	84	LYS
8	s6	25	ARG
9	s7	8	ILE
9	s7	74	GLN
9	s7	111	LYS
9	s7	156	SER
10	s8	94	ASN

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Mol	Chain	Res	Type
10	s8	100	ALA
10	s8	101	ILE
10	s8	147	ALA
11	s9	150	LEU
11	s9	167	ALA
12	c0	2	LEU
12	c0	94	GLU
13	c1	7	VAL
14	c2	54	ARG
14	c2	66	VAL
14	c2	89	ILE
14	c2	131	ASP
16	c4	51	ASP
17	c5	7	ALA
17	c5	11	VAL
17	c5	49	MET
17	c5	50	THR
17	c5	117	GLY
17	c5	127	ARG
18	c6	57	LEU
18	c6	113	ASP
18	c6	120	ASP
19	c7	63	LYS
19	c7	116	LYS
19	c7	120	SER
20	c8	135	GLY
21	c9	28	LEU
22	d0	52	LYS
22	d0	96	PRO
22	d0	118	VAL
23	d1	42	GLU
23	d1	43	GLY
26	d4	35	VAL
26	d4	121	THR
28	d6	8	ASN
28	d6	13	LYS
28	d6	24	VAL
30	d8	57	MET
31	d9	6	VAL
31	d9	16	LYS
80	e0	45	VAL
33	e1	83	LYS

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Mol	Chain	Res	Type
34	sR	75	ALA
34	sR	78	ALA
34	sR	271	VAL
35	sM	47	ALA
35	sM	63	ASP
35	sM	67	GLY
35	sM	79	SER
39	l2	14	SER
39	l2	215	ASN
40	l3	4	ARG
41	l4	220	ARG
41	l4	233	LEU
41	l4	311	HIS
41	l4	352	ALA
41	l4	361	HIS
43	l6	10	TYR
44	l7	217	PRO
45	l8	39	ALA
45	l8	121	SER
45	l8	133	LYS
45	l8	188	THR
45	l8	203	VAL
46	l9	144	ILE
46	l9	189	GLU
47	m0	25	ALA
47	m0	194	GLY
47	m0	207	GLU
48	m1	116	TYR
49	m3	76	THR
49	m3	101	ARG
49	m3	121	SER
49	m3	129	ASN
49	m3	135	ALA
51	m5	76	PRO
51	m5	81	TYR
51	m5	182	ASN
51	m5	185	ALA
52	m6	176	LYS
54	m8	167	SER
56	n0	129	ILE
58	n2	32	SER
58	n2	44	GLU

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Mol	Chain	Res	Type
59	n3	3	GLY
60	n4	63	ILE
60	n4	95	SER
62	n6	126	LEU
63	n7	5	LEU
63	n7	16	GLY
63	n7	104	PRO
64	n8	84	GLU
67	o1	45	GLY
67	o1	91	SER
67	o1	99	ALA
68	o2	27	ARG
68	o2	124	GLY
70	o4	59	PRO
70	o4	79	SER
72	o6	33	ALA
73	o7	87	SER
78	q2	60	LYS
81	p0	68	SER
2	S0	195	TRP
3	S1	35	PRO
3	S1	51	SER
3	S1	78	ASP
3	S1	90	GLU
3	S1	209	ASN
3	S1	213	ARG
3	S1	218	LEU
4	S2	106	ASP
4	S2	108	ASN
4	S2	235	LEU
5	S3	37	VAL
5	S3	64	ARG
5	S3	81	PRO
5	S3	90	ARG
5	S3	112	GLY
5	S3	143	ARG
5	S3	217	ILE
6	S4	195	ILE
6	S4	223	ASN
6	S4	245	LYS
7	S5	21	THR
7	S5	59	VAL

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Mol	Chain	Res	Type
7	S5	206	SER
8	S6	70	PRO
8	S6	122	GLU
8	S6	152	ASP
8	S6	165	GLY
9	S7	14	THR
9	S7	98	ILE
11	S9	120	LYS
11	S9	121	SER
12	C0	60	SER
13	C1	30	ARG
13	C1	73	GLY
13	C1	147	ALA
14	C2	101	ALA
14	C2	106	ILE
14	C2	112	ALA
14	C2	118	ALA
14	C2	119	SER
14	C2	125	ASN
14	C2	130	THR
14	C2	131	ASP
15	C3	32	SER
16	C4	108	SER
17	C5	11	VAL
17	C5	51	SER
17	C5	69	GLU
18	C6	29	ILE
18	C6	33	GLY
18	C6	142	TYR
19	C7	25	THR
21	C9	130	ARG
23	D1	82	VAL
25	D3	3	LYS
25	D3	92	CYS
25	D3	112	LYS
26	D4	5	VAL
28	D6	11	ASN
28	D6	62	TYR
29	D7	57	GLU
32	E0	13	LYS
33	E1	83	LYS
33	E1	97	LYS

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Mol	Chain	Res	Type
33	E1	144	CYS
34	SR	153	GLN
34	SR	318	ALA
35	SM	52	PRO
35	SM	53	ARG
35	SM	88	ARG
35	SM	174	LEU
39	L2	143	GLU
40	L3	155	ALA
40	L3	300	ARG
41	L4	4	PRO
41	L4	143	GLU
41	L4	265	GLU
41	L4	311	HIS
41	L4	317	PRO
42	L5	72	ASP
42	L5	115	LEU
42	L5	215	ASP
42	L5	253	PHE
42	L5	259	LYS
43	L6	108	LYS
44	L7	163	LEU
45	L8	85	ASN
45	L8	156	ASP
46	L9	59	ASN
46	L9	190	ASP
47	M0	24	ARG
47	M0	189	GLU
49	M3	136	GLU
49	M3	166	ALA
50	M4	29	ALA
51	M5	81	TYR
52	M6	196	ALA
53	M7	3	ARG
53	M7	164	LYS
55	M9	53	LYS
55	M9	120	TYR
56	N0	50	LYS
60	N4	16	GLY
60	N4	69	LYS
60	N4	77	LYS
61	N5	25	LYS

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Mol	Chain	Res	Type
61	N5	26	VAL
63	N7	18	TYR
63	N7	102	GLU
64	N8	79	TRP
64	N8	96	LYS
64	N8	117	ARG
66	O0	96	GLY
68	O2	13	HIS
69	O3	59	VAL
72	O6	21	THR
78	Q2	15	LYS
78	Q2	94	GLY
79	Q3	7	LYS
79	Q3	84	ARG
2	s0	10	THR
2	s0	49	ASN
2	s0	139	VAL
2	s0	162	CYS
3	s1	26	ARG
3	s1	223	PHE
3	s1	232	HIS
4	s2	106	ASP
4	s2	107	SER
5	s3	43	PRO
5	s3	44	THR
5	s3	195	SER
6	s4	245	LYS
7	s5	43	PHE
7	s5	45	LYS
7	s5	100	ASN
7	s5	151	GLY
7	s5	154	ALA
7	s5	209	TYR
8	s6	209	ALA
10	s8	27	PHE
10	s8	148	ALA
11	s9	121	SER
11	s9	183	ALA
12	c0	3	MET
12	c0	23	ALA
12	c0	24	LYS
12	c0	30	ALA

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Mol	Chain	Res	Type
13	c1	55	ASP
14	c2	26	ASP
14	c2	40	GLY
14	c2	58	LEU
14	c2	106	ILE
14	c2	108	ARG
14	c2	119	SER
15	c3	61	THR
16	c4	90	ARG
17	c5	69	GLU
17	c5	135	THR
18	c6	97	VAL
19	c7	68	GLY
19	c7	113	LEU
20	c8	14	ILE
20	c8	61	LEU
21	c9	33	TYR
22	d0	17	GLN
22	d0	39	SER
22	d0	45	ALA
22	d0	49	ASN
23	d1	44	ARG
24	d2	31	SER
25	d3	3	LYS
25	d3	70	LYS
25	d3	109	ARG
25	d3	128	SER
26	d4	49	LYS
26	d4	58	PHE
26	d4	78	SER
28	d6	61	GLU
29	d7	20	LYS
30	d8	58	GLU
30	d8	61	ARG
31	d9	11	PRO
31	d9	17	GLY
80	e0	53	LYS
80	e0	60	PRO
33	e1	85	TYR
33	e1	100	LEU
33	e1	111	GLU
33	e1	128	ALA

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Mol	Chain	Res	Type
34	sR	149	ASP
34	sR	160	GLU
34	sR	186	PHE
35	sM	171	LYS
39	l2	80	GLU
40	l3	188	ILE
40	l3	385	LYS
40	l3	386	ASP
41	l4	146	PRO
42	l5	72	ASP
42	l5	178	ASN
42	l5	258	LYS
42	l5	266	ALA
44	l7	191	VAL
45	l8	118	GLU
45	l8	196	ALA
47	m0	193	ASP
47	m0	196	PHE
49	m3	60	ALA
49	m3	150	PRO
55	m9	36	ASN
58	n2	51	GLY
58	n2	91	ASP
60	n4	72	SER
60	n4	77	LYS
60	n4	134	GLN
61	n5	38	LEU
61	n5	47	ALA
63	n7	34	LYS
63	n7	102	GLU
64	n8	120	ASN
65	n9	37	PRO
67	o1	83	GLU
68	o2	17	PHE
71	o5	40	SER
71	o5	82	ALA
72	o6	34	SER
73	o7	86	ALA
74	o8	16	ARG
76	q0	78	ILE
78	q2	74	CYS
81	p0	197	PHE

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Mol	Chain	Res	Type
81	p0	203	ASP
2	S0	103	THR
2	S0	187	ALA
2	S0	194	PRO
3	S1	23	PRO
3	S1	55	LYS
3	S1	147	ALA
4	S2	47	ALA
4	S2	150	GLN
5	S3	38	GLU
5	S3	72	LEU
5	S3	196	ARG
6	S4	157	ASN
6	S4	242	LYS
7	S5	65	ARG
7	S5	100	ASN
8	S6	146	GLY
9	S7	155	ASP
11	S9	16	LYS
11	S9	99	LEU
13	C1	4	GLU
13	C1	5	LEU
14	C2	107	ASP
14	C2	108	ARG
14	C2	128	ALA
15	C3	64	ARG
16	C4	88	GLY
17	C5	29	SER
17	C5	52	LYS
17	C5	127	ARG
19	C7	72	LYS
22	D0	17	GLN
26	D4	53	ASP
27	D5	93	SER
28	D6	9	GLY
28	D6	36	ILE
28	D6	53	LEU
28	D6	64	LEU
28	D6	88	SER
29	D7	75	GLU
30	D8	14	LYS
30	D8	37	SER

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Mol	Chain	Res	Type
31	D9	6	VAL
33	E1	86	THR
33	E1	93	HIS
33	E1	110	ALA
33	E1	137	ASP
34	SR	3	SER
34	SR	72	THR
34	SR	163	ASP
34	SR	230	ALA
34	SR	237	GLN
34	SR	242	SER
35	SM	12	VAL
35	SM	83	LYS
35	SM	85	SER
35	SM	172	VAL
39	L2	130	SER
39	L2	246	LEU
40	L3	141	GLY
40	L3	386	ASP
41	L4	90	PHE
42	L5	6	ASP
42	L5	188	GLU
42	L5	292	ALA
46	L9	110	LYS
47	M0	7	ARG
47	M0	23	ASN
47	M0	91	VAL
49	M3	128	ARG
50	M4	28	SER
50	M4	113	THR
53	M7	158	ALA
53	M7	160	ALA
58	N2	11	ILE
58	N2	31	ALA
60	N4	26	SER
61	N5	128	ALA
63	N7	36	HIS
63	N7	93	LYS
63	N7	103	GLN
64	N8	47	LYS
70	O4	46	ASP
72	O6	3	VAL

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Mol	Chain	Res	Type
76	Q0	79	GLU
78	Q2	8	ARG
4	s2	150	GLN
4	s2	152	HIS
4	s2	235	LEU
4	s2	238	SER
5	s3	93	ASP
5	s3	196	ARG
6	s4	11	ARG
6	s4	31	PRO
6	s4	90	ILE
6	s4	168	LYS
7	s5	21	THR
7	s5	29	ILE
7	s5	56	ALA
8	s6	11	GLY
8	s6	58	LYS
8	s6	69	LEU
8	s6	156	PHE
9	s7	9	LEU
9	s7	185	ILE
10	s8	136	SER
11	s9	5	PRO
11	s9	134	ILE
11	s9	162	SER
12	c0	31	LYS
13	c1	3	THR
14	c2	21	GLU
14	c2	45	LEU
14	c2	90	LYS
14	c2	107	ASP
15	c3	12	SER
16	c4	32	ASP
16	c4	92	LYS
17	c5	125	PRO
18	c6	142	TYR
21	c9	88	VAL
23	d1	10	GLU
25	d3	131	SER
26	d4	50	ALA
26	d4	52	LYS
28	d6	59	TYR

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Mol	Chain	Res	Type
28	d6	62	TYR
28	d6	82	ARG
30	d8	51	ASN
80	e0	61	SER
33	e1	79	LYS
33	e1	131	PHE
33	e1	145	HIS
34	sR	194	GLY
34	sR	237	GLN
34	sR	281	TYR
35	sM	42	ALA
35	sM	48	ARG
35	sM	84	LYS
35	sM	168	GLU
39	l2	13	GLY
39	l2	32	LEU
39	l2	125	ALA
39	l2	227	ARG
41	l4	14	GLU
41	l4	24	ALA
41	l4	338	LYS
45	l8	69	LEU
46	l9	110	LYS
47	m0	7	ARG
47	m0	102	MET
48	m1	114	ILE
48	m1	167	TYR
49	m3	140	SER
50	m4	135	LEU
51	m5	104	GLU
51	m5	183	THR
53	m7	66	SER
53	m7	72	GLN
61	n5	24	LEU
63	n7	28	PRO
63	n7	103	GLN
64	n8	78	LEU
64	n8	135	GLU
67	o1	90	PHE
67	o1	97	LEU
69	o3	90	PRO
70	o4	82	ALA

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Mol	Chain	Res	Type
73	o7	85	LYS
77	q1	22	ALA
81	p0	33	VAL
4	S2	39	THR
4	S2	107	SER
4	S2	145	GLY
5	S3	4	LEU
6	S4	164	LEU
9	S7	53	GLY
10	S8	10	LYS
10	S8	81	VAL
12	C0	34	GLU
14	C2	39	ASP
14	C2	115	VAL
17	C5	87	PRO
22	D0	21	LYS
25	D3	131	SER
26	D4	4	ALA
26	D4	83	LYS
30	D8	22	ARG
32	E0	27	PRO
33	E1	113	LYS
33	E1	148	TYR
34	SR	38	ARG
34	SR	244	ALA
35	SM	64	LYS
35	SM	173	GLU
39	L2	34	TYR
41	L4	14	GLU
41	L4	193	LYS
42	L5	7	ALA
42	L5	125	VAL
44	L7	25	GLN
45	L8	36	ILE
45	L8	39	ALA
46	L9	2	LYS
46	L9	96	HIS
47	M0	16	PRO
47	M0	146	ASP
47	M0	186	GLU
48	M1	111	ASP
48	M1	117	ASP

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Mol	Chain	Res	Type
49	M3	130	GLY
49	M3	140	SER
50	M4	6	ILE
51	M5	94	TYR
53	M7	163	LYS
54	M8	160	GLY
54	M8	162	ALA
57	N1	121	ALA
64	N8	78	LEU
65	N9	53	ALA
67	O1	7	VAL
67	O1	60	TRP
67	O1	84	ASP
69	O3	91	ALA
71	O5	75	TYR
78	Q2	48	SER
2	s0	36	TYR
2	s0	54	TRP
3	s1	22	ASP
3	s1	77	GLU
3	s1	207	LEU
4	s2	244	SER
6	s4	141	THR
6	s4	163	ASP
6	s4	260	GLY
7	s5	42	LEU
7	s5	55	ASP
7	s5	57	SER
7	s5	60	ASP
9	s7	11	GLN
9	s7	112	ARG
10	s8	52	ASN
10	s8	78	ILE
11	s9	147	MET
12	c0	35	ILE
12	c0	95	ARG
14	c2	39	ASP
14	c2	82	PRO
15	c3	22	ALA
15	c3	87	ASP
16	c4	114	ARG
17	c5	6	ASN

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Mol	Chain	Res	Type
17	c5	68	PRO
18	c6	100	GLN
23	d1	6	GLY
26	d4	96	LEU
80	e0	54	ARG
33	e1	81	LYS
34	sR	247	PRO
35	sM	43	ASP
35	sM	46	LYS
39	l2	249	SER
40	l3	10	ARG
40	l3	155	ALA
40	l3	206	ASP
41	l4	5	GLN
41	l4	328	ASN
44	l7	178	ILE
45	l8	80	TYR
47	m0	3	ARG
47	m0	195	ALA
47	m0	204	GLY
48	m1	12	LEU
48	m1	152	HIS
48	m1	153	LYS
49	m3	62	THR
49	m3	122	LYS
49	m3	130	GLY
51	m5	68	ARG
52	m6	170	LYS
52	m6	183	ALA
53	m7	3	ARG
61	n5	48	SER
62	n6	83	ASP
63	n7	41	ALA
64	n8	48	TYR
65	n9	22	LYS
67	o1	46	THR
73	o7	25	ARG
74	o8	18	ALA
3	S1	62	LYS
3	S1	207	LEU
3	S1	224	ASP
6	S4	12	LEU

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Mol	Chain	Res	Type
7	S5	163	SER
9	S7	73	VAL
11	S9	163	PRO
13	C1	75	VAL
16	C4	18	ARG
19	C7	124	VAL
20	C8	79	TYR
21	C9	116	ILE
25	D3	97	ASP
33	E1	100	LEU
39	L2	35	ALA
39	L2	251	LYS
42	L5	295	GLY
44	L7	178	ILE
49	M3	13	HIS
49	M3	165	SER
55	M9	154	ALA
57	N1	18	ASP
5	s3	33	GLY
6	s4	30	ARG
6	s4	93	ASP
8	s6	70	PRO
8	s6	104	PRO
13	c1	119	VAL
14	c2	87	PRO
15	c3	29	SER
15	c3	60	VAL
17	c5	14	THR
17	c5	52	LYS
18	c6	106	LYS
19	c7	15	ALA
20	c8	9	GLY
23	d1	82	VAL
27	d5	83	LEU
27	d5	103	ARG
28	d6	16	GLY
30	d8	6	PRO
80	e0	47	VAL
33	e1	112	GLY
34	sR	248	ASN
39	l2	240	ALA
40	l3	289	ASP

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Mol	Chain	Res	Type
41	l4	43	ASN
41	l4	144	LYS
44	l7	228	SER
45	l8	237	ILE
47	m0	170	LYS
47	m0	176	LEU
53	m7	37	ASN
61	n5	57	LEU
68	o2	5	PRO
74	o8	37	PRO
78	q2	78	LYS
8	S6	69	LEU
14	C2	89	ILE
25	D3	41	SER
34	SR	67	ILE
40	L3	185	GLY
46	L9	98	PRO
65	N9	21	ILE
10	s8	50	GLY
18	c6	40	GLU
43	l6	171	PRO
51	m5	74	PRO
2	S0	189	VAL
3	S1	215	VAL
6	S4	233	LYS
10	S8	50	GLY
14	C2	22	VAL
14	C2	37	VAL
16	C4	109	GLY
18	C6	40	GLU
22	D0	106	ILE
40	L3	317	ILE
41	L4	181	VAL
59	N3	3	GLY
69	O3	25	PRO
4	s2	83	ILE
8	s6	165	GLY
15	c3	82	PRO
18	c6	4	VAL
35	sM	172	VAL
39	l2	141	PRO
49	m3	50	PRO

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Mol	Chain	Res	Type
61	n5	44	PRO
61	n5	115	ARG
64	n8	70	LYS
3	S1	210	ILE
3	S1	226	GLY
6	S4	193	GLY
14	C2	87	PRO
15	C3	122	ILE
15	C3	137	PRO
31	D9	11	PRO
47	M0	114	GLY
55	M9	129	GLY
69	O3	90	PRO
5	s3	180	GLY
13	c1	113	PRO
80	e0	50	VAL
42	l5	125	VAL
45	l8	239	GLY
48	m1	7	ASN
58	n2	27	VAL
7	S5	153	GLY
16	C4	96	PRO
30	D8	20	GLY
42	L5	148	ILE
52	M6	110	PRO
60	N4	10	GLY
65	N9	29	TYR
2	s0	152	PRO
4	s2	93	GLY
6	s4	243	GLY
19	c7	117	LEU
60	n4	132	GLY
69	o3	59	VAL
81	p0	70	LEU
14	C2	116	VAL
4	s2	182	PRO
41	l4	277	PRO
69	o3	61	GLY

### 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 X-ray entries followed by that with respect to entries of similar resolution.

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	
2	S0	164/209 (78%)	135 (82%)	29 (18%)	2	10
2	s0	165/209 (79%)	134 (81%)	31 (19%)	2	9
3	S1	191/223 (86%)	154 (81%)	37 (19%)	1	8
3	s1	192/223 (86%)	155 (81%)	37 (19%)	1	9
4	S2	176/204 (86%)	138 (78%)	38 (22%)	1	6
4	s2	176/204 (86%)	131 (74%)	45 (26%)	0	2
5	S3	182/194 (94%)	145 (80%)	37 (20%)	1	7
5	s3	182/194 (94%)	141 (78%)	41 (22%)	1	5
6	S4	221/221 (100%)	170 (77%)	51 (23%)	1	4
6	s4	221/221 (100%)	183 (83%)	38 (17%)	2	11
7	S5	173/190 (91%)	137 (79%)	36 (21%)	1	6
7	s5	173/190 (91%)	141 (82%)	32 (18%)	2	9
8	S6	188/201 (94%)	154 (82%)	34 (18%)	2	10
8	s6	187/201 (93%)	153 (82%)	34 (18%)	2	10
9	S7	165/169 (98%)	136 (82%)	29 (18%)	2	10
9	s7	165/169 (98%)	142 (86%)	23 (14%)	4	19
10	S8	150/161 (93%)	129 (86%)	21 (14%)	4	18
10	s8	150/161 (93%)	124 (83%)	26 (17%)	2	11
11	S9	158/165 (96%)	121 (77%)	37 (23%)	1	4
11	s9	158/165 (96%)	128 (81%)	30 (19%)	2	9
12	C0	77/98 (79%)	66 (86%)	11 (14%)	4	18
12	c0	73/98 (74%)	58 (80%)	15 (20%)	1	6
13	C1	129/136 (95%)	111 (86%)	18 (14%)	4	18
13	c1	129/136 (95%)	99 (77%)	30 (23%)	1	4
14	C2	88/118 (75%)	69 (78%)	19 (22%)	1	6
14	c2	88/118 (75%)	62 (70%)	26 (30%)	0	1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
15	C3	127/127 (100%)	101 (80%)	26 (20%)	1	6
15	c3	127/127 (100%)	102 (80%)	25 (20%)	1	8
16	C4	81/104 (78%)	58 (72%)	23 (28%)	0	1
16	c4	97/104 (93%)	77 (79%)	20 (21%)	1	6
17	C5	101/117 (86%)	87 (86%)	14 (14%)	4	19
17	c5	103/117 (88%)	85 (82%)	18 (18%)	2	11
18	C6	117/118 (99%)	92 (79%)	25 (21%)	1	6
18	c6	118/118 (100%)	95 (80%)	23 (20%)	1	8
19	C7	94/124 (76%)	73 (78%)	21 (22%)	1	5
19	c7	92/124 (74%)	73 (79%)	19 (21%)	1	6
20	C8	128/128 (100%)	97 (76%)	31 (24%)	1	3
20	c8	128/128 (100%)	98 (77%)	30 (23%)	1	4
21	C9	115/115 (100%)	87 (76%)	28 (24%)	1	3
21	c9	115/115 (100%)	97 (84%)	18 (16%)	3	14
22	D0	100/113 (88%)	80 (80%)	20 (20%)	1	7
22	d0	103/113 (91%)	77 (75%)	26 (25%)	0	2
23	D1	74/74 (100%)	58 (78%)	16 (22%)	1	6
23	d1	74/74 (100%)	55 (74%)	19 (26%)	0	2
24	D2	110/110 (100%)	89 (81%)	21 (19%)	2	9
24	d2	110/110 (100%)	95 (86%)	15 (14%)	4	20
25	D3	119/119 (100%)	95 (80%)	24 (20%)	1	7
25	d3	119/119 (100%)	97 (82%)	22 (18%)	2	9
26	D4	112/112 (100%)	95 (85%)	17 (15%)	3	15
26	d4	112/112 (100%)	94 (84%)	18 (16%)	3	13
27	D5	61/88 (69%)	49 (80%)	12 (20%)	1	8
27	d5	61/88 (69%)	51 (84%)	10 (16%)	2	12
28	D6	83/83 (100%)	65 (78%)	18 (22%)	1	6
28	d6	83/83 (100%)	73 (88%)	10 (12%)	6	26
29	D7	70/70 (100%)	59 (84%)	11 (16%)	3	14
29	d7	70/70 (100%)	60 (86%)	10 (14%)	4	18
30	D8	56/59 (95%)	41 (73%)	15 (27%)	0	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
30	d8	56/59 (95%)	42 (75%)	14 (25%)	1	2
31	D9	47/48 (98%)	38 (81%)	9 (19%)	2	9
31	d9	47/48 (98%)	36 (77%)	11 (23%)	1	4
32	E0	51/51 (100%)	43 (84%)	8 (16%)	3	14
33	E1	62/66 (94%)	47 (76%)	15 (24%)	1	3
33	e1	66/66 (100%)	47 (71%)	19 (29%)	0	1
34	SR	260/261 (100%)	213 (82%)	47 (18%)	2	10
34	sR	260/261 (100%)	232 (89%)	28 (11%)	7	31
35	SM	97/228 (42%)	69 (71%)	28 (29%)	0	1
35	sM	54/228 (24%)	40 (74%)	14 (26%)	0	2
39	L2	193/195 (99%)	153 (79%)	40 (21%)	1	6
39	l2	192/195 (98%)	149 (78%)	43 (22%)	1	5
40	L3	320/322 (99%)	251 (78%)	69 (22%)	1	6
40	l3	320/322 (99%)	258 (81%)	62 (19%)	1	8
41	L4	288/288 (100%)	225 (78%)	63 (22%)	1	5
41	l4	288/288 (100%)	230 (80%)	58 (20%)	1	7
42	L5	244/244 (100%)	197 (81%)	47 (19%)	1	9
42	l5	243/244 (100%)	191 (79%)	52 (21%)	1	6
43	L6	134/152 (88%)	118 (88%)	16 (12%)	6	26
43	l6	135/152 (89%)	112 (83%)	23 (17%)	2	11
44	L7	186/204 (91%)	165 (89%)	21 (11%)	7	29
44	l7	187/204 (92%)	158 (84%)	29 (16%)	3	14
45	L8	187/207 (90%)	151 (81%)	36 (19%)	1	9
45	l8	177/207 (86%)	141 (80%)	36 (20%)	1	7
46	L9	171/171 (100%)	137 (80%)	34 (20%)	1	7
46	l9	171/171 (100%)	123 (72%)	48 (28%)	0	1
47	M0	177/186 (95%)	139 (78%)	38 (22%)	1	6
47	m0	179/186 (96%)	145 (81%)	34 (19%)	2	9
48	M1	147/150 (98%)	123 (84%)	24 (16%)	3	13
48	m1	147/150 (98%)	115 (78%)	32 (22%)	1	6
49	M3	154/158 (98%)	123 (80%)	31 (20%)	1	7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
49	m3	154/158 (98%)	124 (80%)	30 (20%)	1	8
50	M4	107/108 (99%)	87 (81%)	20 (19%)	2	9
50	m4	108/108 (100%)	81 (75%)	27 (25%)	1	2
51	M5	175/175 (100%)	143 (82%)	32 (18%)	2	9
51	m5	175/175 (100%)	142 (81%)	33 (19%)	2	9
52	M6	160/161 (99%)	141 (88%)	19 (12%)	6	26
52	m6	160/161 (99%)	130 (81%)	30 (19%)	2	9
53	M7	140/145 (97%)	107 (76%)	33 (24%)	1	3
53	m7	125/145 (86%)	100 (80%)	25 (20%)	1	7
54	M8	150/150 (100%)	126 (84%)	24 (16%)	3	13
54	m8	150/150 (100%)	122 (81%)	28 (19%)	2	9
55	M9	153/153 (100%)	121 (79%)	32 (21%)	1	6
55	m9	153/153 (100%)	123 (80%)	30 (20%)	1	8
56	N0	156/156 (100%)	127 (81%)	29 (19%)	2	9
56	n0	156/156 (100%)	122 (78%)	34 (22%)	1	6
57	N1	136/136 (100%)	111 (82%)	25 (18%)	2	9
57	n1	136/136 (100%)	108 (79%)	28 (21%)	1	6
58	N2	87/106 (82%)	70 (80%)	17 (20%)	1	8
58	n2	85/106 (80%)	70 (82%)	15 (18%)	2	10
59	N3	104/104 (100%)	87 (84%)	17 (16%)	3	13
59	n3	104/104 (100%)	89 (86%)	15 (14%)	4	17
60	N4	57/129 (44%)	51 (90%)	6 (10%)	8	32
60	n4	100/129 (78%)	82 (82%)	18 (18%)	2	10
61	N5	104/117 (89%)	84 (81%)	20 (19%)	1	9
61	n5	104/117 (89%)	82 (79%)	22 (21%)	1	6
62	N6	109/109 (100%)	85 (78%)	24 (22%)	1	5
62	n6	109/109 (100%)	86 (79%)	23 (21%)	1	6
63	N7	115/115 (100%)	93 (81%)	22 (19%)	2	9
63	n7	115/115 (100%)	89 (77%)	26 (23%)	1	5
64	N8	118/118 (100%)	95 (80%)	23 (20%)	1	8
64	n8	118/118 (100%)	99 (84%)	19 (16%)	3	13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
65	N9	46/46 (100%)	33 (72%)	13 (28%)	0	1
65	n9	46/46 (100%)	32 (70%)	14 (30%)	0	1
66	O0	81/87 (93%)	64 (79%)	17 (21%)	1	6
66	o0	84/87 (97%)	67 (80%)	17 (20%)	1	7
67	O1	92/96 (96%)	74 (80%)	18 (20%)	1	8
67	o1	94/96 (98%)	68 (72%)	26 (28%)	0	1
68	O2	109/110 (99%)	88 (81%)	21 (19%)	1	9
68	o2	109/110 (99%)	81 (74%)	28 (26%)	0	2
69	O3	90/90 (100%)	75 (83%)	15 (17%)	2	12
69	o3	90/90 (100%)	75 (83%)	15 (17%)	2	12
70	O4	95/102 (93%)	74 (78%)	21 (22%)	1	5
70	o4	95/102 (93%)	77 (81%)	18 (19%)	2	9
71	O5	104/104 (100%)	81 (78%)	23 (22%)	1	5
71	o5	103/104 (99%)	78 (76%)	25 (24%)	1	3
72	O6	81/81 (100%)	59 (73%)	22 (27%)	0	1
72	o6	80/81 (99%)	51 (64%)	29 (36%)	0	0
73	O7	70/70 (100%)	52 (74%)	18 (26%)	0	2
73	o7	70/70 (100%)	57 (81%)	13 (19%)	2	9
74	O8	68/68 (100%)	52 (76%)	16 (24%)	1	4
74	o8	67/68 (98%)	51 (76%)	16 (24%)	1	3
75	O9	45/45 (100%)	38 (84%)	7 (16%)	3	14
75	o9	45/45 (100%)	37 (82%)	8 (18%)	2	10
76	Q0	47/47 (100%)	36 (77%)	11 (23%)	1	4
76	q0	47/47 (100%)	35 (74%)	12 (26%)	0	2
77	Q1	23/23 (100%)	18 (78%)	5 (22%)	1	6
77	q1	23/23 (100%)	16 (70%)	7 (30%)	0	1
78	Q2	90/90 (100%)	69 (77%)	21 (23%)	1	4
78	q2	90/90 (100%)	74 (82%)	16 (18%)	2	10
79	Q3	71/71 (100%)	55 (78%)	16 (22%)	1	5
79	q3	71/71 (100%)	55 (78%)	16 (22%)	1	5
80	e0	53/53 (100%)	40 (76%)	13 (24%)	1	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
81	p0	105/253 (42%)	85 (81%)	20 (19%)	2	9
All	All	18728/20241 (92%)	15006 (80%)	3722 (20%)	1	7

All (3722) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	S0	9	LEU
2	S0	12	GLU
2	S0	28	ASN
2	S0	32	HIS
2	S0	37	VAL
2	S0	41	ARG
2	S0	56	LYS
2	S0	72	ASP
2	S0	76	ILE
2	S0	80	THR
2	S0	84	ARG
2	S0	86	VAL
2	S0	88	LYS
2	S0	96	THR
2	S0	103	THR
2	S0	110	TYR
2	S0	111	ILE
2	S0	119	ARG
2	S0	123	VAL
2	S0	146	LEU
2	S0	157	ASP
2	S0	165	ARG
2	S0	172	LEU
2	S0	177	LEU
2	S0	185	ARG
2	S0	188	LEU
2	S0	196	SER
2	S0	198	MET
2	S0	200	ASP
3	S1	21	VAL
3	S1	25	THR
3	S1	29	TRP
3	S1	30	PHE
3	S1	39	GLU
3	S1	42	ASN
3	S1	46	THR

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Mol	Chain	Res	Type
3	S1	47	LEU
3	S1	51	SER
3	S1	61	LEU
3	S1	65	VAL
3	S1	70	LEU
3	S1	77	GLU
3	S1	81	PHE
3	S1	89	ASP
3	S1	96	LEU
3	S1	97	LEU
3	S1	101	HIS
3	S1	105	PHE
3	S1	111	ARG
3	S1	115	ARG
3	S1	117	TRP
3	S1	125	VAL
3	S1	135	LEU
3	S1	144	ARG
3	S1	154	SER
3	S1	170	GLU
3	S1	181	LEU
3	S1	184	LEU
3	S1	202	LYS
3	S1	214	LYS
3	S1	215	VAL
3	S1	218	LEU
3	S1	219	LYS
3	S1	220	GLN
3	S1	223	PHE
3	S1	231	LEU
4	S2	41	LEU
4	S2	54	GLU
4	S2	69	ILE
4	S2	70	ASP
4	S2	72	LEU
4	S2	73	LEU
4	S2	76	LEU
4	S2	77	GLN
4	S2	89	GLN
4	S2	91	ARG
4	S2	94	GLN
4	S2	95	ARG

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Mol	Chain	Res	Type
4	S2	96	THR
4	S2	97	ARG
4	S2	99	LYS
4	S2	106	ASP
4	S2	111	VAL
4	S2	113	LEU
4	S2	117	THR
4	S2	134	LEU
4	S2	137	ILE
4	S2	139	ILE
4	S2	148	LEU
4	S2	153	SER
4	S2	157	LYS
4	S2	159	THR
4	S2	166	THR
4	S2	195	ASP
4	S2	198	THR
4	S2	207	LEU
4	S2	221	THR
4	S2	222	TYR
4	S2	225	LEU
4	S2	226	THR
4	S2	235	LEU
4	S2	237	VAL
4	S2	245	ASP
4	S2	250	GLN
5	S3	4	LEU
5	S3	6	SER
5	S3	7	LYS
5	S3	9	ARG
5	S3	21	LEU
5	S3	26	THR
5	S3	27	ARG
5	S3	37	VAL
5	S3	65	ARG
5	S3	66	ILE
5	S3	76	ARG
5	S3	84	ILE
5	S3	89	GLU
5	S3	90	ARG
5	S3	94	ARG
5	S3	103	GLU

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Mol	Chain	Res	Type
5	S3	105	MET
5	S3	110	LEU
5	S3	111	ASN
5	S3	113	LEU
5	S3	116	ARG
5	S3	117	ARG
5	S3	124	ARG
5	S3	134	CYS
5	S3	137	VAL
5	S3	141	LYS
5	S3	146	ARG
5	S3	148	LYS
5	S3	151	LYS
5	S3	158	ILE
5	S3	172	THR
5	S3	174	HIS
5	S3	176	LEU
5	S3	178	ARG
5	S3	200	LYS
5	S3	209	ILE
5	S3	218	LEU
6	S4	5	PRO
6	S4	9	LEU
6	S4	12	LEU
6	S4	21	ASP
6	S4	23	LEU
6	S4	26	CYS
6	S4	38	LEU
6	S4	42	LEU
6	S4	48	LEU
6	S4	56	LEU
6	S4	67	GLN
6	S4	70	VAL
6	S4	77	ARG
6	S4	78	THR
6	S4	92	LEU
6	S4	93	ASP
6	S4	95	THR
6	S4	102	VAL
6	S4	113	ARG
6	S4	116	ASP
6	S4	117	GLU

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Mol	Chain	Res	Type
6	S4	123	LEU
6	S4	131	LEU
6	S4	133	LYS
6	S4	134	LYS
6	S4	153	ASN
6	S4	158	ASP
6	S4	160	VAL
6	S4	176	ASP
6	S4	179	LYS
6	S4	180	LEU
6	S4	181	VAL
6	S4	182	TYR
6	S4	187	ARG
6	S4	192	ILE
6	S4	197	HIS
6	S4	202	ASP
6	S4	206	ASP
6	S4	210	ILE
6	S4	211	LYS
6	S4	215	ASP
6	S4	221	ARG
6	S4	226	PHE
6	S4	227	VAL
6	S4	228	ILE
6	S4	236	ILE
6	S4	240	LYS
6	S4	242	LYS
6	S4	247	SER
6	S4	248	ILE
6	S4	259	GLN
7	S5	25	LEU
7	S5	32	GLU
7	S5	38	THR
7	S5	42	LEU
7	S5	43	PHE
7	S5	45	LYS
7	S5	46	TRP
7	S5	48	PHE
7	S5	53	VAL
7	S5	63	GLN
7	S5	65	ARG
7	S5	66	GLN

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Mol	Chain	Res	Type
7	S5	79	ASN
7	S5	86	GLN
7	S5	89	ILE
7	S5	90	ILE
7	S5	93	LEU
7	S5	94	THR
7	S5	97	LEU
7	S5	99	MET
7	S5	122	ASN
7	S5	128	ASN
7	S5	137	ILE
7	S5	139	ASN
7	S5	146	THR
7	S5	147	THR
7	S5	148	ARG
7	S5	156	ARG
7	S5	157	ARG
7	S5	160	VAL
7	S5	162	VAL
7	S5	186	ASN
7	S5	190	ILE
7	S5	194	LEU
7	S5	203	LYS
7	S5	216	GLU
8	S6	5	ILE
8	S6	6	SER
8	S6	25	ARG
8	S6	29	ASP
8	S6	44	GLU
8	S6	56	ASN
8	S6	59	GLN
8	S6	65	GLN
8	S6	67	VAL
8	S6	78	THR
8	S6	79	LYS
8	S6	81	VAL
8	S6	82	SER
8	S6	89	ASP
8	S6	94	ARG
8	S6	109	LEU
8	S6	120	GLU
8	S6	126	ASP

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Mol	Chain	Res	Type
8	S6	127	THR
8	S6	128	THR
8	S6	129	VAL
8	S6	133	LEU
8	S6	143	LYS
8	S6	151	ASP
8	S6	154	ARG
8	S6	162	VAL
8	S6	169	TYR
8	S6	170	THR
8	S6	175	ILE
8	S6	177	ARG
8	S6	190	GLN
8	S6	210	GLN
8	S6	211	LEU
8	S6	223	LYS
9	S7	14	THR
9	S7	15	GLU
9	S7	16	LEU
9	S7	22	GLN
9	S7	37	GLU
9	S7	38	LEU
9	S7	50	ASP
9	S7	51	VAL
9	S7	60	ILE
9	S7	70	PHE
9	S7	75	THR
9	S7	77	LEU
9	S7	85	PHE
9	S7	97	ARG
9	S7	99	LEU
9	S7	104	ARG
9	S7	110	GLN
9	S7	114	ARG
9	S7	116	ARG
9	S7	117	THR
9	S7	126	LEU
9	S7	130	VAL
9	S7	133	THR
9	S7	136	VAL
9	S7	141	ARG
9	S7	144	VAL

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Mol	Chain	Res	Type
9	S7	147	ASN
9	S7	149	ILE
9	S7	184	GLU
10	S8	4	SER
10	S8	8	ARG
10	S8	14	THR
10	S8	21	PHE
10	S8	22	ARG
10	S8	29	LEU
10	S8	36	THR
10	S8	56	ARG
10	S8	58	LEU
10	S8	66	SER
10	S8	69	SER
10	S8	70	GLU
10	S8	72	ILE
10	S8	82	VAL
10	S8	97	THR
10	S8	138	ASN
10	S8	152	ILE
10	S8	164	ARG
10	S8	184	LEU
10	S8	187	GLU
10	S8	196	LEU
11	S9	3	ARG
11	S9	6	ARG
11	S9	7	THR
11	S9	9	SER
11	S9	14	THR
11	S9	28	LEU
11	S9	30	LEU
11	S9	33	GLU
11	S9	39	LYS
11	S9	46	SER
11	S9	62	ARG
11	S9	63	ASP
11	S9	78	ARG
11	S9	79	ARG
11	S9	82	ARG
11	S9	89	ASP
11	S9	92	LYS
11	S9	93	LEU

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Mol	Chain	Res	Type
11	S9	97	LEU
11	S9	99	LEU
11	S9	101	VAL
11	S9	118	LEU
11	S9	121	SER
11	S9	126	ARG
11	S9	130	THR
11	S9	134	ILE
11	S9	138	LYS
11	S9	140	ILE
11	S9	143	ILE
11	S9	149	ARG
11	S9	155	HIS
11	S9	161	THR
11	S9	162	SER
11	S9	171	ARG
11	S9	172	VAL
11	S9	174	ARG
11	S9	182	GLU
12	C0	7	ASP
12	C0	20	VAL
12	C0	27	PHE
12	C0	32	HIS
12	C0	49	LEU
12	C0	55	VAL
12	C0	56	LYS
12	C0	58	GLN
12	C0	76	LEU
12	C0	78	GLU
12	C0	82	LEU
13	C1	8	GLN
13	C1	21	ASN
13	C1	25	VAL
13	C1	29	LYS
13	C1	40	LEU
13	C1	44	THR
13	C1	67	ARG
13	C1	69	LYS
13	C1	74	THR
13	C1	79	LYS
13	C1	83	THR
13	C1	91	LEU

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Mol	Chain	Res	Type
13	C1	94	ILE
13	C1	99	ARG
13	C1	100	TYR
13	C1	112	SER
13	C1	118	GLN
13	C1	140	VAL
14	C2	33	ARG
14	C2	36	LEU
14	C2	37	VAL
14	C2	43	ARG
14	C2	46	ARG
14	C2	50	LYS
14	C2	52	LEU
14	C2	54	ARG
14	C2	66	VAL
14	C2	71	ILE
14	C2	74	LEU
14	C2	89	ILE
14	C2	103	LEU
14	C2	121	VAL
14	C2	126	TRP
14	C2	129	GLU
14	C2	132	GLU
14	C2	138	GLU
14	C2	139	HIS
15	C3	6	SER
15	C3	12	SER
15	C3	13	SER
15	C3	16	ILE
15	C3	27	LYS
15	C3	32	SER
15	C3	39	LYS
15	C3	42	ARG
15	C3	45	LEU
15	C3	46	THR
15	C3	64	ARG
15	C3	66	ILE
15	C3	76	LYS
15	C3	83	GLU
15	C3	88	LEU
15	C3	102	LEU
15	C3	107	LYS

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Mol	Chain	Res	Type
15	C3	110	ASP
15	C3	114	ARG
15	C3	115	LEU
15	C3	125	LEU
15	C3	131	THR
15	C3	140	LYS
15	C3	143	SER
15	C3	149	LEU
15	C3	151	ASN
16	C4	11	SER
16	C4	13	VAL
16	C4	16	VAL
16	C4	20	TYR
16	C4	22	SER
16	C4	24	ASN
16	C4	29	HIS
16	C4	30	VAL
16	C4	31	THR
16	C4	42	VAL
16	C4	43	THR
16	C4	51	ASP
16	C4	76	ILE
16	C4	89	THR
16	C4	92	LYS
16	C4	93	THR
16	C4	102	LEU
16	C4	103	ARG
16	C4	118	VAL
16	C4	123	SER
16	C4	125	SER
16	C4	136	ARG
16	C4	137	LEU
17	C5	11	VAL
17	C5	22	LEU
17	C5	26	LEU
17	C5	36	LEU
17	C5	43	ARG
17	C5	44	ARG
17	C5	47	ARG
17	C5	52	LYS
17	C5	80	MET
17	C5	94	VAL

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Mol	Chain	Res	Type
17	C5	110	GLU
17	C5	121	ILE
17	C5	124	THR
17	C5	130	ARG
18	C6	15	SER
18	C6	26	LYS
18	C6	29	ILE
18	C6	40	GLU
18	C6	43	ILE
18	C6	54	LEU
18	C6	58	ASP
18	C6	65	ILE
18	C6	66	ARG
18	C6	68	ARG
18	C6	69	VAL
18	C6	98	ASP
18	C6	104	GLU
18	C6	106	LYS
18	C6	114	ARG
18	C6	115	THR
18	C6	116	LEU
18	C6	118	ILE
18	C6	121	SER
18	C6	123	ARG
18	C6	128	LYS
18	C6	137	ARG
18	C6	138	PHE
18	C6	139	GLN
18	C6	143	ARG
19	C7	6	THR
19	C7	10	LYS
19	C7	25	THR
19	C7	26	LEU
19	C7	34	LEU
19	C7	38	ILE
19	C7	40	THR
19	C7	46	LEU
19	C7	49	LYS
19	C7	54	THR
19	C7	55	THR
19	C7	69	ILE
19	C7	72	LYS

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Mol	Chain	Res	Type
19	C7	78	ARG
19	C7	83	GLN
19	C7	84	TYR
19	C7	88	VAL
19	C7	105	GLN
19	C7	113	LEU
19	C7	115	LEU
19	C7	119	LEU
20	C8	3	LEU
20	C8	5	VAL
20	C8	6	GLN
20	C8	11	PHE
20	C8	13	HIS
20	C8	14	ILE
20	C8	15	LEU
20	C8	17	LEU
20	C8	25	ASN
20	C8	26	ILE
20	C8	28	ILE
20	C8	36	LYS
20	C8	40	ARG
20	C8	54	LEU
20	C8	60	GLU
20	C8	61	LEU
20	C8	71	GLN
20	C8	80	LYS
20	C8	82	PRO
20	C8	89	GLN
20	C8	92	ILE
20	C8	101	LEU
20	C8	108	LYS
20	C8	114	GLU
20	C8	120	ARG
20	C8	132	ARG
20	C8	133	VAL
20	C8	136	GLN
20	C8	138	THR
20	C8	141	THR
20	C8	143	ARG
21	C9	4	VAL
21	C9	6	VAL
21	C9	18	TYR

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Mol	Chain	Res	Type
21	C9	22	LEU
21	C9	25	GLN
21	C9	27	LYS
21	C9	28	LEU
21	C9	29	GLU
21	C9	33	TYR
21	C9	35	ASP
21	C9	36	ILE
21	C9	37	VAL
21	C9	38	LYS
21	C9	57	ARG
21	C9	63	ARG
21	C9	67	MET
21	C9	68	ARG
21	C9	70	GLN
21	C9	84	LYS
21	C9	94	ILE
21	C9	97	SER
21	C9	105	LEU
21	C9	122	ARG
21	C9	123	ARG
21	C9	130	ARG
21	C9	131	ASP
21	C9	132	LEU
21	C9	133	ASP
22	D0	23	ARG
22	D0	25	THR
22	D0	27	THR
22	D0	30	LYS
22	D0	47	GLN
22	D0	50	LEU
22	D0	51	VAL
22	D0	57	ARG
22	D0	61	LYS
22	D0	66	SER
22	D0	67	THR
22	D0	68	ARG
22	D0	72	ASN
22	D0	74	GLU
22	D0	81	THR
22	D0	82	TYR
22	D0	89	ARG

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Mol	Chain	Res	Type
22	D0	99	ILE
22	D0	103	ILE
22	D0	117	VAL
23	D1	3	ASN
23	D1	5	LYS
23	D1	7	GLN
23	D1	11	LEU
23	D1	12	TYR
23	D1	18	SER
23	D1	33	GLN
23	D1	36	VAL
23	D1	41	GLU
23	D1	49	GLU
23	D1	52	THR
23	D1	68	SER
23	D1	69	LEU
23	D1	72	LEU
23	D1	78	LEU
23	D1	82	VAL
24	D2	2	THR
24	D2	12	ASN
24	D2	15	ASN
24	D2	24	GLN
24	D2	25	VAL
24	D2	26	LEU
24	D2	27	ILE
24	D2	37	PHE
24	D2	53	ILE
24	D2	65	LEU
24	D2	74	VAL
24	D2	81	VAL
24	D2	87	GLU
24	D2	93	LEU
24	D2	98	GLN
24	D2	103	ILE
24	D2	104	LEU
24	D2	105	THR
24	D2	106	THR
24	D2	121	VAL
24	D2	129	VAL
25	D3	7	ARG
25	D3	9	LEU

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Mol	Chain	Res	Type
25	D3	19	ARG
25	D3	26	GLU
25	D3	28	ASN
25	D3	33	LEU
25	D3	41	SER
25	D3	47	SER
25	D3	69	ARG
25	D3	72	VAL
25	D3	78	LYS
25	D3	79	ASN
25	D3	84	THR
25	D3	96	VAL
25	D3	97	ASP
25	D3	102	VAL
25	D3	103	LEU
25	D3	107	PHE
25	D3	110	LYS
25	D3	114	LYS
25	D3	125	VAL
25	D3	127	VAL
25	D3	132	LEU
25	D3	136	TRP
26	D4	2	SER
26	D4	14	SER
26	D4	28	LEU
26	D4	34	ASN
26	D4	36	SER
26	D4	40	LEU
26	D4	51	GLU
26	D4	52	LYS
26	D4	61	ARG
26	D4	62	THR
26	D4	74	LEU
26	D4	81	GLU
26	D4	83	LYS
26	D4	88	THR
26	D4	102	LYS
26	D4	124	ARG
26	D4	127	LYS
27	D5	37	GLN
27	D5	42	LEU
27	D5	63	SER

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Mol	Chain	Res	Type
27	D5	67	ASP
27	D5	69	LEU
27	D5	71	ILE
27	D5	75	LEU
27	D5	78	ILE
27	D5	85	LYS
27	D5	92	ILE
27	D5	95	HIS
27	D5	96	SER
28	D6	4	LYS
28	D6	19	LYS
28	D6	32	LYS
28	D6	36	ILE
28	D6	38	ARG
28	D6	41	ILE
28	D6	44	ILE
28	D6	45	VAL
28	D6	46	GLU
28	D6	61	GLU
28	D6	66	LYS
28	D6	67	THR
28	D6	68	TYR
28	D6	70	LYS
28	D6	82	ARG
28	D6	83	ILE
28	D6	85	ARG
28	D6	88	SER
29	D7	3	LEU
29	D7	17	ARG
29	D7	24	LEU
29	D7	29	ARG
29	D7	33	LEU
29	D7	34	ASP
29	D7	41	LEU
29	D7	43	ILE
29	D7	62	ILE
29	D7	65	THR
29	D7	72	LYS
30	D8	12	VAL
30	D8	13	ILE
30	D8	19	THR
30	D8	28	VAL

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Mol	Chain	Res	Type
30	D8	30	VAL
30	D8	32	PHE
30	D8	34	GLU
30	D8	36	THR
30	D8	38	ARG
30	D8	40	ILE
30	D8	49	ARG
30	D8	57	MET
30	D8	58	GLU
30	D8	61	ARG
30	D8	64	ARG
31	D9	5	ASN
31	D9	7	TRP
31	D9	12	ARG
31	D9	19	ARG
31	D9	25	SER
31	D9	28	THR
31	D9	32	ARG
31	D9	36	LEU
31	D9	39	CYS
32	E0	3	LYS
32	E0	20	LYS
32	E0	21	VAL
32	E0	22	GLU
32	E0	41	THR
32	E0	42	ARG
32	E0	47	VAL
32	E0	49	LEU
33	E1	84	VAL
33	E1	89	LYS
33	E1	91	ILE
33	E1	93	HIS
33	E1	94	LYS
33	E1	97	LYS
33	E1	100	LEU
33	E1	108	VAL
33	E1	113	LYS
33	E1	118	ARG
33	E1	120	GLU
33	E1	137	ASP
33	E1	139	LEU
33	E1	140	TYR

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Mol	Chain	Res	Type
33	E1	146	SER
34	SR	21	THR
34	SR	29	GLN
34	SR	37	SER
34	SR	39	ASP
34	SR	52	GLN
34	SR	58	VAL
34	SR	59	ARG
34	SR	62	LYS
34	SR	72	THR
34	SR	76	ASP
34	SR	81	LEU
34	SR	82	SER
34	SR	88	THR
34	SR	94	VAL
34	SR	98	GLU
34	SR	108	SER
34	SR	117	LYS
34	SR	136	ILE
34	SR	141	LEU
34	SR	144	LEU
34	SR	145	LEU
34	SR	148	ASN
34	SR	149	ASP
34	SR	153	GLN
34	SR	154	VAL
34	SR	159	ASN
34	SR	165	ASP
34	SR	184	ASN
34	SR	187	GLN
34	SR	188	ILE
34	SR	193	ILE
34	SR	199	ILE
34	SR	200	ASN
34	SR	201	THR
34	SR	213	SER
34	SR	231	MET
34	SR	232	TYR
34	SR	235	SER
34	SR	238	ASP
34	SR	242	SER
34	SR	248	ASN

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Mol	Chain	Res	Type
34	SR	258	THR
34	SR	266	ASP
34	SR	268	GLN
34	SR	300	THR
34	SR	309	VAL
34	SR	312	VAL
35	SM	23	LYS
35	SM	24	GLU
35	SM	27	LYS
35	SM	28	SER
35	SM	41	SER
35	SM	45	SER
35	SM	46	LYS
35	SM	48	ARG
35	SM	53	ARG
35	SM	61	ILE
35	SM	64	LYS
35	SM	68	ARG
35	SM	72	ARG
35	SM	74	LYS
35	SM	77	THR
35	SM	83	LYS
35	SM	84	LYS
35	SM	89	ARG
35	SM	91	THR
35	SM	94	HIS
35	SM	100	THR
35	SM	105	LYS
35	SM	106	VAL
35	SM	116	GLU
35	SM	122	GLU
35	SM	130	GLU
35	SM	133	GLU
35	SM	139	GLU
39	L2	18	SER
39	L2	20	THR
39	L2	23	ARG
39	L2	28	LYS
39	L2	31	THR
39	L2	32	LEU
39	L2	42	ARG
39	L2	44	ILE

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Mol	Chain	Res	Type
39	L2	45	VAL
39	L2	49	VAL
39	L2	62	VAL
39	L2	70	ARG
39	L2	71	LEU
39	L2	73	GLU
39	L2	74	GLU
39	L2	82	VAL
39	L2	95	SER
39	L2	101	VAL
39	L2	104	LEU
39	L2	106	SER
39	L2	114	SER
39	L2	116	VAL
39	L2	134	VAL
39	L2	143	GLU
39	L2	165	VAL
39	L2	169	ILE
39	L2	175	VAL
39	L2	177	LYS
39	L2	179	LEU
39	L2	180	LEU
39	L2	188	LYS
39	L2	190	ARG
39	L2	192	LYS
39	L2	202	VAL
39	L2	204	MET
39	L2	207	VAL
39	L2	225	ILE
39	L2	227	ARG
39	L2	230	VAL
39	L2	247	ARG
40	L3	7	GLU
40	L3	10	ARG
40	L3	17	LEU
40	L3	19	ARG
40	L3	24	SER
40	L3	25	ILE
40	L3	30	LYS
40	L3	37	ARG
40	L3	39	LYS
40	L3	46	PHE

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Mol	Chain	Res	Type
40	L3	47	LEU
40	L3	56	ILE
40	L3	65	SER
40	L3	66	LYS
40	L3	70	ARG
40	L3	81	THR
40	L3	83	PRO
40	L3	84	VAL
40	L3	85	VAL
40	L3	86	VAL
40	L3	87	VAL
40	L3	100	ARG
40	L3	103	THR
40	L3	114	VAL
40	L3	115	LYS
40	L3	128	LYS
40	L3	134	SER
40	L3	139	GLN
40	L3	140	ASP
40	L3	146	ARG
40	L3	148	LEU
40	L3	156	SER
40	L3	167	ARG
40	L3	169	THR
40	L3	173	GLN
40	L3	183	LEU
40	L3	188	ILE
40	L3	192	VAL
40	L3	196	ARG
40	L3	200	GLU
40	L3	202	THR
40	L3	208	VAL
40	L3	210	GLU
40	L3	211	GLN
40	L3	212	ASN
40	L3	232	ARG
40	L3	235	THR
40	L3	236	LYS
40	L3	237	LYS
40	L3	238	LEU
40	L3	241	LYS
40	L3	252	ILE

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Mol	Chain	Res	Type
40	L3	263	SER
40	L3	264	VAL
40	L3	266	ARG
40	L3	275	ARG
40	L3	284	ARG
40	L3	287	LYS
40	L3	289	ASP
40	L3	291	GLU
40	L3	305	ILE
40	L3	308	MET
40	L3	324	VAL
40	L3	332	ARG
40	L3	347	SER
40	L3	354	VAL
40	L3	355	SER
40	L3	361	THR
40	L3	382	THR
41	L4	3	ARG
41	L4	4	PRO
41	L4	18	ASN
41	L4	20	LEU
41	L4	34	ILE
41	L4	36	HIS
41	L4	37	THR
41	L4	55	LYS
41	L4	60	THR
41	L4	64	SER
41	L4	71	VAL
41	L4	73	ARG
41	L4	74	ILE
41	L4	84	ARG
41	L4	85	SER
41	L4	93	MET
41	L4	108	LYS
41	L4	112	LYS
41	L4	120	TYR
41	L4	124	SER
41	L4	138	ARG
41	L4	142	VAL
41	L4	144	LYS
41	L4	147	GLU
41	L4	148	ILE

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Mol	Chain	Res	Type
41	L4	150	LEU
41	L4	152	VAL
41	L4	156	LEU
41	L4	161	LYS
41	L4	170	LYS
41	L4	172	VAL
41	L4	179	LEU
41	L4	182	LEU
41	L4	186	LYS
41	L4	187	LEU
41	L4	188	ARG
41	L4	194	TYR
41	L4	200	THR
41	L4	203	ARG
41	L4	206	LEU
41	L4	211	GLU
41	L4	222	VAL
41	L4	230	VAL
41	L4	246	ARG
41	L4	256	THR
41	L4	258	LEU
41	L4	265	GLU
41	L4	266	THR
41	L4	267	VAL
41	L4	270	SER
41	L4	287	THR
41	L4	292	SER
41	L4	306	THR
41	L4	307	GLN
41	L4	311	HIS
41	L4	313	LEU
41	L4	319	LYS
41	L4	321	LYS
41	L4	323	VAL
41	L4	339	LEU
41	L4	346	LYS
41	L4	350	LYS
41	L4	354	VAL
42	L5	4	GLN
42	L5	5	LYS
42	L5	10	SER
42	L5	22	ARG

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Mol	Chain	Res	Type
42	L5	23	ARG
42	L5	32	GLN
42	L5	35	ARG
42	L5	41	LYS
42	L5	66	SER
42	L5	69	ILE
42	L5	92	LEU
42	L5	105	ILE
42	L5	109	THR
42	L5	112	LYS
42	L5	115	LEU
42	L5	118	THR
42	L5	122	VAL
42	L5	131	LEU
42	L5	132	THR
42	L5	140	ARG
42	L5	146	LEU
42	L5	148	ILE
42	L5	151	GLN
42	L5	152	ARG
42	L5	154	THR
42	L5	155	THR
42	L5	158	ARG
42	L5	159	VAL
42	L5	163	LEU
42	L5	177	GLU
42	L5	185	PHE
42	L5	187	THR
42	L5	190	ILE
42	L5	193	GLU
42	L5	196	ARG
42	L5	197	SER
42	L5	203	HIS
42	L5	216	GLU
42	L5	222	LEU
42	L5	242	SER
42	L5	257	GLU
42	L5	258	LYS
42	L5	268	GLU
42	L5	273	ARG
42	L5	275	THR
42	L5	290	ILE

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Mol	Chain	Res	Type
42	L5	297	GLN
43	L6	5	LYS
43	L6	19	LYS
43	L6	21	THR
43	L6	31	ARG
43	L6	35	VAL
43	L6	48	ARG
43	L6	52	VAL
43	L6	64	LEU
43	L6	65	ILE
43	L6	77	ARG
43	L6	78	ARG
43	L6	89	THR
43	L6	93	VAL
43	L6	152	THR
43	L6	155	LEU
43	L6	162	SER
44	L7	24	GLU
44	L7	25	GLN
44	L7	26	VAL
44	L7	30	ARG
44	L7	43	ILE
44	L7	60	ARG
44	L7	82	LYS
44	L7	92	ILE
44	L7	93	ASN
44	L7	100	ARG
44	L7	101	LYS
44	L7	110	ARG
44	L7	118	LYS
44	L7	124	LEU
44	L7	158	LYS
44	L7	178	ILE
44	L7	179	LEU
44	L7	180	SER
44	L7	184	LEU
44	L7	239	LEU
44	L7	244	ASN
45	L8	26	LEU
45	L8	27	THR
45	L8	38	GLN
45	L8	41	GLN

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Mol	Chain	Res	Type
45	L8	47	SER
45	L8	51	LYS
45	L8	63	LYS
45	L8	71	VAL
45	L8	74	THR
45	L8	79	GLN
45	L8	84	ARG
45	L8	92	LYS
45	L8	101	THR
45	L8	106	LYS
45	L8	108	ARG
45	L8	118	GLU
45	L8	132	VAL
45	L8	136	LEU
45	L8	147	LYS
45	L8	149	LYS
45	L8	150	LEU
45	L8	156	ASP
45	L8	160	ILE
45	L8	169	LEU
45	L8	180	VAL
45	L8	185	ARG
45	L8	194	THR
45	L8	197	VAL
45	L8	203	VAL
45	L8	206	GLU
45	L8	218	ILE
45	L8	221	ASN
45	L8	227	ASP
45	L8	241	LYS
45	L8	246	MET
45	L8	248	LYS
46	L9	5	GLN
46	L9	7	GLU
46	L9	9	GLN
46	L9	16	VAL
46	L9	19	SER
46	L9	36	LYS
46	L9	41	ILE
46	L9	49	ASN
46	L9	52	LEU
46	L9	68	LEU

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Mol	Chain	Res	Type
46	L9	69	ARG
46	L9	70	THR
46	L9	72	LYS
46	L9	73	SER
46	L9	80	THR
46	L9	82	VAL
46	L9	90	MET
46	L9	106	LYS
46	L9	118	LEU
46	L9	121	LYS
46	L9	124	ARG
46	L9	132	VAL
46	L9	133	THR
46	L9	138	THR
46	L9	149	ASN
46	L9	151	VAL
46	L9	157	ASN
46	L9	161	LEU
46	L9	162	GLN
46	L9	164	ILE
46	L9	173	ARG
46	L9	188	THR
46	L9	189	GLU
46	L9	190	ASP
47	M0	3	ARG
47	M0	7	ARG
47	M0	15	LYS
47	M0	24	ARG
47	M0	30	LYS
47	M0	32	ARG
47	M0	33	ILE
47	M0	36	LEU
47	M0	39	LYS
47	M0	40	LYS
47	M0	42	THR
47	M0	48	LEU
47	M0	52	LEU
47	M0	57	LEU
47	M0	63	GLU
47	M0	74	LYS
47	M0	76	MET
47	M0	78	THR

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Mol	Chain	Res	Type
47	M0	87	LEU
47	M0	90	ARG
47	M0	102	MET
47	M0	116	ARG
47	M0	129	VAL
47	M0	130	ASP
47	M0	137	SER
47	M0	138	VAL
47	M0	139	ARG
47	M0	145	LYS
47	M0	156	ARG
47	M0	163	GLN
47	M0	165	ILE
47	M0	167	LEU
47	M0	174	THR
47	M0	176	LEU
47	M0	177	ASP
47	M0	178	ARG
47	M0	200	LEU
47	M0	205	SER
48	M1	9	MET
48	M1	10	ARG
48	M1	11	ASP
48	M1	12	LEU
48	M1	19	LEU
48	M1	20	ASN
48	M1	28	ASP
48	M1	44	THR
48	M1	46	VAL
48	M1	65	ILE
48	M1	70	THR
48	M1	80	LEU
48	M1	94	ARG
48	M1	106	ILE
48	M1	110	ILE
48	M1	112	LEU
48	M1	119	SER
48	M1	137	ARG
48	M1	138	VAL
48	M1	140	ARG
48	M1	158	ASP
48	M1	161	SER

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Mol	Chain	Res	Type
48	M1	165	GLN
48	M1	166	LYS
49	M3	23	LYS
49	M3	24	VAL
49	M3	34	SER
49	M3	35	ARG
49	M3	37	ASN
49	M3	41	THR
49	M3	46	ILE
49	M3	54	LEU
49	M3	55	ARG
49	M3	58	VAL
49	M3	59	ARG
49	M3	67	ARG
49	M3	70	ARG
49	M3	76	THR
49	M3	85	LEU
49	M3	114	GLN
49	M3	115	ARG
49	M3	118	GLU
49	M3	124	ILE
49	M3	129	ASN
49	M3	131	LYS
49	M3	134	GLU
49	M3	144	THR
49	M3	164	GLU
49	M3	165	SER
49	M3	168	ARG
49	M3	169	THR
49	M3	170	LEU
49	M3	171	ARG
49	M3	172	LEU
49	M3	192	GLU
50	M4	3	THR
50	M4	5	SER
50	M4	20	VAL
50	M4	46	ILE
50	M4	50	LYS
50	M4	53	VAL
50	M4	58	ILE
50	M4	62	GLN
50	M4	63	VAL

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Mol	Chain	Res	Type
50	M4	64	VAL
50	M4	69	THR
50	M4	72	LEU
50	M4	90	VAL
50	M4	91	CYS
50	M4	93	LYS
50	M4	102	LYS
50	M4	105	GLN
50	M4	132	LYS
50	M4	135	LEU
50	M4	137	LYS
51	M5	5	LYS
51	M5	10	LEU
51	M5	18	VAL
51	M5	22	LEU
51	M5	38	ARG
51	M5	50	ARG
51	M5	51	LEU
51	M5	54	LYS
51	M5	77	LYS
51	M5	80	THR
51	M5	83	LYS
51	M5	85	THR
51	M5	96	ARG
51	M5	97	SER
51	M5	106	VAL
51	M5	109	ARG
51	M5	123	GLN
51	M5	124	ASP
51	M5	133	ILE
51	M5	138	GLN
51	M5	142	ILE
51	M5	153	ASP
51	M5	155	VAL
51	M5	157	LYS
51	M5	159	ARG
51	M5	167	THR
51	M5	170	LYS
51	M5	171	SER
51	M5	184	LYS
51	M5	187	ARG
51	M5	190	THR

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Mol	Chain	Res	Type
51	M5	198	SER
52	M6	34	VAL
52	M6	44	SER
52	M6	51	LYS
52	M6	58	LEU
52	M6	78	ARG
52	M6	85	ARG
52	M6	94	ARG
52	M6	106	GLU
52	M6	117	ARG
52	M6	122	GLN
52	M6	126	VAL
52	M6	128	ARG
52	M6	143	THR
52	M6	152	VAL
52	M6	166	GLU
52	M6	180	SER
52	M6	184	THR
52	M6	187	GLU
52	M6	190	VAL
53	M7	3	ARG
53	M7	7	THR
53	M7	9	THR
53	M7	14	SER
53	M7	18	ARG
53	M7	20	SER
53	M7	23	ARG
53	M7	24	VAL
53	M7	29	THR
53	M7	32	THR
53	M7	36	ILE
53	M7	52	LEU
53	M7	53	ASP
53	M7	56	ARG
53	M7	66	SER
53	M7	67	ILE
53	M7	78	VAL
53	M7	79	THR
53	M7	112	LEU
53	M7	115	SER
53	M7	119	VAL
53	M7	126	ARG

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Mol	Chain	Res	Type
53	M7	127	ARG
53	M7	128	ARG
53	M7	138	LYS
53	M7	142	SER
53	M7	144	SER
53	M7	157	VAL
53	M7	168	LEU
53	M7	173	ARG
53	M7	180	LYS
53	M7	181	ARG
53	M7	182	ILE
54	M8	7	SER
54	M8	17	THR
54	M8	24	VAL
54	M8	26	LEU
54	M8	32	LEU
54	M8	34	THR
54	M8	46	LYS
54	M8	50	LYS
54	M8	57	ILE
54	M8	63	SER
54	M8	64	VAL
54	M8	66	ARG
54	M8	67	ILE
54	M8	74	GLU
54	M8	95	GLU
54	M8	100	THR
54	M8	113	LYS
54	M8	135	GLN
54	M8	138	LEU
54	M8	159	LYS
54	M8	174	ARG
54	M8	178	ARG
54	M8	180	ARG
54	M8	181	SER
55	M9	5	ARG
55	M9	29	THR
55	M9	31	GLU
55	M9	41	ILE
55	M9	44	LEU
55	M9	46	LYS
55	M9	47	ASN

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Mol	Chain	Res	Type
55	M9	55	VAL
55	M9	69	SER
55	M9	70	LYS
55	M9	72	GLU
55	M9	75	HIS
55	M9	81	ARG
55	M9	99	LEU
55	M9	103	ARG
55	M9	104	ARG
55	M9	105	LEU
55	M9	106	LEU
55	M9	108	LYS
55	M9	110	ARG
55	M9	115	ILE
55	M9	116	ASP
55	M9	126	GLU
55	M9	133	LYS
55	M9	134	HIS
55	M9	138	LEU
55	M9	153	LYS
55	M9	164	LEU
55	M9	165	LYS
55	M9	175	GLN
55	M9	176	ARG
55	M9	180	LYS
56	N0	1	MET
56	N0	8	GLN
56	N0	13	ARG
56	N0	16	THR
56	N0	40	ARG
56	N0	45	LEU
56	N0	47	LYS
56	N0	61	ILE
56	N0	71	LYS
56	N0	77	VAL
56	N0	79	VAL
56	N0	80	ARG
56	N0	87	THR
56	N0	92	LYS
56	N0	97	VAL
56	N0	105	THR
56	N0	115	ARG

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Mol	Chain	Res	Type
56	N0	117	ARG
56	N0	122	HIS
56	N0	130	GLU
56	N0	132	THR
56	N0	137	ARG
56	N0	141	LYS
56	N0	145	THR
56	N0	155	ARG
56	N0	156	VAL
56	N0	158	LYS
56	N0	167	ARG
56	N0	171	PHE
57	N1	9	SER
57	N1	25	VAL
57	N1	27	LEU
57	N1	32	LYS
57	N1	38	ASP
57	N1	69	LYS
57	N1	75	ILE
57	N1	78	LYS
57	N1	79	MET
57	N1	80	VAL
57	N1	83	ARG
57	N1	88	ARG
57	N1	92	ARG
57	N1	96	ILE
57	N1	104	GLU
57	N1	106	LEU
57	N1	110	LYS
57	N1	124	VAL
57	N1	127	GLN
57	N1	128	LEU
57	N1	136	ARG
57	N1	139	ARG
57	N1	140	ILE
57	N1	141	VAL
57	N1	143	THR
58	N2	10	LYS
58	N2	14	THR
58	N2	27	VAL
58	N2	29	ASP
58	N2	38	ILE

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Mol	Chain	Res	Type
58	N2	39	ASP
58	N2	43	VAL
58	N2	52	ASN
58	N2	62	VAL
58	N2	66	VAL
58	N2	80	THR
58	N2	82	LYS
58	N2	88	GLN
58	N2	92	TRP
58	N2	93	ILE
58	N2	95	PHE
58	N2	100	THR
59	N3	9	THR
59	N3	13	ILE
59	N3	14	SER
59	N3	32	ARG
59	N3	48	ARG
59	N3	64	LYS
59	N3	72	LYS
59	N3	73	VAL
59	N3	79	VAL
59	N3	81	GLN
59	N3	83	LYS
59	N3	102	ILE
59	N3	110	LYS
59	N3	112	SER
59	N3	115	THR
59	N3	120	LYS
59	N3	135	VAL
60	N4	1	MET
60	N4	4	GLU
60	N4	5	ILE
60	N4	39	LEU
60	N4	43	ARG
60	N4	64	THR
61	N5	27	ARG
61	N5	34	LEU
61	N5	37	THR
61	N5	38	LEU
61	N5	39	LYS
61	N5	42	ARG
61	N5	44	PRO

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Mol	Chain	Res	Type
61	N5	45	LYS
61	N5	59	SER
61	N5	63	ILE
61	N5	71	THR
61	N5	92	LYS
61	N5	96	LYS
61	N5	108	LEU
61	N5	115	ARG
61	N5	125	ARG
61	N5	127	THR
61	N5	134	ASP
61	N5	139	ILE
61	N5	142	ILE
62	N6	5	SER
62	N6	8	VAL
62	N6	13	ARG
62	N6	36	SER
62	N6	37	LYS
62	N6	38	GLU
62	N6	39	LEU
62	N6	42	GLN
62	N6	45	ILE
62	N6	50	ILE
62	N6	51	ARG
62	N6	56	VAL
62	N6	57	LEU
62	N6	60	ARG
62	N6	74	TYR
62	N6	76	LEU
62	N6	80	VAL
62	N6	83	ASP
62	N6	86	THR
62	N6	88	GLU
62	N6	105	VAL
62	N6	115	ARG
62	N6	126	LEU
62	N6	127	GLU
63	N7	14	VAL
63	N7	21	LYS
63	N7	24	VAL
63	N7	26	VAL
63	N7	30	ASP

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Mol	Chain	Res	Type
63	N7	34	LYS
63	N7	46	ILE
63	N7	52	LYS
63	N7	64	LYS
63	N7	65	ARG
63	N7	81	LEU
63	N7	83	THR
63	N7	89	VAL
63	N7	93	LYS
63	N7	95	VAL
63	N7	99	GLU
63	N7	102	GLU
63	N7	107	ARG
63	N7	109	GLU
63	N7	116	LYS
63	N7	134	LEU
63	N7	135	ARG
64	N8	4	ARG
64	N8	8	THR
64	N8	10	LYS
64	N8	16	SER
64	N8	26	ARG
64	N8	29	PRO
64	N8	34	MET
64	N8	42	ARG
64	N8	46	ASP
64	N8	47	LYS
64	N8	60	TYR
64	N8	65	GLN
64	N8	78	LEU
64	N8	80	THR
64	N8	88	ASP
64	N8	91	LEU
64	N8	92	LYS
64	N8	118	ILE
64	N8	120	ASN
64	N8	123	VAL
64	N8	133	LEU
64	N8	135	GLU
64	N8	144	VAL
65	N9	12	GLN
65	N9	13	THR

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Mol	Chain	Res	Type
65	N9	14	ARG
65	N9	18	ARG
65	N9	21	ILE
65	N9	22	LYS
65	N9	23	LYS
65	N9	25	LYS
65	N9	33	LYS
65	N9	35	VAL
65	N9	38	LYS
65	N9	50	THR
65	N9	59	LYS
66	O0	10	ILE
66	O0	14	LEU
66	O0	16	LEU
66	O0	24	THR
66	O0	30	THR
66	O0	36	GLN
66	O0	40	LYS
66	O0	54	SER
66	O0	57	GLU
66	O0	61	MET
66	O0	66	LYS
66	O0	83	LYS
66	O0	87	VAL
66	O0	93	LEU
66	O0	99	ASP
66	O0	100	ILE
66	O0	101	LEU
67	O1	8	VAL
67	O1	13	THR
67	O1	16	LEU
67	O1	26	LYS
67	O1	31	ARG
67	O1	46	THR
67	O1	64	VAL
67	O1	68	GLU
67	O1	73	LEU
67	O1	76	SER
67	O1	79	ARG
67	O1	84	ASP
67	O1	86	LYS
67	O1	94	GLU

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Mol	Chain	Res	Type
67	O1	100	SER
67	O1	105	GLN
67	O1	106	THR
67	O1	107	VAL
68	O2	4	LEU
68	O2	15	LYS
68	O2	19	ARG
68	O2	24	ARG
68	O2	33	ARG
68	O2	34	LYS
68	O2	35	GLN
68	O2	41	VAL
68	O2	52	GLN
68	O2	54	LYS
68	O2	60	ASN
68	O2	61	LYS
68	O2	73	THR
68	O2	75	LEU
68	O2	82	LEU
68	O2	84	THR
68	O2	91	THR
68	O2	101	SER
68	O2	106	VAL
68	O2	125	ARG
68	O2	128	LEU
69	O3	4	SER
69	O3	12	LYS
69	O3	14	LEU
69	O3	15	SER
69	O3	31	LYS
69	O3	49	ILE
69	O3	59	VAL
69	O3	67	MET
69	O3	70	LYS
69	O3	74	THR
69	O3	80	VAL
69	O3	81	VAL
69	O3	93	THR
69	O3	98	VAL
69	O3	106	ASN
70	O4	8	ARG
70	O4	20	ILE

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Mol	Chain	Res	Type
70	O4	21	LYS
70	O4	24	LYS
70	O4	29	ILE
70	O4	51	LEU
70	O4	52	GLN
70	O4	56	THR
70	O4	57	LEU
70	O4	58	ARG
70	O4	65	VAL
70	O4	71	THR
70	O4	74	ARG
70	O4	81	CYS
70	O4	86	LYS
70	O4	87	GLU
70	O4	90	ILE
70	O4	102	LYS
70	O4	103	LYS
70	O4	104	VAL
70	O4	107	GLU
71	O5	10	ARG
71	O5	21	LEU
71	O5	27	GLU
71	O5	38	ARG
71	O5	42	PRO
71	O5	43	LYS
71	O5	46	THR
71	O5	48	ARG
71	O5	49	LYS
71	O5	50	SER
71	O5	60	GLU
71	O5	62	GLN
71	O5	68	GLN
71	O5	71	LYS
71	O5	73	LYS
71	O5	86	ARG
71	O5	89	ARG
71	O5	90	ARG
71	O5	101	THR
71	O5	102	GLU
71	O5	107	LYS
71	O5	115	LYS
71	O5	119	LYS

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Mol	Chain	Res	Type
72	O6	17	VAL
72	O6	18	THR
72	O6	19	SER
72	O6	21	THR
72	O6	26	ILE
72	O6	28	TYR
72	O6	36	ARG
72	O6	41	ARG
72	O6	42	SER
72	O6	45	ARG
72	O6	46	GLU
72	O6	57	LEU
72	O6	58	ILE
72	O6	62	ARG
72	O6	70	ARG
72	O6	72	VAL
72	O6	76	ARG
72	O6	81	THR
72	O6	86	LYS
72	O6	88	GLU
72	O6	90	MET
72	O6	98	ARG
73	O7	5	THR
73	O7	10	LYS
73	O7	12	HIS
73	O7	17	THR
73	O7	24	ARG
73	O7	25	ARG
73	O7	33	THR
73	O7	36	SER
73	O7	44	THR
73	O7	46	SER
73	O7	55	ARG
73	O7	58	THR
73	O7	59	THR
73	O7	65	ARG
73	O7	67	LEU
73	O7	71	SER
73	O7	80	THR
73	O7	85	LYS
74	O8	5	ILE
74	O8	12	LEU

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Mol	Chain	Res	Type
74	O8	22	THR
74	O8	24	THR
74	O8	32	ASN
74	O8	41	THR
74	O8	46	ARG
74	O8	53	THR
74	O8	61	LYS
74	O8	64	LYS
74	O8	65	LEU
74	O8	67	GLN
74	O8	69	LEU
74	O8	72	THR
74	O8	77	ARG
74	O8	78	LEU
75	O9	21	ARG
75	O9	23	LEU
75	O9	25	GLN
75	O9	28	ARG
75	O9	34	THR
75	O9	36	ARG
75	O9	51	ILE
76	Q0	77	ILE
76	Q0	78	ILE
76	Q0	80	PRO
76	Q0	85	LEU
76	Q0	92	ASP
76	Q0	98	LYS
76	Q0	112	LYS
76	Q0	113	ARG
76	Q0	114	LYS
76	Q0	126	LYS
76	Q0	127	LEU
77	Q1	6	ARG
77	Q1	9	ARG
77	Q1	10	THR
77	Q1	11	ARG
77	Q1	20	VAL
78	Q2	13	LYS
78	Q2	22	GLN
78	Q2	23	HIS
78	Q2	26	THR
78	Q2	29	LYS

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Mol	Chain	Res	Type
78	Q2	35	LEU
78	Q2	38	GLN
78	Q2	45	ARG
78	Q2	48	SER
78	Q2	60	LYS
78	Q2	64	THR
78	Q2	70	LEU
78	Q2	78	LYS
78	Q2	80	ARG
78	Q2	83	LEU
78	Q2	84	THR
78	Q2	85	LEU
78	Q2	92	GLU
78	Q2	93	LEU
78	Q2	100	LYS
78	Q2	104	LEU
79	Q3	10	ILE
79	Q3	11	THR
79	Q3	16	VAL
79	Q3	25	GLN
79	Q3	33	GLN
79	Q3	36	ARG
79	Q3	45	LYS
79	Q3	46	THR
79	Q3	56	THR
79	Q3	59	CYS
79	Q3	60	CYS
79	Q3	73	THR
79	Q3	81	SER
79	Q3	88	GLU
79	Q3	90	VAL
79	Q3	91	GLU
2	s0	10	THR
2	s0	12	GLU
2	s0	28	ASN
2	s0	30	GLN
2	s0	41	ARG
2	s0	45	VAL
2	s0	50	VAL
2	s0	59	LEU
2	s0	62	ARG
2	s0	72	ASP

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Mol	Chain	Res	Type
2	s0	76	ILE
2	s0	78	SER
2	s0	87	LEU
2	s0	93	THR
2	s0	101	ARG
2	s0	106	SER
2	s0	108	THR
2	s0	111	ILE
2	s0	119	ARG
2	s0	124	THR
2	s0	144	ILE
2	s0	154	GLU
2	s0	157	ASP
2	s0	169	SER
2	s0	172	LEU
2	s0	179	ARG
2	s0	183	ARG
2	s0	184	LEU
2	s0	185	ARG
2	s0	189	VAL
2	s0	202	TYR
3	s1	25	THR
3	s1	36	SER
3	s1	37	THR
3	s1	43	VAL
3	s1	47	LEU
3	s1	51	SER
3	s1	62	LYS
3	s1	70	LEU
3	s1	73	LEU
3	s1	81	PHE
3	s1	83	LYS
3	s1	96	LEU
3	s1	97	LEU
3	s1	105	PHE
3	s1	106	THR
3	s1	112	SER
3	s1	125	VAL
3	s1	126	THR
3	s1	127	VAL
3	s1	129	THR
3	s1	137	ILE

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Mol	Chain	Res	Type
3	s1	159	SER
3	s1	169	SER
3	s1	177	GLN
3	s1	179	SER
3	s1	180	THR
3	s1	181	LEU
3	s1	185	THR
3	s1	195	LYS
3	s1	196	GLU
3	s1	202	LYS
3	s1	203	ASP
3	s1	208	GLN
3	s1	217	LEU
3	s1	222	LYS
3	s1	229	MET
3	s1	231	LEU
4	s2	41	LEU
4	s2	52	THR
4	s2	53	ILE
4	s2	55	GLU
4	s2	58	LEU
4	s2	60	SER
4	s2	69	ILE
4	s2	70	ASP
4	s2	73	LEU
4	s2	77	GLN
4	s2	83	ILE
4	s2	87	GLN
4	s2	89	GLN
4	s2	90	THR
4	s2	94	GLN
4	s2	97	ARG
4	s2	106	ASP
4	s2	111	VAL
4	s2	113	LEU
4	s2	116	LYS
4	s2	117	THR
4	s2	120	GLU
4	s2	137	ILE
4	s2	139	ILE
4	s2	141	ARG
4	s2	146	THR

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Mol	Chain	Res	Type
4	s2	150	GLN
4	s2	153	SER
4	s2	161	LYS
4	s2	164	SER
4	s2	166	THR
4	s2	170	ILE
4	s2	178	ILE
4	s2	185	LYS
4	s2	194	GLU
4	s2	206	THR
4	s2	207	LEU
4	s2	210	THR
4	s2	221	THR
4	s2	222	TYR
4	s2	225	LEU
4	s2	226	THR
4	s2	229	LEU
4	s2	232	GLU
4	s2	248	SER
5	s3	7	LYS
5	s3	11	LEU
5	s3	21	LEU
5	s3	23	GLU
5	s3	34	TYR
5	s3	35	SER
5	s3	39	VAL
5	s3	41	VAL
5	s3	44	THR
5	s3	54	ARG
5	s3	61	GLU
5	s3	69	LEU
5	s3	70	THR
5	s3	76	ARG
5	s3	84	ILE
5	s3	86	LEU
5	s3	87	TYR
5	s3	90	ARG
5	s3	93	ASP
5	s3	113	LEU
5	s3	115	ILE
5	s3	117	ARG
5	s3	125	TYR

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Mol	Chain	Res	Type
5	s3	127	MET
5	s3	128	GLU
5	s3	134	CYS
5	s3	139	SER
5	s3	142	LEU
5	s3	143	ARG
5	s3	148	LYS
5	s3	157	LEU
5	s3	158	ILE
5	s3	162	GLN
5	s3	164	VAL
5	s3	169	ASP
5	s3	176	LEU
5	s3	177	MET
5	s3	179	GLN
5	s3	212	LYS
5	s3	213	GLU
5	s3	223	LYS
6	s4	6	LYS
6	s4	12	LEU
6	s4	23	LEU
6	s4	24	SER
6	s4	29	PRO
6	s4	38	LEU
6	s4	41	SER
6	s4	42	LEU
6	s4	45	ILE
6	s4	48	LEU
6	s4	49	ARG
6	s4	51	ARG
6	s4	56	LEU
6	s4	67	GLN
6	s4	68	ARG
6	s4	70	VAL
6	s4	93	ASP
6	s4	95	THR
6	s4	98	ASN
6	s4	104	ASP
6	s4	108	ARG
6	s4	113	ARG
6	s4	116	ASP
6	s4	146	THR

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Mol	Chain	Res	Type
6	s4	148	ARG
6	s4	159	THR
6	s4	176	ASP
6	s4	180	LEU
6	s4	182	TYR
6	s4	184	THR
6	s4	210	ILE
6	s4	219	VAL
6	s4	221	ARG
6	s4	222	LEU
6	s4	236	ILE
6	s4	245	LYS
6	s4	246	LEU
6	s4	254	ARG
7	s5	25	LEU
7	s5	27	THR
7	s5	31	GLU
7	s5	38	THR
7	s5	39	GLU
7	s5	45	LYS
7	s5	59	VAL
7	s5	63	GLN
7	s5	66	GLN
7	s5	68	ILE
7	s5	73	THR
7	s5	79	ASN
7	s5	83	ARG
7	s5	89	ILE
7	s5	90	ILE
7	s5	93	LEU
7	s5	99	MET
7	s5	119	ASP
7	s5	122	ASN
7	s5	125	THR
7	s5	127	GLN
7	s5	130	ILE
7	s5	148	ARG
7	s5	156	ARG
7	s5	157	ARG
7	s5	160	VAL
7	s5	162	VAL
7	s5	163	SER

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Mol	Chain	Res	Type
7	s5	190	ILE
7	s5	194	LEU
7	s5	203	LYS
7	s5	216	GLU
8	s6	17	GLU
8	s6	22	HIS
8	s6	31	ARG
8	s6	59	GLN
8	s6	65	GLN
8	s6	67	VAL
8	s6	69	LEU
8	s6	71	THR
8	s6	97	VAL
8	s6	108	VAL
8	s6	109	LEU
8	s6	120	GLU
8	s6	121	LEU
8	s6	125	THR
8	s6	126	ASP
8	s6	127	THR
8	s6	128	THR
8	s6	132	ARG
8	s6	143	LYS
8	s6	151	ASP
8	s6	153	VAL
8	s6	154	ARG
8	s6	155	ASP
8	s6	156	PHE
8	s6	164	LYS
8	s6	168	THR
8	s6	171	LYS
8	s6	175	ILE
8	s6	179	VAL
8	s6	180	THR
8	s6	182	GLN
8	s6	193	LEU
8	s6	212	LEU
8	s6	215	ARG
9	s7	28	GLU
9	s7	33	GLU
9	s7	38	LEU
9	s7	55	LYS

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Mol	Chain	Res	Type
9	s7	64	VAL
9	s7	67	LEU
9	s7	75	THR
9	s7	77	LEU
9	s7	80	GLU
9	s7	86	GLN
9	s7	97	ARG
9	s7	99	LEU
9	s7	114	ARG
9	s7	116	ARG
9	s7	117	THR
9	s7	118	LEU
9	s7	134	GLU
9	s7	141	ARG
9	s7	143	LEU
9	s7	149	ILE
9	s7	165	LYS
9	s7	166	LEU
9	s7	185	ILE
10	s8	7	SER
10	s8	8	ARG
10	s8	9	HIS
10	s8	10	LYS
10	s8	18	ARG
10	s8	20	GLN
10	s8	22	ARG
10	s8	29	LEU
10	s8	36	THR
10	s8	46	VAL
10	s8	54	LYS
10	s8	59	ARG
10	s8	61	GLU
10	s8	62	THR
10	s8	74	LYS
10	s8	76	THR
10	s8	89	GLU
10	s8	120	THR
10	s8	121	LEU
10	s8	138	ASN
10	s8	151	LYS
10	s8	152	ILE
10	s8	155	SER

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Mol	Chain	Res	Type
10	s8	161	SER
10	s8	168	CYS
10	s8	183	ILE
11	s9	3	ARG
11	s9	6	ARG
11	s9	7	THR
11	s9	9	SER
11	s9	16	LYS
11	s9	20	GLU
11	s9	28	LEU
11	s9	29	LYS
11	s9	41	GLU
11	s9	46	SER
11	s9	49	LEU
11	s9	78	ARG
11	s9	82	ARG
11	s9	93	LEU
11	s9	101	VAL
11	s9	105	LEU
11	s9	109	LEU
11	s9	111	THR
11	s9	120	LYS
11	s9	130	THR
11	s9	133	HIS
11	s9	134	ILE
11	s9	149	ARG
11	s9	150	LEU
11	s9	161	THR
11	s9	168	ARG
11	s9	179	ARG
11	s9	180	LYS
11	s9	182	GLU
11	s9	186	GLU
12	c0	2	LEU
12	c0	5	LYS
12	c0	15	LEU
12	c0	20	VAL
12	c0	22	VAL
12	c0	27	PHE
12	c0	33	GLU
12	c0	36	ASP
12	c0	37	THR

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Mol	Chain	Res	Type
12	c0	40	LEU
12	c0	47	GLN
12	c0	55	VAL
12	c0	57	THR
12	c0	71	GLU
12	c0	76	LEU
13	c1	2	SER
13	c1	5	LEU
13	c1	10	GLU
13	c1	18	HIS
13	c1	22	ASN
13	c1	27	THR
13	c1	31	THR
13	c1	32	LYS
13	c1	33	ARG
13	c1	40	LEU
13	c1	44	THR
13	c1	47	THR
13	c1	56	LYS
13	c1	60	PHE
13	c1	67	ARG
13	c1	69	LYS
13	c1	72	THR
13	c1	74	THR
13	c1	76	VAL
13	c1	77	SER
13	c1	79	LYS
13	c1	80	MET
13	c1	83	THR
13	c1	99	ARG
13	c1	112	SER
13	c1	129	ARG
13	c1	133	LYS
13	c1	138	ASN
13	c1	140	VAL
13	c1	143	SER
14	c2	28	LEU
14	c2	30	VAL
14	c2	36	LEU
14	c2	38	HIS
14	c2	43	ARG
14	c2	45	LEU

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Mol	Chain	Res	Type
14	c2	53	THR
14	c2	59	LEU
14	c2	62	LEU
14	c2	66	VAL
14	c2	71	ILE
14	c2	74	LEU
14	c2	85	LYS
14	c2	89	ILE
14	c2	97	LEU
14	c2	103	LEU
14	c2	116	VAL
14	c2	119	SER
14	c2	120	VAL
14	c2	121	VAL
14	c2	132	GLU
14	c2	136	ILE
14	c2	137	MET
14	c2	138	GLU
14	c2	140	PHE
14	c2	142	GLN
15	c3	6	SER
15	c3	12	SER
15	c3	14	SER
15	c3	16	ILE
15	c3	20	ARG
15	c3	21	ASN
15	c3	33	VAL
15	c3	39	LYS
15	c3	46	THR
15	c3	60	VAL
15	c3	61	THR
15	c3	65	VAL
15	c3	66	ILE
15	c3	70	LYS
15	c3	80	LEU
15	c3	84	ILE
15	c3	87	ASP
15	c3	93	LYS
15	c3	97	SER
15	c3	102	LEU
15	c3	115	LEU
15	c3	119	GLU

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Mol	Chain	Res	Type
15	c3	125	LEU
15	c3	138	ASN
15	c3	140	LYS
16	c4	18	ARG
16	c4	26	THR
16	c4	31	THR
16	c4	39	ILE
16	c4	49	LYS
16	c4	51	ASP
16	c4	61	MET
16	c4	76	ILE
16	c4	81	VAL
16	c4	102	LEU
16	c4	107	ARG
16	c4	114	ARG
16	c4	115	ILE
16	c4	118	VAL
16	c4	123	SER
16	c4	124	ASP
16	c4	129	LYS
16	c4	133	ARG
16	c4	136	ARG
16	c4	137	LEU
17	c5	12	PHE
17	c5	24	LYS
17	c5	28	MET
17	c5	34	VAL
17	c5	36	LEU
17	c5	40	ARG
17	c5	52	LYS
17	c5	69	GLU
17	c5	71	GLU
17	c5	92	SER
17	c5	103	ASN
17	c5	107	ILE
17	c5	110	GLU
17	c5	111	MET
17	c5	122	THR
17	c5	123	TYR
17	c5	124	THR
17	c5	127	ARG
18	c6	17	THR

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Mol	Chain	Res	Type
18	c6	23	LYS
18	c6	26	LYS
18	c6	28	LEU
18	c6	34	SER
18	c6	37	THR
18	c6	43	ILE
18	c6	47	LYS
18	c6	48	VAL
18	c6	53	LEU
18	c6	54	LEU
18	c6	57	LEU
18	c6	63	ILE
18	c6	68	ARG
18	c6	69	VAL
18	c6	81	ILE
18	c6	85	ILE
18	c6	110	THR
18	c6	114	ARG
18	c6	115	THR
18	c6	118	ILE
18	c6	137	ARG
18	c6	143	ARG
19	c7	3	ARG
19	c7	5	ARG
19	c7	6	THR
19	c7	29	GLN
19	c7	34	LEU
19	c7	45	ARG
19	c7	46	LEU
19	c7	55	THR
19	c7	62	GLN
19	c7	69	ILE
19	c7	83	GLN
19	c7	85	VAL
19	c7	87	GLU
19	c7	88	VAL
19	c7	100	LEU
19	c7	105	GLN
19	c7	107	SER
19	c7	110	VAL
19	c7	113	LEU
20	c8	3	LEU

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Mol	Chain	Res	Type
20	c8	4	VAL
20	c8	5	VAL
20	c8	12	GLN
20	c8	13	HIS
20	c8	20	THR
20	c8	25	ASN
20	c8	26	ILE
20	c8	28	ILE
20	c8	33	THR
20	c8	36	LYS
20	c8	40	ARG
20	c8	51	ASP
20	c8	57	ARG
20	c8	63	GLN
20	c8	68	ARG
20	c8	77	THR
20	c8	92	ILE
20	c8	105	VAL
20	c8	112	ASP
20	c8	116	LEU
20	c8	119	ILE
20	c8	120	ARG
20	c8	126	ARG
20	c8	136	GLN
20	c8	138	THR
20	c8	140	THR
20	c8	141	THR
20	c8	144	ARG
20	c8	145	ARG
21	c9	6	VAL
21	c9	12	GLN
21	c9	27	LYS
21	c9	28	LEU
21	c9	37	VAL
21	c9	57	ARG
21	c9	70	GLN
21	c9	71	VAL
21	c9	75	LYS
21	c9	86	ARG
21	c9	102	ARG
21	c9	111	ILE
21	c9	117	SER

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Mol	Chain	Res	Type
21	c9	123	ARG
21	c9	139	THR
21	c9	140	LEU
21	c9	141	GLU
21	c9	142	GLU
22	d0	16	GLN
22	d0	22	ILE
22	d0	25	THR
22	d0	27	THR
22	d0	31	VAL
22	d0	34	LEU
22	d0	44	ASN
22	d0	47	GLN
22	d0	51	VAL
22	d0	57	ARG
22	d0	60	THR
22	d0	61	LYS
22	d0	63	LEU
22	d0	66	SER
22	d0	70	THR
22	d0	74	GLU
22	d0	88	LYS
22	d0	99	ILE
22	d0	103	ILE
22	d0	105	GLN
22	d0	107	THR
22	d0	108	ILE
22	d0	113	ASP
22	d0	115	GLU
22	d0	116	VAL
22	d0	121	ASN
23	d1	2	GLU
23	d1	3	ASN
23	d1	5	LYS
23	d1	10	GLU
23	d1	11	LEU
23	d1	12	TYR
23	d1	25	LYS
23	d1	34	ILE
23	d1	36	VAL
23	d1	44	ARG
23	d1	49	GLU

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Mol	Chain	Res	Type
23	d1	52	THR
23	d1	62	ARG
23	d1	68	SER
23	d1	69	LEU
23	d1	78	LEU
23	d1	82	VAL
23	d1	85	TYR
23	d1	87	ARG
24	d2	7	LEU
24	d2	23	ARG
24	d2	25	VAL
24	d2	26	LEU
24	d2	31	SER
24	d2	33	VAL
24	d2	47	ILE
24	d2	65	LEU
24	d2	71	LYS
24	d2	88	LYS
24	d2	93	LEU
24	d2	98	GLN
24	d2	103	ILE
24	d2	124	LYS
24	d2	129	VAL
25	d3	9	LEU
25	d3	14	LYS
25	d3	19	ARG
25	d3	28	ASN
25	d3	33	LEU
25	d3	40	SER
25	d3	73	ARG
25	d3	75	GLN
25	d3	82	LYS
25	d3	84	THR
25	d3	96	VAL
25	d3	97	ASP
25	d3	103	LEU
25	d3	107	PHE
25	d3	109	ARG
25	d3	123	LYS
25	d3	125	VAL
25	d3	128	SER
25	d3	131	SER

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Mol	Chain	Res	Type
25	d3	133	LEU
25	d3	137	LYS
25	d3	144	ARG
26	d4	5	VAL
26	d4	10	ARG
26	d4	13	ILE
26	d4	14	SER
26	d4	21	LYS
26	d4	43	LYS
26	d4	44	LEU
26	d4	49	LYS
26	d4	62	THR
26	d4	74	LEU
26	d4	77	ASN
26	d4	88	THR
26	d4	91	LEU
26	d4	92	VAL
26	d4	98	GLU
26	d4	107	GLN
26	d4	128	LYS
26	d4	133	ASN
27	d5	41	ILE
27	d5	51	LEU
27	d5	53	GLU
27	d5	60	VAL
27	d5	62	VAL
27	d5	71	ILE
27	d5	81	ARG
27	d5	88	ILE
27	d5	90	LYS
27	d5	93	SER
28	d6	3	LYS
28	d6	4	LYS
28	d6	10	ARG
28	d6	18	VAL
28	d6	38	ARG
28	d6	51	ARG
28	d6	53	LEU
28	d6	82	ARG
28	d6	85	ARG
28	d6	90	GLU
29	d7	3	LEU

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Mol	Chain	Res	Type
29	d7	14	SER
29	d7	29	ARG
29	d7	40	CYS
29	d7	43	ILE
29	d7	46	VAL
29	d7	52	THR
29	d7	75	GLU
29	d7	77	THR
29	d7	81	ARG
30	d8	16	LEU
30	d8	22	ARG
30	d8	26	THR
30	d8	27	GLN
30	d8	30	VAL
30	d8	32	PHE
30	d8	33	LEU
30	d8	40	ILE
30	d8	52	ASP
30	d8	54	LEU
30	d8	56	LEU
30	d8	58	GLU
30	d8	62	GLU
30	d8	65	ARG
31	d9	4	GLU
31	d9	10	HIS
31	d9	16	LYS
31	d9	19	ARG
31	d9	23	VAL
31	d9	26	SER
31	d9	32	ARG
31	d9	36	LEU
31	d9	40	ARG
31	d9	49	ASP
31	d9	54	LYS
80	e0	4	VAL
80	e0	14	VAL
80	e0	21	VAL
80	e0	22	GLU
80	e0	25	GLU
80	e0	26	LYS
80	e0	29	LYS
80	e0	39	LEU

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Mol	Chain	Res	Type
80	e0	41	THR
80	e0	43	ARG
80	e0	45	VAL
80	e0	46	ASN
80	e0	49	LEU
33	e1	78	LYS
33	e1	89	LYS
33	e1	90	LYS
33	e1	96	LYS
33	e1	97	LYS
33	e1	98	VAL
33	e1	100	LEU
33	e1	102	VAL
33	e1	106	TYR
33	e1	113	LYS
33	e1	115	THR
33	e1	116	LYS
33	e1	120	GLU
33	e1	135	HIS
33	e1	137	ASP
33	e1	140	TYR
33	e1	148	TYR
33	e1	149	LYS
33	e1	151	ASN
34	sR	21	THR
34	sR	25	THR
34	sR	29	GLN
34	sR	51	ASP
34	sR	58	VAL
34	sR	59	ARG
34	sR	64	HIS
34	sR	65	SER
34	sR	66	HIS
34	sR	70	ASP
34	sR	98	GLU
34	sR	108	SER
34	sR	115	ILE
34	sR	123	ILE
34	sR	145	LEU
34	sR	168	THR
34	sR	176	LYS
34	sR	178	VAL

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Mol	Chain	Res	Type
34	sR	184	ASN
34	sR	199	ILE
34	sR	203	THR
34	sR	228	LYS
34	sR	232	TYR
34	sR	258	THR
34	sR	275	ARG
34	sR	286	GLU
34	sR	297	ASP
34	sR	314	GLN
35	sM	23	LYS
35	sM	30	THR
35	sM	33	LYS
35	sM	38	PRO
35	sM	41	SER
35	sM	43	ASP
35	sM	49	LYS
35	sM	50	ASN
35	sM	61	ILE
35	sM	68	ARG
35	sM	71	ASN
35	sM	74	LYS
35	sM	77	THR
35	sM	82	THR
39	l2	15	ILE
39	l2	19	HIS
39	l2	23	ARG
39	l2	28	LYS
39	l2	30	ARG
39	l2	32	LEU
39	l2	42	ARG
39	l2	44	ILE
39	l2	45	VAL
39	l2	48	ILE
39	l2	49	VAL
39	l2	54	ARG
39	l2	61	VAL
39	l2	62	VAL
39	l2	71	LEU
39	l2	74	GLU
39	l2	80	GLU
39	l2	82	VAL

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Mol	Chain	Res	Type
39	l2	96	LEU
39	l2	101	VAL
39	l2	112	ILE
39	l2	128	ARG
39	l2	134	VAL
39	l2	135	ILE
39	l2	137	ILE
39	l2	144	ASN
39	l2	147	ARG
39	l2	158	ILE
39	l2	159	SER
39	l2	165	VAL
39	l2	168	VAL
39	l2	169	ILE
39	l2	179	LEU
39	l2	191	LEU
39	l2	192	LYS
39	l2	193	ARG
39	l2	204	MET
39	l2	205	ASN
39	l2	207	VAL
39	l2	227	ARG
39	l2	230	VAL
39	l2	231	SER
39	l2	246	LEU
40	l3	5	LYS
40	l3	10	ARG
40	l3	17	LEU
40	l3	19	ARG
40	l3	44	THR
40	l3	47	LEU
40	l3	50	LYS
40	l3	56	ILE
40	l3	69	LYS
40	l3	70	ARG
40	l3	81	THR
40	l3	85	VAL
40	l3	101	SER
40	l3	103	THR
40	l3	104	THR
40	l3	111	SER
40	l3	114	VAL

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Mol	Chain	Res	Type
40	l3	116	ARG
40	l3	120	LYS
40	l3	139	GLN
40	l3	146	ARG
40	l3	148	LEU
40	l3	150	ARG
40	l3	156	SER
40	l3	157	VAL
40	l3	160	VAL
40	l3	167	ARG
40	l3	169	THR
40	l3	183	LEU
40	l3	188	ILE
40	l3	196	ARG
40	l3	197	GLU
40	l3	202	THR
40	l3	205	VAL
40	l3	210	GLU
40	l3	211	GLN
40	l3	213	GLU
40	l3	232	ARG
40	l3	235	THR
40	l3	238	LEU
40	l3	242	THR
40	l3	249	VAL
40	l3	252	ILE
40	l3	274	SER
40	l3	284	ARG
40	l3	296	THR
40	l3	297	SER
40	l3	302	LYS
40	l3	304	THR
40	l3	308	MET
40	l3	324	VAL
40	l3	325	LYS
40	l3	328	ILE
40	l3	332	ARG
40	l3	338	LEU
40	l3	340	LYS
40	l3	341	SER
40	l3	346	THR
40	l3	347	SER

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Mol	Chain	Res	Type
40	l3	354	VAL
40	l3	363	SER
40	l3	364	LYS
41	l4	3	ARG
41	l4	14	GLU
41	l4	16	THR
41	l4	20	LEU
41	l4	25	VAL
41	l4	27	SER
41	l4	53	SER
41	l4	55	LYS
41	l4	64	SER
41	l4	73	ARG
41	l4	93	MET
41	l4	99	MET
41	l4	120	TYR
41	l4	131	VAL
41	l4	144	LYS
41	l4	145	ILE
41	l4	150	LEU
41	l4	151	VAL
41	l4	154	THR
41	l4	156	LEU
41	l4	169	LEU
41	l4	170	LYS
41	l4	172	VAL
41	l4	179	LEU
41	l4	182	LEU
41	l4	186	LYS
41	l4	187	LEU
41	l4	193	LYS
41	l4	203	ARG
41	l4	220	ARG
41	l4	222	VAL
41	l4	230	VAL
41	l4	246	ARG
41	l4	256	THR
41	l4	258	LEU
41	l4	265	GLU
41	l4	266	THR
41	l4	267	VAL
41	l4	284	SER

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Mol	Chain	Res	Type
41	14	295	ILE
41	14	299	ILE
41	14	300	ARG
41	14	301	PRO
41	14	304	GLN
41	14	306	THR
41	14	307	GLN
41	14	313	LEU
41	14	316	ASN
41	14	319	LYS
41	14	323	VAL
41	14	327	LEU
41	14	333	VAL
41	14	339	LEU
41	14	345	GLU
41	14	346	LYS
41	14	347	THR
41	14	356	THR
41	14	360	LYS
42	15	4	GLN
42	15	9	SER
42	15	10	SER
42	15	13	SER
42	15	15	ARG
42	15	34	LYS
42	15	35	ARG
42	15	51	LEU
42	15	57	ASN
42	15	61	ILE
42	15	64	ILE
42	15	70	THR
42	15	74	VAL
42	15	75	LEU
42	15	79	TYR
42	15	89	THR
42	15	109	THR
42	15	110	LEU
42	15	112	LYS
42	15	113	LEU
42	15	118	THR
42	15	120	LYS
42	15	128	GLU

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Mol	Chain	Res	Type
42	15	131	LEU
42	15	132	THR
42	15	133	GLU
42	15	135	VAL
42	15	136	GLU
42	15	140	ARG
42	15	146	LEU
42	15	151	GLN
42	15	152	ARG
42	15	154	THR
42	15	155	THR
42	15	158	ARG
42	15	185	PHE
42	15	194	LEU
42	15	196	ARG
42	15	211	LEU
42	15	227	LEU
42	15	239	ILE
42	15	241	THR
42	15	254	LYS
42	15	257	GLU
42	15	258	LYS
42	15	259	LYS
42	15	268	GLU
42	15	271	LYS
42	15	273	ARG
42	15	280	GLU
42	15	281	GLU
42	15	297	GLN
43	16	4	GLN
43	16	8	LYS
43	16	14	ASP
43	16	15	VAL
43	16	20	LYS
43	16	21	THR
43	16	31	ARG
43	16	50	LYS
43	16	64	LEU
43	16	65	ILE
43	16	76	LEU
43	16	78	ARG
43	16	89	THR

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Mol	Chain	Res	Type
43	16	91	VAL
43	16	93	VAL
43	16	98	VAL
43	16	109	GLU
43	16	131	LYS
43	16	133	GLU
43	16	143	LYS
43	16	151	LYS
43	16	152	THR
43	16	155	LEU
44	17	40	LYS
44	17	45	LEU
44	17	46	GLU
44	17	56	GLU
44	17	60	ARG
44	17	62	ILE
44	17	82	LYS
44	17	83	LEU
44	17	98	LYS
44	17	113	SER
44	17	119	VAL
44	17	124	LEU
44	17	128	LYS
44	17	150	LYS
44	17	156	ILE
44	17	157	ASN
44	17	158	LYS
44	17	159	GLN
44	17	175	LYS
44	17	178	ILE
44	17	179	LEU
44	17	181	ILE
44	17	184	LEU
44	17	196	LYS
44	17	206	LYS
44	17	219	LYS
44	17	224	ILE
44	17	229	PHE
44	17	239	LEU
45	18	26	LEU
45	18	41	GLN
45	18	46	LEU

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Mol	Chain	Res	Type
45	18	50	VAL
45	18	55	TYR
45	18	63	LYS
45	18	64	ILE
45	18	65	LEU
45	18	67	ILE
45	18	68	ARG
45	18	74	THR
45	18	77	GLN
45	18	79	GLN
45	18	93	LEU
45	18	95	ASN
45	18	101	THR
45	18	111	LYS
45	18	132	VAL
45	18	134	TYR
45	18	136	LEU
45	18	146	LYS
45	18	149	LYS
45	18	150	LEU
45	18	160	ILE
45	18	163	VAL
45	18	172	LYS
45	18	190	VAL
45	18	211	LEU
45	18	213	LYS
45	18	214	LEU
45	18	222	PHE
45	18	224	ASP
45	18	238	LEU
45	18	241	LYS
45	18	245	LYS
45	18	248	LYS
46	19	1	MET
46	19	5	GLN
46	19	6	THR
46	19	16	VAL
46	19	17	THR
46	19	18	VAL
46	19	19	SER
46	19	24	ILE
46	19	28	VAL

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Mol	Chain	Res	Type
46	19	31	ARG
46	19	33	THR
46	19	34	LEU
46	19	37	ASN
46	19	39	LYS
46	19	44	THR
46	19	46	THR
46	19	47	LYS
46	19	48	VAL
46	19	52	LEU
46	19	55	VAL
46	19	62	ARG
46	19	68	LEU
46	19	69	ARG
46	19	70	THR
46	19	71	VAL
46	19	80	THR
46	19	82	VAL
46	19	91	ARG
46	19	92	TYR
46	19	105	GLU
46	19	106	LYS
46	19	107	ASP
46	19	113	GLU
46	19	128	VAL
46	19	129	ARG
46	19	130	ASP
46	19	133	THR
46	19	138	THR
46	19	143	GLU
46	19	144	ILE
46	19	149	ASN
46	19	151	VAL
46	19	157	ASN
46	19	162	GLN
46	19	163	GLN
46	19	166	ARG
46	19	177	ASP
46	19	188	THR
47	m0	22	TYR
47	m0	24	ARG
47	m0	26	VAL

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Mol	Chain	Res	Type
47	m0	39	LYS
47	m0	42	THR
47	m0	48	LEU
47	m0	52	LEU
47	m0	57	LEU
47	m0	58	GLU
47	m0	63	GLU
47	m0	74	LYS
47	m0	77	THR
47	m0	78	THR
47	m0	87	LEU
47	m0	91	VAL
47	m0	99	ILE
47	m0	113	GLN
47	m0	116	ARG
47	m0	139	ARG
47	m0	143	SER
47	m0	144	ASN
47	m0	153	ARG
47	m0	156	ARG
47	m0	169	LYS
47	m0	170	LYS
47	m0	177	ASP
47	m0	178	ARG
47	m0	182	LEU
47	m0	197	VAL
47	m0	200	LEU
47	m0	206	LEU
47	m0	208	ASN
47	m0	211	ARG
47	m0	217	PHE
48	m1	6	GLN
48	m1	10	ARG
48	m1	11	ASP
48	m1	12	LEU
48	m1	13	LYS
48	m1	14	ILE
48	m1	16	LYS
48	m1	17	LEU
48	m1	23	VAL
48	m1	30	LEU
48	m1	35	LYS

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Mol	Chain	Res	Type
48	m1	37	LEU
48	m1	44	THR
48	m1	46	VAL
48	m1	54	VAL
48	m1	56	THR
48	m1	71	VAL
48	m1	80	LEU
48	m1	106	ILE
48	m1	107	ASP
48	m1	108	GLU
48	m1	112	LEU
48	m1	130	VAL
48	m1	140	ARG
48	m1	145	LYS
48	m1	152	HIS
48	m1	156	LYS
48	m1	158	ASP
48	m1	159	THR
48	m1	160	VAL
48	m1	161	SER
48	m1	166	LYS
49	m3	36	ARG
49	m3	53	LEU
49	m3	54	LEU
49	m3	58	VAL
49	m3	59	ARG
49	m3	67	ARG
49	m3	68	LYS
49	m3	69	VAL
49	m3	75	PHE
49	m3	76	THR
49	m3	80	VAL
49	m3	100	ARG
49	m3	104	ARG
49	m3	107	GLU
49	m3	113	VAL
49	m3	118	GLU
49	m3	123	ILE
49	m3	124	ILE
49	m3	131	LYS
49	m3	149	GLN
49	m3	152	THR

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Mol	Chain	Res	Type
49	m3	154	VAL
49	m3	164	GLU
49	m3	165	SER
49	m3	168	ARG
49	m3	171	ARG
49	m3	172	LEU
49	m3	183	ARG
49	m3	184	GLU
49	m3	194	GLU
50	m4	2	SER
50	m4	3	THR
50	m4	8	LYS
50	m4	12	TRP
50	m4	15	VAL
50	m4	16	GLU
50	m4	20	VAL
50	m4	28	SER
50	m4	53	VAL
50	m4	55	ARG
50	m4	62	GLN
50	m4	63	VAL
50	m4	64	VAL
50	m4	66	THR
50	m4	74	ARG
50	m4	80	THR
50	m4	82	SER
50	m4	85	TRP
50	m4	103	ILE
50	m4	107	GLU
50	m4	108	ARG
50	m4	113	THR
50	m4	123	LEU
50	m4	124	ARG
50	m4	128	ARG
50	m4	130	THR
50	m4	135	LEU
51	m5	5	LYS
51	m5	10	LEU
51	m5	12	ARG
51	m5	18	VAL
51	m5	24	ARG
51	m5	49	ARG

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Mol	Chain	Res	Type
51	m5	50	ARG
51	m5	54	LYS
51	m5	56	LYS
51	m5	73	ARG
51	m5	76	PRO
51	m5	80	THR
51	m5	85	THR
51	m5	87	GLN
51	m5	92	LEU
51	m5	96	ARG
51	m5	98	LEU
51	m5	105	ARG
51	m5	106	VAL
51	m5	109	ARG
51	m5	138	GLN
51	m5	142	ILE
51	m5	153	ASP
51	m5	155	VAL
51	m5	159	ARG
51	m5	165	THR
51	m5	171	SER
51	m5	176	LYS
51	m5	182	ASN
51	m5	183	THR
51	m5	184	LYS
51	m5	190	THR
51	m5	199	LEU
52	m6	12	LYS
52	m6	22	VAL
52	m6	41	LEU
52	m6	49	ARG
52	m6	58	LEU
52	m6	66	LYS
52	m6	67	THR
52	m6	78	ARG
52	m6	79	ILE
52	m6	85	ARG
52	m6	87	MET
52	m6	94	ARG
52	m6	100	GLU
52	m6	101	ARG
52	m6	106	GLU

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Mol	Chain	Res	Type
52	m6	108	ILE
52	m6	116	LYS
52	m6	117	ARG
52	m6	124	LEU
52	m6	126	VAL
52	m6	144	SER
52	m6	152	VAL
52	m6	166	GLU
52	m6	170	LYS
52	m6	171	LYS
52	m6	175	THR
52	m6	182	ASN
52	m6	184	THR
52	m6	194	LEU
52	m6	197	LEU
53	m7	7	THR
53	m7	9	THR
53	m7	16	SER
53	m7	23	ARG
53	m7	24	VAL
53	m7	29	THR
53	m7	32	THR
53	m7	41	LEU
53	m7	42	THR
53	m7	47	TYR
53	m7	52	LEU
53	m7	53	ASP
53	m7	69	ARG
53	m7	70	THR
53	m7	78	VAL
53	m7	79	THR
53	m7	86	LYS
53	m7	94	LEU
53	m7	105	LYS
53	m7	114	VAL
53	m7	119	VAL
53	m7	121	GLN
53	m7	128	ARG
53	m7	138	LYS
53	m7	144	SER
54	m8	3	ILE
54	m8	7	SER

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Mol	Chain	Res	Type
54	m8	12	ARG
54	m8	22	ASP
54	m8	26	LEU
54	m8	31	LYS
54	m8	32	LEU
54	m8	34	THR
54	m8	46	LYS
54	m8	57	ILE
54	m8	63	SER
54	m8	64	VAL
54	m8	69	ARG
54	m8	74	GLU
54	m8	80	THR
54	m8	81	VAL
54	m8	82	VAL
54	m8	93	ILE
54	m8	135	GLN
54	m8	138	LEU
54	m8	147	ARG
54	m8	150	VAL
54	m8	159	LYS
54	m8	165	ILE
54	m8	166	LEU
54	m8	167	SER
54	m8	178	ARG
54	m8	180	ARG
55	m9	5	ARG
55	m9	6	THR
55	m9	7	GLN
55	m9	8	LYS
55	m9	9	ARG
55	m9	10	LEU
55	m9	20	ARG
55	m9	29	THR
55	m9	31	GLU
55	m9	36	ASN
55	m9	37	SER
55	m9	38	ARG
55	m9	49	THR
55	m9	52	LYS
55	m9	63	THR
55	m9	88	ARG

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Mol	Chain	Res	Type
55	m9	94	VAL
55	m9	98	ARG
55	m9	99	LEU
55	m9	116	ASP
55	m9	126	GLU
55	m9	138	LEU
55	m9	146	LYS
55	m9	153	LYS
55	m9	156	ASN
55	m9	158	GLU
55	m9	163	ARG
55	m9	166	ASN
55	m9	173	ARG
55	m9	177	VAL
56	n0	13	ARG
56	n0	16	THR
56	n0	45	LEU
56	n0	50	LYS
56	n0	52	LYS
56	n0	61	ILE
56	n0	63	GLN
56	n0	70	THR
56	n0	73	LYS
56	n0	79	VAL
56	n0	80	ARG
56	n0	87	THR
56	n0	89	ASN
56	n0	96	ASP
56	n0	97	VAL
56	n0	100	VAL
56	n0	104	GLU
56	n0	106	LEU
56	n0	115	ARG
56	n0	117	ARG
56	n0	120	SER
56	n0	123	ILE
56	n0	130	GLU
56	n0	132	THR
56	n0	137	ARG
56	n0	148	LEU
56	n0	149	LYS
56	n0	155	ARG

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Mol	Chain	Res	Type
56	n0	160	THR
56	n0	162	THR
56	n0	167	ARG
56	n0	170	THR
56	n0	171	PHE
56	n0	172	TYR
57	n1	12	ARG
57	n1	25	VAL
57	n1	26	HIS
57	n1	27	LEU
57	n1	36	VAL
57	n1	68	THR
57	n1	71	SER
57	n1	75	ILE
57	n1	78	LYS
57	n1	80	VAL
57	n1	83	ARG
57	n1	88	ARG
57	n1	96	ILE
57	n1	97	LYS
57	n1	102	ARG
57	n1	103	GLN
57	n1	104	GLU
57	n1	122	GLN
57	n1	124	VAL
57	n1	126	VAL
57	n1	127	GLN
57	n1	129	LYS
57	n1	139	ARG
57	n1	141	VAL
57	n1	143	THR
57	n1	150	THR
57	n1	151	LEU
57	n1	158	THR
58	n2	19	VAL
58	n2	21	SER
58	n2	27	VAL
58	n2	43	VAL
58	n2	47	VAL
58	n2	57	THR
58	n2	62	VAL
58	n2	63	VAL

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Mol	Chain	Res	Type
58	n2	74	LYS
58	n2	75	TYR
58	n2	85	LYS
58	n2	90	ARG
58	n2	94	ARG
58	n2	96	VAL
58	n2	100	THR
59	n3	7	GLN
59	n3	13	ILE
59	n3	40	LYS
59	n3	45	ARG
59	n3	48	ARG
59	n3	58	VAL
59	n3	70	ARG
59	n3	73	VAL
59	n3	79	VAL
59	n3	88	ARG
59	n3	91	VAL
59	n3	93	LEU
59	n3	102	ILE
59	n3	106	LYS
59	n3	115	THR
60	n4	1	MET
60	n4	5	ILE
60	n4	39	LEU
60	n4	41	LYS
60	n4	54	LEU
60	n4	57	LYS
60	n4	59	HIS
60	n4	63	ILE
60	n4	82	ILE
60	n4	87	LEU
60	n4	89	LEU
60	n4	93	ARG
60	n4	96	LEU
60	n4	97	LYS
60	n4	100	VAL
60	n4	104	ASN
60	n4	105	ARG
60	n4	127	LYS
61	n5	24	LEU
61	n5	27	ARG

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Mol	Chain	Res	Type
61	n5	34	LEU
61	n5	37	THR
61	n5	42	ARG
61	n5	52	PRO
61	n5	56	ARG
61	n5	57	LEU
61	n5	63	ILE
61	n5	70	GLU
61	n5	71	THR
61	n5	75	LYS
61	n5	78	ASP
61	n5	86	VAL
61	n5	87	SER
61	n5	108	LEU
61	n5	109	LYS
61	n5	114	VAL
61	n5	115	ARG
61	n5	117	ASN
61	n5	125	ARG
61	n5	135	ILE
62	n6	4	GLN
62	n6	5	SER
62	n6	9	SER
62	n6	12	ARG
62	n6	13	ARG
62	n6	17	LYS
62	n6	37	LYS
62	n6	45	ILE
62	n6	50	ILE
62	n6	51	ARG
62	n6	52	ARG
62	n6	56	VAL
62	n6	57	LEU
62	n6	63	LYS
62	n6	66	GLN
62	n6	69	LYS
62	n6	71	SER
62	n6	74	TYR
62	n6	83	ASP
62	n6	90	VAL
62	n6	94	SER
62	n6	99	LEU

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Mol	Chain	Res	Type
62	n6	120	GLN
63	n7	3	LYS
63	n7	17	ARG
63	n7	28	PRO
63	n7	31	GLU
63	n7	33	SER
63	n7	34	LYS
63	n7	36	HIS
63	n7	46	ILE
63	n7	47	GLU
63	n7	52	LYS
63	n7	65	ARG
63	n7	72	ILE
63	n7	77	TYR
63	n7	81	LEU
63	n7	83	THR
63	n7	90	GLU
63	n7	93	LYS
63	n7	95	VAL
63	n7	97	SER
63	n7	99	GLU
63	n7	106	GLN
63	n7	113	VAL
63	n7	120	GLU
63	n7	123	GLN
63	n7	134	LEU
63	n7	135	ARG
64	n8	8	THR
64	n8	10	LYS
64	n8	15	VAL
64	n8	25	HIS
64	n8	26	ARG
64	n8	34	MET
64	n8	42	ARG
64	n8	60	TYR
64	n8	73	LEU
64	n8	91	LEU
64	n8	98	THR
64	n8	123	VAL
64	n8	128	ARG
64	n8	131	SER
64	n8	132	LYS

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Mol	Chain	Res	Type
64	n8	133	LEU
64	n8	135	GLU
64	n8	139	ARG
64	n8	148	ILE
65	n9	3	LYS
65	n9	13	THR
65	n9	14	ARG
65	n9	19	ASN
65	n9	21	ILE
65	n9	22	LYS
65	n9	26	THR
65	n9	28	LYS
65	n9	33	LYS
65	n9	38	LYS
65	n9	42	ASN
65	n9	54	LEU
65	n9	58	LYS
65	n9	59	LYS
66	o0	8	GLU
66	o0	10	ILE
66	o0	19	LYS
66	o0	32	LYS
66	o0	34	LEU
66	o0	40	LYS
66	o0	41	LEU
66	o0	48	THR
66	o0	61	MET
66	o0	66	LYS
66	o0	68	TYR
66	o0	74	ASN
66	o0	79	THR
66	o0	86	ARG
66	o0	99	ASP
66	o0	101	LEU
66	o0	103	THR
67	o1	13	THR
67	o1	16	LEU
67	o1	26	LYS
67	o1	31	ARG
67	o1	41	LYS
67	o1	44	MET
67	o1	46	THR

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Mol	Chain	Res	Type
67	o1	54	GLU
67	o1	55	LEU
67	o1	57	GLN
67	o1	62	ARG
67	o1	64	VAL
67	o1	76	SER
67	o1	82	GLU
67	o1	83	GLU
67	o1	84	ASP
67	o1	91	SER
67	o1	94	GLU
67	o1	96	VAL
67	o1	98	VAL
67	o1	100	SER
67	o1	102	LYS
67	o1	106	THR
67	o1	107	VAL
67	o1	110	GLU
67	o1	112	ASP
68	o2	4	LEU
68	o2	5	PRO
68	o2	14	THR
68	o2	15	LYS
68	o2	21	HIS
68	o2	24	ARG
68	o2	33	ARG
68	o2	34	LYS
68	o2	35	GLN
68	o2	36	LYS
68	o2	41	VAL
68	o2	51	SER
68	o2	62	LYS
68	o2	64	LYS
68	o2	71	HIS
68	o2	73	THR
68	o2	75	LEU
68	o2	82	LEU
68	o2	87	MET
68	o2	89	THR
68	o2	91	THR
68	o2	95	GLU
68	o2	101	SER

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Mol	Chain	Res	Type
68	o2	109	LEU
68	o2	111	ARG
68	o2	123	LYS
68	o2	125	ARG
68	o2	126	LEU
69	o3	4	SER
69	o3	19	SER
69	o3	31	LYS
69	o3	42	GLN
69	o3	49	ILE
69	o3	56	SER
69	o3	57	LYS
69	o3	59	VAL
69	o3	63	LYS
69	o3	70	LYS
69	o3	74	THR
69	o3	84	THR
69	o3	93	THR
69	o3	98	VAL
69	o3	107	ILE
70	o4	5	VAL
70	o4	20	ILE
70	o4	22	VAL
70	o4	24	LYS
70	o4	33	GLN
70	o4	35	VAL
70	o4	37	LYS
70	o4	40	THR
70	o4	47	CYS
70	o4	57	LEU
70	o4	58	ARG
70	o4	71	THR
70	o4	79	SER
70	o4	83	ASN
70	o4	87	GLU
70	o4	88	ARG
70	o4	98	GLN
70	o4	104	VAL
71	o5	4	VAL
71	o5	11	THR
71	o5	15	GLU
71	o5	20	GLN

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Mol	Chain	Res	Type
71	o5	21	LEU
71	o5	27	GLU
71	o5	30	GLU
71	o5	36	LEU
71	o5	45	LYS
71	o5	46	THR
71	o5	47	VAL
71	o5	48	ARG
71	o5	53	CYS
71	o5	62	GLN
71	o5	69	LEU
71	o5	80	LEU
71	o5	81	ARG
71	o5	86	ARG
71	o5	89	ARG
71	o5	90	ARG
71	o5	94	LYS
71	o5	101	THR
71	o5	107	LYS
71	o5	113	GLN
71	o5	119	LYS
72	o6	3	VAL
72	o6	7	ILE
72	o6	9	ILE
72	o6	11	LEU
72	o6	15	LYS
72	o6	21	THR
72	o6	26	ILE
72	o6	27	SER
72	o6	29	LYS
72	o6	34	SER
72	o6	36	ARG
72	o6	37	THR
72	o6	43	LEU
72	o6	45	ARG
72	o6	57	LEU
72	o6	58	ILE
72	o6	59	ASP
72	o6	60	LEU
72	o6	62	ARG
72	o6	66	GLU
72	o6	67	LYS

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Mol	Chain	Res	Type
72	o6	68	ARG
72	o6	71	LYS
72	o6	74	LYS
72	o6	76	ARG
72	o6	81	THR
72	o6	88	GLU
72	o6	94	ILE
72	o6	98	ARG
73	o7	3	LYS
73	o7	17	THR
73	o7	19	CYS
73	o7	21	ARG
73	o7	25	ARG
73	o7	33	THR
73	o7	36	SER
73	o7	55	ARG
73	o7	59	THR
73	o7	65	ARG
73	o7	67	LEU
73	o7	74	PHE
73	o7	75	LYS
74	o8	12	LEU
74	o8	13	GLU
74	o8	17	ARG
74	o8	27	ILE
74	o8	38	PHE
74	o8	41	THR
74	o8	46	ARG
74	o8	50	SER
74	o8	53	THR
74	o8	54	LEU
74	o8	61	LYS
74	o8	63	LYS
74	o8	64	LYS
74	o8	65	LEU
74	o8	67	GLN
74	o8	72	THR
75	o9	4	GLN
75	o9	15	LYS
75	o9	21	ARG
75	o9	23	LEU
75	o9	27	ILE

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Mol	Chain	Res	Type
75	o9	28	ARG
75	o9	29	LEU
75	o9	47	THR
76	q0	79	GLU
76	q0	85	LEU
76	q0	88	LYS
76	q0	93	LYS
76	q0	94	SER
76	q0	99	CYS
76	q0	106	ARG
76	q0	112	LYS
76	q0	113	ARG
76	q0	114	LYS
76	q0	127	LEU
76	q0	128	LYS
77	q1	2	ARG
77	q1	6	ARG
77	q1	9	ARG
77	q1	11	ARG
77	q1	13	LEU
77	q1	21	ARG
77	q1	23	ARG
78	q2	6	LYS
78	q2	7	THR
78	q2	8	ARG
78	q2	16	THR
78	q2	18	ARG
78	q2	22	GLN
78	q2	45	ARG
78	q2	46	LYS
78	q2	61	LYS
78	q2	71	ARG
78	q2	78	LYS
78	q2	83	LEU
78	q2	85	LEU
78	q2	93	LEU
78	q2	98	LYS
78	q2	99	GLN
79	q3	3	LYS
79	q3	16	VAL
79	q3	20	SER
79	q3	33	GLN

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Mol	Chain	Res	Type
79	q3	40	SER
79	q3	42	CYS
79	q3	45	LYS
79	q3	48	LYS
79	q3	49	ARG
79	q3	54	ILE
79	q3	56	THR
79	q3	59	CYS
79	q3	70	THR
79	q3	81	SER
79	q3	84	ARG
79	q3	90	VAL
81	p0	4	ILE
81	p0	5	ARG
81	p0	15	LEU
81	p0	30	VAL
81	p0	31	ASP
81	p0	39	HIS
81	p0	42	ARG
81	p0	43	LYS
81	p0	48	ARG
81	p0	52	LEU
81	p0	55	LYS
81	p0	57	THR
81	p0	67	LEU
81	p0	70	LEU
81	p0	76	LEU
81	p0	93	LEU
81	p0	94	THR
81	p0	97	LYS
81	p0	101	VAL
81	p0	104	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (45) such sidechains are listed below:

Mol	Chain	Res	Type
3	S1	209	ASN
3	S1	232	HIS
4	S2	152	HIS
12	C0	58	GLN
13	C1	110	HIS
13	C1	118	GLN

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Mol	Chain	Res	Type
18	C6	77	GLN
20	C8	75	ASN
20	C8	78	HIS
22	D0	48	HIS
23	D1	74	GLN
24	D2	56	HIS
25	D3	79	ASN
40	L3	139	GLN
42	L5	40	HIS
42	L5	264	GLN
43	L6	28	GLN
44	L7	244	ASN
46	L9	49	ASN
47	M0	144	ASN
53	M7	179	GLN
58	N2	87	ASN
62	N6	120	GLN
64	N8	74	ASN
69	O3	26	ASN
70	O4	3	GLN
75	O9	50	ASN
11	s9	110	GLN
11	s9	124	HIS
20	c8	89	GLN
24	d2	15	ASN
24	d2	24	GLN
24	d2	56	HIS
26	d4	22	GLN
29	d7	19	HIS
40	l3	184	ASN
44	l7	80	GLN
45	l8	192	GLN
47	m0	51	HIS
47	m0	144	ASN
55	m9	7	GLN
62	n6	4	GLN
63	n7	57	HIS
68	o2	88	HIS
72	o6	63	ASN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2	1747/1800 (97%)	509 (29%)	0
1	6	1792/1800 (99%)	472 (26%)	0
36	1	3145/3396 (92%)	704 (22%)	0
36	5	3145/3396 (92%)	688 (21%)	0
37	3	120/121 (99%)	17 (14%)	0
37	7	120/121 (99%)	24 (20%)	0
38	4	157/158 (99%)	36 (22%)	0
38	8	157/158 (99%)	38 (24%)	0
All	All	10383/10950 (94%)	2488 (23%)	0

All (2488) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	2	2	A
1	2	4	C
1	2	25	C
1	2	26	A
1	2	27	U
1	2	34	G
1	2	40	A
1	2	41	A
1	2	47	A
1	2	57	G
1	2	60	U
1	2	67	A
1	2	68	A
1	2	69	G
1	2	72	A
1	2	73	U
1	2	74	U
1	2	75	U
1	2	77	U
1	2	100	A
1	2	104	A
1	2	114	C
1	2	116	U
1	2	125	U
1	2	131	C
1	2	132	U
1	2	133	U
1	2	134	U
1	2	135	A
1	2	136	C

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Mol	Chain	Res	Type
1	2	137	U
1	2	140	A
1	2	141	U
1	2	144	U
1	2	145	A
1	2	146	U
1	2	152	U
1	2	153	G
1	2	158	U
1	2	159	U
1	2	169	A
1	2	178	U
1	2	185	U
1	2	186	C
1	2	187	G
1	2	190	C
1	2	191	C
1	2	192	U
1	2	193	U
1	2	194	U
1	2	195	G
1	2	196	G
1	2	197	A
1	2	198	A
1	2	200	A
1	2	212	U
1	2	215	A
1	2	217	A
1	2	218	A
1	2	219	A
1	2	226	A
1	2	227	U
1	2	228	G
1	2	229	U
1	2	231	U
1	2	233	C
1	2	234	G
1	2	235	G
1	2	238	U
1	2	239	C
1	2	240	U
1	2	241	U

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Mol	Chain	Res	Type
1	2	249	U
1	2	250	C
1	2	256	A
1	2	260	U
1	2	261	U
1	2	265	A
1	2	270	C
1	2	271	A
1	2	272	U
1	2	274	G
1	2	275	C
1	2	276	C
1	2	277	U
1	2	278	U
1	2	279	G
1	2	280	U
1	2	281	G
1	2	284	G
1	2	288	A
1	2	290	G
1	2	299	A
1	2	308	C
1	2	313	U
1	2	314	C
1	2	316	A
1	2	319	U
1	2	321	C
1	2	322	G
1	2	337	G
1	2	338	C
1	2	352	A
1	2	359	A
1	2	360	A
1	2	361	C
1	2	363	G
1	2	368	U
1	2	369	A
1	2	381	C
1	2	387	A
1	2	390	G
1	2	393	C
1	2	397	A

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Mol	Chain	Res	Type
1	2	399	A
1	2	400	A
1	2	401	A
1	2	402	C
1	2	403	G
1	2	404	G
1	2	416	A
1	2	418	G
1	2	419	G
1	2	424	C
1	2	425	A
1	2	426	G
1	2	428	A
1	2	434	G
1	2	439	U
1	2	444	C
1	2	446	A
1	2	448	C
1	2	452	A
1	2	454	U
1	2	464	A
1	2	468	A
1	2	471	A
1	2	480	G
1	2	484	C
1	2	485	A
1	2	486	G
1	2	488	G
1	2	493	U
1	2	494	U
1	2	495	C
1	2	496	G
1	2	497	G
1	2	498	G
1	2	499	U
1	2	500	C
1	2	502	U
1	2	503	G
1	2	504	U
1	2	505	A
1	2	506	A
1	2	507	U

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Mol	Chain	Res	Type
1	2	508	U
1	2	510	G
1	2	511	A
1	2	512	A
1	2	513	U
1	2	514	G
1	2	515	A
1	2	516	G
1	2	518	A
1	2	519	C
1	2	520	A
1	2	524	U
1	2	527	A
1	2	534	A
1	2	538	A
1	2	539	G
1	2	540	G
1	2	541	A
1	2	542	A
1	2	543	C
1	2	544	A
1	2	546	U
1	2	547	U
1	2	548	G
1	2	555	A
1	2	556	A
1	2	557	G
1	2	558	U
1	2	559	C
1	2	565	C
1	2	578	U
1	2	579	A
1	2	580	A
1	2	582	U
1	2	585	A
1	2	594	A
1	2	595	G
1	2	597	G
1	2	598	U
1	2	606	A
1	2	609	U
1	2	610	G

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Mol	Chain	Res	Type
1	2	619	A
1	2	620	A
1	2	622	A
1	2	623	A
1	2	630	A
1	2	639	U
1	2	640	U
1	2	648	G
1	2	649	U
1	2	650	U
1	2	653	C
1	2	654	C
1	2	656	G
1	2	658	C
1	2	677	G
1	2	680	U
1	2	682	C
1	2	684	A
1	2	685	A
1	2	686	C
1	2	692	C
1	2	694	U
1	2	696	C
1	2	697	C
1	2	700	C
1	2	701	U
1	2	702	G
1	2	703	G
1	2	704	C
1	2	705	U
1	2	707	A
1	2	708	C
1	2	709	C
1	2	710	U
1	2	711	U
1	2	712	G
1	2	713	A
1	2	714	G
1	2	717	C
1	2	718	U
1	2	719	U
1	2	720	G

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Mol	Chain	Res	Type
1	2	721	U
1	2	722	G
1	2	723	G
1	2	724	C
1	2	725	U
1	2	727	U
1	2	728	U
1	2	730	G
1	2	731	C
1	2	732	G
1	2	733	A
1	2	734	A
1	2	735	C
1	2	736	C
1	2	737	A
1	2	738	G
1	2	742	U
1	2	744	U
1	2	753	A
1	2	754	A
1	2	755	A
1	2	756	A
1	2	758	U
1	2	759	U
1	2	765	G
1	2	766	U
1	2	768	C
1	2	774	A
1	2	775	G
1	2	778	G
1	2	779	U
1	2	781	U
1	2	783	G
1	2	784	C
1	2	787	G
1	2	789	A
1	2	790	U
1	2	793	A
1	2	794	U
1	2	795	U
1	2	807	A
1	2	812	A

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Mol	Chain	Res	Type
1	2	814	A
1	2	815	G
1	2	816	G
1	2	818	C
1	2	819	G
1	2	820	U
1	2	821	U
1	2	822	U
1	2	823	G
1	2	824	G
1	2	829	A
1	2	830	U
1	2	831	U
1	2	833	U
1	2	838	G
1	2	840	U
1	2	846	G
1	2	848	C
1	2	854	U
1	2	860	U
1	2	861	U
1	2	862	A
1	2	863	A
1	2	864	U
1	2	865	A
1	2	876	G
1	2	886	U
1	2	892	A
1	2	898	A
1	2	912	U
1	2	913	G
1	2	914	G
1	2	915	A
1	2	916	U
1	2	921	U
1	2	933	A
1	2	935	U
1	2	942	G
1	2	951	A
1	2	960	U
1	2	961	U
1	2	966	A

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Mol	Chain	Res	Type
1	2	971	A
1	2	982	U
1	2	992	A
1	2	993	A
1	2	995	A
1	2	1002	G
1	2	1003	A
1	2	1004	U
1	2	1005	A
1	2	1020	A
1	2	1021	C
1	2	1026	A
1	2	1028	C
1	2	1039	A
1	2	1040	G
1	2	1052	U
1	2	1053	G
1	2	1057	U
1	2	1058	U
1	2	1059	U
1	2	1060	U
1	2	1061	A
1	2	1066	C
1	2	1067	C
1	2	1073	G
1	2	1074	G
1	2	1081	A
1	2	1082	C
1	2	1086	A
1	2	1091	A
1	2	1092	A
1	2	1096	C
1	2	1097	U
1	2	1100	G
1	2	1101	G
1	2	1109	G
1	2	1111	G
1	2	1138	A
1	2	1139	A
1	2	1150	G
1	2	1151	A
1	2	1155	G

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Mol	Chain	Res	Type
1	2	1157	A
1	2	1158	C
1	2	1160	A
1	2	1164	G
1	2	1167	G
1	2	1168	U
1	2	1185	U
1	2	1191	U
1	2	1194	A
1	2	1196	A
1	2	1197	C
1	2	1199	G
1	2	1200	G
1	2	1202	A
1	2	1207	C
1	2	1208	A
1	2	1212	G
1	2	1217	A
1	2	1218	G
1	2	1226	A
1	2	1227	A
1	2	1228	G
1	2	1229	G
1	2	1243	G
1	2	1244	A
1	2	1245	G
1	2	1250	U
1	2	1251	U
1	2	1258	U
1	2	1262	U
1	2	1276	U
1	2	1284	C
1	2	1286	U
1	2	1290	U
1	2	1314	U
1	2	1315	U
1	2	1319	A
1	2	1320	U
1	2	1321	A
1	2	1338	C
1	2	1339	C
1	2	1340	U

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Mol	Chain	Res	Type
1	2	1341	A
1	2	1342	C
1	2	1344	A
1	2	1345	A
1	2	1354	G
1	2	1355	C
1	2	1361	U
1	2	1362	U
1	2	1363	U
1	2	1364	G
1	2	1370	U
1	2	1371	A
1	2	1372	U
1	2	1378	U
1	2	1383	G
1	2	1384	A
1	2	1390	U
1	2	1398	U
1	2	1399	C
1	2	1412	G
1	2	1413	U
1	2	1415	U
1	2	1424	A
1	2	1427	A
1	2	1428	G
1	2	1431	C
1	2	1432	U
1	2	1445	G
1	2	1446	A
1	2	1457	C
1	2	1458	G
1	2	1459	C
1	2	1461	C
1	2	1469	A
1	2	1471	A
1	2	1473	U
1	2	1474	G
1	2	1478	G
1	2	1481	C
1	2	1482	C
1	2	1485	C
1	2	1486	G

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Mol	Chain	Res	Type
1	2	1489	U
1	2	1490	C
1	2	1491	U
1	2	1492	A
1	2	1493	A
1	2	1503	A
1	2	1506	G
1	2	1515	A
1	2	1516	A
1	2	1517	U
1	2	1521	G
1	2	1523	G
1	2	1524	A
1	2	1526	A
1	2	1535	U
1	2	1536	G
1	2	1537	C
1	2	1538	U
1	2	1540	G
1	2	1542	G
1	2	1557	U
1	2	1559	A
1	2	1569	A
1	2	1574	G
1	2	1584	G
1	2	1590	G
1	2	1601	G
1	2	1614	A
1	2	1616	G
1	2	1619	C
1	2	1631	A
1	2	1634	C
1	2	1639	C
1	2	1657	U
1	2	1658	G
1	2	1663	G
1	2	1680	G
1	2	1681	A
1	2	1682	U
1	2	1683	C
1	2	1684	U
1	2	1731	A

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Mol	Chain	Res	Type
1	2	1747	G
1	2	1756	A
1	2	1760	G
1	2	1761	U
1	2	1762	A
1	2	1766	A
1	2	1769	U
1	2	1770	U
1	2	1780	G
1	2	1782	A
1	2	1783	C
1	2	1789	G
1	2	1792	G
1	2	1793	G
1	2	1794	A
1	2	1795	U
1	2	1796	C
36	1	15	C
36	1	16	A
36	1	18	G
36	1	26	A
36	1	40	A
36	1	45	A
36	1	49	A
36	1	54	C
36	1	57	A
36	1	59	G
36	1	60	A
36	1	65	A
36	1	66	A
36	1	73	C
36	1	74	G
36	1	76	G
36	1	83	U
36	1	85	A
36	1	87	U
36	1	92	G
36	1	93	C
36	1	94	G
36	1	99	A
36	1	102	C
36	1	103	G

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Mol	Chain	Res	Type
36	1	105	C
36	1	109	A
36	1	110	G
36	1	111	C
36	1	120	G
36	1	121	A
36	1	122	A
36	1	126	U
36	1	133	U
36	1	135	C
36	1	136	G
36	1	142	C
36	1	147	U
36	1	156	G
36	1	157	A
36	1	163	C
36	1	166	C
36	1	169	U
36	1	170	G
36	1	173	G
36	1	187	A
36	1	190	U
36	1	191	U
36	1	210	U
36	1	211	A
36	1	218	G
36	1	219	A
36	1	235	A
36	1	239	G
36	1	240	U
36	1	243	G
36	1	245	U
36	1	247	C
36	1	249	U
36	1	250	U
36	1	251	G
36	1	252	U
36	1	256	G
36	1	269	G
36	1	283	G
36	1	286	U
36	1	295	A

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Mol	Chain	Res	Type
36	1	296	A
36	1	305	U
36	1	323	A
36	1	329	U
36	1	339	C
36	1	344	A
36	1	349	A
36	1	350	C
36	1	351	A
36	1	352	A
36	1	376	G
36	1	397	A
36	1	398	A
36	1	401	U
36	1	402	A
36	1	403	C
36	1	420	G
36	1	421	G
36	1	422	A
36	1	438	A
36	1	439	C
36	1	440	A
36	1	495	G
36	1	503	C
36	1	507	U
36	1	520	U
36	1	521	A
36	1	531	G
36	1	532	A
36	1	533	A
36	1	535	G
36	1	544	C
36	1	546	C
36	1	547	G
36	1	548	G
36	1	551	A
36	1	552	G
36	1	553	U
36	1	555	U
36	1	557	A
36	1	558	U
36	1	559	A

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Mol	Chain	Res	Type
36	1	569	A
36	1	578	A
36	1	579	G
36	1	592	A
36	1	593	C
36	1	601	U
36	1	604	G
36	1	607	A
36	1	609	G
36	1	611	A
36	1	619	A
36	1	620	U
36	1	621	A
36	1	625	G
36	1	636	C
36	1	638	C
36	1	647	A
36	1	649	A
36	1	660	A
36	1	661	G
36	1	667	C
36	1	677	A
36	1	681	U
36	1	683	U
36	1	691	A
36	1	692	A
36	1	699	A
36	1	705	A
36	1	708	G
36	1	712	G
36	1	715	A
36	1	716	A
36	1	718	G
36	1	719	U
36	1	725	G
36	1	744	A
36	1	763	G
36	1	764	U
36	1	765	C
36	1	766	U
36	1	767	U
36	1	776	U

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Mol	Chain	Res	Type
36	1	777	U
36	1	780	A
36	1	781	G
36	1	785	G
36	1	792	G
36	1	804	C
36	1	806	A
36	1	817	A
36	1	828	A
36	1	830	A
36	1	849	C
36	1	861	C
36	1	874	U
36	1	878	G
36	1	879	U
36	1	882	A
36	1	883	A
36	1	890	C
36	1	896	A
36	1	897	U
36	1	907	G
36	1	908	G
36	1	914	A
36	1	916	G
36	1	917	A
36	1	919	U
36	1	921	A
36	1	923	C
36	1	924	G
36	1	926	A
36	1	937	G
36	1	938	C
36	1	944	C
36	1	959	C
36	1	960	U
36	1	979	U
36	1	980	A
36	1	981	U
36	1	982	C
36	1	994	G
36	1	1001	G
36	1	1002	A

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Mol	Chain	Res	Type
36	1	1006	A
36	1	1010	G
36	1	1014	U
36	1	1015	U
36	1	1016	C
36	1	1017	C
36	1	1018	G
36	1	1020	G
36	1	1024	G
36	1	1025	A
36	1	1029	G
36	1	1036	A
36	1	1037	C
36	1	1041	U
36	1	1047	A
36	1	1049	C
36	1	1051	U
36	1	1063	G
36	1	1064	A
36	1	1065	A
36	1	1069	C
36	1	1070	U
36	1	1072	G
36	1	1081	U
36	1	1082	U
36	1	1083	G
36	1	1087	G
36	1	1093	A
36	1	1094	U
36	1	1095	U
36	1	1096	U
36	1	1097	G
36	1	1098	A
36	1	1103	A
36	1	1104	G
36	1	1117	G
36	1	1129	A
36	1	1131	G
36	1	1144	U
36	1	1153	A
36	1	1159	A
36	1	1160	C

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Mol	Chain	Res	Type
36	1	1161	G
36	1	1179	A
36	1	1180	A
36	1	1181	U
36	1	1182	A
36	1	1191	U
36	1	1192	C
36	1	1196	C
36	1	1197	A
36	1	1201	C
36	1	1209	G
36	1	1212	A
36	1	1213	G
36	1	1216	C
36	1	1217	A
36	1	1218	U
36	1	1221	A
36	1	1222	G
36	1	1225	A
36	1	1227	C
36	1	1232	C
36	1	1233	G
36	1	1236	G
36	1	1237	G
36	1	1241	U
36	1	1243	G
36	1	1245	A
36	1	1246	G
36	1	1248	C
36	1	1249	G
36	1	1258	U
36	1	1259	A
36	1	1262	G
36	1	1263	A
36	1	1264	G
36	1	1265	U
36	1	1266	G
36	1	1267	U
36	1	1269	U
36	1	1270	A
36	1	1271	A
36	1	1274	A

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Mol	Chain	Res	Type
36	1	1278	A
36	1	1279	C
36	1	1285	G
36	1	1287	A
36	1	1292	C
36	1	1298	C
36	1	1303	A
36	1	1307	G
36	1	1308	A
36	1	1309	U
36	1	1310	G
36	1	1313	G
36	1	1330	A
36	1	1331	U
36	1	1345	G
36	1	1348	U
36	1	1349	G
36	1	1350	A
36	1	1351	U
36	1	1352	A
36	1	1353	U
36	1	1355	A
36	1	1356	U
36	1	1357	G
36	1	1379	G
36	1	1386	A
36	1	1392	G
36	1	1398	U
36	1	1399	A
36	1	1400	G
36	1	1419	A
36	1	1421	G
36	1	1431	G
36	1	1433	A
36	1	1434	G
36	1	1437	C
36	1	1438	U
36	1	1446	A
36	1	1450	G
36	1	1481	A
36	1	1482	A
36	1	1485	G

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Mol	Chain	Res	Type
36	1	1508	C
36	1	1523	U
36	1	1527	C
36	1	1528	G
36	1	1533	U
36	1	1535	A
36	1	1536	G
36	1	1554	U
36	1	1555	U
36	1	1556	C
36	1	1558	A
36	1	1560	G
36	1	1562	C
36	1	1563	C
36	1	1564	U
36	1	1565	G
36	1	1566	A
36	1	1567	U
36	1	1568	U
36	1	1569	U
36	1	1570	U
36	1	1572	U
36	1	1576	G
36	1	1579	C
36	1	1580	A
36	1	1581	C
36	1	1582	C
36	1	1583	A
36	1	1587	A
36	1	1589	A
36	1	1606	U
36	1	1607	U
36	1	1612	A
36	1	1620	U
36	1	1621	A
36	1	1628	C
36	1	1629	U
36	1	1639	C
36	1	1643	A
36	1	1645	U
36	1	1657	C
36	1	1658	G

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Mol	Chain	Res	Type
36	1	1683	A
36	1	1716	U
36	1	1717	U
36	1	1724	U
36	1	1742	U
36	1	1749	A
36	1	1750	A
36	1	1751	G
36	1	1761	C
36	1	1762	C
36	1	1764	U
36	1	1765	U
36	1	1767	C
36	1	1769	G
36	1	1770	G
36	1	1776	G
36	1	1779	C
36	1	1780	G
36	1	1797	A
36	1	1801	U
36	1	1809	A
36	1	1810	A
36	1	1814	A
36	1	1815	U
36	1	1816	A
36	1	1817	G
36	1	1819	U
36	1	1820	U
36	1	1821	U
36	1	1839	A
36	1	1840	U
36	1	1842	A
36	1	1845	G
36	1	1846	C
36	1	1847	A
36	1	1849	C
36	1	1850	A
36	1	1851	G
36	1	1855	U
36	1	1866	C
36	1	1871	U
36	1	1879	A

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Mol	Chain	Res	Type
36	1	1880	U
36	1	1886	A
36	1	1906	G
36	1	1911	A
36	1	1912	U
36	1	1931	U
36	1	1935	G
36	1	1950	U
36	1	1951	C
36	1	1952	G
36	1	1953	G
36	1	1954	G
36	1	2094	C
36	1	2097	U
36	1	2101	C
36	1	2102	U
36	1	2111	G
36	1	2112	U
36	1	2113	A
36	1	2121	G
36	1	2122	G
36	1	2131	A
36	1	2134	G
36	1	2139	A
36	1	2140	U
36	1	2144	A
36	1	2158	A
36	1	2169	G
36	1	2177	G
36	1	2205	U
36	1	2206	G
36	1	2208	A
36	1	2209	U
36	1	2210	G
36	1	2239	G
36	1	2244	A
36	1	2245	C
36	1	2246	G
36	1	2249	G
36	1	2254	U
36	1	2255	A
36	1	2256	A

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Mol	Chain	Res	Type
36	1	2263	C
36	1	2264	U
36	1	2268	U
36	1	2272	G
36	1	2273	G
36	1	2279	A
36	1	2280	A
36	1	2281	A
36	1	2282	U
36	1	2284	C
36	1	2286	U
36	1	2298	U
36	1	2307	G
36	1	2310	U
36	1	2313	A
36	1	2314	U
36	1	2315	G
36	1	2331	C
36	1	2334	U
36	1	2336	U
36	1	2339	C
36	1	2343	C
36	1	2361	A
36	1	2366	C
36	1	2372	A
36	1	2373	A
36	1	2374	C
36	1	2375	G
36	1	2385	G
36	1	2393	G
36	1	2397	A
36	1	2401	A
36	1	2402	A
36	1	2403	G
36	1	2405	C
36	1	2411	U
36	1	2418	G
36	1	2419	A
36	1	2435	G
36	1	2437	G
36	1	2444	C
36	1	2445	A

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Mol	Chain	Res	Type
36	1	2502	A
36	1	2503	G
36	1	2504	U
36	1	2511	A
36	1	2514	U
36	1	2515	A
36	1	2519	A
36	1	2520	A
36	1	2522	G
36	1	2523	A
36	1	2532	U
36	1	2533	G
36	1	2534	G
36	1	2537	U
36	1	2538	U
36	1	2539	C
36	1	2540	A
36	1	2541	U
36	1	2542	U
36	1	2543	U
36	1	2544	U
36	1	2546	C
36	1	2547	A
36	1	2549	G
36	1	2550	U
36	1	2551	U
36	1	2552	C
36	1	2554	A
36	1	2555	G
36	1	2561	A
36	1	2562	A
36	1	2568	C
36	1	2569	A
36	1	2570	U
36	1	2571	U
36	1	2572	C
36	1	2573	G
36	1	2581	U
36	1	2582	C
36	1	2585	G
36	1	2586	G
36	1	2593	A

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Mol	Chain	Res	Type
36	1	2594	C
36	1	2606	G
36	1	2607	G
36	1	2614	G
36	1	2628	A
36	1	2637	A
36	1	2638	C
36	1	2652	U
36	1	2656	A
36	1	2657	A
36	1	2674	A
36	1	2677	G
36	1	2689	A
36	1	2690	G
36	1	2691	A
36	1	2694	A
36	1	2696	A
36	1	2705	A
36	1	2706	G
36	1	2712	U
36	1	2714	G
36	1	2719	U
36	1	2720	G
36	1	2727	A
36	1	2728	G
36	1	2729	U
36	1	2737	C
36	1	2753	G
36	1	2755	C
36	1	2762	A
36	1	2771	U
36	1	2772	C
36	1	2773	C
36	1	2777	G
36	1	2778	G
36	1	2779	A
36	1	2796	G
36	1	2799	A
36	1	2800	G
36	1	2801	A
36	1	2802	A
36	1	2810	C

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Mol	Chain	Res	Type
36	1	2815	G
36	1	2817	A
36	1	2818	U
36	1	2829	U
36	1	2842	U
36	1	2843	U
36	1	2845	A
36	1	2847	A
36	1	2853	A
36	1	2856	G
36	1	2860	U
36	1	2863	G
36	1	2871	G
36	1	2872	A
36	1	2873	U
36	1	2886	U
36	1	2887	A
36	1	2889	C
36	1	2898	G
36	1	2899	C
36	1	2914	G
36	1	2923	U
36	1	2935	U
36	1	2936	A
36	1	2937	G
36	1	2942	C
36	1	2945	G
36	1	2947	G
36	1	2951	G
36	1	2955	U
36	1	2971	A
36	1	2974	U
36	1	2977	G
36	1	2979	U
36	1	2983	C
36	1	2990	G
36	1	2992	U
36	1	2996	U
36	1	2997	G
36	1	3002	C
36	1	3006	A
36	1	3012	A

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Mol	Chain	Res	Type
36	1	3040	A
36	1	3054	U
36	1	3056	U
36	1	3057	U
36	1	3058	U
36	1	3059	G
36	1	3070	A
36	1	3076	C
36	1	3078	U
36	1	3079	U
36	1	3086	A
36	1	3087	A
36	1	3092	C
36	1	3104	U
36	1	3113	A
36	1	3122	A
36	1	3130	A
36	1	3131	U
36	1	3136	G
36	1	3142	A
36	1	3143	C
36	1	3151	U
36	1	3153	U
36	1	3154	C
36	1	3155	U
36	1	3156	U
36	1	3157	U
36	1	3164	C
36	1	3165	A
36	1	3168	A
36	1	3171	U
36	1	3173	G
36	1	3174	A
36	1	3176	G
36	1	3179	U
36	1	3181	C
36	1	3185	U
36	1	3187	A
36	1	3190	C
36	1	3191	G
36	1	3196	U
36	1	3206	C

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Mol	Chain	Res	Type
36	1	3207	U
36	1	3217	C
36	1	3218	A
36	1	3219	G
36	1	3229	G
36	1	3243	A
36	1	3245	A
36	1	3246	G
36	1	3247	G
36	1	3253	G
36	1	3259	U
36	1	3269	U
36	1	3270	U
36	1	3272	C
36	1	3273	A
36	1	3276	G
36	1	3281	U
36	1	3286	G
36	1	3287	U
36	1	3288	G
36	1	3289	G
36	1	3294	A
36	1	3295	A
36	1	3304	U
36	1	3313	U
36	1	3316	A
36	1	3318	G
36	1	3319	U
36	1	3320	A
36	1	3335	A
36	1	3341	U
36	1	3342	A
36	1	3345	G
36	1	3346	U
36	1	3347	A
36	1	3351	U
36	1	3352	U
36	1	3353	G
36	1	3354	U
36	1	3355	U
36	1	3356	G
36	1	3360	C

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Mol	Chain	Res	Type
36	1	3363	U
36	1	3368	U
36	1	3369	G
36	1	3378	C
36	1	3382	U
36	1	3383	G
36	1	3389	U
37	3	7	G
37	3	13	A
37	3	14	U
37	3	21	G
37	3	22	A
37	3	44	C
37	3	45	A
37	3	54	U
37	3	65	G
37	3	74	C
37	3	76	A
37	3	89	G
37	3	91	G
37	3	95	A
37	3	102	A
37	3	112	G
37	3	121	U
38	4	2	A
38	4	9	A
38	4	21	C
38	4	26	U
38	4	34	U
38	4	35	C
38	4	43	A
38	4	52	A
38	4	58	G
38	4	59	A
38	4	62	C
38	4	63	G
38	4	79	A
38	4	80	A
38	4	81	U
38	4	82	U
38	4	83	C
38	4	84	C

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Mol	Chain	Res	Type
38	4	85	G
38	4	86	U
38	4	87	G
38	4	90	U
38	4	95	G
38	4	104	A
38	4	105	A
38	4	106	C
38	4	111	A
38	4	113	U
38	4	125	U
38	4	126	A
38	4	128	U
38	4	138	A
38	4	148	G
38	4	152	G
38	4	157	U
38	4	158	U
1	6	2	A
1	6	4	C
1	6	6	G
1	6	25	C
1	6	26	A
1	6	27	U
1	6	34	G
1	6	47	A
1	6	50	C
1	6	57	G
1	6	60	U
1	6	61	A
1	6	67	A
1	6	68	A
1	6	69	G
1	6	72	A
1	6	73	U
1	6	75	U
1	6	76	A
1	6	77	U
1	6	78	A
1	6	80	A
1	6	103	A
1	6	104	A

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Mol	Chain	Res	Type
1	6	114	C
1	6	115	G
1	6	125	U
1	6	129	U
1	6	132	U
1	6	137	U
1	6	138	A
1	6	140	A
1	6	141	U
1	6	142	G
1	6	144	U
1	6	145	A
1	6	158	U
1	6	159	U
1	6	161	U
1	6	166	C
1	6	177	U
1	6	178	U
1	6	185	U
1	6	188	A
1	6	190	C
1	6	191	C
1	6	192	U
1	6	193	U
1	6	194	U
1	6	195	G
1	6	196	G
1	6	199	G
1	6	200	A
1	6	215	A
1	6	216	U
1	6	217	A
1	6	218	A
1	6	219	A
1	6	220	A
1	6	226	A
1	6	227	U
1	6	228	G
1	6	230	C
1	6	232	U
1	6	233	C
1	6	234	G

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Mol	Chain	Res	Type
1	6	240	U
1	6	241	U
1	6	242	U
1	6	249	U
1	6	250	C
1	6	257	A
1	6	260	U
1	6	261	U
1	6	265	A
1	6	269	G
1	6	270	C
1	6	271	A
1	6	272	U
1	6	273	G
1	6	277	U
1	6	278	U
1	6	280	U
1	6	285	G
1	6	287	G
1	6	299	A
1	6	308	C
1	6	314	C
1	6	316	A
1	6	319	U
1	6	320	U
1	6	321	C
1	6	322	G
1	6	337	G
1	6	338	C
1	6	352	A
1	6	359	A
1	6	360	A
1	6	361	C
1	6	362	G
1	6	369	A
1	6	370	A
1	6	390	G
1	6	397	A
1	6	400	A
1	6	401	A
1	6	402	C
1	6	404	G

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Mol	Chain	Res	Type
1	6	416	A
1	6	418	G
1	6	421	A
1	6	424	C
1	6	425	A
1	6	426	G
1	6	429	G
1	6	434	G
1	6	439	U
1	6	444	C
1	6	448	C
1	6	454	U
1	6	468	A
1	6	470	A
1	6	475	A
1	6	477	A
1	6	480	G
1	6	484	C
1	6	486	G
1	6	487	G
1	6	488	G
1	6	489	C
1	6	490	C
1	6	492	A
1	6	493	U
1	6	494	U
1	6	496	G
1	6	497	G
1	6	500	C
1	6	501	U
1	6	504	U
1	6	505	A
1	6	506	A
1	6	507	U
1	6	508	U
1	6	510	G
1	6	511	A
1	6	515	A
1	6	519	C
1	6	525	A
1	6	527	A
1	6	538	A

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Mol	Chain	Res	Type
1	6	539	G
1	6	540	G
1	6	541	A
1	6	542	A
1	6	543	C
1	6	544	A
1	6	548	G
1	6	555	A
1	6	556	A
1	6	557	G
1	6	558	U
1	6	559	C
1	6	565	C
1	6	566	C
1	6	570	A
1	6	574	G
1	6	578	U
1	6	579	A
1	6	580	A
1	6	582	U
1	6	594	A
1	6	595	G
1	6	606	A
1	6	609	U
1	6	610	G
1	6	619	A
1	6	620	A
1	6	622	A
1	6	623	A
1	6	624	G
1	6	632	U
1	6	634	G
1	6	637	C
1	6	639	U
1	6	640	U
1	6	648	G
1	6	650	U
1	6	652	G
1	6	653	C
1	6	658	C
1	6	659	C
1	6	661	A

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Mol	Chain	Res	Type
1	6	662	U
1	6	665	U
1	6	667	U
1	6	668	C
1	6	670	U
1	6	676	G
1	6	678	A
1	6	679	U
1	6	681	U
1	6	682	C
1	6	683	C
1	6	684	A
1	6	685	A
1	6	691	C
1	6	695	U
1	6	696	C
1	6	697	C
1	6	698	U
1	6	709	C
1	6	710	U
1	6	711	U
1	6	714	G
1	6	718	U
1	6	719	U
1	6	720	G
1	6	721	U
1	6	722	G
1	6	723	G
1	6	730	G
1	6	743	U
1	6	745	U
1	6	753	A
1	6	754	A
1	6	755	A
1	6	756	A
1	6	762	A
1	6	764	U
1	6	765	G
1	6	766	U
1	6	767	U
1	6	774	A
1	6	775	G

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Mol	Chain	Res	Type
1	6	777	C
1	6	780	A
1	6	781	U
1	6	782	U
1	6	783	G
1	6	789	A
1	6	792	U
1	6	793	A
1	6	794	U
1	6	798	C
1	6	803	A
1	6	808	U
1	6	811	A
1	6	812	A
1	6	815	G
1	6	816	G
1	6	821	U
1	6	822	U
1	6	823	G
1	6	824	G
1	6	825	U
1	6	826	U
1	6	828	U
1	6	829	A
1	6	830	U
1	6	831	U
1	6	832	U
1	6	834	G
1	6	835	U
1	6	847	A
1	6	863	A
1	6	873	U
1	6	876	G
1	6	881	A
1	6	898	A
1	6	908	U
1	6	912	U
1	6	913	G
1	6	914	G
1	6	916	U
1	6	933	A
1	6	935	U

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Mol	Chain	Res	Type
1	6	942	G
1	6	959	U
1	6	960	U
1	6	970	A
1	6	971	A
1	6	983	A
1	6	988	A
1	6	992	A
1	6	1003	A
1	6	1004	U
1	6	1005	A
1	6	1008	G
1	6	1010	C
1	6	1018	U
1	6	1020	A
1	6	1021	C
1	6	1026	A
1	6	1028	C
1	6	1039	A
1	6	1040	G
1	6	1052	U
1	6	1053	G
1	6	1056	U
1	6	1057	U
1	6	1058	U
1	6	1059	U
1	6	1060	U
1	6	1071	U
1	6	1072	C
1	6	1073	G
1	6	1076	A
1	6	1081	A
1	6	1082	C
1	6	1092	A
1	6	1096	C
1	6	1097	U
1	6	1098	U
1	6	1100	G
1	6	1101	G
1	6	1109	G
1	6	1137	A
1	6	1138	A

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Mol	Chain	Res	Type
1	6	1146	G
1	6	1150	G
1	6	1151	A
1	6	1155	G
1	6	1158	C
1	6	1159	C
1	6	1160	A
1	6	1167	G
1	6	1185	U
1	6	1194	A
1	6	1196	A
1	6	1199	G
1	6	1200	G
1	6	1202	A
1	6	1208	A
1	6	1217	A
1	6	1218	G
1	6	1220	C
1	6	1227	A
1	6	1228	G
1	6	1229	G
1	6	1230	A
1	6	1238	A
1	6	1239	U
1	6	1241	G
1	6	1242	A
1	6	1243	G
1	6	1244	A
1	6	1245	G
1	6	1246	C
1	6	1255	G
1	6	1256	A
1	6	1257	U
1	6	1258	U
1	6	1276	U
1	6	1286	U
1	6	1294	G
1	6	1314	U
1	6	1315	U
1	6	1316	G
1	6	1321	A
1	6	1343	U

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Mol	Chain	Res	Type
1	6	1344	A
1	6	1345	A
1	6	1346	A
1	6	1349	G
1	6	1354	G
1	6	1355	C
1	6	1360	A
1	6	1361	U
1	6	1362	U
1	6	1363	U
1	6	1364	G
1	6	1371	A
1	6	1372	U
1	6	1373	C
1	6	1377	U
1	6	1388	A
1	6	1390	U
1	6	1396	U
1	6	1397	U
1	6	1398	U
1	6	1399	C
1	6	1400	A
1	6	1402	G
1	6	1412	G
1	6	1413	U
1	6	1415	U
1	6	1427	A
1	6	1428	G
1	6	1429	G
1	6	1433	G
1	6	1445	G
1	6	1446	A
1	6	1448	G
1	6	1458	G
1	6	1459	C
1	6	1461	C
1	6	1469	A
1	6	1471	A
1	6	1474	G
1	6	1478	G
1	6	1482	C
1	6	1489	U

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Mol	Chain	Res	Type
1	6	1490	C
1	6	1491	U
1	6	1492	A
1	6	1493	A
1	6	1496	U
1	6	1506	G
1	6	1514	U
1	6	1515	A
1	6	1516	A
1	6	1521	G
1	6	1523	G
1	6	1524	A
1	6	1531	G
1	6	1535	U
1	6	1536	G
1	6	1537	C
1	6	1538	U
1	6	1540	G
1	6	1554	U
1	6	1557	U
1	6	1559	A
1	6	1569	A
1	6	1573	A
1	6	1574	G
1	6	1575	G
1	6	1576	A
1	6	1577	A
1	6	1584	G
1	6	1590	G
1	6	1601	G
1	6	1615	C
1	6	1616	G
1	6	1619	C
1	6	1621	U
1	6	1635	A
1	6	1637	C
1	6	1638	G
1	6	1639	C
1	6	1657	U
1	6	1658	G
1	6	1681	A
1	6	1682	U

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Mol	Chain	Res	Type
1	6	1696	G
1	6	1697	G
1	6	1698	G
1	6	1699	G
1	6	1700	C
1	6	1701	A
1	6	1702	A
1	6	1703	C
1	6	1712	A
1	6	1715	G
1	6	1716	C
1	6	1717	G
1	6	1731	A
1	6	1742	U
1	6	1760	G
1	6	1766	A
1	6	1767	G
1	6	1769	U
1	6	1770	U
1	6	1780	G
1	6	1782	A
1	6	1789	G
1	6	1792	G
1	6	1793	G
1	6	1794	A
1	6	1796	C
1	6	1799	U
1	6	1800	A
36	5	15	C
36	5	16	A
36	5	21	G
36	5	26	A
36	5	40	A
36	5	43	A
36	5	44	U
36	5	49	A
36	5	58	G
36	5	59	G
36	5	60	A
36	5	62	A
36	5	65	A
36	5	66	A

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Mol	Chain	Res	Type
36	5	72	C
36	5	73	C
36	5	76	G
36	5	82	C
36	5	83	U
36	5	86	G
36	5	92	G
36	5	93	C
36	5	96	G
36	5	99	A
36	5	105	C
36	5	109	A
36	5	110	G
36	5	111	C
36	5	113	C
36	5	116	A
36	5	120	G
36	5	121	A
36	5	122	A
36	5	126	U
36	5	127	G
36	5	133	U
36	5	134	U
36	5	135	C
36	5	136	G
36	5	142	C
36	5	156	G
36	5	157	A
36	5	165	A
36	5	166	C
36	5	169	U
36	5	170	G
36	5	171	G
36	5	172	G
36	5	173	G
36	5	174	C
36	5	179	C
36	5	180	C
36	5	187	A
36	5	190	U
36	5	191	U
36	5	200	C

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Mol	Chain	Res	Type
36	5	210	U
36	5	211	A
36	5	213	A
36	5	218	G
36	5	219	A
36	5	224	C
36	5	225	C
36	5	236	G
36	5	237	G
36	5	239	G
36	5	240	U
36	5	244	G
36	5	247	C
36	5	248	U
36	5	249	U
36	5	250	U
36	5	251	G
36	5	252	U
36	5	253	A
36	5	254	A
36	5	259	C
36	5	265	A
36	5	269	G
36	5	270	U
36	5	284	A
36	5	286	U
36	5	295	A
36	5	309	U
36	5	323	A
36	5	329	U
36	5	339	C
36	5	349	A
36	5	350	C
36	5	370	U
36	5	375	A
36	5	376	G
36	5	395	A
36	5	398	A
36	5	399	A
36	5	401	U
36	5	402	A
36	5	403	C

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Mol	Chain	Res	Type
36	5	421	G
36	5	422	A
36	5	436	A
36	5	437	G
36	5	439	C
36	5	440	A
36	5	441	U
36	5	442	G
36	5	492	U
36	5	495	G
36	5	498	A
36	5	507	U
36	5	510	G
36	5	520	U
36	5	521	A
36	5	523	A
36	5	531	G
36	5	535	G
36	5	546	C
36	5	547	G
36	5	548	G
36	5	551	A
36	5	555	U
36	5	557	A
36	5	559	A
36	5	578	A
36	5	579	G
36	5	592	A
36	5	600	G
36	5	604	G
36	5	607	A
36	5	608	A
36	5	609	G
36	5	611	A
36	5	619	A
36	5	620	U
36	5	621	A
36	5	636	C
36	5	649	A
36	5	651	G
36	5	660	A
36	5	677	A

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Mol	Chain	Res	Type
36	5	681	U
36	5	683	U
36	5	691	A
36	5	705	A
36	5	708	G
36	5	711	A
36	5	712	G
36	5	715	A
36	5	716	A
36	5	725	G
36	5	726	G
36	5	727	G
36	5	758	C
36	5	764	U
36	5	765	C
36	5	766	U
36	5	767	U
36	5	776	U
36	5	777	U
36	5	781	G
36	5	785	G
36	5	786	A
36	5	806	A
36	5	817	A
36	5	826	G
36	5	830	A
36	5	859	G
36	5	861	C
36	5	874	U
36	5	879	U
36	5	882	A
36	5	890	C
36	5	891	G
36	5	896	A
36	5	897	U
36	5	907	G
36	5	908	G
36	5	910	G
36	5	913	A
36	5	914	A
36	5	916	G
36	5	917	A

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Mol	Chain	Res	Type
36	5	921	A
36	5	924	G
36	5	937	G
36	5	944	C
36	5	959	C
36	5	960	U
36	5	964	G
36	5	979	U
36	5	980	A
36	5	983	A
36	5	993	G
36	5	994	G
36	5	1001	G
36	5	1002	A
36	5	1006	A
36	5	1010	G
36	5	1014	U
36	5	1015	U
36	5	1017	C
36	5	1019	G
36	5	1021	G
36	5	1024	G
36	5	1025	A
36	5	1026	A
36	5	1028	U
36	5	1029	G
36	5	1032	C
36	5	1035	G
36	5	1047	A
36	5	1049	C
36	5	1064	A
36	5	1065	A
36	5	1071	U
36	5	1072	G
36	5	1081	U
36	5	1082	U
36	5	1083	G
36	5	1088	U
36	5	1093	A
36	5	1094	U
36	5	1095	U
36	5	1096	U

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Mol	Chain	Res	Type
36	5	1097	G
36	5	1098	A
36	5	1103	A
36	5	1104	G
36	5	1117	G
36	5	1131	G
36	5	1152	G
36	5	1153	A
36	5	1159	A
36	5	1161	G
36	5	1180	A
36	5	1181	U
36	5	1182	A
36	5	1191	U
36	5	1192	C
36	5	1193	A
36	5	1201	C
36	5	1202	A
36	5	1209	G
36	5	1222	G
36	5	1232	C
36	5	1233	G
36	5	1235	U
36	5	1236	G
36	5	1237	G
36	5	1239	C
36	5	1241	U
36	5	1242	G
36	5	1243	G
36	5	1245	A
36	5	1246	G
36	5	1252	A
36	5	1254	C
36	5	1258	U
36	5	1259	A
36	5	1262	G
36	5	1263	A
36	5	1264	G
36	5	1265	U
36	5	1266	G
36	5	1285	G
36	5	1292	C

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Mol	Chain	Res	Type
36	5	1307	G
36	5	1308	A
36	5	1309	U
36	5	1311	G
36	5	1313	G
36	5	1329	U
36	5	1330	A
36	5	1331	U
36	5	1348	U
36	5	1349	G
36	5	1351	U
36	5	1352	A
36	5	1353	U
36	5	1354	G
36	5	1355	A
36	5	1356	U
36	5	1357	G
36	5	1380	G
36	5	1385	C
36	5	1386	A
36	5	1387	G
36	5	1399	A
36	5	1400	G
36	5	1418	A
36	5	1419	A
36	5	1428	A
36	5	1434	G
36	5	1437	C
36	5	1446	A
36	5	1450	G
36	5	1455	U
36	5	1465	A
36	5	1481	A
36	5	1482	A
36	5	1490	A
36	5	1502	C
36	5	1503	A
36	5	1508	C
36	5	1517	G
36	5	1519	G
36	5	1527	C
36	5	1533	U

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Mol	Chain	Res	Type
36	5	1536	G
36	5	1539	A
36	5	1554	U
36	5	1555	U
36	5	1556	C
36	5	1557	A
36	5	1560	G
36	5	1561	G
36	5	1562	C
36	5	1566	A
36	5	1567	U
36	5	1569	U
36	5	1570	U
36	5	1571	A
36	5	1574	C
36	5	1575	A
36	5	1576	G
36	5	1577	G
36	5	1578	C
36	5	1579	C
36	5	1581	C
36	5	1583	A
36	5	1587	A
36	5	1589	A
36	5	1612	A
36	5	1620	U
36	5	1629	U
36	5	1633	C
36	5	1639	C
36	5	1641	U
36	5	1643	A
36	5	1644	C
36	5	1645	U
36	5	1657	C
36	5	1658	G
36	5	1683	A
36	5	1687	U
36	5	1716	U
36	5	1717	U
36	5	1724	U
36	5	1725	C
36	5	1735	G

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Mol	Chain	Res	Type
36	5	1736	G
36	5	1750	A
36	5	1751	G
36	5	1760	A
36	5	1762	C
36	5	1764	U
36	5	1765	U
36	5	1766	G
36	5	1767	C
36	5	1770	G
36	5	1780	G
36	5	1781	C
36	5	1793	C
36	5	1797	A
36	5	1810	A
36	5	1814	A
36	5	1815	U
36	5	1816	A
36	5	1817	G
36	5	1818	U
36	5	1821	U
36	5	1839	A
36	5	1842	A
36	5	1845	G
36	5	1846	C
36	5	1849	C
36	5	1864	A
36	5	1866	C
36	5	1873	U
36	5	1878	G
36	5	1879	A
36	5	1880	U
36	5	1881	A
36	5	1893	A
36	5	1906	G
36	5	1907	C
36	5	1922	A
36	5	1926	C
36	5	1935	G
36	5	1947	G
36	5	1953	G
36	5	2097	U

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Mol	Chain	Res	Type
36	5	2101	C
36	5	2102	U
36	5	2111	G
36	5	2112	U
36	5	2113	A
36	5	2121	G
36	5	2122	G
36	5	2131	A
36	5	2144	A
36	5	2155	G
36	5	2158	A
36	5	2169	G
36	5	2187	G
36	5	2192	C
36	5	2198	A
36	5	2205	U
36	5	2209	U
36	5	2210	G
36	5	2219	A
36	5	2223	A
36	5	2225	U
36	5	2244	A
36	5	2246	G
36	5	2250	G
36	5	2252	A
36	5	2253	G
36	5	2255	A
36	5	2256	A
36	5	2257	C
36	5	2258	U
36	5	2261	G
36	5	2264	U
36	5	2270	A
36	5	2273	G
36	5	2278	C
36	5	2279	A
36	5	2280	A
36	5	2281	A
36	5	2288	G
36	5	2299	A
36	5	2303	A
36	5	2307	G

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Mol	Chain	Res	Type
36	5	2310	U
36	5	2313	A
36	5	2315	G
36	5	2319	U
36	5	2334	U
36	5	2335	G
36	5	2336	U
36	5	2367	A
36	5	2372	A
36	5	2373	A
36	5	2374	C
36	5	2375	G
36	5	2382	G
36	5	2385	G
36	5	2393	G
36	5	2397	A
36	5	2401	A
36	5	2402	A
36	5	2403	G
36	5	2404	A
36	5	2405	C
36	5	2406	C
36	5	2410	U
36	5	2411	U
36	5	2418	G
36	5	2419	A
36	5	2435	G
36	5	2436	U
36	5	2437	G
36	5	2439	A
36	5	2440	G
36	5	2441	A
36	5	2443	A
36	5	2504	U
36	5	2505	U
36	5	2506	U
36	5	2507	C
36	5	2508	U
36	5	2509	U
36	5	2510	U
36	5	2511	A
36	5	2514	U

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Mol	Chain	Res	Type
36	5	2515	A
36	5	2523	A
36	5	2524	A
36	5	2525	G
36	5	2526	C
36	5	2529	A
36	5	2530	G
36	5	2537	U
36	5	2538	U
36	5	2539	C
36	5	2540	A
36	5	2543	U
36	5	2544	U
36	5	2550	U
36	5	2552	C
36	5	2554	A
36	5	2555	G
36	5	2562	A
36	5	2564	G
36	5	2566	C
36	5	2567	C
36	5	2568	C
36	5	2569	A
36	5	2570	U
36	5	2571	U
36	5	2572	C
36	5	2574	G
36	5	2584	G
36	5	2585	G
36	5	2586	G
36	5	2587	U
36	5	2588	U
36	5	2593	A
36	5	2606	G
36	5	2607	G
36	5	2608	G
36	5	2609	A
36	5	2610	G
36	5	2614	G
36	5	2628	A
36	5	2636	A
36	5	2638	C

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Mol	Chain	Res	Type
36	5	2639	G
36	5	2652	U
36	5	2656	A
36	5	2674	A
36	5	2675	C
36	5	2676	A
36	5	2677	G
36	5	2689	A
36	5	2691	A
36	5	2694	A
36	5	2696	A
36	5	2705	A
36	5	2706	G
36	5	2713	U
36	5	2714	G
36	5	2716	U
36	5	2727	A
36	5	2728	G
36	5	2729	U
36	5	2740	A
36	5	2748	A
36	5	2752	U
36	5	2753	G
36	5	2755	C
36	5	2762	A
36	5	2772	C
36	5	2773	C
36	5	2777	G
36	5	2778	G
36	5	2781	U
36	5	2783	U
36	5	2796	G
36	5	2797	C
36	5	2799	A
36	5	2800	G
36	5	2801	A
36	5	2810	C
36	5	2814	G
36	5	2817	A
36	5	2818	U
36	5	2829	U
36	5	2843	U

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Mol	Chain	Res	Type
36	5	2845	A
36	5	2849	C
36	5	2853	A
36	5	2856	G
36	5	2865	U
36	5	2871	G
36	5	2872	A
36	5	2875	U
36	5	2876	C
36	5	2887	A
36	5	2889	C
36	5	2896	A
36	5	2899	C
36	5	2914	G
36	5	2921	U
36	5	2923	U
36	5	2935	U
36	5	2936	A
36	5	2942	C
36	5	2947	G
36	5	2957	G
36	5	2971	A
36	5	2972	G
36	5	2979	U
36	5	2980	U
36	5	2982	A
36	5	2990	G
36	5	2996	U
36	5	2997	G
36	5	3012	A
36	5	3028	G
36	5	3030	G
36	5	3056	U
36	5	3057	U
36	5	3059	G
36	5	3069	G
36	5	3078	U
36	5	3079	U
36	5	3086	A
36	5	3092	C
36	5	3094	A
36	5	3102	G

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Mol	Chain	Res	Type
36	5	3119	U
36	5	3122	A
36	5	3130	A
36	5	3131	U
36	5	3142	A
36	5	3143	C
36	5	3148	U
36	5	3150	A
36	5	3153	U
36	5	3155	U
36	5	3156	U
36	5	3157	U
36	5	3158	G
36	5	3164	C
36	5	3165	A
36	5	3166	C
36	5	3168	A
36	5	3171	U
36	5	3172	A
36	5	3173	G
36	5	3174	A
36	5	3175	U
36	5	3176	G
36	5	3178	A
36	5	3179	U
36	5	3180	A
36	5	3181	C
36	5	3187	A
36	5	3195	U
36	5	3196	U
36	5	3197	G
36	5	3207	U
36	5	3217	C
36	5	3218	A
36	5	3219	G
36	5	3227	A
36	5	3228	C
36	5	3229	G
36	5	3238	G
36	5	3239	G
36	5	3245	A
36	5	3246	G

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Mol	Chain	Res	Type
36	5	3247	G
36	5	3253	G
36	5	3259	U
36	5	3263	G
36	5	3270	U
36	5	3273	A
36	5	3275	U
36	5	3276	G
36	5	3277	U
36	5	3279	A
36	5	3280	U
36	5	3281	U
36	5	3282	U
36	5	3285	C
36	5	3286	G
36	5	3288	G
36	5	3289	G
36	5	3290	G
36	5	3294	A
36	5	3295	A
36	5	3304	U
36	5	3313	U
36	5	3316	A
36	5	3318	G
36	5	3319	U
36	5	3320	A
36	5	3341	U
36	5	3342	A
36	5	3345	G
36	5	3350	C
36	5	3351	U
36	5	3352	U
36	5	3354	U
36	5	3355	U
36	5	3356	G
36	5	3358	U
36	5	3369	G
36	5	3377	G
36	5	3378	C
36	5	3382	U
36	5	3383	G
36	5	3389	U

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Mol	Chain	Res	Type
36	5	3390	G
36	5	3396	U
37	7	7	G
37	7	22	A
37	7	33	U
37	7	38	U
37	7	49	G
37	7	50	U
37	7	51	A
37	7	53	U
37	7	54	U
37	7	57	G
37	7	60	G
37	7	65	G
37	7	73	C
37	7	74	C
37	7	76	A
37	7	92	A
37	7	93	C
37	7	99	G
37	7	101	G
37	7	102	A
37	7	103	A
37	7	104	A
37	7	112	G
37	7	121	U
38	8	21	C
38	8	34	U
38	8	35	C
38	8	38	U
38	8	48	A
38	8	49	G
38	8	52	A
38	8	53	A
38	8	59	A
38	8	62	C
38	8	63	G
38	8	79	A
38	8	80	A
38	8	81	U
38	8	82	U
38	8	83	C

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Mol	Chain	Res	Type
38	8	84	C
38	8	86	U
38	8	87	G
38	8	89	A
38	8	90	U
38	8	95	G
38	8	96	A
38	8	97	A
38	8	98	U
38	8	104	A
38	8	105	A
38	8	106	C
38	8	111	A
38	8	113	U
38	8	122	U
38	8	125	U
38	8	126	A
38	8	138	A
38	8	155	A
38	8	156	U
38	8	157	U
38	8	158	U

There are no RNA pucker outliers to report.

## 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](#)

Of 2559 ligands modelled in this entry, 1426 are monoatomic - leaving 1133 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. 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  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
86	OHX	1	3861	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3862	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3863	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3864	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3865	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3866	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3867	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3868	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3869	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3870	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3871	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3872	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3873	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3874	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3875	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3876	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3877	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3878	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3879	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3880	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3881	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3882	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3883	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3884	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3885	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3886	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3887	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3888	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3889	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3890	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3891	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3892	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3893	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3894	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3895	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3896	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3897	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3898	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3899	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
86	OHX	1	3900	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3942	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
86	OHX	1	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3983	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3985	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4028	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4071	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4114	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4157	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4200	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	1	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2040	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2054	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	2	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2097	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	2	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2140	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	2	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
87	3K8	2	2179	-	32,32,32	0.77	1 (3%)	45,47,47	0.99	2 (4%)
86	OHX	3	215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	218	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
86	OHX	3	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	232	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	233	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	234	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	235	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3922	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3965	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3983	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4008	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4051	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4094	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4137	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4180	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4212	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4213	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4214	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4223	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	5	4224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4232	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4233	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4234	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4235	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4236	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4237	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4238	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4239	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4240	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4241	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4242	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4243	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4244	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4245	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4246	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4247	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4248	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4249	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4250	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4251	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4252	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4253	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4254	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2058	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	6	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2101	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
86	OHX	6	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2144	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	6	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2187	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	6	2188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2204	-	0,6,6	0.00	-	0,15,15	0.00	-
87	3K8	6	2205	-	32,32,32	0.55	0	45,47,47	0.87	3 (6%)
86	OHX	7	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	228	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	8	229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	D9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	405	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	406	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L4	402	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M0	304	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M5	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M7	206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M7	207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M9	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	N1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	N9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O2	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O7	105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O7	106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	S8	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	SR	401	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c8	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	d4	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	d9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	402	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l4	402	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	304	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	305	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l9	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m0	302	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
86	OHX	m0	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m1	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m4	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m6	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m7	206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m9	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n3	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	q2	502	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s1	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s1	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s4	301	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s8	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s9	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	sR	401	-	0,6,6	0.00	-	0,15,15	0.00	-

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3861	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3862	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3863	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3864	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3865	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3866	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3867	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3868	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3869	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3870	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3871	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3872	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3873	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3874	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3875	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3876	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3877	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3878	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3879	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3880	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3881	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3882	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3883	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3884	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3885	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3886	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3887	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3888	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3889	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3890	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3891	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3892	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3893	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3894	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3895	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3896	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3897	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3898	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3899	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3900	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3901	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3902	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3903	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3904	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3905	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3906	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3907	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3908	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3909	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3910	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3911	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3912	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3913	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3914	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3915	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3916	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3917	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3918	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3919	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3920	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3921	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3922	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3923	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3924	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3925	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3926	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3927	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3928	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3929	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3930	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3931	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3932	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3933	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3934	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3935	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3936	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3937	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3938	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3939	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3940	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3941	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3942	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3943	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3944	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3945	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3946	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3947	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3948	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3949	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3950	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3951	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3952	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3953	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3954	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3955	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3956	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3957	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3958	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3959	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3960	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3961	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3962	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3963	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3964	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3965	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3966	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3967	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3968	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3969	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3970	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3971	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3972	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3973	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3974	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3975	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3976	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3977	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3978	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3979	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3980	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3981	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3982	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3983	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3984	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3985	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3986	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3987	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3988	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3989	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3990	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3991	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3992	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3993	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3994	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3995	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3996	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3997	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3998	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3999	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4000	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4001	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4002	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4003	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4004	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4005	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4006	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4007	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4008	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4009	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4010	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4011	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4012	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4013	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4014	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4015	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4016	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4017	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4018	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4019	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4020	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4021	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4022	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4023	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4024	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4025	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4026	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4027	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4028	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4029	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4030	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4031	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4032	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4033	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4034	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4035	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4036	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4037	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4038	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4039	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4040	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4041	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4042	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4043	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4044	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4045	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4046	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4047	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4048	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4049	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4050	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4051	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4052	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4053	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4054	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4055	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4056	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4057	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4058	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4059	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4060	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4061	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4062	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4063	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4064	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4065	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4066	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4067	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4068	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4069	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4070	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4071	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4072	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4073	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4074	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4075	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4076	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4077	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4078	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4079	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4080	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4081	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4082	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4083	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4084	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4085	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4086	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4087	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4088	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4089	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4090	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4091	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4092	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4093	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4094	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4095	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4096	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4097	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4098	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4099	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4100	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4101	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4102	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4103	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4104	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4105	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4106	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4107	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4108	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4109	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4110	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4111	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4112	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4113	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4114	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4115	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4116	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4117	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4118	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4119	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4120	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4121	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4122	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4123	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4124	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4125	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4126	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4127	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4128	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4129	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4130	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4131	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4132	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4133	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4134	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4135	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4136	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4137	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4138	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4139	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4140	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4141	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4142	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4143	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4144	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4145	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4146	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4147	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4148	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4149	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4150	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4151	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4152	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4153	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4154	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4155	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4156	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4157	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4158	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4159	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4160	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4161	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4162	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4163	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4164	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4165	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4166	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4167	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4168	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4169	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4170	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4171	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4172	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4173	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4174	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4175	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4176	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4177	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4178	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4179	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4180	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4181	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4182	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4183	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4184	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4185	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4186	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4187	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4188	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4189	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4190	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4191	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4192	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4193	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4194	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4195	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4196	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4197	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4198	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4199	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4200	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4201	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4202	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4203	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4204	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4205	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4206	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4207	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4208	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4209	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4210	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4211	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2023	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2024	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2025	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2026	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2027	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2028	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2029	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2030	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2031	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2032	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2033	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2034	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2035	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2036	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2037	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2038	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2039	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2040	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2041	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2042	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2043	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2044	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2045	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2046	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2047	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2048	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2049	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2050	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2051	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2052	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2053	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2054	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2055	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2056	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2057	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2058	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2059	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2060	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2061	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2062	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2063	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2064	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2065	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2066	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2067	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2068	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2069	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2070	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2071	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2072	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2073	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2074	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2075	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2076	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2077	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2078	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2079	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2080	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2081	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2082	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2083	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2084	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2085	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2086	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2087	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2088	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2089	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2090	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2091	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2092	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2093	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2094	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2095	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2096	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2097	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2098	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2099	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2100	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2101	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2102	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2103	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2104	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2105	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2106	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2107	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2108	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2109	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2110	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2111	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2112	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2113	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2114	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2115	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2116	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2117	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2118	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2119	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2120	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2121	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2122	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2123	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2124	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2125	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2126	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2127	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2128	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2129	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2130	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2131	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2132	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2133	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2134	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2135	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2136	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2137	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2138	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2139	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2140	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2141	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2142	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2143	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2144	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2145	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2146	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2147	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2148	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2149	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2150	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2151	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2152	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2153	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2154	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2155	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2156	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2157	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2158	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2159	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2160	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2161	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2162	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2163	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2164	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2165	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2166	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2167	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2168	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2169	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2170	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2171	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2172	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2173	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2174	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2175	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2176	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2177	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2178	-	-	0/0/0/0	0/0/0/0
87	3K8	2	2179	-	-	0/6/25/25	0/5/5/5
86	OHX	3	215	-	-	0/0/0/0	0/0/0/0
86	OHX	3	216	-	-	0/0/0/0	0/0/0/0
86	OHX	3	217	-	-	0/0/0/0	0/0/0/0
86	OHX	3	218	-	-	0/0/0/0	0/0/0/0
86	OHX	3	219	-	-	0/0/0/0	0/0/0/0
86	OHX	3	220	-	-	0/0/0/0	0/0/0/0
86	OHX	3	221	-	-	0/0/0/0	0/0/0/0
86	OHX	3	222	-	-	0/0/0/0	0/0/0/0
86	OHX	3	223	-	-	0/0/0/0	0/0/0/0
86	OHX	3	224	-	-	0/0/0/0	0/0/0/0
86	OHX	3	225	-	-	0/0/0/0	0/0/0/0
86	OHX	4	222	-	-	0/0/0/0	0/0/0/0
86	OHX	4	223	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	4	224	-	-	0/0/0/0	0/0/0/0
86	OHX	4	225	-	-	0/0/0/0	0/0/0/0
86	OHX	4	226	-	-	0/0/0/0	0/0/0/0
86	OHX	4	227	-	-	0/0/0/0	0/0/0/0
86	OHX	4	228	-	-	0/0/0/0	0/0/0/0
86	OHX	4	229	-	-	0/0/0/0	0/0/0/0
86	OHX	4	230	-	-	0/0/0/0	0/0/0/0
86	OHX	4	231	-	-	0/0/0/0	0/0/0/0
86	OHX	4	232	-	-	0/0/0/0	0/0/0/0
86	OHX	4	233	-	-	0/0/0/0	0/0/0/0
86	OHX	4	234	-	-	0/0/0/0	0/0/0/0
86	OHX	4	235	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3901	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3902	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3903	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3904	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3905	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3906	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3907	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3908	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3909	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3910	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3911	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3912	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3913	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3914	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3915	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3916	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3917	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3918	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3919	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3920	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3921	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3922	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3923	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3924	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3925	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3926	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3927	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3928	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3929	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3930	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	3931	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3932	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3933	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3934	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3935	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3936	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3937	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3938	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3939	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3940	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3941	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3942	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3943	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3944	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3945	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3946	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3947	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3948	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3949	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3950	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3951	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3952	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3953	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3954	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3955	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3956	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3957	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3958	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3959	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3960	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3961	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3962	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3963	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3964	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3965	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3966	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3967	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3968	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3969	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3970	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3971	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3972	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	3973	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3974	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3975	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3976	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3977	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3978	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3979	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3980	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3981	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3982	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3983	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3984	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3985	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3986	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3987	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3988	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3989	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3990	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3991	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3992	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3993	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3994	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3995	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3996	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3997	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3998	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3999	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4000	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4001	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4002	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4003	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4004	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4005	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4006	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4007	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4008	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4009	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4010	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4011	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4012	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4013	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4014	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4015	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4016	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4017	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4018	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4019	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4020	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4021	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4022	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4023	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4024	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4025	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4026	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4027	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4028	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4029	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4030	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4031	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4032	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4033	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4034	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4035	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4036	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4037	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4038	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4039	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4040	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4041	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4042	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4043	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4044	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4045	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4046	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4047	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4048	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4049	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4050	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4051	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4052	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4053	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4054	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4055	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4056	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4057	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4058	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4059	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4060	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4061	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4062	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4063	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4064	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4065	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4066	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4067	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4068	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4069	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4070	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4071	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4072	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4073	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4074	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4075	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4076	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4077	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4078	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4079	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4080	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4081	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4082	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4083	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4084	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4085	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4086	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4087	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4088	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4089	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4090	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4091	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4092	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4093	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4094	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4095	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4096	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4097	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4098	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4099	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4100	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4101	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4102	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4103	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4104	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4105	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4106	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4107	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4108	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4109	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4110	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4111	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4112	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4113	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4114	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4115	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4116	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4117	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4118	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4119	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4120	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4121	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4122	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4123	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4124	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4125	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4126	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4127	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4128	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4129	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4130	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4131	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4132	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4133	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4134	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4135	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4136	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4137	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4138	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4139	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4140	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4141	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4142	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4143	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4144	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4145	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4146	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4147	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4148	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4149	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4150	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4151	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4152	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4153	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4154	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4155	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4156	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4157	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4158	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4159	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4160	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4161	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4162	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4163	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4164	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4165	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4166	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4167	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4168	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4169	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4170	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4171	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4172	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4173	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4174	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4175	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4176	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4177	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4178	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4179	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4180	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4181	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4182	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4183	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4184	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4185	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4186	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4187	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4188	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4189	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4190	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4191	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4192	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4193	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4194	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4195	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4196	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4197	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4198	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4199	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4200	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4201	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4202	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4203	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4204	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4205	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4206	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4207	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4208	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4209	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4210	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4211	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4212	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4213	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4214	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4215	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4216	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4217	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4218	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4219	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4220	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4221	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4222	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4223	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4224	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4225	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4226	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4227	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4228	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4229	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4230	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4231	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4232	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4233	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4234	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4235	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4236	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4237	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4238	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4239	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4240	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4241	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4242	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4243	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4244	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4245	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4246	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4247	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4248	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4249	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4250	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4251	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4252	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4253	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4254	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2047	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2048	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2049	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2050	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2051	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2052	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2053	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2054	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2055	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2056	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2057	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2058	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2059	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2060	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2061	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2062	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2063	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2064	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2065	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2066	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2067	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2068	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2069	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2070	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2071	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2072	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2073	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2074	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2075	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2076	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2077	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2078	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2079	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2080	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2081	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2082	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2083	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2084	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2085	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2086	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2087	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2088	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2089	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2090	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2091	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2092	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2093	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2094	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2095	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2096	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2097	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2098	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2099	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2100	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2101	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2102	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2103	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2104	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2105	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2106	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2107	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2108	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2109	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2110	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2111	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2112	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2113	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2114	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2115	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2116	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2117	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2118	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2119	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2120	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2121	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2122	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2123	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2124	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2125	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2126	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2127	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2128	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2129	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2130	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2131	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2132	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2133	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2134	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2135	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2136	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2137	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2138	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2139	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2140	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2141	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2142	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2143	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2144	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2145	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2146	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2147	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2148	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2149	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2150	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2151	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2152	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2153	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2154	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2155	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2156	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2157	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2158	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2159	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2160	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2161	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2162	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2163	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2164	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2165	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2166	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2167	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2168	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2169	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2170	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2171	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2172	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2173	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2174	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2175	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2176	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2177	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2178	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2179	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2180	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2181	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2182	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2183	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2184	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2185	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2186	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2187	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2188	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2189	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2190	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2191	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2192	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2193	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2194	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2195	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2196	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2197	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2198	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2199	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2200	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2201	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2202	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2203	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2204	-	-	0/0/0/0	0/0/0/0
87	3K8	6	2205	-	-	0/6/25/25	0/5/5/5
86	OHX	7	217	-	-	0/0/0/0	0/0/0/0
86	OHX	7	218	-	-	0/0/0/0	0/0/0/0
86	OHX	7	219	-	-	0/0/0/0	0/0/0/0
86	OHX	7	220	-	-	0/0/0/0	0/0/0/0
86	OHX	7	221	-	-	0/0/0/0	0/0/0/0
86	OHX	7	222	-	-	0/0/0/0	0/0/0/0
86	OHX	7	223	-	-	0/0/0/0	0/0/0/0
86	OHX	7	224	-	-	0/0/0/0	0/0/0/0
86	OHX	7	225	-	-	0/0/0/0	0/0/0/0
86	OHX	7	226	-	-	0/0/0/0	0/0/0/0
86	OHX	7	227	-	-	0/0/0/0	0/0/0/0
86	OHX	8	215	-	-	0/0/0/0	0/0/0/0
86	OHX	8	216	-	-	0/0/0/0	0/0/0/0
86	OHX	8	217	-	-	0/0/0/0	0/0/0/0
86	OHX	8	218	-	-	0/0/0/0	0/0/0/0
86	OHX	8	219	-	-	0/0/0/0	0/0/0/0
86	OHX	8	220	-	-	0/0/0/0	0/0/0/0
86	OHX	8	221	-	-	0/0/0/0	0/0/0/0
86	OHX	8	222	-	-	0/0/0/0	0/0/0/0
86	OHX	8	223	-	-	0/0/0/0	0/0/0/0
86	OHX	8	224	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	8	225	-	-	0/0/0/0	0/0/0/0
86	OHX	8	226	-	-	0/0/0/0	0/0/0/0
86	OHX	8	227	-	-	0/0/0/0	0/0/0/0
86	OHX	8	228	-	-	0/0/0/0	0/0/0/0
86	OHX	8	229	-	-	0/0/0/0	0/0/0/0
86	OHX	8	230	-	-	0/0/0/0	0/0/0/0
86	OHX	8	231	-	-	0/0/0/0	0/0/0/0
86	OHX	C1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	C3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	C5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	C8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	D9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	404	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	405	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	406	-	-	0/0/0/0	0/0/0/0
86	OHX	L4	402	-	-	0/0/0/0	0/0/0/0
86	OHX	M0	304	-	-	0/0/0/0	0/0/0/0
86	OHX	M5	302	-	-	0/0/0/0	0/0/0/0
86	OHX	M7	206	-	-	0/0/0/0	0/0/0/0
86	OHX	M7	207	-	-	0/0/0/0	0/0/0/0
86	OHX	M8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	M9	202	-	-	0/0/0/0	0/0/0/0
86	OHX	N1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	N9	101	-	-	0/0/0/0	0/0/0/0
86	OHX	O1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	O2	202	-	-	0/0/0/0	0/0/0/0
86	OHX	O3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	O7	105	-	-	0/0/0/0	0/0/0/0
86	OHX	O7	106	-	-	0/0/0/0	0/0/0/0
86	OHX	O9	101	-	-	0/0/0/0	0/0/0/0
86	OHX	S8	302	-	-	0/0/0/0	0/0/0/0
86	OHX	SR	401	-	-	0/0/0/0	0/0/0/0
86	OHX	c3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	c5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	c8	202	-	-	0/0/0/0	0/0/0/0
86	OHX	d4	202	-	-	0/0/0/0	0/0/0/0
86	OHX	d9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	402	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	403	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	404	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	402	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	403	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	l5	303	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	304	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	305	-	-	0/0/0/0	0/0/0/0
86	OHX	l9	202	-	-	0/0/0/0	0/0/0/0
86	OHX	m0	302	-	-	0/0/0/0	0/0/0/0
86	OHX	m0	303	-	-	0/0/0/0	0/0/0/0
86	OHX	m1	202	-	-	0/0/0/0	0/0/0/0
86	OHX	m4	201	-	-	0/0/0/0	0/0/0/0
86	OHX	m5	303	-	-	0/0/0/0	0/0/0/0
86	OHX	m6	202	-	-	0/0/0/0	0/0/0/0
86	OHX	m7	206	-	-	0/0/0/0	0/0/0/0
86	OHX	m8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	m9	201	-	-	0/0/0/0	0/0/0/0
86	OHX	n1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	n3	203	-	-	0/0/0/0	0/0/0/0
86	OHX	n9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	o3	202	-	-	0/0/0/0	0/0/0/0
86	OHX	q2	502	-	-	0/0/0/0	0/0/0/0
86	OHX	s1	302	-	-	0/0/0/0	0/0/0/0
86	OHX	s1	303	-	-	0/0/0/0	0/0/0/0
86	OHX	s4	301	-	-	0/0/0/0	0/0/0/0
86	OHX	s8	303	-	-	0/0/0/0	0/0/0/0
86	OHX	s9	201	-	-	0/0/0/0	0/0/0/0
86	OHX	sR	401	-	-	0/0/0/0	0/0/0/0

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
87	2	2179	3K8	C8-C7	3.37	1.42	1.37

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
87	2	2179	3K8	C15-C7-C4	-3.74	116.14	120.39
87	6	2205	3K8	C20-C19-C18	-2.16	117.97	120.09
87	6	2205	3K8	C17-C18-C19	2.01	122.08	120.09
87	2	2179	3K8	C11-C10-N	2.99	118.48	110.54
87	6	2205	3K8	C11-C10-N	3.02	118.55	110.54

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

485 monomers are involved in 748 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3862	OHX	1	0
86	1	3863	OHX	1	0
86	1	3865	OHX	1	0
86	1	3869	OHX	1	0
86	1	3871	OHX	1	0
86	1	3873	OHX	2	0
86	1	3875	OHX	1	0
86	1	3876	OHX	1	0
86	1	3877	OHX	1	0
86	1	3878	OHX	3	0
86	1	3879	OHX	1	0
86	1	3880	OHX	2	0
86	1	3881	OHX	1	0
86	1	3883	OHX	1	0
86	1	3884	OHX	1	0
86	1	3885	OHX	1	0
86	1	3887	OHX	1	0
86	1	3889	OHX	1	0
86	1	3897	OHX	1	0
86	1	3902	OHX	1	0
86	1	3908	OHX	1	0
86	1	3921	OHX	1	0
86	1	3923	OHX	2	0
86	1	3927	OHX	2	0
86	1	3929	OHX	2	0
86	1	3930	OHX	1	0
86	1	3936	OHX	1	0
86	1	3942	OHX	1	0
86	1	3943	OHX	1	0
86	1	3944	OHX	1	0
86	1	3947	OHX	1	0
86	1	3950	OHX	1	0
86	1	3953	OHX	2	0
86	1	3954	OHX	4	0
86	1	3956	OHX	3	0
86	1	3959	OHX	1	0
86	1	3961	OHX	1	0
86	1	3962	OHX	1	0
86	1	3964	OHX	1	0
86	1	3968	OHX	7	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3969	OHX	1	0
86	1	3971	OHX	2	0
86	1	3972	OHX	1	0
86	1	3973	OHX	4	0
86	1	3974	OHX	2	0
86	1	3975	OHX	1	0
86	1	3978	OHX	1	0
86	1	3979	OHX	1	0
86	1	3980	OHX	2	0
86	1	3981	OHX	1	0
86	1	3986	OHX	1	0
86	1	3988	OHX	2	0
86	1	3992	OHX	1	0
86	1	3994	OHX	1	0
86	1	3996	OHX	1	0
86	1	3998	OHX	1	0
86	1	3999	OHX	1	0
86	1	4000	OHX	8	0
86	1	4003	OHX	2	0
86	1	4005	OHX	1	0
86	1	4007	OHX	1	0
86	1	4010	OHX	2	0
86	1	4012	OHX	1	0
86	1	4014	OHX	1	0
86	1	4016	OHX	1	0
86	1	4018	OHX	1	0
86	1	4020	OHX	1	0
86	1	4024	OHX	1	0
86	1	4025	OHX	6	0
86	1	4027	OHX	1	0
86	1	4029	OHX	5	0
86	1	4030	OHX	1	0
86	1	4031	OHX	1	0
86	1	4035	OHX	2	0
86	1	4036	OHX	2	0
86	1	4037	OHX	1	0
86	1	4038	OHX	1	0
86	1	4041	OHX	4	0
86	1	4042	OHX	7	0
86	1	4043	OHX	1	0
86	1	4045	OHX	2	0
86	1	4053	OHX	6	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4054	OHX	5	0
86	1	4055	OHX	2	0
86	1	4057	OHX	1	0
86	1	4060	OHX	2	0
86	1	4061	OHX	1	0
86	1	4062	OHX	1	0
86	1	4064	OHX	1	0
86	1	4065	OHX	1	0
86	1	4066	OHX	1	0
86	1	4072	OHX	1	0
86	1	4074	OHX	1	0
86	1	4079	OHX	5	0
86	1	4081	OHX	1	0
86	1	4083	OHX	5	0
86	1	4084	OHX	2	0
86	1	4087	OHX	2	0
86	1	4089	OHX	1	0
86	1	4094	OHX	1	0
86	1	4095	OHX	1	0
86	1	4097	OHX	2	0
86	1	4098	OHX	1	0
86	1	4099	OHX	1	0
86	1	4106	OHX	1	0
86	1	4109	OHX	1	0
86	1	4113	OHX	1	0
86	1	4117	OHX	1	0
86	1	4119	OHX	1	0
86	1	4121	OHX	2	0
86	1	4124	OHX	1	0
86	1	4127	OHX	1	0
86	1	4134	OHX	1	0
86	1	4137	OHX	1	0
86	1	4138	OHX	3	0
86	1	4139	OHX	3	0
86	1	4140	OHX	1	0
86	1	4142	OHX	3	0
86	1	4145	OHX	7	0
86	1	4146	OHX	1	0
86	1	4148	OHX	1	0
86	1	4149	OHX	5	0
86	1	4153	OHX	3	0
86	1	4154	OHX	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4155	OHX	6	0
86	1	4157	OHX	1	0
86	1	4158	OHX	1	0
86	1	4162	OHX	5	0
86	1	4163	OHX	2	0
86	1	4164	OHX	1	0
86	1	4165	OHX	1	0
86	1	4166	OHX	2	0
86	1	4167	OHX	1	0
86	1	4171	OHX	10	0
86	1	4173	OHX	1	0
86	1	4174	OHX	1	0
86	1	4179	OHX	1	0
86	1	4180	OHX	3	0
86	1	4182	OHX	1	0
86	1	4183	OHX	1	0
86	1	4187	OHX	1	0
86	1	4193	OHX	1	0
86	1	4194	OHX	1	0
86	1	4196	OHX	6	0
86	1	4197	OHX	1	0
86	1	4201	OHX	3	0
86	1	4202	OHX	1	0
86	1	4204	OHX	1	0
86	2	2023	OHX	1	0
86	2	2024	OHX	1	0
86	2	2026	OHX	2	0
86	2	2031	OHX	7	0
86	2	2033	OHX	1	0
86	2	2034	OHX	1	0
86	2	2035	OHX	1	0
86	2	2036	OHX	2	0
86	2	2038	OHX	1	0
86	2	2039	OHX	2	0
86	2	2042	OHX	1	0
86	2	2044	OHX	7	0
86	2	2045	OHX	1	0
86	2	2046	OHX	1	0
86	2	2047	OHX	1	0
86	2	2048	OHX	1	0
86	2	2051	OHX	1	0
86	2	2052	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2054	OHX	2	0
86	2	2058	OHX	1	0
86	2	2062	OHX	1	0
86	2	2064	OHX	1	0
86	2	2065	OHX	1	0
86	2	2070	OHX	2	0
86	2	2073	OHX	1	0
86	2	2074	OHX	2	0
86	2	2075	OHX	6	0
86	2	2076	OHX	1	0
86	2	2078	OHX	1	0
86	2	2082	OHX	2	0
86	2	2083	OHX	2	0
86	2	2084	OHX	1	0
86	2	2085	OHX	2	0
86	2	2086	OHX	1	0
86	2	2089	OHX	5	0
86	2	2090	OHX	5	0
86	2	2091	OHX	1	0
86	2	2092	OHX	1	0
86	2	2093	OHX	2	0
86	2	2095	OHX	2	0
86	2	2096	OHX	2	0
86	2	2098	OHX	7	0
86	2	2103	OHX	1	0
86	2	2104	OHX	1	0
86	2	2105	OHX	1	0
86	2	2107	OHX	1	0
86	2	2108	OHX	2	0
86	2	2109	OHX	1	0
86	2	2110	OHX	3	0
86	2	2114	OHX	1	0
86	2	2120	OHX	1	0
86	2	2125	OHX	1	0
86	2	2127	OHX	1	0
86	2	2129	OHX	1	0
86	2	2130	OHX	1	0
86	2	2131	OHX	7	0
86	2	2132	OHX	1	0
86	2	2134	OHX	1	0
86	2	2136	OHX	1	0
86	2	2138	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2141	OHX	1	0
86	2	2144	OHX	1	0
86	2	2145	OHX	7	0
86	2	2148	OHX	1	0
86	2	2154	OHX	1	0
86	2	2156	OHX	1	0
86	2	2158	OHX	1	0
86	2	2159	OHX	1	0
86	2	2161	OHX	6	0
86	2	2167	OHX	1	0
86	2	2168	OHX	1	0
86	2	2171	OHX	1	0
87	2	2179	3K8	4	0
86	3	216	OHX	1	0
86	3	218	OHX	1	0
86	3	220	OHX	1	0
86	3	221	OHX	1	0
86	3	225	OHX	2	0
86	4	222	OHX	1	0
86	4	224	OHX	1	0
86	4	225	OHX	1	0
86	4	227	OHX	1	0
86	4	228	OHX	1	0
86	4	231	OHX	2	0
86	5	3901	OHX	2	0
86	5	3903	OHX	1	0
86	5	3907	OHX	1	0
86	5	3909	OHX	3	0
86	5	3912	OHX	1	0
86	5	3914	OHX	2	0
86	5	3917	OHX	1	0
86	5	3918	OHX	2	0
86	5	3921	OHX	2	0
86	5	3926	OHX	1	0
86	5	3927	OHX	1	0
86	5	3938	OHX	1	0
86	5	3944	OHX	7	0
86	5	3947	OHX	1	0
86	5	3950	OHX	1	0
86	5	3955	OHX	1	0
86	5	3956	OHX	1	0
86	5	3958	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	3959	OHX	2	0
86	5	3960	OHX	1	0
86	5	3961	OHX	1	0
86	5	3962	OHX	1	0
86	5	3964	OHX	4	0
86	5	3971	OHX	1	0
86	5	3974	OHX	2	0
86	5	3975	OHX	6	0
86	5	3978	OHX	1	0
86	5	3980	OHX	9	0
86	5	3984	OHX	1	0
86	5	3986	OHX	1	0
86	5	3989	OHX	1	0
86	5	3991	OHX	1	0
86	5	3993	OHX	3	0
86	5	3998	OHX	1	0
86	5	4003	OHX	6	0
86	5	4004	OHX	4	0
86	5	4005	OHX	1	0
86	5	4007	OHX	1	0
86	5	4009	OHX	2	0
86	5	4010	OHX	1	0
86	5	4011	OHX	1	0
86	5	4013	OHX	6	0
86	5	4015	OHX	1	0
86	5	4016	OHX	1	0
86	5	4017	OHX	1	0
86	5	4019	OHX	1	0
86	5	4021	OHX	2	0
86	5	4022	OHX	6	0
86	5	4025	OHX	3	0
86	5	4026	OHX	2	0
86	5	4028	OHX	1	0
86	5	4029	OHX	1	0
86	5	4030	OHX	1	0
86	5	4031	OHX	1	0
86	5	4032	OHX	1	0
86	5	4033	OHX	1	0
86	5	4035	OHX	5	0
86	5	4036	OHX	3	0
86	5	4037	OHX	5	0
86	5	4041	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4048	OHX	1	0
86	5	4051	OHX	1	0
86	5	4052	OHX	1	0
86	5	4053	OHX	1	0
86	5	4056	OHX	1	0
86	5	4057	OHX	6	0
86	5	4068	OHX	7	0
86	5	4069	OHX	1	0
86	5	4070	OHX	1	0
86	5	4074	OHX	1	0
86	5	4075	OHX	1	0
86	5	4076	OHX	1	0
86	5	4077	OHX	1	0
86	5	4083	OHX	5	0
86	5	4090	OHX	2	0
86	5	4091	OHX	1	0
86	5	4093	OHX	6	0
86	5	4094	OHX	1	0
86	5	4095	OHX	1	0
86	5	4096	OHX	2	0
86	5	4099	OHX	1	0
86	5	4100	OHX	2	0
86	5	4102	OHX	1	0
86	5	4104	OHX	1	0
86	5	4105	OHX	2	0
86	5	4108	OHX	1	0
86	5	4110	OHX	1	0
86	5	4114	OHX	1	0
86	5	4120	OHX	1	0
86	5	4121	OHX	2	0
86	5	4122	OHX	1	0
86	5	4123	OHX	1	0
86	5	4129	OHX	1	0
86	5	4130	OHX	1	0
86	5	4131	OHX	2	0
86	5	4133	OHX	1	0
86	5	4134	OHX	1	0
86	5	4140	OHX	1	0
86	5	4141	OHX	1	0
86	5	4144	OHX	1	0
86	5	4146	OHX	6	0
86	5	4147	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4148	OHX	2	0
86	5	4149	OHX	1	0
86	5	4155	OHX	1	0
86	5	4157	OHX	1	0
86	5	4161	OHX	2	0
86	5	4163	OHX	1	0
86	5	4164	OHX	1	0
86	5	4170	OHX	1	0
86	5	4174	OHX	1	0
86	5	4179	OHX	1	0
86	5	4182	OHX	1	0
86	5	4183	OHX	1	0
86	5	4186	OHX	1	0
86	5	4187	OHX	1	0
86	5	4189	OHX	1	0
86	5	4191	OHX	6	0
86	5	4192	OHX	1	0
86	5	4193	OHX	6	0
86	5	4194	OHX	1	0
86	5	4195	OHX	1	0
86	5	4197	OHX	1	0
86	5	4199	OHX	2	0
86	5	4200	OHX	11	0
86	5	4201	OHX	7	0
86	5	4202	OHX	7	0
86	5	4203	OHX	3	0
86	5	4205	OHX	5	0
86	5	4213	OHX	1	0
86	5	4219	OHX	8	0
86	5	4221	OHX	1	0
86	5	4223	OHX	1	0
86	5	4225	OHX	1	0
86	5	4226	OHX	1	0
86	5	4228	OHX	1	0
86	5	4230	OHX	1	0
86	5	4231	OHX	1	0
86	5	4236	OHX	6	0
86	5	4239	OHX	1	0
86	5	4240	OHX	5	0
86	5	4241	OHX	1	0
86	5	4242	OHX	1	0
86	5	4245	OHX	7	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4249	OHX	1	0
86	5	4250	OHX	1	0
86	5	4251	OHX	2	0
86	6	2048	OHX	1	0
86	6	2050	OHX	2	0
86	6	2055	OHX	1	0
86	6	2056	OHX	1	0
86	6	2058	OHX	1	0
86	6	2060	OHX	7	0
86	6	2062	OHX	2	0
86	6	2063	OHX	1	0
86	6	2066	OHX	1	0
86	6	2067	OHX	2	0
86	6	2069	OHX	1	0
86	6	2071	OHX	1	0
86	6	2072	OHX	2	0
86	6	2075	OHX	1	0
86	6	2076	OHX	1	0
86	6	2078	OHX	1	0
86	6	2084	OHX	1	0
86	6	2087	OHX	1	0
86	6	2089	OHX	1	0
86	6	2092	OHX	1	0
86	6	2093	OHX	1	0
86	6	2094	OHX	1	0
86	6	2096	OHX	1	0
86	6	2097	OHX	1	0
86	6	2101	OHX	3	0
86	6	2103	OHX	1	0
86	6	2104	OHX	1	0
86	6	2106	OHX	1	0
86	6	2108	OHX	2	0
86	6	2109	OHX	1	0
86	6	2110	OHX	1	0
86	6	2112	OHX	1	0
86	6	2113	OHX	1	0
86	6	2115	OHX	1	0
86	6	2118	OHX	1	0
86	6	2120	OHX	1	0
86	6	2121	OHX	8	0
86	6	2122	OHX	1	0
86	6	2123	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2124	OHX	2	0
86	6	2125	OHX	1	0
86	6	2126	OHX	3	0
86	6	2127	OHX	2	0
86	6	2129	OHX	1	0
86	6	2131	OHX	2	0
86	6	2137	OHX	1	0
86	6	2138	OHX	2	0
86	6	2139	OHX	1	0
86	6	2144	OHX	1	0
86	6	2146	OHX	1	0
86	6	2147	OHX	7	0
86	6	2149	OHX	1	0
86	6	2150	OHX	2	0
86	6	2151	OHX	1	0
86	6	2154	OHX	2	0
86	6	2159	OHX	1	0
86	6	2160	OHX	1	0
86	6	2162	OHX	1	0
86	6	2165	OHX	1	0
86	6	2168	OHX	1	0
86	6	2171	OHX	8	0
86	6	2175	OHX	1	0
86	6	2176	OHX	1	0
86	6	2178	OHX	1	0
86	6	2179	OHX	1	0
86	6	2182	OHX	1	0
86	6	2183	OHX	1	0
86	6	2186	OHX	1	0
86	6	2188	OHX	1	0
86	6	2189	OHX	3	0
86	6	2190	OHX	1	0
86	6	2192	OHX	1	0
86	6	2195	OHX	1	0
86	6	2196	OHX	1	0
86	6	2201	OHX	1	0
86	6	2202	OHX	1	0
86	6	2204	OHX	1	0
87	6	2205	3K8	1	0
86	7	219	OHX	7	0
86	7	220	OHX	2	0
86	7	222	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	7	226	OHX	6	0
86	8	215	OHX	1	0
86	8	216	OHX	7	0
86	8	217	OHX	1	0
86	8	218	OHX	1	0
86	8	220	OHX	1	0
86	8	223	OHX	1	0
86	8	225	OHX	6	0
86	8	226	OHX	4	0
86	8	230	OHX	2	0
86	C3	201	OHX	1	0
86	C5	201	OHX	5	0
86	D9	102	OHX	1	0
86	L3	404	OHX	1	0
86	L3	405	OHX	1	0
86	M0	304	OHX	1	0
86	M5	302	OHX	1	0
86	M7	206	OHX	1	0
86	M7	207	OHX	1	0
86	N1	201	OHX	2	0
86	O1	201	OHX	6	0
86	O3	201	OHX	1	0
86	O7	105	OHX	5	0
86	O7	106	OHX	1	0
86	O9	101	OHX	1	0

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

## 6 Fit of model and data

### 6.1 Protein, DNA and RNA chains

EDS failed to run properly - this section is therefore empty.

### 6.2 Non-standard residues in protein, DNA, RNA chains

EDS failed to run properly - this section is therefore empty.

### 6.3 Carbohydrates

EDS failed to run properly - this section is therefore empty.

### 6.4 Ligands

EDS failed to run properly - this section is therefore empty.

### 6.5 Other polymers

EDS failed to run properly - this section is therefore empty.