



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 18, 2018 – 06:08 am GMT

PDB ID : 4U3N
Title : Crystal structure of CCA trinucleotide bound to the yeast 80S ribosome
Authors : Garreau de Loubresse, N.; Prokhorova, I.; Yusupova, G.; Yusupov, M.
Deposited on : 2014-07-22
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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.7.3 (157068), CSD as539be (2018)
Xtriage (Phenix) : 1.13
EDS : **FAILED**
Percentile statistics : 20171227.v01 (using entries in the PDB archive December 27th 2017)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : trunk30686

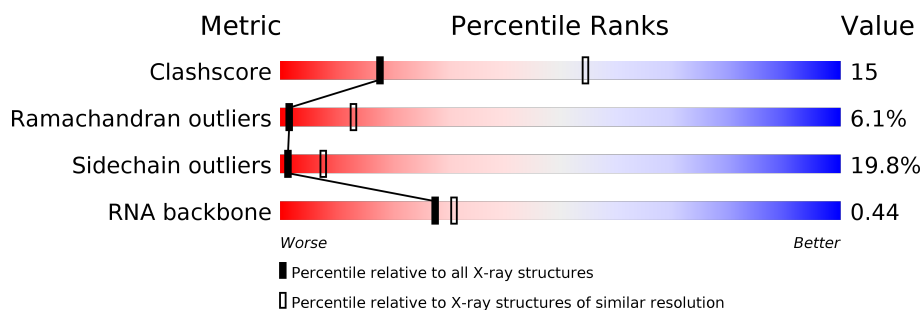
1 Overall quality at a glance

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	122078	1092 (3.20-3.20)
Ramachandran outliers	120005	1075 (3.20-3.20)
Sidechain outliers	119972	1074 (3.20-3.20)
RNA backbone	2633	1105 (3.60-2.80)

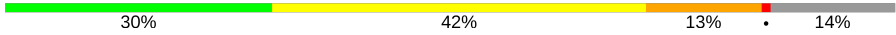



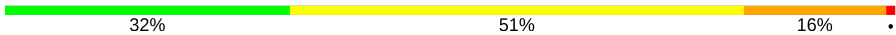

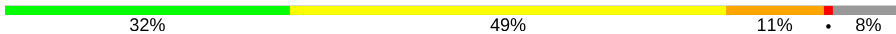

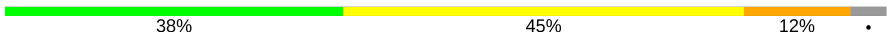

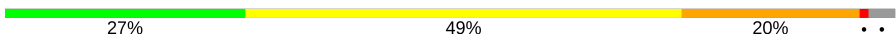

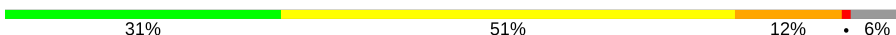

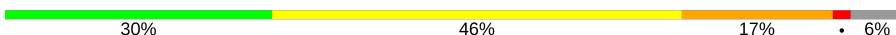

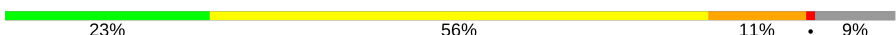


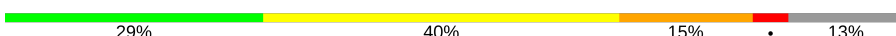





The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A grey 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	

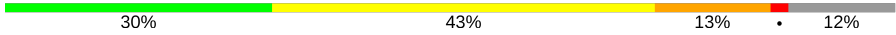

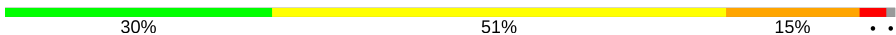

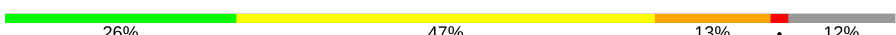

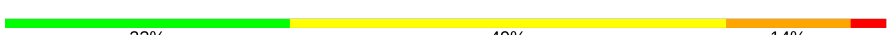




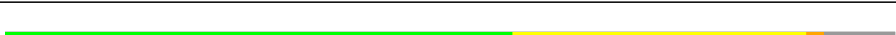


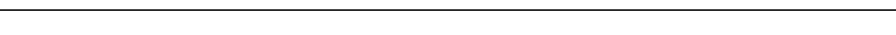
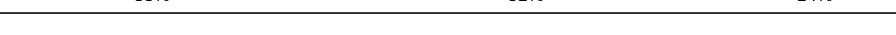

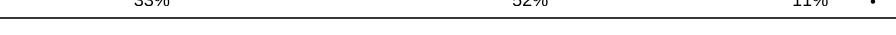





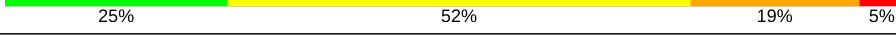

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Mol	Chain	Length	Quality of chain
4	S2	253	
4	s2	253	
5	S3	239	
5	s3	239	
6	S4	260	
6	s4	260	
7	S5	224	
7	s5	224	
8	S6	236	
8	s6	236	
9	S7	189	
9	s7	189	
10	S8	200	
10	s8	200	
11	S9	196	
11	s9	196	
12	C0	105	
13	C1	155	
13	c1	155	
14	C2	142	
14	c2	142	
15	C3	150	
15	c3	150	
16	C4	136	
16	c4	136	


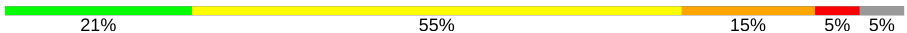



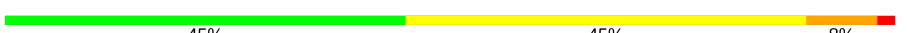
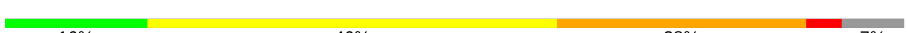




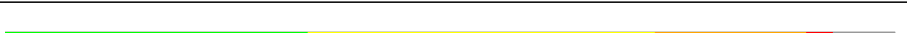


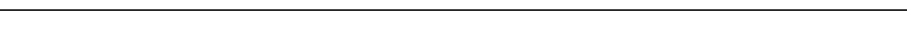




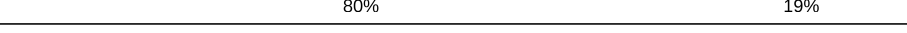





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Mol	Chain	Length	Quality of chain
17	C5	141	
17	c5	141	
18	C6	142	
18	c6	142	
19	C7	136	
19	c7	136	
20	C8	145	
20	c8	145	
21	C9	143	
21	c9	143	
22	D0	120	
22	d0	120	
23	D1	87	
23	d1	87	
24	D2	129	
24	d2	129	
25	D3	144	
25	d3	144	
26	D4	134	
26	d4	134	
27	D5	107	
27	d5	107	
28	D6	97	
28	d6	97	
29	D7	81	

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Mol	Chain	Length	Quality of chain
29	d7	81	
30	D8	66	
30	d8	66	
31	D9	55	
31	d9	55	
32	E0	60	
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	
42	L5	296	
42	l5	296	


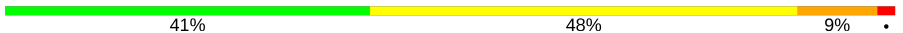



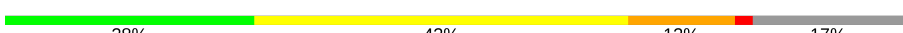





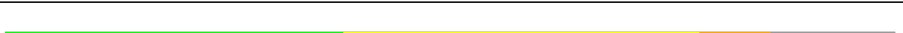


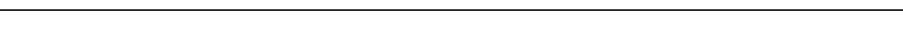

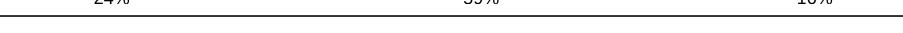


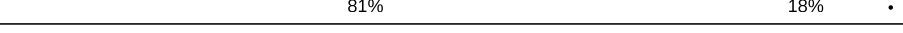


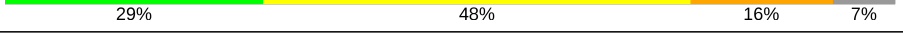


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Mol	Chain	Length	Quality of chain
43	L6	175	
43	l6	175	
44	L7	243	
44	l7	243	
45	L8	255	
45	l8	255	
46	L9	191	
46	l9	191	
47	M0	220	
47	m0	220	
48	M1	173	
48	m1	173	
49	M3	198	
49	m3	198	
50	M4	137	
50	m4	137	
51	M5	203	
51	m5	203	
52	M6	198	
52	m6	198	
53	M7	183	
53	m7	183	
54	M8	185	
54	m8	185	
55	M9	188	



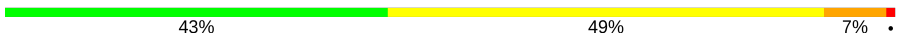



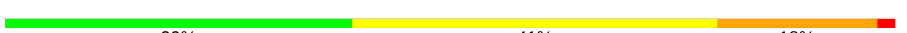







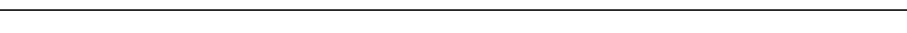




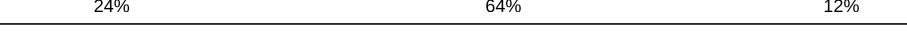

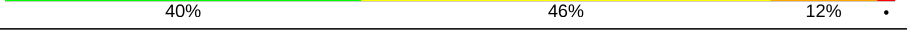



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Mol	Chain	Length	Quality of chain
55	m9	188	
56	N0	172	
56	n0	172	
57	N1	159	
57	n1	159	
58	N2	120	
58	n2	120	
59	N3	136	
59	n3	136	
60	N4	155	
60	n4	155	
61	N5	141	
61	n5	141	
62	N6	126	
62	n6	126	
63	N7	135	
63	n7	135	
64	N8	148	
64	n8	148	
65	N9	58	
65	n9	58	
66	O0	104	
66	o0	104	
67	O1	112	
67	o1	112	




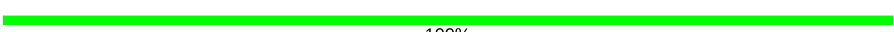
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Mol	Chain	Length	Quality of chain
68	O2	129	
68	o2	129	
69	O3	106	
69	o3	106	
70	O4	119	
70	o4	119	
71	O5	119	
71	o5	119	
72	O6	99	
72	o6	99	
73	O7	87	
73	o7	87	
74	O8	77	
74	o8	77	
75	O9	50	
75	o9	50	
76	Q0	52	
76	q0	52	
77	Q1	25	
77	q1	25	
78	Q2	105	
78	q2	105	
79	Q3	91	
79	q3	91	
80	c0	105	

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Mol	Chain	Length	Quality of chain
81	e0	62	
82	e1	76	
83	m2	160	
84	p0	311	
85	p1	47	
86	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
88	OHX	1	3982	-	-	X	-
88	OHX	1	4015	-	-	X	-
88	OHX	1	4170	-	-	X	-
88	OHX	1	4186	-	-	X	-
88	OHX	2	2044	-	-	X	-
88	OHX	2	2099	-	-	X	-
88	OHX	5	3981	-	-	X	-
88	OHX	5	4014	-	-	X	-
88	OHX	5	4023	-	-	X	-
88	OHX	5	4203	-	-	X	-
88	OHX	5	4205	-	-	X	-
88	OHX	5	4222	-	-	X	-
88	OHX	5	4248	-	-	X	-
88	OHX	6	2105	-	-	X	-
88	OHX	6	2143	-	-	X	-
88	OHX	8	218	-	-	X	-
88	OHX	8	225	-	-	X	-
88	OHX	C5	201	-	-	X	-

2 Entry composition

There are 91 unique types of molecules in this entry. The entry contains 411288 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			

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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			

- 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			
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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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			

- 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
			680	403	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			
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			

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

- 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	0	0	0
			1445	930	267	244	4			

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

- 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	0	0	0
			1276	805	246	221	4			
57	n1	159	Total	C	N	O	S	0	0	0
			1276	805	246	221	4			

- 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	S	0	0	0
			796	516	131	149				
58	n2	98	Total	C	N	O	S	0	0	0
			778	505	127	146				

- 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	0	0	0
			1003	628	189	179	7			
59	n3	136	Total	C	N	O	S	0	0	0
			1003	628	189	179	7			

- 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	0	0	0
			699	443	137	118	1			
60	n4	135	Total	C	N	O	S	0	0	0
			1038	651	206	180	1			

- 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			

- 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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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	S	0	0	0
			612	391	115	106				
74	o8	77	Total	C	N	O	S	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 S10-A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
80	c0	96	Total	C	N	O	S	0	0	0
			762	491	125	144	2			

There is a discrepancy between the modelled and reference sequences:

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

- Molecule 81 is a protein called 40S ribosomal protein S30-A.

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

- Molecule 82 is a protein called Ubiquitin-40S ribosomal protein S31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
82	e1	76	Total	C	N	O	S	0	0	0
			608	388	117	99	4			

- Molecule 83 is a protein called UNKNOWN PROTEIN m2.

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

- Molecule 84 is a protein called 60S acidic ribosomal protein P0.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
84	p0	143	Total	C	N	O	S	0	0	0
			1077	687	192	195	3			

- Molecule 85 is a protein called UNKNOWN PROTEIN p1.

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

- Molecule 86 is a protein called UNKNOWN PROTEIN p2.

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

- Molecule 87 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
87	L7	4	Total	Mg	0	0
			4	4		
87	n8	3	Total	Mg	0	0
			3	3		
87	o1	1	Total	Mg	0	0
			1	1		
87	N5	1	Total	Mg	0	0
			1	1		
87	6	144	Total	Mg	0	0
			144	144		
87	sM	1	Total	Mg	0	0
			1	1		
87	O4	1	Total	Mg	0	0
			1	1		
87	m5	5	Total	Mg	0	0
			5	5		
87	l3	3	Total	Mg	0	0
			3	3		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
87	M1	1	Total 1	Mg 1	0	0
87	d6	1	Total 1	Mg 1	0	0
87	2	124	Total 124	Mg 124	0	0
87	n0	3	Total 3	Mg 3	0	0
87	L4	1	Total 1	Mg 1	0	0
87	l7	1	Total 1	Mg 1	0	0
87	M5	2	Total 2	Mg 2	0	0
87	c9	1	Total 1	Mg 1	0	0
87	L8	1	Total 1	Mg 1	0	0
87	D3	1	Total 1	Mg 1	0	0
87	o4	1	Total 1	Mg 1	0	0
87	M9	1	Total 1	Mg 1	0	0
87	q0	1	Total 1	Mg 1	0	0
87	SM	1	Total 1	Mg 1	0	0
87	c8	1	Total 1	Mg 1	0	0
87	M0	2	Total 2	Mg 2	0	0
87	c1	1	Total 1	Mg 1	0	0
87	5	502	Total 502	Mg 502	0	0
87	L5	1	Total 1	Mg 1	0	0
87	O7	1	Total 1	Mg 1	0	0
87	s6	1	Total 1	Mg 1	0	0

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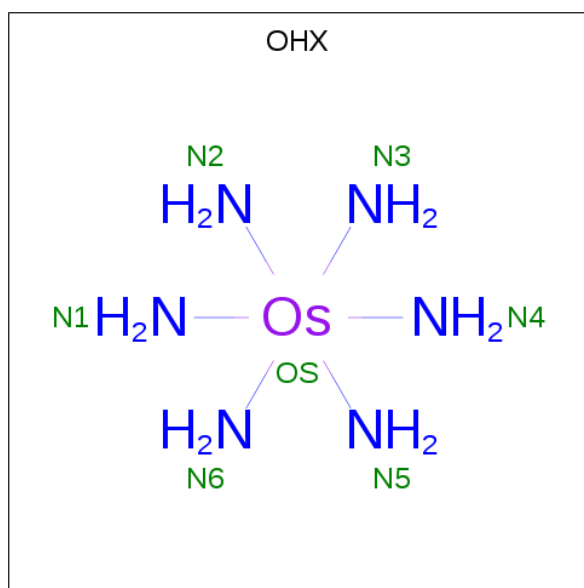
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
87	l4	2	Total 2	Mg 2	0	0
87	d4	1	Total 1	Mg 1	0	0
87	1	477	Total 477	Mg 477	0	0
87	d3	1	Total 1	Mg 1	0	0
87	S8	1	Total 1	Mg 1	0	0
87	m1	2	Total 2	Mg 2	0	0
87	O2	1	Total 1	Mg 1	0	0
87	q3	2	Total 2	Mg 2	0	0
87	o3	1	Total 1	Mg 1	0	0
87	M3	2	Total 2	Mg 2	0	0
87	N3	3	Total 3	Mg 3	0	0
87	4	19	Total 19	Mg 19	0	0
87	n6	2	Total 2	Mg 2	0	0
87	S4	2	Total 2	Mg 2	0	0
87	L2	1	Total 1	Mg 1	0	0
87	l5	2	Total 2	Mg 2	0	0
87	m7	5	Total 5	Mg 5	0	0
87	M7	4	Total 4	Mg 4	0	0
87	N8	5	Total 5	Mg 5	0	0
87	s1	1	Total 1	Mg 1	0	0
87	m6	2	Total 2	Mg 2	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
87	s8	3	Total 3	Mg 3	0	0
87	c7	2	Total 2	Mg 2	0	0
87	7	15	Total 15	Mg 15	0	0
87	n3	2	Total 2	Mg 2	0	0
87	q1	1	Total 1	Mg 1	0	0
87	L3	3	Total 3	Mg 3	0	0
87	O5	1	Total 1	Mg 1	0	0
87	l2	1	Total 1	Mg 1	0	0
87	8	16	Total 16	Mg 16	0	0
87	M6	1	Total 1	Mg 1	0	0
87	N0	1	Total 1	Mg 1	0	0
87	3	14	Total 14	Mg 14	0	0

- Molecule 88 is osmium (III) hexammine (three-letter code: OHX) (formula: $\text{H}_{12}\text{N}_6\text{Os}$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
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88	2	1	Total	N	Os	0	0
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			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
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88	2	1	Total	N	Os	0	0
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88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		
88	2	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	2	1	Total 7	N 6	Os 1	0	0
88	2	1	Total 7	N 6	Os 1	0	0
88	2	1	Total 7	N 6	Os 1	0	0
88	2	1	Total 7	N 6	Os 1	0	0
88	2	1	Total 7	N 6	Os 1	0	0
88	2	1	Total 7	N 6	Os 1	0	0
88	2	1	Total 7	N 6	Os 1	0	0
88	2	1	Total 7	N 6	Os 1	0	0
88	2	1	Total 7	N 6	Os 1	0	0
88	2	1	Total 7	N 6	Os 1	0	0
88	2	1	Total 7	N 6	Os 1	0	0
88	S8	1	Total 7	N 6	Os 1	0	0
88	C3	1	Total 7	N 6	Os 1	0	0
88	C5	1	Total 7	N 6	Os 1	0	0
88	C8	1	Total 7	N 6	Os 1	0	0
88	D3	1	Total 7	N 6	Os 1	0	0
88	D9	1	Total 7	N 6	Os 1	0	0
88	SR	1	Total 7	N 6	Os 1	0	0
88	1	1	Total 7	N 6	Os 1	0	0
88	1	1	Total 7	N 6	Os 1	0	0
88	1	1	Total 7	N 6	Os 1	0	0
88	1	1	Total 7	N 6	Os 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
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88	1	1	Total	N	Os	0	0
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88	1	1	Total	N	Os	0	0
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88	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
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88	1	1	Total	N	Os	0	0
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88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
88	1	1	Total	N	Os	0	0
			7	6	1		
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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88	1	1	Total	N	Os	0	0
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88	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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88	1	1	Total	N	Os	0	0
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88	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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88	1	1	Total	N	Os	0	0
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88	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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88	1	1	Total	N	Os	0	0
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88	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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88	1	1	Total	N	Os	0	0
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88	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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88	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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88	1	1	Total	N	Os	0	0
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88	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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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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88	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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88	1	1	Total	N	Os	0	0
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88	3	1	Total	N	Os	0	0
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88	3	1	Total	N	Os	0	0
			7	6	1		
88	3	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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88	3	1	Total	N	Os	0	0
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88	3	1	Total	N	Os	0	0
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88	4	1	Total	N	Os	0	0
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88	4	1	Total	N	Os	0	0
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88	4	1	Total	N	Os	0	0
			7	6	1		
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88	L3	1	Total	N	Os	0	0
			7	6	1		
88	L3	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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88	M0	1	Total	N	Os	0	0
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88	M5	1	Total	N	Os	0	0
			7	6	1		
88	M7	1	Total	N	Os	0	0
			7	6	1		
88	M7	1	Total	N	Os	0	0
			7	6	1		
88	M8	1	Total	N	Os	0	0
			7	6	1		
88	M9	1	Total	N	Os	0	0
			7	6	1		
88	N9	1	Total	N	Os	0	0
			7	6	1		
88	O3	1	Total	N	Os	0	0
			7	6	1		
88	O7	1	Total	N	Os	0	0
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88	O7	1	Total	N	Os	0	0
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88	6	1	Total	N	Os	0	0
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88	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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88	6	1	Total	N	Os	0	0
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88	6	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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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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88	c3	1	Total 7	N 6	Os 1	0	0
88	c5	1	Total 7	N 6	Os 1	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		
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			7	6	1		
88	5	1	Total	N	Os	0	0
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88	5	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		
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			7	6	1		
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			7	6	1		
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			7	6	1		
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			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	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		
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			7	6	1		
88	5	1	Total	N	Os	0	0
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88	5	1	Total	N	Os	0	0
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			7	6	1		
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			7	6	1		
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88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	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		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
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			7	6	1		
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			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
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			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
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			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
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			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
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			7	6	1		
88	5	1	Total	N	Os	0	0
			7	6	1		
88	7	1	Total	N	Os	0	0
			7	6	1		
88	7	1	Total	N	Os	0	0
			7	6	1		
88	7	1	Total	N	Os	0	0
			7	6	1		
88	7	1	Total	N	Os	0	0
			7	6	1		
88	7	1	Total	N	Os	0	0
			7	6	1		
88	7	1	Total	N	Os	0	0
			7	6	1		
88	7	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	7	1	Total	N	Os	0	0
			7	6	1		
88	7	1	Total	N	Os	0	0
			7	6	1		
88	7	1	Total	N	Os	0	0
			7	6	1		
88	7	1	Total	N	Os	0	0
			7	6	1		
88	8	1	Total	N	Os	0	0
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88	8	1	Total	N	Os	0	0
			7	6	1		
88	8	1	Total	N	Os	0	0
			7	6	1		
88	8	1	Total	N	Os	0	0
			7	6	1		
88	8	1	Total	N	Os	0	0
			7	6	1		
88	8	1	Total	N	Os	0	0
			7	6	1		
88	8	1	Total	N	Os	0	0
			7	6	1		
88	8	1	Total	N	Os	0	0
			7	6	1		
88	8	1	Total	N	Os	0	0
			7	6	1		
88	8	1	Total	N	Os	0	0
			7	6	1		
88	8	1	Total	N	Os	0	0
			7	6	1		
88	13	1	Total	N	Os	0	0
			7	6	1		
88	13	1	Total	N	Os	0	0
			7	6	1		
88	13	1	Total	N	Os	0	0
			7	6	1		

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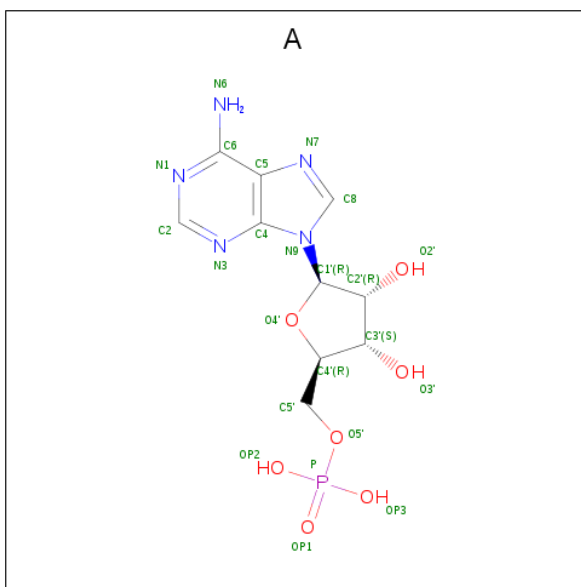
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
88	l4	1	Total	N	Os	0	0
			7	6	1		
88	l4	1	Total	N	Os	0	0
			7	6	1		
88	l5	1	Total	N	Os	0	0
			7	6	1		
88	l5	1	Total	N	Os	0	0
			7	6	1		
88	l5	1	Total	N	Os	0	0
			7	6	1		
88	l5	1	Total	N	Os	0	0
			7	6	1		
88	l9	1	Total	N	Os	0	0
			7	6	1		
88	m0	1	Total	N	Os	0	0
			7	6	1		
88	m0	1	Total	N	Os	0	0
			7	6	1		
88	m1	1	Total	N	Os	0	0
			7	6	1		
88	m4	1	Total	N	Os	0	0
			7	6	1		
88	m5	1	Total	N	Os	0	0
			7	6	1		
88	m6	1	Total	N	Os	0	0
			7	6	1		
88	n3	1	Total	N	Os	0	0
			7	6	1		
88	n3	1	Total	N	Os	0	0
			7	6	1		
88	n9	1	Total	N	Os	0	0
			7	6	1		
88	o3	1	Total	N	Os	0	0
			7	6	1		
88	o7	1	Total	N	Os	0	0
			7	6	1		
88	q2	1	Total	N	Os	0	0
			7	6	1		

- Molecule 89 is ZINC ION (three-letter code: ZN) (formula: Zn).

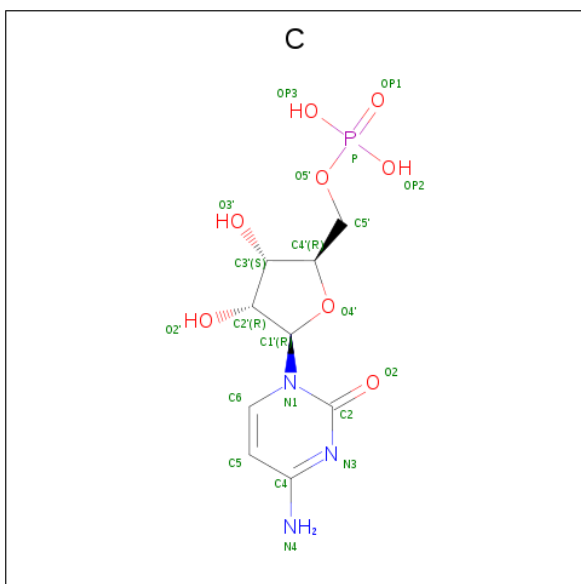
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
89	q0	1	Total Zn 1 1	0	0
89	D6	1	Total Zn 1 1	0	0
89	Q2	1	Total Zn 1 1	0	0
89	e1	1	Total Zn 1 1	0	0
89	Q3	1	Total Zn 1 1	0	0
89	D9	1	Total Zn 1 1	0	0
89	E1	1	Total Zn 1 1	0	0
89	Q0	1	Total Zn 1 1	0	0
89	d7	1	Total Zn 1 1	0	0
89	q3	1	Total Zn 1 1	0	0
89	d9	1	Total Zn 1 1	0	0
89	D7	1	Total Zn 1 1	0	0
89	d6	1	Total Zn 1 1	0	0
89	o7	1	Total Zn 1 1	0	0
89	O7	1	Total Zn 1 1	0	0
89	q2	1	Total Zn 1 1	0	0

- Molecule 90 is ADENOSINE-5'-MONOPHOSPHATE (three-letter code: A) (formula: $C_{10}H_{14}N_5O_7P$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
90	1	1	Total	C	N	O	P	0	0
			22	10	5	6	1		
90	5	1	Total	C	N	O	P	0	0
			22	10	5	6	1		

- Molecule 91 is CYTIDINE-5'-MONOPHOSPHATE (three-letter code: C) (formula: $C_9H_{14}N_3O_8P$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
91	Q2	1	Total	C	N	O	P	0	0
			20	9	3	7	1		

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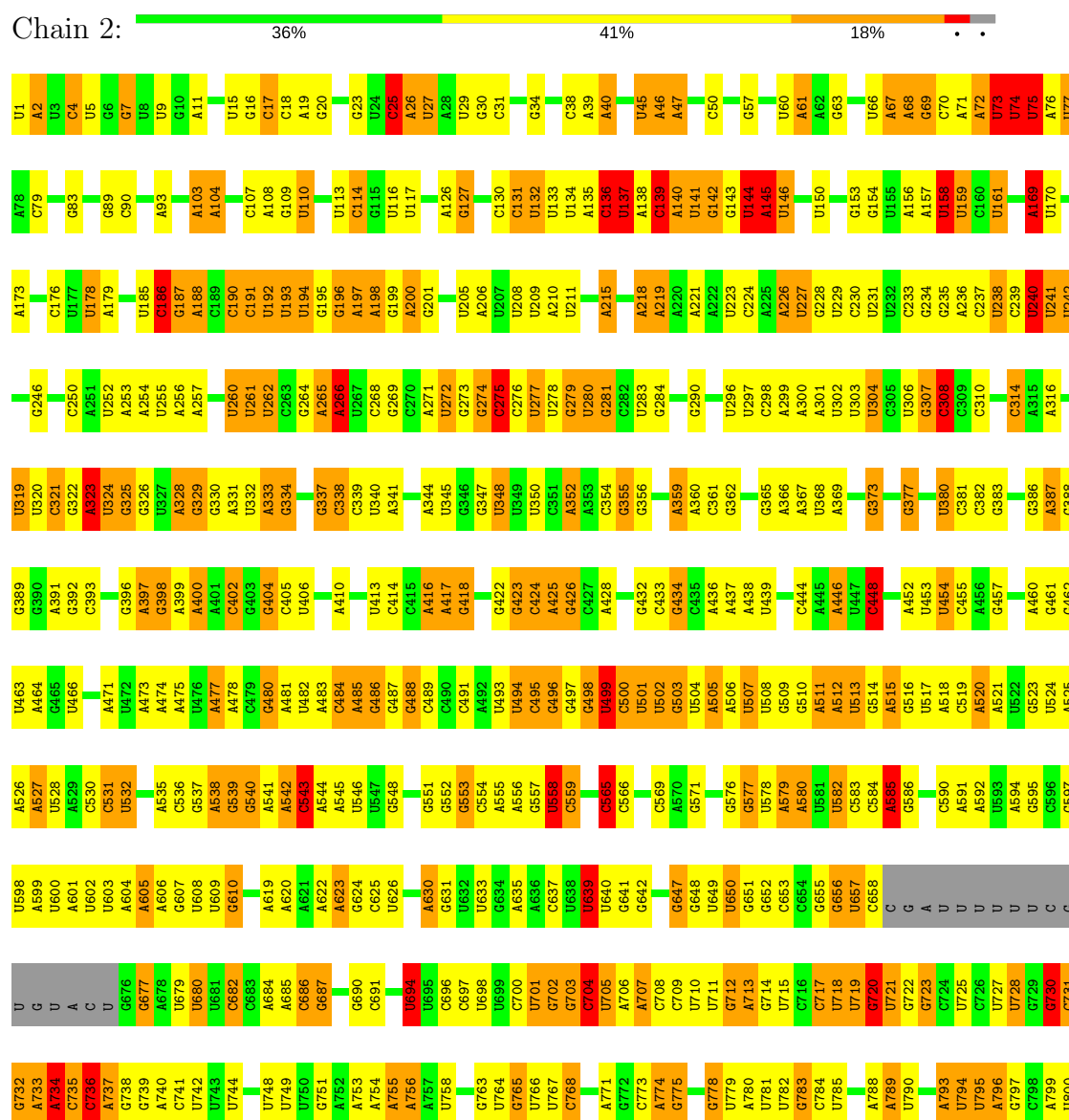
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
91	Q2	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
91	q2	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
91	q2	1	Total	C	N	O	P	0	0
			20	9	3	7	1		

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

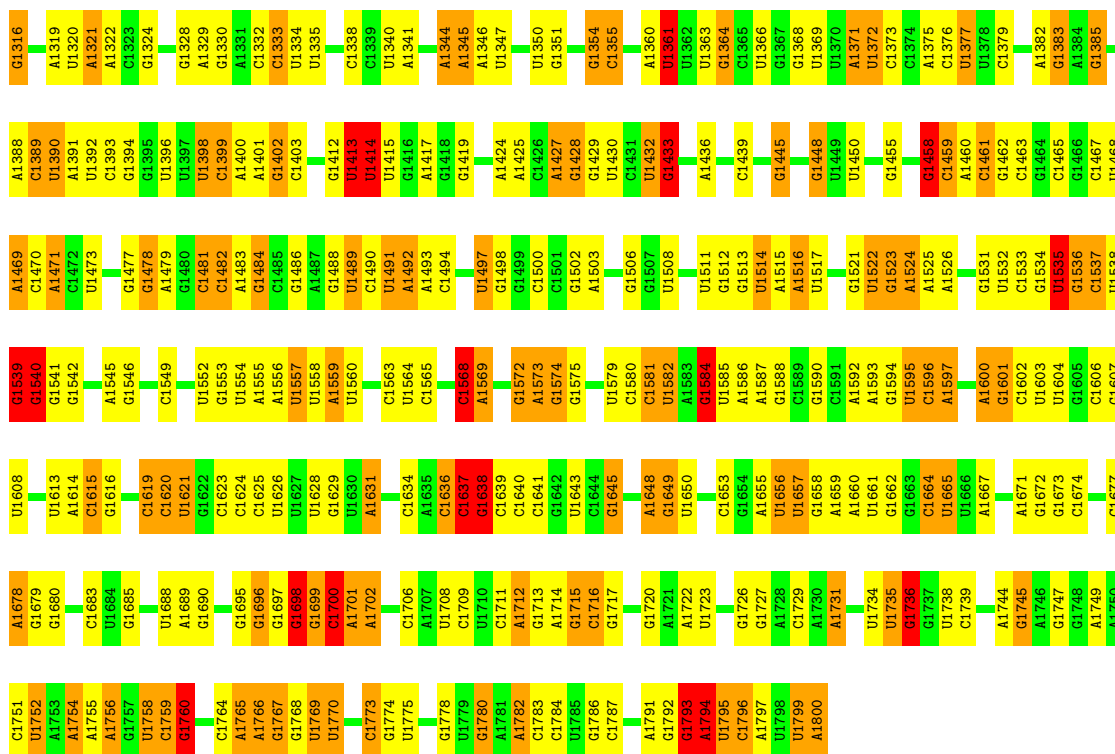




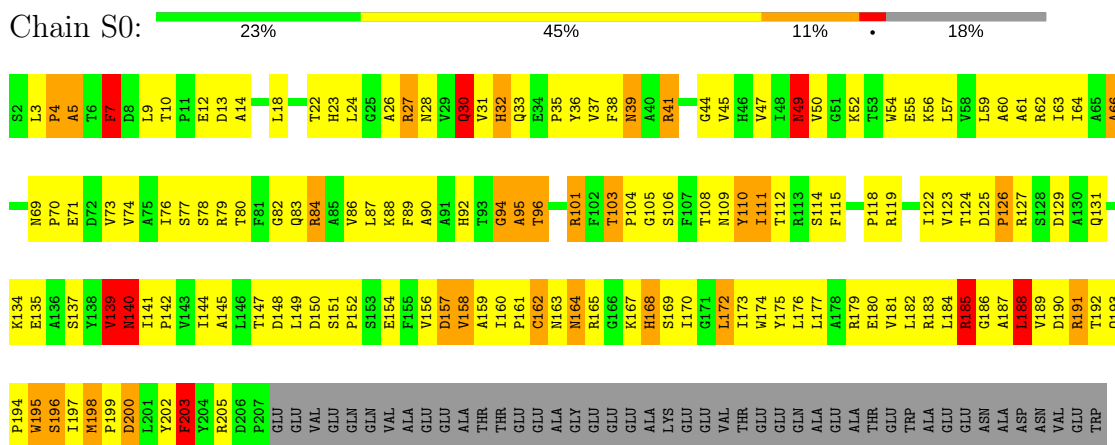
Response	Percentage
Yes, the U.S. should take action to address climate change	37%
No, the U.S. should focus on other issues	41%
It's not the U.S.'s responsibility to address climate change	18%
Other	4%



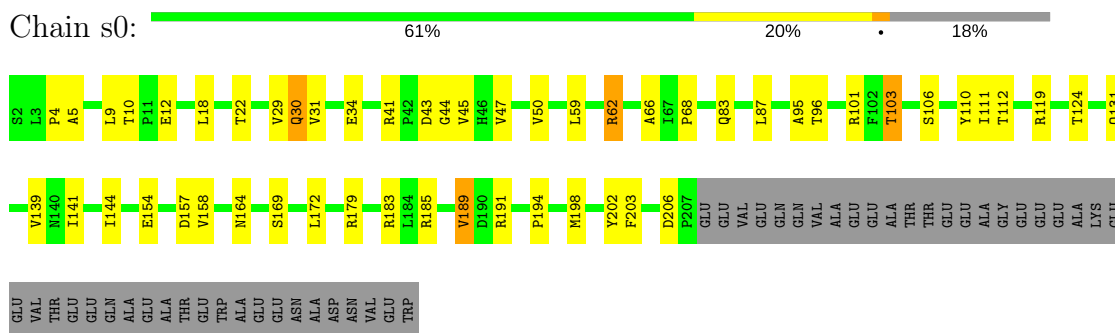
G1241	A1163	C1078	C1006	C927	U857	U792	G714	G648	C569	U502	G432	G357	G279	A206	C136	A72
A1242	G1164	U1079	C1007	U932	G858	A793	U715	U649	A570	G503	C433	U358	U280	A209	U137	U73
G1243	G1165	U1080	U794	U933	U861	U795	C716	U650	A359	A505	G434	A359	C281	U210	C139	U75
A1244	A1166	A1081	C1010	A933	A862	U796	C717	G651	G571	A504	G435	A360	G282	A201	C138	A76
G1245	G1167	C1082	G1011	C934	A863	G797	U718	G652	G574	A506	A437	C361	U283	A213	U141	U77
G1246	A1171	A1087	U1012	U935	U864	U798	U719	G653	G577	U508	U438	G362	G287	G214	G142	A78
U1249	G1172	A1088	U1017	G936	A865	U800	G720	G654	U578	U509	U439	G363	G287	A215	G143	C79
U1250	C1173	A1089	U1018	G937	A866	G801	U721	G655	U579	G510	C444	A366	G290	U216	U144	U82
U1251	C1174	A1091	U1019	G938	A867	G802	G722	C658	A580	A511	C445	A367	G291	U217	A145	G83
C1252	U1175	A1092	A1020	A940	C868	A803	U723	U661	U581	A512	A446	A368	G292	A218	A146	A84
U1253	C1176	A1093	C1021	A941	C869	U804	U724	U662	U582	U513	U447	A369	G293	A219	U150	A85
U1254	C1177	U1095	C1022	A942	C870	A805	U725	U663	U583	G514	C448	G372	G294	A220	G151	A86
G1255	G1178	C1096	A1023	C943	G871	A807	G726	U664	C584	A515	C449	G373	A295	A221	U152	C87
A1256	U1179	U1097	U1024	A944	U872	U808	G730	U665	C587	G516	U450	C376	A299	C224	G153	U88
U1257	C1180	U1098	A1025	C950	U873	A809	A733	U666	U588	A518	A452	G377	G299	A225	G154	G89
U1258	G1181	U1099	A1026	C951	C874	U810	A734	U667	U589	C519	U453	C377	A301	A226	U155	C90
U1259	U1185	G1100	A1027	A952	C875	A811	A735	U668	A591	A520	U454	U380	A308	U227	A156	A93
U1260	U1191	U1104	C1028	A953	C876	U812	A737	G669	U592	A521	C455	U381	C308	G228	A157	U94
G1261	C1192	U1091	U1029	A955	C879	U813	G738	U670	A593	U522	C456	C382	C309	U229	U158	U95
U1262	A1193	G1107	A1030	C956	A880	G814	A752	G675	A604	A523	G457	C383	C310	U230	U159	G96
G1263	C1194	U1108	G1031	C957	A881	G815	U742	U	A594	G524	A460	G384	U311	U231	C160	G96
G1264	A1194	G1109	G1032	G957	U882	G816	U743	G676	A605	U525	G461	G385	U312	U232	U161	C99
U1267	C1195	G1110	C1033	U958	U883	G817	U744	C677	A606	A526	U462	G386	U313	U233	A162	C99
G1268	G1197	U1111	U1034	U959	A884	G819	U745	U678	U600	A527	A464	A387	C314	G234	G163	A100
U1269	C1198	G1112	A1035	U960	C885	U820	G751	U679	A604	U528	G467	C390	A315	G235	A164	U101
G1270	A1199	U1117	C1036	U961	U886	U821	A753	G676	A605	A529	A468	A316	U316	A236	G165	U102
G1271	C1200	G1118	G1037	A963	U887	G822	U754	A678	A606	C530	C469	C317	U317	C237	U162	A103
U1273	U1201	U1119	U1038	U966	U888	G823	A755	U679	A607	A534	A470	C393	U318	U240	A168	A104
C1274	A1202	U1120	U1039	A967	U889	U825	A756	U680	U609	A535	A471	C394	U319	U241	U170	A105
U1279	U1206	G1121	G1040	A968	U891	U826	A757	U681	C609	A536	A472	C395	U320	U242	A171	U106
C1280	U1280	G1126	G1042	U968	A892	C827	A760	C682	G610	C536	U473	C396	G321	G243	C176	C107
G1281	C1212	U1127	C1045	C969	U893	U828	U764	A683	U611	C537	A474	C397	G322	G244	U177	G109
U1282	G1213	G1130	U1050	A970	U894	U830	U765	U684	G613	G538	A475	C398	G325	G245	U178	U110
C1284	C1215	U1133	G1051	A971	U895	U831	U766	U685	G614	G540	U476	C399	G326	G246	U179	U111
U1285	G1216	A1133	U1052	A972	C901	U832	U767	U686	G615	A541	A477	A401	G329	A247	A180	U112
U1286	C1217	C1134	G1053	C976	G902	U833	C768	U687	U616	C543	A478	C402	G330	U248	A181	U113
U1287	G1218	U1135	U1054	U977	A905	U834	A769	U688	U617	A544	A479	C403	A331	U249	A182	C114
G1288	A1219	U1136	U1055	U982	U906	U835	A770	U689	A619	A545	C484	C404	U340	A251	U183	G115
U1289	C1220	A1137	U1056	A983	A906	U836	A771	U690	A620	U546	C485	C405	A341	A265	U184	U116
U1290	A1224	U1138	U1057	C984	U911	G837	C772	U691	A621	U547	A486	C406	G336	C258	U185	U117
G1294	U1225	U1145	U1058	G985	U912	U839	C773	C697	A622	G548	G487	C408	G337	U261	G186	A119
U1295	A1226	G1146	U1059	G986	G913	U840	A774	U698	A623	A550	G488	A416	C338	U262	G187	U120
G1297	C1227	A1147	U1060	G987	G914	U841	G775	U699	G624	A551	G489	A417	C339	C263	A188	U121
U1298	U1228	U1148	C1066	C990	A915	U842	G776	C700	C625	A552	C490	G418	U340	G264	C189	U122
G1299	C1229	C1149	C1067	C991	U916	U843	G777	U701	U626	A553	C491	C421	A341	A266	C190	G123
U1305	U1231	G1150	C1068	A992	U917	G845	U778	G702	U629	A554	A492	A421	C343	A267	C191	A124
G1308	C1232	A1151	U1070	A993	U918	G846	U779	G703	U634	U558	U493	C424	G346	C270	U193	U125
C1309	U1233	G1155	C1071	U999	U919	A847	U781	U705	G634	C559	U494	A425	G346	U272	U194	G127
U1312	C1235	C1158	G1073	C1000	C922	U921	G783	C708	C637	U563	G495	G426	U350	G273	G195	C130
A1313	U1238	C1159	G1074	A1001	A923	C709	G787	C709	U638	G564	G496	G427	U351	G274	A197	C131
U1314	U1239	A1160	C1075	U1003	A924	U910	U788	U710	U639	C565	G497	G428	C352	C275	A198	U132
U1315	U1240	C1161	A1076	U1004	A925	U911	A789	G712	U640	C566	G498	G429	G355	U277	G199	U
		A1162	C1077	A1005	A926	A856	A713		G647	G568	U501	C431	G356	U278	A200	A



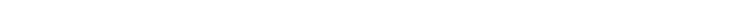
- Molecule 2: 40S ribosomal protein S0-A

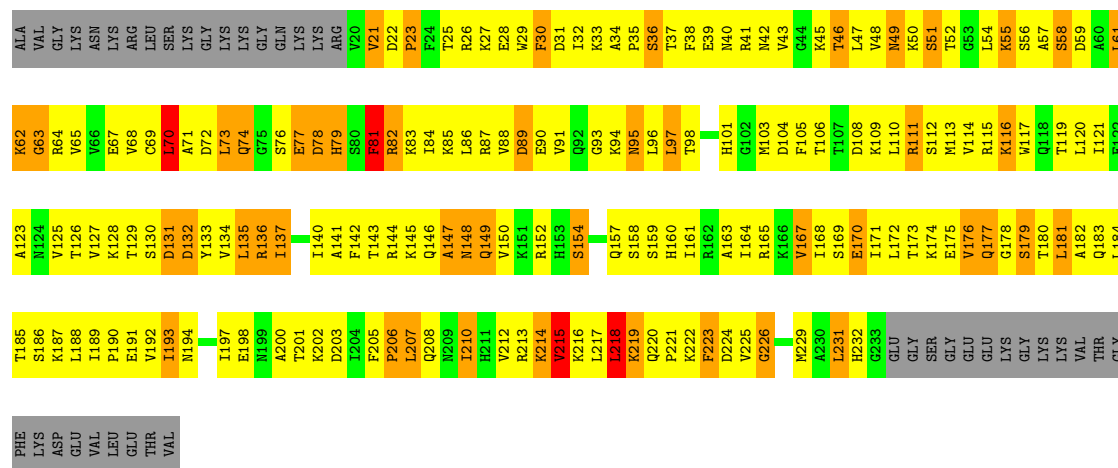


- Molecule 2: 40S ribosomal protein S0-A



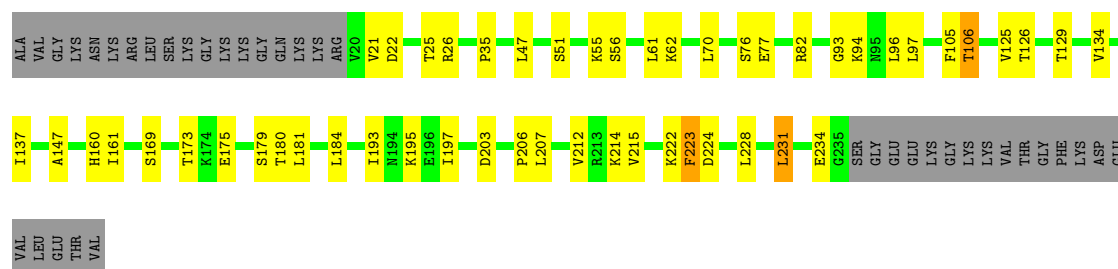
- Molecule 3: 40S ribosomal protein S1-A

Chain S1: 

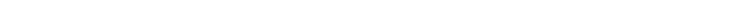


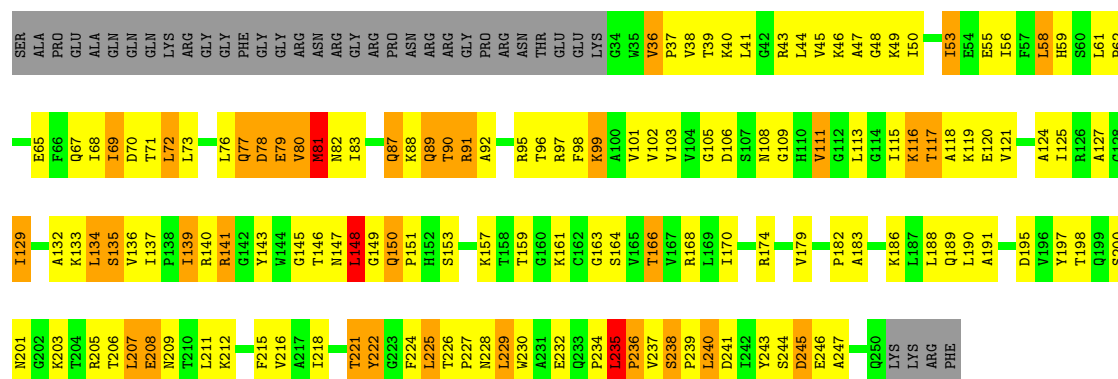
- Molecule 3: 40S ribosomal protein S1-A

Chain s1:  65% 19% 1% 15%



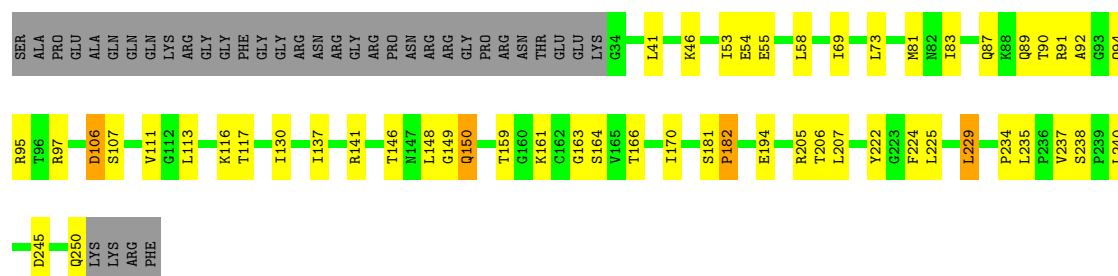
- Molecule 4: 40S ribosomal protein S2

Chain S2: 



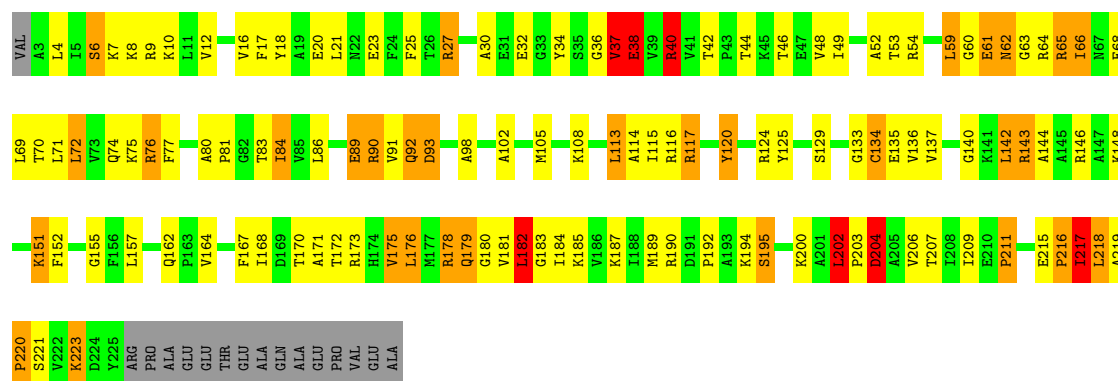
- Molecule 4: 40S ribosomal protein S2

Chain s2:  64% 20% • 14%



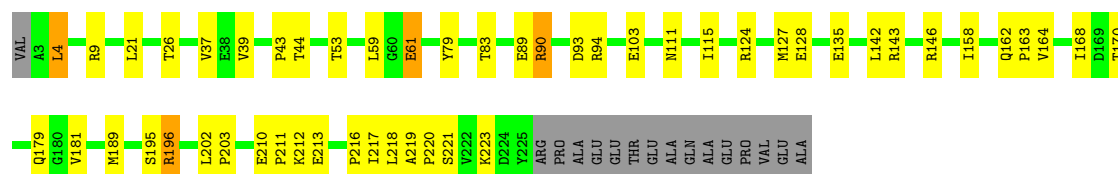
• Molecule 5: 40S ribosomal protein S3

Chain S3: 41% 36% 13% 7%



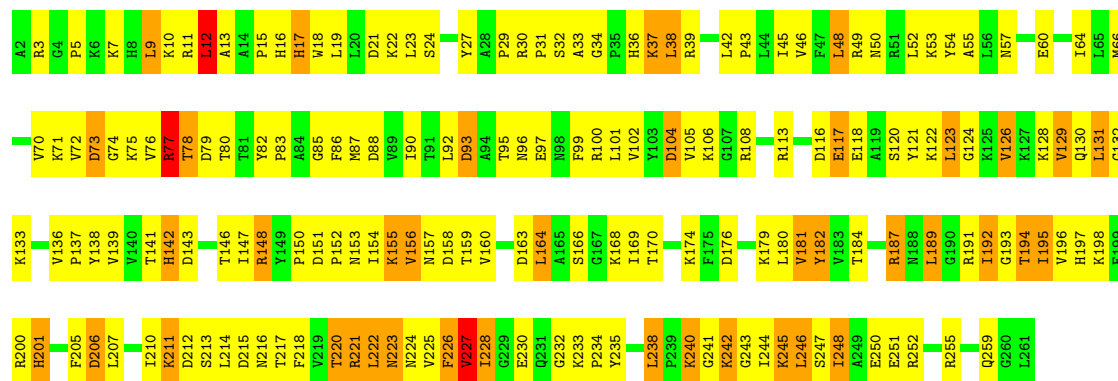
• Molecule 5: 40S ribosomal protein S3

Chain s3: 72% 20% 7%

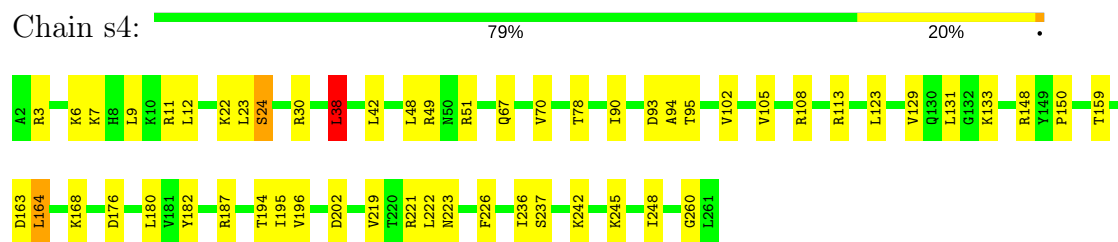


• Molecule 6: 40S ribosomal protein S4-A

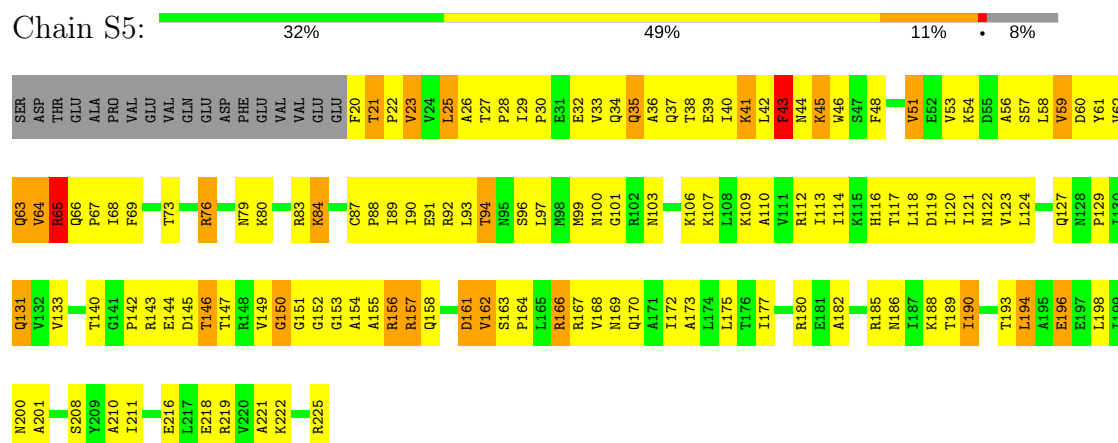
Chain S4: 32% 51% 16%



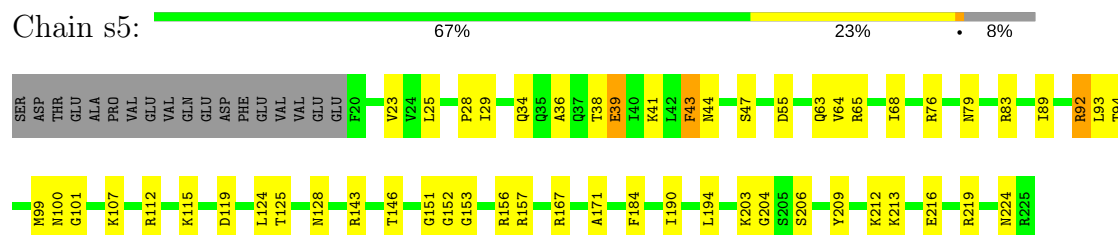
• Molecule 6: 40S ribosomal protein S4-A



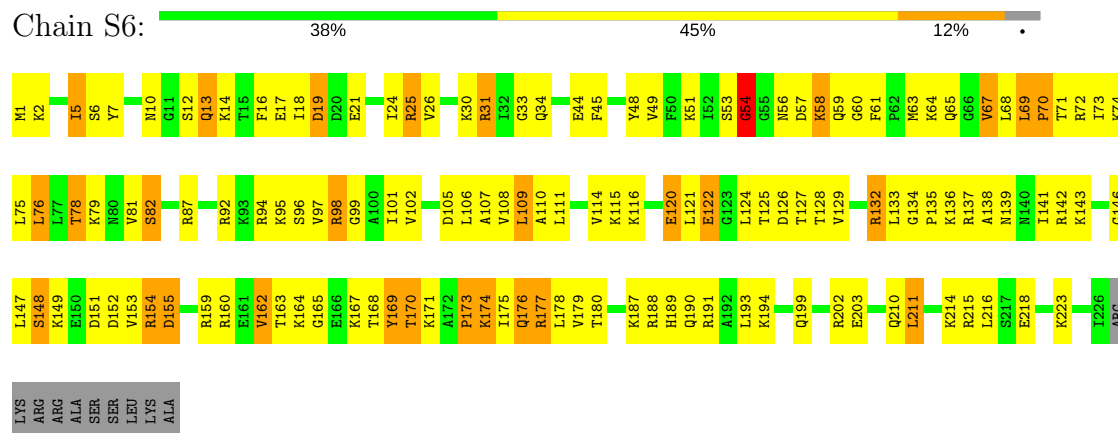
- Molecule 7: 40S ribosomal protein S5



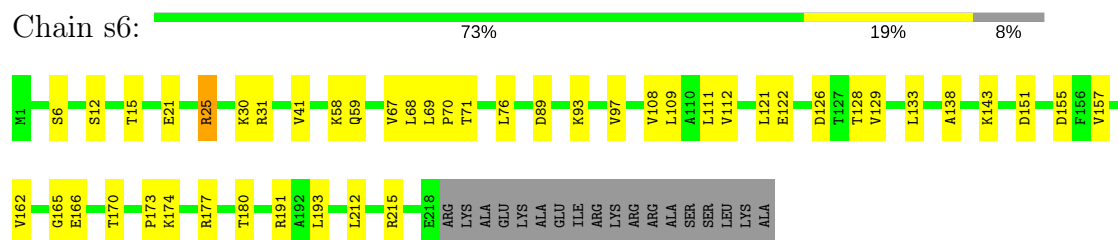
- Molecule 7: 40S ribosomal protein S5



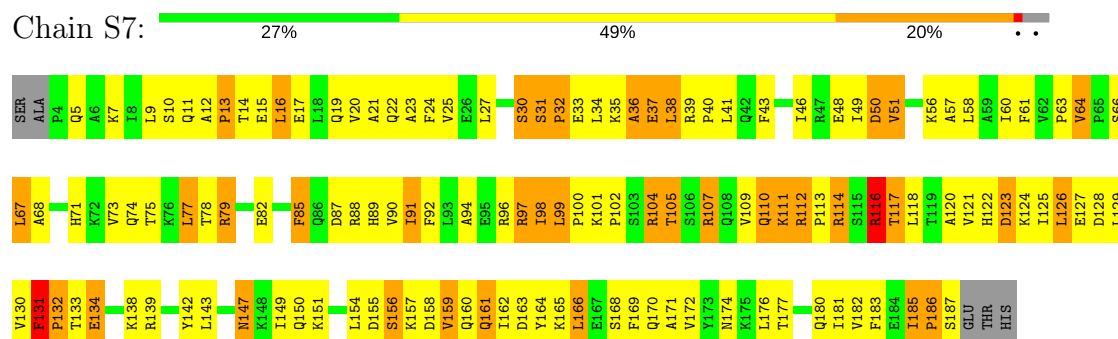
- Molecule 8: 40S ribosomal protein S6-A



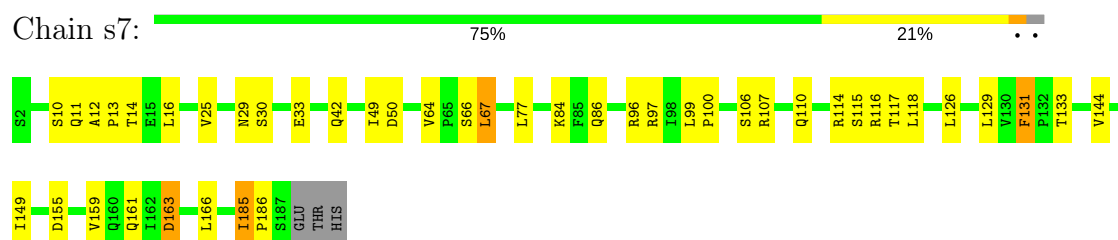
- Molecule 8: 40S ribosomal protein S6-A



• Molecule 9: 40S ribosomal protein S7-A



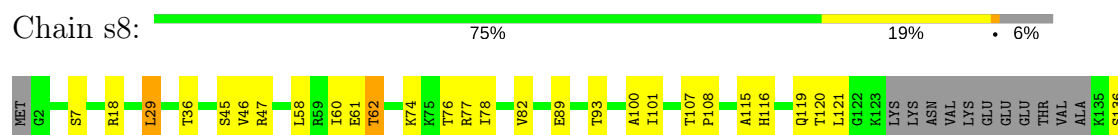
• Molecule 9: 40S ribosomal protein S7-A

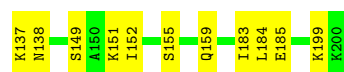


• Molecule 10: 40S ribosomal protein S8-A



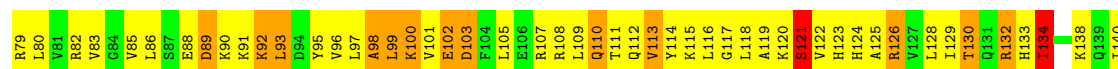
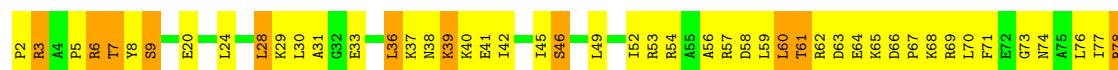
• Molecule 10: 40S ribosomal protein S8-A





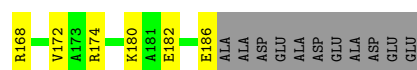
• Molecule 11: 40S ribosomal protein S9-A

Chain S9: 30% 46% 17% 6%



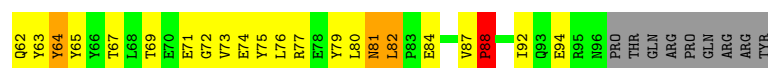
• Molecule 11: 40S ribosomal protein S9-A

Chain s9: 76% 17% 6%



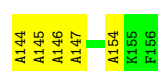
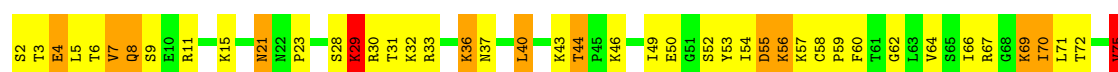
• Molecule 12: 40S ribosomal protein S10-A

Chain C0: 23% 56% 11% 9%



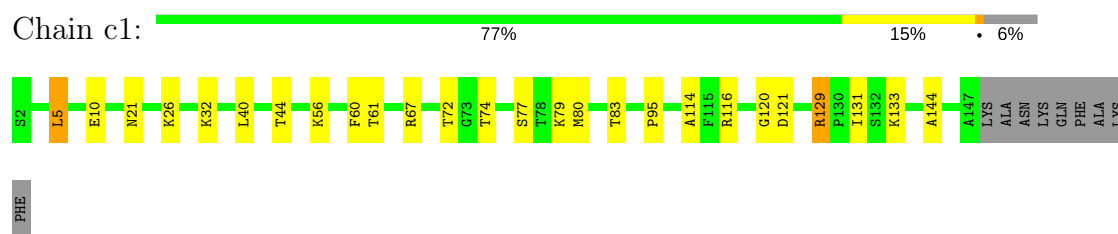
• Molecule 13: 40S ribosomal protein S11-A

Chain C1: 39% 46% 13%



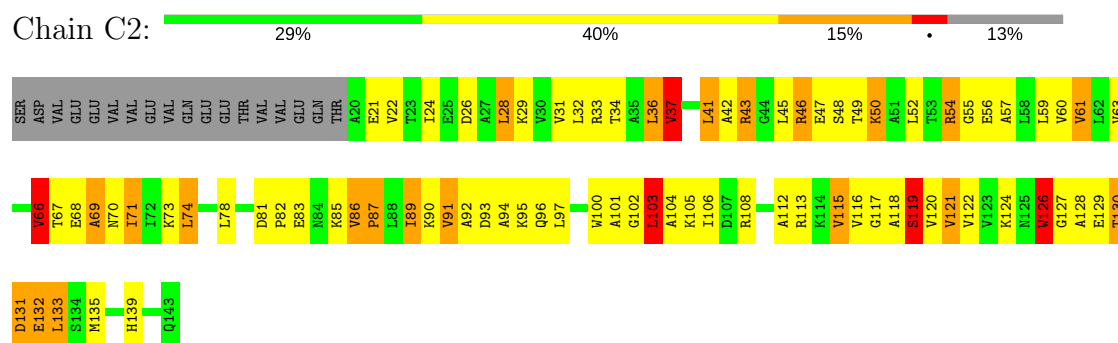
• Molecule 13: 40S ribosomal protein S11-A

Chain c1:



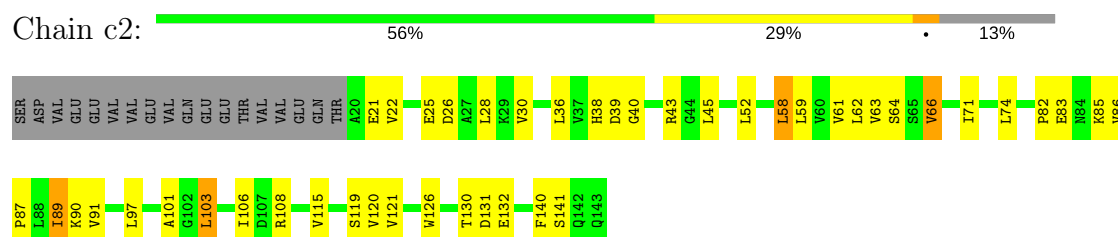
- Molecule 14: 40S ribosomal protein S12

Chain C2:



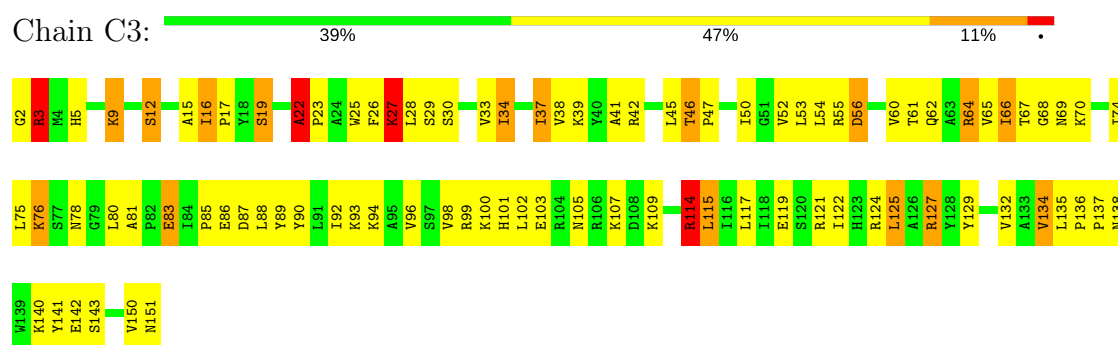
- Molecule 14: 40S ribosomal protein S12

Chain c2:



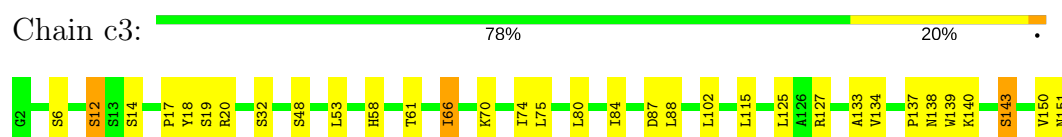
- Molecule 15: 40S ribosomal protein S13

Chain C3:



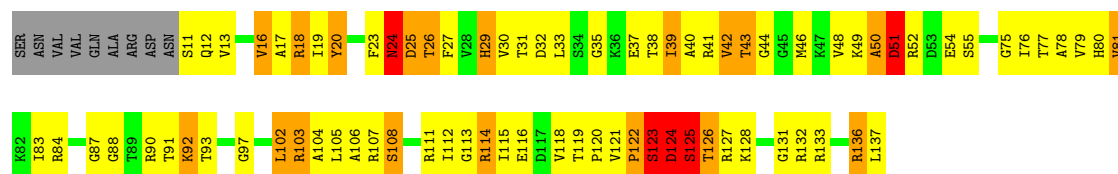
- Molecule 15: 40S ribosomal protein S13

Chain c3:



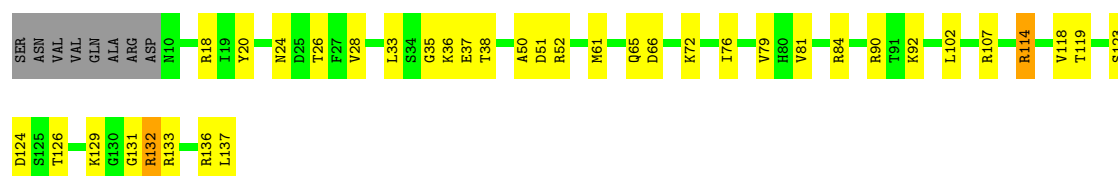
- Molecule 16: 40S ribosomal protein S14-A

Chain C4: 



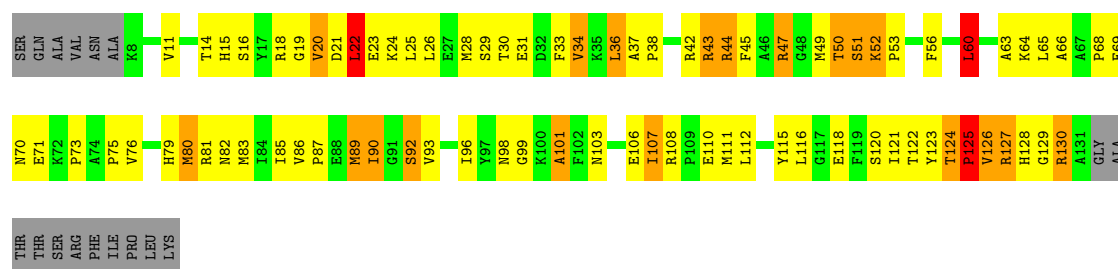
• Molecule 16: 40S ribosomal protein S14-A

Chain c4: 



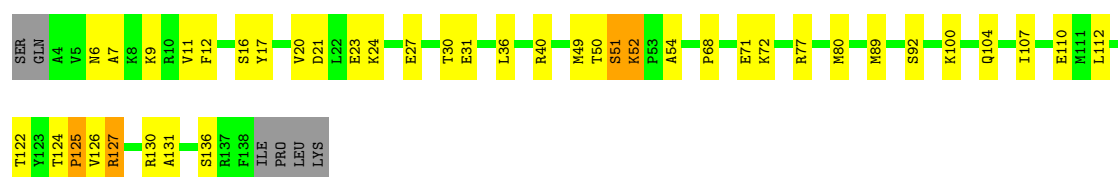
• Molecule 17: 40S ribosomal protein S15

Chain C5: 

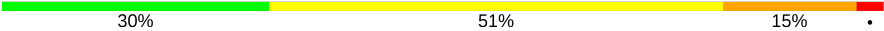


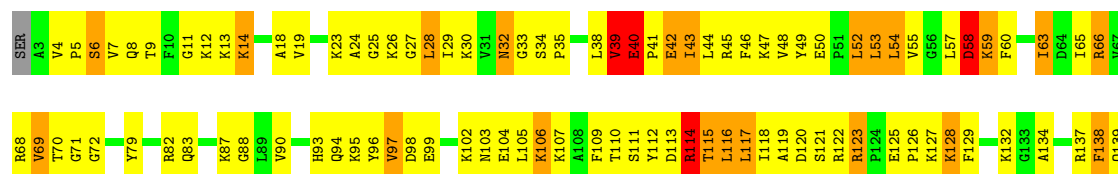
• Molecule 17: 40S ribosomal protein S15

Chain c5: 



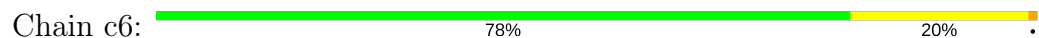
• Molecule 18: 40S ribosomal protein S16-A

Chain C6: 

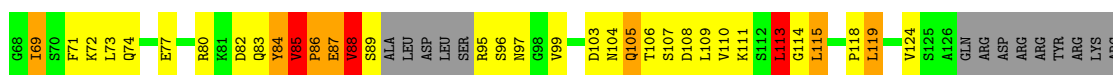
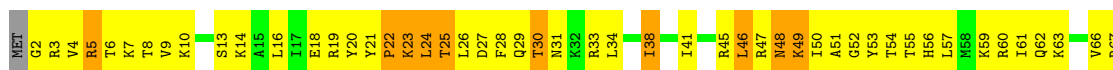




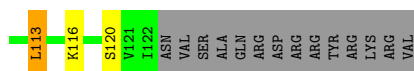
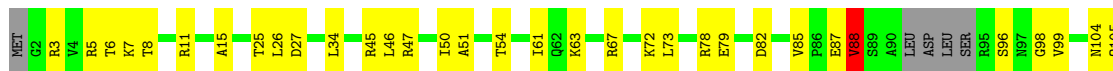
- Molecule 18: 40S ribosomal protein S16-A



- Molecule 19: 40S ribosomal protein S17-A



- Molecule 19: 40S ribosomal protein S17-A



- Molecule 20: 40S ribosomal protein S18-A



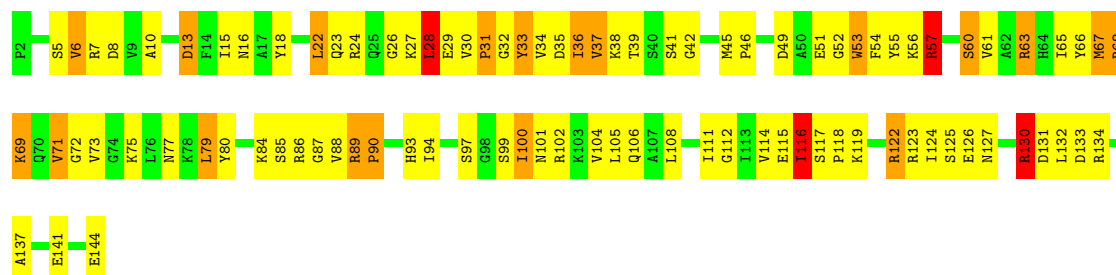
- Molecule 20: 40S ribosomal protein S18-A





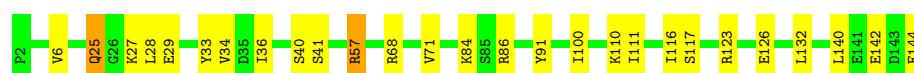
- Molecule 21: 40S ribosomal protein S19-A

Chain C9: 35% 49% 13%



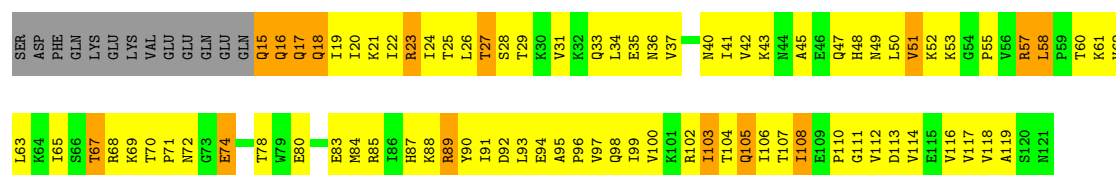
- Molecule 21: 40S ribosomal protein S19-A

Chain c9: 81% 17%



- Molecule 22: 40S ribosomal protein S20

Chain D0: 20% 57% 13% 11%



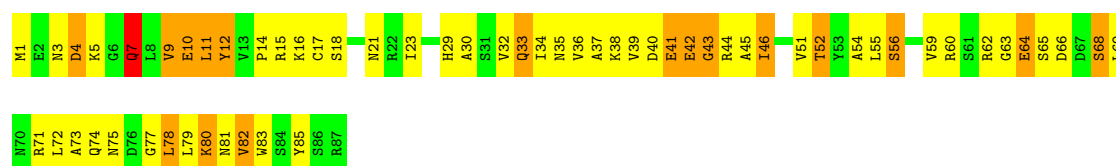
- Molecule 22: 40S ribosomal protein S20

Chain d0: 57% 33% 8%

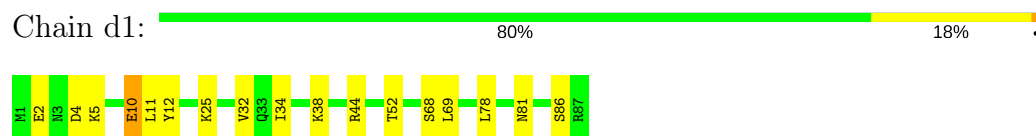


- Molecule 23: 40S ribosomal protein S21-A

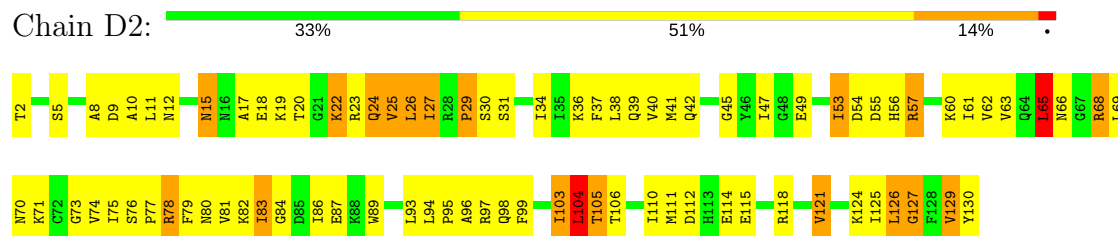
Chain D1: 31% 48% 20%



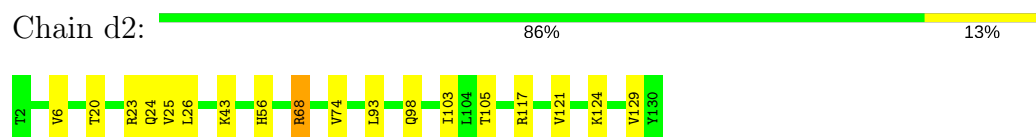
- Molecule 23: 40S ribosomal protein S21-A



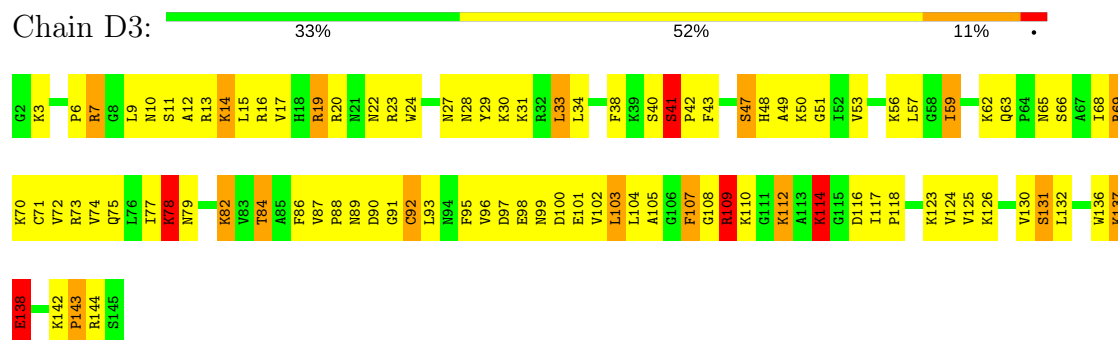
- Molecule 24: 40S ribosomal protein S22-A



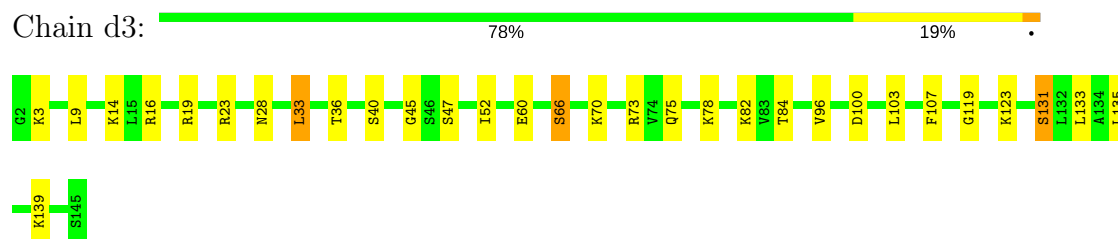
- Molecule 24: 40S ribosomal protein S22-A



- Molecule 25: 40S ribosomal protein S23-A

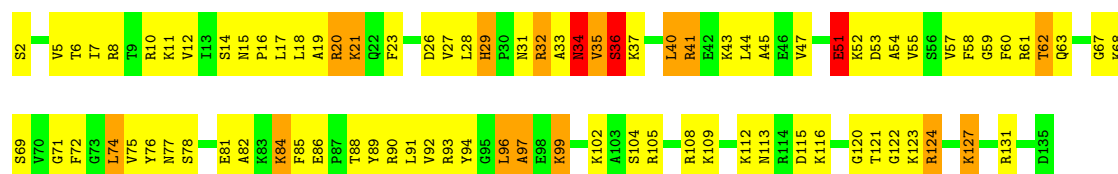


- Molecule 25: 40S ribosomal protein S23-A

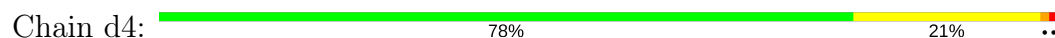


- Molecule 26: 40S ribosomal protein S24-A

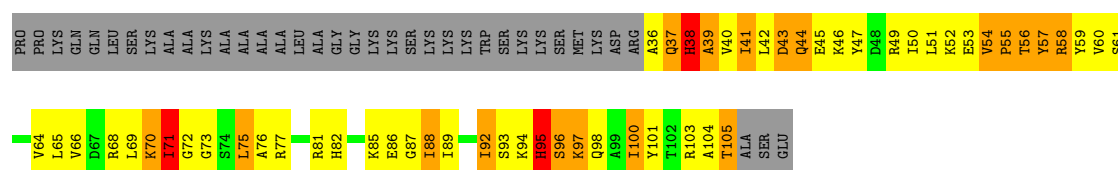




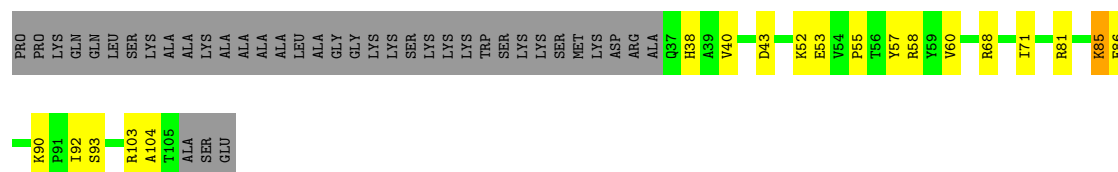
- Molecule 26: 40S ribosomal protein S24-A



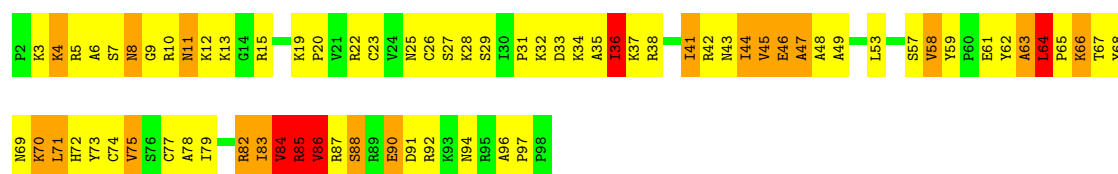
- Molecule 27: 40S ribosomal protein S25-A



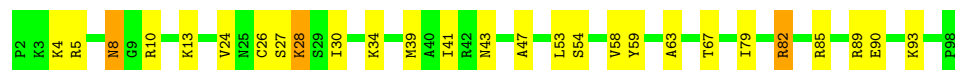
- Molecule 27: 40S ribosomal protein S25-A



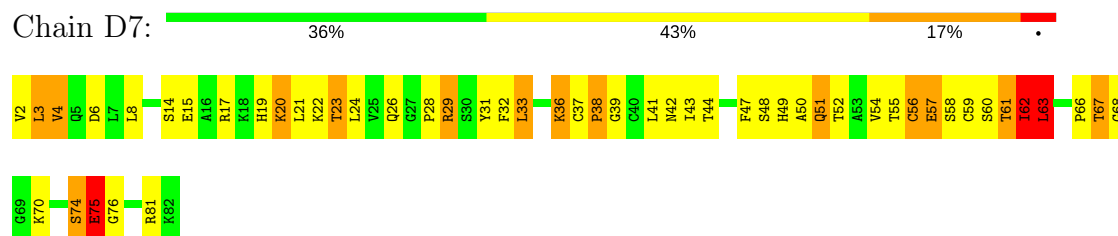
- Molecule 28: 40S ribosomal protein S26-B



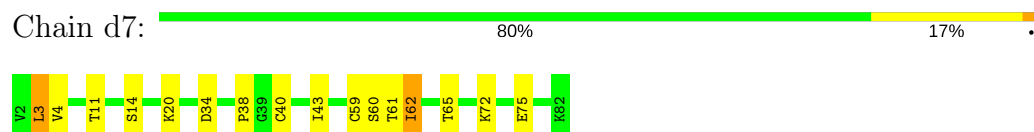
- Molecule 28: 40S ribosomal protein S26-B



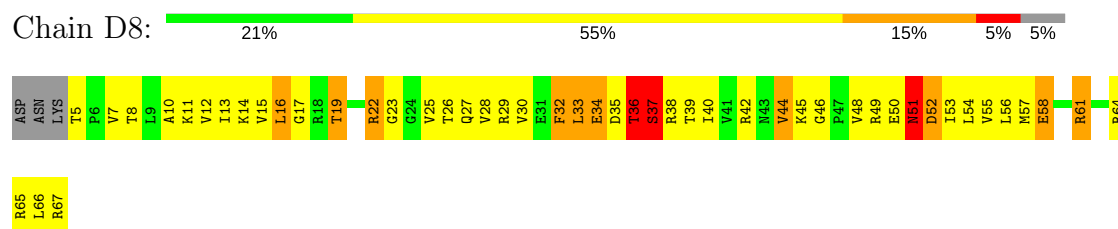
- Molecule 29: 40S ribosomal protein S27-A



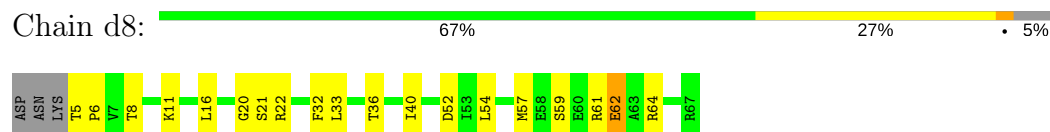
- Molecule 29: 40S ribosomal protein S27-A



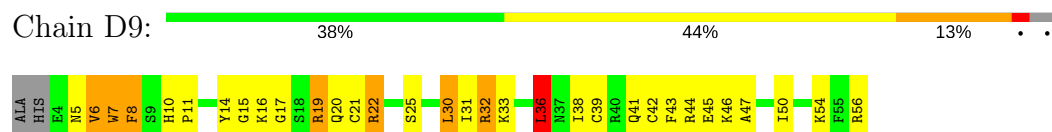
- Molecule 30: 40S ribosomal protein S28-A



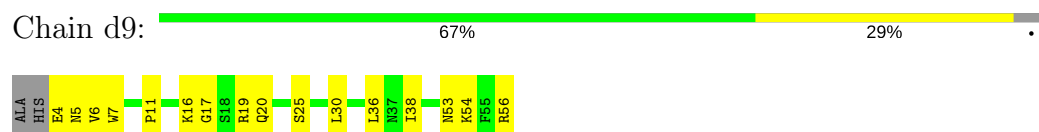
- Molecule 30: 40S ribosomal protein S28-A



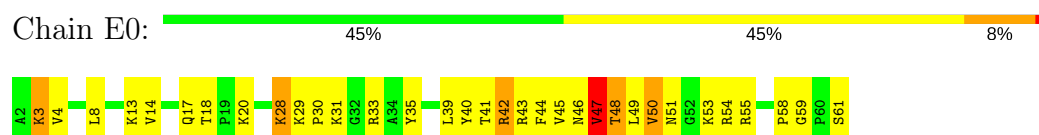
- Molecule 31: 40S ribosomal protein S29-A



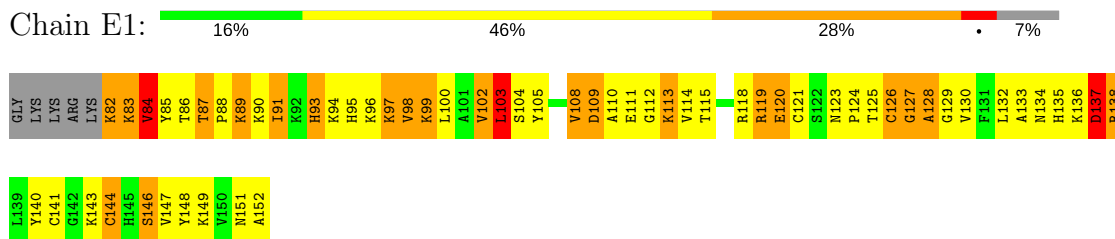
- Molecule 31: 40S ribosomal protein S29-A



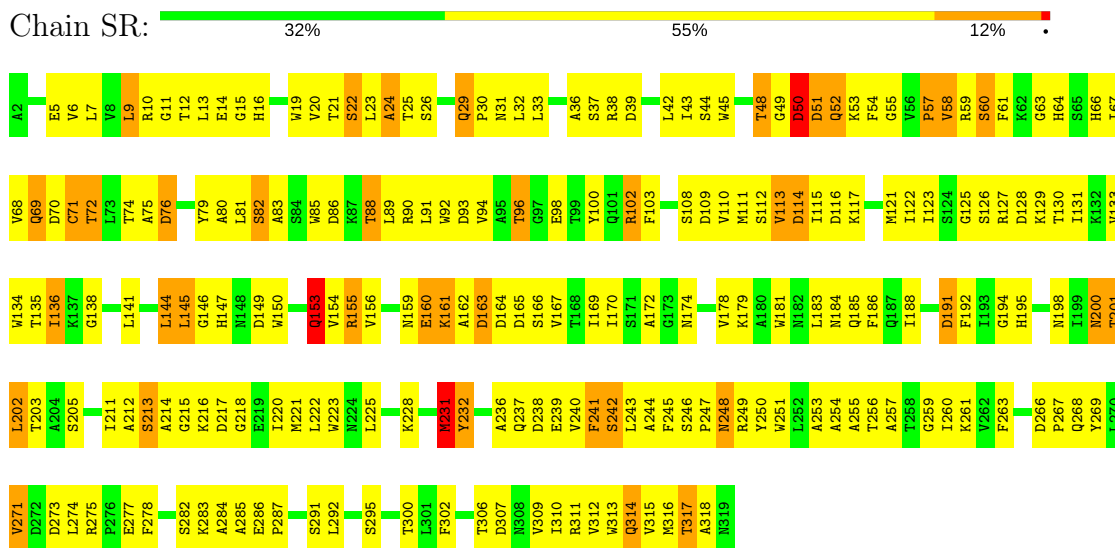
- Molecule 32: 40S ribosomal protein S30-A



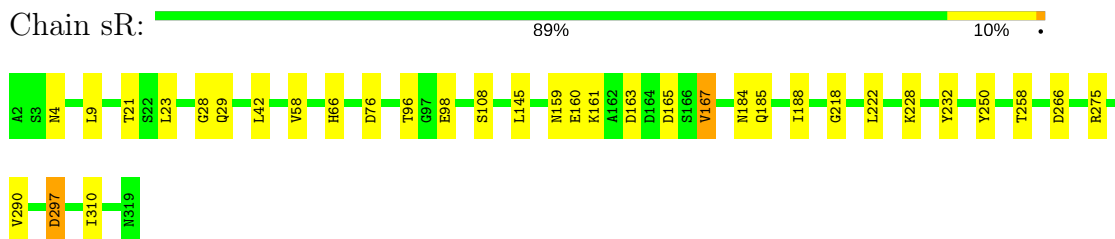
- Molecule 33: Ubiquitin-40S ribosomal protein S31



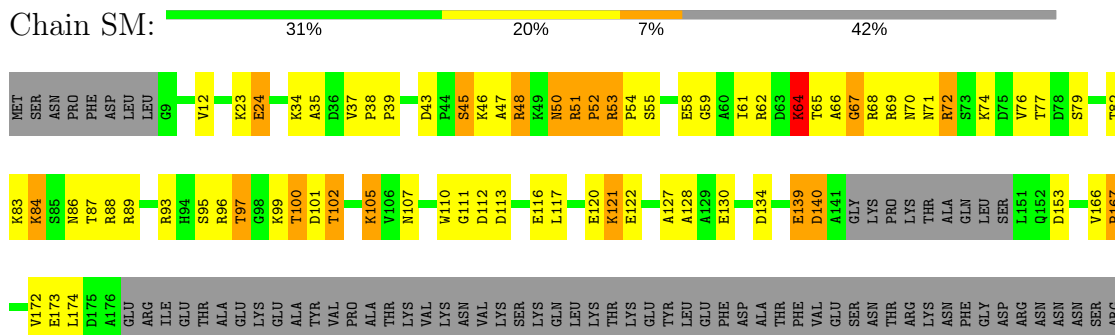
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein



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

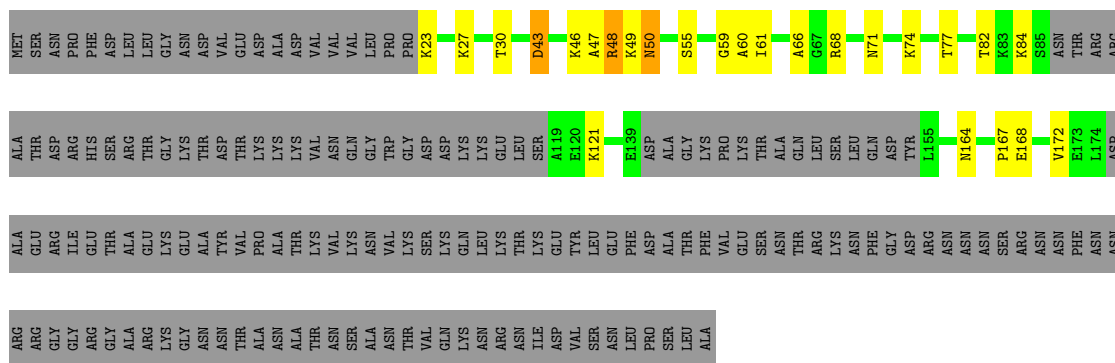


- Molecule 35: Suppressor protein STM1



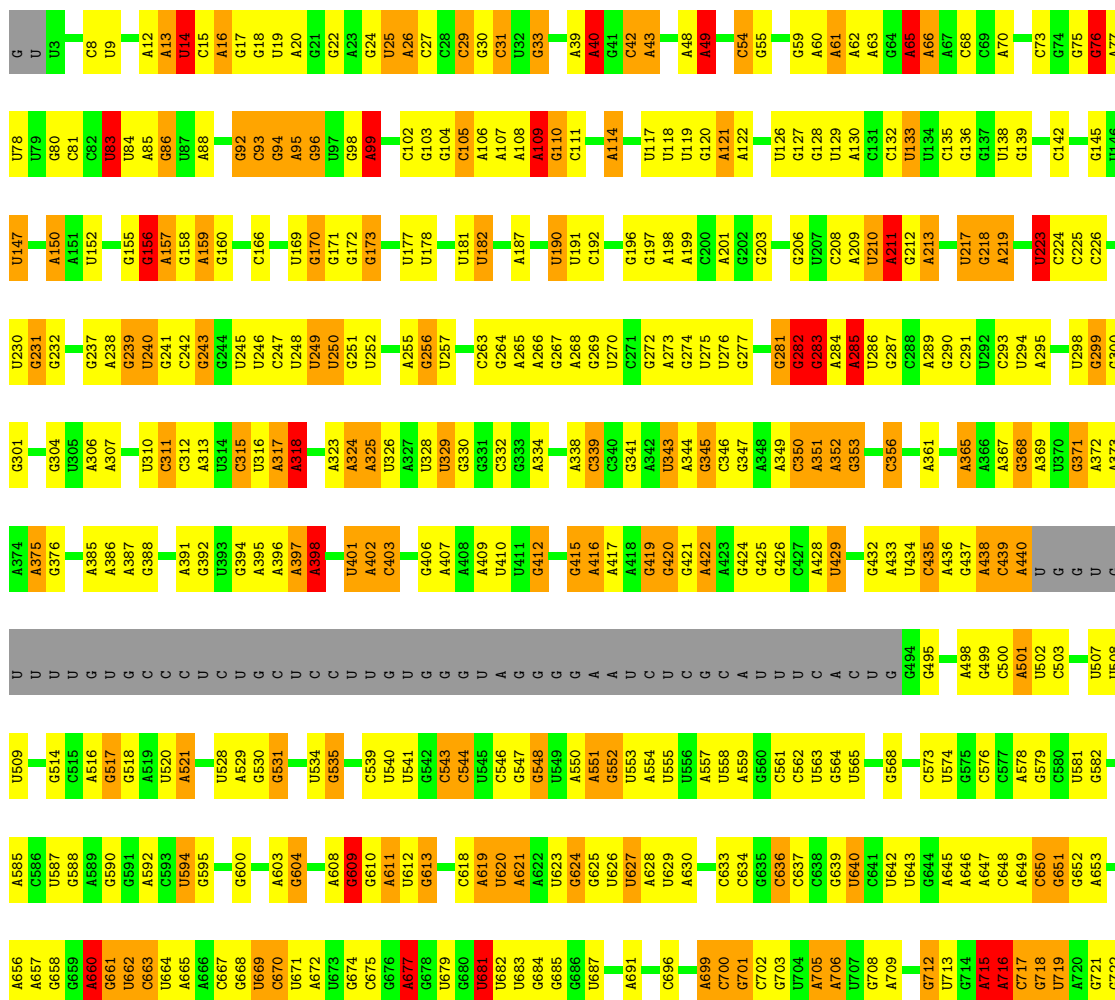
- Molecule 35: Suppressor protein STM1

Chain sM: 



- Molecule 36: 25S ribosomal RNA

Chain 1: 34% 39% 17% • 7%



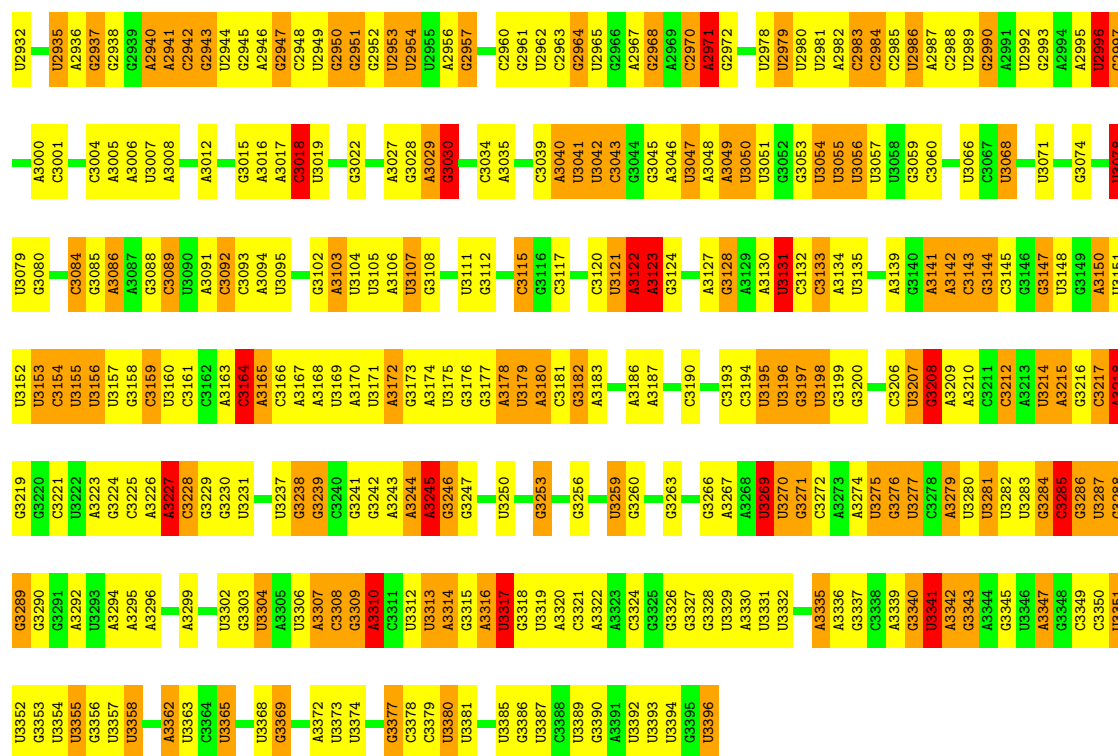
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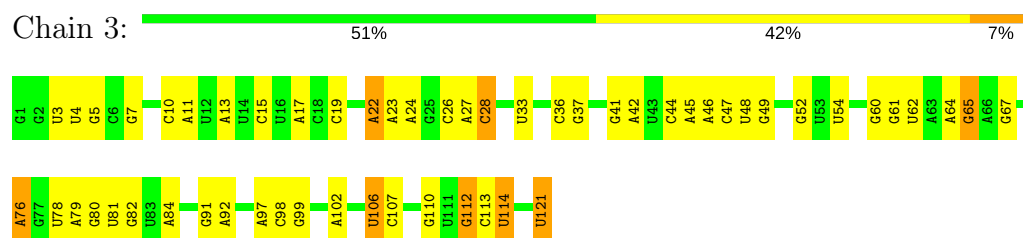


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C1725	U1493	U1493	U1494	G1493		U1351	G1266	C1192	U1121	U1050	G974		C670		
G1728	A1566	U1494	U1494	U1494	U1427	A1352	U1276	A1193	U1122	U1051	C975		A677		
A1729	U1567	C1496	A1428	U1496	G1354	U1353		A1193	U1123		U976		G677		
G1730	U1570	U1643	G1642	U1496	G1429	G1354	C1280	C1196	U1124	A1054	U890	C765	U681		
	C1497	U1643	U1643	C1497	U1430	A1355	G1281	A1197	U1125	A1055	U899	U766	U882		
U1734	A1571	C1644	U1571	U1498	G1431	U1356	U1282	C1198	C911	U1056	A980	C768	U883		
G1735	U1572	U1645	C1499	C1499	C1432	G1357	C1283	C1199	C912	U1057	U981	G769	G884		
	G1573	U1500	G1500	U1500	A1433	C1358	C1284	A1200	A913		C982	G770	G885		
G1812	C1574	U1651	U1501	U1501	G1434	C1359	G1285	C1201	A914	U1060	A983		G886		
A1741	A1575	U1651	C1502	C1502	A1435			A1202	A915	A1061	U850	G773	U687		
	C1576	A1503	A1503	A1503	U1436	A1366	C1292	A1203	G916	A1062	C851	G774	G888		
U1746	A1654	C1577	C1577	A1504	C1437	G1367	U1293	A1204	A917	G1063	U890	G775	G889		
	C1578	C1505	U1505	C1505	U1438	A1368	U1294	A1205	A992	A1064	U855	U776	A690		
A1750	A1656	A1506	C1579	A1506	U1439	A1369	G1295	G1206	A920	A1065	G856	U777	A691		
G1751	C1657	G1507	U1580	G1507	G1440	C1370	G1295	G1206	A921	G1066	G857	U778			
U1819	C1658	A1580	C1581	U1508	G1441	G1371	C1298	G1208	U922	U1067	A858	U779	A899		
U1820	U1659	C1582	U1582	C1508	U1442	C1372	C1298	G1209	U922	C1068	C859	A780	C700		
C1755	A1583	U1583	U1583	A1503	U1443	C1373	A1301	G1209	C1141	C1069	C860	G781	G701		
G1756	C1660	G1661	U1511	A1504	G1443	A1373	A1302	G1213	C1142	U1070	C861	U782	C702		
A1757	C1662	U1662	U1512	A1505	G1444	G1374	A1303	U1214	C1141	U1071	U862	A783	G703		
G1758	A1662	G1662	G1513	C1514	U1446	G1375	A1304	U1215	A1143	G1072	C863	A784	U704		
			G1514	U1447	A1446	C1376	A1305	C1215	G1145	U1073	G864	A785	A705		
G1762	A1667	C1668	U1588	U1515	G1447	A1376	U1305	G1215	C1145	U1074	G865	A786	A706		
U1763	C1668	A1589	C1516	U1516	U1448	A1381	G1306	A1217	G1146	U1075	U866	G787			
U1764	C1669	U1590	U1517	C1517	U1449	G1307	G1307	U1218	C1147	A1075	A866				
U1765	U1673	U1673	G1591	U1518	G1450	U1384	U1308	U1218	G1148	C1076	G869	A788	G712		
G1766	C1673	U1673	G1519	U1519	C1451	U1385	U1309	A1221	C1148	U1077	A934	A789	G713		
			A1593	G1520	A1452	A1386	G1310	G1222	A1150	C1077	A936	G714			
G1769	A1676	U1676	U1594	G1520	A1453	G1387	C1310	A1225	U1151	A1080	G870	A715	A715		
C1770	C1677	U1677	U1594	U1528	A1454	U1388	G1313	A1225	C1152	U1081	C937	A716	A716		
	U1678	U1678	A1599	G1529	A1455	U1389	C1314	A1231	A1153	U1082	C938	C717			
A1839	U1772	C1772	U1596	U1530	U1455	A1390	U1315	A1231	A1153	G1083	U939	C718			
	C1773	U1682	C1597	U1530	U1457	C1391	C1316	A1231	A1153	U1084	G940	C719			
C1774	U1682	U1682	G1598	U1457	U1457	C1392	A1317	G1392	C1156	A1085	G941	C720			
			U1533	U1533	U1533	C1392	A1317	G1392	C1156	A1085	U942	A720			
C1843	U1686	U1686	A1602	U1534	A1460	G1393	A1318	G1234	G1157	C1086	C1017	A801			
	U1687	U1687	A1595	A1461	A1461	A1394	A1318	U1235	A1159	C1087	C944	C802			

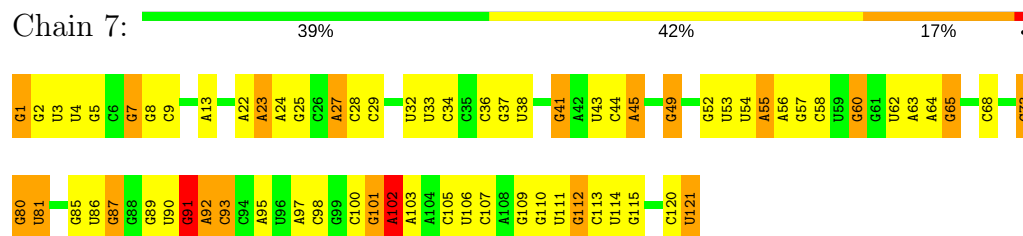




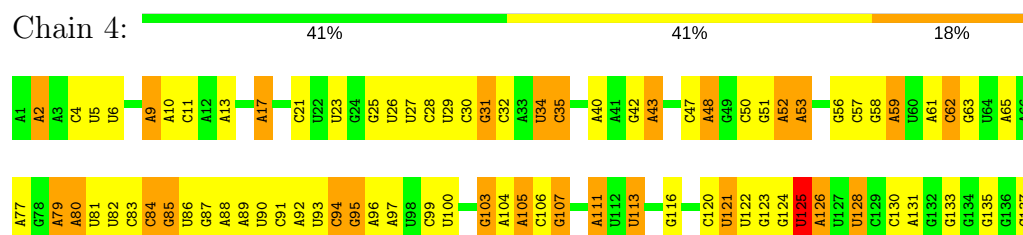
• Molecule 37: 5S ribosomal RNA



• Molecule 37: 5S ribosomal RNA

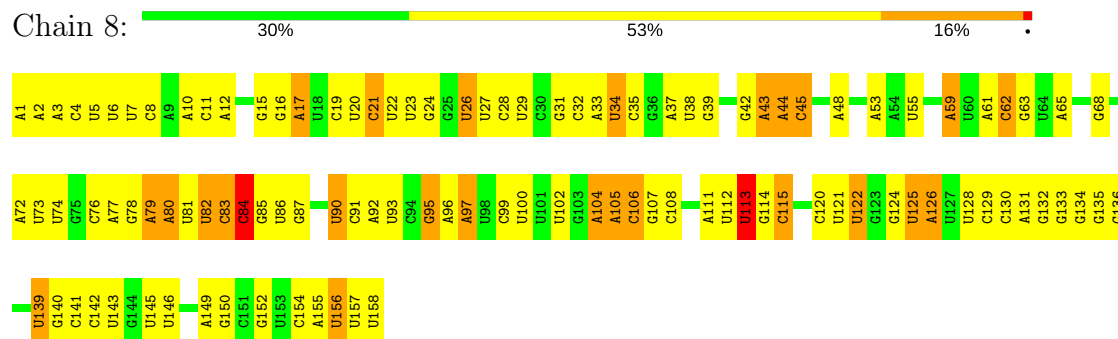


• Molecule 38: 5.8S ribosomal RNA

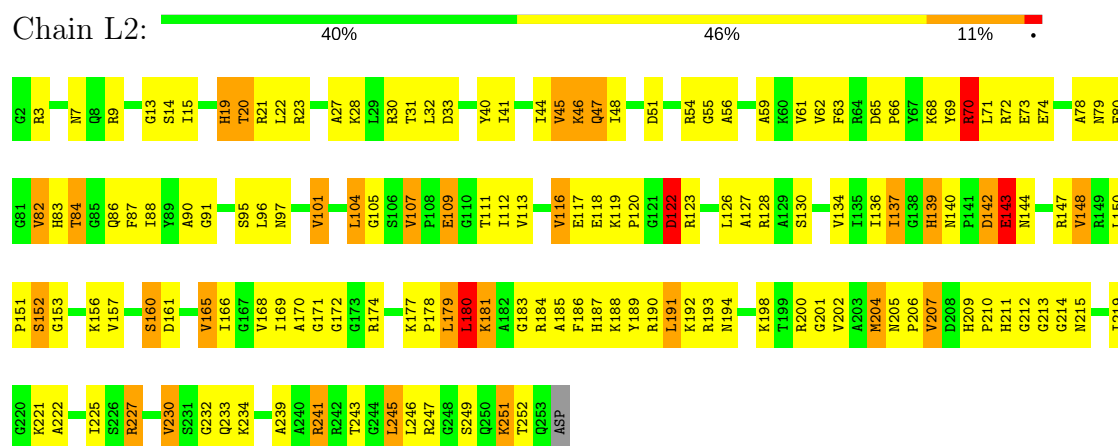




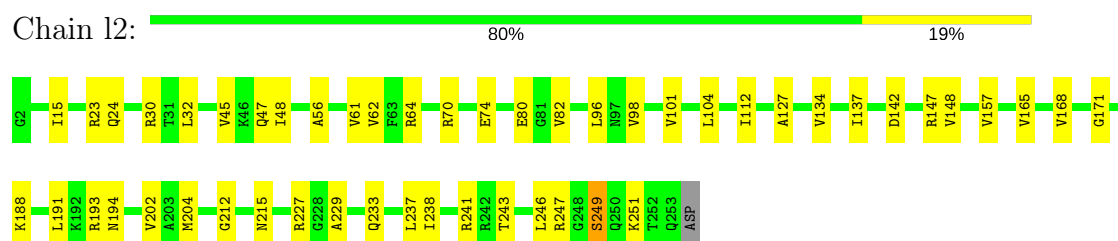
• Molecule 38: 5.8S ribosomal RNA



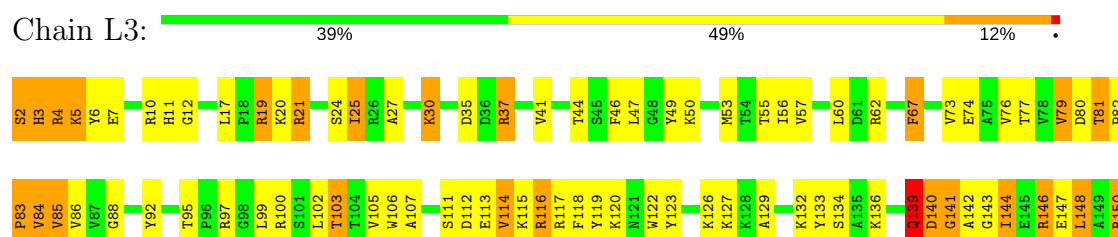
• Molecule 39: 60S ribosomal protein L2-A

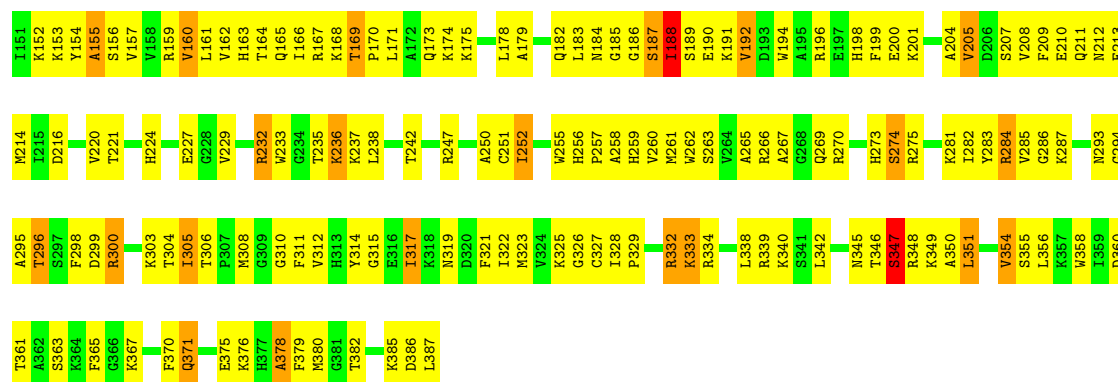


• Molecule 39: 60S ribosomal protein L2-A

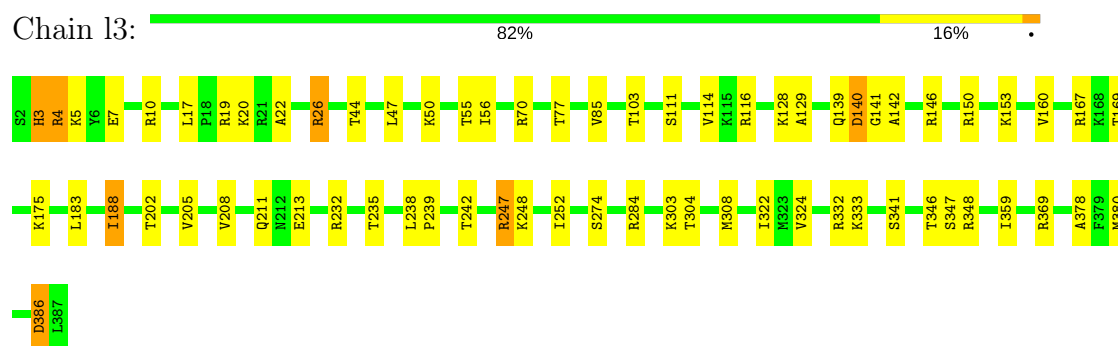


• Molecule 40: 60S ribosomal protein L3

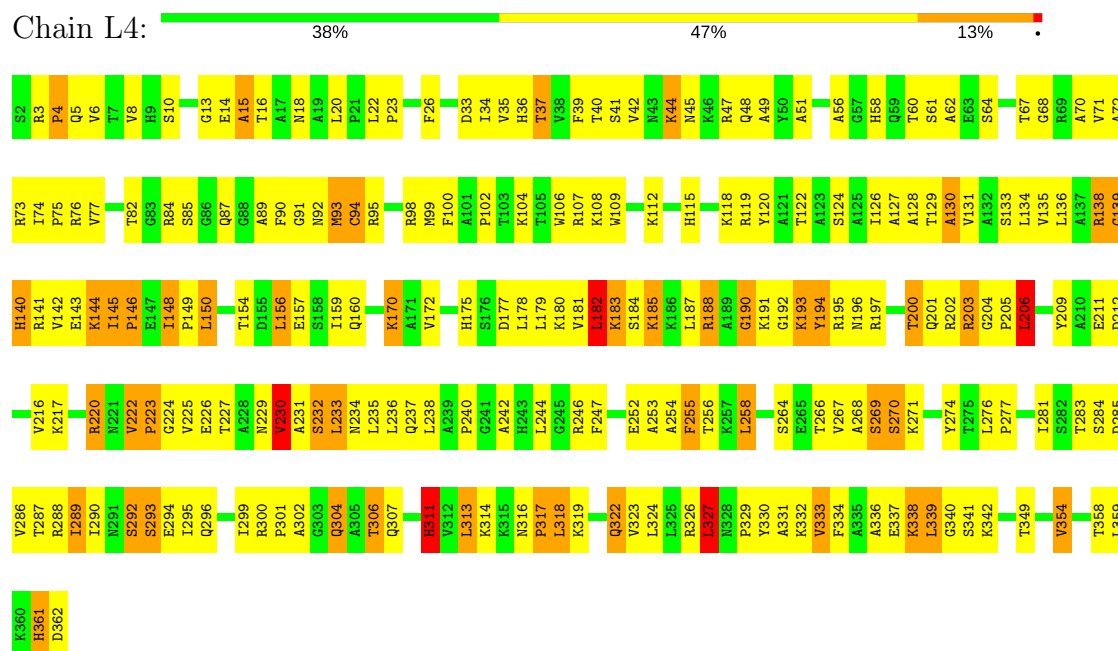




• Molecule 40: 60S ribosomal protein L3

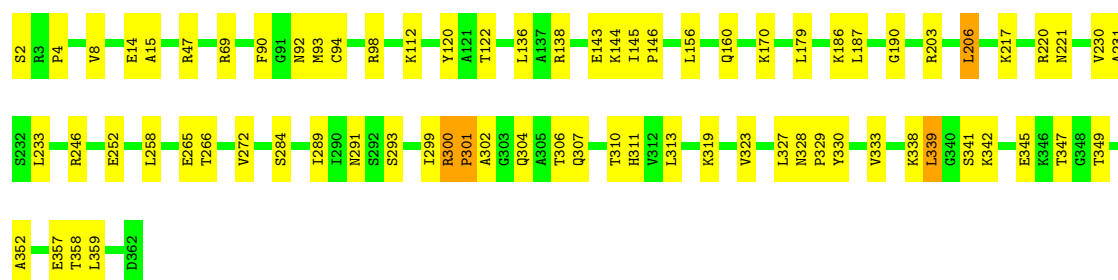


• Molecule 41: 60S ribosomal protein L4-A

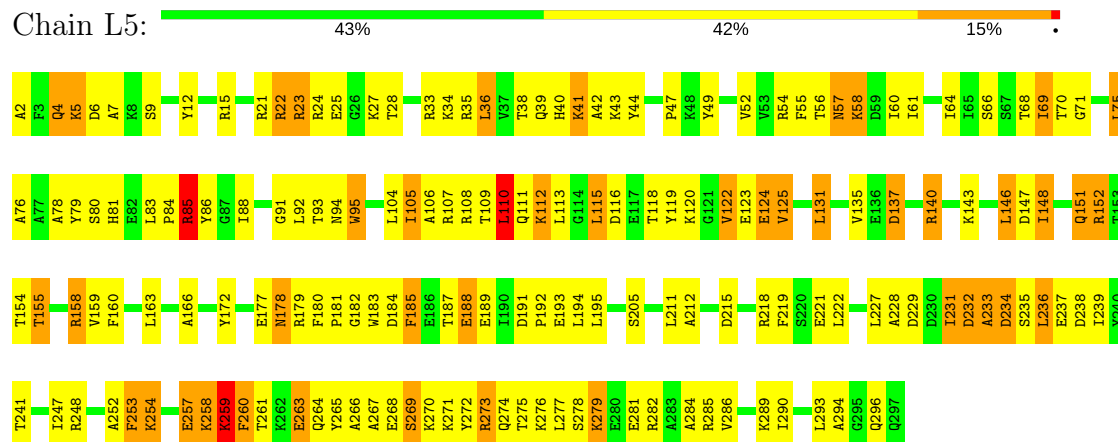


• Molecule 41: 60S ribosomal protein L4-A

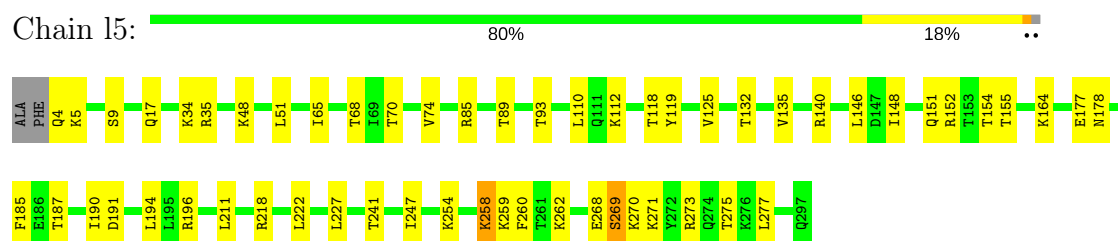




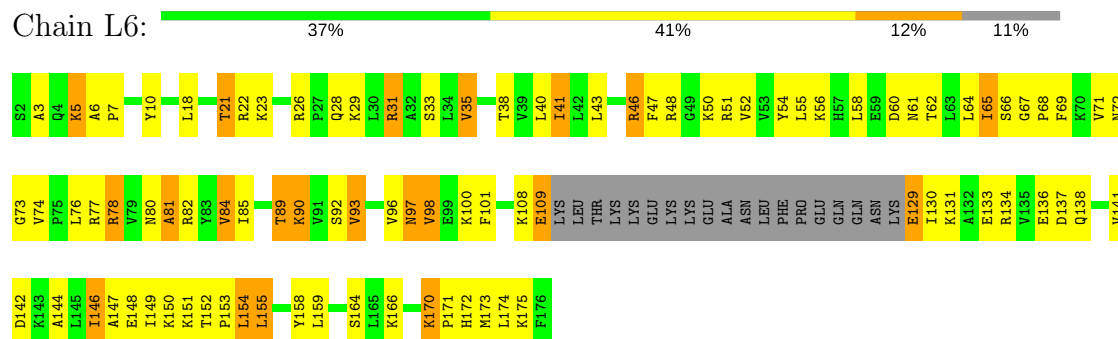
- Molecule 42: 60S ribosomal protein L5

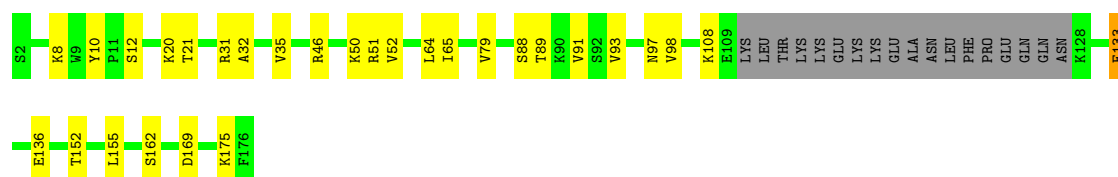


- Molecule 42: 60S ribosomal protein L5



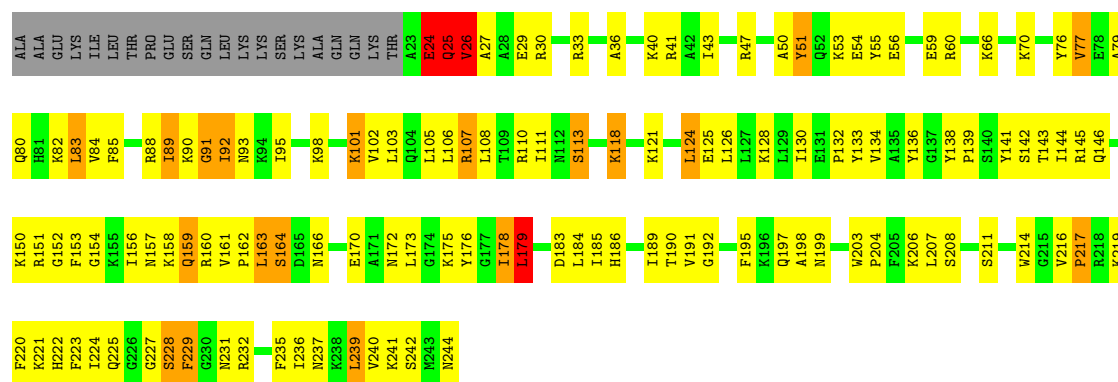
- Molecule 43: 60S ribosomal protein L6-A





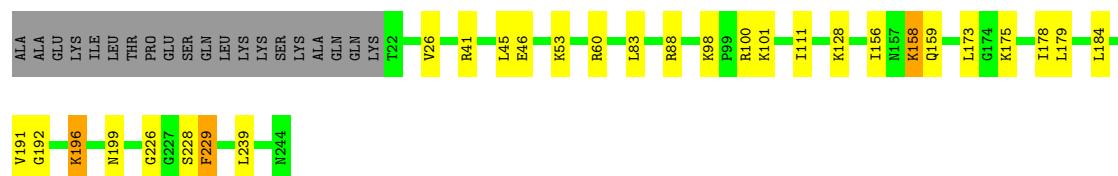
• Molecule 44: 60S ribosomal protein L7-A

Chain L7: 38% 44% 8% 9%



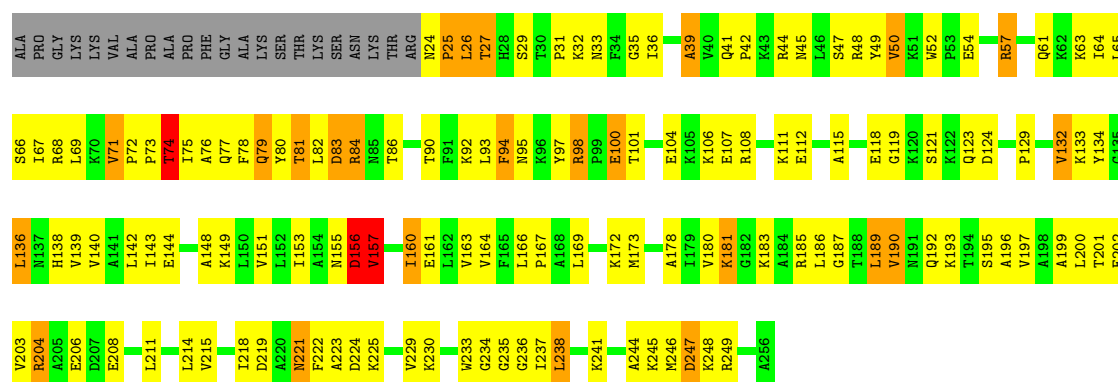
• Molecule 44: 60S ribosomal protein L7-A

Chain L7: 80% 11% 8%



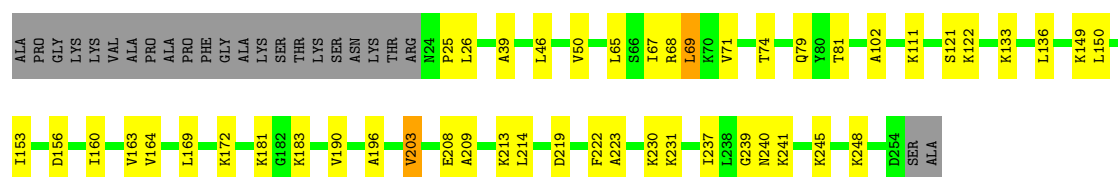
• Molecule 45: 60S ribosomal protein L8-A

Chain L8: 36% 44% 9% 9%



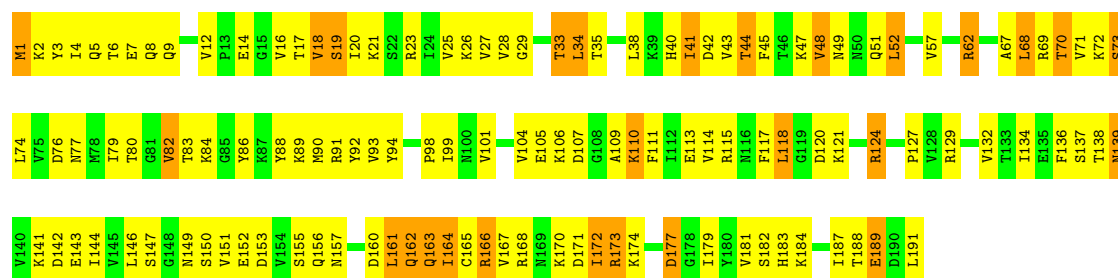
• Molecule 45: 60S ribosomal protein L8-A

Chain L8: 72% 18% 9%



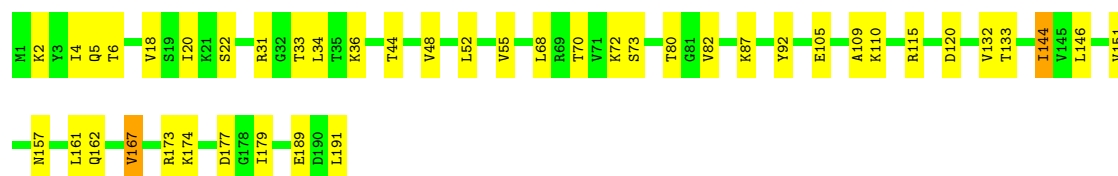
• Molecule 46: 60S ribosomal protein L9-A

Chain L9: 34% 52% 14%



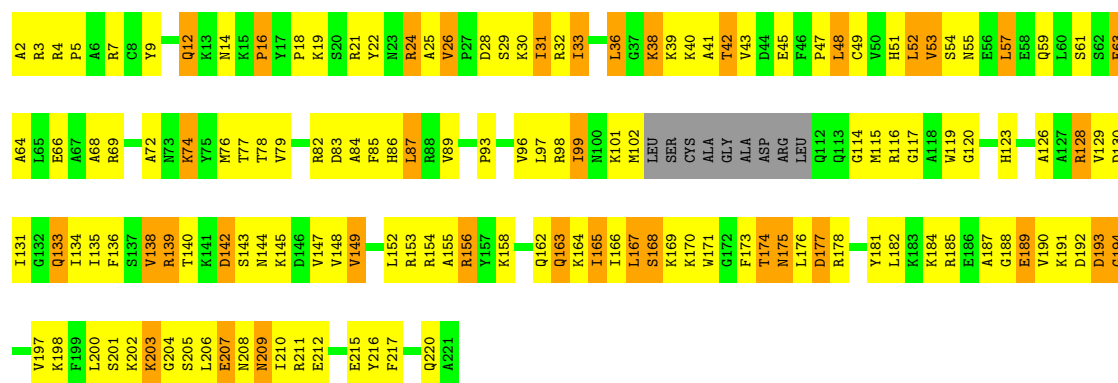
• Molecule 46: 60S ribosomal protein L9-A

Chain l9: 77% 21%



• Molecule 47: 60S ribosomal protein L10

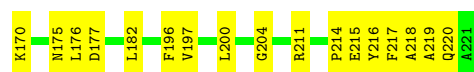
Chain M0: 30% 49% 17%



• Molecule 47: 60S ribosomal protein L10

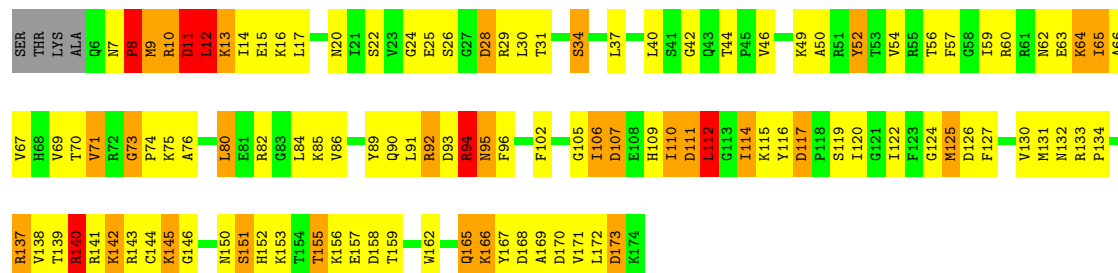
Chain m0: 76% 19%





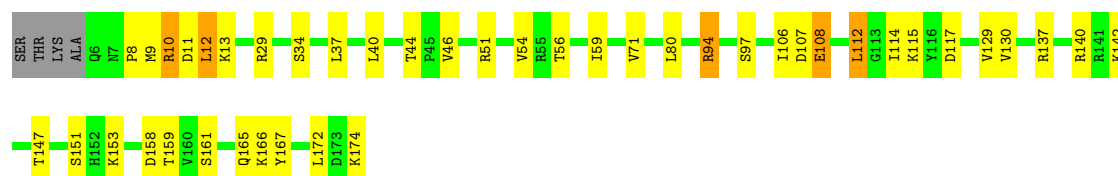
• Molecule 48: 60S ribosomal protein L11-B

Chain M1: 32% 46% 16% . .



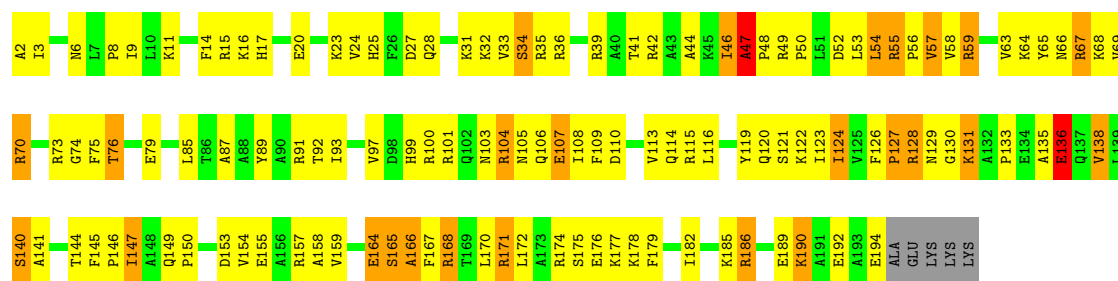
• Molecule 48: 60S ribosomal protein L11-B

Chain m1: 73% 22% . .



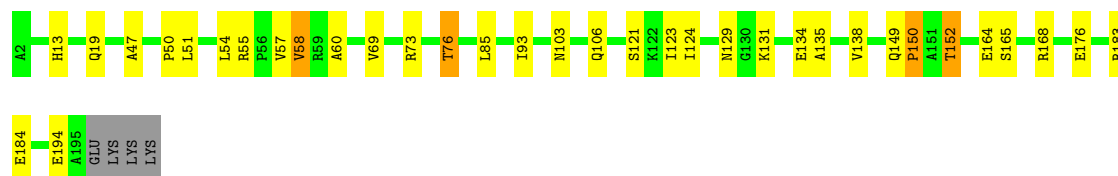
• Molecule 49: 60S ribosomal protein L13-A

Chain M3: 34% 49% 13% . .

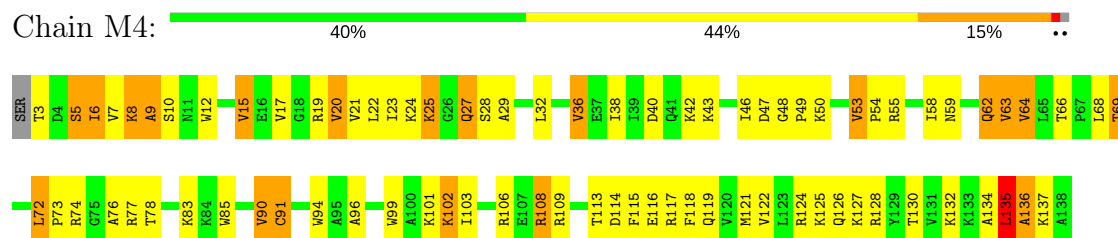


• Molecule 49: 60S ribosomal protein L13-A

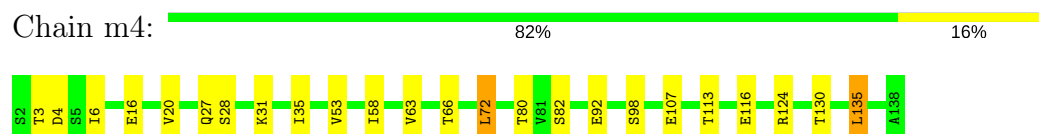
Chain m3: 80% 16% . .



• Molecule 50: 60S ribosomal protein L14-A



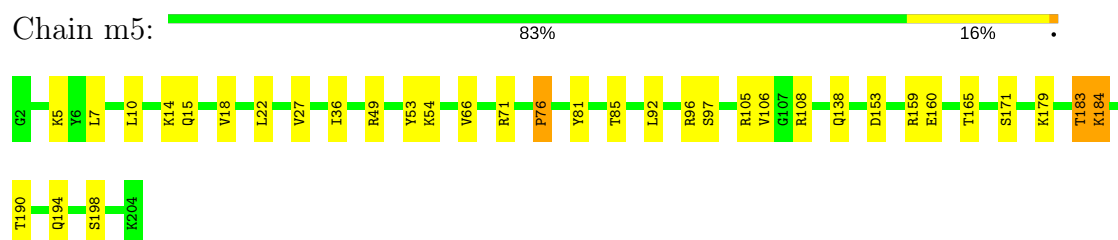
• Molecule 50: 60S ribosomal protein L14-A



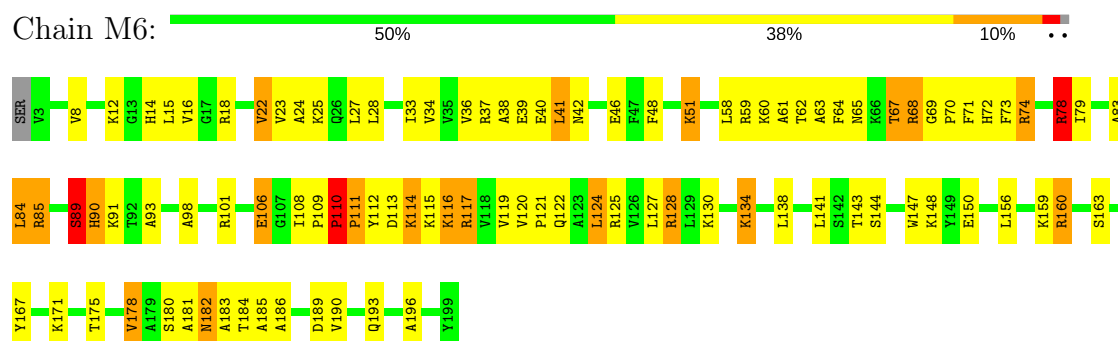
• Molecule 51: 60S ribosomal protein L15-A



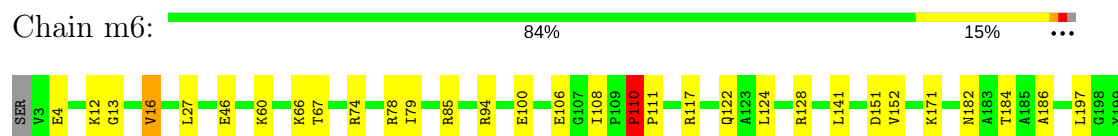
• Molecule 51: 60S ribosomal protein L15-A



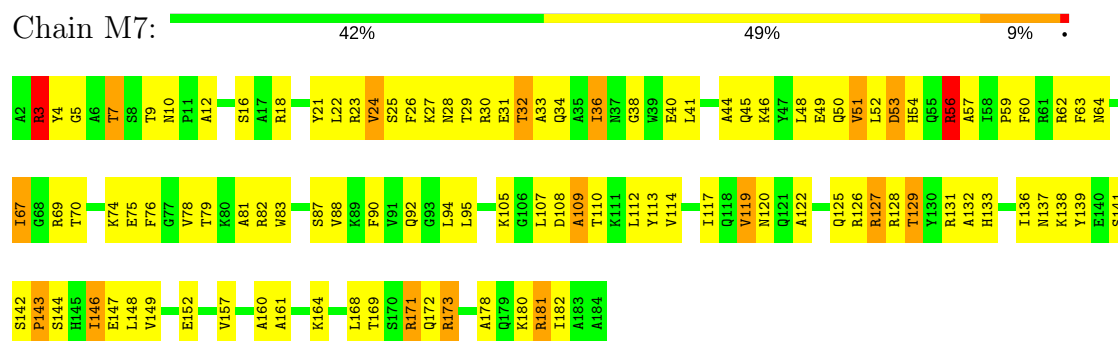
• Molecule 52: 60S ribosomal protein L16-A



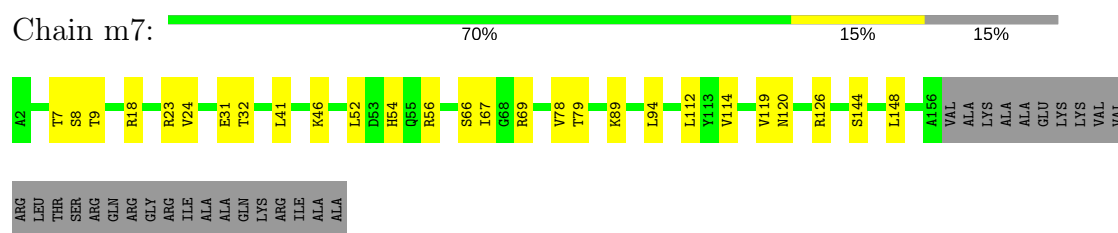
- Molecule 52: 60S ribosomal protein L16-A



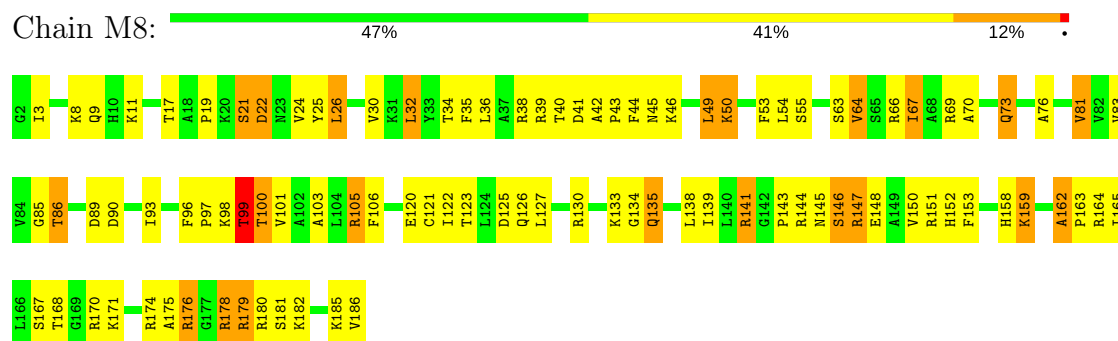
- Molecule 53: 60S ribosomal protein L17-A



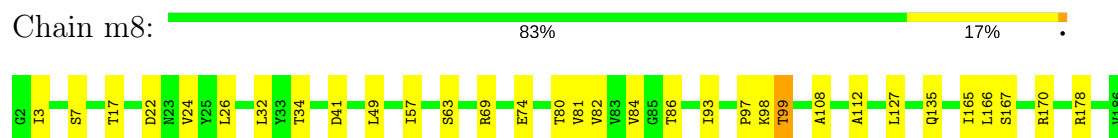
- Molecule 53: 60S ribosomal protein L17-A



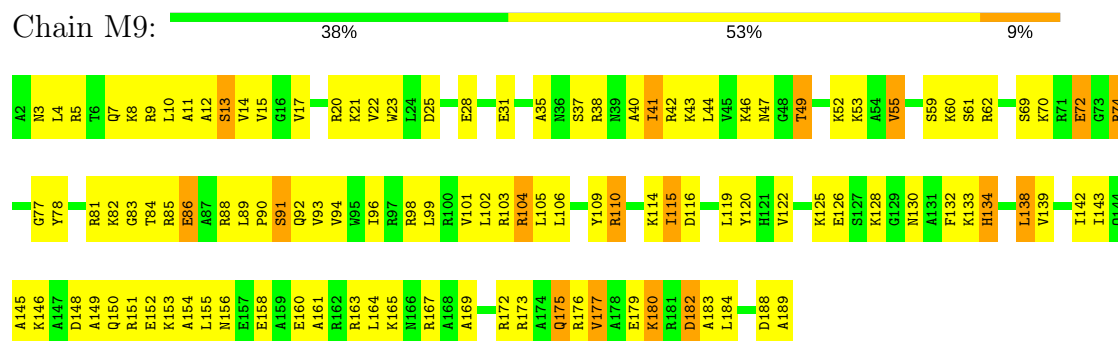
- Molecule 54: 60S ribosomal protein L18-A



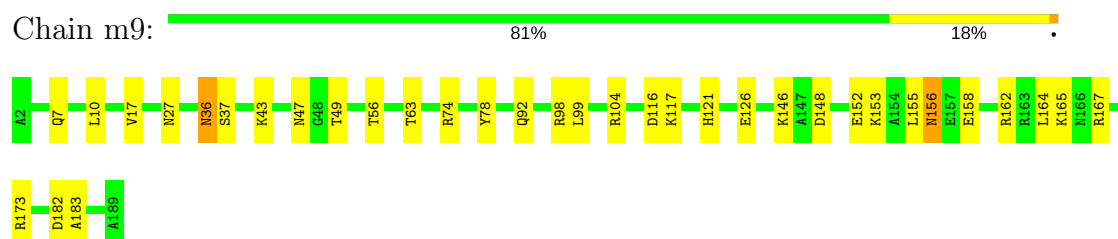
- Molecule 54: 60S ribosomal protein L18-A



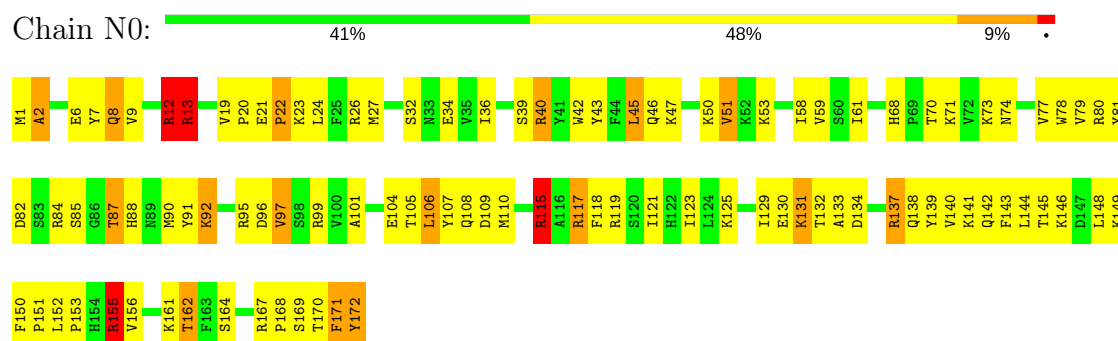
- Molecule 55: 60S ribosomal protein L19-A



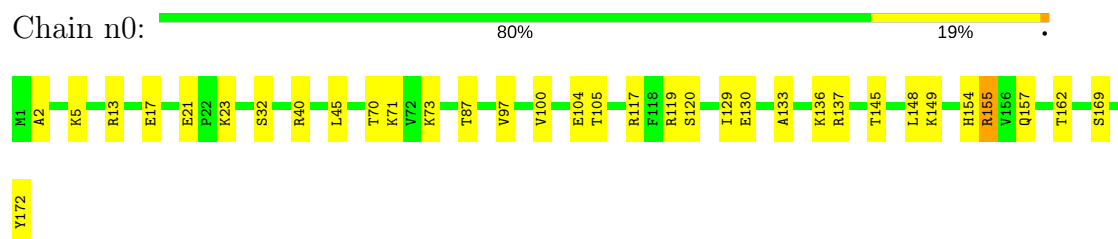
- Molecule 55: 60S ribosomal protein L19-A



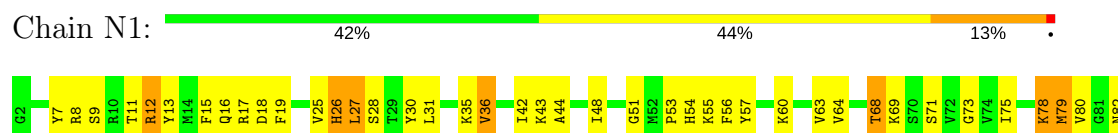
- Molecule 56: 60S ribosomal protein L20-A

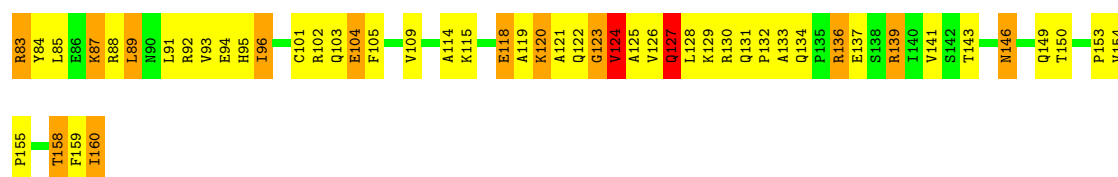


- Molecule 56: 60S ribosomal protein L20-A



- Molecule 57: 60S ribosomal protein L21-A





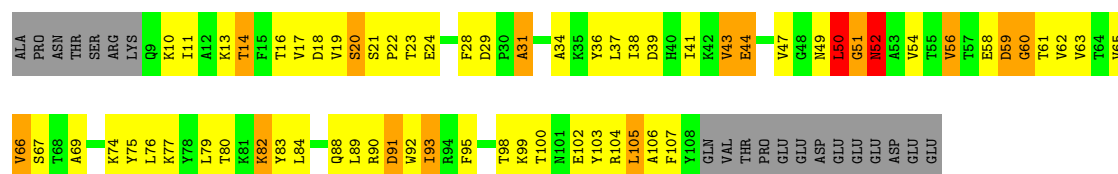
- Molecule 57: 60S ribosomal protein L21-A

Chain n1: 79% 21%



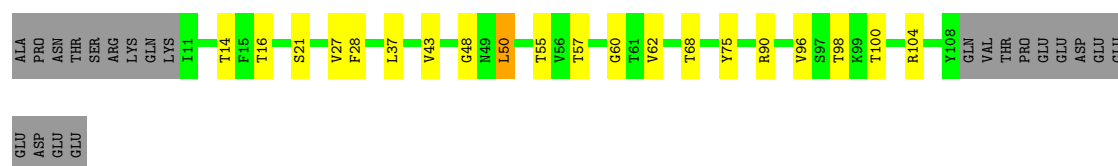
- Molecule 58: 60S ribosomal protein L22-A

Chain N2: 28% 42% 12% 17%



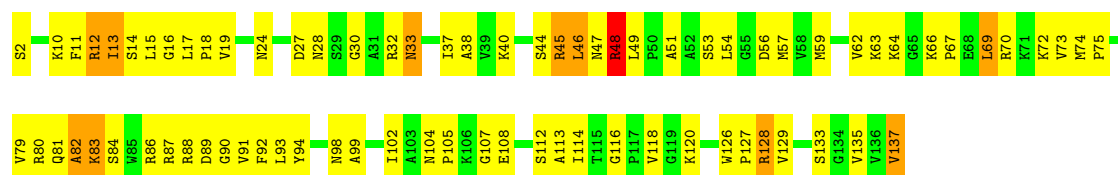
- Molecule 58: 60S ribosomal protein L22-A

Chain n2: 65% 16% 18%



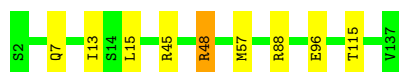
- Molecule 59: 60S ribosomal protein L23-A

Chain N3: 43% 49% 7%



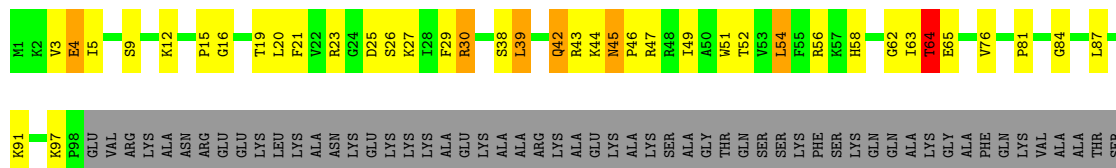
- Molecule 59: 60S ribosomal protein L23-A

Chain n3: 93% 6%



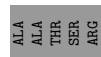
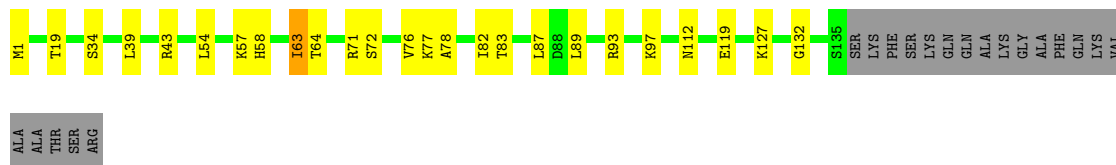
- Molecule 60: 60S ribosomal protein L24-A

Chain N4: 37% 21% 37%



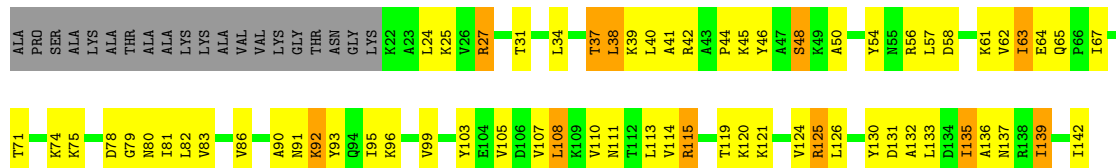
- Molecule 60: 60S ribosomal protein L24-A

Chain n4: 71% 15% 13%



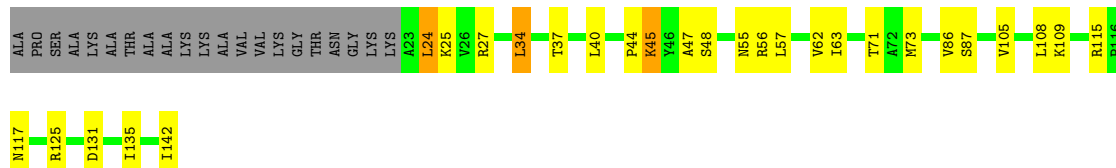
- Molecule 61: 60S ribosomal protein L25

Chain N5: 38% 40% 8% 14%



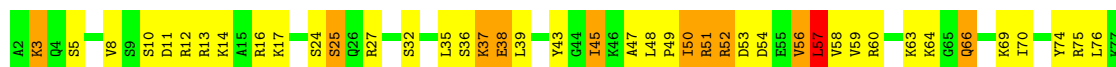
- Molecule 61: 60S ribosomal protein L25

Chain n5: 65% 18% 15%



- Molecule 62: 60S ribosomal protein L26-A

Chain N6: 41% 44% 13%





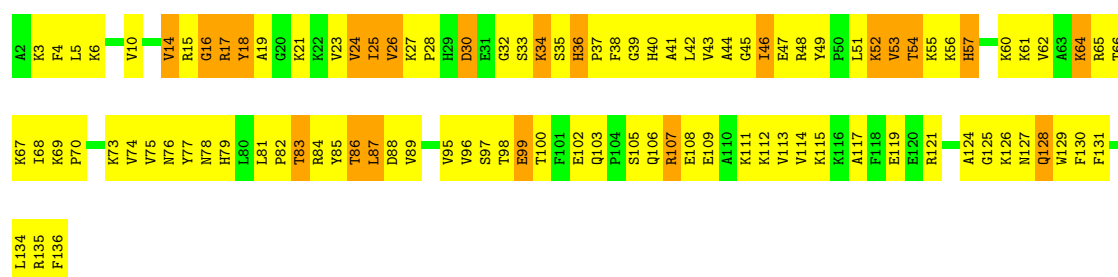
• Molecule 62: 60S ribosomal protein L26-A

Chain n6: 71% 28%



• Molecule 63: 60S ribosomal protein L27-A

Chain N7: 24% 59% 16%



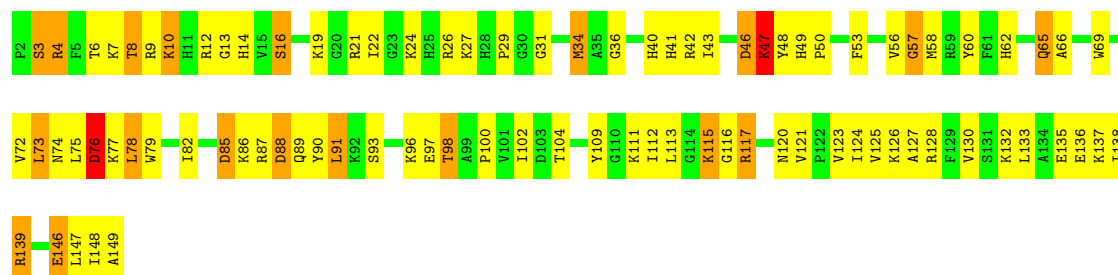
• Molecule 63: 60S ribosomal protein L27-A

Chain n7: 76% 21%



• Molecule 64: 60S ribosomal protein L28

Chain N8: 40% 46% 13%

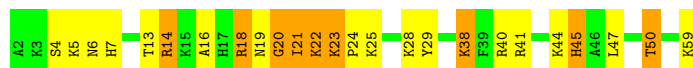


• Molecule 64: 60S ribosomal protein L28

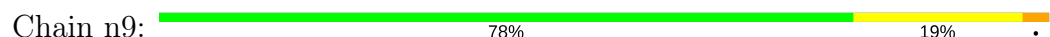
Chain n8: 81% 18%



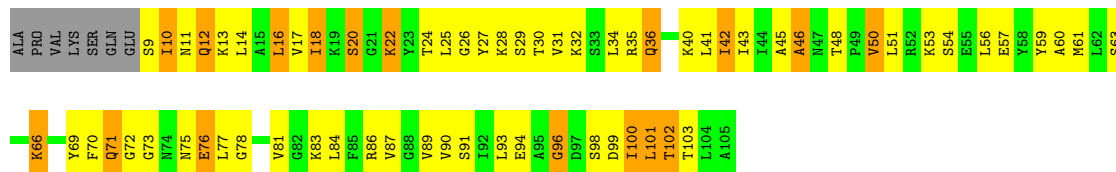
- Molecule 65: 60S ribosomal protein L29



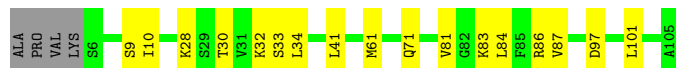
- Molecule 65: 60S ribosomal protein L29



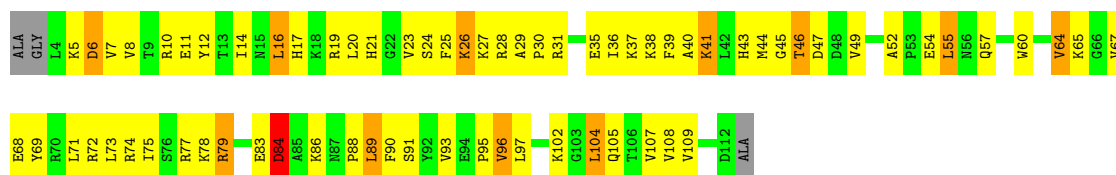
- Molecule 66: 60S ribosomal protein L30



- Molecule 66: 60S ribosomal protein L30



- Molecule 67: 60S ribosomal protein L31-A



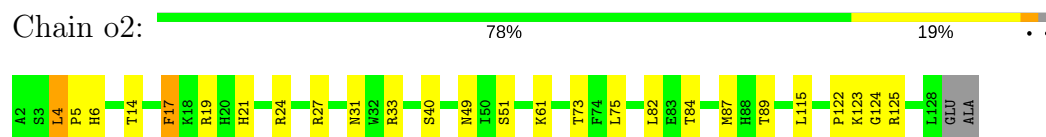
- Molecule 67: 60S ribosomal protein L31-A



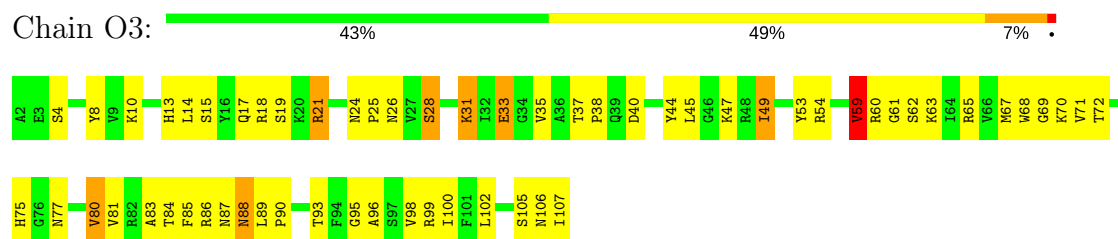
- Molecule 68: 60S ribosomal protein L32



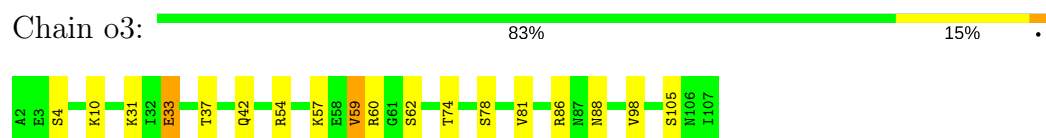
- Molecule 68: 60S ribosomal protein L32



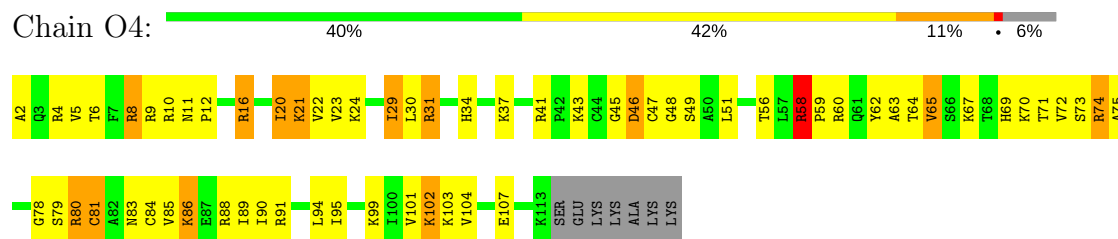
- Molecule 69: 60S ribosomal protein L33-A



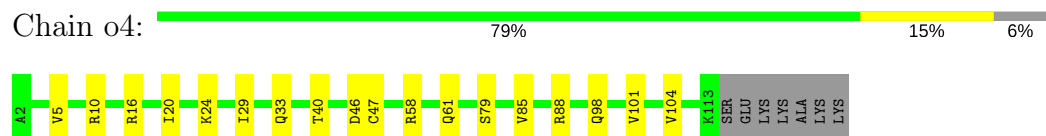
- Molecule 69: 60S ribosomal protein L33-A



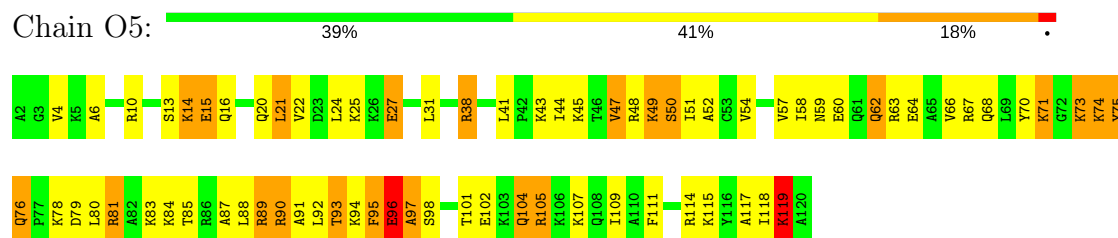
- Molecule 70: 60S ribosomal protein L34-A



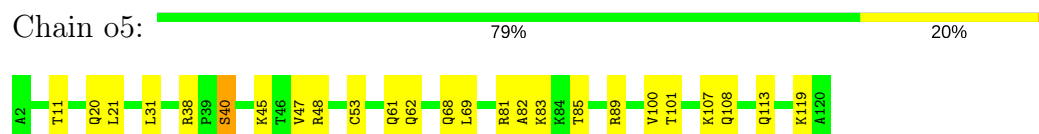
- Molecule 70: 60S ribosomal protein L34-A



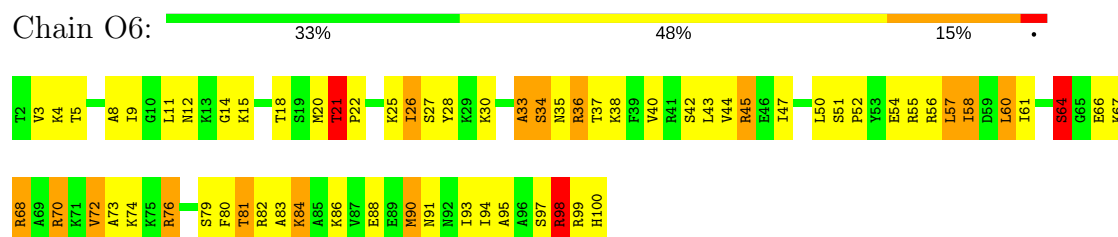
- Molecule 71: 60S ribosomal protein L35-A



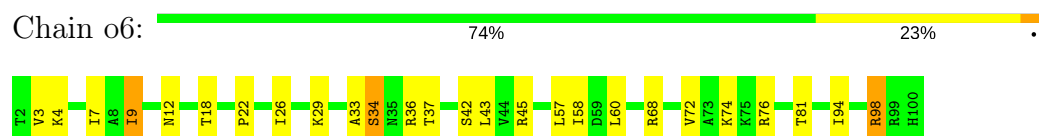
- Molecule 71: 60S ribosomal protein L35-A



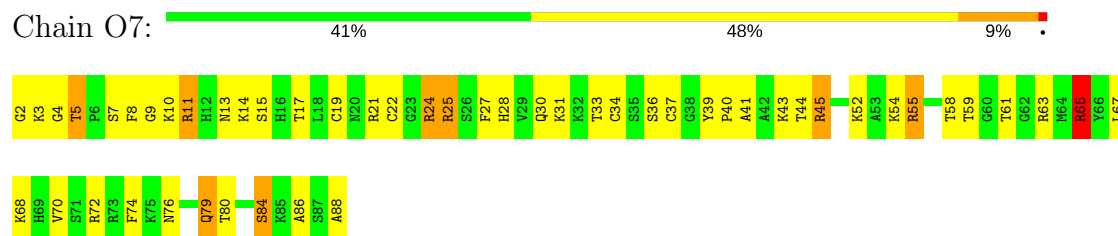
- Molecule 72: 60S ribosomal protein L36-A



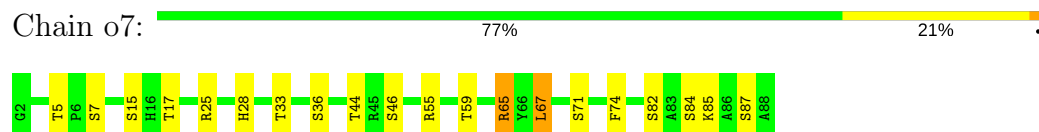
- Molecule 72: 60S ribosomal protein L36-A



- Molecule 73: 60S ribosomal protein L37-A

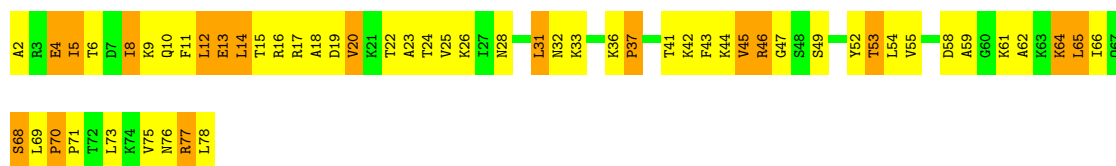


- Molecule 73: 60S ribosomal protein L37-A




- Molecule 74: 60S ribosomal protein L38

Chain O8:  27% 51% 22%



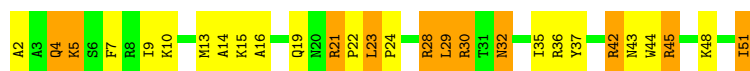
- Molecule 74: 60S ribosomal protein L38

Chain o8:  81% 19%




- Molecule 75: 60S ribosomal protein L39

Chain O9:  44% 34% 22%



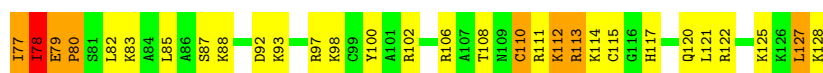
- Molecule 75: 60S ribosomal protein L39

Chain o9:  84% 16%




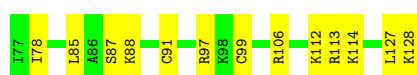
- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain Q0:  42% 42% 13% 3%



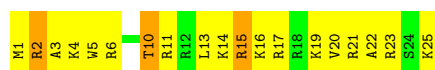
- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain q0:  75% 25%



- Molecule 77: 60S ribosomal protein L41-A

Chain Q1:  24% 64% 12%



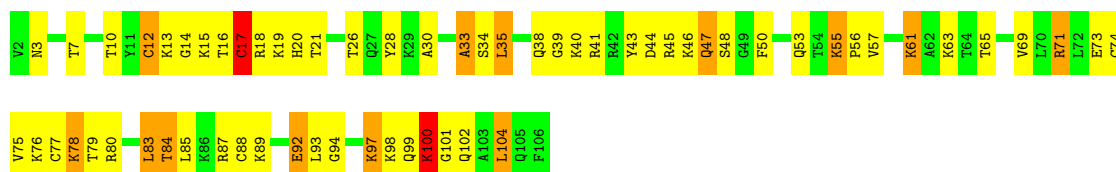
- Molecule 77: 60S ribosomal protein L41-A

Chain q1:  72% 28%




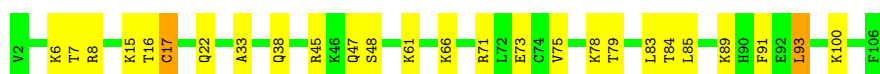
- Molecule 78: 60S ribosomal protein L42-A

Chain Q2:  40% 46% 12%



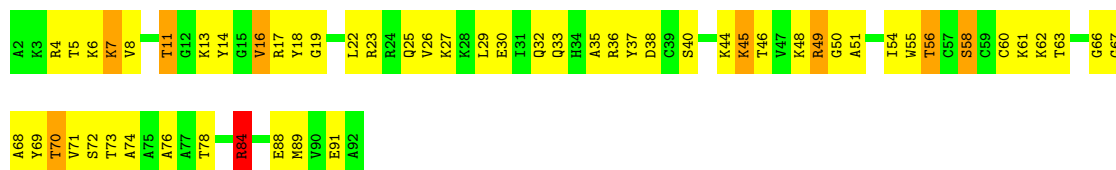
- Molecule 78: 60S ribosomal protein L42-A

Chain q2:  75% 23%




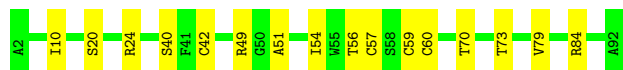
- Molecule 79: 60S ribosomal protein L43-A

Chain Q3:  38% 52% 9%



- Molecule 79: 60S ribosomal protein L43-A

Chain q3:  82% 18%



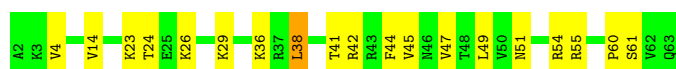
- Molecule 80: 40S ribosomal protein S10-A

Chain c0:  68% 21% 9%



- Molecule 81: 40S ribosomal protein S30-A

Chain e0:  69% 29%



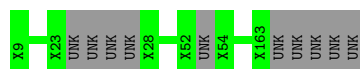
- Molecule 82: Ubiquitin-40S ribosomal protein S31

Chain e1: 55% 36% 8%



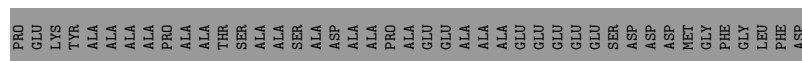
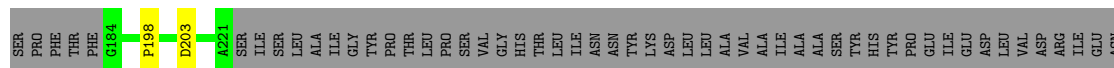
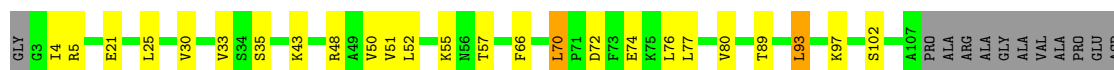
- Molecule 83: UNKNOWN PROTEIN m2

Chain m2: 94% 6%



- Molecule 84: 60S acidic ribosomal protein P0

Chain p0: 37% 8% 54%



- Molecule 85: UNKNOWN PROTEIN p1

Chain p1: 100%

There are no outlier residues recorded for this chain.

- Molecule 86: UNKNOWN PROTEIN 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, α , β , γ	436.02Å 287.59Å 304.52Å 90.00° 99.02° 90.00°	Depositor
Resolution (Å)	49.82 – 3.20	Depositor
% Data completeness (in resolution range)	100.0 (49.82-3.20)	Depositor
R_{merge}	0.31	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.45 (at 3.19Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.8.4_1496)	Depositor
R, R_{free}	0.181 , 0.237	Depositor
Wilson B-factor (Å ²)	70.5	Xtriage
Anisotropy	0.157	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.47$, $\langle L^2 \rangle = 0.30$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
Total number of atoms	411288	wwPDB-VP
Average B, all atoms (Å ²)	70.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.44% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical 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: ZN, OHX, MG

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	0.68	1/41698 (0.0%)	1.28	292/64972 (0.4%)
1	6	0.81	13/42765 (0.0%)	1.38	456/66634 (0.7%)
2	S0	0.43	0/1617	0.67	0/2215
2	s0	0.49	0/1623	0.72	0/2222
3	S1	0.37	0/1735	0.69	2/2335 (0.1%)
3	s1	0.51	0/1748	0.70	1/2352 (0.0%)
4	S2	0.45	0/1665	0.65	0/2263
4	s2	0.54	0/1665	0.72	1/2263 (0.0%)
5	S3	0.45	0/1759	0.68	2/2368 (0.1%)
5	s3	0.45	0/1759	0.60	0/2368
6	S4	0.47	0/2109	0.71	0/2839
6	s4	0.52	0/2109	0.75	2/2839 (0.1%)
7	S5	0.38	0/1629	0.60	0/2202
7	s5	0.46	0/1629	0.71	1/2202 (0.0%)
8	S6	0.45	0/1823	0.63	1/2439 (0.0%)
8	s6	0.51	0/1779	0.68	0/2379
9	S7	0.42	0/1506	0.63	0/2028
9	s7	0.44	0/1516	0.70	1/2043 (0.0%)
10	S8	0.51	0/1514	0.76	1/2021 (0.0%)
10	s8	0.59	0/1514	0.77	1/2021 (0.0%)
11	S9	0.43	0/1519	0.65	0/2035
11	s9	0.53	0/1519	0.75	1/2035 (0.0%)
12	C0	0.43	0/790	0.66	1/1069 (0.1%)
13	C1	0.55	0/1240	0.69	0/1675
13	c1	0.60	0/1194	0.80	2/1610 (0.1%)
14	C2	0.35	0/900	0.65	1/1224 (0.1%)
14	c2	0.32	0/900	0.60	1/1224 (0.1%)
15	C3	0.47	0/1215	0.69	3/1638 (0.2%)
15	c3	0.54	0/1215	0.75	1/1638 (0.1%)
16	C4	0.37	0/901	0.64	0/1217
16	c4	0.52	0/960	0.73	0/1290
17	C5	0.44	0/998	0.66	0/1341

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	c5	0.47	0/1060	0.66	0/1426
18	C6	0.43	0/1125	0.69	2/1510 (0.1%)
18	c6	0.48	0/1131	0.71	1/1518 (0.1%)
19	C7	0.40	0/935	0.66	0/1254
19	c7	0.48	0/914	0.72	0/1224
20	C8	0.43	0/1211	0.66	1/1628 (0.1%)
20	c8	0.50	0/1211	0.70	2/1628 (0.1%)
21	C9	0.44	0/1130	0.67	1/1517 (0.1%)
21	c9	0.49	0/1130	0.72	2/1517 (0.1%)
22	D0	0.45	0/865	0.66	0/1169
22	d0	0.49	0/892	0.70	0/1205
23	D1	0.39	0/693	0.59	0/935
23	d1	0.49	0/693	0.70	0/935
24	D2	0.46	0/1038	0.75	2/1395 (0.1%)
24	d2	0.64	0/1038	0.78	1/1395 (0.1%)
25	D3	0.58	0/1139	0.74	0/1518
25	d3	0.64	0/1139	0.82	2/1518 (0.1%)
26	D4	0.41	0/1087	0.59	0/1449
26	d4	0.51	0/1087	0.69	0/1449
27	D5	0.39	0/571	0.77	2/768 (0.3%)
27	d5	0.42	0/566	0.69	0/761
28	D6	0.40	0/782	0.60	0/1047
28	d6	0.53	0/782	0.69	0/1047
29	D7	0.42	0/620	0.68	0/838
29	d7	0.44	0/620	0.68	0/838
30	D8	0.34	0/499	0.62	0/670
30	d8	0.38	0/499	0.64	0/670
31	D9	0.50	0/452	0.74	1/600 (0.2%)
31	d9	0.56	0/452	0.71	0/600
32	E0	0.40	0/483	0.64	0/643
33	E1	0.41	0/577	0.78	0/770
34	SR	0.39	0/2494	0.63	0/3393
34	sR	0.39	0/2495	0.60	0/3395
35	SM	0.45	0/1113	0.68	2/1502 (0.1%)
35	sM	0.41	0/683	0.63	1/923 (0.1%)
36	1	1.01	59/75394 (0.1%)	1.57	1453/117545 (1.2%)
36	5	1.05	74/75414 (0.1%)	1.58	1442/117575 (1.2%)
37	3	0.87	0/2883	1.32	14/4491 (0.3%)
37	7	1.02	1/2883 (0.0%)	1.60	54/4491 (1.2%)
38	4	0.95	1/3746 (0.0%)	1.51	47/5832 (0.8%)
38	8	0.89	0/3746	1.43	43/5832 (0.7%)
39	L2	0.65	0/1948	0.81	2/2617 (0.1%)
39	l2	0.64	0/1946	0.83	0/2614

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
40	L3	0.62	0/3146	0.77	0/4228
40	l3	0.76	0/3146	0.84	3/4228 (0.1%)
41	L4	0.70	1/2800 (0.0%)	0.88	3/3790 (0.1%)
41	l4	0.68	1/2800 (0.0%)	0.85	3/3790 (0.1%)
42	L5	0.51	0/2425	0.67	0/3271
42	l5	0.65	0/2408	0.76	0/3248
43	L6	0.65	0/1260	0.79	0/1694
43	l6	0.66	0/1269	0.76	1/1705 (0.1%)
44	L7	0.68	0/1821	0.85	2/2451 (0.1%)
44	l7	0.74	0/1828	0.80	2/2461 (0.1%)
45	L8	0.51	0/1836	0.69	0/2481
45	l8	0.52	0/1795	0.67	0/2429
46	L9	0.60	0/1539	0.71	0/2073
46	l9	0.70	0/1539	0.80	0/2073
47	M0	0.64	0/1741	0.76	2/2335 (0.1%)
47	m0	0.67	0/1758	0.80	3/2358 (0.1%)
48	M1	0.49	0/1374	0.71	1/1842 (0.1%)
48	m1	0.59	0/1374	0.81	2/1842 (0.1%)
49	M3	0.68	0/1568	0.80	1/2106 (0.0%)
49	m3	0.61	0/1573	0.78	0/2113
50	M4	0.61	0/1068	0.74	0/1438
50	m4	0.68	0/1074	0.80	1/1446 (0.1%)
51	M5	0.65	0/1757	0.79	1/2354 (0.0%)
51	m5	0.64	0/1757	0.77	0/2354
52	M6	0.70	0/1585	0.86	3/2128 (0.1%)
52	m6	0.84	0/1585	0.92	3/2128 (0.1%)
53	M7	0.67	0/1443	0.80	1/1944 (0.1%)
53	m7	0.78	0/1250	0.81	0/1683
54	M8	0.67	0/1465	0.85	2/1965 (0.1%)
54	m8	0.66	0/1465	0.86	2/1965 (0.1%)
55	M9	0.51	0/1538	0.66	0/2050
55	m9	0.57	0/1538	0.65	0/2050
56	N0	0.64	0/1481	0.82	3/1990 (0.2%)
56	n0	0.73	0/1481	0.83	2/1990 (0.1%)
57	N1	0.68	0/1300	0.79	0/1743
57	n1	0.74	0/1300	0.79	0/1743
58	N2	0.44	0/812	0.63	0/1099
58	n2	0.46	0/794	0.62	0/1076
59	N3	0.62	0/1018	0.78	1/1369 (0.1%)
59	n3	0.69	0/1018	0.83	1/1369 (0.1%)
60	N4	0.50	0/712	0.64	0/958
60	n4	0.61	0/1052	0.70	0/1398
61	N5	0.53	0/979	0.74	1/1321 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
61	n5	0.58	0/974	0.74	1/1314 (0.1%)
62	N6	0.63	0/1004	0.82	1/1341 (0.1%)
62	n6	0.57	0/1004	0.78	1/1341 (0.1%)
63	N7	0.49	0/1118	0.66	0/1497
63	n7	0.47	0/1118	0.67	0/1497
64	N8	0.72	0/1204	0.86	1/1612 (0.1%)
64	n8	0.69	0/1204	0.82	0/1612
65	N9	0.60	0/473	0.78	0/629
65	n9	0.63	0/473	0.89	1/629 (0.2%)
66	O0	0.47	0/751	0.64	0/1008
66	o0	0.49	0/775	0.69	0/1040
67	O1	0.60	0/890	0.74	0/1196
67	o1	0.66	0/897	0.81	0/1205
68	O2	0.79	0/1041	0.87	0/1394
68	o2	0.74	0/1041	0.87	2/1394 (0.1%)
69	O3	0.79	0/868	0.85	0/1168
69	o3	0.79	0/868	0.83	0/1168
70	O4	0.59	0/890	0.79	2/1189 (0.2%)
70	o4	0.57	0/890	0.81	0/1189
71	O5	0.62	0/978	0.77	0/1301
71	o5	0.53	0/974	0.67	0/1297
72	O6	0.57	0/778	0.74	0/1034
72	o6	0.55	0/777	0.70	0/1033
73	O7	0.67	0/696	0.94	4/923 (0.4%)
73	o7	0.64	0/696	0.81	1/923 (0.1%)
74	O8	0.48	0/618	0.64	1/826 (0.1%)
74	o8	0.45	0/614	0.64	0/822
75	O9	0.64	0/443	0.83	0/588
75	o9	0.63	0/443	0.76	0/588
76	Q0	0.64	0/423	0.73	0/562
76	q0	0.81	1/423 (0.2%)	0.85	0/562
77	Q1	0.66	0/234	0.84	0/300
77	q1	0.65	0/234	0.98	2/300 (0.7%)
78	Q2	0.74	1/860 (0.1%)	0.83	0/1136
78	q2	0.69	0/860	0.79	1/1136 (0.1%)
79	Q3	0.67	0/701	0.77	0/934
79	q3	0.65	0/701	0.80	0/934
80	c0	0.40	0/777	0.66	3/1049 (0.3%)
81	e0	0.49	0/499	0.72	0/665
82	e1	0.38	0/619	0.74	1/822 (0.1%)
84	p0	0.44	0/1092	0.63	1/1474 (0.1%)
All	All	0.80	153/430074 (0.0%)	1.26	3913/631364 (0.6%)

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
3	s1	0	1
7	s5	0	2
9	S7	0	1
9	s7	0	1
10	s8	0	1
13	C1	0	1
15	c3	0	1
16	C4	0	1
17	c5	0	1
18	C6	0	1
18	c6	0	1
19	C7	0	2
19	c7	0	3
22	d0	0	1
25	D3	0	1
26	d4	0	2
27	D5	0	3
27	d5	0	1
33	E1	0	1
39	L2	0	1
39	l2	0	2
42	l5	0	2
43	l6	0	1
44	l7	0	2
45	L8	0	2
48	M1	0	2
51	m5	0	1
52	M6	0	1
52	m6	0	1
56	N0	0	2
56	n0	0	1
57	N1	0	1
60	n4	0	1
63	n7	0	1
64	n8	0	2
65	N9	0	1
65	n9	0	1
82	e1	0	1
All	All	0	52

All (153) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1152	G	N9-C4	-11.64	1.28	1.38
36	5	3008	A	N9-C4	-8.98	1.32	1.37
36	5	2358	A	N9-C4	-8.04	1.33	1.37
36	1	1114	U	C2-N3	-7.72	1.32	1.37
36	1	2714	G	N9-C4	-7.69	1.31	1.38
36	1	338	A	N7-C5	-7.29	1.34	1.39
36	5	1152	G	N3-C4	-7.21	1.30	1.35
36	5	2280	A	N9-C4	-7.10	1.33	1.37
36	1	884	A	N9-C4	-6.99	1.33	1.37
36	5	3008	A	N3-C4	-6.99	1.30	1.34
36	1	2197	C	C2-O2	6.95	1.30	1.24
36	5	2147	A	C5-C6	-6.88	1.34	1.41
36	1	2983	C	N3-C4	-6.78	1.29	1.33
36	5	1451	C	N1-C6	-6.74	1.33	1.37
1	6	163	G	N9-C4	-6.72	1.32	1.38
1	2	1754	A	N9-C4	-6.71	1.33	1.37
78	Q2	17	CYS	CB-SG	6.67	1.93	1.82
36	5	1178	G	C5-C6	-6.63	1.35	1.42
36	1	1446	A	N3-C4	-6.63	1.30	1.34
36	1	2714	G	N9-C8	6.60	1.42	1.37
36	5	2733	A	N3-C4	-6.55	1.30	1.34
1	6	1744	A	N9-C4	-6.55	1.33	1.37
36	1	2188	A	N9-C4	-6.54	1.33	1.37
36	5	2890	A	N7-C5	-6.53	1.35	1.39
36	5	1143	A	N9-C4	-6.53	1.33	1.37
36	5	2726	C	N3-C4	-6.50	1.29	1.33
36	5	1152	G	N9-C8	6.49	1.42	1.37
36	1	2355	G	N7-C5	-6.46	1.35	1.39
36	5	1443	G	N1-C2	-6.37	1.32	1.37
36	5	2139	A	N3-C4	-6.36	1.31	1.34
36	5	2386	A	N7-C5	-6.29	1.35	1.39
36	1	1158	A	N7-C5	-6.29	1.35	1.39
36	5	3245	A	C5-C6	-6.27	1.35	1.41
36	5	2640	A	N9-C4	-6.08	1.34	1.37
37	7	89	G	N9-C8	-6.08	1.33	1.37
36	1	2384	A	N9-C4	6.06	1.41	1.37
1	6	359	A	N9-C4	-6.02	1.34	1.37
36	1	804	C	N1-C6	-6.01	1.33	1.37
36	1	361	A	N3-C4	-6.01	1.31	1.34
1	6	337	G	C2-N3	5.98	1.37	1.32
36	1	942	U	C4-O4	5.98	1.28	1.23
36	5	2647	A	N9-C4	-5.95	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	21	G	N9-C4	-5.92	1.33	1.38
36	5	1374	G	N1-C2	-5.88	1.33	1.37
41	L4	94	CYS	CB-SG	-5.88	1.72	1.81
76	q0	99	CYS	CB-SG	-5.86	1.72	1.81
36	5	1374	G	C6-N1	-5.85	1.35	1.39
36	5	3039	C	N1-C6	-5.82	1.33	1.37
36	5	3040	A	N7-C5	-5.78	1.35	1.39
1	6	119	A	N9-C4	-5.78	1.34	1.37
36	1	2871	G	N7-C5	5.77	1.42	1.39
36	5	2385	G	N9-C4	-5.76	1.33	1.38
36	1	361	A	N9-C4	-5.72	1.34	1.37
36	5	847	A	N9-C4	-5.72	1.34	1.37
36	1	1154	A	N3-C4	-5.72	1.31	1.34
36	5	2617	U	N1-C2	-5.72	1.33	1.38
41	l4	94	CYS	CB-SG	-5.71	1.72	1.81
36	5	523	A	N9-C4	-5.70	1.34	1.37
36	5	2804	A	N9-C4	-5.70	1.34	1.37
36	5	804	C	N1-C6	-5.65	1.33	1.37
36	5	1188	U	C2-N3	-5.64	1.33	1.37
36	1	653	A	N7-C5	-5.63	1.35	1.39
36	1	2422	C	N3-C4	-5.62	1.30	1.33
1	6	163	G	N3-C4	-5.62	1.31	1.35
36	5	3215	A	N9-C4	-5.58	1.34	1.37
36	1	1154	A	C6-N1	-5.58	1.31	1.35
36	5	2910	A	N9-C4	-5.57	1.34	1.37
36	5	2971	A	N9-C4	5.57	1.41	1.37
36	1	426	G	N1-C2	-5.57	1.33	1.37
38	4	111	A	N7-C5	-5.55	1.35	1.39
36	5	1847	A	N9-C4	-5.55	1.34	1.37
36	5	2639	G	N7-C5	-5.55	1.35	1.39
36	5	2811	A	C6-N1	-5.54	1.31	1.35
36	5	1372	C	N1-C6	-5.54	1.33	1.37
1	6	1655	A	N7-C5	-5.53	1.35	1.39
36	5	2318	U	C2-N3	-5.52	1.33	1.37
36	1	706	A	N9-C4	-5.51	1.34	1.37
36	5	2144	A	N9-C4	5.51	1.41	1.37
36	1	653	A	C5-C6	-5.50	1.36	1.41
36	5	2379	U	N3-C4	-5.50	1.33	1.38
36	5	1922	A	N9-C4	-5.49	1.34	1.37
36	5	3103	A	N3-C4	-5.48	1.31	1.34
36	1	1394	A	N9-C4	-5.44	1.34	1.37
36	5	2696	A	N3-C4	-5.42	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1150	A	N9-C4	-5.41	1.34	1.37
36	1	1164	G	N3-C4	-5.39	1.31	1.35
36	5	1152	G	N1-C2	5.38	1.42	1.37
36	1	2611	U	C2-N3	-5.38	1.33	1.37
36	5	2243	A	N3-C4	-5.38	1.31	1.34
36	1	3129	A	N9-C4	-5.37	1.34	1.37
36	1	3008	A	N9-C4	-5.36	1.34	1.37
36	5	2762	A	N9-C4	-5.36	1.34	1.37
36	1	949	C	N1-C6	-5.36	1.33	1.37
36	1	1883	A	N9-C4	-5.36	1.34	1.37
36	5	61	A	N3-C4	-5.36	1.31	1.34
36	5	1148	G	N9-C8	-5.36	1.34	1.37
1	6	65	A	N9-C4	-5.35	1.34	1.37
36	5	1443	G	C6-N1	-5.35	1.35	1.39
36	1	3123	A	N9-C4	-5.34	1.34	1.37
36	1	816	A	C8-N7	5.34	1.35	1.31
36	1	2946	A	N7-C5	-5.33	1.36	1.39
36	1	2640	A	C6-N1	-5.32	1.31	1.35
36	5	611	A	N7-C5	-5.32	1.36	1.39
36	5	884	A	N9-C4	-5.31	1.34	1.37
36	5	421	G	N1-C2	-5.31	1.33	1.37
36	1	1369	A	N9-C4	-5.29	1.34	1.37
36	5	3209	A	C5-C4	5.29	1.42	1.38
1	6	1655	A	C5-C4	-5.26	1.35	1.38
1	6	17	C	N3-C4	-5.26	1.30	1.33
36	5	647	A	N3-C4	-5.24	1.31	1.34
36	1	2953	U	C4-O4	5.23	1.27	1.23
36	1	1164	G	N9-C4	-5.23	1.33	1.38
36	5	420	G	N9-C8	-5.23	1.34	1.37
36	1	646	A	N7-C5	-5.22	1.36	1.39
36	1	1305	U	C2-O2	5.20	1.27	1.22
36	1	361	A	C6-N1	-5.20	1.31	1.35
36	1	970	A	N3-C4	-5.19	1.31	1.34
36	1	1369	A	N7-C5	-5.18	1.36	1.39
36	5	2163	C	N1-C6	-5.18	1.34	1.37
36	1	2232	A	N9-C4	-5.18	1.34	1.37
1	6	387	A	N9-C4	5.18	1.41	1.37
36	5	2650	U	C4-O4	-5.18	1.19	1.23
36	5	953	G	C5-C4	-5.17	1.34	1.38
36	1	61	A	N3-C4	-5.17	1.31	1.34
36	5	2910	A	N3-C4	-5.17	1.31	1.34
36	1	1330	A	C5-C6	-5.16	1.36	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2398	A	C6-N1	-5.16	1.31	1.35
36	5	3172	A	N9-C4	-5.15	1.34	1.37
36	1	3306	U	C2-N3	-5.14	1.34	1.37
36	5	367	A	N3-C4	-5.14	1.31	1.34
36	5	367	A	N9-C4	-5.13	1.34	1.37
36	5	2280	A	N3-C4	-5.11	1.31	1.34
36	5	970	A	N9-C4	-5.11	1.34	1.37
36	1	3316	A	N9-C4	-5.11	1.34	1.37
36	5	699	A	N9-C4	-5.10	1.34	1.37
36	1	432	G	N3-C4	-5.09	1.31	1.35
36	1	948	C	N3-C4	-5.09	1.30	1.33
36	5	3120	C	N1-C6	-5.09	1.34	1.37
36	1	1335	C	N1-C6	-5.08	1.34	1.37
1	6	542	A	N7-C5	-5.08	1.36	1.39
36	1	1308	A	N3-C4	-5.07	1.31	1.34
36	1	948	C	N1-C6	-5.06	1.34	1.37
36	5	1115	G	N7-C5	-5.05	1.36	1.39
36	5	2273	G	C5-C4	-5.04	1.34	1.38
36	1	345	G	N7-C5	-5.04	1.36	1.39
36	5	2363	A	N7-C5	-5.03	1.36	1.39
36	1	368	G	N7-C5	-5.02	1.36	1.39
36	1	699	A	N3-C4	-5.02	1.31	1.34
36	1	1858	A	N3-C4	-5.01	1.31	1.34
1	6	1775	U	C2-N3	-5.01	1.34	1.37
36	1	2169	G	C5-C6	5.01	1.47	1.42
36	5	2695	A	N3-C4	-5.01	1.31	1.34
36	5	1462	A	N9-C4	-5.00	1.34	1.37

All (3913) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1152	G	N3-C4-N9	-21.84	112.90	126.00
36	5	1152	G	N3-C4-C5	21.63	139.41	128.60
36	5	1152	G	C2-N3-C4	-18.18	102.81	111.90
36	1	2714	G	N3-C4-C5	17.75	137.47	128.60
36	1	1308	A	O5'-P-OP2	-16.96	90.35	110.70
36	1	2714	G	N3-C4-N9	-16.21	116.27	126.00
36	5	1116	G	O5'-P-OP1	-14.88	92.31	105.70
1	6	163	G	N3-C4-N9	-13.88	117.67	126.00
36	5	2199	G	N1-C6-O6	13.59	128.05	119.90
36	5	3245	A	C2-N3-C4	-13.07	104.07	110.60
36	1	1116	G	O5'-P-OP1	-12.94	94.05	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1897	G	N1-C6-O6	12.87	127.62	119.90
36	5	922	U	C5-C6-N1	-12.80	116.30	122.70
36	1	435	C	C6-N1-C2	12.71	125.38	120.30
36	1	1495	U	C5-C6-N1	-12.62	116.39	122.70
36	5	2818	U	O5'-P-OP1	-12.54	94.42	105.70
36	5	1902	G	N1-C6-O6	12.47	127.38	119.90
36	5	2726	C	C5-C4-N4	12.22	128.76	120.20
36	5	3245	A	C5-N7-C8	-12.18	97.81	103.90
1	2	1200	G	N1-C6-O6	12.14	127.18	119.90
36	5	874	U	O5'-P-OP1	-11.95	94.94	105.70
36	1	637	C	C6-N1-C2	11.88	125.05	120.30
36	5	283	G	C4-C5-N7	11.84	115.53	110.80
36	1	2283	G	N1-C6-O6	11.78	126.97	119.90
36	5	2282	U	O5'-P-OP1	-11.75	95.13	105.70
36	5	3245	A	N1-C6-N6	11.69	125.62	118.60
36	1	2870	C	N3-C4-C5	11.52	126.51	121.90
36	5	1902	G	C6-C5-N7	-11.19	123.68	130.40
36	5	1152	G	C8-N9-C1'	11.15	141.49	127.00
36	1	3306	U	C5-C4-O4	11.14	132.58	125.90
36	5	1307	G	P-O3'-C3'	11.13	133.06	119.70
36	5	806	A	O5'-P-OP1	-11.12	95.69	105.70
36	1	343	U	O5'-P-OP2	-11.09	95.72	105.70
36	1	2725	U	C5-C4-O4	11.04	132.52	125.90
36	1	608	A	N1-C6-N6	11.02	125.21	118.60
36	5	2819	A	O5'-P-OP2	-11.00	95.80	105.70
1	6	1029	U	C5-C4-O4	10.89	132.43	125.90
36	1	1149	G	N1-C6-O6	10.84	126.40	119.90
36	5	1897	G	C5-C6-O6	-10.83	122.10	128.60
38	4	94	C	C6-N1-C2	10.81	124.62	120.30
1	6	1773	C	N3-C4-C5	-10.79	117.58	121.90
36	1	639	G	C5-C6-O6	-10.77	122.14	128.60
36	1	2714	G	C2-N3-C4	-10.73	106.54	111.90
36	5	1897	G	C4-C5-N7	10.73	115.09	110.80
36	5	1152	G	C5-N7-C8	-10.71	98.94	104.30
36	1	2797	C	O5'-P-OP1	-10.71	96.06	105.70
36	5	424	G	C5-C6-O6	-10.70	122.18	128.60
36	5	2211	U	C4-C5-C6	10.70	126.12	119.70
36	5	2726	C	N3-C4-N4	-10.66	110.53	118.00
36	5	1909	A	C8-N9-C4	10.66	110.06	105.80
36	1	639	G	N1-C6-O6	10.62	126.28	119.90
1	6	163	G	N3-C4-C5	10.54	133.87	128.60
36	5	1178	G	C5-C6-O6	-10.50	122.30	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1149	G	C5-C6-O6	-10.50	122.30	128.60
36	5	3245	A	C4-C5-N7	10.49	115.95	110.70
1	2	1280	C	N3-C4-C5	-10.48	117.71	121.90
1	2	1039	A	O4'-C1'-N9	10.46	116.57	108.20
36	5	2283	G	C5-C6-O6	-10.44	122.34	128.60
37	7	120	C	C6-N1-C2	10.43	124.47	120.30
36	1	776	U	C4-C5-C6	10.39	125.94	119.70
36	1	2617	U	C5-C4-O4	10.39	132.13	125.90
36	1	1368	U	O5'-P-OP1	-10.38	96.36	105.70
36	5	3245	A	N7-C8-N9	10.34	118.97	113.80
36	5	2147	A	N1-C6-N6	10.27	124.77	118.60
36	5	2272	G	O4'-C1'-N9	10.26	116.41	108.20
36	1	3306	U	N3-C4-O4	-10.26	112.22	119.40
36	5	2283	G	N1-C6-O6	10.26	126.05	119.90
36	5	2830	G	N1-C2-N3	10.19	130.01	123.90
36	5	3245	A	C6-C5-N7	-10.18	125.17	132.30
36	5	1316	C	N1-C2-O2	-10.15	112.81	118.90
1	6	1537	C	C6-N1-C2	-10.14	116.24	120.30
36	1	1381	A	O5'-P-OP2	10.14	122.86	110.70
36	1	2803	A	O5'-P-OP1	-10.11	96.60	105.70
36	5	2524	A	O4'-C1'-N9	10.09	116.27	108.20
1	6	47	A	O5'-P-OP1	-10.07	96.64	105.70
36	5	2620	G	N1-C6-O6	-10.04	113.87	119.90
36	5	1897	G	C6-C5-N7	-10.04	124.38	130.40
36	1	1437	C	C6-N1-C2	-9.99	116.30	120.30
38	4	99	C	C6-N1-C2	9.96	124.28	120.30
1	2	553	G	C5-C6-O6	-9.92	122.65	128.60
36	5	3218	A	N1-C6-N6	9.92	124.55	118.60
36	5	1148	G	C5-C6-O6	-9.89	122.67	128.60
36	1	2373	A	O5'-P-OP1	-9.87	96.82	105.70
36	1	3362	A	N7-C8-N9	9.84	118.72	113.80
36	1	1838	G	N1-C6-O6	9.81	125.79	119.90
36	1	2983	C	C5-C6-N1	-9.80	116.10	121.00
1	2	554	C	N1-C2-O2	9.79	124.78	118.90
36	1	3269	U	O5'-P-OP2	-9.78	96.90	105.70
36	1	3278	C	N1-C2-O2	9.77	124.76	118.90
1	6	542	A	O5'-P-OP1	-9.76	96.91	105.70
36	1	1495	U	C4-C5-C6	9.74	125.55	119.70
36	1	1367	G	N1-C6-O6	9.73	125.74	119.90
36	1	3362	A	C5-N7-C8	-9.70	99.05	103.90
36	5	1321	G	N1-C6-O6	9.68	125.71	119.90
36	1	1495	U	N1-C2-N3	9.68	120.71	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2354	C	N1-C2-O2	-9.67	113.10	118.90
36	5	1897	G	C5-N7-C8	-9.67	99.47	104.30
36	5	3115	C	N1-C2-O2	-9.66	113.11	118.90
36	1	2726	C	N3-C2-O2	-9.57	115.20	121.90
36	5	2234	G	C5-C6-O6	-9.53	122.89	128.60
36	5	1390	A	C8-N9-C4	-9.51	102.00	105.80
36	5	1178	G	C4-C5-N7	9.49	114.60	110.80
36	1	1192	C	N1-C2-O2	9.47	124.58	118.90
36	5	646	A	C2-N3-C4	-9.47	105.87	110.60
36	5	2282	U	O5'-P-OP2	9.45	122.05	110.70
36	1	2679	A	N1-C6-N6	9.45	124.27	118.60
36	5	1208	U	C5-C4-O4	9.45	131.57	125.90
36	1	2846	U	N3-C2-O2	-9.43	115.60	122.20
36	5	1152	G	C4-N9-C1'	-9.43	114.24	126.50
1	2	1200	G	C5-C6-O6	-9.39	122.97	128.60
1	2	1773	C	N3-C4-C5	-9.35	118.16	121.90
3	S1	218	LEU	CA-CB-CG	9.30	136.69	115.30
36	1	1849	C	N1-C2-O2	-9.30	113.32	118.90
1	2	453	U	N3-C2-O2	-9.29	115.69	122.20
36	1	770	G	O4'-C1'-N9	9.29	115.64	108.20
36	5	283	G	C5-C6-O6	-9.29	123.03	128.60
36	1	716	A	N1-C6-N6	9.26	124.15	118.60
37	7	92	A	N1-C6-N6	9.24	124.14	118.60
36	5	917	A	O5'-P-OP2	-9.23	97.39	105.70
36	5	2385	G	O5'-P-OP1	-9.22	97.40	105.70
36	5	2199	G	C5-C6-O6	-9.21	123.07	128.60
36	5	2385	G	N3-C4-C5	9.21	133.20	128.60
36	1	1365	G	N3-C4-C5	-9.18	124.01	128.60
38	4	113	U	C5-C6-N1	-9.18	118.11	122.70
36	1	776	U	C5-C6-N1	-9.16	118.12	122.70
36	5	2913	C	N1-C2-O2	-9.13	113.42	118.90
36	1	3377	G	N3-C4-N9	9.12	131.47	126.00
36	1	2846	U	C5-C4-O4	9.11	131.37	125.90
36	5	2899	C	C6-N1-C2	-9.10	116.66	120.30
36	1	2314	U	N3-C4-O4	9.05	125.73	119.40
36	5	966	U	N3-C2-O2	-9.05	115.87	122.20
36	1	2273	G	C8-N9-C4	9.04	110.02	106.40
36	1	2679	A	C2-N3-C4	-9.04	106.08	110.60
37	7	101	G	N1-C6-O6	9.03	125.32	119.90
36	5	437	G	N9-C4-C5	9.02	109.01	105.40
1	2	553	G	N1-C6-O6	9.01	125.31	119.90
36	1	2827	U	C5-C4-O4	9.00	131.30	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3306	U	N3-C2-O2	-8.99	115.91	122.20
36	5	2917	G	C5-C6-O6	-8.98	123.21	128.60
36	5	2156	C	C6-N1-C2	8.98	123.89	120.30
1	6	65	A	C2-N3-C4	-8.97	106.11	110.60
36	5	1848	G	C5-C6-O6	-8.97	123.22	128.60
36	1	1377	G	C5-C6-O6	-8.95	123.23	128.60
36	1	1113	G	N1-C6-O6	8.95	125.27	119.90
36	1	2726	C	N3-C4-N4	-8.95	111.74	118.00
36	5	406	G	O4'-C1'-N9	8.91	115.33	108.20
36	5	2199	G	C6-C5-N7	-8.90	125.06	130.40
36	5	942	U	N1-C2-O2	-8.90	116.57	122.80
36	1	2314	U	C2-N1-C1'	8.89	128.37	117.70
36	5	1316	C	N3-C4-C5	-8.89	118.34	121.90
36	5	1848	G	N1-C6-O6	8.88	125.23	119.90
1	2	565	C	C6-N1-C2	8.88	123.85	120.30
36	5	2935	U	O5'-P-OP2	-8.88	97.71	105.70
36	1	2355	G	C6-C5-N7	-8.88	125.08	130.40
36	5	1481	A	C8-N9-C4	-8.87	102.25	105.80
36	1	611	A	O5'-P-OP2	-8.86	97.73	105.70
36	1	1902	G	N1-C6-O6	8.85	125.21	119.90
48	m1	112	LEU	CA-CB-CG	8.85	135.65	115.30
36	5	1112	A	C6-N1-C2	-8.84	113.30	118.60
36	1	3057	U	N3-C2-O2	-8.83	116.02	122.20
36	1	2197	C	N1-C2-N3	-8.82	113.02	119.20
36	5	1143	A	C2-N3-C4	-8.82	106.19	110.60
36	1	406	G	O4'-C1'-N9	8.78	115.22	108.20
36	1	2827	U	N3-C4-O4	-8.78	113.25	119.40
36	1	312	C	C6-N1-C2	8.77	123.81	120.30
36	5	504	A	N1-C6-N6	8.75	123.85	118.60
36	5	2372	A	C8-N9-C4	-8.75	102.30	105.80
36	5	2954	U	C2-N1-C1'	8.74	128.18	117.70
36	5	1303	A	C8-N9-C4	8.72	109.29	105.80
36	1	3362	A	C6-C5-N7	-8.72	126.20	132.30
1	2	380	U	N3-C2-O2	-8.72	116.10	122.20
1	2	639	U	N3-C2-O2	-8.71	116.10	122.20
36	5	2354	C	N3-C4-C5	-8.71	118.42	121.90
36	1	2337	C	C6-N1-C2	-8.69	116.82	120.30
38	8	8	C	C6-N1-C2	-8.69	116.82	120.30
36	1	3377	G	C8-N9-C1'	-8.69	115.71	127.00
36	1	699	A	C2-N3-C4	-8.68	106.26	110.60
36	1	2865	U	N3-C4-C5	8.68	119.81	114.60
1	6	163	G	N3-C2-N2	-8.67	113.83	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2308	C	N1-C2-O2	-8.66	113.70	118.90
36	5	1200	A	C4-C5-C6	8.64	121.32	117.00
1	2	1773	C	C6-N1-C2	-8.63	116.85	120.30
36	1	2408	U	O5'-P-OP1	-8.64	97.93	105.70
36	5	1239	C	C5-C6-N1	8.64	125.32	121.00
1	2	1745	G	N3-C4-N9	8.62	131.17	126.00
36	5	1308	A	O5'-P-OP1	-8.62	97.94	105.70
36	5	942	U	N3-C4-O4	8.61	125.43	119.40
1	6	647	G	N3-C4-N9	-8.60	120.84	126.00
36	5	2317	A	O5'-P-OP2	-8.60	97.96	105.70
36	1	1489	A	N1-C6-N6	8.59	123.75	118.60
36	5	2341	A	C8-N9-C4	8.59	109.24	105.80
1	6	1745	G	N3-C4-N9	8.59	131.15	126.00
36	5	1305	U	O5'-P-OP1	-8.58	97.97	105.70
36	1	2572	C	C2-N1-C1'	8.57	128.23	118.80
36	5	437	G	C8-N9-C4	-8.57	102.97	106.40
36	1	1535	A	N1-C6-N6	8.57	123.74	118.60
36	1	2550	U	N3-C2-O2	-8.57	116.20	122.20
36	5	934	G	N3-C4-N9	8.54	131.13	126.00
36	1	3362	A	N1-C6-N6	8.54	123.72	118.60
36	1	2617	U	N1-C2-N3	8.53	120.02	114.90
36	5	3143	C	N1-C2-O2	-8.52	113.79	118.90
36	5	644	G	C4-C5-N7	-8.51	107.39	110.80
36	5	2724	U	C6-N1-C2	-8.50	115.90	121.00
36	1	2283	G	C8-N9-C4	8.49	109.80	106.40
36	5	2680	A	N1-C6-N6	-8.49	113.51	118.60
36	5	1152	G	N3-C2-N2	-8.48	113.96	119.90
36	1	1838	G	C6-C5-N7	-8.48	125.31	130.40
36	5	2288	G	C5-C6-O6	-8.48	123.51	128.60
1	6	1793	G	N1-C6-O6	-8.48	114.81	119.90
37	7	101	G	C5-C6-O6	-8.47	123.52	128.60
36	1	3344	A	C2-N3-C4	-8.47	106.36	110.60
36	1	2996	U	C2-N1-C1'	8.47	127.86	117.70
36	5	424	G	C4-C5-N7	8.45	114.18	110.80
37	7	81	U	N3-C4-O4	-8.44	113.49	119.40
36	1	3362	A	O4'-C1'-N9	8.44	114.95	108.20
36	5	1755	C	C6-N1-C2	8.43	123.67	120.30
1	2	1269	U	C2-N1-C1'	8.42	127.80	117.70
38	8	17	A	N1-C6-N6	8.42	123.65	118.60
36	5	2372	A	P-O3'-C3'	8.41	129.79	119.70
36	1	1409	G	N1-C6-O6	-8.40	114.86	119.90
36	1	1149	G	C5-C6-O6	-8.39	123.56	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	209	A	N1-C6-N6	8.39	123.64	118.60
1	2	1096	C	C2-N1-C1'	8.39	128.03	118.80
36	5	994	G	O5'-P-OP2	-8.37	98.17	105.70
1	6	408	C	C6-N1-C2	-8.37	116.95	120.30
36	1	3377	G	N9-C4-C5	-8.36	102.06	105.40
36	1	1367	G	C5-C6-O6	-8.35	123.59	128.60
1	6	777	C	C6-N1-C2	-8.33	116.97	120.30
36	1	2714	G	C8-N9-C1'	8.32	137.82	127.00
36	1	3217	C	C2-N1-C1'	8.32	127.95	118.80
1	2	137	U	O5'-P-OP1	-8.32	98.22	105.70
36	1	2868	U	N1-C2-O2	8.31	128.62	122.80
36	1	2836	C	C5-C4-N4	8.31	126.02	120.20
36	5	2290	C	C6-N1-C2	8.31	123.62	120.30
36	1	1192	C	C2-N1-C1'	8.31	127.94	118.80
36	5	36	C	C5-C6-N1	8.31	125.15	121.00
1	2	966	A	N1-C6-N6	8.30	123.58	118.60
36	5	3123	A	C8-N9-C4	8.29	109.12	105.80
36	1	2572	C	N1-C2-O2	8.29	123.87	118.90
36	5	2211	U	N1-C2-N3	8.28	119.87	114.90
36	5	437	G	N3-C4-N9	-8.27	121.04	126.00
36	1	415	G	C2-N3-C4	-8.27	107.77	111.90
36	1	3275	U	C5-C6-N1	8.27	126.83	122.70
73	O7	65	ARG	NE-CZ-NH1	8.27	124.43	120.30
36	1	2357	A	C5-C6-N6	-8.26	117.09	123.70
36	5	2978	U	C5-C6-N1	-8.26	118.57	122.70
44	17	229	PHE	CB-CG-CD1	8.25	126.58	120.80
36	1	636	C	N3-C4-C5	8.24	125.20	121.90
36	5	1148	G	N1-C6-O6	8.24	124.84	119.90
36	1	1148	G	C8-N9-C4	8.23	109.69	106.40
36	1	2355	G	N1-C6-O6	8.23	124.84	119.90
36	1	2434	U	C5-C4-O4	8.23	130.84	125.90
36	5	2572	C	N1-C2-O2	8.23	123.84	118.90
52	M6	78	ARG	NE-CZ-NH1	8.22	124.41	120.30
36	5	3377	G	C5-C6-O6	-8.21	123.67	128.60
36	5	866	A	C8-N9-C4	8.20	109.08	105.80
36	5	2211	U	N3-C2-O2	-8.20	116.46	122.20
36	1	2726	C	C5-C4-N4	8.20	125.94	120.20
36	1	2823	G	C4-C5-N7	-8.18	107.53	110.80
36	5	2278	C	C5-C6-N1	8.17	125.09	121.00
36	1	1279	C	C6-N1-C2	-8.17	117.03	120.30
36	1	2314	U	C5-C6-N1	8.16	126.78	122.70
36	5	2147	A	C5-C6-N6	-8.15	117.18	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	144	U	N3-C2-O2	-8.14	116.50	122.20
36	1	645	A	C6-N1-C2	-8.13	113.72	118.60
36	5	1178	G	C6-C5-N7	-8.13	125.52	130.40
65	n9	23	LYS	C-N-CD	8.12	145.44	128.40
36	5	2964	G	C4-C5-N7	-8.11	107.56	110.80
36	5	938	C	C5-C4-N4	-8.11	114.52	120.20
1	6	265	A	C8-N9-C4	8.11	109.04	105.80
1	6	385	A	N1-C6-N6	-8.09	113.75	118.60
36	1	894	G	N3-C2-N2	-8.07	114.25	119.90
36	1	2201	G	N1-C6-O6	8.07	124.75	119.90
36	1	2603	G	C4-C5-N7	8.07	114.03	110.80
36	5	2639	G	C6-C5-N7	-8.06	125.56	130.40
1	2	1324	G	N3-C4-N9	-8.06	121.16	126.00
36	5	3218	A	C4-C5-N7	8.05	114.73	110.70
36	5	1124	U	N3-C4-C5	8.05	119.43	114.60
36	1	1124	U	N3-C4-C5	8.04	119.43	114.60
36	1	14	U	O5'-P-OP2	-8.04	98.46	105.70
36	5	2273	G	C5-C6-N1	8.04	115.52	111.50
36	5	1443	G	C5-C6-O6	8.03	133.42	128.60
36	1	3362	A	C4-C5-N7	8.01	114.70	110.70
36	5	3309	G	C4-N9-C1'	8.01	136.91	126.50
36	5	2318	U	N1-C2-O2	8.00	128.40	122.80
36	5	1879	A	O5'-P-OP1	8.00	120.30	110.70
1	6	1782	A	C8-N9-C4	-7.99	102.61	105.80
36	5	1148	G	N9-C4-C5	-7.99	102.20	105.40
36	5	2735	U	C6-N1-C2	-7.98	116.21	121.00
36	5	1869	C	C6-N1-C2	7.97	123.49	120.30
36	5	1879	A	N1-C6-N6	7.97	123.38	118.60
36	5	2982	A	C2-N3-C4	7.97	114.58	110.60
1	6	1280	C	N3-C4-C5	-7.95	118.72	121.90
36	5	2917	G	N3-C4-N9	7.95	130.77	126.00
36	1	2169	G	N1-C6-O6	-7.95	115.13	119.90
36	5	1500	G	C8-N9-C4	7.95	109.58	106.40
1	2	453	U	C2-N1-C1'	7.95	127.24	117.70
36	1	988	U	C5-C6-N1	-7.94	118.73	122.70
36	1	1346	G	C2-N3-C4	-7.94	107.93	111.90
36	5	934	G	C2-N3-C4	7.93	115.87	111.90
36	1	716	A	N9-C4-C5	-7.92	102.63	105.80
36	5	437	G	N3-C2-N2	-7.92	114.35	119.90
36	1	2831	G	N1-C6-O6	7.92	124.65	119.90
1	2	647	G	N3-C4-N9	-7.92	121.25	126.00
36	5	1187	C	C6-N1-C2	7.92	123.47	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2308	C	C2-N3-C4	-7.92	115.94	119.90
1	2	145	A	C8-N9-C4	-7.91	102.63	105.80
36	1	1421	G	O5'-P-OP2	-7.91	98.58	105.70
36	5	1148	G	C8-N9-C4	7.91	109.56	106.40
1	6	777	C	C5-C6-N1	7.89	124.95	121.00
36	1	3362	A	C2-N3-C4	-7.89	106.66	110.60
36	5	1314	C	C2-N1-C1'	7.87	127.46	118.80
36	1	1157	G	C5-C6-O6	7.85	133.31	128.60
36	1	2818	U	O5'-P-OP1	-7.85	98.64	105.70
36	1	1129	A	C8-N9-C4	7.85	108.94	105.80
36	5	1481	A	N7-C8-N9	7.84	117.72	113.80
1	6	1747	G	C8-N9-C4	7.84	109.54	106.40
38	8	99	C	C6-N1-C2	7.84	123.44	120.30
36	5	776	U	C5-C6-N1	-7.84	118.78	122.70
36	5	1178	G	N1-C6-O6	7.83	124.60	119.90
36	5	2358	A	C8-N9-C4	7.83	108.93	105.80
36	5	2358	A	C2-N3-C4	-7.83	106.68	110.60
36	1	878	G	N3-C4-N9	-7.83	121.30	126.00
36	1	2606	G	N3-C4-N9	7.82	130.69	126.00
36	5	3209	A	O4'-C1'-N9	7.82	114.45	108.20
36	1	640	U	N3-C4-O4	7.81	124.87	119.40
1	6	426	G	O5'-P-OP2	-7.81	98.67	105.70
36	5	968	G	C8-N9-C4	7.81	109.53	106.40
36	5	1724	U	N1-C2-O2	-7.81	117.34	122.80
36	5	1306	G	C5-C6-O6	-7.80	123.92	128.60
36	5	3218	A	C6-C5-N7	-7.80	126.84	132.30
36	1	3344	A	O4'-C1'-N9	7.80	114.44	108.20
1	6	858	G	C4-C5-N7	7.79	113.92	110.80
36	5	1110	U	N1-C2-O2	7.79	128.25	122.80
1	6	1537	C	N3-C4-C5	-7.79	118.78	121.90
36	1	2197	C	C6-N1-C2	7.79	123.42	120.30
36	5	804	C	N3-C4-C5	-7.78	118.79	121.90
36	1	793	C	N1-C2-O2	-7.77	114.24	118.90
36	1	2714	G	C4-N9-C1'	-7.77	116.41	126.50
36	5	3214	U	C5-C4-O4	7.76	130.56	125.90
36	1	1495	U	C2-N3-C4	-7.75	122.35	127.00
36	1	800	G	N3-C2-N2	-7.75	114.47	119.90
1	6	542	A	O4'-C1'-N9	7.75	114.40	108.20
36	1	716	A	C4-C5-N7	7.75	114.57	110.70
1	6	194	U	C2-N1-C1'	7.75	127.00	117.70
36	1	660	A	N1-C6-N6	-7.75	113.95	118.60
36	1	1308	A	C8-N9-C4	-7.75	102.70	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	55	U	C6-N1-C2	-7.75	116.35	121.00
36	1	86	G	N9-C4-C5	7.74	108.50	105.40
36	1	409	A	O5'-P-OP2	-7.73	98.74	105.70
38	8	55	U	N1-C2-N3	7.73	119.54	114.90
36	5	2963	C	C6-N1-C2	7.72	123.39	120.30
1	6	1305	U	N1-C2-O2	-7.71	117.40	122.80
36	5	1513	G	C8-N9-C4	-7.71	103.32	106.40
1	2	1324	G	N9-C4-C5	7.71	108.48	105.40
36	5	38	U	O5'-P-OP2	-7.69	98.78	105.70
36	5	3326	G	C8-N9-C4	7.68	109.47	106.40
1	6	1537	C	N1-C2-O2	-7.67	114.30	118.90
36	5	1481	A	P-O3'-C3'	7.67	128.91	119.70
36	1	371	G	C5-C6-O6	-7.67	124.00	128.60
36	5	2622	C	N3-C4-C5	-7.67	118.83	121.90
37	7	92	A	N9-C4-C5	-7.66	102.73	105.80
36	5	2195	C	O5'-P-OP2	-7.66	98.81	105.70
1	2	453	U	N1-C2-O2	7.66	128.16	122.80
36	5	3218	A	C5-N7-C8	-7.66	100.07	103.90
36	1	1305	U	N1-C2-O2	7.65	128.16	122.80
1	2	314	C	O5'-P-OP1	-7.65	98.81	105.70
36	1	2983	C	C4-C5-C6	7.65	121.22	117.40
36	5	1158	A	N1-C6-N6	7.65	123.19	118.60
36	5	1902	G	C5-C6-O6	-7.64	124.01	128.60
10	s8	29	LEU	CA-CB-CG	7.63	132.86	115.30
36	1	1365	G	N3-C4-N9	7.62	130.57	126.00
1	6	1022	C	C6-N1-C2	7.62	123.35	120.30
1	6	163	G	N9-C4-C5	7.61	108.45	105.40
36	5	2726	C	N3-C2-O2	-7.61	116.57	121.90
36	1	1841	A	O5'-P-OP1	-7.61	98.85	105.70
1	6	976	G	C4-C5-N7	7.61	113.84	110.80
36	1	1389	G	N3-C4-N9	7.61	130.56	126.00
36	1	2644	C	C6-N1-C2	-7.60	117.26	120.30
36	5	657	A	N1-C6-N6	-7.60	114.04	118.60
36	1	76	G	C8-N9-C4	-7.60	103.36	106.40
36	5	1437	C	C6-N1-C2	-7.60	117.26	120.30
36	1	1902	G	C6-C5-N7	-7.59	125.84	130.40
36	5	3369	G	C2-N3-C4	7.58	115.69	111.90
36	5	1239	C	C6-N1-C2	-7.58	117.27	120.30
38	8	96	A	C8-N9-C4	7.58	108.83	105.80
1	6	1025	A	N1-C2-N3	7.58	133.09	129.30
36	1	2868	U	N3-C2-O2	-7.57	116.90	122.20
36	1	610	G	C5-C6-N1	7.57	115.29	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	780	A	N1-C6-N6	-7.57	114.06	118.60
36	1	637	C	C5-C6-N1	-7.56	117.22	121.00
36	5	705	A	O5'-P-OP2	-7.56	98.89	105.70
36	5	922	U	C2-N3-C4	-7.56	122.46	127.00
36	5	2147	A	C6-C5-N7	-7.56	127.01	132.30
36	5	404	G	O5'-P-OP2	-7.55	98.91	105.70
12	C0	88	PRO	N-CA-CB	7.55	112.36	103.30
36	5	2639	G	C8-N9-C4	-7.55	103.38	106.40
1	2	1280	C	C6-N1-C2	-7.55	117.28	120.30
36	1	1495	U	N1-C2-O2	-7.54	117.52	122.80
1	6	858	G	O4'-C1'-N9	7.54	114.23	108.20
36	1	1308	A	O5'-P-OP1	7.54	119.75	110.70
1	6	1749	A	C2-N3-C4	-7.54	106.83	110.60
36	5	2808	A	C2-N3-C4	-7.54	106.83	110.60
1	2	7	G	N1-C6-O6	-7.53	115.38	119.90
36	1	392	G	C8-N9-C4	7.53	109.41	106.40
1	6	1773	C	N3-C4-N4	7.53	123.27	118.00
36	5	2965	U	N1-C2-O2	-7.53	117.53	122.80
36	1	2944	U	N1-C2-O2	7.53	128.07	122.80
36	1	2121	G	N1-C6-O6	-7.52	115.39	119.90
36	1	142	C	C6-N1-C2	-7.51	117.29	120.30
36	5	2704	A	O5'-P-OP1	-7.51	98.94	105.70
36	5	3154	C	C2-N1-C1'	7.51	127.06	118.80
36	1	2726	C	N1-C2-N3	7.51	124.45	119.20
1	6	421	A	N1-C6-N6	7.50	123.10	118.60
1	6	1097	U	P-O3'-C3'	7.50	128.70	119.70
38	4	94	C	N3-C4-C5	7.50	124.90	121.90
36	1	49	A	N1-C6-N6	7.50	123.10	118.60
36	1	2636	A	C8-N9-C4	-7.50	102.80	105.80
36	1	1445	U	C2-N1-C1'	-7.49	108.71	117.70
36	5	1321	G	C5-C6-O6	-7.49	124.10	128.60
36	1	3183	A	N1-C6-N6	7.49	123.09	118.60
37	7	101	G	C6-C5-N7	-7.49	125.91	130.40
36	5	2639	G	C5-C6-O6	-7.49	124.11	128.60
36	5	1434	G	N1-C6-O6	7.49	124.39	119.90
36	1	2644	C	N3-C2-O2	-7.48	116.66	121.90
1	2	1490	C	C6-N1-C2	-7.47	117.31	120.30
36	1	2662	G	C2-N3-C4	-7.47	108.16	111.90
36	1	3277	U	N3-C2-O2	-7.47	116.97	122.20
1	6	106	U	C5-C4-O4	7.46	130.38	125.90
1	6	453	U	C2-N1-C1'	7.46	126.65	117.70
36	1	2637	A	O5'-P-OP1	-7.46	98.99	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	558	U	N3-C2-O2	-7.46	116.98	122.20
36	1	730	C	C6-N1-C2	7.46	123.28	120.30
36	1	921	A	C8-N9-C4	-7.46	102.82	105.80
36	1	1902	G	C4-C5-N7	7.46	113.78	110.80
36	1	1303	A	C5-C6-N6	-7.45	117.74	123.70
36	5	2293	C	N3-C4-C5	7.45	124.88	121.90
36	1	645	A	N1-C6-N6	-7.45	114.13	118.60
36	1	961	C	C4-C5-C6	7.44	121.12	117.40
36	5	776	U	C4-C5-C6	7.44	124.16	119.70
1	2	558	U	N1-C2-O2	7.43	128.00	122.80
1	2	1280	C	N3-C4-N4	7.43	123.20	118.00
36	5	2211	U	C5-C6-N1	-7.42	118.99	122.70
36	1	501	A	C8-N9-C4	7.42	108.77	105.80
36	1	776	U	N1-C2-N3	7.42	119.35	114.90
36	1	2719	U	C2-N1-C1'	-7.41	108.80	117.70
36	1	3326	G	C8-N9-C4	7.41	109.36	106.40
1	2	1291	G	N3-C4-N9	-7.41	121.56	126.00
36	1	433	A	N1-C6-N6	7.40	123.04	118.60
36	1	2384	A	C5-C6-N6	-7.40	117.78	123.70
36	5	646	A	N1-C2-N3	7.40	133.00	129.30
36	5	2385	G	N3-C4-N9	-7.40	121.56	126.00
36	1	901	G	C5-C6-O6	-7.40	124.16	128.60
36	1	2314	U	C5-C4-O4	-7.39	121.47	125.90
36	1	1308	A	N7-C8-N9	7.38	117.49	113.80
36	1	2977	G	O5'-P-OP1	-7.38	99.06	105.70
36	1	2283	G	C5-C6-O6	-7.38	124.17	128.60
36	1	3217	C	N1-C2-O2	7.38	123.33	118.90
1	2	380	U	N1-C2-O2	7.38	127.96	122.80
36	5	2353	G	N1-C6-O6	7.38	124.33	119.90
36	1	3057	U	N1-C2-N3	7.37	119.32	114.90
36	5	1314	C	C6-N1-C1'	-7.37	111.95	120.80
36	1	921	A	N9-C4-C5	7.37	108.75	105.80
36	1	1466	G	N9-C4-C5	-7.36	102.45	105.40
36	5	2199	G	N3-C2-N2	-7.36	114.75	119.90
1	2	1456	C	N3-C2-O2	-7.36	116.75	121.90
36	5	1438	U	N3-C2-O2	-7.36	117.05	122.20
36	1	2982	A	O5'-P-OP1	-7.35	99.08	105.70
36	1	2625	C	N1-C2-O2	-7.35	114.49	118.90
36	1	716	A	C5-C6-N6	-7.34	117.83	123.70
36	1	1161	G	N1-C6-O6	-7.33	115.50	119.90
56	N0	155	ARG	NE-CZ-NH1	-7.33	116.63	120.30
36	1	2169	G	C4-C5-N7	-7.33	107.87	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1192	C	N3-C2-O2	-7.33	116.77	121.90
36	5	2964	G	N1-C6-O6	-7.32	115.50	119.90
31	D9	36	LEU	CA-CB-CG	7.32	132.14	115.30
36	5	3362	A	C2-N3-C4	-7.32	106.94	110.60
36	1	2606	G	C6-C5-N7	-7.32	126.01	130.40
36	5	2245	C	C6-N1-C2	-7.32	117.37	120.30
36	5	1848	G	C4-C5-N7	7.32	113.73	110.80
36	1	1433	A	C5-C6-N1	7.31	121.36	117.70
36	5	2675	C	C6-N1-C2	-7.31	117.37	120.30
36	1	672	A	N1-C6-N6	7.31	122.99	118.60
1	6	1091	A	N1-C6-N6	7.31	122.99	118.60
36	5	1010	G	O5'-P-OP2	-7.31	99.12	105.70
1	2	1096	C	C5-C6-N1	7.31	124.66	121.00
37	7	49	G	C4-C5-C6	7.31	123.19	118.80
36	1	417	A	N1-C6-N6	7.30	122.98	118.60
36	1	2884	C	N3-C4-C5	7.30	124.82	121.90
1	2	554	C	C2-N1-C1'	7.30	126.83	118.80
36	1	3081	C	C5-C6-N1	-7.30	117.35	121.00
37	7	85	G	N1-C6-O6	-7.30	115.52	119.90
36	5	2887	A	N1-C6-N6	7.30	122.98	118.60
36	1	3217	C	C6-N1-C1'	-7.29	112.05	120.80
10	S8	29	LEU	CA-CB-CG	7.29	132.07	115.30
36	5	2278	C	C4-C5-C6	-7.29	113.75	117.40
36	5	1200	A	N1-C6-N6	7.29	122.97	118.60
36	5	2234	G	C8-N9-C4	7.29	109.31	106.40
1	6	539	G	N3-C4-N9	-7.28	121.63	126.00
36	5	2572	C	C2-N1-C1'	7.28	126.81	118.80
36	1	347	G	C4-C5-N7	7.28	113.71	110.80
36	5	1445	U	C2-N3-C4	-7.28	122.63	127.00
36	5	2147	A	C4-C5-N7	7.28	114.34	110.70
1	6	1540	G	N1-C6-O6	-7.28	115.53	119.90
37	7	49	G	N1-C6-O6	7.28	124.27	119.90
36	1	972	A	C8-N9-C4	7.27	108.71	105.80
36	1	1658	G	N1-C6-O6	-7.27	115.54	119.90
36	1	608	A	N9-C4-C5	-7.27	102.89	105.80
1	6	265	A	N9-C4-C5	-7.27	102.89	105.80
36	1	3269	U	N3-C2-O2	-7.26	117.12	122.20
36	1	232	G	N3-C4-C5	-7.26	124.97	128.60
38	4	113	U	C5-C4-O4	7.26	130.25	125.90
36	1	49	A	C2-N3-C4	-7.25	106.97	110.60
36	5	1497	C	O5'-P-OP1	-7.25	99.17	105.70
36	5	209	A	C5-C6-N6	-7.25	117.90	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	65	A	P-O3'-C3'	7.25	128.40	119.70
36	1	942	U	C4-C5-C6	7.25	124.05	119.70
36	5	2943	G	C6-C5-N7	-7.25	126.05	130.40
36	1	2942	C	N3-C4-C5	7.25	124.80	121.90
36	1	3212	C	C6-N1-C2	7.25	123.20	120.30
1	2	728	U	C2-N1-C1'	7.25	126.39	117.70
36	1	1360	C	C6-N1-C2	7.24	123.20	120.30
36	1	1182	A	C8-N9-C4	7.23	108.69	105.80
36	5	2735	U	C5-C6-N1	7.23	126.31	122.70
36	5	2916	U	O5'-P-OP1	-7.22	99.20	105.70
1	2	1119	G	N3-C2-N2	7.22	124.95	119.90
36	1	432	G	C5-C6-N1	-7.21	107.89	111.50
1	2	1651	A	C2-N3-C4	-7.21	107.00	110.60
36	5	1730	G	C8-N9-C4	7.21	109.28	106.40
36	1	3362	A	C8-N9-C4	-7.21	102.92	105.80
1	2	300	A	O5'-P-OP1	-7.21	99.22	105.70
36	5	2730	G	C5-C6-O6	-7.21	124.28	128.60
1	2	1119	G	N1-C2-N2	-7.20	109.72	116.20
1	6	387	A	C2-N3-C4	7.20	114.20	110.60
1	6	696	C	O4'-C1'-N1	7.20	113.96	108.20
36	1	1658	G	N9-C4-C5	7.20	108.28	105.40
1	6	65	A	C5-C6-N1	-7.19	114.11	117.70
36	1	576	C	C6-N1-C2	7.19	123.18	120.30
36	1	197	G	C5-C6-O6	-7.18	124.29	128.60
36	1	1909	A	N1-C6-N6	7.18	122.91	118.60
1	2	354	C	C6-N1-C2	-7.18	117.43	120.30
36	1	1210	U	C5-C6-N1	-7.17	119.11	122.70
38	4	113	U	N1-C2-N3	7.17	119.20	114.90
36	1	878	G	N3-C2-N2	-7.16	114.89	119.90
36	1	885	U	C5-C6-N1	-7.16	119.12	122.70
1	6	65	A	N1-C6-N6	7.15	122.89	118.60
36	5	3018	C	O5'-P-OP2	-7.15	99.26	105.70
36	1	1433	A	C2-N3-C4	7.15	114.17	110.60
59	n3	48	ARG	NE-CZ-NH1	7.15	123.87	120.30
1	6	1700	C	C2-N1-C1'	7.15	126.66	118.80
36	5	1449	A	N1-C6-N6	7.15	122.89	118.60
36	1	2417	U	N1-C2-O2	-7.14	117.80	122.80
36	5	644	G	C5-C6-O6	7.14	132.89	128.60
1	6	1731	A	N1-C6-N6	-7.14	114.32	118.60
36	5	658	G	C8-N9-C4	-7.14	103.54	106.40
36	5	2743	A	C8-N9-C4	7.14	108.66	105.80
36	1	2397	A	O5'-P-OP2	-7.14	99.28	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	356	C	O5'-P-OP2	-7.14	99.28	105.70
36	1	969	C	N1-C2-O2	-7.14	114.62	118.90
36	1	1838	G	C4-C5-N7	7.13	113.65	110.80
36	5	1116	G	N9-C4-C5	7.13	108.25	105.40
1	6	813	U	C2-N1-C1'	7.13	126.26	117.70
36	5	2921	U	N3-C4-O4	7.13	124.39	119.40
36	1	650	C	N1-C2-O2	-7.13	114.62	118.90
36	5	394	G	C5-C6-O6	7.13	132.88	128.60
36	1	415	G	N3-C4-C5	7.12	132.16	128.60
36	5	1302	A	N1-C6-N6	-7.12	114.33	118.60
36	5	2858	U	C6-N1-C2	-7.12	116.73	121.00
1	6	609	U	N3-C4-O4	-7.12	114.42	119.40
36	5	580	C	C6-N1-C2	-7.12	117.45	120.30
36	5	2954	U	C6-N1-C1'	-7.12	111.23	121.20
36	1	2725	U	N3-C2-O2	-7.12	117.22	122.20
36	1	2351	U	N3-C2-O2	-7.11	117.22	122.20
36	1	608	A	C6-C5-N7	-7.11	127.32	132.30
36	1	960	U	C6-N1-C2	7.11	125.27	121.00
36	1	1911	A	N1-C6-N6	7.11	122.86	118.60
36	5	1315	U	N1-C2-N3	-7.11	110.64	114.90
1	6	610	G	C8-N9-C1'	-7.11	117.76	127.00
1	6	622	A	O5'-P-OP1	-7.11	99.31	105.70
36	5	1116	G	N3-C4-C5	-7.10	125.05	128.60
1	2	558	U	C2-N1-C1'	7.10	126.22	117.70
36	5	283	G	N9-C4-C5	-7.10	102.56	105.40
36	5	966	U	O5'-P-OP2	-7.10	99.31	105.70
36	5	1869	C	N3-C4-C5	7.10	124.74	121.90
36	5	2616	C	C5-C4-N4	-7.10	115.23	120.20
36	5	3154	C	N1-C2-O2	7.10	123.16	118.90
36	1	332	C	C5-C6-N1	-7.10	117.45	121.00
36	1	2737	C	N1-C2-O2	-7.09	114.64	118.90
36	5	1724	U	N1-C2-N3	7.09	119.16	114.90
36	1	2978	U	O4'-C1'-N1	7.09	113.87	108.20
36	1	2121	G	N3-C2-N2	7.09	124.86	119.90
36	1	1381	A	O5'-P-OP1	-7.09	99.32	105.70
36	5	2318	U	N3-C4-O4	-7.09	114.44	119.40
36	5	927	C	O5'-P-OP1	-7.08	99.32	105.70
36	1	371	G	C4-C5-N7	7.08	113.63	110.80
36	1	1156	C	C5-C6-N1	-7.08	117.46	121.00
1	6	1764	C	C6-N1-C2	7.08	123.13	120.30
36	5	1902	G	C4-C5-C6	7.08	123.05	118.80
36	1	2572	C	C6-N1-C2	-7.08	117.47	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2714	G	C4-C5-C6	-7.08	114.55	118.80
36	5	2416	U	C6-N1-C2	-7.08	116.75	121.00
1	6	582	U	N3-C2-O2	-7.08	117.25	122.20
36	1	609	G	O5'-P-OP2	-7.07	99.33	105.70
1	6	337	G	C6-C5-N7	-7.07	126.16	130.40
36	5	1149	G	N1-C6-O6	7.07	124.14	119.90
36	5	2136	C	C5-C6-N1	-7.07	117.46	121.00
36	1	281	G	C5-C6-O6	-7.07	124.36	128.60
36	1	392	G	N9-C4-C5	-7.07	102.57	105.40
1	6	1361	U	C2-N1-C1'	7.07	126.18	117.70
36	1	1192	C	N3-C2-O2	-7.07	116.95	121.90
36	1	2273	G	N7-C8-N9	-7.07	109.57	113.10
36	5	1006	A	O5'-P-OP2	-7.07	99.34	105.70
36	1	2117	A	N1-C6-N6	-7.07	114.36	118.60
38	4	30	C	O5'-P-OP1	-7.07	99.34	105.70
36	5	609	G	N1-C6-O6	7.07	124.14	119.90
36	5	834	U	C6-N1-C2	7.06	125.24	121.00
36	1	901	G	N1-C6-O6	7.06	124.14	119.90
36	1	1795	U	O5'-P-OP1	-7.06	99.34	105.70
1	2	553	G	C6-C5-N7	-7.06	126.16	130.40
36	5	3108	G	N1-C6-O6	7.06	124.13	119.90
36	5	1192	C	N1-C2-O2	7.06	123.13	118.90
36	5	2887	A	C5-C6-N6	-7.05	118.06	123.70
36	5	2434	U	C5-C4-O4	7.05	130.13	125.90
36	1	994	G	C5-C6-N1	7.05	115.03	111.50
36	5	535	G	O5'-P-OP2	-7.05	99.36	105.70
36	5	1130	A	C8-N9-C4	7.05	108.62	105.80
1	2	393	C	C6-N1-C2	7.05	123.12	120.30
1	2	1455	G	C5-C6-N1	-7.05	107.98	111.50
1	6	453	U	N3-C2-O2	-7.05	117.27	122.20
36	5	283	G	C5-N7-C8	-7.05	100.78	104.30
36	1	1144	U	N3-C4-O4	-7.04	114.47	119.40
1	2	1745	G	C5-C6-N1	7.03	115.02	111.50
36	5	934	G	C8-N9-C1'	-7.03	117.87	127.00
36	5	942	U	N3-C2-O2	7.03	127.12	122.20
36	1	2298	U	N3-C4-O4	-7.02	114.48	119.40
1	6	337	G	C4-N9-C1'	7.02	135.63	126.50
36	5	2617	U	N1-C2-O2	-7.02	117.89	122.80
36	1	2982	A	C6-N1-C2	-7.02	114.39	118.60
36	5	2354	C	N3-C2-O2	7.01	126.81	121.90
1	6	112	A	N1-C6-N6	7.01	122.81	118.60
1	6	390	G	O5'-P-OP2	-7.01	99.39	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2327	U	C5-C6-N1	-7.01	119.19	122.70
1	6	1700	C	N1-C2-O2	7.01	123.11	118.90
36	5	1389	G	C6-C5-N7	-7.01	126.20	130.40
36	5	2199	G	C4-C5-C6	7.01	123.00	118.80
36	1	1902	G	C5-C6-O6	-7.00	124.40	128.60
38	4	103	G	N3-C4-C5	-7.00	125.10	128.60
1	6	647	G	N3-C4-C5	7.00	132.10	128.60
36	5	699	A	C2-N3-C4	-7.00	107.10	110.60
36	5	922	U	C4-C5-C6	7.00	123.90	119.70
36	5	2961	G	C8-N9-C4	-7.00	103.60	106.40
36	1	2169	G	C6-C5-N7	7.00	134.60	130.40
36	5	2621	G	N1-C6-O6	7.00	124.10	119.90
36	1	2983	C	N3-C4-N4	-6.99	113.11	118.00
36	1	3049	A	C8-N9-C4	6.99	108.60	105.80
36	1	2823	G	N3-C2-N2	-6.99	115.01	119.90
36	1	2114	C	O5'-P-OP2	-6.99	99.41	105.70
36	5	2838	A	O5'-P-OP1	6.99	119.08	110.70
36	1	2601	A	C8-N9-C4	6.99	108.59	105.80
36	1	2719	U	N1-C2-O2	-6.99	117.91	122.80
36	5	424	G	C5-C6-N1	6.99	114.99	111.50
36	5	1868	G	N9-C4-C5	-6.99	102.61	105.40
36	1	919	U	O5'-P-OP1	6.98	119.08	110.70
36	1	699	A	N1-C2-N3	6.98	132.79	129.30
36	5	1902	G	C8-N9-C1'	-6.98	117.93	127.00
36	1	895	A	C2-N3-C4	-6.97	107.11	110.60
36	1	2993	G	N9-C4-C5	-6.97	102.61	105.40
36	1	197	G	N9-C4-C5	-6.97	102.61	105.40
36	1	2384	A	N1-C6-N6	6.97	122.78	118.60
36	1	25	U	N3-C4-C5	-6.97	110.42	114.60
36	5	2953	U	C5-C4-O4	-6.97	121.72	125.90
36	1	941	G	C5-C6-O6	-6.97	124.42	128.60
36	5	1416	C	N3-C2-O2	-6.97	117.02	121.90
36	5	1433	A	N1-C6-N6	-6.97	114.42	118.60
36	1	939	U	O5'-P-OP1	6.96	119.06	110.70
36	1	1202	A	C2-N3-C4	-6.96	107.12	110.60
36	5	701	G	C4-C5-N7	-6.96	108.01	110.80
36	5	2248	C	N1-C2-O2	-6.96	114.72	118.90
36	5	2358	A	N3-C4-C5	6.96	131.67	126.80
38	8	95	G	N3-C4-C5	6.96	132.08	128.60
1	2	1761	U	P-O3'-C3'	6.96	128.05	119.70
36	1	1431	G	N1-C6-O6	-6.96	115.73	119.90
36	5	1208	U	N3-C4-O4	-6.96	114.53	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2870	C	C6-N1-C1'	6.95	129.15	120.80
36	1	1346	G	O5'-P-OP2	-6.95	99.45	105.70
1	2	73	U	O4'-C1'-N1	6.95	113.76	108.20
36	5	66	A	N1-C6-N6	6.95	122.77	118.60
36	5	3215	A	C2-N3-C4	-6.95	107.13	110.60
36	5	1113	G	C2-N3-C4	-6.94	108.43	111.90
36	5	2634	U	C2-N3-C4	-6.94	122.84	127.00
36	1	1158	A	C6-N1-C2	-6.93	114.44	118.60
36	1	2403	G	O5'-P-OP2	-6.93	99.46	105.70
1	6	251	A	C8-N9-C4	6.93	108.57	105.80
36	5	1307	G	OP2-P-O3'	6.93	120.45	105.20
36	1	197	G	C6-C5-N7	-6.93	126.24	130.40
36	1	2889	C	N3-C2-O2	-6.93	117.05	121.90
36	1	3199	G	C6-C5-N7	6.93	134.56	130.40
36	5	2620	G	C6-C5-N7	6.93	134.56	130.40
36	5	847	A	C8-N9-C4	6.93	108.57	105.80
36	1	197	G	C4-C5-N7	6.93	113.57	110.80
36	5	2308	C	N1-C2-O2	-6.92	114.75	118.90
37	7	29	C	C6-N1-C2	6.92	123.07	120.30
36	1	282	G	C8-N9-C4	-6.92	103.63	106.40
36	1	2846	U	N1-C2-O2	6.92	127.64	122.80
36	1	2643	A	C8-N9-C4	6.92	108.57	105.80
1	6	1028	C	C5-C6-N1	-6.92	117.54	121.00
36	5	3309	G	N3-C4-C5	-6.92	125.14	128.60
36	5	2917	G	N1-C6-O6	6.92	124.05	119.90
36	5	2411	U	N3-C4-C5	6.91	118.75	114.60
1	6	1146	G	N1-C6-O6	6.91	124.05	119.90
1	6	609	U	C5-C4-O4	6.91	130.04	125.90
36	5	2992	U	C5-C4-O4	-6.91	121.76	125.90
1	2	1768	G	C6-C5-N7	6.90	134.54	130.40
36	5	712	G	O5'-P-OP2	-6.90	99.49	105.70
36	5	2618	G	C5-C6-O6	-6.90	124.46	128.60
36	5	3245	A	N1-C2-N3	6.90	132.75	129.30
36	5	1055	A	O5'-P-OP2	-6.90	99.49	105.70
36	1	3028	G	N3-C4-N9	6.90	130.14	126.00
36	1	1344	G	C8-N9-C4	6.89	109.16	106.40
1	2	1269	U	N3-C4-O4	6.89	124.22	119.40
36	1	2983	C	C5-C4-N4	6.89	125.02	120.20
36	1	1292	C	C6-N1-C2	6.89	123.06	120.30
1	6	1793	G	C4-C5-N7	-6.89	108.04	110.80
36	5	994	G	C5-C6-N1	6.89	114.94	111.50
36	1	2664	C	C6-N1-C2	-6.89	117.55	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1370	G	N3-C4-C5	-6.89	125.16	128.60
36	1	640	U	C5-C4-O4	-6.88	121.77	125.90
37	7	91	G	N9-C4-C5	-6.88	102.65	105.40
36	1	2394	G	N1-C6-O6	-6.88	115.77	119.90
36	5	1188	U	C5-C6-N1	-6.88	119.26	122.70
36	5	2816	G	C8-N9-C4	6.88	109.15	106.40
36	1	2572	C	N3-C2-O2	-6.88	117.09	121.90
1	6	976	G	C6-C5-N7	-6.88	126.27	130.40
36	1	369	A	C2-N3-C4	6.87	114.04	110.60
36	1	114	A	O5'-P-OP1	-6.87	99.52	105.70
36	5	1939	G	C4-N9-C1'	6.87	135.43	126.50
36	1	696	C	C6-N1-C2	6.87	123.05	120.30
36	1	3377	G	C6-C5-N7	-6.87	126.28	130.40
36	5	1902	G	C4-N9-C1'	6.87	135.43	126.50
36	1	85	A	C2-N3-C4	-6.87	107.17	110.60
36	1	776	U	C5-C4-O4	6.87	130.02	125.90
36	5	3022	G	C8-N9-C4	6.87	109.15	106.40
36	1	2339	C	OP1-P-O3'	6.86	120.30	105.20
36	1	3344	A	N7-C8-N9	6.86	117.23	113.80
36	1	1316	C	N1-C2-O2	-6.86	114.78	118.90
36	5	2639	G	N7-C8-N9	6.86	116.53	113.10
36	5	3164	C	O4'-C1'-N1	6.86	113.69	108.20
1	2	1768	G	N3-C4-N9	-6.86	121.89	126.00
36	5	2830	G	C6-N1-C2	-6.86	120.99	125.10
36	1	699	A	O5'-P-OP2	-6.85	99.53	105.70
1	6	976	G	C5-N7-C8	-6.85	100.87	104.30
36	5	2353	G	C6-C5-N7	-6.85	126.29	130.40
36	1	1901	A	N1-C6-N6	-6.85	114.49	118.60
36	5	2970	C	N3-C4-C5	-6.85	119.16	121.90
1	6	163	G	C8-N9-C1'	6.85	135.90	127.00
36	5	425	G	C2-N3-C4	-6.85	108.48	111.90
36	1	2629	U	O5'-P-OP2	-6.84	99.54	105.70
1	6	1773	C	C6-N1-C2	-6.84	117.56	120.30
36	5	2954	U	O4'-C1'-N1	6.84	113.67	108.20
36	1	2836	C	N3-C4-N4	-6.84	113.21	118.00
36	1	1149	G	N3-C2-N2	-6.84	115.11	119.90
1	6	558	U	C2-N1-C1'	6.84	125.91	117.70
36	1	54	C	O5'-P-OP1	-6.84	99.55	105.70
1	6	1198	G	C6-C5-N7	6.83	134.50	130.40
36	5	2391	G	O5'-P-OP2	6.83	118.90	110.70
1	2	1324	G	N3-C2-N2	-6.83	115.12	119.90
1	6	624	G	C8-N9-C4	6.83	109.13	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1439	C	C5-C6-N1	6.83	124.42	121.00
36	1	1118	C	C6-N1-C2	-6.83	117.57	120.30
1	6	902	G	N1-C6-O6	6.83	124.00	119.90
36	5	21	G	C2-N3-C4	-6.83	108.48	111.90
36	5	2724	U	N1-C2-N3	6.83	119.00	114.90
36	5	2630	C	N1-C2-O2	-6.82	114.81	118.90
36	5	1155	C	O5'-P-OP1	-6.82	99.56	105.70
36	5	386	A	N1-C6-N6	6.82	122.69	118.60
36	5	1124	U	C4-C5-C6	-6.82	115.61	119.70
36	1	109	A	OP1-P-O3'	6.82	120.19	105.20
36	1	416	A	C8-N9-C4	6.82	108.53	105.80
36	1	25	U	N3-C4-O4	6.81	124.17	119.40
1	2	1611	A	N1-C2-N3	6.81	132.71	129.30
36	1	369	A	C8-N9-C4	-6.81	103.08	105.80
1	6	609	U	C5-C6-N1	-6.81	119.29	122.70
36	5	1789	G	C4-N9-C1'	-6.81	117.64	126.50
36	5	313	A	N1-C6-N6	6.80	122.68	118.60
36	1	213	A	N1-C6-N6	6.80	122.68	118.60
36	5	2870	C	C2-N1-C1'	-6.80	111.32	118.80
36	1	1156	C	C4-C5-C6	6.79	120.80	117.40
47	m0	57	LEU	CA-CB-CG	6.79	130.92	115.30
1	6	982	U	O5'-P-OP1	-6.79	99.59	105.70
36	5	966	U	N1-C2-O2	6.79	127.55	122.80
36	1	332	C	C6-N1-C2	6.79	123.01	120.30
36	5	3133	C	N3-C4-C5	-6.79	119.19	121.90
36	1	218	G	O5'-P-OP1	-6.78	99.60	105.70
35	SM	167	PRO	N-CA-CB	6.78	111.43	103.30
36	1	802	C	C4-C5-C6	6.78	120.79	117.40
35	sM	167	PRO	N-CA-CB	6.77	111.43	103.30
36	5	3120	C	N3-C2-O2	-6.77	117.16	121.90
1	2	507	U	C2-N1-C1'	6.77	125.83	117.70
36	5	3214	U	N3-C2-O2	-6.77	117.46	122.20
1	2	831	U	C2-N1-C1'	6.77	125.82	117.70
47	M0	57	LEU	CA-CB-CG	6.77	130.87	115.30
36	5	1897	G	N7-C8-N9	6.77	116.48	113.10
36	5	2197	C	C6-N1-C2	6.77	123.01	120.30
36	5	2964	G	C5-C6-O6	6.77	132.66	128.60
36	5	3335	A	C2-N3-C4	-6.77	107.22	110.60
1	6	1269	U	C6-N1-C2	-6.77	116.94	121.00
36	5	2971	A	C2-N3-C4	6.77	113.98	110.60
36	1	2714	G	C5-N7-C8	-6.76	100.92	104.30
1	2	334	G	C4-N9-C1'	-6.76	117.71	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	881	C	C6-N1-C2	-6.76	117.59	120.30
36	5	3200	G	N1-C6-O6	6.76	123.96	119.90
36	1	1203	A	C8-N9-C4	6.76	108.50	105.80
36	5	437	G	N1-C2-N2	6.76	122.28	116.20
36	1	942	U	N3-C4-O4	6.76	124.13	119.40
36	1	2212	C	C6-N1-C2	6.75	123.00	120.30
36	5	1500	G	N7-C8-N9	-6.75	109.72	113.10
36	5	2572	C	N3-C2-O2	-6.75	117.17	121.90
36	1	1307	G	P-O3'-C3'	6.75	127.80	119.70
36	5	1936	A	N1-C6-N6	6.75	122.65	118.60
36	1	324	A	C4-C5-C6	6.75	120.37	117.00
36	1	919	U	O5'-P-OP2	-6.75	99.63	105.70
36	1	2357	A	N1-C6-N6	6.75	122.65	118.60
36	5	1112	A	C5-C6-N6	-6.74	118.31	123.70
36	1	859	G	N9-C4-C5	-6.74	102.70	105.40
36	5	234	G	N1-C6-O6	6.74	123.94	119.90
36	1	1322	U	O5'-P-OP2	-6.74	99.64	105.70
1	6	425	A	N1-C6-N6	-6.74	114.56	118.60
1	2	1196	A	P-O3'-C3'	6.73	127.78	119.70
36	1	2617	U	C5-C6-N1	-6.73	119.33	122.70
36	1	969	C	N3-C4-C5	6.73	124.59	121.90
36	5	718	G	O4'-C1'-N9	6.73	113.58	108.20
36	5	2253	G	O5'-P-OP2	-6.73	99.65	105.70
36	5	2406	C	N1-C2-O2	-6.73	114.86	118.90
36	5	3092	C	C2-N3-C4	-6.73	116.54	119.90
36	5	776	U	C5-C4-O4	6.72	129.93	125.90
36	5	3309	G	C8-N9-C1'	-6.72	118.26	127.00
1	6	421	A	C8-N9-C4	6.72	108.49	105.80
36	5	1595	U	N1-C2-O2	-6.72	118.10	122.80
36	1	1389	G	N9-C4-C5	-6.72	102.71	105.40
36	5	1661	G	N1-C6-O6	6.72	123.93	119.90
36	1	915	A	N1-C6-N6	-6.71	114.57	118.60
36	1	969	C	C2-N1-C1'	-6.71	111.41	118.80
36	1	2647	A	C6-N1-C2	-6.71	114.57	118.60
36	1	859	G	C6-C5-N7	-6.71	126.38	130.40
36	1	1154	A	O5'-P-OP1	-6.71	99.66	105.70
36	5	2524	A	N7-C8-N9	6.71	117.15	113.80
36	5	2825	C	C6-N1-C2	6.71	122.98	120.30
36	1	361	A	N1-C6-N6	-6.71	114.58	118.60
36	1	232	G	N3-C4-N9	6.71	130.02	126.00
36	5	2699	G	N1-C6-O6	6.71	123.92	119.90
36	1	375	A	O5'-P-OP2	-6.70	99.67	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2996	U	C6-N1-C1'	-6.70	111.82	121.20
36	1	3318	G	C8-N9-C4	-6.70	103.72	106.40
36	5	1940	G	C8-N9-C4	6.70	109.08	106.40
36	1	1884	A	N1-C6-N6	6.70	122.62	118.60
36	5	1310	G	N1-C6-O6	-6.70	115.88	119.90
36	1	2622	C	C6-N1-C2	-6.70	117.62	120.30
36	1	1150	A	N1-C6-N6	-6.70	114.58	118.60
36	1	1820	U	P-O3'-C3'	6.70	127.73	119.70
36	5	1390	A	N9-C4-C5	6.70	108.48	105.80
36	1	2339	C	O5'-P-OP2	-6.69	99.68	105.70
36	5	3068	U	N1-C2-N3	6.69	118.92	114.90
1	6	1137	A	C8-N9-C4	6.69	108.48	105.80
1	2	647	G	N3-C2-N2	-6.69	115.22	119.90
36	1	942	U	N3-C4-C5	-6.69	110.59	114.60
36	1	2885	C	C6-N1-C2	6.69	122.97	120.30
1	6	858	G	C6-C5-N7	-6.69	126.39	130.40
36	1	2418	G	C2-N3-C4	6.69	115.24	111.90
36	5	3212	C	C6-N1-C2	6.68	122.97	120.30
36	1	1158	A	C5-C6-N6	-6.68	118.35	123.70
36	1	1535	A	C4-C5-N7	6.68	114.04	110.70
36	1	2643	A	N1-C6-N6	6.68	122.61	118.60
36	5	1149	G	N3-C4-N9	6.68	130.01	126.00
36	5	2797	C	N3-C4-C5	-6.68	119.23	121.90
1	6	176	C	N1-C2-O2	6.68	122.91	118.90
37	7	103	A	N1-C6-N6	6.68	122.61	118.60
36	1	281	G	N3-C4-N9	6.68	130.01	126.00
36	1	2176	U	N3-C2-O2	-6.68	117.52	122.20
15	C3	114	ARG	NE-CZ-NH1	6.68	123.64	120.30
36	1	2996	U	N1-C2-O2	6.68	127.47	122.80
36	1	637	C	C2-N1-C1'	-6.68	111.45	118.80
36	5	1433	A	N1-C2-N3	6.68	132.64	129.30
36	1	959	C	C6-N1-C2	6.67	122.97	120.30
36	5	2234	G	N9-C4-C5	-6.67	102.73	105.40
36	5	371	G	C5-C6-O6	-6.67	124.60	128.60
1	2	144	U	N3-C2-O2	-6.67	117.53	122.20
1	6	610	G	C4-N9-C1'	6.67	135.17	126.50
36	5	2353	G	C5-C6-O6	-6.67	124.60	128.60
1	6	1667	A	OP1-P-OP2	-6.67	109.59	119.60
36	1	1117	G	N1-C6-O6	6.67	123.90	119.90
36	1	1466	G	C4-C5-N7	6.67	113.47	110.80
36	5	821	U	N3-C4-O4	-6.67	114.73	119.40
36	1	43	A	O5'-P-OP1	-6.66	99.70	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	273	A	N1-C6-N6	-6.66	114.61	118.60
36	5	2550	U	C5-C4-O4	6.66	129.89	125.90
1	2	831	U	C5-C6-N1	6.66	126.03	122.70
36	5	2884	C	C5-C4-N4	-6.66	115.54	120.20
36	1	2606	G	C8-N9-C1'	-6.65	118.35	127.00
15	C3	22	ALA	C-N-CD	-6.65	105.96	120.60
1	6	317	C	C2-N3-C4	-6.65	116.57	119.90
1	6	377	G	N3-C2-N2	6.65	124.56	119.90
36	5	1152	G	C4-C5-N7	6.65	113.46	110.80
36	5	2763	U	C5-C4-O4	-6.65	121.91	125.90
36	1	2718	U	N3-C2-O2	-6.65	117.55	122.20
36	5	1151	U	N1-C2-O2	-6.65	118.15	122.80
36	5	3047	U	N3-C4-C5	-6.65	110.61	114.60
36	1	3278	C	C2-N1-C1'	6.64	126.11	118.80
36	5	222	A	O5'-P-OP2	-6.64	99.72	105.70
36	5	2234	G	N1-C6-O6	6.64	123.89	119.90
1	2	448	C	C6-N1-C2	-6.64	117.64	120.30
1	2	830	U	N3-C2-O2	-6.64	117.55	122.20
36	1	1497	C	N3-C4-C5	-6.64	119.24	121.90
1	6	258	C	C6-N1-C2	6.64	122.95	120.30
1	2	1768	G	C4-C5-N7	-6.64	108.14	110.80
36	5	942	U	C5-C4-O4	-6.64	121.92	125.90
36	5	3190	C	N3-C4-C5	-6.64	119.25	121.90
1	2	831	U	C6-N1-C2	-6.63	117.02	121.00
36	5	609	G	C5-C6-N1	-6.63	108.18	111.50
36	5	2163	C	C4-C5-C6	6.63	120.72	117.40
36	1	3181	C	C6-N1-C2	-6.63	117.65	120.30
36	1	3377	G	C4-N9-C1'	6.63	135.12	126.50
36	1	2384	A	N3-C4-N9	6.63	132.70	127.40
36	5	1116	G	C4-C5-N7	-6.63	108.15	110.80
36	1	646	A	C8-N9-C4	-6.63	103.15	105.80
36	5	1171	G	N1-C2-N2	-6.63	110.24	116.20
36	5	2643	A	C8-N9-C4	6.63	108.45	105.80
36	1	1144	U	C5-C6-N1	-6.62	119.39	122.70
1	6	937	C	C6-N1-C2	-6.62	117.65	120.30
36	5	1483	G	O4'-C1'-N9	6.62	113.50	108.20
36	5	2318	U	N3-C2-O2	-6.62	117.57	122.20
36	1	2764	C	N1-C2-O2	-6.62	114.93	118.90
36	1	1445	U	C5-C6-N1	-6.62	119.39	122.70
36	5	2600	C	C6-N1-C2	-6.62	117.65	120.30
1	6	1117	U	O5'-P-OP1	6.61	118.63	110.70
1	6	1643	U	C2-N3-C4	-6.61	123.03	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2857	C	C6-N1-C2	6.61	122.94	120.30
1	2	1773	C	N3-C4-N4	6.61	122.62	118.00
36	1	2617	U	N3-C4-O4	-6.60	114.78	119.40
36	5	424	G	N9-C4-C5	-6.60	102.76	105.40
36	1	1315	U	C5-C6-N1	-6.60	119.40	122.70
36	1	2343	C	N3-C4-C5	6.60	124.54	121.90
36	1	1148	G	N7-C8-N9	-6.59	109.81	113.10
1	6	75	U	N1-C2-O2	6.59	127.41	122.80
37	7	100	C	C6-N1-C2	6.59	122.94	120.30
36	1	2943	G	C6-C5-N7	-6.59	126.45	130.40
1	6	1537	C	C6-N1-C1'	6.58	128.70	120.80
36	1	2978	U	N3-C2-O2	-6.58	117.59	122.20
1	2	639	U	N1-C2-O2	6.58	127.41	122.80
36	1	66	A	O5'-P-OP1	-6.58	99.78	105.70
36	5	2136	C	C4-C5-C6	6.58	120.69	117.40
36	5	2710	C	N1-C2-O2	-6.58	114.95	118.90
1	2	934	C	C2-N1-C1'	6.57	126.03	118.80
1	2	1456	C	C2-N1-C1'	6.57	126.03	118.80
36	5	1343	A	O5'-P-OP2	-6.57	99.78	105.70
36	1	1481	A	N1-C6-N6	6.57	122.54	118.60
38	4	56	G	O5'-P-OP2	-6.57	99.79	105.70
36	1	1556	C	C2-N1-C1'	6.57	126.03	118.80
36	1	2356	A	N1-C6-N6	6.57	122.54	118.60
36	1	2726	C	C2-N3-C4	-6.57	116.62	119.90
37	7	100	C	C5-C6-N1	-6.57	117.72	121.00
1	6	317	C	C5-C6-N1	-6.56	117.72	121.00
36	1	2601	A	C5-C6-N1	6.56	120.98	117.70
36	5	1416	C	N1-C2-O2	6.56	122.84	118.90
36	5	3339	A	N1-C6-N6	6.56	122.54	118.60
1	6	1793	G	C5-C6-O6	6.56	132.54	128.60
36	5	2144	A	O4'-C1'-N9	6.56	113.45	108.20
36	1	369	A	N3-C4-C5	-6.56	122.21	126.80
36	1	1303	A	N1-C6-N6	6.56	122.53	118.60
36	1	895	A	C4-C5-N7	6.55	113.98	110.70
36	1	2197	C	N1-C2-O2	6.55	122.83	118.90
36	5	1519	G	N1-C6-O6	6.55	123.83	119.90
36	1	2209	U	C5-C6-N1	6.55	125.97	122.70
1	6	384	G	C8-N9-C4	6.55	109.02	106.40
36	5	1085	A	O5'-P-OP1	-6.55	99.81	105.70
36	5	3324	C	C6-N1-C2	6.55	122.92	120.30
36	1	1124	U	C4-C5-C6	-6.55	115.77	119.70
36	1	3217	C	N3-C2-O2	-6.55	117.32	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	217	U	OP1-P-O3'	6.55	119.60	105.20
36	5	408	A	O5'-P-OP1	-6.55	99.81	105.70
36	1	1308	A	C5-C6-N1	-6.54	114.43	117.70
36	5	2355	G	C4-C5-N7	6.54	113.42	110.80
36	5	2649	A	C4-C5-N7	6.54	113.97	110.70
1	6	1117	U	O5'-P-OP2	-6.54	99.81	105.70
1	6	1600	A	C2-N3-C4	-6.54	107.33	110.60
36	5	1010	G	N3-C4-C5	-6.54	125.33	128.60
36	1	1119	C	C6-N1-C2	6.54	122.92	120.30
1	6	421	A	N9-C4-C5	-6.54	103.18	105.80
36	5	1167	U	N3-C4-O4	6.54	123.98	119.40
1	6	158	U	P-O3'-C3'	6.54	127.55	119.70
36	5	3330	A	C5-C6-N1	6.54	120.97	117.70
1	2	1761	U	C6-N1-C2	-6.54	117.08	121.00
36	1	285	A	N1-C6-N6	6.54	122.52	118.60
36	1	1114	U	N1-C2-O2	6.54	127.37	122.80
1	6	265	A	N1-C6-N6	6.54	122.52	118.60
36	5	217	U	C5-C6-N1	-6.54	119.43	122.70
36	5	349	A	N1-C6-N6	-6.53	114.68	118.60
1	2	1503	A	N1-C6-N6	6.53	122.52	118.60
36	1	439	C	C2-N1-C1'	6.53	125.98	118.80
38	8	3	A	C5-C6-N1	6.53	120.97	117.70
36	5	934	G	C4-N9-C1'	6.53	134.99	126.50
36	1	2618	G	C5-C6-N1	6.53	114.76	111.50
36	5	2411	U	C2-N3-C4	-6.53	123.08	127.00
36	5	2611	U	O5'-P-OP1	6.53	118.53	110.70
36	1	76	G	N3-C4-C5	-6.53	125.34	128.60
36	1	2802	A	OP2-P-O3'	6.52	119.55	105.20
41	14	339	LEU	CA-CB-CG	6.52	130.30	115.30
36	1	647	A	C8-N9-C4	6.52	108.41	105.80
36	5	2724	U	N3-C2-O2	-6.52	117.64	122.20
36	1	2374	C	C4-C5-C6	6.52	120.66	117.40
36	1	2355	G	N9-C4-C5	-6.52	102.79	105.40
1	6	308	C	N3-C4-N4	-6.52	113.44	118.00
36	5	739	G	N1-C6-O6	-6.52	115.99	119.90
36	5	2726	C	C6-N1-C2	-6.51	117.69	120.30
36	1	2156	C	C6-N1-C2	6.51	122.91	120.30
1	6	1029	U	N3-C4-O4	-6.51	114.84	119.40
36	1	939	U	N1-C2-O2	-6.51	118.24	122.80
36	1	2796	G	C2-N3-C4	-6.51	108.64	111.90
36	5	211	A	O5'-P-OP1	-6.51	99.84	105.70
36	1	517	G	N1-C6-O6	-6.51	116.00	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	645	A	C5-C6-N1	6.51	120.95	117.70
1	2	831	U	N3-C2-O2	-6.50	117.65	122.20
36	5	3377	G	C5-C6-N1	6.50	114.75	111.50
37	7	36	C	C6-N1-C2	6.50	122.90	120.30
36	5	2355	G	C5-C6-O6	-6.50	124.70	128.60
36	1	2112	U	P-O3'-C3'	6.50	127.50	119.70
36	5	2272	G	N1-C6-O6	-6.50	116.00	119.90
36	5	2953	U	N3-C2-O2	6.50	126.75	122.20
1	2	1096	C	C6-N1-C1'	-6.49	113.01	120.80
36	5	940	G	C5-C6-O6	-6.49	124.71	128.60
36	5	2354	C	N3-C4-N4	6.49	122.54	118.00
36	1	2541	U	C2-N1-C1'	6.49	125.49	117.70
1	6	101	U	N3-C2-O2	-6.49	117.66	122.20
36	1	1279	C	C5-C6-N1	6.49	124.24	121.00
36	5	1161	G	O5'-P-OP1	-6.49	99.86	105.70
36	1	2892	A	N1-C6-N6	-6.49	114.71	118.60
36	1	2130	G	N1-C6-O6	-6.48	116.01	119.90
36	5	1443	G	N1-C2-N2	-6.48	110.37	116.20
36	1	2725	U	N3-C4-O4	-6.48	114.86	119.40
36	1	3344	A	C5-N7-C8	-6.48	100.66	103.90
36	5	326	U	N3-C4-C5	-6.48	110.71	114.60
36	5	2887	A	C6-C5-N7	-6.48	127.77	132.30
36	5	3039	C	O5'-P-OP2	-6.48	99.87	105.70
36	1	2827	U	C5-C6-N1	-6.48	119.46	122.70
1	6	382	C	C2-N3-C4	-6.48	116.66	119.90
36	5	1843	C	C5-C4-N4	-6.47	115.67	120.20
36	5	1060	U	C5-C6-N1	-6.47	119.46	122.70
1	6	1637	C	C2-N1-C1'	6.47	125.92	118.80
1	2	1745	G	N9-C4-C5	-6.47	102.81	105.40
36	1	783	A	N1-C6-N6	6.47	122.48	118.60
1	2	1761	U	C5-C4-O4	6.46	129.78	125.90
36	1	2719	U	C6-N1-C1'	6.46	130.25	121.20
36	5	907	G	N3-C2-N2	6.46	124.42	119.90
1	6	1596	C	N3-C2-O2	-6.46	117.38	121.90
36	5	1434	G	C5-C6-O6	-6.46	124.72	128.60
36	1	2411	U	N3-C4-O4	-6.46	114.88	119.40
1	6	542	A	N7-C8-N9	6.46	117.03	113.80
36	5	880	G	C5-C6-O6	-6.46	124.73	128.60
36	5	1473	G	C8-N9-C4	6.46	108.98	106.40
36	5	2917	G	C6-C5-N7	-6.45	126.53	130.40
1	6	1657	U	N1-C2-O2	6.45	127.32	122.80
36	5	1302	A	N9-C4-C5	6.45	108.38	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	577	G	N1-C6-O6	6.45	123.77	119.90
36	5	3362	A	N7-C8-N9	6.45	117.02	113.80
36	5	2639	G	N1-C6-O6	6.45	123.77	119.90
36	1	894	G	N3-C4-N9	-6.45	122.13	126.00
36	1	1198	C	O5'-P-OP1	-6.45	99.90	105.70
36	1	1367	G	O5'-P-OP1	-6.45	99.90	105.70
36	1	2950	G	O4'-C1'-N9	6.45	113.36	108.20
36	1	3362	A	N1-C2-N3	6.45	132.52	129.30
36	5	3008	A	O5'-P-OP2	-6.45	99.90	105.70
1	6	1414	U	N3-C2-O2	-6.44	117.69	122.20
36	5	652	G	C6-C5-N7	-6.44	126.53	130.40
1	6	1109	G	C8-N9-C4	-6.44	103.82	106.40
36	5	2351	U	N1-C2-N3	6.44	118.76	114.90
38	8	95	G	C4-N9-C1'	-6.44	118.13	126.50
36	1	3209	A	N1-C6-N6	6.44	122.46	118.60
38	8	44	A	C5-C6-N6	-6.44	118.55	123.70
1	2	1462	G	C8-N9-C4	6.43	108.97	106.40
1	6	1280	C	C6-N1-C2	-6.43	117.73	120.30
36	1	1152	G	O5'-P-OP1	-6.43	99.91	105.70
36	1	1796	G	C8-N9-C4	-6.43	103.83	106.40
1	6	858	G	N7-C8-N9	6.43	116.32	113.10
36	5	2912	G	O5'-P-OP1	-6.43	99.91	105.70
36	1	1891	A	C8-N9-C4	6.43	108.37	105.80
36	5	3018	C	C6-N1-C2	-6.43	117.73	120.30
36	5	1592	G	C5-C6-N1	-6.42	108.29	111.50
36	5	3071	U	C5-C4-O4	6.42	129.75	125.90
1	6	902	G	C5-C6-N1	-6.42	108.29	111.50
36	5	1938	U	C6-N1-C2	6.42	124.85	121.00
36	1	2827	U	C2-N1-C1'	-6.42	109.99	117.70
36	5	1060	U	N3-C4-O4	-6.42	114.91	119.40
36	5	2531	C	N1-C2-O2	6.42	122.75	118.90
1	6	1735	U	N1-C2-O2	6.42	127.29	122.80
1	6	1794	A	O5'-P-OP1	-6.42	99.92	105.70
36	5	903	U	C5-C6-N1	-6.42	119.49	122.70
36	5	1112	A	C5-C6-N1	6.42	120.91	117.70
36	5	1466	G	OP1-P-OP2	-6.42	109.97	119.60
36	5	2287	C	C6-N1-C2	-6.42	117.73	120.30
36	5	3089	C	N3-C4-C5	6.42	124.47	121.90
36	5	3151	U	C6-N1-C2	6.42	124.85	121.00
38	8	45	C	C6-N1-C2	-6.42	117.73	120.30
1	6	163	G	C8-N9-C4	-6.41	103.83	106.40
36	5	637	C	N1-C2-O2	-6.41	115.05	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	3	84	A	N1-C6-N6	6.41	122.45	118.60
36	1	894	G	N9-C4-C5	6.41	107.96	105.40
1	6	453	U	N1-C2-O2	6.41	127.28	122.80
36	1	984	G	C6-N1-C2	-6.40	121.26	125.10
36	1	857	G	N1-C6-O6	6.40	123.74	119.90
1	6	75	U	C2-N1-C1'	6.40	125.38	117.70
1	2	554	C	C6-N1-C1'	-6.40	113.12	120.80
36	1	1481	A	C6-C5-N7	-6.40	127.82	132.30
36	5	2231	C	O4'-C1'-N1	6.40	113.32	108.20
36	1	1133	A	C8-N9-C4	6.40	108.36	105.80
36	5	1370	G	C6-N1-C2	-6.39	121.26	125.10
36	5	1868	G	C8-N9-C4	6.39	108.96	106.40
38	4	125	U	N1-C2-O2	6.39	127.27	122.80
1	6	687	G	N3-C4-N9	-6.39	122.17	126.00
36	1	232	G	C6-C5-N7	-6.39	126.57	130.40
1	6	425	A	C5-C6-N1	6.39	120.89	117.70
7	s5	92	ARG	NE-CZ-NH1	6.39	123.49	120.30
36	1	156	G	C5-C6-N1	6.39	114.69	111.50
36	1	894	G	N1-C2-N2	6.39	121.95	116.20
36	5	2943	G	C2-N3-C4	-6.39	108.71	111.90
1	2	694	U	C2-N1-C1'	6.38	125.36	117.70
38	4	125	U	C2-N1-C1'	6.38	125.36	117.70
36	5	934	G	N3-C4-C5	-6.38	125.41	128.60
37	7	77	G	N1-C6-O6	6.38	123.73	119.90
40	l3	26	ARG	NE-CZ-NH1	-6.38	117.11	120.30
36	1	326	U	N3-C4-O4	6.38	123.87	119.40
36	5	2139	A	N1-C2-N3	6.38	132.49	129.30
36	1	96	G	N1-C6-O6	6.38	123.73	119.90
36	1	968	G	C5-C6-O6	-6.38	124.77	128.60
1	6	858	G	C5-N7-C8	-6.38	101.11	104.30
1	6	1584	G	C5-C6-O6	-6.38	124.77	128.60
21	c9	57	ARG	NE-CZ-NH1	6.38	123.49	120.30
36	1	2355	G	C5-C6-O6	-6.38	124.77	128.60
1	6	901	G	C4-C5-N7	6.38	113.35	110.80
36	5	2350	C	O5'-P-OP2	-6.38	99.96	105.70
36	5	2860	U	C5-C4-O4	6.38	129.73	125.90
36	1	1269	U	C2-N1-C1'	6.38	125.35	117.70
36	5	894	G	C5-C6-O6	-6.38	124.78	128.60
36	5	1112	A	N3-C4-N9	6.37	132.50	127.40
36	5	3218	A	N9-C4-C5	-6.37	103.25	105.80
36	1	1405	U	C6-N1-C2	6.37	124.82	121.00
36	1	961	C	N3-C4-N4	6.37	122.46	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	307	G	N3-C4-N9	6.37	129.82	126.00
36	1	1849	C	N3-C2-O2	6.37	126.36	121.90
36	1	2610	G	N1-C6-O6	6.37	123.72	119.90
36	5	2391	G	OP1-P-OP2	-6.37	110.05	119.60
37	7	101	G	C4-C5-N7	6.36	113.34	110.80
36	1	2124	G	C5-C6-O6	-6.36	124.78	128.60
1	6	336	G	O5'-P-OP2	-6.36	99.98	105.70
1	6	1000	C	C2-N1-C1'	6.36	125.80	118.80
36	5	1833	G	N1-C6-O6	-6.36	116.08	119.90
36	1	1113	G	C5-C6-O6	-6.36	124.78	128.60
1	6	115	G	O5'-P-OP2	-6.36	99.98	105.70
1	6	136	C	C2-N1-C1'	6.36	125.79	118.80
36	5	2620	G	N9-C4-C5	6.35	107.94	105.40
36	1	1151	U	N3-C4-C5	-6.35	110.79	114.60
80	c0	97	PRO	N-CA-CB	6.35	110.92	103.30
36	5	1437	C	C2-N1-C1'	6.35	125.78	118.80
36	5	3208	G	N3-C4-N9	-6.35	122.19	126.00
36	5	2112	U	C6-N1-C2	-6.35	117.19	121.00
36	1	2624	G	N1-C6-O6	6.34	123.71	119.90
36	1	3140	G	N3-C4-N9	6.34	129.81	126.00
36	5	2724	U	C5-C4-O4	6.34	129.71	125.90
24	D2	65	LEU	CA-CB-CG	6.34	129.89	115.30
36	1	1743	G	C8-N9-C4	6.34	108.94	106.40
36	5	2882	U	N1-C2-N3	6.34	118.71	114.90
56	N0	155	ARG	NE-CZ-NH2	6.34	123.47	120.30
36	5	21	G	N3-C4-C5	6.34	131.77	128.60
36	5	398	A	O5'-P-OP2	-6.34	99.99	105.70
36	5	1316	C	N3-C2-O2	6.34	126.34	121.90
36	1	86	G	O5'-P-OP2	-6.34	99.99	105.70
36	5	112	U	O4'-C1'-N1	6.34	113.27	108.20
36	5	146	U	N3-C4-O4	-6.34	114.96	119.40
36	5	2403	G	O5'-P-OP1	6.34	118.31	110.70
1	6	250	C	C5-C6-N1	6.34	124.17	121.00
36	5	1604	G	C4-N9-C1'	6.34	134.74	126.50
36	5	3343	G	N3-C4-N9	6.34	129.80	126.00
36	5	1592	G	C8-N9-C4	-6.33	103.87	106.40
36	1	701	G	N1-C6-O6	6.33	123.70	119.90
36	1	3269	U	N1-C2-N3	6.33	118.70	114.90
1	6	387	A	N1-C6-N6	-6.33	114.80	118.60
1	6	1091	A	C5-C6-N1	-6.33	114.53	117.70
36	1	2249	G	N3-C4-N9	6.33	129.80	126.00
36	5	3387	U	C5-C6-N1	-6.33	119.53	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1377	G	C4-C5-N7	6.33	113.33	110.80
36	1	1402	C	N3-C4-C5	6.33	124.43	121.90
36	5	1340	G	C8-N9-C4	6.33	108.93	106.40
36	1	2121	G	N3-C4-C5	-6.33	125.44	128.60
36	5	1316	C	N3-C4-N4	6.33	122.43	118.00
36	5	2117	A	N1-C6-N6	-6.33	114.81	118.60
36	5	2957	G	O5'-P-OP1	-6.33	100.01	105.70
36	1	717	C	C6-N1-C2	-6.32	117.77	120.30
36	1	1341	U	N3-C2-O2	-6.32	117.77	122.20
1	6	1473	U	N3-C2-O2	-6.32	117.77	122.20
38	8	139	U	N3-C4-O4	-6.32	114.97	119.40
1	6	1514	U	C5-C4-O4	6.32	129.69	125.90
36	1	664	U	N3-C4-O4	6.32	123.83	119.40
36	5	934	G	C5-C6-O6	-6.32	124.81	128.60
36	5	2397	A	N1-C6-N6	-6.32	114.81	118.60
1	6	17	C	O5'-P-OP2	-6.32	100.01	105.70
36	5	27	C	N1-C2-O2	-6.32	115.11	118.90
36	1	919	U	N3-C4-O4	-6.32	114.98	119.40
36	1	3207	U	C5-C4-O4	6.32	129.69	125.90
36	1	281	G	C6-C5-N7	-6.31	126.61	130.40
36	1	1122	U	N3-C4-O4	-6.31	114.98	119.40
36	5	1441	G	C5-C6-N1	6.31	114.66	111.50
36	5	56	G	N1-C6-O6	-6.31	116.11	119.90
36	5	1438	U	C2-N1-C1'	6.31	125.27	117.70
36	1	2693	C	C6-N1-C2	6.31	122.82	120.30
1	6	1568	C	P-O3'-C3'	6.31	127.27	119.70
36	5	1445	U	N1-C2-O2	-6.31	118.39	122.80
36	1	120	G	C8-N9-C4	6.30	108.92	106.40
1	6	1146	G	C6-C5-N7	-6.30	126.62	130.40
3	s1	231	LEU	CA-CB-CG	6.30	129.80	115.30
36	5	2167	A	C8-N9-C4	-6.30	103.28	105.80
1	2	1768	G	C5-C6-O6	6.30	132.38	128.60
36	1	24	G	N3-C2-N2	-6.30	115.49	119.90
36	1	106	A	C8-N9-C4	6.30	108.32	105.80
36	1	3361	G	N3-C2-N2	6.30	124.31	119.90
36	5	2385	G	C4-N9-C1'	-6.30	118.31	126.50
36	5	3217	C	C2-N1-C1'	-6.30	111.87	118.80
38	4	40	A	N1-C6-N6	6.30	122.38	118.60
36	5	776	U	N1-C2-N3	6.30	118.68	114.90
36	5	1878	G	C4-N9-C1'	6.30	134.69	126.50
1	2	186	C	C2-N1-C1'	6.29	125.72	118.80
36	1	1866	C	C6-N1-C2	6.29	122.82	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1076	A	C8-N9-C4	6.29	108.32	105.80
36	5	1112	A	N3-C4-C5	-6.29	122.39	126.80
36	1	3010	U	C5-C4-O4	-6.29	122.12	125.90
36	5	2304	C	N1-C2-O2	-6.29	115.13	118.90
1	6	1164	G	C8-N9-C4	6.29	108.92	106.40
36	1	2621	G	N3-C2-N2	-6.29	115.50	119.90
38	4	21	C	C6-N1-C2	6.29	122.81	120.30
36	5	864	G	O5'-P-OP2	-6.29	100.04	105.70
36	1	1396	C	C5-C4-N4	-6.28	115.80	120.20
36	5	2396	G	N9-C4-C5	6.28	107.91	105.40
36	5	2817	A	C5-C6-N6	-6.28	118.67	123.70
1	6	425	A	C4-C5-C6	-6.28	113.86	117.00
1	6	1648	A	C8-N9-C4	6.28	108.31	105.80
36	5	2816	G	N7-C8-N9	-6.28	109.96	113.10
1	2	966	A	C5-C6-N6	-6.28	118.68	123.70
36	1	1463	U	C5-C6-N1	-6.28	119.56	122.70
36	1	783	A	N9-C4-C5	-6.27	103.29	105.80
36	5	3133	C	C4-C5-C6	6.27	120.54	117.40
1	6	1119	G	O5'-P-OP2	-6.27	100.06	105.70
36	1	2237	C	N1-C2-O2	6.27	122.66	118.90
36	1	2866	U	N3-C2-O2	-6.27	117.81	122.20
1	6	1269	U	N3-C2-O2	-6.27	117.81	122.20
36	5	1669	C	C6-N1-C2	6.27	122.81	120.30
36	5	2387	A	N1-C6-N6	6.27	122.36	118.60
36	5	3208	G	N9-C4-C5	6.27	107.91	105.40
1	6	337	G	C8-N9-C1'	-6.27	118.85	127.00
36	5	3308	C	C4-C5-C6	6.27	120.53	117.40
36	5	2622	C	C4-C5-C6	6.26	120.53	117.40
36	1	890	C	N3-C4-C5	6.26	124.40	121.90
1	6	1091	A	C2-N3-C4	-6.26	107.47	110.60
36	1	1111	U	C6-N1-C2	6.25	124.75	121.00
36	5	234	G	C5-C6-O6	-6.25	124.85	128.60
36	1	921	A	N1-C6-N6	-6.25	114.85	118.60
36	1	1481	A	C5-C6-N1	-6.25	114.58	117.70
36	1	3103	A	O5'-P-OP2	-6.25	100.08	105.70
36	5	2236	G	C6-C5-N7	-6.25	126.65	130.40
36	5	2248	C	OP1-P-O3'	6.25	118.94	105.20
36	1	2653	C	C5-C6-N1	-6.25	117.88	121.00
36	5	2341	A	O5'-P-OP2	-6.25	100.08	105.70
36	5	2917	G	C8-N9-C1'	-6.25	118.88	127.00
1	2	1200	G	N3-C2-N2	-6.25	115.53	119.90
36	1	979	U	C6-N1-C2	-6.24	117.25	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	917	A	O5'-P-OP1	6.24	118.19	110.70
1	6	577	G	N7-C8-N9	6.24	116.22	113.10
36	1	83	U	C5-C4-O4	-6.24	122.16	125.90
36	5	2960	C	N3-C4-C5	6.24	124.40	121.90
36	5	3034	C	C6-N1-C2	6.24	122.80	120.30
36	1	2949	U	C5-C6-N1	-6.24	119.58	122.70
1	2	1456	C	O4'-C1'-N1	6.23	113.19	108.20
38	4	40	A	C5-C6-N6	-6.23	118.71	123.70
1	6	1000	C	N3-C2-O2	-6.23	117.54	121.90
36	5	101	G	C6-C5-N7	-6.23	126.66	130.40
36	5	3141	A	C4-C5-C6	6.23	120.12	117.00
77	q1	23	ARG	NE-CZ-NH1	6.23	123.42	120.30
1	6	119	A	C2-N3-C4	-6.23	107.49	110.60
1	6	815	G	C6-C5-N7	-6.23	126.66	130.40
36	5	146	U	C5-C6-N1	-6.23	119.59	122.70
36	5	804	C	C4-C5-C6	6.23	120.51	117.40
36	1	1129	A	N9-C4-C5	-6.22	103.31	105.80
1	6	1025	A	C2-N3-C4	-6.22	107.49	110.60
36	5	632	G	N3-C4-C5	-6.22	125.49	128.60
36	1	2283	G	N9-C4-C5	-6.22	102.91	105.40
36	1	2356	A	C5-C6-N6	-6.22	118.72	123.70
36	5	1863	G	C5-C6-N1	6.22	114.61	111.50
36	5	1081	U	C2-N1-C1'	6.22	125.16	117.70
36	5	1082	U	C2-N1-C1'	6.22	125.16	117.70
36	5	1156	C	N1-C2-O2	-6.22	115.17	118.90
36	1	1390	A	C8-N9-C4	-6.21	103.31	105.80
36	1	2871	G	C4-C5-C6	-6.21	115.07	118.80
36	1	2371	G	C5-C6-O6	-6.21	124.87	128.60
1	6	1582	U	C5-C6-N1	-6.21	119.59	122.70
36	1	2737	C	N3-C2-O2	6.21	126.25	121.90
36	1	25	U	C4-C5-C6	6.21	123.42	119.70
36	1	1556	C	N1-C2-O2	6.21	122.62	118.90
36	1	2585	G	N3-C4-C5	-6.21	125.50	128.60
1	2	1258	U	N3-C2-O2	-6.21	117.86	122.20
1	6	634	G	O5'-P-OP2	-6.21	100.11	105.70
36	5	2430	A	N1-C6-N6	6.20	122.32	118.60
36	1	608	A	C5-C6-N6	-6.20	118.74	123.70
1	6	1665	U	C6-N1-C2	6.20	124.72	121.00
1	2	1269	U	O4'-C1'-N1	6.20	113.16	108.20
36	1	3361	G	N3-C4-N9	6.20	129.72	126.00
36	1	1495	U	C2-N1-C1'	-6.20	110.26	117.70
36	1	2860	U	C5-C4-O4	-6.20	122.18	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1879	A	C6-C5-N7	-6.20	127.96	132.30
36	5	3362	A	C5-N7-C8	-6.20	100.80	103.90
36	5	2434	U	N3-C4-O4	-6.20	115.06	119.40
1	6	985	G	N3-C2-N2	-6.20	115.56	119.90
36	1	2762	A	O5'-P-OP1	6.19	118.13	110.70
36	1	1920	U	N3-C2-O2	-6.19	117.87	122.20
1	6	20	G	C5-C6-O6	-6.19	124.89	128.60
36	5	906	A	N1-C2-N3	6.19	132.40	129.30
36	5	2996	U	N1-C2-O2	6.19	127.14	122.80
36	5	1886	A	N1-C6-N6	6.19	122.31	118.60
1	2	553	G	C4-C5-N7	6.19	113.28	110.80
36	1	3199	G	C4-N9-C1'	-6.19	118.45	126.50
41	L4	327	LEU	CA-CB-CG	6.19	129.53	115.30
1	6	20	G	N1-C6-O6	6.19	123.61	119.90
38	8	55	U	N3-C4-C5	-6.19	110.89	114.60
36	5	969	C	O5'-P-OP1	-6.18	100.13	105.70
36	5	2350	C	O5'-P-OP1	6.18	118.12	110.70
36	1	949	C	C4-C5-C6	6.18	120.49	117.40
1	2	1096	C	N1-C2-O2	6.18	122.61	118.90
36	1	2404	A	C2-N3-C4	6.18	113.69	110.60
1	2	987	G	N1-C6-O6	-6.18	116.19	119.90
1	6	1722	A	C8-N9-C4	6.18	108.27	105.80
36	1	2603	G	N9-C4-C5	-6.18	102.93	105.40
38	8	95	G	N3-C4-N9	-6.18	122.29	126.00
1	2	158	U	P-O3'-C3'	6.17	127.11	119.70
36	5	3042	U	N1-C2-N3	6.17	118.60	114.90
36	1	2643	A	N9-C4-C5	-6.17	103.33	105.80
1	6	577	G	C5-N7-C8	-6.17	101.21	104.30
36	5	2332	A	C8-N9-C4	6.17	108.27	105.80
36	1	890	C	O5'-P-OP2	-6.17	100.15	105.70
36	1	2617	U	C4-C5-C6	6.17	123.40	119.70
80	c0	83	PRO	N-CA-CB	6.17	110.70	103.30
36	5	2584	G	C4-N9-C1'	6.17	134.52	126.50
1	2	373	G	N3-C4-C5	-6.17	125.52	128.60
36	1	1144	U	N3-C4-C5	6.17	118.30	114.60
1	6	426	G	N3-C4-C5	-6.17	125.52	128.60
36	5	570	A	N1-C6-N6	6.17	122.30	118.60
36	5	1902	G	C4-C5-N7	6.17	113.27	110.80
36	1	988	U	C2-N1-C1'	-6.17	110.30	117.70
1	6	1145	U	C4-C5-C6	6.16	123.40	119.70
1	6	1539	G	N3-C4-C5	6.16	131.68	128.60
36	5	3256	G	N1-C6-O6	6.16	123.60	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	44	A	N1-C6-N6	6.16	122.30	118.60
1	6	163	G	N1-C2-N2	6.16	121.75	116.20
36	5	2890	A	C4-C5-C6	6.16	120.08	117.00
1	6	144	U	O4'-C1'-N1	6.16	113.13	108.20
36	1	1390	A	N9-C4-C5	6.16	108.26	105.80
36	1	2884	C	C6-N1-C2	6.16	122.76	120.30
1	6	310	C	N3-C4-C5	-6.16	119.44	121.90
36	5	1392	G	C8-N9-C4	6.16	108.86	106.40
36	1	2658	G	C8-N9-C4	6.16	108.86	106.40
36	5	2699	G	C5-C6-O6	-6.16	124.91	128.60
36	1	2606	G	C4-N9-C1'	6.15	134.50	126.50
1	6	539	G	N3-C4-C5	6.15	131.68	128.60
36	5	1057	A	O5'-P-OP2	-6.15	100.16	105.70
36	1	1296	C	C6-N1-C2	-6.15	117.84	120.30
36	1	1318	A	C5-N7-C8	-6.15	100.83	103.90
1	6	1778	G	N1-C6-O6	-6.15	116.21	119.90
37	7	91	G	C6-C5-N7	-6.15	126.71	130.40
1	2	1745	G	N3-C2-N2	6.14	124.20	119.90
36	1	3278	C	N3-C2-O2	-6.14	117.60	121.90
36	5	2917	G	C4-N9-C1'	6.14	134.49	126.50
36	5	2341	A	N7-C8-N9	-6.14	110.73	113.80
36	1	939	U	O5'-P-OP2	-6.14	100.17	105.70
36	1	1835	A	C8-N9-C4	6.14	108.26	105.80
36	1	2434	U	N3-C4-O4	-6.14	115.10	119.40
11	s9	3	ARG	NE-CZ-NH2	6.14	123.37	120.30
36	5	2245	C	N3-C4-C5	-6.14	119.44	121.90
36	5	2849	C	N3-C2-O2	6.14	126.20	121.90
37	7	81	U	N3-C4-C5	6.14	118.28	114.60
1	2	1363	U	N1-C2-O2	6.14	127.10	122.80
36	1	2726	C	C6-N1-C2	-6.13	117.85	120.30
36	5	2943	G	O5'-P-OP2	-6.13	100.18	105.70
61	N5	34	LEU	CA-CB-CG	6.13	129.41	115.30
36	1	170	G	O5'-P-OP1	-6.13	100.18	105.70
36	1	1476	G	N1-C6-O6	-6.13	116.22	119.90
36	1	3022	G	O4'-C1'-N9	6.13	113.10	108.20
38	4	31	G	C8-N9-C4	6.13	108.85	106.40
36	5	2139	A	C6-N1-C2	-6.13	114.92	118.60
36	1	2731	U	N1-C2-O2	-6.13	118.51	122.80
1	2	453	U	C5-C4-O4	6.12	129.57	125.90
36	1	984	G	C5-C6-O6	-6.12	124.93	128.60
36	1	1433	A	C5-C6-N6	-6.12	118.81	123.70
36	1	197	G	N1-C6-O6	6.12	123.57	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1157	G	N9-C4-C5	6.12	107.85	105.40
36	1	1397	C	C2-N3-C4	-6.12	116.84	119.90
36	5	1903	U	C5-C4-O4	6.12	129.57	125.90
36	5	2953	U	N3-C4-O4	6.12	123.68	119.40
36	5	41	G	C5-N7-C8	-6.11	101.25	104.30
36	5	645	A	C6-N1-C2	-6.11	114.93	118.60
36	5	1302	A	C5-C6-N6	6.11	128.59	123.70
36	1	3364	C	O5'-P-OP1	-6.11	100.20	105.70
36	5	2354	C	C4-C5-C6	6.11	120.45	117.40
48	m1	12	LEU	CA-CB-CG	6.11	129.35	115.30
36	1	672	A	C2-N3-C4	-6.11	107.55	110.60
36	5	220	G	OP1-P-O3'	6.11	118.63	105.20
1	2	1754	A	N3-C4-C5	6.10	131.07	126.80
36	1	142	C	C5-C6-N1	6.10	124.05	121.00
36	5	63	A	N9-C4-C5	-6.10	103.36	105.80
1	2	1530	C	O5'-P-OP2	-6.10	100.21	105.70
1	6	1774	G	O5'-P-OP2	6.10	118.02	110.70
36	5	2351	U	C6-N1-C2	-6.10	117.34	121.00
36	1	2418	G	N3-C4-C5	-6.09	125.55	128.60
36	5	75	G	C6-C5-N7	-6.09	126.74	130.40
36	5	420	G	C8-N9-C4	6.09	108.84	106.40
36	5	501	A	N1-C6-N6	-6.09	114.94	118.60
36	5	969	C	C4-C5-C6	6.09	120.45	117.40
36	1	96	G	N3-C4-C5	6.09	131.65	128.60
36	1	2124	G	N1-C6-O6	6.09	123.56	119.90
36	1	2889	C	N1-C2-O2	6.09	122.56	118.90
36	5	969	C	C5-C6-N1	-6.09	117.95	121.00
36	5	2430	A	C6-C5-N7	-6.09	128.03	132.30
36	1	3377	G	N3-C2-N2	6.09	124.16	119.90
38	4	113	U	C2-N1-C1'	-6.09	110.39	117.70
36	5	835	G	O4'-C1'-N9	6.09	113.07	108.20
36	5	1371	G	N1-C6-O6	-6.09	116.25	119.90
36	1	2993	G	C8-N9-C4	6.09	108.84	106.40
36	1	49	A	C8-N9-C4	6.09	108.23	105.80
36	5	1116	G	N3-C2-N2	-6.09	115.64	119.90
36	1	1503	A	C8-N9-C4	6.09	108.23	105.80
1	6	625	C	C6-N1-C2	6.09	122.73	120.30
36	5	79	U	C5-C6-N1	6.08	125.74	122.70
36	1	339	C	C5-C4-N4	6.08	124.46	120.20
36	1	878	G	N3-C4-C5	6.08	131.64	128.60
36	5	961	C	OP1-P-OP2	-6.08	110.48	119.60
36	5	2970	C	O5'-P-OP1	-6.08	100.22	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2925	C	O5'-P-OP1	-6.08	100.23	105.70
1	6	65	A	N3-C4-C5	6.08	131.06	126.80
36	5	2971	A	O5'-P-OP2	-6.08	100.23	105.70
36	1	1465	A	C2-N3-C4	-6.08	107.56	110.60
36	1	2435	G	C2-N3-C4	-6.08	108.86	111.90
36	5	3216	G	C6-C5-N7	-6.08	126.75	130.40
1	6	542	A	P-O3'-C3'	6.08	126.99	119.70
36	5	75	G	N3-C4-N9	6.08	129.65	126.00
36	1	1151	U	C6-N1-C2	-6.07	117.36	121.00
9	s7	131	PHE	C-N-CD	6.07	141.15	128.40
36	5	2381	G	N3-C4-C5	-6.07	125.56	128.60
1	6	1	U	O4'-C1'-N1	6.07	113.06	108.20
36	5	3030	G	C5-N7-C8	6.07	107.34	104.30
1	2	829	A	P-O3'-C3'	6.07	126.98	119.70
36	1	1346	G	C5-C6-N1	-6.07	108.46	111.50
38	4	103	G	C5-C6-N1	6.07	114.53	111.50
36	5	2978	U	N3-C2-O2	-6.07	117.95	122.20
36	1	3319	U	P-O3'-C3'	6.07	126.98	119.70
21	c9	57	ARG	NE-CZ-NH2	-6.07	117.27	120.30
36	5	2830	G	N1-C2-N2	-6.07	110.74	116.20
1	2	448	C	N3-C4-C5	-6.07	119.47	121.90
36	1	2242	A	N1-C2-N3	6.07	132.33	129.30
1	6	46	A	C2-N3-C4	-6.07	107.57	110.60
1	6	528	U	N3-C2-O2	-6.07	117.95	122.20
36	1	1850	A	N1-C6-N6	6.07	122.24	118.60
36	5	2897	A	C6-N1-C2	-6.07	114.96	118.60
1	2	1412	G	O4'-C1'-N9	6.06	113.05	108.20
36	5	63	A	N1-C6-N6	6.06	122.24	118.60
36	1	395	A	C8-N9-C4	-6.06	103.38	105.80
36	1	416	A	C5-N7-C8	6.06	106.93	103.90
36	1	2123	G	C8-N9-C4	6.06	108.83	106.40
36	5	2811	A	N1-C2-N3	6.06	132.33	129.30
36	5	3107	U	O5'-P-OP2	-6.06	100.25	105.70
1	6	343	C	N1-C2-O2	-6.06	115.27	118.90
36	1	3344	A	C6-C5-N7	-6.06	128.06	132.30
36	5	342	A	N1-C2-N3	-6.06	126.27	129.30
36	1	324	A	C8-N9-C4	-6.05	103.38	105.80
36	1	942	U	OP1-P-OP2	-6.05	110.52	119.60
36	1	1310	G	C5-C6-O6	6.05	132.23	128.60
36	5	2617	U	N3-C4-C5	-6.05	110.97	114.60
1	2	966	A	N9-C4-C5	-6.05	103.38	105.80
1	2	1189	A	C8-N9-C4	6.05	108.22	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1058	U	O5'-P-OP1	6.05	117.96	110.70
36	1	1548	C	N1-C2-O2	-6.05	115.27	118.90
1	6	787	G	C4-N9-C1'	6.05	134.37	126.50
36	5	770	G	O4'-C1'-N9	6.05	113.04	108.20
1	2	377	G	C8-N9-C4	6.05	108.82	106.40
21	C9	57	ARG	NE-CZ-NH1	6.05	123.33	120.30
1	6	1389	C	C6-N1-C2	-6.05	117.88	120.30
1	6	1657	U	N3-C2-O2	-6.05	117.97	122.20
36	5	3362	A	N1-C2-N3	6.05	132.32	129.30
36	1	1534	A	N1-C6-N6	6.05	122.23	118.60
37	7	103	A	C5-C6-N6	-6.05	118.86	123.70
18	C6	28	LEU	CA-CB-CG	6.05	129.21	115.30
1	6	385	A	C5-C6-N6	6.05	128.54	123.70
1	6	425	A	OP2-P-O3'	6.05	118.50	105.20
36	5	614	C	C6-N1-C2	6.05	122.72	120.30
36	5	911	C	C5-C6-N1	-6.05	117.98	121.00
36	5	2620	G	C5-C6-N1	6.05	114.52	111.50
36	5	2756	C	C6-N1-C2	6.05	122.72	120.30
36	1	1336	U	O5'-P-OP1	6.04	117.95	110.70
36	1	1417	G	C8-N9-C4	6.04	108.82	106.40
1	6	1522	U	N3-C2-O2	-6.04	117.97	122.20
36	1	1296	C	C4-C5-C6	6.04	120.42	117.40
36	5	271	C	N1-C2-O2	6.04	122.53	118.90
36	1	1535	A	C5-C6-N6	-6.04	118.87	123.70
1	2	694	U	N1-C2-O2	6.04	127.03	122.80
36	1	3368	U	C2-N1-C1'	-6.04	110.46	117.70
36	5	3047	U	C4-C5-C6	6.04	123.32	119.70
36	1	1365	G	N1-C2-N2	-6.03	110.77	116.20
36	1	1891	A	C2-N3-C4	-6.03	107.58	110.60
36	1	2283	G	N3-C4-C5	6.03	131.62	128.60
38	4	113	U	C4-C5-C6	6.03	123.32	119.70
36	5	894	G	C4-C5-N7	6.03	113.21	110.80
36	5	2649	A	C5-N7-C8	-6.03	100.88	103.90
36	1	696	C	N3-C4-C5	6.03	124.31	121.90
36	1	3050	U	N1-C2-O2	6.03	127.02	122.80
38	4	65	A	C8-N9-C4	6.03	108.21	105.80
1	6	976	G	C2-N3-C4	-6.03	108.89	111.90
1	6	1007	C	N3-C4-N4	-6.03	113.78	118.00
36	5	1181	U	N3-C2-O2	-6.03	117.98	122.20
36	1	1103	A	P-O3'-C3'	6.03	126.93	119.70
36	1	2886	U	N3-C4-O4	6.03	123.62	119.40
36	5	1896	A	O5'-P-OP1	-6.03	100.28	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2960	C	C2-N3-C4	-6.03	116.89	119.90
36	5	3212	C	C2-N1-C1'	-6.03	112.17	118.80
36	1	1192	C	C6-N1-C1'	-6.03	113.57	120.80
36	5	1495	U	C5-C6-N1	6.03	125.71	122.70
36	5	2147	A	N9-C4-C5	-6.03	103.39	105.80
36	1	63	A	C8-N9-C4	-6.02	103.39	105.80
36	5	1152	G	N1-C2-N3	6.02	127.51	123.90
36	5	2411	U	C6-N1-C2	6.02	124.61	121.00
36	1	857	G	C5-C6-N1	-6.02	108.49	111.50
36	1	2413	A	C8-N9-C4	6.02	108.21	105.80
36	5	3368	U	C2-N1-C1'	-6.02	110.48	117.70
36	1	3181	C	N3-C2-O2	-6.02	117.69	121.90
1	6	542	A	C8-N9-C4	-6.02	103.39	105.80
1	6	1162	C	C6-N1-C2	-6.02	117.89	120.30
36	1	648	C	O5'-P-OP1	-6.02	100.29	105.70
1	6	301	A	O5'-P-OP2	-6.02	100.29	105.70
36	5	1113	G	C5-C6-N1	-6.02	108.49	111.50
36	1	2153	U	C6-N1-C2	-6.01	117.39	121.00
73	O7	45	ARG	NE-CZ-NH1	-6.01	117.29	120.30
36	5	1841	A	O5'-P-OP1	-6.01	100.29	105.70
1	6	309	C	C4-C5-C6	6.01	120.41	117.40
1	6	1164	G	C5-C6-O6	-6.01	124.99	128.60
1	6	999	U	N3-C4-C5	6.01	118.21	114.60
36	5	3216	G	N1-C6-O6	6.01	123.51	119.90
1	2	507	U	N1-C2-O2	6.01	127.00	122.80
36	5	1372	C	N3-C4-C5	-6.01	119.50	121.90
50	m4	72	LEU	CA-CB-CG	6.01	129.12	115.30
36	5	2917	G	N3-C4-C5	-6.01	125.60	128.60
1	2	987	G	C5-C6-O6	6.00	132.20	128.60
1	6	815	G	N7-C8-N9	6.00	116.10	113.10
1	6	1010	C	O5'-P-OP2	-6.00	100.30	105.70
36	5	283	G	C5-C6-N1	6.00	114.50	111.50
36	5	1110	U	N3-C2-O2	-6.00	118.00	122.20
36	1	2621	G	O5'-P-OP1	6.00	117.90	110.70
36	5	1200	A	C6-C5-N7	-6.00	128.10	132.30
36	1	917	A	O5'-P-OP1	6.00	117.90	110.70
36	5	2710	C	N3-C2-O2	6.00	126.10	121.90
36	5	330	G	C8-N9-C4	6.00	108.80	106.40
37	7	49	G	C5-C6-N1	-6.00	108.50	111.50
36	1	273	A	C5-N7-C8	6.00	106.90	103.90
36	1	1838	G	C5-C6-O6	-6.00	125.00	128.60
36	1	3034	C	N3-C2-O2	-6.00	117.70	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	280	U	C2-N1-C1'	6.00	124.90	117.70
36	5	2717	U	N1-C2-N3	6.00	118.50	114.90
36	1	339	C	OP1-P-OP2	-6.00	110.60	119.60
36	1	935	U	N3-C2-O2	-6.00	118.00	122.20
37	7	37	G	N9-C4-C5	-6.00	103.00	105.40
36	1	1062	A	N1-C6-N6	-5.99	115.00	118.60
36	5	1449	A	C6-C5-N7	-5.99	128.10	132.30
36	5	66	A	N9-C4-C5	-5.99	103.40	105.80
36	5	831	G	C5-C6-O6	-5.99	125.00	128.60
36	1	1157	G	N1-C6-O6	-5.99	116.31	119.90
36	1	2613	U	N3-C4-C5	-5.99	111.01	114.60
36	1	2643	A	O5'-P-OP1	-5.99	100.31	105.70
36	5	209	A	C6-C5-N7	-5.99	128.11	132.30
36	1	1269	U	N1-C2-O2	5.99	126.99	122.80
36	5	1056	U	N1-C2-N3	5.99	118.49	114.90
36	1	1157	G	OP2-P-O3'	5.98	118.36	105.20
36	1	3344	A	C8-N9-C4	-5.98	103.41	105.80
1	6	1560	U	N3-C2-O2	-5.98	118.01	122.20
36	5	1495	U	C2-N1-C1'	5.98	124.88	117.70
36	5	2156	C	N3-C4-C5	5.98	124.29	121.90
38	4	53	A	C2-N3-C4	5.98	113.59	110.60
1	2	765	G	O4'-C1'-N9	-5.98	103.42	108.20
1	2	1324	G	C8-N9-C1'	5.98	134.77	127.00
1	6	582	U	C2-N1-C1'	5.98	124.88	117.70
36	5	1533	U	N3-C2-O2	-5.98	118.02	122.20
36	1	1445	U	C2-N3-C4	-5.98	123.41	127.00
36	5	394	G	N1-C6-O6	-5.98	116.31	119.90
36	5	2306	C	O5'-P-OP2	-5.98	100.32	105.70
36	5	2707	C	N3-C4-C5	5.98	124.29	121.90
1	2	1082	C	C6-N1-C2	-5.98	117.91	120.30
36	1	1445	U	N1-C2-O2	-5.98	118.62	122.80
1	6	426	G	C4-N9-C1'	5.97	134.27	126.50
1	6	1145	U	N3-C4-O4	5.97	123.58	119.40
1	6	1745	G	N9-C4-C5	-5.97	103.01	105.40
36	5	283	G	C6-C5-N7	-5.97	126.82	130.40
36	5	2412	G	N3-C4-C5	-5.97	125.61	128.60
36	1	1868	G	C4-C5-N7	5.97	113.19	110.80
36	1	670	C	C4-C5-C6	5.97	120.39	117.40
36	1	2727	A	C2-N3-C4	5.97	113.58	110.60
37	3	84	A	C6-C5-N7	-5.97	128.12	132.30
36	1	1556	C	C6-N1-C2	-5.97	117.91	120.30
36	5	652	G	C4-C5-C6	5.97	122.38	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2255	A	O5'-P-OP1	-5.97	100.33	105.70
36	5	343	U	O5'-P-OP1	-5.97	100.33	105.70
36	1	86	G	C8-N9-C4	-5.97	104.01	106.40
1	6	295	A	C8-N9-C4	5.97	108.19	105.80
1	6	1020	A	C8-N9-C4	-5.97	103.41	105.80
36	5	890	C	C6-N1-C2	5.97	122.69	120.30
36	5	3339	A	C5-C6-N6	-5.97	118.93	123.70
36	1	81	C	C5-C6-N1	-5.96	118.02	121.00
36	1	1313	G	C5-C6-N1	5.96	114.48	111.50
36	5	1000	C	C6-N1-C2	5.96	122.69	120.30
36	1	518	G	O4'-C1'-N9	5.96	112.97	108.20
37	7	37	G	N3-C4-N9	5.96	129.58	126.00
1	6	596	C	C6-N1-C2	5.96	122.68	120.30
36	5	2640	A	C8-N9-C4	5.96	108.18	105.80
36	5	3154	C	C6-N1-C2	-5.96	117.92	120.30
36	1	435	C	C5-C6-N1	-5.96	118.02	121.00
36	1	783	A	C8-N9-C4	5.96	108.18	105.80
36	1	2779	A	O5'-P-OP2	-5.96	100.34	105.70
36	1	2867	C	C5-C6-N1	-5.96	118.02	121.00
36	1	2993	G	OP1-P-OP2	5.96	128.54	119.60
36	1	3049	A	N1-C6-N6	5.96	122.17	118.60
36	1	797	U	OP2-P-O3'	5.96	118.30	105.20
36	1	1162	U	N3-C2-O2	-5.96	118.03	122.20
1	6	858	G	C4-N9-C1'	5.96	134.24	126.50
1	2	543	C	N1-C2-O2	5.95	122.47	118.90
36	1	231	G	O5'-P-OP2	-5.95	100.34	105.70
36	1	906	A	C5-C6-N6	-5.95	118.94	123.70
36	1	943	U	N3-C2-O2	-5.95	118.03	122.20
36	1	1556	C	N3-C2-O2	-5.95	117.73	121.90
36	5	1167	U	C5-C4-O4	-5.95	122.33	125.90
36	5	2392	C	N1-C2-O2	-5.95	115.33	118.90
36	1	2418	G	N3-C4-N9	5.95	129.57	126.00
1	2	1324	G	C4-C5-N7	-5.95	108.42	110.80
36	1	104	G	C5-C6-O6	-5.95	125.03	128.60
36	1	347	G	C5-C6-O6	-5.95	125.03	128.60
38	4	97	A	N1-C6-N6	-5.95	115.03	118.60
36	5	3245	A	C8-N9-C4	-5.95	103.42	105.80
73	o7	65	ARG	NE-CZ-NH1	5.95	123.28	120.30
36	1	3377	G	N1-C2-N2	-5.95	110.85	116.20
36	5	1924	U	C6-N1-C2	5.95	124.57	121.00
1	2	1768	G	C4-N9-C1'	-5.95	118.77	126.50
36	1	232	G	C4-C5-C6	5.95	122.37	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1774	G	N1-C6-O6	-5.94	116.33	119.90
36	1	875	G	N3-C2-N2	-5.94	115.74	119.90
36	5	2421	U	N1-C2-N3	5.94	118.47	114.90
1	2	334	G	N3-C4-C5	5.94	131.57	128.60
36	1	633	C	C4-C5-C6	5.94	120.37	117.40
36	5	2283	G	O5'-P-OP2	-5.94	100.35	105.70
36	1	2218	G	C8-N9-C4	5.94	108.78	106.40
1	6	804	A	N1-C6-N6	5.94	122.16	118.60
36	5	1109	U	N1-C2-O2	5.94	126.96	122.80
36	5	1391	C	N1-C2-O2	-5.94	115.34	118.90
36	5	2953	U	N1-C2-O2	-5.94	118.64	122.80
1	2	19	A	N1-C6-N6	5.94	122.16	118.60
1	2	1462	G	N9-C4-C5	-5.94	103.03	105.40
36	1	639	G	C6-C5-N7	-5.94	126.84	130.40
36	5	2743	A	N7-C8-N9	-5.94	110.83	113.80
36	5	150	A	N1-C6-N6	5.93	122.16	118.60
36	5	1056	U	C6-N1-C2	-5.93	117.44	121.00
36	5	1398	U	C5-C4-O4	5.93	129.46	125.90
36	5	1678	G	N1-C6-O6	-5.93	116.34	119.90
36	1	281	G	N1-C6-O6	5.93	123.46	119.90
36	5	1899	G	N9-C4-C5	5.93	107.77	105.40
36	1	78	U	N1-C2-N3	5.93	118.46	114.90
36	5	37	U	N1-C2-N3	5.93	118.46	114.90
36	5	1303	A	N7-C8-N9	-5.93	110.83	113.80
36	1	908	G	C4-N9-C1'	5.93	134.21	126.50
36	1	677	A	C8-N9-C4	5.93	108.17	105.80
36	1	2641	U	C5-C6-N1	-5.93	119.74	122.70
36	1	2946	A	N1-C6-N6	5.93	122.16	118.60
1	6	1765	A	O5'-P-OP1	-5.93	100.37	105.70
36	1	282	G	O5'-P-OP1	-5.92	100.37	105.70
36	1	1913	A	C8-N9-C4	5.92	108.17	105.80
36	5	2333	C	C6-N1-C2	5.92	122.67	120.30
37	7	91	G	C4-C5-N7	5.92	113.17	110.80
36	1	3322	A	N1-C6-N6	5.92	122.15	118.60
36	5	875	G	N3-C4-C5	-5.92	125.64	128.60
36	5	1931	U	C5-C6-N1	-5.92	119.74	122.70
36	5	3304	U	OP1-P-OP2	5.92	128.48	119.60
36	1	1296	C	N1-C2-N3	5.92	123.34	119.20
36	1	1133	A	N9-C4-C5	-5.92	103.43	105.80
36	1	2550	U	N1-C2-N3	5.92	118.45	114.90
80	c0	88	PRO	N-CA-CB	5.92	110.40	103.30
36	1	677	A	N1-C6-N6	5.92	122.15	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1909	A	C5-C6-N6	-5.92	118.97	123.70
1	6	1389	C	C2-N1-C1'	5.92	125.31	118.80
36	5	609	G	C6-C5-N7	-5.92	126.85	130.40
36	1	652	G	N3-C2-N2	5.91	124.04	119.90
36	1	1142	G	O5'-P-OP2	-5.91	100.38	105.70
36	1	1335	C	C2-N3-C4	-5.91	116.94	119.90
36	5	370	U	N3-C2-O2	-5.91	118.06	122.20
36	5	383	G	C8-N9-C4	5.91	108.77	106.40
36	5	504	A	C4-C5-N7	5.91	113.66	110.70
36	5	2816	G	C5-C6-O6	-5.91	125.05	128.60
36	1	1904	C	C6-N1-C2	-5.91	117.94	120.30
1	6	1597	A	C8-N9-C4	5.91	108.16	105.80
36	5	1178	G	C5-N7-C8	-5.91	101.34	104.30
1	2	1749	A	C8-N9-C4	5.91	108.16	105.80
36	1	739	G	C8-N9-C4	5.91	108.76	106.40
36	5	1909	A	N7-C8-N9	-5.91	110.85	113.80
36	5	3266	G	C5-C6-O6	5.91	132.15	128.60
36	5	884	A	N3-C4-N9	-5.91	122.67	127.40
36	1	2610	G	C5-C6-O6	-5.91	125.06	128.60
37	3	92	A	N1-C2-N3	5.91	132.25	129.30
36	5	1181	U	C4-C5-C6	5.91	123.24	119.70
36	5	1939	G	C6-C5-N7	-5.91	126.86	130.40
36	5	2377	G	C8-N9-C4	5.90	108.76	106.40
1	6	1478	G	N3-C4-N9	5.90	129.54	126.00
36	5	1847	A	O5'-P-OP2	-5.90	100.39	105.70
36	5	1937	U	C5-C6-N1	-5.90	119.75	122.70
36	1	2384	A	C6-C5-N7	-5.90	128.17	132.30
36	5	2383	C	N3-C4-N4	5.90	122.13	118.00
1	2	1202	A	C8-N9-C4	-5.90	103.44	105.80
36	5	220	G	O5'-P-OP2	-5.90	100.39	105.70
36	5	1239	C	C2-N1-C1'	5.90	125.29	118.80
36	1	2695	A	C8-N9-C4	-5.90	103.44	105.80
41	L4	139	GLY	N-CA-C	-5.90	98.36	113.10
1	6	1389	C	N1-C2-O2	5.90	122.44	118.90
36	5	2215	A	C2-N3-C4	-5.90	107.65	110.60
36	5	1592	G	C5-C6-O6	5.90	132.14	128.60
36	1	365	A	N1-C2-N3	5.89	132.25	129.30
36	1	1416	C	N3-C2-O2	-5.89	117.77	121.90
36	1	3275	U	OP1-P-O3'	5.89	118.17	105.20
38	4	103	G	N3-C4-N9	5.89	129.54	126.00
36	5	938	C	C6-N1-C2	5.89	122.66	120.30
37	3	33	U	N3-C2-O2	-5.89	118.08	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	400	A	N1-C6-N6	5.89	122.14	118.60
36	5	3374	U	N3-C4-C5	5.89	118.14	114.60
1	2	1432	U	C5-C6-N1	-5.89	119.76	122.70
36	5	3008	A	O5'-P-OP1	5.89	117.77	110.70
36	5	3105	U	C5-C6-N1	-5.89	119.76	122.70
1	2	736	C	C2-N1-C1'	5.89	125.28	118.80
36	1	1489	A	C5-C6-N6	-5.89	118.99	123.70
36	1	2193	U	N3-C2-O2	-5.89	118.08	122.20
36	1	2601	A	N7-C8-N9	-5.89	110.86	113.80
1	6	1600	A	N1-C6-N6	5.89	122.13	118.60
1	6	1432	U	C5-C6-N1	-5.88	119.76	122.70
36	5	2698	G	C8-N9-C4	5.88	108.75	106.40
36	5	907	G	N1-C2-N2	-5.88	110.91	116.20
36	5	1843	C	C2-N1-C1'	5.88	125.27	118.80
36	5	2169	G	N1-C6-O6	-5.88	116.37	119.90
1	2	314	C	N3-C4-C5	5.88	124.25	121.90
36	5	3123	A	N9-C4-C5	-5.88	103.45	105.80
36	1	2408	U	N3-C4-C5	-5.88	111.07	114.60
36	1	3114	A	C8-N9-C4	5.88	108.15	105.80
38	4	13	A	N1-C6-N6	5.88	122.13	118.60
1	6	1535	U	N3-C2-O2	-5.88	118.08	122.20
36	5	2735	U	C2-N1-C1'	5.88	124.75	117.70
36	5	3054	U	O5'-P-OP2	-5.88	100.41	105.70
36	1	517	G	N3-C4-C5	-5.88	125.66	128.60
36	5	1893	A	C8-N9-C4	5.88	108.15	105.80
36	1	1906	G	O5'-P-OP1	-5.88	100.41	105.70
1	2	186	C	C5-C6-N1	5.87	123.94	121.00
1	6	1029	U	C2-N1-C1'	-5.87	110.65	117.70
36	5	504	A	C5-C6-N6	-5.87	119.00	123.70
36	5	1200	A	N3-C4-C5	-5.87	122.69	126.80
36	1	350	C	C6-N1-C2	-5.87	117.95	120.30
36	1	957	C	N1-C2-O2	-5.87	115.38	118.90
36	5	3245	A	C5-C6-N1	-5.87	114.76	117.70
1	2	720	G	OP1-P-O3'	5.87	118.11	105.20
36	1	1124	U	N1-C2-O2	5.87	126.91	122.80
1	6	163	G	C5-N7-C8	-5.87	101.37	104.30
36	5	2952	G	N1-C6-O6	-5.87	116.38	119.90
52	m6	27	LEU	CA-CB-CG	-5.87	101.81	115.30
1	2	404	G	C5-C6-O6	-5.87	125.08	128.60
36	5	3015	G	C5-C6-N1	-5.87	108.57	111.50
1	2	635	A	N1-C6-N6	5.86	122.12	118.60
36	1	2301	U	O5'-P-OP2	-5.86	100.42	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2942	C	N1-C2-O2	-5.86	115.38	118.90
36	1	3324	C	C6-N1-C2	5.86	122.64	120.30
36	5	3050	U	C5-C4-O4	5.86	129.42	125.90
36	1	2636	A	N7-C8-N9	5.86	116.73	113.80
1	6	1	U	C2-N1-C1'	5.86	124.73	117.70
1	6	1643	U	C5-C6-N1	-5.86	119.77	122.70
36	5	1694	U	N1-C2-N3	5.86	118.42	114.90
36	1	282	G	C2'-C3'-O3'	5.86	123.08	113.70
36	5	41	G	C4-C5-N7	5.86	113.14	110.80
36	5	1010	G	C2-N3-C4	5.86	114.83	111.90
36	1	788	C	C6-N1-C2	5.86	122.64	120.30
1	2	1600	A	C2-N3-C4	-5.86	107.67	110.60
1	6	961	U	C6-N1-C2	-5.86	117.49	121.00
36	1	582	G	N1-C6-O6	-5.85	116.39	119.90
36	1	895	A	C5-N7-C8	-5.85	100.97	103.90
36	1	3326	G	N9-C4-C5	-5.85	103.06	105.40
36	1	346	C	C5-C6-N1	-5.85	118.07	121.00
36	1	700	C	C6-N1-C2	5.85	122.64	120.30
36	5	1158	A	C5-C6-N6	-5.85	119.02	123.70
36	5	2524	A	C5-N7-C8	-5.85	100.97	103.90
36	1	1171	G	N7-C8-N9	-5.85	110.17	113.10
1	6	1029	U	C6-N1-C1'	5.85	129.39	121.20
36	1	1047	A	C5-N7-C8	-5.85	100.98	103.90
36	1	1856	C	C5-C4-N4	-5.85	116.11	120.20
36	1	3057	U	C6-N1-C2	-5.85	117.49	121.00
36	1	1868	G	C6-C5-N7	-5.85	126.89	130.40
36	5	1436	U	N3-C2-O2	-5.85	118.11	122.20
36	5	2295	A	O5'-P-OP2	-5.85	100.44	105.70
36	1	2871	G	C4-N9-C1'	-5.85	118.90	126.50
36	5	2288	G	N9-C4-C5	-5.85	103.06	105.40
47	m0	48	LEU	CA-CB-CG	5.85	128.75	115.30
36	1	808	A	N1-C2-N3	5.84	132.22	129.30
36	1	1905	G	N3-C4-N9	-5.84	122.49	126.00
36	1	3326	G	N3-C2-N2	5.84	123.99	119.90
36	5	427	C	O5'-P-OP1	-5.84	100.44	105.70
36	5	1115	G	C8-N9-C4	-5.84	104.06	106.40
36	5	2800	G	N3-C2-N2	-5.84	115.81	119.90
1	2	298	C	C6-N1-C2	5.84	122.64	120.30
36	5	1879	A	C4-C5-N7	5.84	113.62	110.70
36	5	3362	A	O4'-C1'-N9	5.84	112.87	108.20
36	5	3018	C	O5'-P-OP1	5.84	117.71	110.70
1	2	1600	A	C5-C6-N1	-5.84	114.78	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	339	C	N3-C4-N4	-5.84	113.91	118.00
36	1	24	G	C8-N9-C4	5.84	108.73	106.40
36	5	300	G	O5'-P-OP1	-5.84	100.45	105.70
36	5	1433	A	N9-C4-C5	5.84	108.14	105.80
36	5	3351	U	N3-C2-O2	-5.84	118.11	122.20
37	7	101	G	N9-C4-C5	-5.84	103.07	105.40
1	6	1782	A	N7-C8-N9	5.83	116.72	113.80
36	1	361	A	C8-N9-C4	5.83	108.13	105.80
36	1	1617	G	C8-N9-C4	5.83	108.73	106.40
36	5	939	U	O5'-P-OP2	-5.83	100.45	105.70
36	5	2919	A	C5-C6-N6	5.83	128.37	123.70
1	2	169	A	N1-C6-N6	5.83	122.10	118.60
36	1	2606	G	N9-C4-C5	-5.83	103.07	105.40
36	5	1902	G	C5-C6-N1	-5.83	108.58	111.50
36	5	2233	A	C8-N9-C4	5.83	108.13	105.80
36	5	2403	G	O5'-P-OP2	-5.83	100.45	105.70
1	6	310	C	N3-C4-N4	5.83	122.08	118.00
1	6	331	A	N1-C6-N6	-5.83	115.10	118.60
36	5	1116	G	N1-C2-N3	5.83	127.40	123.90
36	5	3287	U	N1-C2-O2	5.83	126.88	122.80
36	1	1604	G	C2-N3-C4	5.83	114.81	111.90
36	1	2372	A	C4-C5-C6	5.83	119.91	117.00
36	5	1847	A	N3-C4-C5	5.83	130.88	126.80
36	1	2314	U	C6-N1-C1'	-5.82	113.05	121.20
36	5	838	G	N1-C6-O6	-5.82	116.41	119.90
36	5	2271	A	N1-C2-N3	-5.82	126.39	129.30
36	1	2284	C	N3-C2-O2	-5.82	117.83	121.90
38	4	9	A	N1-C6-N6	-5.82	115.11	118.60
36	5	3041	U	N3-C4-C5	5.82	118.09	114.60
36	1	1224	C	C6-N1-C2	-5.82	117.97	120.30
36	1	1798	A	C2-N3-C4	-5.82	107.69	110.60
36	1	2916	U	OP1-P-O3'	5.82	118.00	105.20
36	1	3312	U	C5-C6-N1	-5.82	119.79	122.70
36	1	324	A	N1-C2-N3	5.82	132.21	129.30
36	5	2197	C	N3-C4-C5	5.82	124.23	121.90
36	5	2211	U	C5-C4-O4	5.82	129.39	125.90
36	5	2323	G	N9-C4-C5	5.82	107.73	105.40
1	2	1600	A	P-O3'-C3'	5.82	126.68	119.70
36	1	1537	A	N1-C6-N6	5.82	122.09	118.60
38	4	99	C	N3-C4-C5	5.82	124.23	121.90
37	7	92	A	C8-N9-C4	5.81	108.12	105.80
36	5	2639	G	C4-N9-C1'	5.81	134.06	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	89	G	C8-N9-C4	5.81	108.72	106.40
36	1	1114	U	N3-C2-O2	-5.81	118.13	122.20
36	1	2123	G	N7-C8-N9	-5.81	110.19	113.10
36	1	2791	G	C8-N9-C4	-5.81	104.08	106.40
70	O4	51	LEU	CA-CB-CG	5.81	128.66	115.30
36	5	1792	C	C6-N1-C2	5.81	122.62	120.30
36	5	2267	C	N3-C4-C5	5.81	124.22	121.90
36	1	1928	G	N3-C4-N9	-5.81	122.52	126.00
36	5	3147	G	C2-N3-C4	-5.81	109.00	111.90
37	7	98	C	O5'-P-OP2	-5.81	100.47	105.70
36	1	81	C	C6-N1-C2	5.81	122.62	120.30
36	1	1884	A	C5-C6-N6	-5.81	119.05	123.70
36	1	3318	G	C4-N9-C1'	5.81	134.05	126.50
38	8	17	A	N9-C4-C5	-5.81	103.48	105.80
36	1	919	U	N3-C4-C5	5.81	118.08	114.60
36	1	2617	U	N3-C2-O2	-5.81	118.14	122.20
36	1	3312	U	C6-N1-C2	5.81	124.48	121.00
1	6	359	A	N3-C4-C5	5.81	130.86	126.80
36	5	2383	C	N1-C2-O2	-5.81	115.42	118.90
36	5	2797	C	N1-C2-O2	-5.81	115.42	118.90
36	1	1099	A	OP1-P-OP2	-5.80	110.89	119.60
36	1	2935	U	C5-C6-N1	5.80	125.60	122.70
37	3	82	G	N1-C2-N3	5.80	127.38	123.90
1	6	1581	C	C6-N1-C2	5.80	122.62	120.30
36	5	3285	C	N1-C2-O2	5.80	122.38	118.90
36	1	1110	U	N3-C4-C5	5.80	118.08	114.60
36	1	3123	A	C2-N3-C4	-5.80	107.70	110.60
36	5	1207	G	N7-C8-N9	-5.80	110.20	113.10
1	2	73	U	OP1-P-O3'	5.80	117.96	105.20
36	1	1379	G	N1-C2-N3	5.80	127.38	123.90
36	1	780	A	N9-C4-C5	5.80	108.12	105.80
36	1	1369	A	O5'-P-OP1	-5.80	100.48	105.70
36	1	152	U	N3-C4-C5	-5.80	111.12	114.60
36	5	337	G	N3-C4-C5	-5.80	125.70	128.60
36	1	2394	G	C5-C6-O6	5.79	132.08	128.60
36	1	3270	U	C2-N1-C1'	-5.79	110.75	117.70
36	5	2288	G	C6-N1-C2	-5.79	121.62	125.10
36	5	2772	C	P-O3'-C3'	5.79	126.65	119.70
36	1	645	A	N3-C4-C5	-5.79	122.75	126.80
36	1	1715	A	O4'-C1'-N9	-5.79	103.57	108.20
36	1	3025	C	C6-N1-C2	5.79	122.62	120.30
36	5	776	U	N3-C2-O2	-5.79	118.15	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1084	A	C2-N3-C4	-5.79	107.70	110.60
36	1	2699	G	C5-C6-O6	-5.79	125.13	128.60
36	5	1724	U	C6-N1-C1'	5.79	129.31	121.20
1	6	1637	C	N1-C2-O2	5.79	122.37	118.90
36	5	2881	C	C6-N1-C2	5.79	122.62	120.30
36	5	2965	U	C5-C4-O4	-5.79	122.43	125.90
36	1	1307	G	N1-C6-O6	-5.79	116.43	119.90
36	5	2137	U	O5'-P-OP1	-5.79	100.49	105.70
36	1	2243	A	N1-C6-N6	-5.79	115.13	118.60
1	6	473	A	N1-C6-N6	-5.79	115.13	118.60
36	5	1389	G	C5-C6-O6	-5.79	125.13	128.60
36	5	2634	U	N3-C4-C5	5.78	118.07	114.60
36	1	2356	A	C4-C5-N7	5.78	113.59	110.70
36	5	1183	C	C6-N1-C2	5.78	122.61	120.30
36	1	2870	C	C2-N3-C4	-5.78	117.01	119.90
36	5	690	A	C8-N9-C4	5.78	108.11	105.80
36	5	2865	U	C5-C4-O4	-5.78	122.43	125.90
36	1	1389	G	C8-N9-C1'	-5.78	119.49	127.00
36	1	3143	C	N1-C2-O2	-5.78	115.43	118.90
36	5	1782	U	N1-C2-O2	-5.78	118.75	122.80
1	2	734	A	OP1-P-O3'	5.78	117.91	105.20
36	1	345	G	C4-C5-C6	5.78	122.27	118.80
36	1	650	C	C6-N1-C2	5.78	122.61	120.30
36	1	1405	U	N3-C2-O2	5.78	126.24	122.20
36	5	622	A	N1-C6-N6	5.78	122.07	118.60
1	2	942	G	N1-C6-O6	-5.78	116.44	119.90
1	6	863	A	N1-C6-N6	5.78	122.06	118.60
36	1	1397	C	N3-C4-C5	5.77	124.21	121.90
37	3	33	U	N1-C2-O2	5.77	126.84	122.80
36	5	921	A	C8-N9-C4	-5.77	103.49	105.80
1	2	1029	U	C5-C6-N1	-5.77	119.81	122.70
36	1	29	C	C5-C4-N4	-5.77	116.16	120.20
36	5	1826	C	C6-N1-C2	5.77	122.61	120.30
36	1	835	G	O4'-C1'-N9	5.77	112.82	108.20
36	1	992	A	C5-C6-N1	5.77	120.59	117.70
36	5	1449	A	C2-N3-C4	-5.77	107.71	110.60
36	5	1493	G	O4'-C1'-N9	5.77	112.82	108.20
36	5	1899	G	C5-C6-O6	5.77	132.06	128.60
1	2	940	A	N9-C4-C5	5.77	108.11	105.80
36	1	1151	U	N3-C4-O4	5.77	123.44	119.40
36	1	1433	A	N3-C4-C5	-5.77	122.76	126.80
36	1	2199	G	C5-C6-O6	5.77	132.06	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2861	U	OP2-P-O3'	5.77	117.89	105.20
36	5	640	U	N3-C4-O4	5.77	123.44	119.40
36	1	81	C	C2-N3-C4	-5.77	117.02	119.90
36	1	347	G	N9-C4-C5	-5.77	103.09	105.40
36	1	439	C	N1-C2-O2	5.77	122.36	118.90
36	1	2795	U	N1-C2-N3	5.77	118.36	114.90
1	6	455	C	N3-C4-N4	5.77	122.04	118.00
36	5	2799	A	O5'-P-OP2	-5.77	100.51	105.70
36	1	1116	G	N1-C6-O6	5.77	123.36	119.90
1	2	1119	G	N1-C6-O6	-5.76	116.44	119.90
36	1	1369	A	C2-N3-C4	-5.76	107.72	110.60
1	6	352	A	OP2-P-O3'	5.76	117.88	105.20
36	1	788	C	C2-N1-C1'	-5.76	112.46	118.80
36	5	1547	G	C8-N9-C4	5.76	108.70	106.40
1	2	543	C	N3-C2-O2	-5.76	117.87	121.90
36	1	2261	G	N3-C4-N9	5.76	129.46	126.00
36	5	2843	U	O5'-P-OP1	-5.76	100.51	105.70
37	7	98	C	C6-N1-C2	5.76	122.61	120.30
36	1	2305	G	C6-C5-N7	-5.76	126.94	130.40
38	4	43	A	O5'-P-OP1	-5.76	100.52	105.70
1	6	1664	C	N1-C2-O2	-5.76	115.45	118.90
36	1	2343	C	C5-C4-N4	-5.75	116.17	120.20
1	6	194	U	N1-C2-O2	5.75	126.83	122.80
36	1	25	U	N1-C2-O2	-5.75	118.77	122.80
36	1	3076	C	C6-N1-C2	-5.75	118.00	120.30
36	5	2728	G	O4'-C1'-N9	5.75	112.80	108.20
36	5	2868	U	N1-C2-O2	5.75	126.83	122.80
36	1	3368	U	C6-N1-C1'	5.75	129.25	121.20
1	6	25	C	P-O3'-C3'	5.75	126.60	119.70
1	6	901	G	O4'-C1'-N9	5.75	112.80	108.20
36	1	968	G	C6-C5-N7	-5.75	126.95	130.40
36	5	369	A	C8-N9-C4	-5.75	103.50	105.80
36	5	2887	A	C4-C5-C6	5.75	119.88	117.00
38	4	29	U	N3-C4-O4	5.75	123.42	119.40
36	5	2808	A	N9-C4-C5	-5.75	103.50	105.80
36	1	2165	G	N1-C6-O6	5.75	123.35	119.90
36	1	2836	C	N3-C2-O2	-5.75	117.88	121.90
36	5	1368	U	N3-C2-O2	5.75	126.22	122.20
36	1	917	A	N1-C6-N6	-5.74	115.15	118.60
36	5	911	C	C2-N3-C4	-5.74	117.03	119.90
1	2	329	G	N1-C2-N3	5.74	127.34	123.90
1	2	426	G	C4-N9-C1'	5.74	133.96	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2408	U	C4-C5-C6	5.74	123.14	119.70
36	5	2372	A	N7-C8-N9	5.74	116.67	113.80
1	2	1600	A	N1-C6-N6	5.74	122.04	118.60
36	1	92	G	C5-C6-N1	5.74	114.37	111.50
1	6	1413	U	OP2-P-O3'	5.74	117.82	105.20
1	6	1473	U	C6-N1-C2	-5.74	117.56	121.00
36	5	876	A	C8-N9-C4	5.74	108.10	105.80
36	5	3335	A	N1-C6-N6	5.74	122.04	118.60
54	m8	127	LEU	CA-CB-CG	5.74	128.50	115.30
1	2	507	U	N3-C2-O2	-5.74	118.18	122.20
1	2	1269	U	C6-N1-C1'	-5.74	113.17	121.20
36	1	1310	G	N1-C6-O6	-5.74	116.46	119.90
1	6	151	G	N3-C2-N2	-5.74	115.89	119.90
36	5	2387	A	C5-C6-N6	-5.74	119.11	123.70
36	5	2921	U	C5-C4-O4	-5.74	122.46	125.90
36	5	2931	C	C6-N1-C2	5.74	122.59	120.30
36	1	2376	G	C5-C6-N1	5.73	114.37	111.50
1	6	163	G	C2-N3-C4	-5.73	109.03	111.90
36	5	2600	C	C2-N1-C1'	5.73	125.11	118.80
1	2	585	A	N1-C6-N6	5.73	122.04	118.60
1	2	734	A	P-O3'-C3'	5.73	126.58	119.70
36	1	942	U	N1-C2-N3	5.73	118.34	114.90
36	1	1157	G	C4-C5-N7	-5.73	108.51	110.80
36	5	1846	C	C5-C6-N1	-5.73	118.13	121.00
36	1	1113	G	N3-C2-N2	-5.73	115.89	119.90
36	5	3373	U	C5-C6-N1	-5.73	119.83	122.70
36	1	816	A	C8-N9-C4	-5.73	103.51	105.80
36	1	1520	G	N3-C4-N9	5.73	129.44	126.00
36	5	2355	G	N1-C6-O6	5.73	123.34	119.90
36	1	1151	U	C5-C6-N1	5.73	125.56	122.70
36	1	2308	C	C5-C6-N1	-5.73	118.14	121.00
25	d3	33	LEU	CA-CB-CG	-5.73	102.13	115.30
36	5	83	U	C5-C4-O4	-5.73	122.46	125.90
36	5	2112	U	O5'-P-OP1	-5.73	100.54	105.70
36	1	715	A	N7-C8-N9	5.73	116.66	113.80
36	1	931	C	N3-C2-O2	-5.73	117.89	121.90
1	6	194	U	C5-C6-N1	5.73	125.56	122.70
36	1	324	A	C6-N1-C2	-5.72	115.17	118.60
36	1	1365	G	C6-N1-C2	-5.72	121.67	125.10
36	5	907	G	N9-C4-C5	-5.72	103.11	105.40
36	1	1417	G	N3-C4-C5	5.72	131.46	128.60
36	1	2936	A	O5'-P-OP2	-5.72	100.55	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1595	U	O4'-C1'-N1	5.72	112.78	108.20
6	s4	38	LEU	CA-CB-CG	5.72	128.46	115.30
36	5	1939	G	C8-N9-C1'	-5.72	119.56	127.00
36	1	1658	G	C5-C6-O6	5.72	132.03	128.60
1	6	1042	G	C8-N9-C4	5.72	108.69	106.40
36	1	419	G	N9-C4-C5	-5.72	103.11	105.40
36	1	1497	C	C6-N1-C2	-5.72	118.01	120.30
1	6	1619	C	C6-N1-C2	-5.72	118.01	120.30
36	5	101	G	C4-N9-C1'	5.72	133.94	126.50
36	5	804	C	N3-C4-N4	5.72	122.00	118.00
36	5	1152	G	N9-C4-C5	5.72	107.69	105.40
36	5	1662	G	N1-C6-O6	5.72	123.33	119.90
36	5	1899	G	C4-C5-N7	-5.72	108.51	110.80
36	5	3041	U	N3-C4-O4	-5.72	115.40	119.40
1	2	554	C	C2-N3-C4	5.72	122.76	119.90
36	5	3317	U	O4'-C1'-N1	5.72	112.77	108.20
36	1	1482	A	C5-N7-C8	-5.72	101.04	103.90
36	1	1490	A	C2-N3-C4	-5.72	107.74	110.60
37	3	81	U	C6-N1-C2	5.72	124.43	121.00
1	6	1111	G	C6-C5-N7	-5.72	126.97	130.40
1	6	1745	G	C5-C6-N1	5.72	114.36	111.50
36	5	2825	C	N3-C2-O2	5.72	125.90	121.90
18	C6	53	LEU	CA-CB-CG	-5.71	102.16	115.30
1	6	1389	C	N3-C2-O2	-5.71	117.90	121.90
36	5	61	A	O5'-P-OP1	-5.71	100.56	105.70
36	5	1868	G	N1-C6-O6	5.71	123.33	119.90
36	5	2288	G	N3-C4-N9	5.71	129.43	126.00
36	1	1116	G	N3-C2-N2	-5.71	115.90	119.90
1	6	787	G	N3-C4-C5	-5.71	125.75	128.60
1	6	1523	G	N1-C6-O6	-5.71	116.47	119.90
36	5	767	U	O4'-C1'-N1	5.71	112.77	108.20
36	5	2350	C	OP1-P-OP2	-5.71	111.03	119.60
36	1	969	C	C2-N3-C4	-5.71	117.05	119.90
36	1	1303	A	N9-C4-C5	-5.71	103.52	105.80
36	1	2714	G	N3-C2-N2	-5.71	115.90	119.90
1	6	861	U	N3-C2-O2	-5.71	118.20	122.20
36	5	1939	G	C4-C5-C6	5.71	122.22	118.80
36	5	2775	U	C5-C6-N1	-5.71	119.85	122.70
1	2	499	U	P-O3'-C3'	5.71	126.55	119.70
1	2	571	G	C4-C5-N7	-5.71	108.52	110.80
1	2	1486	G	C8-N9-C4	-5.71	104.12	106.40
1	6	610	G	N3-C4-N9	5.71	129.42	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2841	G	OP1-P-OP2	5.71	128.16	119.60
36	1	2618	G	C6-N1-C2	-5.70	121.68	125.10
1	6	825	U	N3-C2-O2	5.70	126.19	122.20
36	5	504	A	N9-C4-C5	-5.70	103.52	105.80
36	5	1868	G	C4-C5-N7	5.70	113.08	110.80
36	5	1892	G	C5-N7-C8	5.70	107.15	104.30
36	1	1158	A	N1-C6-N6	5.70	122.02	118.60
36	1	582	G	C5-C6-O6	5.70	132.02	128.60
36	1	810	A	N1-C6-N6	-5.70	115.18	118.60
36	1	2309	A	N1-C6-N6	5.70	122.02	118.60
1	6	961	U	N3-C4-C5	-5.70	111.18	114.60
36	5	414	U	N3-C2-O2	5.70	126.19	122.20
36	5	1445	U	N1-C2-N3	5.70	118.32	114.90
36	5	1602	A	OP2-P-O3'	5.70	117.74	105.20
1	2	1747	G	C8-N9-C4	5.70	108.68	106.40
36	1	182	U	C2-N1-C1'	-5.70	110.86	117.70
36	1	2873	U	N3-C2-O2	-5.70	118.21	122.20
36	5	1909	A	N9-C4-C5	-5.70	103.52	105.80
36	1	674	G	C8-N9-C4	-5.70	104.12	106.40
36	1	2873	U	C5-C4-O4	5.70	129.32	125.90
1	6	574	G	C8-N9-C4	5.70	108.68	106.40
36	5	581	U	C5-C4-O4	-5.70	122.48	125.90
36	5	658	G	O5'-P-OP2	-5.70	100.58	105.70
36	5	1903	U	C2-N3-C4	5.70	130.42	127.00
36	5	3218	A	C2-N3-C4	-5.70	107.75	110.60
1	6	1649	G	N3-C2-N2	5.69	123.89	119.90
14	c2	58	LEU	CA-CB-CG	5.69	128.40	115.30
36	5	1370	G	C5-C6-N1	5.69	114.35	111.50
36	5	3147	G	N1-C2-N3	5.69	127.32	123.90
36	1	1327	C	C6-N1-C2	-5.69	118.02	120.30
36	5	1389	G	N1-C6-O6	5.69	123.32	119.90
36	5	2849	C	N1-C2-O2	-5.69	115.48	118.90
36	1	203	G	C8-N9-C4	5.69	108.68	106.40
36	1	1399	A	C8-N9-C4	5.69	108.08	105.80
36	1	1834	U	N1-C2-N3	5.69	118.31	114.90
36	1	3107	U	O5'-P-OP2	-5.69	100.58	105.70
36	1	99	A	O4'-C1'-N9	5.69	112.75	108.20
1	2	940	A	N1-C6-N6	-5.69	115.19	118.60
1	2	1486	G	C5-N7-C8	-5.69	101.46	104.30
36	1	808	A	C6-N1-C2	-5.69	115.19	118.60
59	N3	48	ARG	NE-CZ-NH1	5.69	123.14	120.30
20	C8	3	LEU	CA-CB-CG	5.68	128.37	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	e1	100	LEU	CA-CB-CG	5.68	128.37	115.30
36	5	2699	G	N9-C4-C5	-5.68	103.13	105.40
36	1	1589	A	O5'-P-OP2	-5.68	100.58	105.70
36	5	3326	G	N9-C4-C5	-5.68	103.13	105.40
36	1	2679	A	C6-C5-N7	-5.68	128.32	132.30
1	6	864	U	N3-C2-O2	-5.68	118.22	122.20
36	5	1595	U	N3-C2-O2	5.68	126.17	122.20
36	5	1650	G	N1-C6-O6	-5.68	116.49	119.90
36	5	1886	A	C4-C5-N7	5.68	113.54	110.70
36	5	2428	U	O5'-P-OP1	5.68	117.52	110.70
36	5	2839	G	C8-N9-C4	5.68	108.67	106.40
36	5	2849	C	OP2-P-O3'	5.68	117.69	105.20
36	1	1476	G	C6-C5-N7	5.68	133.81	130.40
36	1	1951	C	C2-N1-C1'	5.68	125.05	118.80
36	1	2383	C	C5-C4-N4	-5.68	116.23	120.20
36	1	3318	G	C6-C5-N7	-5.68	126.99	130.40
38	4	29	U	C5-C4-O4	-5.68	122.49	125.90
38	8	99	C	N1-C2-O2	5.68	122.31	118.90
1	2	1588	G	N1-C6-O6	-5.67	116.50	119.90
36	1	2818	U	C5-C6-N1	5.67	125.54	122.70
1	6	813	U	C6-N1-C1'	-5.67	113.26	121.20
36	1	650	C	OP2-P-O3'	5.67	117.68	105.20
36	5	1303	A	N9-C4-C5	-5.67	103.53	105.80
36	1	2363	A	C5-C6-N6	-5.67	119.16	123.70
36	1	1433	A	N3-C4-N9	5.67	131.93	127.40
36	1	2289	U	N1-C2-N3	5.67	118.30	114.90
36	1	3181	C	N1-C2-N3	5.67	123.17	119.20
36	5	411	U	C5-C6-N1	-5.67	119.87	122.70
36	5	2680	A	C5-N7-C8	5.67	106.73	103.90
36	5	2956	A	C4-C5-C6	5.67	119.83	117.00
36	5	3078	U	N3-C2-O2	-5.67	118.23	122.20
36	5	3197	G	N3-C4-N9	-5.67	122.60	126.00
1	2	1241	G	C4-C5-N7	5.66	113.06	110.80
36	1	345	G	N3-C4-C5	-5.66	125.77	128.60
36	1	2618	G	N1-C6-O6	-5.66	116.50	119.90
36	1	2816	G	O4'-C1'-N9	5.66	112.73	108.20
36	5	1003	A	C8-N9-C4	5.66	108.07	105.80
36	5	1307	G	C2'-C3'-O3'	5.66	122.76	113.70
36	5	2167	A	N9-C4-C5	5.66	108.06	105.80
36	1	1845	G	N1-C6-O6	-5.66	116.50	119.90
36	5	2197	C	C5-C4-N4	-5.66	116.24	120.20
36	5	3351	U	N1-C2-O2	5.66	126.76	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2961	G	N9-C4-C5	5.66	107.67	105.40
1	2	1370	U	P-O3'-C3'	5.66	126.49	119.70
1	6	95	G	C5-C6-O6	5.66	132.00	128.60
1	6	813	U	N1-C2-O2	5.66	126.76	122.80
36	5	921	A	OP2-P-O3'	5.66	117.65	105.20
36	5	2399	A	C8-N9-C4	5.66	108.06	105.80
1	6	95	G	N1-C6-O6	-5.66	116.51	119.90
36	1	1929	G	N9-C4-C5	-5.65	103.14	105.40
36	1	783	A	C5-C6-N6	-5.65	119.18	123.70
36	1	1348	U	O4'-C1'-N1	5.65	112.72	108.20
36	1	1520	G	N3-C4-C5	-5.65	125.77	128.60
36	1	1881	A	N1-C6-N6	-5.65	115.21	118.60
36	1	2148	U	N1-C2-O2	-5.65	118.84	122.80
38	4	47	C	C5-C6-N1	-5.65	118.17	121.00
1	6	637	C	N3-C4-C5	5.65	124.16	121.90
36	5	1561	G	O4'-C1'-N9	5.65	112.72	108.20
36	5	3148	U	C6-N1-C2	5.65	124.39	121.00
1	6	176	C	N3-C2-O2	-5.65	117.95	121.90
36	5	1443	G	C8-N9-C1'	-5.65	119.66	127.00
36	5	3131	U	N3-C4-C5	5.65	117.99	114.60
37	7	120	C	N3-C4-C5	5.65	124.16	121.90
36	1	1362	G	C8-N9-C4	5.65	108.66	106.40
36	1	2679	A	O4'-C1'-N9	5.65	112.72	108.20
36	1	2700	G	N3-C4-N9	5.65	129.39	126.00
36	1	3275	U	C6-N1-C2	-5.65	117.61	121.00
36	5	2260	U	N3-C2-O2	-5.65	118.25	122.20
36	1	590	G	C8-N9-C4	5.65	108.66	106.40
36	1	3269	U	C5-C4-O4	5.65	129.29	125.90
54	M8	99	THR	N-CA-C	5.65	126.24	111.00
36	5	1389	G	N3-C4-N9	5.65	129.39	126.00
36	5	2343	C	O5'-P-OP2	-5.65	100.62	105.70
36	1	2392	C	C6-N1-C2	5.64	122.56	120.30
36	1	2875	U	C3'-C2'-C1'	-5.64	96.98	101.50
36	5	902	G	C8-N9-C4	5.64	108.66	106.40
36	5	1898	G	N1-C6-O6	5.64	123.29	119.90
36	1	3318	G	N7-C8-N9	5.64	115.92	113.10
36	1	2361	A	N1-C2-N3	5.64	132.12	129.30
36	5	1376	C	OP1-P-OP2	5.64	128.06	119.60
1	2	1560	U	N3-C2-O2	-5.64	118.25	122.20
1	6	1602	C	N3-C2-O2	-5.64	117.95	121.90
36	5	197	G	C6-C5-N7	-5.64	127.02	130.40
36	5	1451	C	C6-N1-C2	5.64	122.56	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2964	G	C5-N7-C8	5.64	107.12	104.30
36	5	3115	C	O5'-P-OP2	-5.64	100.62	105.70
36	1	1884	A	C4-C5-N7	5.64	113.52	110.70
1	6	430	G	O5'-P-OP1	-5.64	100.63	105.70
1	2	7	G	C4-C5-N7	-5.64	108.55	110.80
36	1	1658	G	C8-N9-C4	-5.64	104.14	106.40
36	1	2855	U	C5-C6-N1	-5.64	119.88	122.70
36	5	3008	A	N1-C2-N3	5.64	132.12	129.30
1	2	1761	U	N3-C4-C5	-5.63	111.22	114.60
36	1	1585	C	C6-N1-C2	5.63	122.55	120.30
36	5	1452	A	C5-N7-C8	-5.63	101.08	103.90
36	5	1917	C	C4-C5-C6	5.63	120.22	117.40
36	1	611	A	O5'-P-OP1	5.63	117.46	110.70
36	1	1489	A	N9-C4-C5	-5.63	103.55	105.80
36	1	3303	G	C8-N9-C4	5.63	108.65	106.40
36	5	3303	G	O4'-C1'-N9	5.63	112.71	108.20
36	1	2926	A	N1-C6-N6	5.63	121.98	118.60
38	4	4	C	O5'-P-OP2	-5.63	100.64	105.70
1	6	308	C	C5-C4-N4	5.63	124.14	120.20
36	5	526	C	N3-C4-C5	5.63	124.15	121.90
36	5	990	U	N1-C2-O2	5.63	126.74	122.80
37	7	32	U	C5-C6-N1	-5.63	119.89	122.70
36	1	1363	A	O5'-P-OP2	-5.63	100.64	105.70
1	6	1283	U	C5-C6-N1	-5.63	119.89	122.70
36	5	313	A	C5-C6-N6	-5.63	119.20	123.70
36	5	399	A	C8-N9-C4	5.63	108.05	105.80
36	5	2848	G	O5'-P-OP1	-5.63	100.64	105.70
38	8	113	U	C2-N1-C1'	5.63	124.45	117.70
1	2	1749	A	C2-N3-C4	-5.62	107.79	110.60
36	1	1796	G	N3-C4-C5	-5.62	125.79	128.60
36	1	2603	G	N3-C2-N2	5.62	123.84	119.90
41	14	300	ARG	NE-CZ-NH1	5.62	123.11	120.30
36	1	2418	G	OP1-P-O3'	5.62	117.57	105.20
36	1	3081	C	C4-C5-C6	5.62	120.21	117.40
36	1	3377	G	C8-N9-C4	5.62	108.65	106.40
1	6	1164	G	N9-C4-C5	-5.62	103.15	105.40
36	1	1413	G	C8-N9-C4	5.62	108.65	106.40
36	1	2787	G	C5-C6-N1	5.62	114.31	111.50
1	6	542	A	C6-C5-N7	-5.62	128.37	132.30
1	6	1760	G	C5-C6-O6	-5.62	125.23	128.60
36	1	3132	C	N3-C2-O2	-5.62	117.97	121.90
36	1	3183	A	N9-C4-C5	-5.62	103.55	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	88	A	C8-N9-C4	5.62	108.05	105.80
36	5	2924	U	N1-C2-O2	-5.62	118.87	122.80
36	1	748	U	C5-C4-O4	-5.62	122.53	125.90
36	5	372	A	O5'-P-OP2	-5.62	100.64	105.70
36	5	938	C	N3-C4-C5	5.62	124.15	121.90
36	5	2695	A	N9-C4-C5	5.62	108.05	105.80
36	5	2941	A	N1-C6-N6	-5.62	115.23	118.60
36	1	2585	G	C2-N3-C4	5.62	114.71	111.90
36	1	2610	G	C4-C5-N7	5.62	113.05	110.80
36	5	3218	A	P-O3'-C3'	5.62	126.44	119.70
36	1	48	A	N1-C2-N3	5.62	132.11	129.30
36	1	1369	A	O5'-P-OP2	5.62	117.44	110.70
36	5	974	G	N3-C4-C5	-5.62	125.79	128.60
36	1	669	U	C6-N1-C2	5.61	124.37	121.00
36	5	1922	A	C8-N9-C4	5.61	108.05	105.80
36	5	2951	G	N1-C6-O6	-5.61	116.53	119.90
37	3	28	C	N3-C4-N4	5.61	121.93	118.00
36	5	1929	G	C4-C5-N7	5.61	113.05	110.80
36	5	890	C	OP2-P-O3'	5.61	117.54	105.20
36	5	1001	G	O5'-P-OP1	-5.61	100.65	105.70
36	5	2191	U	N3-C4-O4	-5.61	115.47	119.40
1	2	996	U	N1-C2-O2	5.61	126.73	122.80
36	5	3154	C	N3-C2-O2	-5.61	117.97	121.90
1	2	2	A	O4'-C1'-N9	-5.61	103.71	108.20
36	5	939	U	N3-C2-O2	5.61	126.13	122.20
36	5	3060	C	N3-C4-N4	5.61	121.93	118.00
36	1	2376	G	OP1-P-OP2	5.61	128.01	119.60
36	5	2334	U	N3-C2-O2	-5.61	118.28	122.20
1	2	11	A	O5'-P-OP1	-5.60	100.66	105.70
36	1	1204	A	N1-C6-N6	5.60	121.96	118.60
36	1	2920	U	C2-N3-C4	-5.60	123.64	127.00
36	1	1159	A	N1-C6-N6	-5.60	115.24	118.60
36	1	2169	G	C5-C6-O6	5.60	131.96	128.60
36	5	145	G	N3-C4-N9	-5.60	122.64	126.00
36	5	1491	A	N1-C2-N3	5.60	132.10	129.30
1	2	1052	U	C2-N1-C1'	5.60	124.42	117.70
36	5	2965	U	N3-C4-O4	5.60	123.32	119.40
1	2	864	U	N3-C2-O2	-5.60	118.28	122.20
36	1	1425	U	C5-C6-N1	-5.60	119.90	122.70
36	1	2719	U	C5-C6-N1	-5.60	119.90	122.70
36	5	630	A	C8-N9-C4	5.60	108.04	105.80
36	5	869	G	C5-C6-N1	5.60	114.30	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1315	U	C6-N1-C2	5.60	124.36	121.00
36	5	2897	A	N1-C2-N3	5.60	132.10	129.30
36	1	719	U	O5'-P-OP1	-5.60	100.66	105.70
1	6	387	A	N3-C4-C5	-5.60	122.88	126.80
36	5	41	G	C5-C6-O6	-5.60	125.24	128.60
36	5	645	A	N1-C6-N6	-5.60	115.24	118.60
36	5	2941	A	O4'-C1'-N9	-5.60	103.72	108.20
36	1	2197	C	C5-C4-N4	-5.60	116.28	120.20
36	5	624	G	C8-N9-C4	5.60	108.64	106.40
38	8	23	U	N1-C2-N3	5.60	118.26	114.90
1	2	402	C	O5'-P-OP1	-5.59	100.66	105.70
36	1	652	G	N1-C2-N2	-5.59	111.16	116.20
36	5	687	U	N3-C2-O2	5.59	126.12	122.20
36	5	1443	G	N3-C2-N2	5.59	123.82	119.90
36	5	2271	A	C8-N9-C4	5.59	108.04	105.80
1	2	736	C	C5-C6-N1	5.59	123.80	121.00
36	1	914	A	N1-C2-N3	5.59	132.10	129.30
36	1	2110	G	O4'-C1'-N9	5.59	112.67	108.20
36	5	1517	G	N9-C4-C5	5.59	107.64	105.40
36	5	2130	G	C8-N9-C4	5.59	108.64	106.40
1	2	1486	G	N7-C8-N9	5.59	115.89	113.10
36	1	145	G	C5-C6-O6	-5.59	125.25	128.60
36	5	2134	G	N1-C6-O6	-5.59	116.55	119.90
36	1	1203	A	N9-C4-C5	-5.59	103.56	105.80
36	5	40	A	N1-C6-N6	5.59	121.95	118.60
77	q1	23	ARG	NE-CZ-NH2	-5.58	117.51	120.30
1	2	1389	C	N1-C2-O2	5.58	122.25	118.90
36	1	182	U	N3-C4-O4	-5.58	115.49	119.40
36	1	2698	G	C5-C6-N1	5.58	114.29	111.50
36	5	1049	C	N3-C4-C5	5.58	124.13	121.90
36	5	1917	C	N1-C2-O2	-5.58	115.55	118.90
36	5	2680	A	C4-C5-N7	-5.58	107.91	110.70
36	5	3005	A	O5'-P-OP2	-5.58	100.67	105.70
56	n0	155	ARG	NE-CZ-NH2	5.58	123.09	120.30
1	2	934	C	C5-C6-N1	5.58	123.79	121.00
36	1	2369	G	C5-C6-O6	-5.58	125.25	128.60
36	1	2608	G	N1-C6-O6	5.58	123.25	119.90
1	6	1758	U	N1-C2-O2	5.58	126.71	122.80
36	5	1372	C	C4-C5-C6	5.58	120.19	117.40
36	5	2706	G	O5'-P-OP2	-5.58	100.68	105.70
36	5	1939	G	N3-C4-C5	-5.58	125.81	128.60
1	2	1754	A	C8-N9-C4	5.58	108.03	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2193	U	N1-C2-O2	5.58	126.71	122.80
36	1	2285	C	C6-N1-C2	5.58	122.53	120.30
36	5	641	C	C5-C4-N4	-5.58	116.30	120.20
36	5	2349	U	OP1-P-O3'	5.58	117.47	105.20
36	5	2851	A	N1-C2-N3	5.58	132.09	129.30
36	1	281	G	C8-N9-C1'	-5.58	119.75	127.00
1	6	1023	A	N1-C6-N6	5.58	121.95	118.60
36	5	101	G	O4'-C1'-N9	5.58	112.66	108.20
1	6	1481	C	N3-C2-O2	-5.58	118.00	121.90
36	5	2426	U	C5-C4-O4	5.58	129.25	125.90
36	1	361	A	N7-C8-N9	-5.57	111.01	113.80
36	1	2993	G	N3-C4-N9	5.57	129.34	126.00
36	1	3278	C	C2-N3-C4	5.57	122.69	119.90
36	5	946	U	N3-C4-O4	5.57	123.30	119.40
36	5	2298	U	C5-C6-N1	-5.57	119.91	122.70
62	N6	57	LEU	CA-CB-CG	5.57	128.12	115.30
36	1	1130	A	N1-C2-N3	-5.57	126.52	129.30
1	6	863	A	C5-C6-N6	-5.57	119.24	123.70
36	5	1436	U	N1-C2-O2	5.57	126.70	122.80
36	1	429	U	N3-C2-O2	-5.57	118.30	122.20
36	5	3362	A	C8-N9-C4	-5.57	103.57	105.80
36	5	1346	G	C8-N9-C4	5.57	108.63	106.40
36	5	3144	G	N7-C8-N9	5.57	115.88	113.10
36	1	19	U	N1-C2-N3	5.57	118.24	114.90
36	1	2393	G	C5-C6-N1	5.57	114.28	111.50
36	1	2791	G	N9-C4-C5	5.57	107.63	105.40
36	5	1609	C	N3-C4-N4	5.57	121.90	118.00
36	5	2598	G	N1-C6-O6	5.57	123.24	119.90
1	2	647	G	N9-C4-C5	5.56	107.63	105.40
1	2	973	A	O5'-P-OP2	-5.56	100.69	105.70
36	1	145	G	N1-C6-O6	5.56	123.24	119.90
36	5	3322	A	C2-N3-C4	-5.56	107.82	110.60
36	1	1002	A	C8-N9-C4	5.56	108.03	105.80
1	6	29	U	C5-C6-N1	-5.56	119.92	122.70
1	6	542	A	C4-N9-C1'	5.56	136.31	126.30
36	5	1158	A	N9-C4-C5	-5.56	103.58	105.80
36	5	3347	A	C8-N9-C4	5.56	108.03	105.80
36	1	1437	C	C2-N1-C1'	5.56	124.92	118.80
36	1	2275	A	O5'-P-OP1	-5.56	100.69	105.70
1	6	521	A	N1-C6-N6	-5.56	115.26	118.60
36	1	2830	G	N3-C2-N2	-5.56	116.01	119.90
1	6	577	G	C4-C5-N7	5.56	113.02	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1698	G	P-O3'-C3'	5.56	126.37	119.70
36	5	3177	G	C2-N3-C4	-5.56	109.12	111.90
36	1	1604	G	C4-N9-C1'	5.56	133.72	126.50
64	N8	57	GLY	N-CA-C	5.56	127.00	113.10
36	5	1193	A	C6-C5-N7	-5.56	128.41	132.30
36	5	1213	G	N1-C6-O6	-5.56	116.57	119.90
44	L7	179	LEU	CA-CB-CG	5.56	128.08	115.30
36	5	647	A	C4-C5-C6	5.56	119.78	117.00
1	2	1744	A	O5'-P-OP1	-5.55	100.70	105.70
36	1	109	A	N1-C6-N6	-5.55	115.27	118.60
36	1	2827	U	C6-N1-C1'	5.55	128.98	121.20
36	5	2929	C	C4-C5-C6	5.55	120.18	117.40
36	1	353	G	C4-C5-N7	5.55	113.02	110.80
36	5	881	C	N3-C2-O2	-5.55	118.01	121.90
36	5	1941	C	N1-C2-O2	-5.55	115.57	118.90
36	5	3309	G	C8-N9-C4	-5.55	104.18	106.40
1	2	968	U	N3-C2-O2	-5.55	118.31	122.20
36	1	1553	U	N3-C4-O4	5.55	123.29	119.40
36	1	2786	G	C5-N7-C8	5.55	107.08	104.30
36	1	95	A	N1-C2-N3	5.55	132.07	129.30
36	1	682	U	C5-C4-O4	5.55	129.23	125.90
38	4	40	A	C4-C5-N7	5.55	113.47	110.70
36	5	1329	U	N3-C2-O2	-5.55	118.32	122.20
36	5	2817	A	OP2-P-O3'	5.55	117.41	105.20
36	1	211	A	C2-N3-C4	-5.55	107.83	110.60
36	5	2391	G	N1-C6-O6	-5.55	116.57	119.90
36	5	2811	A	C2-N3-C4	-5.55	107.83	110.60
36	5	3216	G	C5-C6-O6	-5.55	125.27	128.60
36	1	2572	C	C5-C6-N1	5.55	123.77	121.00
1	6	1636	C	C4-C5-C6	5.55	120.17	117.40
36	5	197	G	N7-C8-N9	5.55	115.87	113.10
36	5	387	A	C2-N3-C4	-5.55	107.83	110.60
36	5	1895	A	C6-N1-C2	-5.55	115.27	118.60
1	2	314	C	C6-N1-C2	5.54	122.52	120.30
1	2	865	A	C2-N3-C4	-5.54	107.83	110.60
36	1	1385	C	N1-C2-O2	-5.54	115.57	118.90
38	8	140	G	C8-N9-C4	-5.54	104.18	106.40
36	1	1405	U	N3-C4-C5	5.54	117.92	114.60
36	1	1902	G	C5-N7-C8	-5.54	101.53	104.30
36	1	2391	G	C4-C5-C6	5.54	122.12	118.80
1	6	118	U	N3-C4-O4	-5.54	115.52	119.40
1	6	541	A	C8-N9-C4	-5.54	103.58	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	39	A	N1-C6-N6	5.54	121.92	118.60
1	2	1363	U	N3-C2-O2	-5.54	118.32	122.20
36	1	2284	C	C2-N1-C1'	5.54	124.89	118.80
38	4	107	G	N1-C6-O6	-5.54	116.58	119.90
36	1	3034	C	N1-C2-O2	5.54	122.22	118.90
38	4	56	G	C8-N9-C4	5.54	108.61	106.40
36	5	127	G	N1-C6-O6	5.54	123.22	119.90
36	5	1902	G	N9-C4-C5	-5.54	103.18	105.40
36	5	2572	C	C6-N1-C2	-5.54	118.08	120.30
36	1	988	U	C5-C4-O4	5.54	129.22	125.90
37	7	49	G	C6-C5-N7	-5.54	127.08	130.40
1	2	831	U	N1-C2-O2	5.54	126.67	122.80
1	2	1200	G	C6-C5-N7	-5.54	127.08	130.40
36	1	433	A	C5-C6-N6	-5.54	119.27	123.70
36	5	2389	C	N3-C4-C5	5.54	124.11	121.90
36	5	2550	U	N3-C4-O4	-5.54	115.53	119.40
1	2	577	G	C4-C5-N7	5.53	113.01	110.80
36	1	909	G	N3-C4-C5	5.53	131.37	128.60
1	6	1745	G	N3-C4-C5	-5.53	125.83	128.60
36	5	641	C	N1-C2-O2	-5.53	115.58	118.90
36	5	806	A	O5'-P-OP2	5.53	117.34	110.70
37	7	93	C	O5'-P-OP1	5.53	117.34	110.70
38	8	32	C	C6-N1-C2	5.53	122.51	120.30
1	2	1157	A	P-O3'-C3'	5.53	126.34	119.70
36	1	1949	G	C6-C5-N7	-5.53	127.08	130.40
36	1	2656	A	C8-N9-C4	-5.53	103.59	105.80
18	c6	117	LEU	CA-CB-CG	5.53	128.02	115.30
36	1	521	A	N1-C6-N6	5.53	121.92	118.60
36	1	637	C	N3-C4-C5	5.53	124.11	121.90
36	1	2572	C	C6-N1-C1'	-5.53	114.16	120.80
37	7	37	G	C5-C6-O6	-5.53	125.28	128.60
36	1	1133	A	N1-C6-N6	5.53	121.92	118.60
36	5	2334	U	N1-C2-N3	5.53	118.22	114.90
36	5	2938	G	OP1-P-OP2	5.53	127.89	119.60
36	1	1352	A	P-O3'-C3'	5.53	126.33	119.70
1	6	65	A	C4-C5-N7	5.53	113.46	110.70
36	5	2983	C	N1-C2-O2	-5.52	115.59	118.90
36	1	2356	A	N9-C4-C5	-5.52	103.59	105.80
36	1	2619	G	O5'-P-OP1	-5.52	100.73	105.70
1	6	1649	G	C5-C6-O6	5.52	131.91	128.60
36	5	2715	A	N9-C4-C5	5.52	108.01	105.80
36	5	3115	C	N1-C2-N3	5.52	123.07	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	26	U	N3-C2-O2	-5.52	118.33	122.20
36	5	749	C	C4-C5-C6	5.52	120.16	117.40
1	2	240	U	OP2-P-O3'	5.52	117.34	105.20
36	1	1000	C	C6-N1-C1'	-5.52	114.18	120.80
36	1	2121	G	N1-C2-N2	-5.52	111.23	116.20
36	5	1205	A	C8-N9-C4	-5.52	103.59	105.80
36	5	1673	G	N1-C6-O6	-5.52	116.59	119.90
1	2	1782	A	N9-C4-C5	5.52	108.01	105.80
36	1	1458	U	C5-C6-N1	-5.52	119.94	122.70
36	1	3111	U	N3-C4-O4	-5.52	115.54	119.40
1	6	165	G	C6-C5-N7	-5.52	127.09	130.40
1	6	308	C	C5-C6-N1	-5.52	118.24	121.00
36	5	2351	U	N3-C2-O2	-5.52	118.34	122.20
36	1	312	C	N3-C4-C5	5.52	124.11	121.90
36	1	1345	G	OP2-P-O3'	5.52	117.34	105.20
1	6	866	G	C8-N9-C4	5.52	108.61	106.40
1	6	1473	U	C5-C4-O4	5.52	129.21	125.90
36	1	206	G	N1-C6-O6	-5.51	116.59	119.90
36	1	212	G	N3-C4-N9	5.51	129.31	126.00
36	1	609	G	N1-C2-N2	5.51	121.16	116.20
36	1	1346	G	N3-C4-C5	5.51	131.36	128.60
36	1	2606	G	N1-C2-N2	-5.51	111.24	116.20
36	5	875	G	C4-C5-N7	-5.51	108.59	110.80
36	5	1141	C	N3-C4-C5	5.51	124.11	121.90
36	5	1395	G	OP2-P-O3'	5.51	117.33	105.20
36	5	2514	U	O5'-P-OP1	-5.51	100.74	105.70
1	2	1679	G	N1-C6-O6	-5.51	116.59	119.90
36	1	317	A	C2-N3-C4	-5.51	107.84	110.60
36	1	626	U	N3-C4-C5	5.51	117.91	114.60
36	1	1269	U	N3-C2-O2	-5.51	118.34	122.20
36	1	1929	G	C4-C5-N7	5.51	113.00	110.80
36	1	3174	A	C5-N7-C8	-5.51	101.14	103.90
36	5	2620	G	C2-N3-C4	5.51	114.66	111.90
1	2	310	C	N3-C4-C5	-5.51	119.70	121.90
1	6	1100	G	N3-C4-C5	-5.51	125.84	128.60
1	6	1602	C	N1-C2-O2	5.51	122.20	118.90
36	5	1200	A	N3-C4-N9	5.51	131.81	127.40
36	5	1858	A	O5'-P-OP2	-5.51	100.74	105.70
36	1	2644	C	N1-C2-O2	5.51	122.20	118.90
36	5	1589	A	C5-C6-N1	5.51	120.45	117.70
36	5	2709	C	C5-C4-N4	-5.51	116.34	120.20
1	2	720	G	P-O3'-C3'	5.50	126.31	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1332	A	C6-N1-C2	-5.50	115.30	118.60
36	5	3266	G	N9-C4-C5	5.50	107.60	105.40
36	1	645	A	N1-C2-N3	5.50	132.05	129.30
36	1	914	A	O5'-P-OP1	-5.50	100.75	105.70
36	1	1407	A	N1-C6-N6	-5.50	115.30	118.60
38	4	13	A	C5-C6-N6	-5.50	119.30	123.70
36	5	1113	G	N1-C2-N3	5.50	127.20	123.90
36	5	2176	U	N3-C2-O2	-5.50	118.35	122.20
1	2	1274	C	N3-C2-O2	-5.50	118.05	121.90
36	1	2601	A	C2-N3-C4	5.50	113.35	110.60
1	6	1058	U	OP1-P-O3'	5.50	117.30	105.20
36	5	2715	A	C8-N9-C4	-5.50	103.60	105.80
36	5	3321	C	N1-C2-O2	-5.50	115.60	118.90
1	2	830	U	N1-C2-O2	5.50	126.65	122.80
36	1	1099	A	N1-C6-N6	5.50	121.90	118.60
36	1	1181	U	N3-C2-O2	-5.50	118.35	122.20
1	6	314	C	OP2-P-O3'	5.50	117.29	105.20
36	5	190	U	O4'-C1'-N1	5.50	112.60	108.20
36	5	2398	A	N1-C6-N6	-5.50	115.30	118.60
37	7	80	G	C4-C5-N7	5.50	113.00	110.80
47	m0	7	ARG	NE-CZ-NH1	-5.50	117.55	120.30
36	5	2278	C	OP1-P-OP2	-5.50	111.36	119.60
36	1	343	U	OP2-P-O3'	5.49	117.29	105.20
36	1	1330	A	C4-C5-N7	5.49	113.45	110.70
36	1	2433	U	C5-C6-N1	-5.49	119.95	122.70
36	5	1496	C	O5'-P-OP1	5.49	117.29	110.70
36	5	3004	C	C6-N1-C2	5.49	122.50	120.30
36	5	3120	C	O5'-P-OP1	-5.49	100.76	105.70
36	1	1405	U	C5-C4-O4	-5.49	122.61	125.90
36	1	2550	U	C5-C4-O4	5.49	129.19	125.90
36	1	312	C	C5-C4-N4	-5.49	116.36	120.20
36	1	918	C	O5'-P-OP2	-5.49	100.76	105.70
36	1	2214	A	N1-C6-N6	5.49	121.89	118.60
36	1	2816	G	C6-N1-C2	-5.49	121.81	125.10
1	6	377	G	C5-C6-N1	5.49	114.25	111.50
36	5	2434	U	C5-C6-N1	-5.49	119.95	122.70
1	2	852	C	C5-C6-N1	5.49	123.74	121.00
36	1	156	G	C2-N3-C4	5.49	114.64	111.90
36	1	581	U	OP2-P-O3'	5.49	117.27	105.20
1	6	382	C	N3-C4-C5	5.49	124.09	121.90
1	6	858	G	N1-C6-O6	5.49	123.19	119.90
36	5	2196	C	C5-C6-N1	-5.49	118.26	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2889	C	N3-C2-O2	-5.49	118.06	121.90
36	5	3380	U	C5-C4-O4	5.49	129.19	125.90
36	1	2728	G	N3-C4-C5	-5.49	125.86	128.60
36	5	92	G	N3-C4-N9	5.49	129.29	126.00
36	1	223	U	C6-N1-C2	5.49	124.29	121.00
36	1	2403	G	O5'-P-OP1	5.49	117.28	110.70
36	5	323	A	C8-N9-C4	-5.49	103.61	105.80
36	5	408	A	OP1-P-OP2	5.49	127.83	119.60
36	5	2867	C	N3-C2-O2	5.49	125.74	121.90
1	2	1455	G	C4-C5-N7	-5.48	108.61	110.80
36	1	2865	U	C6-N1-C2	5.48	124.29	121.00
36	1	3374	U	C5-C4-O4	-5.48	122.61	125.90
1	6	359	A	C4-N9-C1'	-5.48	116.43	126.30
37	7	92	A	C5-C6-N6	-5.48	119.31	123.70
1	2	1100	G	N1-C6-O6	5.48	123.19	119.90
1	2	1782	A	C5-C6-N6	5.48	128.09	123.70
36	1	49	A	C5-C6-N1	-5.48	114.96	117.70
36	1	3387	U	C6-N1-C2	5.48	124.29	121.00
36	1	3362	A	C5-C6-N6	-5.48	119.32	123.70
36	5	914	A	C6-N1-C2	-5.48	115.31	118.60
1	2	1457	C	C6-N1-C2	-5.48	118.11	120.30
36	1	2201	G	C5-C6-N1	-5.48	108.76	111.50
36	1	2702	A	C8-N9-C4	-5.48	103.61	105.80
36	1	3269	U	C6-N1-C2	-5.48	117.71	121.00
1	6	1299	G	N3-C4-C5	-5.48	125.86	128.60
56	n0	40	ARG	NE-CZ-NH2	-5.48	117.56	120.30
1	2	1297	G	C4-N9-C1'	-5.48	119.38	126.50
36	1	1165	A	C8-N9-C4	5.47	107.99	105.80
36	1	2245	C	C5-C4-N4	5.47	124.03	120.20
36	1	2610	G	C6-C5-N7	-5.47	127.11	130.40
36	1	2657	A	N1-C6-N6	-5.47	115.31	118.60
73	O7	65	ARG	NE-CZ-NH2	-5.47	117.56	120.30
36	5	924	G	C5-C6-N1	-5.47	108.76	111.50
36	5	1443	G	N1-C6-O6	-5.47	116.61	119.90
38	8	17	A	C4-C5-N7	5.47	113.44	110.70
36	1	908	G	O4'-C1'-N9	-5.47	103.82	108.20
36	1	1202	A	C8-N9-C4	5.47	107.99	105.80
1	6	1614	A	N1-C6-N6	5.47	121.88	118.60
36	5	1213	G	C6-C5-N7	5.47	133.68	130.40
36	5	1938	U	N3-C4-C5	5.47	117.88	114.60
36	1	931	C	N1-C2-O2	5.47	122.18	118.90
36	1	972	A	N7-C8-N9	-5.47	111.06	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2416	U	C5-C6-N1	5.47	125.44	122.70
1	2	1761	U	N1-C2-N3	5.47	118.18	114.90
36	1	2198	A	N9-C4-C5	5.47	107.99	105.80
36	5	1848	G	C6-C5-N7	-5.47	127.12	130.40
36	5	2299	A	C5-C6-N1	-5.47	114.97	117.70
36	5	2383	C	C6-N1-C2	-5.47	118.11	120.30
36	1	1156	C	C2-N3-C4	-5.47	117.17	119.90
36	5	1724	U	C4-C5-C6	5.47	122.98	119.70
36	1	636	C	C5-C4-N4	-5.47	116.37	120.20
36	1	1116	G	C4-C5-C6	5.47	122.08	118.80
36	5	2123	G	C2-N3-C4	5.47	114.63	111.90
36	1	1435	A	N1-C6-N6	5.46	121.88	118.60
36	5	2132	C	C6-N1-C2	-5.46	118.11	120.30
36	5	2719	U	C2-N1-C1'	-5.46	111.14	117.70
36	5	2780	A	O5'-P-OP2	-5.46	100.78	105.70
36	5	197	G	C4-C5-N7	5.46	112.98	110.80
36	5	2531	C	C2-N1-C1'	5.46	124.81	118.80
36	1	273	A	N7-C8-N9	-5.46	111.07	113.80
36	1	1445	U	C6-N1-C1'	5.46	128.85	121.20
36	1	2121	G	N3-C4-N9	5.46	129.28	126.00
36	5	352	A	O4'-C1'-N9	5.46	112.57	108.20
36	5	2921	U	C2-N1-C1'	5.46	124.25	117.70
36	1	964	G	OP2-P-O3'	5.46	117.21	105.20
36	1	976	U	O5'-P-OP2	-5.46	100.79	105.70
1	6	1649	G	N1-C2-N2	-5.46	111.29	116.20
36	5	1161	G	C2-N3-C4	5.46	114.63	111.90
36	5	1171	G	N3-C2-N2	5.46	123.72	119.90
36	5	2699	G	C8-N9-C4	5.46	108.58	106.40
36	5	2900	A	OP2-P-O3'	5.46	117.21	105.20
36	1	2623	G	N9-C4-C5	-5.46	103.22	105.40
1	6	448	C	OP1-P-O3'	5.46	117.20	105.20
36	5	838	G	C5-C6-O6	5.46	131.87	128.60
36	5	2919	A	C4-C5-N7	-5.46	107.97	110.70
36	5	2978	U	O4'-C1'-N1	5.46	112.56	108.20
1	2	728	U	N1-C2-O2	5.46	126.62	122.80
1	6	1473	U	C2-N1-C1'	5.46	124.25	117.70
36	5	2833	A	C6-N1-C2	-5.46	115.33	118.60
36	5	3310	A	N1-C2-N3	5.46	132.03	129.30
36	1	95	A	C2-N3-C4	-5.45	107.87	110.60
36	1	3216	G	N1-C6-O6	-5.45	116.63	119.90
36	5	2273	G	C8-N9-C4	5.45	108.58	106.40
36	5	2338	C	N3-C4-C5	-5.45	119.72	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	283	G	C8-N9-C1'	-5.45	119.91	127.00
36	1	926	A	N7-C8-N9	-5.45	111.07	113.80
1	6	309	C	O5'-P-OP1	-5.45	100.79	105.70
1	6	1484	G	O5'-P-OP1	-5.45	100.79	105.70
36	5	1128	U	C2-N3-C4	-5.45	123.73	127.00
36	1	345	G	C4-N9-C1'	5.45	133.59	126.50
36	1	1633	C	C5-C6-N1	5.45	123.72	121.00
1	6	1596	C	N3-C4-N4	-5.45	114.19	118.00
36	5	2344	U	C5-C6-N1	-5.45	119.97	122.70
36	5	2808	A	C8-N9-C4	5.45	107.98	105.80
36	1	435	C	N3-C4-C5	5.45	124.08	121.90
36	1	716	A	C5-N7-C8	-5.45	101.18	103.90
41	L4	206	LEU	CA-CB-CG	5.45	127.83	115.30
36	5	326	U	C5-C6-N1	5.45	125.42	122.70
36	5	2123	G	N1-C6-O6	-5.45	116.63	119.90
36	5	3374	U	C6-N1-C2	5.45	124.27	121.00
62	n6	76	LEU	CA-CB-CG	5.45	127.82	115.30
36	5	2673	A	C8-N9-C4	5.44	107.98	105.80
1	2	457	G	N3-C4-N9	5.44	129.26	126.00
36	5	1156	C	C5-C4-N4	-5.44	116.39	120.20
36	5	2396	G	C8-N9-C4	-5.44	104.22	106.40
38	8	112	U	C2-N1-C1'	-5.44	111.17	117.70
36	1	40	A	O5'-P-OP1	-5.44	100.80	105.70
36	1	818	C	C6-N1-C2	-5.44	118.12	120.30
36	1	2314	U	O4'-C1'-N1	5.44	112.55	108.20
52	M6	110	PRO	C-N-CD	-5.44	108.63	120.60
36	5	1159	A	C2-N3-C4	-5.44	107.88	110.60
1	6	875	G	N1-C6-O6	-5.44	116.64	119.90
36	5	1188	U	C2-N3-C4	-5.44	123.74	127.00
1	2	1746	A	N1-C2-N3	-5.44	126.58	129.30
36	1	1476	G	C5-C6-O6	5.44	131.86	128.60
36	1	2210	G	N1-C6-O6	-5.44	116.64	119.90
36	1	2756	C	C6-N1-C2	-5.44	118.12	120.30
36	1	2944	U	N3-C2-O2	-5.44	118.39	122.20
36	5	716	A	N9-C4-C5	-5.44	103.62	105.80
36	5	2341	A	C5-C6-N1	5.44	120.42	117.70
36	5	2855	U	N3-C4-C5	5.44	117.86	114.60
44	17	229	PHE	CB-CG-CD2	-5.44	116.99	120.80
36	1	33	G	N3-C4-N9	-5.44	122.74	126.00
36	1	639	G	N3-C2-N2	-5.43	116.10	119.90
1	6	612	U	O5'-P-OP1	5.43	117.22	110.70
36	5	2714	G	N1-C6-O6	-5.43	116.64	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1466	G	C8-N9-C4	5.43	108.57	106.40
36	1	2747	A	N1-C6-N6	-5.43	115.34	118.60
1	6	1584	G	N1-C6-O6	5.43	123.16	119.90
36	5	197	G	C4-N9-C1'	5.43	133.56	126.50
36	5	1536	G	N3-C2-N2	-5.43	116.10	119.90
36	5	3084	C	C5-C6-N1	-5.43	118.28	121.00
40	l3	4	ARG	NE-CZ-NH1	5.43	123.02	120.30
36	1	2953	U	N1-C2-O2	-5.43	119.00	122.80
36	5	1451	C	C5-C4-N4	-5.43	116.40	120.20
1	2	142	G	N3-C4-C5	5.43	131.31	128.60
36	1	968	G	N3-C4-C5	-5.43	125.89	128.60
36	1	1313	G	C5-C6-O6	-5.43	125.34	128.60
36	5	1142	G	C8-N9-C4	-5.43	104.23	106.40
36	5	1511	U	N1-C2-O2	5.43	126.60	122.80
36	5	3111	U	N3-C4-O4	-5.43	115.60	119.40
14	C2	103	LEU	CA-CB-CG	5.43	127.78	115.30
36	1	29	C	N3-C4-N4	5.43	121.80	118.00
1	6	321	C	N3-C2-O2	-5.43	118.10	121.90
36	5	2388	U	N3-C4-O4	5.43	123.20	119.40
36	5	2800	G	C5-C6-O6	-5.43	125.34	128.60
36	1	416	A	N7-C8-N9	-5.42	111.09	113.80
52	M6	84	LEU	CB-CG-CD1	-5.42	101.78	111.00
37	7	68	C	N1-C2-O2	5.42	122.16	118.90
36	5	960	U	N3-C2-O2	-5.42	118.40	122.20
36	1	61	A	OP2-P-O3'	5.42	117.13	105.20
36	1	926	A	C8-N9-C4	5.42	107.97	105.80
1	6	1109	G	N9-C4-C5	5.42	107.57	105.40
36	5	2619	G	C6-N1-C2	-5.42	121.85	125.10
36	1	1886	A	N1-C6-N6	-5.42	115.35	118.60
36	1	2298	U	C5-C6-N1	-5.42	119.99	122.70
36	1	2756	C	C2-N1-C1'	5.42	124.76	118.80
36	1	2913	C	N3-C2-O2	-5.42	118.11	121.90
36	1	31	C	O5'-P-OP2	-5.42	100.82	105.70
36	1	671	U	O5'-P-OP2	-5.42	100.82	105.70
36	1	1082	U	C2-N1-C1'	5.42	124.20	117.70
1	6	765	G	N1-C2-N3	-5.42	120.65	123.90
36	5	3015	G	C2-N3-C4	-5.42	109.19	111.90
36	1	893	C	C6-N1-C2	-5.42	118.13	120.30
36	1	1409	G	C5-C6-N1	5.42	114.21	111.50
36	1	2303	A	C2-N3-C4	-5.42	107.89	110.60
36	1	2355	G	N3-C4-N9	5.42	129.25	126.00
36	1	2795	U	N3-C2-O2	-5.42	118.41	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3046	A	O5'-P-OP1	-5.42	100.83	105.70
1	6	1572	G	C4-N9-C1'	5.42	133.54	126.50
36	1	784	A	O4'-C1'-N9	5.41	112.53	108.20
36	1	1366	A	C5-C6-N6	-5.41	119.37	123.70
36	5	2981	U	C2-N1-C1'	5.41	124.20	117.70
36	1	2237	C	C6-N1-C2	5.41	122.47	120.30
36	1	2321	A	C4-C5-C6	-5.41	114.29	117.00
36	5	433	A	O5'-P-OP2	-5.41	100.83	105.70
36	5	719	U	N3-C2-O2	-5.41	118.41	122.20
36	5	3260	G	C5-C6-O6	5.41	131.85	128.60
36	1	1061	A	N1-C6-N6	5.41	121.85	118.60
36	5	1181	U	C5-C6-N1	-5.41	120.00	122.70
36	5	2813	A	C4-C5-C6	5.41	119.70	117.00
38	8	34	U	O4'-C1'-N1	5.41	112.53	108.20
36	1	1370	G	C5-C6-O6	-5.41	125.36	128.60
36	1	1379	G	C2-N3-C4	-5.41	109.20	111.90
36	1	2356	A	C5-N7-C8	-5.41	101.20	103.90
36	1	3175	U	N3-C2-O2	-5.41	118.41	122.20
36	5	90	C	N3-C4-N4	5.41	121.78	118.00
36	5	2921	U	C4-C5-C6	5.41	122.94	119.70
36	5	2956	A	N1-C2-N3	5.41	132.00	129.30
36	5	3022	G	N7-C8-N9	-5.41	110.40	113.10
36	1	2101	C	P-O3'-C3'	5.41	126.19	119.70
36	5	1202	A	OP1-P-OP2	5.41	127.71	119.60
36	5	2614	G	OP1-P-OP2	5.41	127.71	119.60
36	5	2733	A	OP1-P-O3'	5.41	117.09	105.20
38	8	23	U	N1-C2-O2	-5.41	119.02	122.80
36	1	3081	C	C2-N3-C4	-5.40	117.20	119.90
54	M8	178	ARG	NE-CZ-NH1	-5.40	117.60	120.30
1	6	1121	C	O5'-P-OP2	-5.40	100.84	105.70
36	5	55	G	OP2-P-O3'	5.40	117.08	105.20
36	5	358	G	N9-C1'-C2'	-5.40	106.06	112.00
36	5	1788	C	O5'-P-OP2	-5.40	100.84	105.70
36	1	299	G	C8-N9-C1'	-5.40	119.98	127.00
36	1	351	A	N1-C2-N3	5.40	132.00	129.30
36	1	351	A	N1-C6-N6	-5.40	115.36	118.60
36	1	1364	C	C5-C4-N4	-5.40	116.42	120.20
36	5	1484	U	C6-N1-C2	5.40	124.24	121.00
36	5	2619	G	C5-C6-O6	-5.40	125.36	128.60
36	5	2805	G	C5-C6-O6	-5.40	125.36	128.60
36	1	1411	C	C2-N3-C4	-5.40	117.20	119.90
36	1	2766	U	OP1-P-O3'	5.40	117.08	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2388	U	N3-C2-O2	5.40	125.98	122.20
36	5	2943	G	O5'-P-OP1	5.40	117.18	110.70
36	1	1365	G	C4-N9-C1'	5.40	133.51	126.50
36	5	2411	U	C5-C6-N1	-5.40	120.00	122.70
36	5	3351	U	C2-N1-C1'	5.40	124.18	117.70
52	m6	94	ARG	NE-CZ-NH1	-5.40	117.60	120.30
1	6	308	C	C6-N1-C1'	5.39	127.27	120.80
36	5	2199	G	C8-N9-C1'	-5.39	119.99	127.00
36	1	752	C	C6-N1-C2	5.39	122.46	120.30
36	1	1187	C	C6-N1-C2	5.39	122.46	120.30
36	1	2796	G	N1-C2-N3	5.39	127.14	123.90
36	5	271	C	N3-C2-O2	-5.39	118.12	121.90
36	1	301	G	C8-N9-C4	5.39	108.56	106.40
36	1	715	A	O4'-C1'-N9	5.39	112.51	108.20
1	6	84	A	N1-C6-N6	-5.39	115.36	118.60
36	5	3092	C	N3-C2-O2	-5.39	118.13	121.90
5	S3	182	LEU	CA-CB-CG	5.39	127.69	115.30
36	1	283	G	O4'-C1'-N9	-5.39	103.89	108.20
36	1	910	G	C4-C5-C6	5.39	122.03	118.80
36	1	3055	U	C5-C4-O4	-5.39	122.67	125.90
1	6	1340	U	N3-C2-O2	-5.39	118.43	122.20
38	8	84	C	C6-N1-C2	-5.39	118.14	120.30
36	1	2303	A	N1-C6-N6	5.39	121.83	118.60
36	1	3278	C	C5-C6-N1	5.39	123.69	121.00
1	6	957	G	N1-C6-O6	5.39	123.13	119.90
36	5	1112	A	C4-C5-C6	5.39	119.69	117.00
36	1	182	U	C5-C4-O4	5.39	129.13	125.90
36	1	1111	U	C5-C6-N1	-5.39	120.01	122.70
36	1	1305	U	O5'-P-OP1	-5.39	100.85	105.70
1	6	1283	U	C2-N1-C1'	-5.39	111.24	117.70
1	6	1458	G	C8-N9-C1'	-5.39	120.00	127.00
36	5	326	U	N3-C4-O4	5.39	123.17	119.40
36	5	2827	U	O4'-C1'-N1	5.39	112.51	108.20
36	5	2866	U	O5'-P-OP1	-5.39	100.85	105.70
36	1	2719	U	N1-C2-N3	5.38	118.13	114.90
36	1	2866	U	N1-C2-O2	5.38	126.57	122.80
1	6	1058	U	P-O3'-C3'	5.38	126.16	119.70
36	5	1370	G	N1-C6-O6	-5.38	116.67	119.90
36	1	703	G	N1-C6-O6	-5.38	116.67	119.90
38	4	121	U	C5-C4-O4	5.38	129.13	125.90
1	6	139	C	P-O3'-C3'	5.38	126.16	119.70
36	5	2166	A	C2-N3-C4	-5.38	107.91	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2733	A	N1-C2-N3	5.38	131.99	129.30
36	1	312	C	N3-C2-O2	5.38	125.67	121.90
36	1	804	C	N3-C4-C5	-5.38	119.75	121.90
36	1	2633	U	N3-C2-O2	-5.38	118.43	122.20
36	5	669	U	C2-N3-C4	-5.38	123.77	127.00
36	5	1083	G	N3-C4-C5	-5.38	125.91	128.60
36	1	2293	C	C5-C4-N4	-5.38	116.43	120.20
36	5	2524	A	N9-C1'-C2'	5.38	120.99	114.00
36	5	2892	A	N1-C2-N3	5.38	131.99	129.30
36	5	2941	A	C5-C6-N6	5.38	128.00	123.70
36	5	425	G	C8-N9-C4	5.38	108.55	106.40
36	5	1903	U	O5'-P-OP2	5.38	117.16	110.70
37	7	57	G	N3-C4-C5	5.38	131.29	128.60
37	7	105	C	C6-N1-C2	-5.38	118.15	120.30
36	1	2298	U	C5-C4-O4	5.38	129.13	125.90
36	1	2766	U	N3-C4-O4	-5.38	115.64	119.40
36	5	644	G	N3-C4-C5	-5.38	125.91	128.60
36	5	1803	C	C6-N1-C2	5.38	122.45	120.30
36	5	1892	G	C4-C5-N7	-5.38	108.65	110.80
36	5	3317	U	N3-C4-O4	-5.38	115.64	119.40
36	5	1207	G	OP1-P-OP2	5.38	127.66	119.60
1	6	103	A	P-O3'-C3'	5.37	126.15	119.70
1	6	1700	C	C6-N1-C1'	-5.37	114.35	120.80
36	5	74	G	C8-N9-C4	-5.37	104.25	106.40
36	5	990	U	N3-C4-C5	5.37	117.82	114.60
36	5	2332	A	N9-C4-C5	-5.37	103.65	105.80
36	1	2619	G	OP1-P-OP2	5.37	127.66	119.60
36	1	2930	A	C5-C6-N6	-5.37	119.40	123.70
1	6	1148	C	C5-C6-N1	-5.37	118.31	121.00
1	6	1600	A	C5-N7-C8	-5.37	101.21	103.90
36	5	719	U	N1-C2-O2	5.37	126.56	122.80
36	5	1144	U	N1-C2-N3	5.37	118.12	114.90
36	5	2382	G	N7-C8-N9	-5.37	110.41	113.10
37	7	41	G	N1-C6-O6	5.37	123.12	119.90
1	6	1744	A	C8-N9-C4	5.37	107.95	105.80
36	5	690	A	N7-C8-N9	-5.37	111.12	113.80
36	5	2859	U	N1-C2-N3	5.37	118.12	114.90
36	5	2952	G	N3-C2-N2	5.37	123.66	119.90
37	7	87	G	N3-C2-N2	-5.37	116.14	119.90
1	2	499	U	C3'-C2'-C1'	5.37	105.79	101.50
36	5	1367	G	C5-C6-N1	-5.37	108.82	111.50
1	6	1549	C	C6-N1-C2	-5.37	118.15	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2634	U	C5-C4-O4	-5.37	122.68	125.90
1	2	355	G	C8-N9-C4	5.36	108.55	106.40
36	1	2355	G	C4-C5-C6	5.36	122.02	118.80
6	s4	222	LEU	CA-CB-CG	5.36	127.64	115.30
36	5	2179	C	C6-N1-C2	5.36	122.44	120.30
36	1	3245	A	OP1-P-O3'	5.36	117.00	105.20
36	1	752	C	C2-N3-C4	-5.36	117.22	119.90
36	1	1336	U	O5'-P-OP2	-5.36	100.88	105.70
36	1	1521	G	C2-N3-C4	-5.36	109.22	111.90
36	1	1830	G	N3-C4-N9	-5.36	122.78	126.00
36	1	2614	G	C5-N7-C8	5.36	106.98	104.30
36	1	2772	C	C2-N1-C1'	5.36	124.70	118.80
1	6	1111	G	C4-C5-N7	5.36	112.94	110.80
36	5	346	C	N1-C2-O2	5.36	122.12	118.90
36	5	2208	A	O4'-C1'-N9	5.36	112.49	108.20
36	1	1661	G	N9-C4-C5	-5.36	103.26	105.40
36	1	2257	C	N3-C2-O2	-5.36	118.15	121.90
1	6	265	A	C5-C6-N6	-5.36	119.41	123.70
36	5	1208	U	N3-C2-O2	-5.36	118.45	122.20
1	6	387	A	N9-C4-C5	5.36	107.94	105.80
1	6	387	A	C4-C5-N7	-5.36	108.02	110.70
1	6	1246	C	C2-N1-C1'	5.36	124.69	118.80
36	5	862	U	N3-C2-O2	5.36	125.95	122.20
36	5	1846	C	C6-N1-C1'	-5.36	114.37	120.80
36	5	2299	A	O5'-P-OP2	-5.36	100.88	105.70
36	1	1082	U	C6-N1-C2	-5.35	117.79	121.00
36	1	1199	C	N3-C2-O2	-5.35	118.15	121.90
36	1	2600	C	N3-C4-N4	-5.35	114.25	118.00
36	1	2653	C	C4-C5-C6	5.35	120.08	117.40
13	c1	120	GLY	N-CA-C	-5.35	99.71	113.10
36	5	3043	C	N3-C4-C5	5.35	124.04	121.90
36	5	1605	A	O4'-C1'-N9	5.35	112.48	108.20
36	5	2882	U	O5'-P-OP2	-5.35	100.88	105.70
36	5	1152	G	C8-N9-C4	-5.35	104.26	106.40
36	5	2231	C	N3-C4-C5	-5.35	119.76	121.90
36	5	2858	U	N1-C2-N3	5.35	118.11	114.90
1	2	1447	C	C6-N1-C2	5.35	122.44	120.30
36	1	1516	C	C6-N1-C2	-5.35	118.16	120.30
36	1	1581	C	N3-C2-O2	-5.35	118.16	121.90
36	1	2187	G	C8-N9-C4	-5.35	104.26	106.40
36	1	2823	G	N9-C4-C5	5.35	107.54	105.40
36	5	327	A	C8-N9-C4	5.35	107.94	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1546	A	N1-C6-N6	5.35	121.81	118.60
36	1	299	G	C6-C5-N7	-5.34	127.19	130.40
36	1	1838	G	N9-C4-C5	-5.34	103.26	105.40
36	1	2875	U	P-O3'-C3'	-5.34	113.29	119.70
36	5	994	G	OP1-P-O3'	5.34	116.96	105.20
36	1	1660	C	N3-C2-O2	5.34	125.64	121.90
1	6	1333	C	N3-C4-C5	5.34	124.04	121.90
36	1	2550	U	N3-C4-O4	-5.34	115.66	119.40
36	1	2662	G	N1-C2-N3	5.34	127.11	123.90
24	d2	68	ARG	NE-CZ-NH1	-5.34	117.63	120.30
36	5	1169	A	C8-N9-C4	5.34	107.94	105.80
36	5	1886	A	O5'-P-OP1	5.34	117.11	110.70
36	5	2372	A	OP2-P-O3'	5.34	116.95	105.20
36	1	715	A	P-O3'-C3'	5.34	126.11	119.70
36	1	1181	U	O5'-P-OP2	-5.34	100.89	105.70
36	1	3306	U	N1-C2-N3	5.34	118.10	114.90
1	6	614	C	C5-C6-N1	-5.34	118.33	121.00
36	5	326	U	C6-N1-C2	-5.34	117.80	121.00
36	5	1199	C	C4-C5-C6	5.34	120.07	117.40
36	5	2621	G	N3-C2-N2	-5.34	116.16	119.90
36	5	2830	G	N3-C4-C5	-5.34	125.93	128.60
36	1	2402	A	OP1-P-OP2	5.34	127.61	119.60
1	2	139	C	P-O3'-C3'	5.34	126.10	119.70
36	5	1222	G	N9-C4-C5	-5.34	103.27	105.40
36	5	2639	G	C5-N7-C8	-5.34	101.63	104.30
36	5	3105	U	C2-N3-C4	-5.34	123.80	127.00
36	5	3128	G	N9-C4-C5	-5.34	103.27	105.40
36	1	2911	A	N7-C8-N9	-5.33	111.13	113.80
1	6	1754	A	N1-C6-N6	-5.33	115.40	118.60
36	5	1124	U	C5-C6-N1	5.33	125.37	122.70
36	5	1496	C	C2-N1-C1'	5.33	124.67	118.80
40	l3	4	ARG	CG-CD-NE	5.33	123.00	111.80
36	1	2764	C	N3-C4-C5	-5.33	119.77	121.90
36	1	3344	A	N1-C2-N3	5.33	131.97	129.30
37	3	84	A	C4-C5-C6	5.33	119.67	117.00
1	6	609	U	O5'-P-OP2	-5.33	100.90	105.70
36	1	1535	A	C6-C5-N7	-5.33	128.57	132.30
36	1	1716	U	P-O3'-C3'	5.33	126.10	119.70
36	5	1438	U	N1-C2-N3	5.33	118.10	114.90
36	5	2919	A	N1-C6-N6	-5.33	115.40	118.60
1	2	1491	U	N3-C2-O2	-5.33	118.47	122.20
36	1	1398	U	N3-C4-O4	-5.33	115.67	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2958	A	C5-C6-N1	5.33	120.36	117.70
36	5	437	G	C8-N9-C1'	5.33	133.93	127.00
36	5	2968	G	C4-C5-N7	-5.33	108.67	110.80
36	1	76	G	N9-C4-C5	5.33	107.53	105.40
36	1	1133	A	C5-C6-N6	-5.33	119.44	123.70
36	5	328	U	C2-N1-C1'	-5.33	111.31	117.70
1	2	1169	G	C8-N9-C4	-5.33	104.27	106.40
36	1	2197	C	C2-N3-C4	5.33	122.56	119.90
36	1	3028	G	N3-C4-C5	-5.33	125.94	128.60
36	5	589	A	N1-C6-N6	5.33	121.80	118.60
38	8	129	C	N1-C2-O2	-5.33	115.70	118.90
1	2	934	C	N3-C4-N4	5.32	121.73	118.00
36	1	343	U	N3-C4-O4	5.32	123.13	119.40
36	1	968	G	N1-C6-O6	5.32	123.09	119.90
36	1	2541	U	P-O3'-C3'	5.32	126.09	119.70
36	5	1489	A	N1-C6-N6	5.32	121.79	118.60
36	1	1082	U	C5-C6-N1	5.32	125.36	122.70
36	1	3312	U	N3-C4-O4	-5.32	115.67	119.40
38	8	17	A	C6-C5-N7	-5.32	128.57	132.30
1	2	694	U	N3-C2-O2	-5.32	118.47	122.20
36	1	2409	G	C8-N9-C4	-5.32	104.27	106.40
61	n5	34	LEU	CA-CB-CG	5.32	127.53	115.30
36	1	664	U	C5-C4-O4	-5.32	122.71	125.90
36	1	1157	G	C8-N9-C4	-5.32	104.27	106.40
36	1	2846	U	C6-N1-C2	-5.32	117.81	121.00
36	1	954	U	N1-C2-O2	-5.32	119.08	122.80
36	1	1406	A	N1-C6-N6	5.32	121.79	118.60
36	1	2278	C	OP2-P-O3'	5.32	116.90	105.20
36	1	2871	G	C8-N9-C1'	5.32	133.91	127.00
36	5	109	A	C8-N9-C4	-5.32	103.67	105.80
36	5	1516	C	C5-C6-N1	-5.32	118.34	121.00
1	2	398	G	C8-N9-C4	-5.32	104.27	106.40
1	2	1768	G	C8-N9-C1'	5.32	133.91	127.00
36	1	894	G	C8-N9-C1'	5.32	133.91	127.00
1	6	617	U	C2-N1-C1'	5.32	124.08	117.70
36	5	514	G	N1-C6-O6	5.32	123.09	119.90
36	5	2718	U	N3-C2-O2	-5.32	118.48	122.20
36	5	2816	G	C4-N9-C1'	-5.32	119.59	126.50
1	6	308	C	C2-N3-C4	-5.31	117.24	119.90
36	5	1942	U	N1-C2-N3	5.31	118.09	114.90
36	5	2901	G	C5-C6-O6	-5.31	125.41	128.60
36	1	627	U	N3-C2-O2	5.31	125.92	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3268	A	N1-C6-N6	5.31	121.79	118.60
36	5	421	G	N1-C2-N3	5.31	127.09	123.90
36	5	1151	U	N3-C4-O4	5.31	123.12	119.40
36	5	1604	G	C8-N9-C1'	-5.31	120.09	127.00
36	5	2765	C	C6-N1-C2	-5.31	118.17	120.30
36	1	1535	A	C5-N7-C8	-5.31	101.25	103.90
36	5	875	G	N1-C6-O6	-5.31	116.71	119.90
43	l6	169	ASP	CB-CG-OD1	-5.31	113.52	118.30
8	S6	54	GLY	N-CA-C	5.31	126.37	113.10
36	1	1377	G	N1-C6-O6	5.31	123.08	119.90
36	1	2225	U	C5-C6-N1	-5.31	120.05	122.70
36	1	2634	U	C2-N3-C4	-5.31	123.82	127.00
36	1	2750	U	C5-C6-N1	-5.31	120.05	122.70
39	L2	191	LEU	CA-CB-CG	-5.31	103.09	115.30
36	5	1056	U	OP2-P-O3'	5.31	116.88	105.20
36	5	2978	U	C4-C5-C6	5.31	122.88	119.70
36	5	3309	G	O4'-C1'-N9	5.31	112.44	108.20
36	1	1699	A	N1-C6-N6	5.31	121.78	118.60
36	5	2650	U	N3-C4-C5	5.31	117.78	114.60
36	5	2887	A	OP1-P-OP2	5.31	127.56	119.60
36	1	2818	U	O4'-C1'-N1	-5.30	103.96	108.20
36	1	3112	G	OP1-P-O3'	5.30	116.87	105.20
38	4	32	C	O5'-P-OP2	-5.30	100.93	105.70
36	5	1110	U	N3-C4-O4	-5.30	115.69	119.40
36	5	2355	G	C6-C5-N7	-5.30	127.22	130.40
36	5	2360	C	OP2-P-O3'	5.30	116.87	105.20
36	1	2406	C	O5'-P-OP2	-5.30	100.93	105.70
1	6	1602	C	N3-C4-N4	-5.30	114.29	118.00
36	5	2186	U	C5-C6-N1	5.30	125.35	122.70
36	5	2405	C	N3-C2-O2	-5.30	118.19	121.90
36	5	2643	A	N9-C4-C5	-5.30	103.68	105.80
36	1	3174	A	N7-C8-N9	5.30	116.45	113.80
1	6	1361	U	N1-C2-O2	5.30	126.51	122.80
36	5	746	A	N1-C6-N6	5.30	121.78	118.60
36	5	2653	C	N1-C2-O2	-5.30	115.72	118.90
36	1	142	C	C2-N1-C1'	5.30	124.63	118.80
36	1	2371	G	C4-C5-N7	5.30	112.92	110.80
36	5	1886	A	C5-C6-N6	-5.30	119.46	123.70
36	1	950	G	N1-C6-O6	-5.30	116.72	119.90
36	1	2692	A	N1-C6-N6	5.30	121.78	118.60
36	5	622	A	C5-C6-N6	-5.30	119.46	123.70
36	5	2818	U	C5'-C4'-O4'	-5.30	102.74	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	299	G	N9-C4-C5	-5.30	103.28	105.40
36	1	2827	U	N1-C2-N3	5.30	118.08	114.90
36	1	3361	G	N9-C4-C5	-5.29	103.28	105.40
37	3	80	G	C6-C5-N7	-5.29	127.22	130.40
1	6	971	A	OP1-P-OP2	-5.29	111.66	119.60
36	5	991	G	N1-C6-O6	-5.29	116.72	119.90
36	5	2730	G	C4-C5-N7	5.29	112.92	110.80
36	1	501	A	N9-C4-C5	-5.29	103.68	105.80
36	1	997	A	C8-N9-C4	-5.29	103.68	105.80
36	5	793	C	O5'-P-OP2	-5.29	100.94	105.70
36	5	2197	C	N3-C2-O2	5.29	125.61	121.90
36	5	2599	U	C5-C6-N1	-5.29	120.05	122.70
36	5	3374	U	N3-C4-O4	-5.29	115.69	119.40
1	2	324	U	C6-N1-C2	-5.29	117.83	121.00
36	1	979	U	N3-C2-O2	-5.29	118.50	122.20
36	1	991	G	C6-C5-N7	-5.29	127.22	130.40
36	1	1581	C	N1-C2-O2	5.29	122.08	118.90
1	6	1297	G	N7-C8-N9	-5.29	110.45	113.10
36	5	2148	U	N1-C2-O2	-5.29	119.10	122.80
36	1	1120	A	N1-C2-N3	5.29	131.94	129.30
36	1	2223	A	OP2-P-O3'	5.29	116.84	105.20
1	2	994	G	C4-C5-N7	-5.29	108.68	110.80
36	1	81	C	N3-C4-C5	5.29	124.02	121.90
36	1	501	A	N1-C6-N6	5.29	121.77	118.60
36	1	2986	U	N3-C4-C5	-5.29	111.43	114.60
36	5	921	A	C6-N1-C2	-5.29	115.43	118.60
36	5	1054	A	C8-N9-C4	5.29	107.92	105.80
36	5	1694	U	N3-C2-O2	-5.29	118.50	122.20
37	7	93	C	C5-C6-N1	-5.29	118.36	121.00
1	2	1153	G	N1-C6-O6	-5.29	116.73	119.90
36	1	1330	A	N1-C6-N6	5.29	121.77	118.60
36	1	2823	G	C5-N7-C8	5.29	106.94	104.30
1	6	1095	U	N3-C4-O4	-5.29	115.70	119.40
36	5	2584	G	OP2-P-O3'	5.29	116.83	105.20
36	1	908	G	N1-C6-O6	5.29	123.07	119.90
36	1	1390	A	N1-C2-N3	5.29	131.94	129.30
36	1	1620	U	C2-N1-C1'	5.29	124.04	117.70
1	6	617	U	N3-C2-O2	-5.29	118.50	122.20
36	5	2862	U	N1-C2-N3	5.29	118.07	114.90
1	2	266	A	C8-N9-C4	5.28	107.91	105.80
1	6	337	G	N7-C8-N9	5.28	115.74	113.10
36	5	2882	U	C6-N1-C2	-5.28	117.83	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1745	G	C6-N1-C2	-5.28	121.93	125.10
36	1	1389	G	C6-C5-N7	-5.28	127.23	130.40
36	1	1699	A	C8-N9-C4	5.28	107.91	105.80
36	1	2283	G	C5-C6-N1	-5.28	108.86	111.50
1	6	1793	G	C6-C5-N7	5.28	133.57	130.40
36	5	1208	U	N1-C2-N3	5.28	118.07	114.90
36	5	1725	C	O4'-C1'-N1	5.28	112.42	108.20
36	5	3231	U	C5-C4-O4	5.28	129.07	125.90
1	6	755	A	P-O3'-C3'	5.28	126.03	119.70
1	2	1572	G	C4-C5-N7	5.28	112.91	110.80
36	1	267	G	N1-C6-O6	5.28	123.07	119.90
36	1	1320	C	C2-N1-C1'	5.28	124.60	118.80
1	6	1745	G	C5-C6-O6	-5.28	125.43	128.60
36	5	968	G	N7-C8-N9	-5.28	110.46	113.10
36	5	1064	A	P-O3'-C3'	5.28	126.03	119.70
36	5	2943	G	C4-C5-N7	5.28	112.91	110.80
1	2	75	U	N1-C2-O2	5.28	126.49	122.80
1	2	1206	U	C6-N1-C2	-5.28	117.83	121.00
36	1	420	G	N3-C4-N9	5.28	129.17	126.00
36	1	1119	C	C5-C6-N1	-5.28	118.36	121.00
1	6	1037	C	C6-N1-C2	5.28	122.41	120.30
36	5	1799	A	C8-N9-C4	-5.28	103.69	105.80
36	5	2618	G	C5-C6-N1	5.28	114.14	111.50
1	6	582	U	N1-C2-O2	5.27	126.49	122.80
36	5	2820	A	N1-C6-N6	5.27	121.77	118.60
36	1	3312	U	N3-C4-C5	5.27	117.76	114.60
1	6	377	G	N1-C6-O6	-5.27	116.74	119.90
1	6	1028	C	C4-C5-C6	5.27	120.04	117.40
36	5	1371	G	C4-C5-N7	-5.27	108.69	110.80
36	5	3269	U	P-O3'-C3'	5.27	126.03	119.70
36	1	152	U	C6-N1-C2	-5.27	117.84	121.00
36	1	281	G	C4-N9-C1'	5.27	133.35	126.50
36	1	708	G	C8-N9-C4	5.27	108.51	106.40
36	1	1171	G	C8-N9-C4	5.27	108.51	106.40
36	5	1181	U	N1-C2-N3	5.27	118.06	114.90
36	1	3199	G	C8-N9-C1'	5.27	133.85	127.00
36	1	3218	A	P-O3'-C3'	5.27	126.02	119.70
1	6	337	G	C4-C5-N7	5.27	112.91	110.80
36	5	887	G	C2-N3-C4	-5.27	109.27	111.90
84	p0	70	LEU	CA-CB-CG	5.27	127.42	115.30
36	1	2118	C	N3-C2-O2	5.27	125.59	121.90
36	1	2355	G	C4-C5-N7	5.27	112.91	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	218	G	OP1-P-OP2	5.27	127.50	119.60
36	5	1452	A	C4-C5-N7	5.27	113.33	110.70
36	5	2430	A	C4-C5-C6	5.27	119.63	117.00
36	5	3227	A	N1-C6-N6	5.27	121.76	118.60
36	1	518	G	C4-C5-N7	5.27	112.91	110.80
1	6	1006	C	N1-C2-O2	-5.27	115.74	118.90
1	6	1638	G	N9-C4-C5	5.27	107.51	105.40
37	7	105	C	N3-C4-C5	-5.27	119.79	121.90
1	2	1324	G	N1-C2-N2	5.26	120.94	116.20
36	1	3277	U	N1-C2-O2	5.26	126.48	122.80
36	5	1116	G	C4-C5-C6	5.26	121.96	118.80
36	5	3015	G	OP2-P-O3'	5.26	116.78	105.20
36	1	3215	A	C8-N9-C4	5.26	107.91	105.80
36	5	2950	G	C8-N9-C4	-5.26	104.30	106.40
36	1	2727	A	OP2-P-O3'	5.26	116.77	105.20
1	6	385	A	N9-C4-C5	5.26	107.91	105.80
36	5	648	C	O5'-P-OP1	-5.26	100.96	105.70
36	5	1307	G	OP1-P-OP2	5.26	127.49	119.60
36	5	2379	U	C5-C6-N1	-5.26	120.07	122.70
36	5	2617	U	N1-C2-N3	5.26	118.06	114.90
36	5	2888	U	C5-C4-O4	-5.26	122.74	125.90
1	2	1363	U	C2-N1-C1'	5.26	124.01	117.70
36	1	2176	U	N1-C2-O2	5.26	126.48	122.80
36	1	2257	C	C6-N1-C2	-5.26	118.20	120.30
38	4	40	A	C6-C5-N7	-5.26	128.62	132.30
1	6	65	A	C5-N7-C8	-5.26	101.27	103.90
36	5	1041	U	O5'-P-OP2	-5.26	100.97	105.70
36	5	3200	G	C6-C5-N7	-5.26	127.25	130.40
36	1	1868	G	C5-N7-C8	-5.26	101.67	104.30
36	1	2879	C	N3-C4-C5	-5.26	119.80	121.90
36	5	2165	G	C6-C5-N7	-5.26	127.25	130.40
36	1	2720	G	C8-N9-C4	5.26	108.50	106.40
1	6	1641	C	N1-C2-O2	-5.26	115.75	118.90
36	5	1381	A	C2-N3-C4	-5.26	107.97	110.60
38	8	24	G	N1-C6-O6	-5.26	116.75	119.90
1	6	400	A	C5-C6-N6	-5.25	119.50	123.70
36	5	2199	G	C5-C6-N1	-5.25	108.87	111.50
38	8	17	A	C5-C6-N6	-5.25	119.50	123.70
36	1	98	G	C2-N3-C4	-5.25	109.27	111.90
36	1	332	C	C2-N1-C1'	-5.25	113.02	118.80
36	1	1417	G	N7-C8-N9	-5.25	110.47	113.10
1	6	1584	G	N9-C4-C5	-5.25	103.30	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	325	G	N3-C4-C5	5.25	131.22	128.60
1	2	1585	U	O5'-P-OP2	-5.25	100.97	105.70
36	1	392	G	C4-C5-N7	5.25	112.90	110.80
36	1	2276	G	C8-N9-C4	-5.25	104.30	106.40
36	5	1789	G	C8-N9-C4	5.25	108.50	106.40
36	5	1885	U	C5-C6-N1	-5.25	120.07	122.70
1	2	1768	G	N9-C4-C5	5.25	107.50	105.40
36	1	2434	U	C5-C6-N1	-5.25	120.08	122.70
36	1	2791	G	N3-C2-N2	-5.25	116.23	119.90
37	3	79	A	N1-C2-N3	5.25	131.92	129.30
38	8	44	A	C4-C5-N7	5.25	113.32	110.70
1	2	1596	C	N3-C2-O2	-5.25	118.23	121.90
1	6	1766	A	OP1-P-O3'	5.25	116.74	105.20
36	5	2763	U	C2-N3-C4	-5.25	123.85	127.00
36	5	3041	U	C4-C5-C6	-5.25	116.55	119.70
36	1	2335	G	N1-C6-O6	-5.25	116.75	119.90
36	1	2967	A	N1-C6-N6	5.25	121.75	118.60
1	6	1037	C	N3-C4-C5	5.25	124.00	121.90
36	5	1874	A	C2-N3-C4	-5.25	107.98	110.60
36	5	2920	U	N1-C2-N3	5.25	118.05	114.90
36	1	3016	A	N1-C6-N6	5.24	121.75	118.60
36	1	3361	G	C4-C5-N7	5.24	112.90	110.80
36	5	2374	C	C2-N1-C1'	5.24	124.57	118.80
36	1	1204	A	N9-C4-C5	-5.24	103.70	105.80
36	1	2104	A	C8-N9-C4	5.24	107.90	105.80
1	6	540	G	N1-C2-N3	-5.24	120.75	123.90
1	6	815	G	C4-C5-N7	5.24	112.90	110.80
36	5	2651	G	OP2-P-O3'	5.24	116.73	105.20
36	5	3086	A	O5'-P-OP2	5.24	116.99	110.70
36	1	900	G	C4-C5-N7	-5.24	108.70	110.80
36	1	1102	A	C2-N3-C4	-5.24	107.98	110.60
36	1	2306	C	N3-C4-N4	-5.24	114.33	118.00
36	5	1848	G	N9-C4-C5	-5.24	103.31	105.40
36	5	2412	G	N1-C6-O6	-5.24	116.76	119.90
37	7	91	G	N3-C4-N9	5.24	129.14	126.00
36	1	1505	C	OP2-P-O3'	5.24	116.72	105.20
36	1	2350	C	C2-N3-C4	-5.24	117.28	119.90
36	5	145	G	N3-C4-C5	5.24	131.22	128.60
36	5	1797	A	OP1-P-OP2	-5.24	111.74	119.60
36	5	2273	G	N7-C8-N9	-5.24	110.48	113.10
1	2	362	G	N1-C2-N3	5.24	127.04	123.90
1	2	1246	C	N3-C2-O2	-5.24	118.23	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	587	U	C5-C6-N1	-5.24	120.08	122.70
36	1	793	C	O5'-P-OP2	-5.24	100.99	105.70
36	1	1496	C	C2-N1-C1'	5.24	124.56	118.80
36	5	1882	G	C5-C6-O6	-5.24	125.46	128.60
36	5	3377	G	C2-N3-C4	5.24	114.52	111.90
1	6	901	G	C5-N7-C8	-5.23	101.68	104.30
1	6	1458	G	C4-N9-C1'	5.23	133.30	126.50
36	1	2988	C	N1-C2-O2	-5.23	115.76	118.90
1	6	1600	A	C5-C6-N1	-5.23	115.08	117.70
36	5	27	C	C6-N1-C1'	5.23	127.08	120.80
36	5	197	G	C5-N7-C8	-5.23	101.68	104.30
36	5	530	G	N1-C6-O6	-5.23	116.76	119.90
36	5	669	U	C5-C6-N1	-5.23	120.08	122.70
1	2	704	C	O4'-C1'-N1	5.23	112.38	108.20
1	2	730	G	C4-N9-C1'	5.23	133.30	126.50
36	1	1883	A	C8-N9-C4	5.23	107.89	105.80
36	1	2357	A	C4-C5-N7	5.23	113.31	110.70
1	6	1478	G	N3-C4-C5	-5.23	125.98	128.60
36	5	1879	A	N9-C4-C5	-5.23	103.71	105.80
36	5	1884	A	C2-N3-C4	-5.23	107.98	110.60
1	2	704	C	N1-C2-O2	5.23	122.04	118.90
36	1	1445	U	N1-C2-N3	5.23	118.04	114.90
36	5	644	G	C5-N7-C8	5.23	106.91	104.30
36	5	718	G	C4-N9-C1'	5.23	133.30	126.50
38	8	8	C	N1-C2-N3	5.23	122.86	119.20
36	1	1097	G	C2-N3-C4	5.23	114.51	111.90
36	1	2321	A	C8-N9-C4	5.23	107.89	105.80
1	6	404	G	O5'-P-OP1	-5.23	101.00	105.70
36	1	2818	U	O5'-P-OP2	-5.23	101.00	105.70
1	6	136	C	N1-C2-O2	5.23	122.04	118.90
36	5	19	U	N3-C4-O4	5.23	123.06	119.40
36	1	419	G	N3-C2-N2	5.22	123.56	119.90
36	1	663	C	N1-C2-O2	-5.22	115.77	118.90
36	1	1167	U	C5-C6-N1	-5.22	120.09	122.70
36	1	2606	G	N3-C2-N2	5.22	123.56	119.90
36	1	2607	G	O5'-P-OP2	-5.22	101.00	105.70
1	6	145	A	OP1-P-O3'	5.22	116.69	105.20
36	5	859	G	C4-C5-N7	5.22	112.89	110.80
36	5	1843	C	N3-C4-N4	5.22	121.66	118.00
36	5	2615	G	C6-C5-N7	-5.22	127.27	130.40
36	5	2970	C	C4-C5-C6	5.22	120.01	117.40
15	C3	22	ALA	C-N-CA	5.22	143.93	122.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	SM	134	ASP	CB-CG-OD2	5.22	123.00	118.30
36	1	3123	A	N3-C4-C5	5.22	130.46	126.80
1	6	308	C	C2-N1-C1'	-5.22	113.06	118.80
36	5	2620	G	C8-N9-C1'	5.22	133.79	127.00
36	5	3128	G	C5-C6-O6	-5.22	125.47	128.60
1	2	1798	U	N3-C2-O2	-5.22	118.55	122.20
36	1	283	G	C4-N9-C1'	5.22	133.29	126.50
36	5	2278	C	OP2-P-O3'	5.22	116.69	105.20
36	5	2940	A	N1-C6-N6	5.22	121.73	118.60
36	5	3341	U	C5-C6-N1	5.22	125.31	122.70
38	8	95	G	C8-N9-C1'	5.22	133.79	127.00
1	2	334	G	N3-C4-N9	-5.22	122.87	126.00
1	2	1798	U	C2-N1-C1'	5.22	123.96	117.70
1	6	1150	G	C8-N9-C4	5.22	108.49	106.40
36	5	2279	A	OP1-P-OP2	-5.22	111.77	119.60
36	5	2408	U	O5'-P-OP2	-5.22	101.00	105.70
68	o2	4	LEU	C-N-CD	5.22	139.36	128.40
36	1	613	G	N1-C6-O6	5.22	123.03	119.90
36	1	3303	G	O4'-C1'-N9	5.22	112.38	108.20
20	c8	116	LEU	CA-CB-CG	5.22	127.30	115.30
1	6	1297	G	C8-N9-C4	5.22	108.49	106.40
36	5	716	A	C8-N9-C4	5.22	107.89	105.80
36	5	1114	U	N1-C2-O2	5.22	126.45	122.80
36	5	1336	U	O5'-P-OP2	-5.22	101.00	105.70
36	5	2231	C	C2-N1-C1'	5.22	124.54	118.80
36	5	2957	G	C2-N3-C4	-5.22	109.29	111.90
1	2	73	U	P-O3'-C3'	5.21	125.96	119.70
36	1	96	G	N3-C4-N9	-5.21	122.87	126.00
36	1	1476	G	C4-C5-N7	-5.21	108.71	110.80
36	1	1741	A	C2-N3-C4	-5.21	107.99	110.60
1	6	695	U	N3-C2-O2	-5.21	118.55	122.20
36	5	2619	G	C5-C6-N1	5.21	114.11	111.50
36	1	351	A	C5-C6-N6	5.21	127.87	123.70
36	1	585	A	C2-N3-C4	-5.21	107.99	110.60
36	1	939	U	C5-C4-O4	-5.21	122.77	125.90
36	1	1081	U	C5-C6-N1	5.21	125.31	122.70
36	1	1367	G	C4-C5-N7	5.21	112.89	110.80
36	1	2918	G	C2-N3-C4	5.21	114.51	111.90
36	1	3208	G	N9-C4-C5	5.21	107.48	105.40
38	4	21	C	C2-N1-C1'	-5.21	113.07	118.80
1	6	1722	A	C2-N3-C4	-5.21	107.99	110.60
36	5	1125	U	N3-C4-O4	-5.21	115.75	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1238	C	P-O3'-C3'	5.21	125.95	119.70
36	5	1389	G	C4-C5-N7	5.21	112.89	110.80
36	1	651	G	OP2-P-O3'	5.21	116.66	105.20
36	5	374	A	N9-C4-C5	5.21	107.88	105.80
1	2	1213	G	C5-C6-O6	5.21	131.72	128.60
36	1	49	A	N9-C4-C5	-5.21	103.72	105.80
36	1	780	A	C5-C6-N6	5.21	127.87	123.70
36	1	785	G	C2-N3-C4	5.21	114.50	111.90
36	1	1307	G	C5-C6-N1	5.21	114.10	111.50
36	1	2279	A	O5'-P-OP1	-5.21	101.01	105.70
36	1	2613	U	C4-C5-C6	5.21	122.83	119.70
36	5	2727	A	O5'-P-OP2	-5.21	101.01	105.70
36	1	2286	U	O5'-P-OP2	-5.21	101.02	105.70
36	1	3326	G	N7-C8-N9	-5.21	110.50	113.10
36	5	2817	A	N1-C6-N6	5.21	121.72	118.60
36	5	101	G	C8-N9-C4	-5.21	104.32	106.40
36	5	509	U	N3-C4-C5	5.21	117.72	114.60
36	5	2942	C	N1-C2-O2	-5.21	115.78	118.90
1	2	424	C	C2-N3-C4	5.20	122.50	119.90
36	1	55	G	OP2-P-O3'	5.20	116.65	105.20
36	1	1881	A	C5-C6-N1	5.20	120.30	117.70
36	1	2603	G	C5-C6-O6	-5.20	125.48	128.60
36	5	890	C	P-O3'-C3'	5.20	125.94	119.70
36	5	1060	U	C2-N1-C1'	-5.20	111.45	117.70
36	5	1868	G	C6-C5-N7	-5.20	127.28	130.40
36	5	2164	A	C4-C5-C6	5.20	119.60	117.00
36	5	3183	A	C8-N9-C4	5.20	107.88	105.80
36	5	3000	A	C8-N9-C4	5.20	107.88	105.80
1	2	1213	G	N1-C6-O6	-5.20	116.78	119.90
36	1	1433	A	C6-N1-C2	-5.20	115.48	118.60
36	1	1860	G	C8-N9-C4	5.20	108.48	106.40
36	1	2833	A	C8-N9-C4	5.20	107.88	105.80
1	6	337	G	N3-C4-N9	5.20	129.12	126.00
36	5	32	U	N3-C2-O2	-5.20	118.56	122.20
36	5	207	U	C2-N3-C4	-5.20	123.88	127.00
36	5	859	G	C6-C5-N7	-5.20	127.28	130.40
36	5	1506	A	C8-N9-C4	-5.20	103.72	105.80
36	5	2682	C	C2'-C3'-O3'	5.20	122.02	113.70
36	1	1202	A	C5-C6-N1	-5.20	115.10	117.70
1	6	1022	C	C5-C6-N1	-5.20	118.40	121.00
36	5	234	G	C4-C5-N7	5.20	112.88	110.80
36	5	1149	G	N9-C1'-C2'	-5.20	106.28	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1716	U	P-O3'-C3'	5.20	125.94	119.70
36	5	2164	A	N1-C6-N6	5.20	121.72	118.60
38	8	55	U	N3-C2-O2	-5.20	118.56	122.20
36	1	1199	C	N1-C2-O2	5.20	122.02	118.90
36	1	2369	G	N3-C4-N9	5.20	129.12	126.00
36	1	2760	C	N3-C4-C5	-5.20	119.82	121.90
36	5	700	C	C6-N1-C2	5.20	122.38	120.30
36	5	3177	G	C8-N9-C4	5.20	108.48	106.40
38	8	32	C	C2-N1-C1'	-5.20	113.08	118.80
78	q2	93	LEU	CA-CB-CG	5.20	127.25	115.30
1	2	388	G	C5-C6-O6	-5.20	125.48	128.60
36	1	3148	U	N3-C4-C5	5.20	117.72	114.60
1	6	65	A	C6-N1-C2	5.20	121.72	118.60
1	6	1517	U	C2-N1-C1'	-5.20	111.47	117.70
4	s2	229	LEU	CA-CB-CG	5.20	127.25	115.30
36	5	1662	G	C6-C5-N7	-5.20	127.28	130.40
36	5	2372	A	N3-C4-C5	-5.20	123.16	126.80
36	5	2726	C	N1-C2-N3	5.20	122.84	119.20
1	2	896	U	N1-C2-O2	5.19	126.44	122.80
36	1	2632	G	N1-C6-O6	-5.19	116.78	119.90
36	1	3252	G	N3-C4-C5	5.19	131.20	128.60
36	5	2924	U	N3-C2-O2	5.19	125.84	122.20
36	1	2943	G	C4-C5-N7	5.19	112.88	110.80
1	6	1039	A	O4'-C1'-N9	5.19	112.35	108.20
36	5	1384	U	N3-C2-O2	-5.19	118.56	122.20
36	5	2986	U	N3-C4-O4	5.19	123.03	119.40
36	1	653	A	C2-N3-C4	-5.19	108.00	110.60
36	1	2621	G	O5'-P-OP2	-5.19	101.03	105.70
36	5	880	G	C6-N1-C2	-5.19	121.99	125.10
36	5	2928	C	C6-N1-C2	-5.19	118.22	120.30
36	5	1306	G	N1-C6-O6	5.19	123.01	119.90
36	5	1929	G	C5-C6-O6	-5.19	125.49	128.60
36	5	2250	G	N3-C4-N9	5.19	129.11	126.00
36	1	2409	G	N3-C4-C5	-5.19	126.01	128.60
36	1	2831	G	C6-C5-N7	-5.19	127.29	130.40
36	5	1150	A	O5'-P-OP2	-5.19	101.03	105.70
1	2	1745	G	C6-N1-C2	-5.19	121.99	125.10
36	1	107	A	N1-C6-N6	5.19	121.71	118.60
36	1	1097	G	P-O3'-C3'	5.19	125.92	119.70
36	5	3365	U	C5-C4-O4	-5.19	122.79	125.90
1	2	1745	G	N3-C4-C5	-5.18	126.01	128.60
36	1	80	G	C6-N1-C2	-5.18	121.99	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1791	C	C6-N1-C2	5.18	122.37	120.30
36	1	1807	G	N3-C4-N9	5.18	129.11	126.00
36	1	2603	G	OP1-P-O3'	5.18	116.61	105.20
1	6	577	G	C6-C5-N7	-5.18	127.29	130.40
36	5	2661	G	OP1-P-O3'	5.18	116.61	105.20
1	2	1637	C	N1-C2-O2	5.18	122.01	118.90
36	1	318	A	O5'-P-OP1	-5.18	101.03	105.70
36	1	339	C	N3-C2-O2	-5.18	118.27	121.90
1	6	941	A	N1-C6-N6	-5.18	115.49	118.60
36	5	43	A	O4'-C1'-N9	5.18	112.35	108.20
36	5	863	C	C5-C6-N1	-5.18	118.41	121.00
36	5	898	U	N1-C2-N3	-5.18	111.79	114.90
36	5	1879	A	OP1-P-OP2	-5.18	111.83	119.60
36	5	2912	G	O5'-P-OP2	5.18	116.92	110.70
36	1	1505	C	C2-N3-C4	-5.18	117.31	119.90
36	1	2431	C	C5-C6-N1	-5.18	118.41	121.00
36	5	1549	U	C6-N1-C2	5.18	124.11	121.00
1	2	1036	A	C8-N9-C4	5.18	107.87	105.80
36	1	613	G	C5-C6-O6	-5.18	125.49	128.60
36	1	1885	U	N3-C4-O4	5.18	123.03	119.40
36	1	2603	G	C6-C5-N7	-5.18	127.29	130.40
38	4	113	U	C6-N1-C1'	5.18	128.45	121.20
73	O7	11	ARG	NE-CZ-NH1	-5.18	117.71	120.30
36	5	75	G	N3-C4-C5	-5.18	126.01	128.60
36	5	1598	G	C8-N9-C4	5.18	108.47	106.40
36	5	1847	A	C2-N3-C4	-5.18	108.01	110.60
36	5	2774	C	N3-C4-C5	-5.18	119.83	121.90
36	5	3172	A	C2-N3-C4	-5.18	108.01	110.60
1	2	631	G	C4-C5-N7	-5.18	108.73	110.80
36	1	1116	G	C8-N9-C4	-5.18	104.33	106.40
36	5	1449	A	N1-C2-N3	5.18	131.89	129.30
1	2	1772	C	OP1-P-O3'	5.18	116.59	105.20
36	1	2369	G	N3-C4-C5	-5.18	126.01	128.60
36	1	2624	G	C6-C5-N7	-5.18	127.29	130.40
1	6	1596	C	C5-C4-N4	5.18	123.82	120.20
36	5	121	A	C8-N9-C4	5.18	107.87	105.80
36	5	343	U	N1-C2-N3	5.18	118.01	114.90
36	5	435	C	O5'-P-OP2	-5.18	101.04	105.70
36	5	818	C	N1-C2-O2	-5.18	115.79	118.90
36	5	1147	G	C2-N3-C4	5.18	114.49	111.90
36	1	2606	G	C4-C5-N7	5.17	112.87	110.80
1	6	9	U	C5-C4-O4	-5.17	122.80	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	115	G	C8-N9-C4	5.17	108.47	106.40
1	6	125	U	C6-N1-C2	5.17	124.10	121.00
1	6	1095	U	N3-C4-C5	5.17	117.70	114.60
36	1	1724	U	P-O3'-C3'	5.17	125.91	119.70
36	5	1438	U	C6-N1-C2	-5.17	117.90	121.00
38	8	22	U	C5-C6-N1	-5.17	120.11	122.70
1	2	75	U	N3-C2-O2	-5.17	118.58	122.20
36	1	1751	G	C8-N9-C4	5.17	108.47	106.40
1	6	558	U	C5-C6-N1	5.17	125.28	122.70
36	5	522	A	C2-N3-C4	-5.17	108.01	110.60
36	5	935	U	N3-C4-O4	5.17	123.02	119.40
36	1	159	A	C8-N9-C4	5.17	107.87	105.80
36	1	934	G	C8-N9-C1'	-5.17	120.28	127.00
1	6	787	G	N3-C4-N9	5.17	129.10	126.00
36	1	681	U	C5-C6-N1	-5.17	120.11	122.70
36	1	2831	G	C5-C6-N1	-5.17	108.92	111.50
49	M3	47	ALA	C-N-CD	5.17	139.25	128.40
36	5	757	C	OP2-P-O3'	5.17	116.57	105.20
1	2	874	C	C5-C6-N1	5.17	123.58	121.00
36	1	2283	G	C2-N3-C4	-5.17	109.32	111.90
36	5	718	G	C8-N9-C1'	-5.17	120.28	127.00
36	5	847	A	N7-C8-N9	-5.17	111.22	113.80
36	5	2526	C	C6-N1-C1'	-5.17	114.60	120.80
36	5	2817	A	N3-C4-N9	5.17	131.53	127.40
38	8	90	U	C6-N1-C2	5.17	124.10	121.00
1	2	1268	G	O5'-P-OP2	-5.17	101.05	105.70
36	1	1180	A	N1-C6-N6	-5.17	115.50	118.60
36	1	1741	A	N1-C2-N3	5.17	131.88	129.30
36	1	2571	U	N3-C2-O2	-5.17	118.58	122.20
1	6	616	G	C2-N3-C4	5.17	114.48	111.90
1	2	110	U	N3-C4-C5	5.16	117.70	114.60
36	1	715	A	C8-N9-C4	-5.16	103.73	105.80
1	6	42	G	C5-C6-N1	5.16	114.08	111.50
1	2	934	C	C6-N1-C1'	-5.16	114.61	120.80
36	1	1305	U	C2-N1-C1'	5.16	123.89	117.70
20	c8	15	LEU	CA-CB-CG	5.16	127.17	115.30
36	5	1433	A	C5-C6-N6	5.16	127.83	123.70
36	5	1789	G	C8-N9-C1'	5.16	133.71	127.00
1	2	1754	A	C2-N3-C4	-5.16	108.02	110.60
3	S1	70	LEU	CA-CB-CG	5.16	127.17	115.30
36	1	2928	C	O5'-P-OP1	-5.16	101.06	105.70
1	6	313	U	C5-C6-N1	-5.16	120.12	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2665	U	O5'-P-OP2	-5.16	101.06	105.70
38	8	42	G	O5'-P-OP2	-5.16	101.06	105.70
36	1	25	U	N1-C2-N3	5.16	118.00	114.90
36	1	942	U	O5'-P-OP1	5.16	116.89	110.70
1	6	957	G	N3-C2-N2	-5.16	116.29	119.90
1	2	25	C	P-O3'-C3'	5.16	125.89	119.70
36	1	1040	A	N1-C6-N6	5.16	121.69	118.60
36	5	677	A	C2-N3-C4	-5.16	108.02	110.60
36	5	1179	A	C8-N9-C4	5.16	107.86	105.80
36	5	1431	G	C2-N3-C4	5.16	114.48	111.90
1	2	565	C	N3-C4-C5	5.16	123.96	121.90
36	1	1124	U	C5-C4-O4	-5.16	122.81	125.90
36	1	1425	U	C5-C4-O4	5.16	128.99	125.90
36	1	2537	U	P-O3'-C3'	5.15	125.89	119.70
36	5	3343	G	N3-C2-N2	5.15	123.51	119.90
1	2	1124	A	O5'-P-OP2	5.15	116.88	110.70
1	2	1651	A	C5-C6-N1	-5.15	115.12	117.70
36	1	1335	C	N3-C2-O2	-5.15	118.29	121.90
38	4	96	A	N1-C6-N6	5.15	121.69	118.60
36	5	1420	C	OP2-P-O3'	5.15	116.54	105.20
36	5	1902	G	O5'-P-OP1	-5.15	101.06	105.70
36	5	2695	A	N1-C6-N6	-5.15	115.51	118.60
36	1	1203	A	C2-N3-C4	-5.15	108.03	110.60
36	1	1691	U	O5'-P-OP2	-5.15	101.06	105.70
36	1	1940	G	N1-C2-N2	-5.15	111.56	116.20
36	1	2621	G	N1-C2-N2	5.15	120.84	116.20
36	1	3377	G	C4-C5-N7	5.15	112.86	110.80
36	1	650	C	N3-C2-O2	5.15	125.50	121.90
36	5	1190	A	O4'-C1'-N9	-5.15	104.08	108.20
36	1	1838	G	C5-N7-C8	-5.15	101.73	104.30
36	1	2722	U	C5-C6-N1	-5.15	120.13	122.70
38	4	42	G	OP1-P-O3'	5.15	116.53	105.20
1	6	1340	U	C5-C4-O4	5.15	128.99	125.90
36	5	2375	G	N1-C6-O6	-5.15	116.81	119.90
36	5	2385	G	C8-N9-C1'	5.15	133.69	127.00
36	5	2626	A	N1-C2-N3	5.15	131.87	129.30
1	6	113	U	C2-N1-C1'	-5.15	111.52	117.70
1	6	144	U	C6-N1-C2	-5.15	117.91	121.00
36	5	749	C	C6-N1-C2	-5.15	118.24	120.30
1	2	103	A	P-O3'-C3'	5.14	125.87	119.70
1	2	1244	A	P-O3'-C3'	5.14	125.87	119.70
1	2	1324	G	C6-C5-N7	5.14	133.49	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1410	U	C5-C4-O4	5.14	128.99	125.90
36	1	1939	G	N3-C2-N2	-5.14	116.30	119.90
36	1	2860	U	C4-C5-C6	-5.14	116.61	119.70
1	6	1659	A	N1-C6-N6	5.14	121.69	118.60
36	5	2237	C	OP2-P-O3'	5.14	116.52	105.20
36	5	2387	A	C6-C5-N7	-5.14	128.70	132.30
36	5	3124	G	C8-N9-C4	-5.14	104.34	106.40
36	1	2818	U	P-O3'-C3'	5.14	125.87	119.70
74	O8	14	LEU	CA-CB-CG	5.14	127.12	115.30
36	5	2201	G	N3-C2-N2	5.14	123.50	119.90
36	5	3381	U	C5-C4-O4	5.14	128.98	125.90
1	2	1611	A	O4'-C1'-N9	5.14	112.31	108.20
36	1	281	G	N9-C4-C5	-5.14	103.34	105.40
36	1	2700	G	C6-C5-N7	-5.14	127.32	130.40
36	5	1556	C	C6-N1-C2	-5.14	118.24	120.30
36	1	2234	G	C4-N9-C1'	5.14	133.18	126.50
36	1	2810	C	C6-N1-C2	5.14	122.36	120.30
1	6	862	A	N1-C6-N6	-5.14	115.52	118.60
36	5	2990	G	N3-C4-N9	5.14	129.08	126.00
36	1	608	A	C4-C5-C6	5.13	119.57	117.00
36	1	857	G	C2-N3-C4	-5.13	109.33	111.90
1	6	426	G	N1-C6-O6	-5.13	116.82	119.90
36	5	2649	A	N1-C6-N6	5.13	121.68	118.60
36	5	2725	U	N1-C2-O2	5.13	126.39	122.80
38	4	113	U	N3-C4-O4	-5.13	115.81	119.40
36	1	1342	C	N3-C4-C5	5.13	123.95	121.90
36	5	644	G	N9-C4-C5	5.13	107.45	105.40
36	5	3182	G	OP1-P-OP2	-5.13	111.90	119.60
1	2	328	A	N1-C6-N6	5.13	121.68	118.60
1	2	334	G	C8-N9-C1'	5.13	133.67	127.00
1	6	95	G	N9-C4-C5	5.13	107.45	105.40
36	5	1151	U	N3-C4-C5	-5.13	111.52	114.60
36	5	1480	G	N3-C4-C5	5.13	131.16	128.60
36	5	2325	G	C5-C6-N1	-5.13	108.94	111.50
36	1	623	U	C2-N1-C1'	-5.13	111.55	117.70
36	1	874	U	N3-C4-C5	5.13	117.68	114.60
36	1	1216	C	C5-C6-N1	5.13	123.56	121.00
36	1	2403	G	C4-C5-C6	5.13	121.88	118.80
36	5	555	U	C2-N1-C1'	5.13	123.86	117.70
37	7	36	C	N3-C4-N4	-5.13	114.41	118.00
36	1	658	G	C4-C5-N7	-5.13	108.75	110.80
1	6	1177	C	C6-N1-C2	5.13	122.35	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	205	C	O5'-P-OP1	-5.13	101.09	105.70
36	5	1810	A	C8-N9-C4	5.13	107.85	105.80
36	1	1928	G	N3-C4-C5	5.12	131.16	128.60
36	1	2305	G	C5-C6-O6	-5.12	125.53	128.60
36	1	2384	A	N3-C4-C5	-5.12	123.21	126.80
1	6	1645	G	C5-C6-N1	5.12	114.06	111.50
1	2	1269	U	C5-C4-O4	-5.12	122.83	125.90
1	2	1455	G	O5'-P-OP2	-5.12	101.09	105.70
36	1	2357	A	C5-C6-N1	5.12	120.26	117.70
36	5	651	G	C6-C5-N7	-5.12	127.33	130.40
36	5	2804	A	N1-C2-N3	5.12	131.86	129.30
1	2	571	G	N7-C8-N9	-5.12	110.54	113.10
1	2	1782	A	C8-N9-C4	-5.12	103.75	105.80
36	1	157	A	C4-C5-C6	5.12	119.56	117.00
36	1	3143	C	C6-N1-C2	5.12	122.35	120.30
36	1	3269	U	P-O3'-C3'	5.12	125.84	119.70
36	1	3369	G	O4'-C1'-N9	5.12	112.30	108.20
53	M7	56	ARG	NE-CZ-NH2	-5.12	117.74	120.30
1	6	1503	A	O4'-C1'-N9	5.12	112.30	108.20
36	5	1384	U	N1-C2-O2	5.12	126.39	122.80
1	2	323	A	O5'-P-OP2	-5.12	101.09	105.70
1	2	426	G	C8-N9-C1'	-5.12	120.34	127.00
36	1	888	A	N1-C6-N6	5.12	121.67	118.60
1	6	1023	A	C5-C6-N6	-5.12	119.60	123.70
36	5	2152	A	N1-C6-N6	5.12	121.67	118.60
36	5	2273	G	C4-N9-C1'	-5.12	119.84	126.50
36	1	1122	U	C5-C4-O4	5.12	128.97	125.90
36	1	1633	C	C2-N1-C1'	5.12	124.43	118.80
1	6	101	U	N1-C2-O2	5.12	126.38	122.80
1	6	1514	U	N3-C4-O4	-5.12	115.82	119.40
36	5	2231	C	C6-N1-C2	-5.12	118.25	120.30
36	5	3331	U	C5-C6-N1	-5.12	120.14	122.70
36	5	1367	G	C4-C5-C6	5.12	121.87	118.80
36	1	24	G	N7-C8-N9	-5.12	110.54	113.10
36	1	898	U	N1-C2-O2	5.12	126.38	122.80
36	1	2696	A	OP2-P-O3'	5.12	116.45	105.20
1	6	1	U	N1-C2-O2	5.12	126.38	122.80
1	6	815	G	C5-N7-C8	-5.12	101.74	104.30
36	5	1359	C	N3-C4-N4	5.12	121.58	118.00
36	5	1846	C	C4-C5-C6	5.12	119.96	117.40
1	6	1631	A	N1-C6-N6	-5.11	115.53	118.60
36	5	809	G	C8-N9-C4	5.11	108.44	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1207	G	O5'-P-OP1	-5.11	101.10	105.70
36	5	1213	G	C4-C5-N7	-5.11	108.75	110.80
68	o2	4	LEU	C-N-CA	-5.11	100.53	122.00
27	D5	75	LEU	CB-CG-CD1	-5.11	102.31	111.00
36	1	1659	U	N1-C2-O2	-5.11	119.22	122.80
36	5	1115	G	C4-N9-C1'	5.11	133.15	126.50
36	5	2937	G	C8-N9-C4	5.11	108.44	106.40
1	2	397	A	N1-C6-N6	-5.11	115.53	118.60
44	L7	107	ARG	NE-CZ-NH1	-5.11	117.75	120.30
13	c1	5	LEU	CA-CB-CG	5.11	127.05	115.30
36	5	2199	G	C4-N9-C1'	5.11	133.14	126.50
36	5	2817	A	C6-N1-C2	-5.11	115.53	118.60
36	5	2952	G	C5-C6-N1	5.11	114.06	111.50
36	1	426	G	N3-C4-N9	5.11	129.06	126.00
1	6	1614	A	C4-C5-N7	5.11	113.25	110.70
36	5	349	A	C6-C5-N7	5.11	135.88	132.30
36	5	2968	G	N1-C6-O6	-5.11	116.83	119.90
36	1	1604	G	C8-N9-C4	-5.11	104.36	106.40
15	c3	75	LEU	CB-CG-CD2	-5.11	102.32	111.00
1	2	308	C	C5-C6-N1	-5.11	118.45	121.00
1	2	1560	U	C2-N1-C1'	5.11	123.83	117.70
36	1	388	G	N3-C2-N2	-5.11	116.33	119.90
1	6	1759	C	C6-N1-C2	5.11	122.34	120.30
36	5	1390	A	N7-C8-N9	5.11	116.35	113.80
36	5	1390	A	N1-C6-N6	-5.11	115.54	118.60
36	5	94	G	C2-N3-C4	-5.10	109.35	111.90
36	5	2620	G	C4-N9-C1'	-5.10	119.86	126.50
1	2	728	U	C6-N1-C1'	-5.10	114.06	121.20
36	1	776	U	N1-C2-O2	-5.10	119.23	122.80
36	1	810	A	C5-C6-N1	5.10	120.25	117.70
36	1	890	C	N3-C4-N4	-5.10	114.43	118.00
1	6	826	U	C5-C6-N1	5.10	125.25	122.70
1	6	934	C	C2-N1-C1'	5.10	124.41	118.80
1	6	1436	A	C8-N9-C4	-5.10	103.76	105.80
36	5	2621	G	C5-C6-O6	-5.10	125.54	128.60
36	5	3245	A	C5-C6-N6	-5.10	119.62	123.70
36	1	334	A	C5-C6-N6	-5.10	119.62	123.70
36	1	1791	C	C5-C6-N1	-5.10	118.45	121.00
36	1	2846	U	N3-C4-O4	-5.10	115.83	119.40
36	1	3079	U	C2-N1-C1'	-5.10	111.58	117.70
36	1	3268	A	C6-C5-N7	-5.10	128.73	132.30
37	7	1	G	C6-C5-N7	-5.10	127.34	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	752	C	N3-C4-C5	5.10	123.94	121.90
36	1	1204	A	C8-N9-C4	5.10	107.84	105.80
36	1	2384	A	C4-C5-C6	5.10	119.55	117.00
1	6	1656	U	O5'-P-OP1	5.10	116.82	110.70
36	5	1878	G	C8-N9-C4	-5.10	104.36	106.40
36	5	2333	C	OP2-P-O3'	5.10	116.41	105.20
36	5	1923	C	C6-N1-C2	-5.10	118.26	120.30
36	5	2804	A	C2-N3-C4	-5.10	108.05	110.60
38	8	12	A	C4-C5-N7	5.10	113.25	110.70
36	1	585	A	O5'-P-OP2	-5.09	101.11	105.70
36	1	2925	C	O5'-P-OP2	5.09	116.81	110.70
36	1	2935	U	OP2-P-O3'	5.09	116.41	105.20
36	5	407	A	N9-C4-C5	-5.09	103.76	105.80
36	5	2271	A	C4-C5-C6	-5.09	114.45	117.00
36	5	3122	A	OP2-P-O3'	5.09	116.41	105.20
38	8	125	U	C2-N1-C1'	5.09	123.81	117.70
27	D5	95	HIS	N-CA-C	5.09	124.75	111.00
36	5	1303	A	C5-C6-N6	-5.09	119.63	123.70
36	1	954	U	N3-C2-O2	5.09	125.76	122.20
36	1	1658	G	C4-C5-N7	-5.09	108.76	110.80
1	6	136	C	C6-N1-C1'	-5.09	114.69	120.80
36	5	946	U	N1-C2-N3	5.09	117.95	114.90
36	5	1117	G	O5'-P-OP1	-5.09	101.12	105.70
36	5	1927	G	C5-C6-O6	-5.09	125.55	128.60
36	5	2400	G	C8-N9-C4	5.09	108.44	106.40
36	1	1366	A	N1-C6-N6	5.09	121.65	118.60
36	1	2117	A	N9-C4-C5	5.09	107.84	105.80
36	1	2318	U	N3-C4-C5	5.09	117.65	114.60
36	5	315	C	N3-C4-C5	5.09	123.94	121.90
36	5	1938	U	C5-C6-N1	-5.09	120.16	122.70
36	5	2112	U	P-O3'-C3'	5.09	125.81	119.70
36	5	2283	G	C8-N9-C4	5.09	108.44	106.40
36	5	2869	U	O5'-P-OP1	-5.09	101.12	105.70
1	2	1745	G	C8-N9-C1'	-5.09	120.39	127.00
36	1	2705	A	C2-N3-C4	5.09	113.14	110.60
1	6	66	U	P-O3'-C3'	5.09	125.81	119.70
1	6	371	G	C6-C5-N7	-5.09	127.35	130.40
36	5	2978	U	C5-C4-O4	5.09	128.95	125.90
1	2	136	C	C6-N1-C2	-5.09	118.27	120.30
1	2	610	G	C8-N9-C1'	-5.09	120.39	127.00
36	1	1537	A	C5-C6-N6	-5.09	119.63	123.70
36	1	1929	G	N3-C2-N2	5.09	123.46	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2417	U	N1-C2-N3	5.09	117.95	114.90
36	1	2623	G	N1-C6-O6	5.09	122.95	119.90
36	1	3079	U	C6-N1-C1'	5.09	128.32	121.20
38	4	17	A	N1-C6-N6	5.09	121.65	118.60
38	4	107	G	C6-C5-N7	5.09	133.45	130.40
1	6	452	A	N1-C6-N6	5.09	121.65	118.60
1	2	1773	C	N1-C2-O2	-5.08	115.85	118.90
36	1	1779	C	OP1-P-OP2	5.08	127.23	119.60
36	1	1911	A	C5-C6-N6	-5.08	119.63	123.70
36	1	2859	U	C5-C6-N1	-5.08	120.16	122.70
1	6	626	U	C6-N1-C2	5.08	124.05	121.00
1	2	404	G	C4-C5-N7	5.08	112.83	110.80
36	1	1124	U	C5-C6-N1	5.08	125.24	122.70
1	6	558	U	P-O3'-C3'	5.08	125.80	119.70
1	6	1615	C	N1-C1'-C2'	-5.08	106.41	112.00
1	6	1736	G	O5'-P-OP1	-5.08	101.12	105.70
36	1	900	G	N7-C8-N9	-5.08	110.56	113.10
36	1	2679	A	C5-C6-N1	-5.08	115.16	117.70
1	6	1747	G	O5'-P-OP2	-5.08	101.13	105.70
36	5	2514	U	C6-N1-C2	-5.08	117.95	121.00
36	5	75	G	C5-C6-O6	-5.08	125.55	128.60
36	5	2940	A	C6-C5-N7	-5.08	128.74	132.30
36	1	293	C	N3-C4-N4	5.08	121.56	118.00
36	1	967	A	N1-C2-N3	5.08	131.84	129.30
36	1	2640	A	C6-N1-C2	-5.08	115.55	118.60
1	6	359	A	C4-C5-C6	-5.08	114.46	117.00
36	5	79	U	C5-C4-O4	-5.08	122.85	125.90
41	14	206	LEU	CA-CB-CG	5.08	126.98	115.30
1	2	1376	C	C6-N1-C2	5.08	122.33	120.30
36	1	86	G	N3-C4-N9	-5.08	122.95	126.00
36	1	88	A	N1-C6-N6	5.08	121.64	118.60
36	1	325	A	C6-N1-C2	-5.08	115.56	118.60
36	1	1117	G	C5-C6-O6	-5.08	125.56	128.60
36	1	2631	U	C2-N3-C4	-5.08	123.95	127.00
1	6	18	C	N3-C4-C5	-5.08	119.87	121.90
36	5	1429	G	C4-C5-N7	5.08	112.83	110.80
36	5	1788	C	N3-C4-C5	-5.08	119.87	121.90
36	5	1789	G	N3-C4-C5	5.08	131.14	128.60
36	5	2758	A	N9-C4-C5	5.08	107.83	105.80
52	m6	16	VAL	CG1-CB-CG2	-5.08	102.78	110.90
36	1	417	A	C2-N3-C4	-5.07	108.06	110.60
36	1	965	A	N1-C6-N6	5.07	121.64	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1611	G	C5-C6-N1	-5.07	108.96	111.50
36	1	2610	G	O5'-P-OP1	5.07	116.79	110.70
38	4	48	A	C2-N3-C4	5.07	113.14	110.60
36	1	282	G	N1-C6-O6	-5.07	116.86	119.90
36	1	946	U	N1-C2-N3	5.07	117.94	114.90
36	1	1589	A	O4'-C1'-N9	-5.07	104.14	108.20
36	1	2394	G	C4-C5-N7	-5.07	108.77	110.80
1	6	1198	G	C4-C5-N7	-5.07	108.77	110.80
25	d3	45	GLY	N-CA-C	-5.07	100.42	113.10
36	1	105	C	C2-N1-C1'	5.07	124.38	118.80
36	1	371	G	N9-C4-C5	-5.07	103.37	105.40
36	1	2391	G	OP1-P-O3'	5.07	116.35	105.20
36	5	904	A	C5-C6-N6	-5.07	119.64	123.70
36	5	2388	U	OP2-P-O3'	5.07	116.36	105.20
36	5	2850	G	C5-C6-N1	5.07	114.04	111.50
37	7	102	A	C8-N9-C4	5.07	107.83	105.80
54	m8	99	THR	N-CA-C	5.07	124.69	111.00
1	2	1168	U	C2-N1-C1'	5.07	123.78	117.70
36	1	652	G	C5-C6-O6	5.07	131.64	128.60
36	1	827	A	C8-N9-C4	5.07	107.83	105.80
1	6	472	U	N3-C2-O2	-5.07	118.65	122.20
1	2	275	C	C5-C6-N1	5.07	123.53	121.00
1	2	406	U	C6-N1-C2	5.07	124.04	121.00
24	D2	104	LEU	CA-CB-CG	5.07	126.96	115.30
38	4	140	G	N9-C4-C5	5.07	107.43	105.40
1	6	1	U	N3-C2-O2	-5.07	118.65	122.20
1	6	176	C	C2-N1-C1'	5.07	124.37	118.80
1	6	1396	U	C2-N1-C1'	5.07	123.78	117.70
36	5	906	A	C6-N1-C2	-5.07	115.56	118.60
36	1	3344	A	C4-C5-N7	5.07	113.23	110.70
70	O4	58	ARG	NE-CZ-NH1	5.07	122.83	120.30
1	6	687	G	N3-C2-N2	-5.07	116.35	119.90
36	5	282	G	C5-C6-O6	5.07	131.64	128.60
36	5	2894	C	C6-N1-C2	5.07	122.33	120.30
36	1	1183	C	C6-N1-C2	5.06	122.33	120.30
36	1	2121	G	C5-C6-N1	5.06	114.03	111.50
36	5	1101	G	N1-C6-O6	-5.06	116.86	119.90
36	5	3143	C	N3-C2-O2	5.06	125.44	121.90
36	1	3368	U	C5-C4-O4	5.06	128.94	125.90
1	6	1075	C	N1-C2-O2	-5.06	115.86	118.90
36	5	1152	G	N7-C8-N9	5.06	115.63	113.10
37	7	98	C	N3-C4-C5	5.06	123.92	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	8	12	A	N1-C2-N3	-5.06	126.77	129.30
36	1	922	U	C2-N1-C1'	5.06	123.77	117.70
36	1	1144	U	C2-N3-C4	-5.06	123.96	127.00
1	6	1735	U	C6-N1-C2	5.06	124.04	121.00
36	5	527	A	C5-C6-N1	5.06	120.23	117.70
36	5	3105	U	O5'-P-OP1	-5.06	101.14	105.70
1	2	1169	G	N3-C4-C5	-5.06	126.07	128.60
1	2	1611	A	C2-N3-C4	-5.06	108.07	110.60
36	1	2305	G	N1-C6-O6	5.06	122.94	119.90
36	5	2904	U	C5-C6-N1	-5.06	120.17	122.70
1	2	74	U	O4'-C1'-N1	5.06	112.25	108.20
36	1	961	C	C5-C6-N1	-5.06	118.47	121.00
36	1	2810	C	C5-C6-N1	-5.06	118.47	121.00
36	5	75	G	C4-N9-C1'	5.06	133.08	126.50
36	5	990	U	N3-C2-O2	-5.06	118.66	122.20
36	5	2940	A	N1-C2-N3	5.06	131.83	129.30
1	2	571	G	C5-N7-C8	5.06	106.83	104.30
36	1	2249	G	N9-C4-C5	-5.06	103.38	105.40
1	6	813	U	N3-C2-O2	-5.06	118.66	122.20
36	5	2327	U	C6-N1-C2	5.06	124.03	121.00
1	2	1124	A	O5'-P-OP1	-5.05	101.15	105.70
36	1	662	U	N3-C2-O2	-5.05	118.66	122.20
36	1	1203	A	N3-C4-C5	5.05	130.34	126.80
36	1	2986	U	N1-C2-N3	5.05	117.93	114.90
36	5	2862	U	C5-C6-N1	-5.05	120.17	122.70
1	2	1100	G	C6-C5-N7	-5.05	127.37	130.40
36	1	281	G	C4-C5-N7	5.05	112.82	110.80
36	1	1179	A	C2-N3-C4	-5.05	108.07	110.60
1	6	1600	A	C6-C5-N7	-5.05	128.76	132.30
36	5	3217	C	C6-N1-C1'	5.05	126.86	120.80
36	1	3066	U	C5-C6-N1	-5.05	120.17	122.70
36	5	221	A	C2-N3-C4	-5.05	108.07	110.60
36	5	2774	C	C6-N1-C2	-5.05	118.28	120.30
36	5	2990	G	C5-C6-O6	-5.05	125.57	128.60
36	1	2328	U	C5-C6-N1	-5.05	120.17	122.70
36	1	2688	U	N1-C2-N3	-5.05	111.87	114.90
1	6	377	G	N1-C2-N2	-5.05	111.66	116.20
1	6	437	A	C8-N9-C4	5.05	107.82	105.80
36	5	2395	G	C4-C5-N7	5.05	112.82	110.80
1	2	474	A	C8-N9-C4	5.05	107.82	105.80
1	2	647	G	N3-C4-C5	5.05	131.12	128.60
1	2	1145	U	N1-C2-O2	-5.05	119.27	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	899	U	N3-C2-O2	-5.05	118.67	122.20
36	1	1373	A	C5-C6-N1	5.05	120.22	117.70
36	1	1578	C	C2-N1-C1'	5.05	124.35	118.80
36	1	2273	G	N9-C4-C5	-5.05	103.38	105.40
36	1	2638	C	N1-C2-O2	5.05	121.93	118.90
1	6	65	A	N9-C4-C5	-5.05	103.78	105.80
1	6	558	U	N1-C2-O2	5.05	126.33	122.80
1	6	1752	U	C5-C6-N1	-5.05	120.18	122.70
36	5	530	G	O5'-P-OP2	-5.05	101.16	105.70
36	5	2287	C	N1-C2-O2	-5.05	115.87	118.90
36	5	3175	U	O5'-P-OP2	-5.05	101.16	105.70
36	1	1366	A	C4-C5-N7	5.04	113.22	110.70
51	M5	68	ARG	NE-CZ-NH1	5.04	122.82	120.30
36	1	701	G	C5-C6-O6	-5.04	125.57	128.60
36	1	1294	A	O4'-C1'-N9	5.04	112.23	108.20
36	1	2316	G	N3-C4-N9	5.04	129.03	126.00
36	1	2571	U	C2-N1-C1'	5.04	123.75	117.70
36	5	328	U	N3-C4-O4	-5.04	115.87	119.40
36	5	1236	G	N1-C6-O6	5.04	122.93	119.90
36	5	1347	U	N1-C2-O2	-5.04	119.27	122.80
36	5	1662	G	C5-C6-O6	-5.04	125.57	128.60
36	5	1850	A	C2-N3-C4	-5.04	108.08	110.60
36	5	2320	A	N1-C6-N6	-5.04	115.57	118.60
1	2	1673	G	C6-C5-N7	-5.04	127.38	130.40
36	1	2869	U	O5'-P-OP2	5.04	116.75	110.70
36	1	3049	A	N9-C4-C5	-5.04	103.78	105.80
1	6	103	A	C5-N7-C8	-5.04	101.38	103.90
1	6	557	G	C4-N9-C1'	5.04	133.05	126.50
1	6	911	U	N3-C2-O2	-5.04	118.67	122.20
1	6	1361	U	C6-N1-C1'	-5.04	114.14	121.20
36	5	3217	C	N3-C4-N4	-5.04	114.47	118.00
36	5	1143	A	N1-C2-N3	5.04	131.82	129.30
36	5	2940	A	C4-C5-C6	5.04	119.52	117.00
36	1	749	C	O5'-P-OP2	-5.04	101.17	105.70
36	1	1699	A	N9-C4-C5	-5.04	103.78	105.80
36	1	1902	G	N9-C4-C5	-5.04	103.38	105.40
36	1	2631	U	C5-C6-N1	-5.04	120.18	122.70
1	6	1082	C	C6-N1-C2	-5.04	118.28	120.30
36	5	364	G	O5'-P-OP2	5.04	116.75	110.70
36	5	1191	U	N1-C2-O2	-5.04	119.27	122.80
36	1	1412	G	C5-N7-C8	-5.04	101.78	104.30
36	5	1371	G	N3-C4-C5	-5.04	126.08	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3221	C	C6-N1-C2	-5.04	118.28	120.30
36	1	398	A	C2-N3-C4	5.04	113.12	110.60
36	1	1318	A	N7-C8-N9	5.04	116.32	113.80
36	1	1549	U	C5-C4-O4	-5.04	122.88	125.90
37	3	114	U	N3-C4-O4	-5.04	115.88	119.40
36	5	1922	A	C2-N3-C4	-5.04	108.08	110.60
36	1	1660	C	N1-C2-O2	-5.03	115.88	118.90
47	M0	167	LEU	CA-CB-CG	5.03	126.88	115.30
36	5	2185	G	C5-C6-N1	-5.03	108.98	111.50
36	5	2938	G	C5-C6-N1	5.03	114.02	111.50
36	5	3145	C	C6-N1-C2	5.03	122.31	120.30
36	5	37	U	C5-C4-O4	5.03	128.92	125.90
36	5	960	U	OP2-P-O3'	5.03	116.27	105.20
36	5	1724	U	C2-N1-C1'	-5.03	111.66	117.70
36	5	2943	G	C5-N7-C8	-5.03	101.78	104.30
1	2	1135	U	N1-C2-N3	-5.03	111.88	114.90
36	1	432	G	C4-C5-C6	5.03	121.82	118.80
36	1	1509	A	C8-N9-C4	5.03	107.81	105.80
36	5	105	C	C6-N1-C2	5.03	122.31	120.30
36	5	881	C	N1-C2-O2	5.03	121.92	118.90
36	5	1504	A	C2-N3-C4	-5.03	108.08	110.60
36	5	2353	G	C4-C5-N7	5.03	112.81	110.80
36	5	3309	G	N3-C4-N9	5.03	129.02	126.00
36	1	878	G	C2-N3-C4	-5.03	109.39	111.90
36	1	3325	G	N1-C6-O6	-5.03	116.88	119.90
36	5	1103	A	OP2-P-O3'	5.03	116.26	105.20
36	1	273	A	C4-C5-N7	-5.03	108.19	110.70
36	1	594	U	C5-C4-O4	5.03	128.92	125.90
36	1	1389	G	C4-N9-C1'	5.03	133.03	126.50
36	1	2130	G	N3-C4-C5	-5.03	126.09	128.60
36	5	2984	C	C2-N3-C4	-5.03	117.39	119.90
1	6	1503	A	N7-C8-N9	5.03	116.31	113.80
36	5	1060	U	N3-C4-C5	5.03	117.61	114.60
1	2	1503	A	C5-N7-C8	-5.02	101.39	103.90
1	2	1600	A	N9-C4-C5	-5.02	103.79	105.80
36	1	1371	G	C8-N9-C4	5.02	108.41	106.40
36	5	2175	U	C5-C6-N1	-5.02	120.19	122.70
36	1	282	G	P-O3'-C3'	5.02	125.73	119.70
36	1	1180	A	C4-C5-N7	-5.02	108.19	110.70
36	1	1373	A	O5'-P-OP2	-5.02	101.18	105.70
36	1	2200	U	N3-C4-O4	5.02	122.92	119.40
36	1	2303	A	N1-C2-N3	5.02	131.81	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2604	U	C5-C6-N1	-5.02	120.19	122.70
36	1	3057	U	N3-C4-O4	-5.02	115.88	119.40
37	3	67	G	N3-C4-C5	5.02	131.11	128.60
36	5	647	A	N1-C2-N3	5.02	131.81	129.30
36	5	1200	A	C5-C6-N6	-5.02	119.68	123.70
48	M1	112	LEU	CA-CB-CG	5.02	126.85	115.30
36	5	1628	C	C6-N1-C2	-5.02	118.29	120.30
1	2	1431	C	C6-N1-C2	5.02	122.31	120.30
36	1	2323	G	N3-C2-N2	5.02	123.41	119.90
36	1	2364	G	C4-C5-N7	-5.02	108.79	110.80
36	1	2373	A	C8-N9-C4	-5.02	103.79	105.80
36	1	2745	G	C8-N9-C4	5.02	108.41	106.40
39	L2	122	ASP	CB-CG-OD2	5.02	122.82	118.30
1	6	797	G	N3-C4-C5	5.02	131.11	128.60
1	6	1433	G	C5-C6-O6	5.02	131.61	128.60
1	6	1780	G	N3-C2-N2	5.02	123.41	119.90
36	5	313	A	C6-C5-N7	-5.02	128.79	132.30
36	5	2393	G	C5-C6-N1	5.02	114.01	111.50
37	7	97	A	C6-N1-C2	-5.02	115.59	118.60
38	8	140	G	N7-C8-N9	5.02	115.61	113.10
36	1	718	G	N3-C4-C5	5.02	131.11	128.60
36	1	994	G	N3-C4-N9	5.02	129.01	126.00
36	1	1158	A	C4-C5-C6	5.02	119.51	117.00
36	1	1510	G	C6-C5-N7	-5.02	127.39	130.40
36	1	3298	C	C6-N1-C2	5.02	122.31	120.30
1	6	797	G	C8-N9-C4	5.02	108.41	106.40
36	5	74	G	N7-C8-N9	5.02	115.61	113.10
36	5	1659	U	C5-C6-N1	5.02	125.21	122.70
36	5	2320	A	O5'-P-OP2	-5.02	101.19	105.70
36	5	2531	C	N3-C2-O2	-5.02	118.39	121.90
36	5	2866	U	N3-C2-O2	-5.02	118.69	122.20
36	5	2867	C	C6-N1-C2	5.02	122.31	120.30
36	5	2916	U	C4-C5-C6	5.02	122.71	119.70
36	5	3215	A	N1-C6-N6	5.02	121.61	118.60
37	7	29	C	C5-C6-N1	-5.02	118.49	121.00
5	S3	202	LEU	CA-CB-CG	5.02	126.84	115.30
37	3	15	C	C6-N1-C2	5.02	122.31	120.30
36	5	2811	A	N1-C6-N6	-5.02	115.59	118.60
36	5	3200	G	C5-C6-O6	-5.02	125.59	128.60
36	1	104	G	C4-C5-N7	5.01	112.81	110.80
36	1	957	C	N3-C2-O2	5.01	125.41	121.90
36	1	1346	G	N1-C6-O6	5.01	122.91	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2242	A	OP2-P-O3'	5.01	116.23	105.20
36	1	2732	G	C2-N3-C4	-5.01	109.39	111.90
36	1	3050	U	N3-C2-O2	-5.01	118.69	122.20
36	1	3361	G	N1-C2-N2	-5.01	111.69	116.20
1	6	1146	G	C5-C6-O6	-5.01	125.59	128.60
1	6	1463	C	C6-N1-C2	5.01	122.31	120.30
36	5	276	U	N1-C2-O2	-5.01	119.29	122.80
36	5	1321	G	C6-C5-N7	-5.01	127.39	130.40
36	5	1446	A	C8-N9-C4	5.01	107.81	105.80
37	7	103	A	C4-C5-N7	5.01	113.21	110.70
36	1	590	G	N9-C4-C5	-5.01	103.39	105.40
36	1	2643	A	C2-N3-C4	-5.01	108.09	110.60
36	5	2817	A	N3-C4-C5	-5.01	123.29	126.80
36	1	3244	A	N1-C6-N6	5.01	121.61	118.60
1	6	985	G	C2-N3-C4	-5.01	109.39	111.90
36	5	934	G	N1-C2-N3	-5.01	120.89	123.90
1	2	687	G	C8-N9-C4	-5.01	104.40	106.40
1	2	1241	G	O4'-C1'-N9	5.01	112.21	108.20
36	1	1306	G	N1-C2-N3	5.01	126.91	123.90
56	N0	115	ARG	NE-CZ-NH2	-5.01	117.80	120.30
1	6	308	C	N3-C2-O2	-5.01	118.39	121.90
36	5	1546	A	C5-C6-N6	-5.01	119.69	123.70
36	1	2133	U	C2-N1-C1'	-5.01	111.69	117.70
1	2	75	U	C2-N1-C1'	5.01	123.71	117.70
1	2	453	U	C6-N1-C2	-5.01	118.00	121.00
36	1	1393	A	C6-N1-C2	-5.01	115.60	118.60
36	1	2285	C	C5-C6-N1	-5.01	118.50	121.00
36	1	2403	G	C6-C5-N7	-5.01	127.40	130.40
1	6	1700	C	N3-C2-O2	-5.00	118.40	121.90
36	5	2116	G	N3-C4-N9	5.00	129.00	126.00
36	5	2620	G	C5-C6-O6	5.00	131.60	128.60
36	5	3314	A	N1-C6-N6	5.00	121.60	118.60
36	1	93	C	C6-N1-C2	-5.00	118.30	120.30
1	6	1657	U	C2-N1-C1'	5.00	123.70	117.70
36	5	749	C	N3-C4-C5	-5.00	119.90	121.90
36	5	1701	C	N3-C2-O2	-5.00	118.40	121.90
37	7	92	A	C4-C5-N7	5.00	113.20	110.70
37	7	109	G	C5-C6-O6	-5.00	125.60	128.60

There are no chirality outliers.

All (52) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
13	C1	127	GLN	Peptide
16	C4	124	ASP	Peptide
18	C6	40	GLU	Peptide
19	C7	22	PRO	Peptide
19	C7	85	VAL	Peptide
25	D3	78	LYS	Peptide
27	D5	54	VAL	Peptide
27	D5	94	LYS	Peptide
27	D5	96	SER	Peptide
33	E1	137	ASP	Peptide
39	L2	19	HIS	Peptide
45	L8	124	ASP	Peptide
45	L8	74	THR	Peptide
48	M1	64	LYS	Peptide
48	M1	8	PRO	Peptide
52	M6	110	PRO	Peptide
56	N0	12	ARG	Peptide
56	N0	22	PRO	Peptide
57	N1	16	GLN	Peptide
65	N9	20	GLY	Peptide
9	S7	131	PHE	Peptide
15	c3	17	PRO	Peptide
17	c5	52	LYS	Peptide
18	c6	40	GLU	Peptide
19	c7	87	GLU	Peptide
19	c7	88	VAL	Peptide
19	c7	96	SER	Peptide
22	d0	70	THR	Peptide
26	d4	29	HIS	Peptide
26	d4	49	LYS	Peptide
27	d5	85	LYS	Peptide
82	e1	146	SER	Peptide
39	l2	171	GLY	Peptide
39	l2	237	LEU	Peptide
42	l5	270	LYS	Peptide
42	l5	271	LYS	Peptide
43	l6	51	ARG	Peptide
44	l7	192	GLY	Peptide
44	l7	226	GLY	Peptide
51	m5	66	VAL	Peptide
52	m6	110	PRO	Peptide
56	n0	133	ALA	Peptide
60	n4	78	ALA	Peptide

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Mol	Chain	Res	Type	Group
63	n7	5	LEU	Peptide
64	n8	18	GLY	Peptide
64	n8	66	ALA	Peptide
65	n9	22	LYS	Peptide
3	s1	134	VAL	Peptide
7	s5	44	ASN	Peptide
7	s5	99	MET	Peptide
9	s7	29	ASN	Peptide
10	s8	60	ILE	Peptide

5.2 Too-close contacts [i](#)

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	18758	895	0
1	6	38238	0	19240	845	0
2	S0	1577	0	1567	166	0
2	s0	1583	0	1578	0	0
3	S1	1709	0	1784	187	0
3	s1	1722	0	1793	0	0
4	S2	1635	0	1723	119	0
4	s2	1635	0	1723	0	0
5	S3	1734	0	1817	110	0
5	s3	1734	0	1817	0	0
6	S4	2068	0	2154	184	0
6	s4	2068	0	2154	0	0
7	S5	1609	0	1675	153	0
7	s5	1609	0	1675	0	0
8	S6	1799	0	1879	138	0
8	s6	1755	0	1846	0	0
9	S7	1481	0	1572	126	0
9	s7	1491	0	1578	0	0
10	S8	1489	0	1525	131	0
10	s8	1489	0	1525	0	0
11	S9	1494	0	1573	148	0
11	s9	1494	0	1573	0	0
12	C0	773	0	729	74	0
13	C1	1214	0	1259	101	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
13	c1	1168	0	1231	0	0
14	C2	892	0	891	65	0
14	c2	892	0	891	0	0
15	C3	1192	0	1255	95	0
15	c3	1192	0	1255	0	0
16	C4	891	0	883	94	0
16	c4	949	0	985	0	0
17	C5	977	0	1002	89	0
17	c5	1039	0	1050	0	0
18	C6	1105	0	1166	117	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	109	0
20	c8	1192	0	1222	0	0
21	C9	1112	0	1124	96	0
21	c9	1112	0	1124	0	0
22	D0	855	0	917	88	0
22	d0	882	0	939	0	0
23	D1	684	0	672	78	0
23	d1	684	0	672	0	0
24	D2	1021	0	1060	88	0
24	d2	1021	0	1060	0	0
25	D3	1121	0	1196	86	0
25	d3	1121	0	1196	0	0
26	D4	1073	0	1132	94	0
26	d4	1073	0	1132	0	0
27	D5	563	0	603	70	0
27	d5	558	0	598	0	0
28	D6	769	0	814	99	0
28	d6	769	0	815	0	0
29	D7	610	0	630	51	0
29	d7	610	0	631	0	0
30	D8	497	0	535	47	0
30	d8	497	0	535	0	0
31	D9	442	0	428	32	0
31	d9	442	0	428	0	0
32	E0	475	0	525	37	0
33	E1	566	0	602	58	0
34	SR	2441	0	2397	183	0
34	sR	2442	0	2392	0	0
35	SM	1104	0	996	74	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
35	sM	680	0	607	0	0
36	1	67355	0	33846	1234	0
36	5	67376	0	33861	1200	0
37	3	2579	0	1304	46	0
37	7	2579	0	1304	51	0
38	4	3353	0	1695	60	0
38	8	3353	0	1695	72	0
39	L2	1914	0	1981	157	0
39	l2	1912	0	1976	0	0
40	L3	3075	0	3142	260	0
40	l3	3075	0	3142	0	0
41	L4	2748	0	2859	204	0
41	l4	2748	0	2859	0	0
42	L5	2375	0	2325	182	0
42	l5	2359	0	2311	0	0
43	L6	1239	0	1326	86	0
43	l6	1248	0	1339	0	0
44	L7	1784	0	1862	131	0
44	l7	1791	0	1869	0	0
45	L8	1804	0	1877	126	0
45	l8	1763	0	1819	0	0
46	L9	1518	0	1587	131	0
46	l9	1518	0	1587	0	0
47	M0	1705	0	1736	158	0
47	m0	1722	0	1755	0	0
48	M1	1353	0	1383	103	0
48	m1	1353	0	1383	0	0
49	M3	1543	0	1608	134	0
49	m3	1548	0	1613	0	0
50	M4	1053	0	1149	89	0
50	m4	1059	0	1154	0	0
51	M5	1720	0	1779	125	0
51	m5	1720	0	1779	0	0
52	M6	1555	0	1659	103	0
52	m6	1555	0	1659	0	0
53	M7	1420	0	1437	100	0
53	m7	1227	0	1236	0	0
54	M8	1441	0	1543	102	0
54	m8	1441	0	1543	0	0
55	M9	1521	0	1616	110	0
55	m9	1521	0	1617	0	0
56	N0	1445	0	1487	107	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	n0	1445	0	1487	0	0
57	N1	1276	0	1323	105	0
57	n1	1276	0	1323	0	0
58	N2	796	0	812	51	0
58	n2	778	0	791	0	0
59	N3	1003	0	1048	70	0
59	n3	1003	0	1048	0	0
60	N4	699	0	640	25	0
60	n4	1038	0	1071	0	0
61	N5	964	0	1025	60	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	103	0
63	n7	1092	0	1155	0	0
64	N8	1173	0	1215	94	0
64	n8	1173	0	1215	0	0
65	N9	462	0	491	31	0
65	n9	462	0	491	0	0
66	O0	743	0	797	61	0
66	o0	767	0	816	0	0
67	O1	876	0	912	57	0
67	o1	883	0	918	0	0
68	O2	1020	0	1090	88	0
68	o2	1020	0	1090	0	0
69	O3	850	0	880	47	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	81	0
71	o5	965	0	1067	0	0
72	O6	771	0	849	66	0
72	o6	770	0	846	0	0
73	O7	681	0	683	47	0
73	o7	681	0	683	0	0
74	O8	612	0	682	49	0
74	o8	608	0	671	0	0
75	O9	436	0	475	32	0
75	o9	436	0	475	0	0
76	Q0	417	0	455	22	0
76	q0	417	0	456	0	0
77	Q1	233	0	284	26	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
77	q1	233	0	284	0	0
78	Q2	847	0	915	56	0
78	q2	847	0	915	0	0
79	Q3	694	0	734	57	0
79	q3	694	0	734	0	0
80	c0	762	0	699	0	0
81	e0	491	0	542	0	0
82	e1	608	0	654	0	0
83	m2	750	0	178	0	0
84	p0	1077	0	1041	0	0
85	p1	235	0	50	0	0
86	p2	230	0	52	0	0
87	1	477	0	0	0	0
87	2	124	0	0	0	0
87	3	14	0	0	0	0
87	4	19	0	0	0	0
87	5	502	0	0	0	0
87	6	144	0	0	0	0
87	7	15	0	0	0	0
87	8	16	0	0	0	0
87	D3	1	0	0	0	0
87	L2	1	0	0	0	0
87	L3	3	0	0	0	0
87	L4	1	0	0	0	0
87	L5	1	0	0	0	0
87	L7	4	0	0	0	0
87	L8	1	0	0	0	0
87	M0	2	0	0	0	0
87	M1	1	0	0	0	0
87	M3	2	0	0	0	0
87	M5	2	0	0	0	0
87	M6	1	0	0	0	0
87	M7	4	0	0	0	0
87	M9	1	0	0	0	0
87	N0	1	0	0	0	0
87	N3	3	0	0	0	0
87	N5	1	0	0	0	0
87	N8	5	0	0	0	0
87	O2	1	0	0	0	0
87	O4	1	0	0	0	0
87	O5	1	0	0	0	0
87	O7	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
87	S4	2	0	0	0	0
87	S8	1	0	0	0	0
87	SM	1	0	0	0	0
87	c1	1	0	0	0	0
87	c7	2	0	0	0	0
87	c8	1	0	0	0	0
87	c9	1	0	0	0	0
87	d3	1	0	0	0	0
87	d4	1	0	0	0	0
87	d6	1	0	0	0	0
87	l2	1	0	0	0	0
87	l3	3	0	0	0	0
87	l4	2	0	0	0	0
87	l5	2	0	0	0	0
87	l7	1	0	0	0	0
87	m1	2	0	0	0	0
87	m5	5	0	0	0	0
87	m6	2	0	0	0	0
87	m7	5	0	0	0	0
87	n0	3	0	0	0	0
87	n3	2	0	0	0	0
87	n6	2	0	0	0	0
87	n8	3	0	0	0	0
87	o1	1	0	0	0	0
87	o3	1	0	0	0	0
87	o4	1	0	0	0	0
87	q0	1	0	0	0	0
87	q1	1	0	0	0	0
87	q3	2	0	0	0	0
87	s1	1	0	0	0	0
87	s6	1	0	0	0	0
87	s8	3	0	0	0	0
87	sM	1	0	0	0	0
88	1	2478	0	0	145	0
88	2	1106	0	0	73	0
88	3	77	0	0	1	0
88	4	98	0	0	6	0
88	5	2506	0	0	157	0
88	6	1113	0	0	73	0
88	7	84	0	0	5	0
88	8	98	0	0	11	0
88	C3	7	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
88	C5	7	0	0	5	0
88	C8	7	0	0	0	0
88	D3	7	0	0	0	0
88	D9	7	0	0	0	0
88	L3	21	0	0	2	0
88	L4	7	0	0	3	0
88	M0	7	0	0	0	0
88	M5	7	0	0	1	0
88	M7	14	0	0	1	0
88	M8	7	0	0	0	0
88	M9	7	0	0	0	0
88	N9	7	0	0	0	0
88	O3	7	0	0	0	0
88	O7	14	0	0	2	0
88	S8	7	0	0	1	0
88	SR	7	0	0	0	0
88	c1	7	0	0	0	0
88	c3	7	0	0	0	0
88	c5	7	0	0	0	0
88	c8	7	0	0	0	0
88	d4	7	0	0	0	0
88	d9	7	0	0	0	0
88	l3	21	0	0	0	0
88	l4	14	0	0	0	0
88	l5	28	0	0	0	0
88	l9	7	0	0	0	0
88	m0	14	0	0	0	0
88	m1	7	0	0	0	0
88	m4	7	0	0	0	0
88	m5	7	0	0	0	0
88	m6	7	0	0	0	0
88	n3	14	0	0	0	0
88	n9	7	0	0	0	0
88	o3	7	0	0	0	0
88	o7	7	0	0	0	0
88	q2	7	0	0	0	0
88	s1	14	0	0	0	0
88	s8	7	0	0	0	0
88	sR	7	0	0	0	0
89	D6	1	0	0	0	0
89	D7	1	0	0	0	0
89	D9	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
89	E1	1	0	0	0	0
89	O7	1	0	0	0	0
89	Q0	1	0	0	0	0
89	Q2	1	0	0	0	0
89	Q3	1	0	0	0	0
89	d6	1	0	0	0	0
89	d7	1	0	0	0	0
89	d9	1	0	0	0	0
89	e1	1	0	0	0	0
89	o7	1	0	0	0	0
89	q0	1	0	0	0	0
89	q2	1	0	0	0	0
89	q3	1	0	0	0	0
90	1	22	0	12	0	0
90	5	22	0	12	0	0
91	Q2	40	0	22	3	0
91	q2	40	0	22	0	0
All	All	411288	0	297360	10031	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 15.

All (10031) 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)
40:L3:41:VAL:HA	40:L3:185:GLY:HA3	1.56	1.11
40:L3:296:THR:HG22	40:L3:298:PHE:H	2.66	1.06
1:6:1636:C:H4'	1:6:1637:C:H5'	1.34	1.05
28:D6:26:CYS:SG	28:D6:77:CYS:SG	3.43	1.01
36:5:3274:A:H3'	36:5:3275:U:H5''	1.42	1.01
34:SR:89:LEU:HB2	34:SR:103:PHE:HB2	1.59	0.98
50:M4:55:ARG:NH2	50:M4:76:ALA:O	2.10	0.96
71:O5:85:THR:HG22	71:O5:87:ALA:H	1.27	0.96
36:1:640:U:OP1	64:N8:21:ARG:NH2	1.97	0.96
36:5:1239:C:H42	36:5:1249:G:H1	1.12	0.95
17:C5:43:ARG:NH2	1:6:1552:U:OP2	403.84	0.95
36:5:437:G:H22	36:5:622:A:H61	1.12	0.95
41:L4:283:THR:HG22	41:L4:285:ASP:H	1.31	0.94
6:S4:49:ARG:NH1	1:6:448:C:OP2	379.66	0.94
41:L4:317:PRO:O	41:L4:319:LYS:N	2.00	0.94
36:1:1898:G:OP2	88:1:3940:OHX:N4	2.00	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:78:ARG:HH11	43:L6:78:ARG:HG3	1.32	0.93
36:1:31:C:OP2	51:M5:188:ARG:NH2	2.00	0.93
39:L2:193:ARG:NH1	36:5:2174:G:OP2	190.71	0.93
70:O4:74:ARG:NH2	36:5:1639:C:OP2	200.69	0.93
36:1:3182:G:OP1	52:M6:160:ARG:NH2	2.02	0.93
41:L4:300:ARG:O	54:M8:39:ARG:NH1	2.02	0.92
56:N0:6:GLU:OE1	56:N0:99:ARG:NH2	2.92	0.92
42:L5:76:ALA:HB3	42:L5:109:THR:HG22	1.74	0.92
36:1:1362:G:H4'	44:L7:159:GLN:O	1.70	0.92
63:N7:83:THR:HG22	63:N7:85:TYR:H	2.95	0.91
41:L4:3:ARG:HH11	41:L4:22:LEU:HD12	1.33	0.91
16:C4:29:HIS:HB2	16:C4:41:ARG:HG3	1.50	0.91
50:M4:113:THR:HG22	50:M4:116:GLU:HB2	3.72	0.91
36:5:1555:U:O4	36:5:1557:A:N6	2.03	0.91
43:L6:40:LEU:HD13	43:L6:84:VAL:HG11	2.30	0.91
36:1:1639:C:OP2	70:O4:74:ARG:NH2	2.02	0.90
64:N8:21:ARG:NH2	36:5:640:U:OP1	182.77	0.90
36:1:1951:C:H42	36:1:2095:G:H1	1.19	0.90
56:N0:90:MET:HG3	36:5:1213:G:H4'	318.47	0.90
1:2:1585:U:H3	1:2:1611:A:H2	1.19	0.90
5:S3:178:ARG:H	5:S3:178:ARG:HE	1.20	0.90
36:1:2356:A:H61	36:1:2983:C:H5	1.19	0.89
51:M5:188:ARG:NH2	36:5:31:C:OP2	121.89	0.89
1:6:488:G:H21	1:6:499:U:H3	1.20	0.89
1:2:868:G:OP1	15:C3:121:ARG:NH1	2.05	0.89
3:S1:39:GLU:HG3	3:S1:40:ASN:H	1.37	0.88
36:1:1233:G:H1	36:1:1255:C:H42	1.20	0.88
49:M3:46:ILE:HG22	49:M3:49:ARG:HB2	2.13	0.88
64:N8:6:THR:HG23	64:N8:8:THR:HG23	2.21	0.88
78:Q2:12:CYS:SG	78:Q2:17:CYS:HB3	2.79	0.88
19:C7:5:ARG:NH1	1:6:1402:G:OP2	408.81	0.87
78:Q2:41:ARG:NH1	36:5:284:A:OP2	156.94	0.87
41:L4:338:LYS:O	41:L4:340:GLY:N	2.08	0.87
42:L5:64:ILE:HD12	42:L5:109:THR:HG21	1.56	0.87
47:M0:174:THR:HG23	47:M0:176:LEU:H	1.37	0.87
36:5:2273:G:O6	88:5:4203:OHX:N5	2.08	0.87
18:C6:58:ASP:O	18:C6:60:PHE:N	2.08	0.87
52:M6:110:PRO:O	52:M6:112:TYR:N	2.94	0.87
88:1:3985:OHX:N2	78:Q2:50:PHE:O	2.08	0.86
4:S2:56:ILE:HG23	4:S2:61:LEU:HB2	1.57	0.86
42:L5:269:SER:OG	42:L5:270:LYS:N	4.52	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:27:THR:HG23	22:D0:113:ASP:HB3	1.57	0.86
54:M8:158:HIS:H	54:M8:186:VAL:HG12	1.37	0.86
1:2:1508:U:O4	88:2:2031:OHX:N5	2.08	0.86
42:L5:111:GLN:HA	42:L5:116:ASP:HB3	3.73	0.86
17:C5:22:LEU:HA	17:C5:25:LEU:HB2	3.25	0.86
36:5:1877:U:H5''	36:5:1878:G:H5'	1.57	0.86
1:6:1588:G:H1	1:6:1608:U:H3	1.21	0.86
9:S7:117:THR:HG22	9:S7:120:ALA:H	2.59	0.86
38:4:135:G:OP2	61:N5:56:ARG:NH2	2.09	0.85
10:S8:76:THR:HG22	10:S8:108:PRO:HG2	1.57	0.85
11:S9:59:LEU:HD22	11:S9:69:ARG:HA	2.29	0.85
65:N9:50:THR:HG22	36:5:1073:U:H1'	206.07	0.85
36:5:2836:C:H5	36:5:2852:C:H42	1.21	0.85
68:O2:44:ARG:NH1	36:5:1145:G:OP1	207.55	0.85
11:S9:126:ARG:NH1	1:6:475:A:OP2	424.16	0.85
15:C3:114:ARG:HH11	15:C3:114:ARG:HG2	1.41	0.85
36:1:1427:U:OP2	64:N8:4:ARG:NH2	2.09	0.85
71:O5:78:LYS:HA	71:O5:81:ARG:HD3	1.91	0.85
40:L3:266:ARG:NH2	36:5:2392:C:O2'	209.18	0.85
36:1:2736:A:OP1	57:N1:92:ARG:NH1	2.09	0.85
71:O5:76:GLN:O	71:O5:81:ARG:NH1	2.38	0.85
38:4:95:G:OP2	73:O7:72:ARG:NH1	2.09	0.85
53:M7:122:ALA:HB3	53:M7:143:PRO:HB2	2.25	0.85
63:N7:27:LYS:HB3	63:N7:42:LEU:HB2	2.54	0.85
54:M8:100:THR:HG22	54:M8:120:GLU:HB3	2.20	0.84
40:L3:81:THR:HG22	40:L3:321:PHE:HA	4.96	0.84
42:L5:120:LYS:O	42:L5:248:ARG:NH2	2.30	0.84
49:M3:165:SER:O	49:M3:167:PHE:N	2.11	0.84
1:6:486:G:H22	1:6:501:U:H3	1.25	0.84
48:M1:15:GLU:HB3	48:M1:130:VAL:HG23	1.56	0.84
1:2:475:A:OP2	11:S9:126:ARG:NH1	2.11	0.84
57:N1:51:GLY:HA3	57:N1:92:ARG:HG3	2.37	0.84
36:5:2620:G:O6	88:5:4248:OHX:N4	2.09	0.84
36:1:1369:A:OP1	64:N8:21:ARG:NH1	2.10	0.84
1:6:471:A:OP2	88:6:2100:OHX:N5	2.11	0.84
36:1:709:A:OP1	54:M8:179:ARG:NH2	2.11	0.83
3:S1:77:GLU:OE1	16:C4:114:ARG:NH2	2.31	0.83
26:D4:91:LEU:HD13	26:D4:96:LEU:HB2	5.53	0.83
43:L6:31:ARG:NH1	69:O3:107:ILE:O	2.13	0.83
36:5:2439:A:H61	36:5:2508:U:H3	1.25	0.83
52:M6:160:ARG:NH2	36:5:3182:G:OP1	280.49	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:9:LEU:HB2	6:S4:30:ARG:HB2	2.38	0.83
11:S9:38:ASN:HB2	11:S9:41:GLU:HG3	1.59	0.83
34:SR:38:ARG:HG2	34:SR:67:ILE:HG23	1.61	0.83
54:M8:170:ARG:HA	54:M8:174:ARG:HD2	1.60	0.83
36:5:343:U:OP2	88:5:3927:OHX:N3	2.12	0.83
14:C2:66:VAL:HG11	14:C2:71:ILE:HD12	1.59	0.83
64:N8:4:ARG:NH2	36:5:1427:U:OP2	135.06	0.82
13:C1:94:ILE:HD13	25:D3:16:ARG:HD2	1.61	0.82
75:O9:9:ILE:HG22	75:O9:13:MET:HE2	1.60	0.82
2:S0:139:VAL:HG23	4:S2:62:PRO:HG3	1.67	0.82
36:1:2656:A:H4'	78:Q2:98:LYS:HD2	1.58	0.82
22:D0:71:PRO:O	22:D0:72:ASN:ND2	6.16	0.82
13:C1:101:GLU:OE2	25:D3:16:ARG:NH2	2.66	0.82
67:O1:75:ILE:HG12	67:O1:93:VAL:HG13	2.45	0.82
71:O5:81:ARG:NH2	36:5:18:G:OP1	77.45	0.82
3:S1:128:LYS:HE2	3:S1:132:ASP:HB3	1.59	0.82
52:M6:12:LYS:O	56:N0:167:ARG:NH2	2.13	0.82
36:5:3343:G:H21	36:5:3362:A:H2	1.28	0.82
7:S5:200:ASN:HB3	7:S5:208:SER:HB3	3.37	0.82
10:S8:36:THR:HG21	10:S8:173:PRO:HB2	1.78	0.82
36:1:3344:A:H2	36:1:3361:G:H21	1.24	0.82
3:S1:152:ARG:NH1	1:6:1799:U:O2'	342.47	0.82
36:1:3166:C:H42	36:1:3284:G:H1	1.24	0.81
36:1:1230:G:H1	36:1:1279:C:H42	1.28	0.81
13:C1:132:SER:O	13:C1:134:THR:N	3.10	0.81
8:S6:98:ARG:NH2	8:S6:101:ILE:O	2.75	0.81
1:2:1331:A:OP1	19:C7:45:ARG:NH2	2.12	0.81
36:1:3214:U:OP2	50:M4:128:ARG:NH2	2.13	0.81
36:1:2818:U:H6	36:1:2818:U:H5'	1.44	0.81
76:Q0:125:LYS:HG3	36:5:2897:A:H5''	327.43	0.81
1:6:1097:U:H4'	1:6:1098:U:H5'	1.62	0.81
3:S1:181:LEU:O	3:S1:185:THR:N	2.12	0.81
36:1:3049:A:OP2	88:1:4195:OHX:N1	2.12	0.81
1:2:325:G:H4'	13:C1:83:THR:HG21	1.62	0.81
37:3:44:C:OP2	48:M1:137:ARG:NH2	2.13	0.81
36:5:3194:C:O2	36:5:3197:G:N2	2.14	0.81
41:L4:22:LEU:HD11	41:L4:26:PHE:HB2	1.62	0.81
1:6:1726:G:N7	88:6:2143:OHX:N5	2.29	0.81
73:O7:21:ARG:NH2	73:O7:41:ALA:O	2.28	0.81
74:O8:24:THR:HG22	74:O8:76:ASN:HB3	1.63	0.81
1:2:1773:C:OP2	77:Q1:2:ARG:NH1	2.13	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:125:VAL:HG11	3:S1:173:THR:HG22	2.42	0.81
1:6:1695:G:H21	1:6:1706:C:H41	1.28	0.81
1:6:230:C:H42	1:6:235:G:H1	1.28	0.81
27:D5:55:PRO:O	27:D5:57:TYR:N	2.13	0.81
31:D9:21:CYS:HB2	31:D9:39:CYS:HB3	2.19	0.81
41:L4:300:ARG:HG2	41:L4:300:ARG:HH11	3.71	0.81
66:O0:16:LEU:HB3	66:O0:98:SER:HB2	1.62	0.81
5:S3:179:GLN:NE2	5:S3:179:GLN:O	2.14	0.81
2:S0:13:ASP:OD1	2:S0:179:ARG:NH2	2.99	0.80
1:2:237:C:H5''	1:2:238:U:H5'	1.64	0.80
2:S0:112:THR:HG23	2:S0:114:SER:H	2.63	0.80
36:1:2836:C:H5	36:1:2852:C:H42	1.29	0.80
36:5:2123:G:N7	88:5:4103:OHX:N1	2.30	0.80
36:5:2818:U:H6	36:5:2818:U:H5'	1.47	0.80
70:O4:102:LYS:HD2	70:O4:103:LYS:HE3	7.58	0.80
56:N0:155:ARG:HH21	56:N0:155:ARG:HG2	1.45	0.80
62:N6:52:ARG:O	62:N6:54:ASP:N	2.13	0.80
66:O0:13:LYS:HE3	66:O0:103:THR:HG21	1.63	0.80
10:S8:11:ARG:NH1	10:S8:15:GLY:O	3.14	0.80
36:1:2443:A:N6	36:1:2504:U:O4	2.14	0.80
45:L8:48:ARG:NH2	36:5:2588:U:OP1	183.37	0.80
3:S1:216:LYS:NZ	1:6:885:G:OP1	275.48	0.80
9:S7:131:PHE:O	9:S7:133:THR:N	2.14	0.80
10:S8:39:GLY:N	10:S8:60:ILE:O	2.15	0.80
2:S0:49:ASN:HB3	2:S0:52:LYS:HG3	1.62	0.80
28:D6:10:ARG:HB2	28:D6:34:LYS:HA	2.35	0.80
50:M4:132:LYS:HD3	36:5:3230:G:H4'	286.95	0.80
54:M8:34:THR:HG22	54:M8:49:LEU:HD21	1.76	0.80
41:L4:181:VAL:O	41:L4:182:LEU:HB2	1.81	0.79
7:S5:166:ARG:NH1	7:S5:170:GLN:OE1	2.15	0.79
10:S8:26:LYS:HG2	10:S8:29:LEU:HD12	4.99	0.79
36:5:3153:U:H4'	36:5:3154:C:H5'	1.64	0.79
36:1:2794:G:N7	88:1:3943:OHX:N2	2.30	0.79
18:C6:83:GLN:HE22	18:C6:119:ALA:HA	2.96	0.79
26:D4:112:LYS:NZ	1:6:57:G:OP1	345.62	0.79
48:M1:155:THR:HG23	48:M1:158:ASP:HB2	1.64	0.79
54:M8:66:ARG:NH2	36:5:744:A:OP1	166.95	0.79
62:N6:39:LEU:HD13	62:N6:43:TYR:HE2	2.50	0.79
1:2:741:C:O2	9:S7:107:ARG:NH1	2.16	0.79
36:1:3375:A:O2'	36:1:3378:C:OP2	2.00	0.79
1:2:565:C:O2	88:2:2039:OHX:N5	2.16	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1150:G:O6	88:6:2112:OHX:N5	2.15	0.79
18:C6:112:TYR:OH	18:C6:114:ARG:NH1	2.16	0.79
1:2:1564:U:OP1	21:C9:38:LYS:NZ	2.13	0.79
6:S4:50:ASN:O	6:S4:53:LYS:NZ	2.15	0.79
73:O7:65:ARG:HG3	73:O7:65:ARG:HH11	1.45	0.79
42:L5:285:ARG:NH1	37:7:62:U:O3'	341.05	0.79
16:C4:50:ALA:O	16:C4:52:ARG:N	2.29	0.79
39:L2:28:LYS:HB3	39:L2:123:ARG:HD3	3.46	0.79
8:S6:163:THR:HA	8:S6:168:THR:HG22	3.76	0.79
49:M3:73:ARG:NH1	36:5:110:G:OP2	75.69	0.78
36:1:3272:C:OP2	43:L6:78:ARG:NH1	2.16	0.78
36:1:1095:U:H4'	36:1:1096:U:H5'	1.62	0.78
36:1:18:G:OP1	71:O5:81:ARG:NH2	2.16	0.78
5:S3:175:VAL:HG13	5:S3:182:LEU:HD13	1.66	0.78
61:N5:115:ARG:NH1	61:N5:119:THR:OG1	2.38	0.78
17:C5:64:LYS:HA	17:C5:73:PRO:HB3	1.64	0.78
34:SR:220:ILE:HD11	34:SR:254:ALA:HB2	1.65	0.78
21:C9:63:ARG:NH1	21:C9:67:MET:SD	2.57	0.78
41:L4:269:SER:O	41:L4:271:LYS:N	2.16	0.78
3:S1:103:MET:HB3	3:S1:215:VAL:HG13	2.05	0.78
36:1:2561:A:HO2'	36:1:2562:A:H8	1.31	0.78
42:L5:265:TYR:OH	37:7:121:U:OP2	312.68	0.78
13:C1:64:VAL:HG11	13:C1:131:ILE:HD11	1.66	0.78
47:M0:3:ARG:NH2	36:5:2854:U:OP2	291.24	0.78
23:D1:62:ARG:HH12	24:D2:20:THR:HG22	2.57	0.78
1:2:569:C:H41	25:D3:69:ARG:HH12	1.31	0.78
41:L4:204:GLY:O	41:L4:246:ARG:NH1	2.31	0.78
47:M0:86:HIS:HB3	47:M0:139:ARG:HG2	1.87	0.78
48:M1:94:ARG:O	48:M1:96:PHE:N	2.14	0.78
73:O7:52:LYS:HG2	73:O7:55:ARG:HH11	2.62	0.78
44:L7:139:PRO:HA	44:L7:237:ASN:HD21	1.48	0.77
1:2:452:A:OP2	88:2:2038:OHX:N5	2.17	0.77
1:2:702:G:O6	1:2:736:C:N4	2.17	0.77
1:2:794:U:O2'	1:2:795:U:O2	2.01	0.77
68:O2:81:ASP:O	68:O2:84:THR:HG23	1.82	0.77
34:SR:216:LYS:HA	34:SR:239:GLU:HG3	1.65	0.77
36:1:3134:A:OP1	88:1:3910:OHX:N4	2.18	0.77
6:S4:48:LEU:HD21	6:S4:70:VAL:HG11	1.65	0.77
1:2:740:A:H2'	1:2:741:C:H5''	1.65	0.77
36:5:2211:U:H5	36:5:2234:G:O6	1.67	0.77
12:C0:32:HIS:CD2	12:C0:33:GLU:H	4.07	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:63:GLU:HB2	36:5:2853:A:H5'	297.14	0.77
41:L4:329:PRO:O	41:L4:331:ALA:N	3.37	0.77
42:L5:184:ASP:OD2	42:L5:187:THR:OG1	5.14	0.77
3:S1:48:VAL:HG13	3:S1:61:LEU:HD21	1.65	0.77
1:2:1010:C:OP2	88:2:2131:OHX:N6	2.17	0.77
18:C6:40:GLU:HA	18:C6:42:GLU:H	1.48	0.77
49:M3:126:PHE:HD2	71:O5:115:LYS:HG2	1.48	0.77
36:1:776:U:H5	36:1:2719:U:O2	1.68	0.77
15:C3:55:ARG:NH1	15:C3:56:ASP:OD2	2.18	0.77
19:C7:14:LYS:NZ	19:C7:18:GLU:OE2	2.17	0.77
1:2:523:G:OP2	26:D4:37:LYS:NZ	2.16	0.77
69:O3:19:SER:HB3	36:5:1330:A:OP1	234.28	0.77
36:1:3376:A:OP2	88:1:3915:OHX:N5	2.18	0.77
1:2:1291:G:N2	1:2:1324:G:H22	1.83	0.77
53:M7:25:SER:O	53:M7:29:THR:HG23	1.85	0.77
11:S9:116:LEU:O	11:S9:118:LEU:N	3.75	0.77
36:1:860:G:OP1	79:Q3:17:ARG:NH1	2.17	0.77
36:1:2828:G:O2'	47:M0:4:ARG:NH1	2.18	0.77
36:1:1565:G:N2	36:1:1574:C:O2	2.17	0.76
1:6:845:G:H2'	1:6:846:G:H8	1.48	0.76
40:L3:37:ARG:HG2	40:L3:187:SER:H	3.59	0.76
47:M0:14:ASN:O	47:M0:128:ARG:NH2	2.16	0.76
56:N0:73:LYS:NZ	56:N0:97:VAL:O	3.05	0.76
36:5:2407:C:H2'	36:5:2408:U:H6	1.50	0.76
53:M7:105:LYS:HB3	53:M7:107:LEU:HD13	2.18	0.76
66:O0:9:SER:OG	66:O0:10:ILE:N	2.17	0.76
88:1:4093:OHX:N1	72:O6:28:TYR:O	2.17	0.76
79:Q3:4:ARG:NH2	36:5:838:G:O6	236.59	0.76
1:6:1280:C:H2'	1:6:1281:G:H8	1.50	0.76
46:L9:171:ASP:OD2	46:L9:173:ARG:NH1	2.19	0.76
59:N3:2:SER:HA	59:N3:56:ASP:HA	3.74	0.76
36:1:368:G:OP1	88:1:3892:OHX:N1	2.19	0.76
1:6:826:U:O4	88:6:2063:OHX:N3	2.18	0.76
28:D6:25:ASN:ND2	28:D6:77:CYS:SG	2.57	0.76
36:1:3361:G:O6	88:1:4174:OHX:N6	2.18	0.76
36:5:2211:U:O4	88:5:3965:OHX:N4	2.17	0.76
36:1:3259:U:H6	36:1:3259:U:H5'	1.50	0.76
1:2:1034:C:HO2'	24:D2:2:THR:N	1.84	0.76
1:2:1680:G:O6	88:2:2110:OHX:N5	2.19	0.76
15:C3:115:LEU:HD22	15:C3:119:GLU:HG3	1.68	0.76
15:C3:65:VAL:HG23	15:C3:66:ILE:HG23	4.95	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:99:ARG:NH1	25:D3:7:ARG:O	2.19	0.76
53:M7:29:THR:HA	53:M7:32:THR:HG23	1.68	0.76
70:O4:41:ARG:HG2	70:O4:56:THR:HG21	1.67	0.76
36:1:283:G:OP1	78:Q2:45:ARG:NH2	2.19	0.76
6:S4:151:ASP:OD1	8:S6:215:ARG:NH1	3.22	0.76
36:1:1464:G:OP2	88:1:4212:OHX:N5	2.18	0.76
1:2:104:A:OP2	1:2:308:C:N4	2.18	0.76
2:S0:55:GLU:OE2	23:D1:80:LYS:N	2.19	0.76
40:L3:139:GLN:O	40:L3:141:GLY:N	2.18	0.76
48:M1:106:ILE:HD11	48:M1:125:MET:HG2	4.76	0.76
52:M6:65:ASN:OD1	52:M6:67:THR:HB	1.85	0.76
36:1:1334:U:O2'	44:L7:151:ARG:NH2	2.19	0.76
42:L5:60:ILE:HB	42:L5:80:SER:HB3	1.67	0.76
56:N0:91:TYR:O	56:N0:137:ARG:NH1	2.19	0.76
21:C9:68:ARG:NH1	1:6:1521:G:O6	414.05	0.75
65:N9:23:LYS:HB3	65:N9:24:PRO:HD3	3.25	0.75
3:S1:35:PRO:HD3	3:S1:98:THR:HG23	1.67	0.75
36:1:1454:A:OP2	88:1:4221:OHX:N6	2.19	0.75
16:C4:51:ASP:OD1	1:6:902:G:N1	283.44	0.75
63:N7:38:PHE:O	63:N7:40:HIS:ND1	2.17	0.75
3:S1:70:LEU:HA	3:S1:73:LEU:HB3	1.67	0.75
36:1:2177:G:OP2	39:L2:128:ARG:NH1	2.18	0.75
39:L2:70:ARG:NH2	36:5:2522:G:O6	176.12	0.75
40:L3:147:GLU:OE2	40:L3:150:ARG:NH1	3.20	0.75
68:O2:100:ILE:O	68:O2:105:ARG:NH1	2.18	0.75
71:O5:92:LEU:HB3	71:O5:96:GLU:O	1.86	0.75
1:2:1339:C:O2'	1:2:1341:A:N7	2.18	0.75
67:O1:46:THR:OG1	67:O1:47:ASP:N	3.43	0.75
72:O6:70:ARG:HD3	72:O6:84:LYS:HG2	2.44	0.75
1:2:1535:U:O2'	1:2:1536:G:N3	2.18	0.75
7:S5:185:ARG:NH1	1:6:1471:A:OP1	333.71	0.75
25:D3:125:VAL:HG12	25:D3:126:LYS:HG3	1.71	0.75
39:L2:70:ARG:HD2	39:L2:72:ARG:HE	3.94	0.75
41:L4:292:SER:HB3	41:L4:295:ILE:HB	1.66	0.75
51:M5:31:ARG:NH1	51:M5:124:ASP:OD1	2.19	0.75
1:2:895:G:H1	1:2:917:U:H3	1.34	0.75
37:3:112:G:OP2	88:3:220:OHX:N1	2.19	0.75
41:L4:44:LYS:HB3	41:L4:47:ARG:NH1	2.43	0.75
46:L9:48:VAL:HG21	46:L9:52:LEU:HD13	2.57	0.75
36:5:1235:U:H4'	36:5:1236:G:H5'	1.68	0.75
36:5:1804:A:H2'	36:5:1805:C:C6	2.20	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:26:VAL:HG21	63:N7:96:VAL:HB	1.68	0.75
66:O0:22:LYS:HD3	66:O0:94:GLU:HG3	3.21	0.75
79:Q3:8:VAL:HB	79:Q3:11:THR:HG22	1.69	0.75
36:1:1466:G:O6	88:1:3887:OHX:N4	2.20	0.74
1:6:1160:A:H2'	1:6:1161:C:C6	2.22	0.74
15:C3:132:VAL:HG23	15:C3:134:VAL:HG13	2.34	0.74
1:2:1369:U:OP1	21:C9:119:LYS:NZ	2.19	0.74
24:D2:53:ILE:HG12	24:D2:60:LYS:HB2	1.69	0.74
63:N7:33:SER:HB2	63:N7:36:HIS:HB2	1.69	0.74
7:S5:64:VAL:HG22	7:S5:89:ILE:HD11	1.66	0.74
11:S9:93:LEU:HA	11:S9:96:VAL:HG13	1.67	0.74
1:2:1228:G:H1	14:C2:67:THR:HB	1.53	0.74
24:D2:70:ASN:HB2	24:D2:130:TYR:O	2.58	0.74
36:1:768:C:OP1	49:M3:186:ARG:NH2	2.18	0.74
36:1:829:U:H3	36:1:895:A:H62	1.36	0.74
37:3:17:A:OP1	42:L5:2:ALA:N	2.20	0.74
42:L5:68:THR:HG22	42:L5:70:THR:H	1.52	0.74
54:M8:30:VAL:O	54:M8:34:THR:HG23	1.88	0.74
1:2:169:A:H5''	8:S6:176:GLN:HG2	1.69	0.74
22:D0:48:HIS:O	22:D0:48:HIS:ND1	2.20	0.74
27:D5:92:ILE:HD11	27:D5:100:ILE:HG22	3.89	0.74
39:L2:142:ASP:OD2	39:L2:142:ASP:N	2.19	0.74
61:N5:67:ILE:HD12	61:N5:121:LYS:HG3	1.69	0.74
3:S1:51:SER:HA	3:S1:57:ALA:H	1.52	0.74
1:2:1532:U:OP1	27:D5:81:ARG:NH2	2.20	0.74
28:D6:10:ARG:HB2	28:D6:34:LYS:HG2	1.68	0.74
42:L5:279:LYS:HD2	42:L5:282:ARG:HH12	4.10	0.74
36:5:1878:G:OP1	88:5:3960:OHX:N5	2.19	0.74
1:6:25:C:O2	88:6:2105:OHX:N6	2.21	0.74
1:6:218:A:H2'	1:6:219:A:H5''	1.70	0.74
19:C7:66:VAL:HB	19:C7:69:ILE:HD11	1.69	0.74
37:3:49:G:N7	42:L5:58:LYS:HG3	2.02	0.74
45:L8:68:ARG:O	45:L8:69:LEU:HB2	4.57	0.74
47:M0:36:LEU:HD21	47:M0:69:ARG:HD3	3.34	0.74
36:5:863:C:OP1	88:5:3919:OHX:N3	2.21	0.74
1:6:833:U:O4	88:6:2098:OHX:N2	2.21	0.74
28:D6:32:LYS:NZ	1:6:932:U:O2	311.55	0.74
41:L4:170:LYS:HG3	41:L4:175:HIS:HB2	2.22	0.74
47:M0:43:VAL:HG21	47:M0:197:VAL:HB	2.99	0.74
2:S0:59:LEU:HD11	23:D1:78:LEU:HD12	1.70	0.74
34:SR:42:LEU:HD21	34:SR:82:SER:HB3	3.54	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2663:G:H5'	42:L5:152:ARG:HD3	1.70	0.74
38:4:126:A:O2'	38:4:128:U:OP1	2.06	0.74
27:D5:85:LYS:HG3	27:D5:86:GLU:H	2.61	0.74
47:M0:208:ASN:HB3	47:M0:211:ARG:HH11	3.13	0.74
47:M0:41:ALA:O	47:M0:139:ARG:NH2	2.38	0.74
9:S7:50:ASP:HB3	9:S7:56:LYS:HG2	1.70	0.74
42:L5:4:GLN:O	42:L5:6:ASP:N	3.12	0.74
43:L6:85:ILE:HG23	69:O3:107:ILE:HG21	3.09	0.74
47:M0:78:THR:OG1	47:M0:79:VAL:N	3.23	0.74
68:O2:97:ALA:HB3	68:O2:100:ILE:HG12	1.70	0.74
36:1:1145:G:OP1	68:O2:44:ARG:NH1	2.20	0.74
8:S6:98:ARG:HD3	8:S6:99:GLY:N	2.89	0.74
36:1:1740:U:H1'	36:1:1741:A:H2	1.53	0.73
21:C9:57:ARG:NH1	1:6:1479:A:OP1	393.21	0.73
50:M4:19:ARG:HA	50:M4:69:THR:HG22	2.00	0.73
9:S7:11:GLN:HG3	9:S7:13:PRO:HD2	1.70	0.73
1:2:190:C:N4	1:2:196:G:O6	2.19	0.73
1:2:273:G:H1	1:2:283:U:H3	1.35	0.73
36:1:2208:A:N1	88:1:4056:OHX:N2	2.35	0.73
72:O6:26:ILE:HD13	36:5:155:G:H1'	88.13	0.73
3:S1:137:ILE:HD11	3:S1:172:LEU:HB3	1.71	0.73
36:1:517:G:P	44:L7:60:ARG:HH22	2.11	0.73
36:5:174:C:H42	36:5:244:G:H1	1.37	0.73
36:5:419:G:N7	88:5:3907:OHX:N3	2.37	0.73
6:S4:49:ARG:NH2	6:S4:50:ASN:OD1	4.09	0.73
14:C2:61:VAL:HG13	14:C2:121:VAL:HG23	1.76	0.73
10:S8:34:ALA:HB2	10:S8:56:ARG:HD3	2.47	0.73
36:1:1215:U:H2'	36:1:1216:C:H5''	1.69	0.73
1:2:1202:A:OP1	88:2:2111:OHX:N1	2.22	0.73
33:E1:97:LYS:NZ	1:6:1253:U:O4	439.96	0.73
25:D3:6:PRO:HG3	25:D3:14:LYS:HG2	1.71	0.73
46:L9:91:ARG:HG2	46:L9:182:SER:HB3	2.12	0.73
36:1:838:G:O6	79:Q3:4:ARG:NH2	2.22	0.73
36:5:2233:A:OP2	88:5:3965:OHX:N5	2.21	0.73
63:N7:52:LYS:O	63:N7:65:ARG:NH1	2.21	0.73
36:1:1233:G:N2	36:1:1255:C:N3	2.36	0.73
36:1:544:C:H1'	36:1:548:G:H22	1.53	0.73
1:2:79:C:H1'	8:S6:174:LYS:HD3	1.70	0.73
77:Q1:15:ARG:NH1	1:6:1126:G:OP1	280.24	0.73
42:L5:265:TYR:HE1	37:7:121:U:H5''	316.73	0.73
19:C7:104:ASN:O	19:C7:106:THR:N	3.82	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:D7:28:PRO:HB3	1:6:959:U:H5''	351.63	0.73
47:M0:77:THR:HG22	47:M0:82:ARG:HA	1.97	0.73
6:S4:187:ARG:HH11	6:S4:187:ARG:HB2	5.85	0.73
10:S8:36:THR:HB	10:S8:57:ALA:O	2.29	0.73
36:1:3343:G:H21	36:1:3362:A:H2	1.35	0.73
36:1:1878:G:OP1	88:1:3936:OHX:N4	2.22	0.73
1:6:895:G:H1	1:6:917:U:H3	1.35	0.73
25:D3:30:LYS:HE2	25:D3:34:LEU:HD11	2.46	0.73
72:O6:4:LYS:HD3	72:O6:14:GLY:HA3	3.33	0.73
36:1:1243:G:N2	36:1:1244:A:N7	2.36	0.72
36:1:1944:U:H2'	36:1:1945:A:C8	2.24	0.72
1:2:583:C:OP1	88:2:2026:OHX:N3	2.21	0.72
37:3:7:G:OP1	42:L5:33:ARG:NH1	2.22	0.72
40:L3:346:THR:O	40:L3:348:ARG:N	2.35	0.72
45:L8:148:ALA:HA	45:L8:201:THR:HG22	1.71	0.72
36:1:1942:U:OP2	55:M9:74:ARG:NH1	2.22	0.72
36:5:1066:G:OP1	88:5:4233:OHX:N2	2.22	0.72
36:5:2249:G:OP1	88:5:4203:OHX:N6	2.22	0.72
20:C8:83:ALA:HA	20:C8:86:LEU:HD22	1.71	0.72
28:D6:58:VAL:HG22	28:D6:59:TYR:H	3.64	0.72
59:N3:108:GLU:HG2	59:N3:128:ARG:HD3	1.70	0.72
11:S9:109:LEU:HB2	11:S9:146:PHE:HB3	1.95	0.72
1:2:328:A:OP2	13:C1:56:LYS:NZ	2.22	0.72
36:5:3295:A:H2'	36:5:3296:A:C8	2.24	0.72
36:5:410:U:O4	88:5:4106:OHX:N1	2.23	0.72
39:L2:83:HIS:CE1	39:L2:86:GLN:HB2	2.23	0.72
63:N7:46:ILE:HD11	63:N7:49:TYR:HA	1.71	0.72
71:O5:101:THR:HG22	71:O5:104:GLN:HB2	1.72	0.72
4:S2:53:ILE:HG12	4:S2:73:LEU:HD22	4.43	0.72
8:S6:155:ASP:OD2	8:S6:155:ASP:N	2.86	0.72
36:1:2852:C:N3	47:M0:158:LYS:NZ	2.36	0.72
36:5:437:G:H22	36:5:622:A:N6	1.85	0.72
10:S8:50:GLY:HA2	1:6:397:A:O3'	314.99	0.72
33:E1:90:LYS:HB2	33:E1:93:HIS:HE1	10.25	0.72
11:S9:100:LYS:HE3	11:S9:102:GLU:HB2	1.70	0.72
10:S8:59:ARG:NH2	1:6:1678:A:OP1	253.14	0.72
8:S6:176:GLN:HG2	1:6:169:A:H5'	328.36	0.72
37:7:2:G:O2'	37:7:23:A:N1	2.22	0.72
39:L2:68:LYS:HD2	39:L2:70:ARG:HH21	2.55	0.72
41:L4:226:GLU:OE1	41:L4:237:GLN:NE2	3.11	0.72
36:1:2992:U:H1'	53:M7:69:ARG:HH21	1.54	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:95:VAL:HG21	63:N7:113:VAL:HG11	1.69	0.72
36:1:1456:A:N7	67:O1:26:LYS:NZ	2.37	0.72
34:SR:135:THR:HG22	34:SR:141:LEU:HD23	1.72	0.72
36:5:900:G:H1'	36:5:1589:A:N6	2.03	0.72
19:C7:82:ASP:O	19:C7:83:GLN:NE2	2.23	0.72
27:D5:46:LYS:HE2	27:D5:70:LYS:HD2	1.69	0.72
46:L9:77:ASN:HA	46:L9:80:THR:HG23	3.23	0.72
56:N0:82:ASP:OD1	56:N0:87:THR:HB	1.89	0.72
34:SR:200:ASN:ND2	34:SR:240:VAL:O	2.22	0.72
36:5:2895:G:H2'	36:5:2896:A:H5''	1.72	0.72
19:C7:67:ARG:NH2	1:6:1398:U:O2'	405.30	0.72
1:6:104:A:H61	1:6:308:C:H5'	1.54	0.72
19:C7:33:ARG:NH2	34:SR:109:ASP:OD1	2.53	0.72
22:D0:95:ALA:HB1	22:D0:99:ILE:HG13	3.98	0.72
68:O2:81:ASP:O	68:O2:84:THR:OG1	3.76	0.72
36:1:1238:C:N4	36:1:1245:A:OP2	2.22	0.72
10:S8:10:LYS:NZ	1:6:339:C:OP2	283.87	0.72
43:L6:31:ARG:NH2	43:L6:81:ALA:O	2.23	0.72
44:L7:88:ARG:HD2	44:L7:90:LYS:O	1.92	0.72
46:L9:138:THR:O	46:L9:139:ASN:ND2	2.20	0.72
48:M1:107:ASP:N	48:M1:107:ASP:OD1	2.24	0.72
7:S5:92:ARG:HH11	7:S5:92:ARG:HG2	2.84	0.72
36:1:2395:G:H5''	40:L3:255:TRP:CD1	2.25	0.72
36:1:300:G:O6	88:1:4164:OHX:N1	2.22	0.72
36:1:76:G:O2'	49:M3:100:ARG:NH1	2.23	0.72
22:D0:53:LYS:HB2	22:D0:92:ASP:HB2	2.99	0.72
2:S0:185:ARG:HB2	23:D1:45:ALA:HB3	1.70	0.72
50:M4:48:GLY:HA3	50:M4:53:VAL:HG13	1.85	0.72
3:S1:101:HIS:HA	3:S1:217:LEU:HD22	1.86	0.72
36:5:1949:G:H1	36:5:2097:U:H3	1.36	0.72
1:6:1011:G:OP2	88:6:2117:OHX:N3	2.22	0.72
19:C7:8:THR:HG21	1:6:1330:G:H21	420.02	0.72
55:M9:145:ALA:HA	55:M9:148:ASP:HB2	3.75	0.72
64:N8:90:TYR:CG	64:N8:100:PRO:HG3	2.25	0.72
11:S9:3:ARG:HG2	11:S9:3:ARG:HH21	4.44	0.72
36:1:679:U:O4	88:1:3983:OHX:N1	2.23	0.71
1:6:151:G:H1	1:6:163:G:H1	1.38	0.71
20:C8:29:VAL:HG21	20:C8:54:LEU:HD23	5.84	0.71
42:L5:122:VAL:HG23	42:L5:123:GLU:H	3.09	0.71
74:O8:24:THR:HG23	74:O8:44:LYS:HB2	4.30	0.71
36:1:718:G:C2	36:1:721:G:H1'	2.25	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:851:U:H2'	1:2:852:C:C6	2.25	0.71
51:M5:18:VAL:HG22	51:M5:19:LEU:HD12	3.18	0.71
9:S7:150:GLN:HB3	9:S7:181:ILE:HD12	1.72	0.71
36:1:3047:U:O2'	40:L3:53:MET:HE1	1.90	0.71
1:2:1745:G:O6	88:2:2086:OHX:N6	2.23	0.71
1:2:471:A:OP2	88:2:2076:OHX:N4	2.22	0.71
24:D2:20:THR:HB	24:D2:22:LYS:HD3	2.68	0.71
47:M0:4:ARG:NH2	47:M0:99:ILE:HG22	6.59	0.71
51:M5:14:LYS:HA	51:M5:19:LEU:HD23	1.72	0.71
2:S0:71:GLU:O	2:S0:96:THR:HG22	2.12	0.71
3:S1:181:LEU:HD13	3:S1:181:LEU:H	1.55	0.71
1:2:7:G:O6	4:S2:205:ARG:NH2	2.22	0.71
36:1:1808:G:O6	88:1:3993:OHX:N3	2.22	0.71
33:E1:134:ASN:H	1:6:1251:U:H4'	442.41	0.71
1:6:1294:G:O6	88:6:2066:OHX:N5	2.23	0.71
1:6:833:U:O4	88:6:2098:OHX:N5	2.23	0.71
17:C5:65:LEU:O	88:C5:201:OHX:N2	4.81	0.71
46:L9:18:VAL:HB	46:L9:27:VAL:HG22	1.72	0.71
88:1:3921:OHX:N6	51:M5:32:GLN:O	2.22	0.71
34:SR:52:GLN:HG2	34:SR:53:LYS:HG3	4.37	0.71
53:M7:138:LYS:NZ	36:5:2356:A:OP1	147.54	0.71
36:5:437:G:N2	36:5:622:A:H61	1.86	0.71
15:C3:55:ARG:NH1	15:C3:56:ASP:OD1	3.59	0.71
26:D4:20:ARG:HD2	26:D4:74:LEU:HD22	4.30	0.71
27:D5:60:VAL:HG22	27:D5:101:TYR:HB2	1.72	0.71
40:L3:152:LYS:HG2	40:L3:192:VAL:HG11	1.72	0.71
43:L6:78:ARG:NH1	36:5:3272:C:OP2	247.91	0.71
44:L7:25:GLN:NE2	44:L7:25:GLN:O	2.24	0.71
47:M0:134:ILE:HD11	57:N1:160:ILE:HD12	1.71	0.71
63:N7:83:THR:HG23	63:N7:85:TYR:H	1.55	0.71
70:O4:22:VAL:HG12	70:O4:30:LEU:HD22	1.71	0.71
36:1:2248:C:OP2	88:1:3890:OHX:N3	2.24	0.71
36:1:830:A:OP1	88:1:4022:OHX:N4	2.23	0.71
36:5:3074:G:OP1	88:5:4123:OHX:N4	2.24	0.71
36:5:510:G:O6	88:5:4026:OHX:N2	2.24	0.71
14:C2:103:LEU:HG	14:C2:116:VAL:HG22	1.71	0.71
1:2:1796:C:OP1	28:D6:87:ARG:NH1	2.23	0.71
39:L2:30:ARG:NH2	39:L2:33:ASP:OD2	2.23	0.71
54:M8:151:ARG:HB2	54:M8:152:HIS:HD2	1.55	0.71
71:O5:85:THR:HG22	71:O5:88:LEU:H	2.22	0.71
11:S9:163:PRO:O	11:S9:165:GLY:N	2.18	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1529:C:OP1	7:S5:112:ARG:NH1	2.23	0.71
28:D6:79:ILE:HD12	1:6:1794:A:H1'	330.45	0.71
1:6:228:G:N2	1:6:237:C:N3	2.38	0.71
46:L9:171:ASP:OD1	46:L9:173:ARG:HD3	1.91	0.71
36:1:3115:C:OP1	46:L9:62:ARG:NH2	2.24	0.71
47:M0:194:GLY:HA3	36:5:1010:G:N3	335.75	0.71
66:O0:13:LYS:HB3	66:O0:100:ILE:HG22	3.32	0.71
7:S5:143:ARG:HD3	30:D8:55:VAL:HG11	1.99	0.71
3:S1:157:GLN:O	3:S1:159:SER:N	2.24	0.71
36:1:2503:G:H1'	36:1:2504:U:H5	1.55	0.71
36:1:3358:U:H2'	36:1:3359:A:O4'	1.91	0.71
1:2:796:A:OP2	88:2:2057:OHX:N6	2.23	0.71
17:C5:68:PRO:O	88:C5:201:OHX:N5	6.67	0.71
19:C7:14:LYS:HG3	19:C7:69:ILE:HG22	3.30	0.71
29:D7:19:HIS:CD2	29:D7:21:LEU:H	4.25	0.71
39:L2:3:ARG:HB2	39:L2:207:VAL:HG12	3.36	0.71
49:M3:166:ALA:HB1	64:N8:147:LEU:HD21	1.94	0.71
12:C0:29:GLN:NE2	12:C0:31:LYS:O	5.01	0.71
14:C2:103:LEU:HD23	14:C2:115:VAL:HA	2.51	0.71
32:E0:29:LYS:HG3	32:E0:30:PRO:HD2	4.77	0.71
7:S5:57:SER:O	7:S5:59:VAL:N	2.23	0.71
36:1:514:G:N3	41:L4:341:SER:OG	2.23	0.70
1:2:647:G:N2	1:2:687:G:H22	1.88	0.70
1:2:829:A:O2'	1:2:830:U:OP2	2.09	0.70
36:5:2255:A:H5'	36:5:2261:G:H22	1.54	0.70
30:D8:32:PHE:O	30:D8:34:GLU:N	3.55	0.70
42:L5:83:LEU:HB3	42:L5:88:ILE:HB	1.82	0.70
4:S2:58:LEU:HD11	4:S2:236:PRO:HG2	3.07	0.70
36:5:1898:G:OP2	88:5:3948:OHX:N5	2.23	0.70
36:5:2322:C:OP1	88:5:4164:OHX:N6	2.24	0.70
17:C5:44:ARG:NH2	17:C5:82:ASN:O	2.83	0.70
22:D0:42:VAL:HG21	22:D0:55:PRO:HD3	1.72	0.70
5:S3:142:LEU:O	5:S3:144:ALA:N	2.23	0.70
10:S8:82:VAL:HG12	10:S8:101:ILE:HG22	3.53	0.70
36:1:1015:U:O2'	36:1:1017:C:OP2	2.09	0.70
46:L9:86:TYR:CE2	46:L9:151:VAL:HG22	2.39	0.70
36:1:2123:G:N7	88:1:4213:OHX:N2	2.40	0.70
36:5:2579:G:O6	88:5:4034:OHX:N3	2.24	0.70
6:S4:3:ARG:HB3	1:6:93:A:H1'	326.26	0.70
54:M8:151:ARG:HB2	54:M8:152:HIS:CD2	2.26	0.70
34:SR:160:GLU:O	34:SR:162:ALA:N	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:70:THR:HG21	36:5:3122:A:N1	324.48	0.70
36:5:3155:U:OP1	88:5:4231:OHX:N4	2.25	0.70
61:N5:56:ARG:NH2	38:8:135:G:OP2	82.49	0.70
79:Q3:46:THR:HB	79:Q3:58:SER:HB2	1.74	0.70
2:S0:182:LEU:HB3	2:S0:188:LEU:HD23	1.74	0.70
8:S6:67:VAL:HG21	8:S6:99:GLY:HA2	1.95	0.70
36:1:1320:C:O2	56:N0:115:ARG:NH2	2.24	0.70
22:D0:27:THR:HB	22:D0:88:LYS:HG3	1.72	0.70
3:S1:87:ARG:NH2	3:S1:220:GLN:OE1	2.24	0.70
17:C5:85:ILE:HD11	17:C5:116:LEU:HD23	1.74	0.70
18:C6:50:GLU:OE1	18:C6:114:ARG:NH1	2.25	0.70
39:L2:207:VAL:HG21	36:5:916:G:C6	186.84	0.70
46:L9:8:GLN:HG2	46:L9:68:LEU:HD13	1.74	0.70
36:1:883:A:H5'	53:M7:133:HIS:HA	1.73	0.70
44:L7:121:LYS:HB2	57:N1:133:ALA:HB3	1.92	0.70
66:O0:26:GLY:O	66:O0:30:THR:HG23	2.03	0.70
70:O4:58:ARG:HG3	70:O4:59:PRO:HD2	1.90	0.70
1:6:1564:U:H2'	1:6:1565:C:C6	2.26	0.70
22:D0:69:LYS:HE2	22:D0:80:GLU:HG3	3.06	0.70
25:D3:78:LYS:HG3	25:D3:79:ASN:HB2	1.74	0.70
9:S7:66:SER:O	9:S7:68:ALA:N	2.92	0.70
1:2:1550:A:OP2	17:C5:42:ARG:NH2	2.25	0.70
58:N2:59:ASP:OD1	58:N2:60:GLY:N	4.46	0.70
60:N4:58:HIS:ND1	60:N4:58:HIS:O	4.06	0.70
77:Q1:23:ARG:HG2	77:Q1:23:ARG:HH11	4.42	0.70
7:S5:182:ALA:O	7:S5:186:ASN:ND2	2.25	0.70
11:S9:96:VAL:HA	11:S9:99:LEU:HD22	1.73	0.70
1:2:301:A:OP2	88:2:2064:OHX:N2	2.24	0.70
23:D1:3:ASN:HD21	23:D1:7:GLN:HB3	2.03	0.70
27:D5:36:ALA:O	27:D5:38:HIS:N	2.24	0.70
71:O5:70:TYR:HA	71:O5:73:LYS:HD2	1.73	0.70
36:1:2703:A:OP2	42:L5:23:ARG:NH1	2.25	0.69
1:6:1417:A:OP1	88:6:2084:OHX:N4	2.25	0.69
25:D3:91:GLY:O	25:D3:93:LEU:N	2.25	0.69
72:O6:28:TYR:O	88:5:4194:OHX:N2	104.19	0.69
72:O6:58:ILE:HA	72:O6:61:ILE:HD12	1.74	0.69
1:6:823:G:H2'	1:6:824:G:O4'	1.92	0.69
12:C0:29:GLN:HB2	12:C0:39:ASN:HB2	1.74	0.69
47:M0:21:ARG:NH1	47:M0:22:TYR:OH	4.16	0.69
9:S7:162:ILE:HB	9:S7:169:PHE:HE2	1.57	0.69
36:1:1662:G:O6	88:1:3894:OHX:N2	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:915:A:OP1	88:6:2068:OHX:N6	2.24	0.69
1:6:1765:A:OP1	88:6:2122:OHX:N2	2.26	0.69
21:C9:16:ASN:OD1	21:C9:56:LYS:NZ	2.58	0.69
41:L4:144:LYS:HD2	41:L4:145:ILE:H	4.90	0.69
50:M4:55:ARG:HD3	56:N0:70:THR:OG1	2.35	0.69
2:S0:126:PRO:HB2	2:S0:152:PRO:HG2	2.27	0.69
3:S1:180:THR:HG22	3:S1:181:LEU:HD22	1.75	0.69
16:C4:81:VAL:H	16:C4:115:ILE:HG22	1.57	0.69
46:L9:28:VAL:HG22	46:L9:33:THR:HB	2.18	0.69
74:O8:8:ILE:HD12	74:O8:8:ILE:H	1.56	0.69
3:S1:110:LEU:HD11	3:S1:213:ARG:HD2	1.74	0.69
36:1:3116:G:N2	36:1:3116:G:OP1	2.25	0.69
1:2:656:G:O2'	1:2:657:U:O4'	2.08	0.69
19:C7:103:ASP:O	19:C7:104:ASN:ND2	6.32	0.69
53:M7:27:LYS:HD3	53:M7:63:PHE:HB3	1.74	0.69
3:S1:173:THR:O	3:S1:177:GLN:NE2	2.21	0.69
3:S1:144:ARG:NH2	3:S1:207:LEU:O	3.20	0.69
7:S5:149:VAL:HG23	30:D8:67:ARG:H	1.56	0.69
7:S5:163:SER:HB2	30:D8:48:VAL:HG22	2.22	0.69
9:S7:38:LEU:HD23	9:S7:41:LEU:HD12	1.74	0.69
36:5:300:G:O6	88:5:4196:OHX:N2	2.26	0.69
1:6:193:U:C2	1:6:195:G:H1'	2.28	0.69
25:D3:69:ARG:NH1	25:D3:116:ASP:OD1	2.25	0.69
51:M5:197:LEU:HD21	51:M5:199:LEU:HD21	1.74	0.69
54:M8:133:LYS:HB2	54:M8:135:GLN:HE22	1.87	0.69
63:N7:23:VAL:HG12	63:N7:45:GLY:HA3	2.10	0.69
73:O7:28:HIS:CD2	73:O7:31:LYS:HE2	3.02	0.69
7:S5:43:PHE:N	7:S5:46:TRP:O	2.90	0.69
1:6:25:C:O2	88:6:2105:OHX:N5	2.25	0.69
14:C2:97:LEU:HD11	14:C2:121:VAL:HG22	1.73	0.69
42:L5:294:ALA:HB1	47:M0:217:PHE:HB3	1.75	0.69
36:1:687:U:OP2	49:M3:36:ARG:NH2	2.24	0.69
2:S0:119:ARG:HE	4:S2:240:LEU:HD23	3.16	0.69
4:S2:80:VAL:HG13	4:S2:81:MET:H	1.55	0.69
1:2:649:U:O2'	1:2:650:U:O5'	2.11	0.69
1:2:715:U:H3	1:2:723:G:H1	1.38	0.69
44:L7:217:PRO:O	88:5:4005:OHX:N3	260.20	0.69
13:C1:109:VAL:HG12	13:C1:137:PHE:HB2	1.94	0.69
25:D3:23:ARG:HG3	25:D3:23:ARG:HH11	2.37	0.69
30:D8:12:VAL:HG22	30:D8:28:VAL:HG11	1.74	0.69
33:E1:144:CYS:HB3	33:E1:147:VAL:HG13	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:172:GLN:NE2	69:O3:60:ARG:O	2.25	0.69
54:M8:122:ILE:HG23	54:M8:126:GLN:HB2	1.75	0.69
62:N6:3:LYS:HG3	62:N6:8:VAL:HG13	1.75	0.69
63:N7:3:LYS:HE3	66:O0:36:GLN:HA	1.74	0.69
88:1:3968:OHX:N3	44:L7:217:PRO:O	2.26	0.69
1:2:1203:A:OP2	88:2:2111:OHX:N5	2.26	0.69
1:6:1280:C:H2'	1:6:1281:G:C8	2.27	0.69
36:1:911:C:H42	39:L2:3:ARG:HD3	1.57	0.69
41:L4:82:THR:HG23	41:L4:84:ARG:H	2.14	0.69
62:N6:120:GLN:HG3	62:N6:126:LEU:HA	7.33	0.69
63:N7:78:ASN:OD1	66:O0:35:ARG:NH2	2.26	0.69
36:1:1786:G:H2'	36:1:1787:A:C8	2.28	0.69
1:6:350:U:H5''	1:6:352:A:H5'	1.75	0.69
22:D0:83:GLU:HG3	22:D0:85:ARG:HE	1.57	0.69
40:L3:3:HIS:ND1	40:L3:3:HIS:O	3.82	0.69
79:Q3:13:LYS:HD2	79:Q3:14:TYR:CZ	2.70	0.69
9:S7:30:SER:HB3	9:S7:34:LEU:HD12	2.34	0.69
11:S9:147:MET:O	11:S9:149:ARG:NH1	4.43	0.69
36:1:1024:G:N7	88:1:4179:OHX:N6	2.41	0.69
36:5:549:U:H2'	36:5:550:A:C8	2.27	0.69
13:C1:139:VAL:O	13:C1:140:VAL:HB	1.92	0.69
29:D7:14:SER:HA	29:D7:17:ARG:HG2	1.73	0.69
57:N1:8:ARG:O	57:N1:11:THR:OG1	2.10	0.69
62:N6:37:LYS:H	62:N6:37:LYS:HD3	1.77	0.69
5:S3:211:PRO:HG2	19:C7:19:ARG:HB2	1.93	0.69
11:S9:146:PHE:O	11:S9:147:MET:HB2	2.16	0.69
78:Q2:45:ARG:NH2	36:5:283:G:OP2	147.05	0.68
77:Q1:11:ARG:NH2	1:6:1127:G:OP1	294.22	0.68
1:6:868:G:H1	1:6:960:U:H3	1.41	0.68
18:C6:125:GLU:HG2	18:C6:126:PRO:HD2	1.76	0.68
25:D3:75:GLN:HG3	25:D3:82:LYS:HG3	1.74	0.68
27:D5:56:THR:HA	27:D5:103:ARG:HH11	1.58	0.68
42:L5:110:LEU:HA	42:L5:113:LEU:HB2	3.26	0.68
50:M4:113:THR:HB	50:M4:116:GLU:HB2	1.75	0.68
51:M5:23:GLN:HG2	51:M5:122:ASN:HD21	1.58	0.68
58:N2:54:VAL:HG13	58:N2:67:SER:HB2	4.04	0.68
59:N3:80:ARG:HH12	59:N3:116:GLY:HA3	1.56	0.68
36:1:3118:C:H4'	76:Q0:106:ARG:HH22	1.58	0.68
3:S1:70:LEU:HB3	3:S1:79:HIS:HB3	5.24	0.68
11:S9:109:LEU:HD13	11:S9:129:ILE:HD13	2.18	0.68
1:2:1796:C:OP2	28:D6:5:ARG:NH1	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:13:SER:HA	19:C7:54:THR:HG22	1.75	0.68
22:D0:23:ARG:NH1	22:D0:92:ASP:OD1	2.21	0.68
47:M0:99:ILE:HD13	47:M0:101:LYS:HB2	6.33	0.68
36:1:291:C:OP1	51:M5:68:ARG:NH1	2.26	0.68
58:N2:99:LYS:HG3	58:N2:102:GLU:HB2	1.76	0.68
1:2:399:A:H4'	6:S4:3:ARG:HG2	1.74	0.68
44:L7:206:LYS:HB3	36:5:1334:U:H5''	237.05	0.68
1:6:219:A:C6	1:6:843:U:H1'	2.29	0.68
1:6:845:G:H2'	1:6:846:G:C8	2.28	0.68
72:O6:60:LEU:HD21	72:O6:68:ARG:HH21	1.58	0.68
36:1:1381:A:OP1	41:L4:197:ARG:NH1	2.25	0.68
36:1:276:U:O2	51:M5:93:LYS:NZ	2.27	0.68
36:1:619:A:H5''	36:1:620:U:OP1	1.94	0.68
1:6:1696:G:H2'	1:6:1698:G:O6	1.93	0.68
1:2:1479:A:OP1	21:C9:57:ARG:NH1	2.27	0.68
52:M6:23:VAL:HG11	52:M6:84:LEU:HD11	1.73	0.68
59:N3:48:ARG:NH2	36:5:3043:C:OP2	251.56	0.68
60:N4:39:LEU:HD12	60:N4:44:LYS:HG3	1.74	0.68
3:S1:171:ILE:HA	3:S1:174:LYS:HE3	1.75	0.68
4:S2:140:ARG:HB3	4:S2:221:THR:HB	1.75	0.68
9:S7:129:LEU:HD13	9:S7:169:PHE:HB3	2.91	0.68
35:SM:23:LYS:HD2	35:SM:23:LYS:H	1.59	0.68
36:1:612:U:H2'	36:1:613:G:H8	1.57	0.68
1:2:591:A:H2'	1:2:592:A:C8	2.27	0.68
37:3:76:A:O2'	56:N0:50:LYS:NZ	2.26	0.68
36:5:1541:G:OP2	88:5:4097:OHX:N4	2.26	0.68
38:8:82:U:H2'	38:8:83:C:H5'	1.76	0.68
1:2:916:U:H3	16:C4:41:ARG:HH22	1.40	0.68
24:D2:104:LEU:HD23	24:D2:125:ILE:HA	5.33	0.68
1:2:936:G:N7	28:D6:15:ARG:NH1	2.41	0.68
41:L4:188:ARG:HG2	41:L4:190:GLY:H	3.46	0.68
53:M7:36:ILE:HG12	53:M7:44:ALA:HB1	1.75	0.68
63:N7:62:VAL:O	63:N7:66:THR:OG1	2.85	0.68
70:O4:58:ARG:HG3	70:O4:58:ARG:HH11	1.59	0.68
72:O6:36:ARG:NH1	36:5:116:A:OP1	109.26	0.68
73:O7:52:LYS:HA	73:O7:55:ARG:HD2	1.99	0.68
36:1:2296:A:OP1	88:1:4161:OHX:N2	2.26	0.68
1:2:734:A:H5''	1:2:735:C:OP1	1.93	0.68
55:M9:104:ARG:NH1	36:5:1949:G:OP1	219.57	0.68
36:5:2827:U:O4	88:5:3903:OHX:N6	2.26	0.68
1:6:373:G:N7	88:6:2184:OHX:N3	2.41	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:105:LEU:HD13	21:C9:122:ARG:HD3	2.54	0.68
46:L9:12:VAL:HB	46:L9:51:GLN:HA	1.99	0.68
47:M0:210:ILE:HA	47:M0:217:PHE:CE2	2.48	0.68
64:N8:21:ARG:NH1	36:5:1369:A:OP1	183.53	0.68
71:O5:85:THR:HG22	71:O5:87:ALA:N	2.06	0.68
7:S5:94:THR:HG22	7:S5:114:ILE:HG13	2.12	0.68
11:S9:129:ILE:HA	11:S9:134:ILE:HG12	3.90	0.68
1:2:491:C:H42	1:2:496:G:H1	1.39	0.68
3:S1:72:ASP:OD1	28:D6:59:TYR:OH	2.11	0.68
54:M8:143:PRO:HB2	54:M8:146:SER:HB2	1.75	0.68
54:M8:89:ASP:OD1	54:M8:90:ASP:N	2.39	0.68
5:S3:114:ALA:HB3	5:S3:117:ARG:HB2	1.75	0.68
11:S9:108:ARG:HB2	11:S9:111:THR:HG23	2.52	0.68
36:1:847:A:H2'	36:1:848:A:C8	2.27	0.68
59:N3:48:ARG:HH22	36:5:3043:C:P	250.86	0.68
69:O3:86:ARG:HH22	36:5:498:A:H5'	216.57	0.68
17:C5:130:ARG:HH12	35:SM:71:ASN:HA	2.21	0.68
33:E1:108:VAL:HB	33:E1:114:VAL:HG22	1.76	0.68
40:L3:4:ARG:HG3	40:L3:4:ARG:HH11	3.45	0.68
63:N7:36:HIS:CD2	63:N7:74:VAL:HG11	2.76	0.68
71:O5:95:PHE:O	71:O5:97:ALA:N	2.27	0.68
76:Q0:78:ILE:HG12	76:Q0:83:LYS:HD2	1.76	0.68
36:1:837:A:OP2	79:Q3:4:ARG:NH1	2.25	0.68
10:S8:42:ARG:HB3	10:S8:59:ARG:HB2	2.59	0.68
36:5:1781:C:H2'	36:5:1782:U:C6	2.29	0.68
36:5:25:U:O4	88:5:3909:OHX:N6	2.27	0.68
20:C8:143:ARG:NH2	1:6:1462:G:N7	339.16	0.68
1:6:831:U:O2'	1:6:832:U:H5'	1.94	0.68
25:D3:62:LYS:HG3	25:D3:118:PRO:HG3	2.92	0.68
27:D5:71:ILE:HG23	27:D5:73:GLY:H	7.95	0.68
48:M1:49:LYS:HB3	48:M1:62:ASN:HA	1.76	0.68
50:M4:128:ARG:NH2	36:5:3214:U:OP2	280.80	0.68
56:N0:13:ARG:NH1	37:7:73:C:O2	306.10	0.68
36:1:1724:U:H4'	36:1:1725:C:OP1	1.92	0.68
36:1:2897:A:H2'	36:1:2899:C:H5''	1.74	0.68
36:1:829:U:H3	36:1:895:A:N6	1.92	0.68
36:5:118:U:O2	36:5:121:A:H5'	1.93	0.68
13:C1:116:ARG:HE	13:C1:116:ARG:H	5.24	0.68
44:L7:216:VAL:HG11	44:L7:227:GLY:HA3	4.09	0.68
57:N1:101:CYS:HB3	36:5:990:U:H1'	251.39	0.68
8:S6:2:LYS:HB2	8:S6:108:VAL:HG22	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:959:U:C6	15:C3:61:THR:HB	2.29	0.67
1:6:620:A:H5'	1:6:620:A:H8	1.58	0.67
1:6:822:U:H2'	1:6:823:G:H5''	1.76	0.67
23:D1:74:GLN:HE22	23:D1:83:TRP:H	1.42	0.67
36:1:3309:G:O6	40:L3:21:ARG:NH2	2.27	0.67
59:N3:89:ASP:OD1	59:N3:91:VAL:HG12	4.09	0.67
62:N6:35:LEU:HD13	62:N6:39:LEU:HB3	2.92	0.67
7:S5:164:PRO:HA	7:S5:167:ARG:HG3	3.12	0.67
36:5:595:G:H1	36:5:609:G:H5''	1.59	0.67
18:C6:109:PHE:O	18:C6:113:ASP:N	2.73	0.67
53:M7:88:VAL:O	53:M7:92:GLN:HG2	1.94	0.67
59:N3:87:ARG:HH22	59:N3:137:VAL:HG22	2.52	0.67
69:O3:59:VAL:O	69:O3:61:GLY:N	2.61	0.67
9:S7:49:ILE:HG13	9:S7:57:ALA:HB3	2.50	0.67
1:2:386:G:OP2	10:S8:25:ARG:NH2	2.27	0.67
36:1:385:A:H2'	36:1:386:A:C8	2.29	0.67
1:2:1338:C:H1'	1:2:1410:A:C4	2.30	0.67
36:5:2117:A:HO2'	36:5:3080:G:HO2'	1.43	0.67
1:2:1500:C:OP1	21:C9:122:ARG:NH2	2.26	0.67
41:L4:217:LYS:HD3	41:L4:220:ARG:HH21	1.59	0.67
45:L8:156:ASP:OD2	45:L8:156:ASP:N	2.31	0.67
52:M6:108:ILE:HD11	52:M6:113:ASP:HA	5.44	0.67
53:M7:64:ASN:O	53:M7:67:ILE:HG12	3.58	0.67
63:N7:100:THR:HA	63:N7:106:GLN:HG2	1.75	0.67
1:2:1097:U:HO2'	4:S2:159:THR:HG1	1.33	0.67
4:S2:230:TRP:CE2	24:D2:68:ARG:HD2	3.73	0.67
1:2:1201:G:N2	1:2:1600:A:H5''	2.08	0.67
1:2:702:G:O6	1:2:737:A:N6	2.28	0.67
1:6:770:A:OP2	88:6:2134:OHX:N3	2.28	0.67
49:M3:56:PRO:HG3	49:M3:74:GLY:O	1.95	0.67
34:SR:307:ASP:OD2	34:SR:311:ARG:NH2	3.44	0.67
1:6:1579:U:OP1	88:6:2180:OHX:N4	2.27	0.67
54:M8:141:ARG:HD3	36:5:743:C:O2	175.71	0.67
57:N1:115:LYS:HA	57:N1:118:GLU:HB2	1.76	0.67
4:S2:161:LYS:NZ	4:S2:163:GLY:O	2.27	0.67
36:5:1025:A:H3'	36:5:1026:A:H4'	1.76	0.67
36:5:2568:C:N4	36:5:2574:G:O6	2.28	0.67
36:5:990:U:O4	88:5:4189:OHX:N6	2.28	0.67
36:1:912:G:OP2	39:L2:9:ARG:NH1	2.28	0.67
36:1:2916:U:H1'	59:N3:44:SER:HB3	1.77	0.67
5:S3:72:LEU:HD22	12:C0:65:TYR:HD1	2.03	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:98:ARG:HD3	8:S6:99:GLY:H	2.88	0.67
36:1:223:U:O4	88:1:4210:OHX:N5	2.27	0.67
49:M3:15:ARG:NH2	36:5:96:G:OP1	154.74	0.67
26:D4:29:HIS:O	26:D4:31:ASN:N	3.65	0.67
40:L3:178:LEU:HD12	40:L3:179:ALA:H	1.59	0.67
47:M0:21:ARG:NH2	47:M0:22:TYR:OH	2.28	0.67
55:M9:13:SER:OG	55:M9:38:ARG:NH2	2.28	0.67
64:N8:77:LYS:O	64:N8:79:TRP:N	2.43	0.67
66:O0:101:LEU:HD22	66:O0:101:LEU:H	3.42	0.67
6:S4:139:VAL:HG13	6:S4:150:PRO:HG3	1.76	0.67
34:SR:81:LEU:HD11	34:SR:122:ILE:HD13	2.78	0.67
36:1:2233:A:OP2	88:1:4056:OHX:N5	2.28	0.67
1:2:1795:U:O2	28:D6:10:ARG:HD2	1.95	0.67
36:5:847:A:H2'	36:5:848:A:C8	2.30	0.67
27:D5:43:ASP:O	27:D5:45:GLU:N	2.28	0.67
62:N6:112:ASP:HB2	62:N6:115:ARG:H	1.60	0.67
1:2:1145:U:O2'	4:S2:89:GLN:O	2.12	0.67
36:1:1420:C:OP2	41:L4:193:LYS:NZ	2.28	0.67
36:1:2683:U:H2'	36:1:2684:C:C6	2.30	0.67
37:3:4:U:H2'	37:3:5:G:C8	2.29	0.67
36:5:2439:A:N6	36:5:2508:U:H3	1.92	0.67
12:C0:30:ALA:HA	12:C0:38:LYS:HG2	1.77	0.67
22:D0:45:ALA:HB1	22:D0:50:LEU:HD12	1.77	0.67
40:L3:227:GLU:HG3	40:L3:270:ARG:HD3	4.04	0.67
74:O8:5:ILE:HG22	74:O8:54:LEU:HB2	1.85	0.67
36:1:2895:G:O2'	76:Q0:100:TYR:O	2.13	0.67
6:S4:23:LEU:HD22	6:S4:23:LEU:H	2.58	0.67
7:S5:190:ILE:O	7:S5:194:LEU:HB2	2.22	0.67
8:S6:164:LYS:N	8:S6:167:LYS:O	2.26	0.67
1:2:142:G:H22	1:2:173:A:H2	1.43	0.67
1:6:1720:G:O6	88:6:2091:OHX:N4	2.28	0.67
17:C5:69:GLU:OE1	88:C5:201:OHX:N4	2.28	0.67
74:O8:44:LYS:HG2	74:O8:53:THR:HB	1.87	0.67
1:2:652:G:H1	1:2:682:C:H42	1.42	0.66
1:6:184:C:H2'	1:6:185:U:C6	2.30	0.66
38:8:79:A:H3'	38:8:80:A:C8	2.30	0.66
39:L2:213:GLY:HA2	36:5:2967:A:H5''	205.53	0.66
46:L9:28:VAL:HG13	46:L9:33:THR:HB	1.75	0.66
47:M0:72:ALA:O	47:M0:76:MET:HG3	2.21	0.66
66:O0:29:SER:HA	66:O0:32:LYS:HD3	1.76	0.66
76:Q0:97:ARG:HB2	76:Q0:120:GLN:O	1.94	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:22:SER:HB3	34:SR:70:ASP:HA	1.76	0.66
36:1:1560:G:N2	36:1:1579:C:O2	2.28	0.66
1:2:66:U:OP1	8:S6:136:LYS:NZ	2.22	0.66
36:5:2128:C:OP1	88:5:4094:OHX:N3	2.28	0.66
36:5:1919:G:N7	88:5:4075:OHX:N4	2.44	0.66
40:L3:221:THR:HB	40:L3:273:HIS:H	1.87	0.66
2:S0:70:PRO:HB2	2:S0:94:GLY:HA3	1.76	0.66
5:S3:65:ARG:HA	5:S3:68:GLU:HG3	1.76	0.66
1:2:820:U:H2'	1:2:821:U:H4'	1.76	0.66
1:6:1680:G:O6	88:6:2187:OHX:N4	2.29	0.66
25:D3:63:GLN:HA	25:D3:65:ASN:H	1.60	0.66
29:D7:56:CYS:SG	29:D7:57:GLU:N	2.68	0.66
48:M1:15:GLU:HB2	48:M1:132:ASN:ND2	2.11	0.66
67:O1:23:VAL:O	67:O1:28:ARG:NH1	3.20	0.66
71:O5:21:LEU:HD22	71:O5:25:LYS:HE2	1.77	0.66
2:S0:110:TYR:O	2:S0:112:THR:N	2.27	0.66
6:S4:11:ARG:O	6:S4:12:LEU:HB2	1.93	0.66
36:1:2356:A:N6	36:1:2983:C:H5	1.93	0.66
36:5:1246:G:O2'	36:5:1264:G:OP2	2.12	0.66
1:6:1628:U:H2'	1:6:1629:G:C8	2.30	0.66
1:6:1665:U:O4	88:6:2120:OHX:N6	2.28	0.66
29:D7:2:VAL:O	29:D7:3:LEU:HB2	2.76	0.66
78:Q2:77:CYS:O	78:Q2:79:THR:N	2.28	0.66
4:S2:140:ARG:NH1	23:D1:10:GLU:OE1	6.04	0.66
1:2:205:U:O4	88:2:2067:OHX:N3	2.28	0.66
1:6:1542:G:N2	1:6:1569:A:OP2	2.25	0.66
21:C9:86:ARG:NH1	21:C9:90:PRO:O	2.29	0.66
40:L3:81:THR:HG22	40:L3:321:PHE:CA	5.80	0.66
42:L5:270:LYS:O	42:L5:273:ARG:HB3	3.35	0.66
43:L6:51:ARG:NH1	50:M4:114:ASP:OD2	2.28	0.66
68:O2:103:LYS:O	68:O2:106:VAL:HG22	5.10	0.66
74:O8:17:ARG:HB3	74:O8:20:VAL:HG21	3.01	0.66
34:SR:184:ASN:HD22	34:SR:185:GLN:N	5.45	0.66
36:1:2255:A:H5'	36:1:2261:G:H22	1.60	0.66
21:C9:119:LYS:NZ	1:6:1369:U:OP1	441.19	0.66
1:6:195:G:H2'	1:6:196:G:H5''	1.78	0.66
6:S4:108:ARG:NH2	1:6:789:A:OP1	391.31	0.66
30:D8:36:THR:O	30:D8:38:ARG:N	2.28	0.66
52:M6:68:ARG:NH1	36:5:2988:C:OP1	217.62	0.66
9:S7:50:ASP:N	9:S7:50:ASP:OD1	2.29	0.66
36:1:2307:G:O2'	36:1:2310:U:OP2	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1041:G:OP1	88:2:2149:OHX:N5	2.29	0.66
36:5:3372:A:OP2	88:5:4242:OHX:N3	2.28	0.66
38:8:74:U:O2	88:8:221:OHX:N5	2.29	0.66
20:C8:135:GLY:HA3	1:6:1559:A:H5''	366.36	0.66
21:C9:63:ARG:HD2	21:C9:67:MET:HE1	1.78	0.66
51:M5:180:PHE:O	51:M5:184:LYS:HD2	3.43	0.66
41:L4:301:PRO:O	54:M8:39:ARG:NH1	3.42	0.66
74:O8:46:ARG:NH1	74:O8:47:GLY:O	2.62	0.66
77:Q1:2:ARG:HG2	77:Q1:5:TRP:CD1	3.65	0.66
3:S1:131:ASP:HB3	3:S1:180:THR:HG23	1.75	0.66
6:S4:158:ASP:OD2	6:S4:174:LYS:NZ	2.29	0.66
34:SR:64:HIS:ND1	34:SR:86:ASP:OD2	2.37	0.66
36:1:3353:G:O2'	36:1:3356:G:OP2	2.13	0.66
1:2:623:A:OP1	88:2:2157:OHX:N1	2.29	0.66
1:2:657:U:O2	1:2:677:G:N2	2.29	0.66
18:C6:66:ARG:HE	18:C6:68:ARG:HG2	4.88	0.66
56:N0:137:ARG:HG2	56:N0:139:TYR:CE1	2.31	0.66
65:N9:14:ARG:HH12	65:N9:18:ARG:HH11	1.44	0.66
43:L6:3:ALA:HB2	68:O2:77:ALA:HB2	2.07	0.66
10:S8:52:ASN:OD1	88:6:2132:OHX:N3	309.94	0.66
36:1:2298:U:O4	36:1:2923:U:H5	1.78	0.66
36:1:3115:C:O2'	36:1:3117:C:N4	2.29	0.66
1:2:520:A:H2'	1:2:521:A:C8	2.30	0.66
37:3:62:U:O3'	42:L5:285:ARG:NH1	2.29	0.66
36:5:1815:U:O2'	36:5:1816:A:OP2	2.13	0.66
36:5:595:G:N1	36:5:609:G:H5''	2.10	0.66
1:6:539:G:OP2	1:6:539:G:H8	1.78	0.66
52:M6:61:ALA:HA	52:M6:70:PRO:HD2	1.76	0.66
54:M8:123:THR:OG1	54:M8:125:ASP:OD2	2.10	0.66
79:Q3:58:SER:O	79:Q3:61:LYS:NZ	2.94	0.66
36:1:3057:U:H5'	36:1:3086:A:H61	1.61	0.66
1:2:1564:U:H2'	1:2:1565:C:C6	2.31	0.66
1:2:365:G:N7	88:2:2106:OHX:N5	2.43	0.66
36:5:1580:A:O2'	36:5:1581:C:OP2	2.14	0.66
36:5:1654:A:H2'	36:5:1655:G:H5'	1.76	0.66
1:6:1756:A:H8	1:6:1756:A:O5'	1.77	0.66
19:C7:47:ARG:HB3	19:C7:47:ARG:HH11	3.98	0.66
24:D2:10:ALA:HB1	24:D2:27:ILE:HD12	1.78	0.66
25:D3:97:ASP:O	25:D3:100:ASP:HB2	2.60	0.66
88:1:3968:OHX:N6	44:L7:217:PRO:O	2.28	0.66
47:M0:76:MET:HE3	47:M0:148:VAL:HA	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:119:ILE:HG22	62:N6:124:GLY:HA3	3.12	0.66
8:S6:173:PRO:HG3	1:6:66:U:H5	334.08	0.66
13:C1:57:LYS:HD3	13:C1:131:ILE:HG23	1.79	0.65
14:C2:119:SER:OG	1:6:1228:G:OP1	464.97	0.65
18:C6:18:ALA:HB2	18:C6:69:VAL:HG13	1.77	0.65
26:D4:10:ARG:HD2	1:6:778:G:O6	429.29	0.65
26:D4:116:LYS:HE3	1:6:57:G:OP2	338.54	0.65
7:S5:161:ASP:O	30:D8:44:VAL:HA	1.96	0.65
33:E1:86:THR:O	33:E1:87:THR:OG1	2.54	0.65
36:1:2948:C:O2'	40:L3:242:THR:HG22	1.96	0.65
36:1:1447:G:H3'	53:M7:67:ILE:HD11	1.77	0.65
36:1:1815:U:O2'	36:1:1816:A:OP2	2.15	0.65
36:1:2775:U:H2'	36:1:2776:C:H6	1.61	0.65
36:1:3074:G:OP1	88:1:4051:OHX:N1	2.30	0.65
1:2:347:G:OP1	13:C1:77:SER:OG	2.12	0.65
36:5:1806:A:OP2	88:5:4027:OHX:N5	2.29	0.65
45:L8:101:THR:HG23	45:L8:104:GLU:H	1.62	0.65
64:N8:74:ASN:HB2	64:N8:76:ASP:HB2	1.78	0.65
66:O0:75:ASN:HA	66:O0:86:ARG:HB2	3.58	0.65
3:S1:28:GLU:OE2	3:S1:94:LYS:NZ	2.48	0.65
36:1:1035:G:H3'	36:1:1036:A:H8	1.61	0.65
36:1:1567:U:O2	36:1:1571:A:N6	2.26	0.65
88:1:3881:OHX:N5	38:4:2:A:OP2	2.29	0.65
1:2:1533:C:H4'	1:2:1539:G:N1	2.11	0.65
36:5:3035:A:OP2	88:5:4054:OHX:N5	2.29	0.65
1:6:1699:G:H22	1:6:1702:A:H5''	1.61	0.65
27:D5:42:LEU:HD22	27:D5:47:TYR:HB2	6.11	0.65
40:L3:53:MET:HE2	40:L3:327:CYS:HB3	2.31	0.65
41:L4:10:SER:OG	41:L4:13:GLY:O	2.13	0.65
47:M0:12:GLN:HA	47:M0:59:GLN:HE21	4.65	0.65
39:L2:178:PRO:HG2	79:Q3:26:VAL:HG23	1.79	0.65
3:S1:133:TYR:CD2	3:S1:181:LEU:HD11	2.32	0.65
9:S7:139:ARG:HD3	24:D2:53:ILE:HA	1.79	0.65
11:S9:134:ILE:HA	11:S9:158:PHE:HA	1.78	0.65
36:1:1495:U:H5	36:1:1835:A:N1	1.94	0.65
1:2:218:A:O2'	1:2:219:A:OP1	2.13	0.65
41:L4:326:ARG:O	44:L7:41:ARG:NH2	3.28	0.65
47:M0:38:LYS:HG2	47:M0:41:ALA:HB2	1.81	0.65
75:O9:21:ARG:HH11	75:O9:21:ARG:HB2	2.95	0.65
11:S9:45:ILE:HG22	11:S9:101:VAL:HG12	3.24	0.65
34:SR:16:HIS:CE1	34:SR:43:ILE:HG12	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1348:U:O2	36:1:1349:G:N2	2.28	0.65
36:1:2108:C:O2'	36:1:3362:A:N6	2.29	0.65
36:1:2155:G:O2'	39:L2:227:ARG:NH2	2.29	0.65
36:1:2960:C:H2'	36:1:2961:G:H8	1.62	0.65
36:1:3148:U:O4	88:1:4122:OHX:N2	2.28	0.65
28:D6:10:ARG:NE	1:6:1795:U:O2	328.13	0.65
27:D5:41:ILE:HG13	27:D5:42:LEU:HG	1.78	0.65
39:L2:200:ARG:NH1	36:5:2146:C:OP1	212.96	0.65
44:L7:157:ASN:O	44:L7:159:GLN:N	2.92	0.65
45:L8:75:ILE:HG22	45:L8:76:ALA:H	1.59	0.65
53:M7:69:ARG:HG3	53:M7:79:THR:HG23	6.44	0.65
56:N0:26:ARG:HH11	57:N1:150:THR:HG21	2.52	0.65
11:S9:171:ARG:HE	11:S9:174:ARG:HB2	4.49	0.65
36:1:155:G:H5''	36:1:156:G:C8	2.32	0.65
36:5:1565:G:N1	36:5:1574:C:N3	2.45	0.65
36:5:2407:C:H2'	36:5:2408:U:C6	2.32	0.65
1:6:235:G:H2'	1:6:236:A:H8	1.61	0.65
46:L9:166:ARG:HH21	46:L9:168:ARG:HH12	12.45	0.65
46:L9:57:VAL:HG23	46:L9:68:LEU:HG	2.44	0.65
48:M1:50:ALA:HB2	48:M1:65:ILE:HD12	1.79	0.65
63:N7:21:LYS:HD3	63:N7:47:GLU:HA	1.78	0.65
2:S0:74:VAL:HG23	2:S0:118:PRO:HB3	2.17	0.65
2:S0:179:ARG:HD3	2:S0:183:ARG:HH11	1.61	0.65
3:S1:62:LYS:O	3:S1:64:ARG:N	2.29	0.65
10:S8:197:THR:HA	10:S8:200:LYS:HB2	1.76	0.65
36:1:2254:U:H2'	36:1:2261:G:N2	2.12	0.65
1:2:1428:G:H5'	1:2:1428:G:H8	1.62	0.65
51:M5:172:ARG:HD2	36:5:30:G:O5'	111.13	0.65
36:5:3274:A:H3'	36:5:3275:U:C5'	2.23	0.65
30:D8:27:GLN:OE1	30:D8:64:ARG:NH2	2.30	0.65
40:L3:150:ARG:HG2	40:L3:150:ARG:HH11	1.93	0.65
50:M4:124:ARG:NH2	36:5:3212:C:OP2	290.04	0.65
36:1:1286:A:O2'	36:1:1287:A:OP2	2.14	0.65
73:O7:55:ARG:NH2	36:5:347:G:N7	109.45	0.65
10:S8:142:LYS:NZ	1:6:187:G:OP2	273.28	0.65
28:D6:10:ARG:NE	1:6:1797:A:OP2	330.88	0.65
42:L5:64:ILE:HG13	42:L5:109:THR:HG21	2.95	0.65
50:M4:113:THR:HG22	50:M4:115:PHE:H	1.62	0.65
65:N9:16:ALA:O	65:N9:20:GLY:HA3	4.19	0.65
7:S5:109:LYS:HE2	27:D5:97:LYS:HE2	5.96	0.65
7:S5:64:VAL:HG13	7:S5:89:ILE:HD11	3.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:O0:28:LYS:HB2	36:5:1730:G:N7	239.24	0.65
36:5:1952:G:H1	36:5:2094:C:H42	1.44	0.65
1:6:550:A:OP2	88:6:2047:OHX:N2	2.30	0.65
18:C6:82:ARG:HH22	18:C6:114:ARG:HB3	1.60	0.65
19:C7:67:ARG:HH22	1:6:1398:U:HO2'	405.45	0.65
25:D3:92:CYS:HA	25:D3:95:PHE:HD2	1.60	0.65
30:D8:52:ASP:OD1	30:D8:52:ASP:N	2.28	0.65
54:M8:178:ARG:HD3	64:N8:50:PRO:HB2	4.11	0.65
74:O8:11:PHE:HD1	74:O8:12:LEU:HD22	2.58	0.65
1:2:1234:A:O2'	1:2:1235:C:O5'	2.13	0.65
1:2:337:G:H3'	13:C1:133:LYS:HB2	1.79	0.65
39:L2:209:HIS:CD2	39:L2:211:HIS:H	2.15	0.65
51:M5:125:SER:HB3	36:5:2433:U:H1'	161.43	0.65
4:S2:109:GLY:HA2	4:S2:139:ILE:HG22	4.11	0.65
36:1:1064:A:H4'	36:1:1065:A:O5'	1.97	0.64
36:1:2402:A:OP2	88:1:4101:OHX:N6	2.30	0.64
1:2:1518:C:OP1	88:2:2121:OHX:N5	2.30	0.64
55:M9:20:ARG:HG3	36:5:1875:G:OP2	137.96	0.64
40:L3:120:LYS:NZ	36:5:3001:C:OP1	205.84	0.64
27:D5:58:ARG:HB3	27:D5:103:ARG:HH11	7.91	0.64
29:D7:37:CYS:O	29:D7:39:GLY:N	2.36	0.64
1:2:197:A:H61	10:S8:138:ASN:ND2	1.94	0.64
36:1:2572:C:O2'	36:1:2573:G:O4'	2.15	0.64
36:5:3164:C:H42	36:5:3286:G:H1	1.45	0.64
48:M1:143:ARG:NH2	37:7:5:G:OP1	292.01	0.64
50:M4:23:ILE:HA	50:M4:63:VAL:HG23	1.79	0.64
53:M7:129:THR:HG22	53:M7:139:TYR:HB2	1.78	0.64
6:S4:100:ARG:NH2	6:S4:121:TYR:O	2.38	0.64
9:S7:31:SER:HB2	9:S7:32:PRO:HD3	1.79	0.64
36:1:562:C:H2'	36:1:563:U:H6	1.63	0.64
1:2:1034:C:OP1	15:C3:9:LYS:NZ	2.29	0.64
36:5:2947:G:H4'	36:5:2947:G:OP2	1.98	0.64
10:S8:2:GLY:N	1:6:393:C:OP2	291.76	0.64
37:7:112:G:OP2	88:7:220:OHX:N2	2.30	0.64
20:C8:33:THR:HA	20:C8:38:VAL:HG23	2.14	0.64
22:D0:28:SER:OG	22:D0:111:GLY:O	2.74	0.64
43:L6:149:ILE:HG23	43:L6:155:LEU:HD13	2.29	0.64
36:1:1374:G:O6	64:N8:10:LYS:NZ	2.31	0.64
36:1:2244:A:H5''	39:L2:243:THR:OG1	1.96	0.64
1:2:933:A:OP2	28:D6:37:LYS:NZ	2.24	0.64
36:5:23:A:OP1	88:5:3909:OHX:N4	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:44:LEU:HA	26:D4:47:VAL:HG22	4.27	0.64
44:L7:143:THR:HG22	44:L7:241:LYS:HE3	1.79	0.64
46:L9:163:GLN:O	46:L9:166:ARG:HD2	1.97	0.64
51:M5:68:ARG:HG2	51:M5:68:ARG:HH11	1.62	0.64
53:M7:25:SER:HB3	53:M7:28:ASN:HB2	2.38	0.64
68:O2:123:LYS:HA	68:O2:126:LEU:HG	2.09	0.64
70:O4:74:ARG:HG2	70:O4:75:ALA:N	2.11	0.64
9:S7:122:HIS:HA	9:S7:125:ILE:HD12	1.92	0.64
36:1:2592:G:H4'	36:1:2594:C:C2	2.32	0.64
36:1:2746:A:C6	42:L5:148:ILE:HD12	2.32	0.64
1:2:1061:A:H2'	1:2:1062:A:H5'	1.79	0.64
36:5:1561:G:O2'	36:5:1562:C:OP2	2.14	0.64
36:5:3121:U:H1'	36:5:3122:A:H5''	1.78	0.64
36:5:549:U:O4	88:5:4016:OHX:N4	2.30	0.64
1:6:235:G:H2'	1:6:236:A:C8	2.33	0.64
13:C1:6:THR:O	13:C1:8:GLN:N	2.31	0.64
19:C7:88:VAL:HG22	19:C7:89:SER:O	4.27	0.64
25:D3:30:LYS:HE3	25:D3:34:LEU:HD11	1.79	0.64
33:E1:87:THR:O	1:6:1445:G:N1	378.51	0.64
42:L5:40:HIS:CD2	42:L5:42:ALA:HB3	2.33	0.64
48:M1:137:ARG:HG2	37:7:28:C:H5''	307.13	0.64
48:M1:141:ARG:O	48:M1:145:LYS:HE2	3.27	0.64
2:S0:9:LEU:HD11	2:S0:14:ALA:HB2	2.18	0.64
3:S1:176:VAL:HG12	3:S1:177:GLN:H	1.61	0.64
4:S2:174:ARG:O	11:S9:53:ARG:NH2	2.27	0.64
6:S4:151:ASP:HB3	6:S4:154:ILE:HG13	1.79	0.64
20:C8:145:ARG:HB3	35:SM:68:ARG:HH12	3.73	0.64
34:SR:16:HIS:CE1	34:SR:37:SER:HB2	2.33	0.64
36:1:2674:A:H5''	48:M1:105:GLY:HA3	1.79	0.64
36:1:1078:U:O4	88:1:3976:OHX:N2	2.30	0.64
1:2:1067:C:H5''	3:S1:150:VAL:HG23	1.79	0.64
52:M6:60:LYS:HD3	36:5:1307:G:H5''	248.67	0.64
13:C1:124:THR:O	13:C1:140:VAL:HG12	1.96	0.64
18:C6:49:TYR:HB3	18:C6:53:LEU:HD11	1.79	0.64
55:M9:182:ASP:O	55:M9:184:LEU:N	3.58	0.64
57:N1:17:ARG:HH11	57:N1:17:ARG:HG2	3.77	0.64
72:O6:28:TYR:OH	36:5:315:C:OP2	97.95	0.64
36:1:118:U:O2	36:1:121:A:H5'	1.97	0.64
36:1:1813:A:OP1	36:1:1817:G:O2'	2.16	0.64
36:1:2193:U:H5'	36:1:2194:G:H5'	1.78	0.64
1:2:1450:U:H2'	1:2:1451:C:C6	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1329:U:H4'	36:5:1330:A:OP1	1.97	0.64
1:6:484:C:H42	1:6:503:G:H1	1.46	0.64
25:D3:126:LYS:HA	25:D3:131:SER:HA	2.75	0.64
49:M3:103:ASN:OD1	49:M3:103:ASN:N	3.39	0.64
67:O1:19:ARG:HD3	67:O1:35:GLU:HG2	1.79	0.64
3:S1:169:SER:O	3:S1:173:THR:HG23	2.58	0.64
9:S7:99:LEU:HD12	9:S7:116:ARG:HG2	1.80	0.64
36:1:2775:U:H2'	36:1:2776:C:C6	2.33	0.64
36:1:873:C:H5''	36:1:874:U:O5'	1.98	0.64
1:6:197:A:H2'	1:6:198:A:C8	2.32	0.64
49:M3:55:ARG:O	49:M3:115:ARG:NH2	3.43	0.64
61:N5:58:ASP:O	61:N5:62:VAL:HG23	2.35	0.64
66:O0:102:THR:OG1	66:O0:102:THR:O	2.16	0.64
69:O3:14:LEU:HD11	69:O3:31:LYS:HB2	2.38	0.64
3:S1:61:LEU:O	3:S1:62:LYS:NZ	2.27	0.64
1:2:799:A:H5''	6:S4:201:HIS:CD2	2.33	0.64
36:1:1752:A:OP2	88:1:4060:OHX:N3	2.31	0.64
36:1:1823:A:H2'	36:1:1824:U:H6	1.63	0.64
36:5:2227:C:H2'	36:5:2228:A:H5''	1.80	0.64
24:D2:73:GLY:O	24:D2:127:GLY:HA3	1.98	0.64
33:E1:88:PRO:HB2	33:E1:89:LYS:HD3	6.45	0.64
44:L7:134:VAL:O	44:L7:229:PHE:HA	2.76	0.64
45:L8:90:THR:HA	45:L8:214:LEU:HD21	1.79	0.64
2:S0:24:LEU:O	2:S0:163:ASN:ND2	2.31	0.64
10:S8:8:ARG:NH2	10:S8:21:PHE:H	1.96	0.64
11:S9:57:ARG:HG3	11:S9:97:LEU:HD21	1.79	0.64
34:SR:164:ASP:O	34:SR:166:SER:N	2.69	0.64
36:1:716:A:C5	64:N8:117:ARG:HD3	2.33	0.64
1:2:1229:G:HO2'	1:2:1255:G:H1	1.44	0.64
1:2:702:G:O2'	1:2:703:G:O4'	2.16	0.64
1:6:263:C:H4'	1:6:292:U:H5'	1.80	0.64
37:7:86:U:O2	88:7:218:OHX:N4	2.31	0.64
22:D0:58:LEU:HD12	22:D0:88:LYS:HB3	1.80	0.64
25:D3:96:VAL:HG23	25:D3:97:ASP:H	1.63	0.64
26:D4:94:TYR:HB2	26:D4:96:LEU:HG	2.75	0.64
39:L2:204:MET:HE3	39:L2:209:HIS:HB2	1.79	0.64
44:L7:222:HIS:CE1	44:L7:224:ILE:HG13	2.33	0.64
45:L8:121:SER:O	45:L8:123:GLN:N	2.94	0.64
47:M0:85:PHE:HA	47:M0:140:THR:HG22	1.79	0.64
62:N6:32:SER:HA	62:N6:49:PRO:HA	2.06	0.64
77:Q1:22:ALA:HA	77:Q1:25:LYS:HG3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:Q2:73:GLU:OE1	78:Q2:80:ARG:NH2	2.31	0.64
1:2:1649:G:N7	88:2:2051:OHX:N1	2.45	0.63
1:2:397:A:O3'	10:S8:50:GLY:HA2	1.98	0.63
62:N6:113:LYS:HB2	38:8:84:C:H1'	20.07	0.63
18:C6:82:ARG:NH1	18:C6:114:ARG:O	3.09	0.63
18:C6:5:PRO:HG2	18:C6:24:ALA:HB2	1.79	0.63
18:C6:46:PHE:O	18:C6:50:GLU:HG3	1.98	0.63
20:C8:88:ARG:NH1	20:C8:112:ASP:OD2	3.31	0.63
62:N6:3:LYS:NZ	62:N6:5:SER:O	3.32	0.63
72:O6:74:LYS:HD2	72:O6:80:PHE:HD2	1.62	0.63
4:S2:147:ASN:O	4:S2:147:ASN:ND2	4.83	0.63
7:S5:120:ILE:HG12	27:D5:100:ILE:HD11	1.80	0.63
36:1:1308:A:C8	36:1:1308:A:OP2	2.51	0.63
36:5:155:G:H5'	36:5:156:G:C8	2.33	0.63
36:5:1778:G:O2'	36:5:1780:G:OP2	2.16	0.63
1:6:67:A:O2'	1:6:69:G:OP1	2.07	0.63
14:C2:81:ASP:O	14:C2:83:GLU:N	2.84	0.63
39:L2:209:HIS:HD2	39:L2:211:HIS:H	1.44	0.63
40:L3:2:SER:N	36:5:2940:A:N7	238.10	0.63
47:M0:9:TYR:CG	47:M0:97:LEU:HD13	2.33	0.63
54:M8:176:ARG:NH1	64:N8:46:ASP:OD2	2.40	0.63
64:N8:6:THR:HG22	64:N8:9:ARG:HG2	2.90	0.63
6:S4:31:PRO:HG2	6:S4:38:LEU:HD13	1.79	0.63
1:2:886:U:O2'	16:C4:121:VAL:O	2.15	0.63
36:5:223:U:O4	88:5:4249:OHX:N4	2.32	0.63
18:C6:143:ARG:HH22	35:SM:84:LYS:HZ3	1.46	0.63
46:L9:105:GLU:HG3	46:L9:109:ALA:H	1.62	0.63
49:M3:175:SER:O	49:M3:178:LYS:N	2.32	0.63
63:N7:115:LYS:NZ	63:N7:119:GLU:OE2	2.31	0.63
36:1:1276:U:OP1	88:1:4098:OHX:N4	2.31	0.63
1:2:911:U:O2'	1:2:915:A:H1'	1.97	0.63
41:L4:193:LYS:NZ	38:8:21:C:OP1	109.10	0.63
19:C7:20:TYR:CD1	19:C7:38:ILE:HD11	2.32	0.63
25:D3:70:LYS:HB3	25:D3:93:LEU:HD22	1.79	0.63
1:2:1572:G:H1'	7:S5:185:ARG:HH12	1.63	0.63
10:S8:48:THR:HG21	10:S8:54:LYS:HB2	1.81	0.63
36:1:2179:C:O3'	39:L2:174:ARG:NH2	2.28	0.63
36:1:2818:U:C6	36:1:2818:U:H5'	2.32	0.63
36:1:2992:U:H1'	53:M7:69:ARG:NH2	2.13	0.63
36:1:3043:C:OP2	59:N3:48:ARG:NH2	2.31	0.63
36:1:434:U:O4	88:1:4178:OHX:N5	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1717:U:H2'	36:5:1718:G:C8	2.34	0.63
36:5:2569:A:H4'	36:5:2570:U:H5'	1.80	0.63
1:6:1767:G:OP1	1:6:1770:U:H4'	1.97	0.63
1:6:383:G:N7	88:6:2145:OHX:N5	2.46	0.63
1:6:417:A:H4'	1:6:418:G:O5'	1.97	0.63
48:M1:10:ARG:NH2	48:M1:151:SER:O	2.31	0.63
49:M3:157:ARG:HG2	49:M3:158:ALA:N	2.13	0.63
59:N3:33:ASN:HD21	59:N3:63:LYS:H	1.45	0.63
72:O6:79:SER:HB3	72:O6:82:ARG:HG3	4.79	0.63
6:S4:241:GLY:O	6:S4:243:GLY:N	2.91	0.63
6:S4:49:ARG:HG3	6:S4:50:ASN:N	3.78	0.63
10:S8:138:ASN:HA	10:S8:141:ARG:HD3	3.45	0.63
1:2:209:U:H2'	1:2:210:A:C8	2.34	0.63
51:M5:12:ARG:HG2	36:5:268:A:C4	127.99	0.63
1:6:1350:U:H2'	1:6:1351:G:C8	2.33	0.63
1:6:1699:G:C2	1:6:1701:A:H5''	2.33	0.63
1:6:470:A:H8	1:6:470:A:H5''	1.63	0.63
13:C1:139:VAL:HG12	13:C1:140:VAL:H	1.64	0.63
17:C5:34:VAL:HG21	17:C5:45:PHE:HB2	1.80	0.63
5:S3:206:VAL:HG22	19:C7:41:ILE:HG12	1.80	0.63
41:L4:126:ILE:HD11	41:L4:233:LEU:HD13	2.03	0.63
44:L7:138:TYR:O	44:L7:237:ASN:ND2	2.30	0.63
47:M0:12:GLN:HA	47:M0:59:GLN:NE2	4.03	0.63
52:M6:79:ILE:HG21	52:M6:138:LEU:HD11	2.45	0.63
72:O6:57:LEU:HD11	72:O6:73:ALA:HB2	2.32	0.63
3:S1:34:ALA:N	3:S1:41:ARG:O	2.30	0.63
1:2:542:A:C8	1:2:543:C:H3'	2.34	0.63
36:5:1236:G:N2	36:5:1244:A:OP1	2.32	0.63
39:L2:70:ARG:HH22	36:5:2522:G:H1	173.50	0.63
18:C6:128:LYS:HE3	1:6:1417:A:O3'	394.06	0.63
1:6:800:U:H2'	1:6:801:G:H8	1.64	0.63
42:L5:52:VAL:HA	42:L5:147:ASP:HB3	2.13	0.63
49:M3:50:PRO:O	49:M3:52:ASP:N	3.24	0.63
52:M6:85:ARG:HD3	52:M6:90:HIS:CG	3.07	0.63
53:M7:31:GLU:HG3	53:M7:60:PHE:HA	3.21	0.63
55:M9:62:ARG:NH2	36:5:3068:U:OP2	172.63	0.63
60:N4:4:GLU:HG2	60:N4:30:ARG:HD3	1.81	0.63
66:O0:98:SER:OG	66:O0:99:ASP:N	2.27	0.63
6:S4:13:ALA:O	6:S4:39:ARG:NH2	2.32	0.63
11:S9:123:HIS:HB3	32:E0:33:ARG:HH21	2.77	0.63
34:SR:161:LYS:HE3	34:SR:164:ASP:HB3	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1229:G:H1	36:1:1280:C:H42	1.47	0.63
1:2:1585:U:N3	1:2:1611:A:H2	1.95	0.63
16:C4:132:ARG:HB2	1:6:1787:C:OP2	292.16	0.63
19:C7:25:THR:OG1	19:C7:26:LEU:N	3.98	0.63
20:C8:114:GLU:HA	20:C8:117:LYS:HD2	1.81	0.63
21:C9:137:ALA:O	21:C9:141:GLU:HG2	1.99	0.63
39:L2:40:TYR:HA	39:L2:91:GLY:HA3	1.80	0.63
11:S9:110:GLN:HE22	11:S9:126:ARG:HG2	1.63	0.63
36:1:1724:U:H1'	36:1:1725:C:C6	2.33	0.63
36:1:1940:G:H21	36:1:3362:A:H8	1.45	0.63
36:1:2255:A:OP1	88:1:3942:OHX:N3	2.32	0.63
36:1:975:C:H2'	36:1:976:U:C6	2.34	0.63
1:2:1528:U:OP1	7:S5:109:LYS:HG2	1.99	0.63
1:2:1623:C:H2'	1:2:1624:C:C6	2.33	0.63
54:M8:38:ARG:NH2	36:5:1348:U:OP2	188.56	0.63
36:5:2996:U:OP1	36:5:2996:U:H4'	1.97	0.63
36:5:1895:A:O2'	36:5:3053:G:H4'	1.98	0.63
15:C3:61:THR:OG1	15:C3:62:GLN:N	2.52	0.63
29:D7:31:TYR:OH	29:D7:70:LYS:NZ	3.10	0.63
47:M0:86:HIS:HB3	47:M0:139:ARG:CG	2.68	0.63
58:N2:51:GLY:O	58:N2:52:ASN:ND2	2.28	0.63
78:Q2:12:CYS:SG	78:Q2:17:CYS:CB	3.00	0.63
4:S2:227:PRO:HA	4:S2:230:TRP:CE2	2.34	0.63
5:S3:125:TYR:O	5:S3:129:SER:OG	3.19	0.63
10:S8:106:ALA:HB2	10:S8:165:LEU:HG	2.08	0.63
36:1:3164:C:H1'	36:1:3165:A:H5'	1.80	0.62
36:1:662:U:OP1	64:N8:8:THR:HG21	1.99	0.62
36:5:2436:U:H2'	36:5:2437:G:H5''	1.80	0.62
36:5:2586:G:O2'	36:5:2588:U:OP1	2.17	0.62
1:6:1603:U:H2'	1:6:1604:U:H6	1.64	0.62
17:C5:122:THR:HG22	17:C5:123:TYR:HD1	5.60	0.62
39:L2:80:GLU:HG3	79:Q3:66:GLY:HA2	1.81	0.62
52:M6:37:ARG:HG3	52:M6:108:ILE:HG22	5.87	0.62
67:O1:24:SER:HB2	67:O1:27:LYS:HG3	1.81	0.62
72:O6:97:SER:O	72:O6:99:ARG:N	2.32	0.62
4:S2:134:LEU:O	4:S2:136:VAL:N	2.32	0.62
8:S6:57:ASP:HA	8:S6:106:LEU:HA	1.80	0.62
10:S8:61:GLU:HG2	10:S8:62:THR:HG23	3.10	0.62
11:S9:41:GLU:OE1	11:S9:126:ARG:NH2	2.52	0.62
1:2:499:U:O2'	1:2:500:C:OP1	2.17	0.62
1:2:778:G:H22	26:D4:10:ARG:HH22	1.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:106:U:H2'	37:3:107:C:C6	2.34	0.62
38:4:23:U:OP1	62:N6:16:ARG:NH2	2.32	0.62
36:5:2836:C:H5	36:5:2852:C:N4	1.94	0.62
21:C9:84:LYS:NZ	1:6:1563:C:OP1	379.24	0.62
1:6:711:U:H5'	1:6:712:G:OP2	1.98	0.62
1:6:717:C:O2'	1:6:718:U:OP1	2.16	0.62
27:D5:61:SER:H	27:D5:64:VAL:HB	1.63	0.62
55:M9:148:ASP:OD1	55:M9:151:ARG:NH2	2.31	0.62
36:1:634:C:O2'	68:O2:47:ARG:HD3	1.99	0.62
70:O4:9:ARG:HG2	70:O4:34:HIS:CE1	5.34	0.62
2:S0:200:ASP:HB2	19:C7:85:VAL:HG22	1.81	0.62
3:S1:201:THR:HG21	3:S1:207:LEU:HD22	1.80	0.62
1:2:398:G:P	10:S8:47:ARG:HH12	2.21	0.62
36:1:1080:A:OP2	42:L5:140:ARG:NH2	2.32	0.62
36:5:90:C:H2'	36:5:91:G:H5'	1.79	0.62
1:6:190:C:N4	1:6:196:G:O6	2.33	0.62
17:C5:18:ARG:NH2	17:C5:38:PRO:HG3	3.56	0.62
41:L4:156:LEU:HD23	41:L4:159:ILE:HD12	1.80	0.62
41:L4:185:LYS:HD2	41:L4:201:GLN:HB3	1.82	0.62
46:L9:41:ILE:HD11	46:L9:67:ALA:HB1	1.81	0.62
10:S8:62:THR:HA	10:S8:76:THR:O	2.47	0.62
36:1:2503:G:H1'	36:1:2504:U:C5	2.34	0.62
1:2:1562:G:OP1	21:C9:89:ARG:NH2	2.27	0.62
1:2:542:A:H8	1:2:543:C:H5'	1.63	0.62
36:5:1818:U:H2'	36:5:1819:U:H6	1.63	0.62
36:5:2841:G:OP2	88:5:4142:OHX:N1	2.32	0.62
17:C5:126:VAL:O	17:C5:127:ARG:HB2	2.43	0.62
20:C8:91:ASP:HB3	20:C8:95:GLY:H	2.17	0.62
39:L2:105:GLY:HA3	39:L2:160:SER:HB3	3.22	0.62
40:L3:187:SER:HB3	40:L3:190:GLU:OE1	2.95	0.62
44:L7:151:ARG:HD2	44:L7:244:ASN:ND2	2.14	0.62
53:M7:29:THR:HG22	53:M7:87:SER:OG	1.99	0.62
54:M8:64:VAL:HG22	54:M8:96:PHE:CE2	2.34	0.62
67:O1:55:LEU:HB2	67:O1:95:PRO:HD3	1.89	0.62
36:1:2150:G:H4'	79:Q3:22:LEU:HD21	1.80	0.62
36:1:1278:A:O2'	36:1:1279:C:O5'	2.16	0.62
36:1:3243:A:H4'	40:L3:95:THR:HG22	1.81	0.62
1:2:1041:G:H2'	1:2:1042:G:C8	2.34	0.62
17:C5:122:THR:HG21	1:6:1455:G:OP1	369.77	0.62
1:6:250:C:H5'	1:6:250:C:H6	1.65	0.62
15:C3:34:ILE:O	15:C3:38:VAL:HG23	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:67:THR:O	15:C3:69:ASN:N	2.29	0.62
18:C6:113:ASP:HA	18:C6:116:LEU:HD23	1.82	0.62
17:C5:19:GLY:N	20:C8:93:THR:O	2.32	0.62
69:O3:72:THR:HG23	69:O3:83:ALA:HA	1.80	0.62
36:1:410:U:O4	88:1:4069:OHX:N2	2.33	0.62
1:2:1002:G:H2'	1:2:1003:A:H5'	1.81	0.62
1:6:1130:G:OP2	88:6:2110:OHX:N1	2.32	0.62
1:2:862:A:N7	15:C3:64:ARG:NH2	2.45	0.62
33:E1:135:HIS:ND1	33:E1:138:ARG:HD2	2.14	0.62
44:L7:50:ALA:O	44:L7:53:LYS:N	2.32	0.62
57:N1:78:LYS:HE3	36:5:2728:G:O6	219.37	0.62
58:N2:59:ASP:O	58:N2:61:THR:N	2.32	0.62
36:1:1634:G:N7	63:N7:17:ARG:NH2	2.47	0.62
9:S7:9:LEU:HD21	9:S7:17:GLU:HB3	2.15	0.62
34:SR:198:ASN:O	34:SR:215:GLY:HA3	2.11	0.62
36:1:1363:A:OP2	88:1:4057:OHX:N6	2.33	0.62
39:L2:128:ARG:NH1	36:5:2177:G:OP2	198.40	0.62
62:N6:10:SER:N	36:5:336:A:OP1	79.36	0.62
12:C0:50:THR:HG22	12:C0:55:VAL:HG22	2.04	0.62
18:C6:40:GLU:HG3	18:C6:42:GLU:H	1.65	0.62
20:C8:26:ILE:HD11	20:C8:31:ALA:HA	2.85	0.62
41:L4:226:GLU:OE2	41:L4:246:ARG:NH2	2.33	0.62
45:L8:144:GLU:OE1	72:O6:36:ARG:NH2	2.32	0.62
53:M7:50:GLN:OE1	53:M7:56:ARG:NH2	2.63	0.62
46:L9:4:ILE:HD11	56:N0:148:LEU:HD21	3.51	0.62
62:N6:38:GLU:HG3	62:N6:39:LEU:HD23	1.82	0.62
7:S5:40:ILE:HG23	7:S5:42:LEU:HD22	1.80	0.62
36:1:1727:G:OP1	79:Q3:44:LYS:NZ	2.31	0.62
36:1:2314:U:O4	88:1:3890:OHX:N5	2.32	0.62
36:1:621:A:O2'	88:1:4178:OHX:N3	2.32	0.62
1:2:839:U:H2'	1:2:840:U:H5'	1.81	0.62
75:O9:45:ARG:NH2	36:5:1841:A:N3	126.25	0.62
36:5:3227:A:H2'	36:5:3228:C:H5'	1.81	0.62
53:M7:62:ARG:NH1	36:5:412:G:OP1	159.26	0.62
1:6:1315:U:OP1	1:6:1328:G:N2	2.29	0.62
8:S6:87:ARG:NH2	1:6:161:U:OP2	315.01	0.62
1:6:357:G:OP2	88:6:2072:OHX:N6	2.33	0.62
13:C1:95:PRO:O	13:C1:98:ASN:N	2.33	0.62
20:C8:57:ARG:HB2	20:C8:59:GLY:H	1.65	0.62
2:S0:55:GLU:HG2	23:D1:79:LEU:HD22	2.55	0.62
27:D5:59:TYR:HE1	27:D5:100:ILE:HG23	6.87	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2677:G:H2'	36:1:2679:A:H2	1.65	0.62
36:1:2120:A:OP2	88:1:4020:OHX:N2	2.32	0.62
1:6:1239:U:O4	88:6:2094:OHX:N1	2.33	0.62
18:C6:6:SER:HB2	18:C6:23:LYS:HB3	3.77	0.62
30:D8:26:THR:HB	30:D8:44:VAL:HG13	1.82	0.62
45:L8:67:ILE:HG23	45:L8:237:ILE:HD13	3.64	0.62
45:L8:95:ASN:OD1	45:L8:98:ARG:NH1	4.46	0.62
48:M1:106:ILE:CD1	48:M1:125:MET:HG2	5.35	0.62
49:M3:153:ASP:OD1	49:M3:157:ARG:NH2	2.67	0.62
75:O9:23:LEU:HD23	75:O9:24:PRO:HD2	1.82	0.62
10:S8:188:GLU:OE2	13:C1:15:LYS:NZ	2.33	0.62
36:1:1752:A:OP2	88:1:4060:OHX:N5	2.33	0.62
1:6:1042:G:N2	1:6:1077:C:O2	2.32	0.62
1:6:138:A:H2'	1:6:139:C:H5'	1.82	0.62
16:C4:24:ASN:HA	16:C4:55:SER:HB3	2.93	0.62
18:C6:39:VAL:HG12	18:C6:41:PRO:HD2	5.33	0.62
18:C6:6:SER:HB3	18:C6:23:LYS:HA	1.81	0.62
48:M1:90:GLN:HG2	48:M1:170:ASP:HB2	1.82	0.62
63:N7:48:ARG:HB3	63:N7:69:LYS:HB3	1.81	0.62
63:N7:83:THR:HG23	63:N7:85:TYR:N	2.14	0.62
64:N8:47:LYS:O	64:N8:49:HIS:N	2.90	0.62
2:S0:41:ARG:HB3	2:S0:45:VAL:HG23	4.26	0.62
4:S2:45:VAL:HG21	4:S2:68:ILE:HG23	2.40	0.62
11:S9:31:ALA:HA	11:S9:36:LEU:HD12	1.82	0.62
36:1:1412:G:OP1	68:O2:105:ARG:NH2	2.33	0.61
36:1:1826:C:H2'	36:1:1827:C:H6	1.64	0.61
36:5:1661:G:H2'	36:5:1662:G:C8	2.35	0.61
1:6:1413:U:H4'	1:6:1414:U:OP2	2.00	0.61
1:6:489:C:O2'	1:6:490:C:O4'	2.18	0.61
1:6:565:C:O2	88:6:2155:OHX:N2	2.33	0.61
16:C4:88:GLY:H	16:C4:120:PRO:HG2	1.64	0.61
16:C4:54:GLU:OE1	1:6:901:G:N2	282.15	0.61
32:E0:50:VAL:HA	32:E0:54:ARG:HA	3.56	0.61
46:L9:101:VAL:HG22	46:L9:114:VAL:HG22	2.67	0.61
58:N2:104:ARG:HH11	58:N2:106:ALA:HB2	4.75	0.61
2:S0:184:LEU:O	2:S0:186:GLY:N	2.32	0.61
11:S9:92:LYS:HB2	11:S9:95:TYR:HD2	7.64	0.61
36:1:3192:U:H2'	36:1:3193:C:H6	1.62	0.61
36:1:2960:C:OP1	88:1:4013:OHX:N4	2.33	0.61
1:2:1160:A:H2'	1:2:1161:C:C6	2.35	0.61
1:2:1290:U:H2'	1:2:1291:G:C8	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1603:U:H2'	1:6:1604:U:C6	2.35	0.61
38:8:130:C:H2'	38:8:131:A:C8	2.35	0.61
13:C1:72:THR:HA	13:C1:124:THR:HA	1.80	0.61
22:D0:71:PRO:HB3	31:D9:41:GLN:HG2	2.84	0.61
26:D4:29:HIS:HB3	26:D4:32:ARG:HB2	6.01	0.61
26:D4:35:VAL:HG13	26:D4:36:SER:H	1.64	0.61
40:L3:286:GLY:HA3	40:L3:321:PHE:CE2	2.35	0.61
56:N0:167:ARG:HG3	56:N0:168:PRO:HD2	1.82	0.61
42:L5:40:HIS:CE1	57:N1:69:LYS:HA	2.74	0.61
71:O5:85:THR:HB	71:O5:88:LEU:HB2	1.82	0.61
6:S4:129:VAL:HB	6:S4:139:VAL:HG12	1.82	0.61
9:S7:16:LEU:HA	9:S7:19:GLN:HG3	1.82	0.61
49:M3:39:ARG:NH1	36:5:107:A:OP1	74.26	0.61
13:C1:83:THR:HG21	1:6:325:G:H4'	289.11	0.61
28:D6:10:ARG:NH2	28:D6:34:LYS:O	5.03	0.61
45:L8:195:SER:O	45:L8:197:VAL:N	2.33	0.61
57:N1:78:LYS:HB3	57:N1:87:LYS:HG3	1.81	0.61
59:N3:13:ILE:HG12	59:N3:53:SER:HB2	4.20	0.61
34:SR:282:SER:H	34:SR:285:ALA:HB3	1.63	0.61
36:1:1240:A:H3'	36:1:1241:U:H5'	1.82	0.61
1:2:280:U:O2'	1:2:281:G:OP2	2.14	0.61
1:2:647:G:H22	1:2:687:G:N2	1.98	0.61
36:5:3178:A:H5''	36:5:3179:U:OP1	2.01	0.61
39:L2:3:ARG:HD3	36:5:911:C:H42	179.53	0.61
20:C8:41:ARG:HD3	1:6:1565:C:OP1	369.50	0.61
1:6:73:U:H2'	1:6:74:U:C6	2.35	0.61
38:8:155:A:H2'	38:8:156:U:O4'	2.00	0.61
24:D2:76:SER:OG	24:D2:77:PRO:HD3	2.01	0.61
48:M1:10:ARG:HB2	48:M1:133:ARG:HD3	2.61	0.61
53:M7:108:ASP:N	53:M7:152:GLU:OE2	2.79	0.61
55:M9:175:GLN:O	55:M9:179:GLU:N	2.33	0.61
3:S1:154:SER:OG	3:S1:154:SER:O	2.10	0.61
6:S4:182:TYR:HB2	6:S4:228:ILE:HD13	1.81	0.61
8:S6:137:ARG:NH1	1:6:144:U:H5	312.63	0.61
11:S9:159:ALA:HB3	11:S9:162:SER:HB3	3.83	0.61
36:1:3060:C:OP1	88:1:4051:OHX:N4	2.34	0.61
36:1:561:C:H2'	36:1:562:C:C6	2.35	0.61
1:2:1006:C:O2	88:2:2145:OHX:N2	2.33	0.61
1:2:1657:U:H4'	1:2:1658:G:O5'	1.99	0.61
36:5:177:U:OP2	88:5:4020:OHX:N6	2.34	0.61
36:5:543:C:H42	36:5:548:G:H1	1.48	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:542:A:C8	1:6:543:C:H2'	2.36	0.61
20:C8:30:TYR:O	20:C8:33:THR:OG1	2.21	0.61
20:C8:56:LYS:HD2	20:C8:61:LEU:HD23	3.64	0.61
25:D3:59:ILE:HD13	32:E0:4:VAL:HG13	1.81	0.61
40:L3:92:TYR:HB2	40:L3:157:VAL:HG22	2.29	0.61
46:L9:117:PHE:CE1	46:L9:165:CYS:HB3	2.53	0.61
57:N1:105:PHE:O	57:N1:109:VAL:HG23	2.16	0.61
58:N2:76:LEU:O	58:N2:80:THR:HG23	2.01	0.61
73:O7:28:HIS:CD2	73:O7:31:LYS:HG3	3.41	0.61
2:S0:179:ARG:HD3	2:S0:183:ARG:NE	3.45	0.61
2:S0:200:ASP:HA	2:S0:203:PHE:CE1	2.35	0.61
3:S1:77:GLU:O	3:S1:79:HIS:N	2.32	0.61
7:S5:129:PRO:O	7:S5:133:VAL:HG23	2.01	0.61
36:1:1688:U:H2'	36:1:1689:U:C6	2.35	0.61
36:1:564:G:H2'	36:1:565:U:C6	2.36	0.61
38:4:137:C:OP2	88:4:229:OHX:N5	2.34	0.61
37:7:77:G:N2	37:7:102:A:OP2	2.30	0.61
19:C7:6:THR:OG1	19:C7:8:THR:HG23	4.55	0.61
24:D2:47:ILE:HG22	24:D2:65:LEU:HB3	1.83	0.61
27:D5:47:TYR:CZ	27:D5:51:LEU:HD11	3.08	0.61
39:L2:116:VAL:HG13	39:L2:126:LEU:HB2	2.18	0.61
40:L3:171:LEU:O	88:L3:405:OHX:N6	2.33	0.61
45:L8:45:ASN:HD21	45:L8:47:SER:HB3	1.66	0.61
47:M0:68:ALA:HB2	47:M0:158:LYS:HB2	2.16	0.61
48:M1:59:ILE:HD12	48:M1:65:ILE:HD11	2.63	0.61
56:N0:155:ARG:NH1	36:5:3206:C:O2	310.88	0.61
57:N1:92:ARG:NH1	36:5:2736:A:OP1	235.94	0.61
73:O7:25:ARG:HE	75:O9:51:ILE:HG13	2.15	0.61
3:S1:126:THR:HG22	3:S1:136:ARG:HE	1.64	0.61
4:S2:98:PHE:CZ	35:SM:116:GLU:HG3	2.36	0.61
34:SR:111:MET:N	34:SR:125:GLY:O	3.10	0.61
1:2:226:A:H2'	1:2:227:U:H5'	1.81	0.61
25:D3:27:ASN:O	25:D3:31:LYS:HG2	2.00	0.61
27:D5:43:ASP:O	27:D5:46:LYS:N	2.25	0.61
54:M8:170:ARG:O	54:M8:171:LYS:HB2	4.06	0.61
2:S0:49:ASN:HA	19:C7:109:LEU:HD21	2.51	0.61
7:S5:216:GLU:OE2	7:S5:219:ARG:NH2	2.34	0.61
7:S5:57:SER:HB3	30:D8:53:ILE:HB	1.82	0.61
8:S6:139:ASN:OD1	8:S6:142:ARG:NH1	3.37	0.61
36:1:1077:U:OP1	65:N9:38:LYS:NZ	2.25	0.61
1:2:1234:A:O2'	33:E1:146:SER:HB3	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1716:U:H5'	36:5:1716:U:H6	1.64	0.61
12:C0:73:VAL:O	12:C0:77:ARG:HG3	4.89	0.61
22:D0:117:VAL:HG22	22:D0:118:VAL:H	1.64	0.61
26:D4:120:GLY:O	26:D4:122:GLY:N	4.02	0.61
40:L3:44:THR:OG1	40:L3:182:GLN:O	2.96	0.61
46:L9:88:TYR:CZ	46:L9:184:LYS:HD3	4.51	0.61
49:M3:91:ARG:NH2	49:M3:97:VAL:O	2.77	0.61
54:M8:135:GLN:CD	54:M8:135:GLN:H	2.31	0.61
55:M9:133:LYS:HG2	55:M9:134:HIS:CD2	2.36	0.61
72:O6:25:LYS:HB2	72:O6:28:TYR:HD2	1.64	0.61
3:S1:39:GLU:CG	3:S1:40:ASN:H	2.13	0.61
36:1:3155:U:H3'	36:1:3156:U:H4'	1.81	0.61
36:1:562:C:OP2	50:M4:77:ARG:NH1	2.34	0.61
1:2:1291:G:H8	1:2:1291:G:O5'	1.84	0.61
1:2:1795:U:H3'	28:D6:5:ARG:HH12	1.66	0.61
1:2:591:A:H2'	1:2:592:A:H8	1.66	0.61
1:2:732:G:O2'	1:2:733:A:O4'	2.18	0.61
36:5:174:C:N4	36:5:244:G:H1	1.97	0.61
4:S2:168:ARG:NE	1:6:1098:U:OP2	384.03	0.61
1:6:891:A:H2'	1:6:892:A:C8	2.36	0.61
39:L2:45:VAL:HG22	39:L2:84:THR:HA	1.83	0.61
51:M5:172:ARG:NH2	36:5:63:A:OP1	103.83	0.61
54:M8:158:HIS:H	54:M8:186:VAL:CG1	2.14	0.61
61:N5:57:LEU:HD21	61:N5:90:ALA:HB2	1.82	0.61
72:O6:58:ILE:HG22	72:O6:90:MET:HG3	1.81	0.61
3:S1:176:VAL:HG22	3:S1:184:LEU:HD21	2.98	0.61
4:S2:140:ARG:NH1	23:D1:1:MET:SD	2.73	0.61
6:S4:85:GLY:N	6:S4:88:ASP:OD2	2.32	0.61
9:S7:143:LEU:HB2	9:S7:147:ASN:O	3.03	0.61
1:2:45:U:O2'	1:2:46:A:H2'	2.01	0.61
1:2:647:G:H22	1:2:687:G:H22	1.47	0.61
37:3:113:C:H2'	37:3:114:U:O4'	2.01	0.61
38:4:85:G:O6	62:N6:112:ASP:HB3	2.01	0.61
36:5:2425:G:H2'	36:5:2426:U:O4'	2.00	0.61
1:6:1057:U:O2'	1:6:1059:U:OP1	2.14	0.61
18:C6:139:GLN:NE2	1:6:1465:C:OP1	353.22	0.61
17:C5:33:PHE:CD2	17:C5:87:PRO:HD3	2.36	0.61
18:C6:125:GLU:OE1	18:C6:128:LYS:NZ	2.33	0.61
19:C7:28:PHE:HZ	19:C7:48:ASN:HB3	1.65	0.61
21:C9:115:GLU:O	21:C9:117:SER:N	2.34	0.61
33:E1:119:ARG:O	33:E1:132:LEU:HG	2.62	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2242:A:H5'	39:L2:243:THR:HG23	1.83	0.61
42:L5:75:LEU:HD23	42:L5:112:LYS:HE2	4.53	0.61
36:1:516:A:O3'	44:L7:60:ARG:NH2	2.33	0.61
41:L4:299:ILE:HG22	54:M8:39:ARG:HB3	2.10	0.61
55:M9:92:GLN:O	55:M9:96:ILE:HG13	2.26	0.61
58:N2:84:LEU:HB3	58:N2:90:ARG:HG2	1.81	0.61
10:S8:151:LYS:NZ	10:S8:152:ILE:O	5.61	0.61
1:2:1173:C:H3'	20:C8:141:THR:HG21	1.83	0.60
1:2:1401:A:O3'	19:C7:10:LYS:NZ	2.34	0.60
1:2:1783:C:H2'	1:2:1784:C:H6	1.66	0.60
1:6:1672:G:H2'	1:6:1673:G:C8	2.35	0.60
1:6:914:G:H5'	1:6:914:G:C8	2.36	0.60
15:C3:3:ARG:NH1	1:6:955:A:OP1	327.41	0.60
24:D2:38:LEU:HD23	24:D2:41:MET:HE3	2.38	0.60
41:L4:128:ALA:HB1	41:L4:134:LEU:HD12	1.83	0.60
48:M1:34:SER:HA	48:M1:67:VAL:HG21	1.82	0.60
36:1:1307:G:OP1	52:M6:59:ARG:NH1	2.33	0.60
2:S0:79:ARG:NH1	2:S0:164:ASN:O	2.96	0.60
7:S5:103:ASN:HA	7:S5:106:LYS:HD2	1.83	0.60
10:S8:39:GLY:O	10:S8:59:ARG:HB3	2.00	0.60
11:S9:29:LYS:O	11:S9:33:GLU:HG2	4.95	0.60
36:1:2745:G:N2	36:1:2748:A:OP2	2.33	0.60
36:1:2878:G:H5''	40:L3:5:LYS:HE2	1.83	0.60
36:1:975:C:H2'	36:1:976:U:H6	1.66	0.60
1:2:1459:C:H4'	17:C5:126:VAL:HG11	1.82	0.60
14:C2:50:LYS:O	14:C2:54:ARG:HG2	3.01	0.60
19:C7:24:LEU:HD23	19:C7:34:LEU:HD13	1.83	0.60
24:D2:29:PRO:O	24:D2:30:SER:HB3	2.01	0.60
40:L3:166:ILE:HD13	40:L3:173:GLN:HG2	2.91	0.60
53:M7:50:GLN:O	53:M7:53:ASP:N	2.34	0.60
54:M8:70:ALA:O	54:M8:73:GLN:HG3	4.25	0.60
73:O7:39:TYR:CD2	73:O7:40:PRO:HA	2.40	0.60
77:Q1:21:ARG:HD2	1:6:1653:C:O3'	284.31	0.60
4:S2:67:GLN:HA	4:S2:70:ASP:HB2	2.24	0.60
34:SR:170:ILE:HG21	34:SR:211:ILE:HD11	1.83	0.60
36:1:1460:A:H2'	36:1:1461:A:C8	2.36	0.60
36:1:2611:U:H2'	36:1:2612:U:C6	2.37	0.60
1:2:107:C:H42	1:2:307:G:H1	1.49	0.60
1:2:1681:A:H2'	1:2:1682:U:H5'	1.82	0.60
1:2:40:A:OP1	11:S9:3:ARG:NH1	2.35	0.60
36:5:1912:U:N3	36:5:2122:G:OP2	2.33	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2510:U:O2'	36:5:2511:A:H5''	2.00	0.60
1:6:40:A:O2'	88:6:2105:OHX:N4	2.34	0.60
15:C3:76:LYS:NZ	1:6:813:U:OP2	317.32	0.60
30:D8:58:GLU:HB3	30:D8:61:ARG:HG3	7.68	0.60
7:S5:158:GLN:HG2	30:D8:66:LEU:HD21	1.82	0.60
48:M1:92:ARG:HG3	48:M1:172:LEU:HD12	6.30	0.60
55:M9:104:ARG:HB3	55:M9:104:ARG:CZ	2.31	0.60
56:N0:137:ARG:HG2	56:N0:139:TYR:CZ	2.45	0.60
66:O0:34:LEU:HD23	66:O0:59:TYR:HB3	1.83	0.60
66:O0:99:ASP:N	66:O0:99:ASP:OD2	2.67	0.60
3:S1:123:ALA:HB2	3:S1:165:ARG:HG2	2.85	0.60
7:S5:112:ARG:HD3	27:D5:95:HIS:CE1	2.37	0.60
9:S7:49:ILE:O	9:S7:57:ALA:N	2.22	0.60
20:C8:120:ARG:NH2	35:SM:58:GLU:OE1	2.34	0.60
34:SR:76:ASP:OD1	34:SR:76:ASP:N	2.33	0.60
36:1:1933:A:OP2	88:1:3893:OHX:N6	2.35	0.60
36:1:2503:G:HO2'	36:1:2504:U:H5	1.47	0.60
1:2:1291:G:N2	1:2:1324:G:N2	2.49	0.60
1:2:1316:G:HO2'	1:2:1401:A:HO2'	1.49	0.60
1:2:637:C:O2	9:S7:114:ARG:NH2	2.34	0.60
1:2:927:C:H2'	1:2:928:U:C6	2.36	0.60
79:Q3:44:LYS:NZ	36:5:1728:G:OP1	234.87	0.60
36:5:1017:C:H42	36:5:2671:A:P	2.23	0.60
13:C1:116:ARG:HE	13:C1:116:ARG:N	5.36	0.60
16:C4:115:ILE:HG21	28:D6:44:ILE:HG21	7.40	0.60
21:C9:102:ARG:NH2	1:6:1502:G:N7	405.75	0.60
48:M1:94:ARG:NH2	48:M1:173:ASP:OD2	2.34	0.60
66:O0:9:SER:N	66:O0:12:GLN:HE21	1.99	0.60
73:O7:27:PHE:HA	73:O7:34:CYS:HA	1.82	0.60
4:S2:139:ILE:HG22	4:S2:141:ARG:HD2	1.83	0.60
7:S5:36:ALA:HB1	7:S5:42:LEU:HD21	1.83	0.60
36:1:2573:G:O6	88:1:4009:OHX:N3	2.34	0.60
36:1:3308:C:N3	53:M7:69:ARG:NH1	2.48	0.60
1:2:208:U:H2'	1:2:209:U:H6	1.65	0.60
1:2:75:U:H2'	1:2:76:A:O4'	2.01	0.60
36:5:90:C:C2'	36:5:91:G:H5'	2.32	0.60
17:C5:68:PRO:HG2	17:C5:71:GLU:OE2	2.01	0.60
27:D5:49:ARG:O	27:D5:53:GLU:HB2	2.23	0.60
32:E0:55:ARG:HB3	32:E0:58:PRO:HG3	1.84	0.60
47:M0:16:PRO:HG3	47:M0:128:ARG:HH11	3.09	0.60
49:M3:70:ARG:NH2	36:5:103:G:OP1	95.42	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:13:ARG:NH2	56:N0:50:LYS:O	2.92	0.60
60:N4:27:LYS:HG2	60:N4:29:PHE:CE2	4.16	0.60
75:O9:21:ARG:HD3	75:O9:22:PRO:O	2.02	0.60
79:Q3:18:TYR:H	36:5:2131:A:H61	227.39	0.60
9:S7:105:THR:O	9:S7:107:ARG:N	3.74	0.60
36:1:341:G:N7	41:L4:195:ARG:NH2	2.46	0.60
1:2:422:G:OP1	88:2:2042:OHX:N6	2.34	0.60
37:3:26:C:H5'	42:L5:56:THR:HB	1.84	0.60
36:5:1110:U:H2'	36:5:1111:U:C6	2.36	0.60
1:6:1488:G:O2'	1:6:1494:C:O2	2.14	0.60
27:D5:77:ARG:NH2	1:6:1534:G:N7	349.84	0.60
51:M5:109:ARG:NH1	38:8:141:C:OP1	120.34	0.60
13:C1:6:THR:HB	13:C1:9:SER:HB3	1.82	0.60
23:D1:32:VAL:HG12	23:D1:55:LEU:HB2	3.44	0.60
30:D8:25:VAL:HG11	30:D8:66:LEU:HD12	1.83	0.60
39:L2:80:GLU:OE2	79:Q3:73:THR:OG1	4.76	0.60
49:M3:74:GLY:O	49:M3:101:ARG:NH1	2.34	0.60
52:M6:183:ALA:C	52:M6:185:ALA:H	2.03	0.60
77:Q1:16:LYS:O	77:Q1:20:VAL:HG23	2.38	0.60
7:S5:92:ARG:NH1	7:S5:92:ARG:HG2	3.15	0.60
9:S7:91:ILE:HD12	9:S7:92:PHE:H	2.19	0.60
36:1:2108:C:H1'	36:1:3344:A:C8	2.36	0.60
36:1:600:G:N7	88:1:4109:OHX:N1	2.49	0.60
1:2:108:A:H2'	1:2:109:G:C8	2.36	0.60
36:5:594:U:C5'	36:5:609:G:H1	2.15	0.60
39:L2:181:LYS:NZ	36:5:860:G:O5'	212.60	0.60
1:6:1087:A:H2'	1:6:1088:A:C8	2.36	0.60
1:6:1508:U:O4	88:6:2052:OHX:N4	2.34	0.60
61:N5:61:LYS:NZ	38:8:59:A:O2'	70.73	0.60
39:L2:82:VAL:HA	39:L2:86:GLN:OE1	2.43	0.60
40:L3:19:ARG:HB3	40:L3:232:ARG:NH1	2.21	0.60
40:L3:3:HIS:O	40:L3:5:LYS:N	2.34	0.60
40:L3:60:LEU:HD23	40:L3:67:PHE:HB3	1.84	0.60
47:M0:55:ASN:HB3	47:M0:162:GLN:HG2	1.83	0.60
59:N3:114:ILE:HD12	59:N3:133:SER:HA	3.15	0.60
76:Q0:127:LEU:HD22	76:Q0:128:LYS:HG2	1.81	0.60
2:S0:142:PRO:HB3	23:D1:34:ILE:HD13	1.82	0.60
2:S0:183:ARG:NH2	2:S0:191:ARG:O	2.35	0.60
7:S5:143:ARG:NH1	7:S5:218:GLU:OE2	3.10	0.60
34:SR:309:VAL:HB	34:SR:311:ARG:HH12	2.56	0.60
1:2:1147:A:H2'	1:2:1148:C:H6	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:481:A:H61	1:2:505:A:H62	1.49	0.60
36:5:1221:A:H3'	36:5:1222:G:H5'	1.83	0.60
62:N6:12:ARG:HD3	36:5:215:G:H5''	88.13	0.60
24:D2:2:THR:N	1:6:1034:C:HO2'	338.34	0.60
15:C3:114:ARG:NH1	15:C3:114:ARG:HG2	2.12	0.60
20:C8:30:TYR:HE2	20:C8:40:ARG:HH11	1.56	0.60
26:D4:91:LEU:HD12	26:D4:97:ALA:HB2	4.39	0.60
41:L4:89:ALA:O	41:L4:91:GLY:N	2.31	0.60
47:M0:36:LEU:HD21	47:M0:69:ARG:HD2	1.82	0.60
58:N2:49:ASN:O	58:N2:51:GLY:N	2.32	0.60
62:N6:5:SER:HB3	62:N6:8:VAL:HG12	1.83	0.60
72:O6:97:SER:OG	72:O6:98:ARG:N	2.34	0.60
2:S0:56:LYS:NZ	2:S0:159:ALA:O	2.34	0.60
7:S5:200:ASN:CB	7:S5:208:SER:HB3	3.90	0.60
34:SR:93:ASP:HB2	34:SR:100:TYR:CE1	2.36	0.60
36:1:2433:U:H1'	51:M5:125:SER:HB3	1.83	0.60
36:1:871:U:H2'	36:1:872:U:C6	2.37	0.60
1:2:1765:A:OP1	88:2:2092:OHX:N3	2.35	0.60
1:2:513:U:OP1	11:S9:133:HIS:NE2	2.30	0.60
36:5:1355:A:H4'	36:5:1356:U:O5'	2.02	0.60
36:5:3242:G:H5''	36:5:3245:A:C8	2.37	0.60
36:5:59:G:H4'	36:5:60:A:H4'	1.82	0.60
1:6:197:A:H2'	1:6:198:A:H8	1.66	0.60
26:D4:91:LEU:HB3	26:D4:97:ALA:HB3	2.64	0.60
40:L3:187:SER:O	40:L3:189:SER:N	2.89	0.60
42:L5:36:LEU:HD23	36:5:2748:A:N3	255.26	0.60
46:L9:41:ILE:HG23	46:L9:43:VAL:HG13	1.84	0.60
55:M9:40:ALA:HB2	55:M9:43:LYS:HZ2	1.67	0.60
58:N2:47:VAL:C	58:N2:49:ASN:H	2.78	0.60
59:N3:33:ASN:ND2	59:N3:63:LYS:H	2.00	0.60
63:N7:46:ILE:HD13	63:N7:68:ILE:HG23	1.84	0.60
63:N7:84:ARG:CZ	63:N7:85:TYR:HE1	3.44	0.60
2:S0:163:ASN:O	2:S0:165:ARG:N	2.68	0.60
5:S3:74:GLN:HE22	5:S3:81:PRO:HG3	1.67	0.60
9:S7:58:LEU:HD12	9:S7:90:VAL:HG22	1.84	0.60
36:1:1596:C:H2'	36:1:1597:C:C6	2.37	0.60
36:1:1652:G:O2'	70:O4:45:GLY:HA3	2.02	0.60
36:1:3192:U:H2'	36:1:3193:C:C6	2.37	0.60
36:1:1887:A:OP2	88:1:3901:OHX:N4	2.35	0.60
36:1:3377:G:O6	88:1:4048:OHX:N1	2.34	0.60
1:2:1000:C:O2'	1:2:1002:G:N7	2.29	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1490:C:H4'	1:2:1491:U:OP1	2.02	0.60
36:5:2580:A:O2'	88:5:4134:OHX:N1	2.34	0.60
16:C4:81:VAL:HG13	16:C4:115:ILE:HG23	3.30	0.60
20:C8:131:LEU:HA	20:C8:145:ARG:HH12	1.67	0.60
1:2:1459:C:OP2	20:C8:138:THR:OG1	2.20	0.60
21:C9:49:ASP:HB3	21:C9:53:TRP:HB3	1.84	0.60
39:L2:188:LYS:HD3	39:L2:189:TYR:CE1	2.35	0.60
42:L5:47:PRO:HG2	42:L5:49:TYR:CE2	2.62	0.60
56:N0:71:LYS:HG2	56:N0:73:LYS:HD3	3.94	0.60
73:O7:8:PHE:O	73:O7:11:ARG:HG3	2.01	0.60
3:S1:157:GLN:H	3:S1:160:HIS:HB2	1.66	0.60
4:S2:147:ASN:HB3	23:D1:4:ASP:HA	1.84	0.60
36:1:1097:G:H4'	57:N1:129:LYS:HG2	1.83	0.59
36:1:2340:U:OP1	40:L3:236:LYS:HE3	2.02	0.59
36:1:2310:U:OP1	88:1:4152:OHX:N2	2.34	0.59
1:2:1566:U:H2'	1:2:1567:U:H6	1.67	0.59
36:5:2659:G:H4'	36:5:2751:G:O2'	2.02	0.59
36:5:1790:G:O6	88:5:4202:OHX:N4	2.35	0.59
12:C0:8:ARG:HD2	12:C0:12:HIS:CE1	2.37	0.59
17:C5:127:ARG:CZ	35:SM:66:ALA:HB2	5.02	0.59
21:C9:52:GLY:O	21:C9:54:PHE:N	2.30	0.59
36:1:2645:G:OP2	47:M0:117:GLY:HA2	2.02	0.59
47:M0:76:MET:HE1	47:M0:148:VAL:HG13	2.13	0.59
54:M8:165:ILE:HG23	54:M8:167:SER:H	5.32	0.59
36:1:155:G:H1'	72:O6:26:ILE:HD13	1.84	0.59
6:S4:141:THR:O	6:S4:143:ASP:N	2.35	0.59
8:S6:57:ASP:O	8:S6:59:GLN:N	3.51	0.59
34:SR:5:GLU:HA	34:SR:317:THR:HA	3.04	0.59
36:1:2206:G:H1	36:1:2237:C:H42	1.48	0.59
1:2:1645:G:O2'	36:1:2259:A:N1	2.33	0.59
36:1:3165:A:H61	36:1:3285:C:H42	1.50	0.59
1:2:1266:U:H2'	1:2:1267:G:C8	2.36	0.59
1:2:1280:C:H2'	1:2:1281:G:H8	1.67	0.59
1:2:1650:U:H2'	1:2:1651:A:C8	2.37	0.59
1:2:1776:A:H2'	1:2:1777:G:C8	2.37	0.59
36:5:1659:U:H2'	36:5:1660:C:C6	2.37	0.59
36:5:2897:A:H2'	36:5:2899:C:H5''	1.84	0.59
46:L9:62:ARG:NH2	36:5:3115:C:OP1	330.26	0.59
45:L8:181:LYS:HD2	38:8:154:C:H5''	150.56	0.59
13:C1:75:VAL:HG12	13:C1:119:VAL:HA	3.43	0.59
16:C4:20:TYR:HB3	16:C4:27:PHE:HB2	2.22	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:109:LEU:O	19:C7:113:LEU:HB2	3.94	0.59
19:C7:77:GLU:HG2	19:C7:80:ARG:HH21	7.80	0.59
26:D4:92:VAL:HG21	26:D4:99:LYS:HG2	1.83	0.59
28:D6:75:VAL:O	28:D6:79:ILE:N	2.35	0.59
31:D9:5:ASN:HB3	31:D9:7:TRP:NE1	2.17	0.59
42:L5:105:ILE:O	42:L5:109:THR:HG23	2.01	0.59
62:N6:59:VAL:HG22	62:N6:103:LYS:O	5.26	0.59
64:N8:47:LYS:HE3	64:N8:48:TYR:CZ	4.46	0.59
79:Q3:36:ARG:HG3	79:Q3:48:LYS:HG3	2.53	0.59
7:S5:145:ASP:OD2	7:S5:146:THR:N	2.33	0.59
36:1:1460:A:H2'	36:1:1461:A:H8	1.68	0.59
36:5:2603:G:O6	88:5:3906:OHX:N1	2.36	0.59
36:5:601:U:H2'	36:5:602:A:O4'	2.01	0.59
1:6:880:C:OP2	88:6:2106:OHX:N2	2.35	0.59
12:C0:46:LEU:HA	12:C0:49:LEU:HB2	1.85	0.59
16:C4:81:VAL:HG11	16:C4:102:LEU:HD21	1.82	0.59
16:C4:80:HIS:ND1	16:C4:113:GLY:O	3.49	0.59
18:C6:129:PHE:HE1	22:D0:78:THR:HA	1.67	0.59
23:D1:15:ARG:NH1	23:D1:33:GLN:OE1	2.35	0.59
49:M3:157:ARG:HG2	49:M3:158:ALA:H	1.67	0.59
49:M3:75:PHE:H	49:M3:97:VAL:HA	1.67	0.59
55:M9:154:ALA:O	55:M9:156:ASN:N	4.09	0.59
62:N6:52:ARG:HA	62:N6:70:ILE:HG22	2.52	0.59
63:N7:95:VAL:HG11	63:N7:113:VAL:HG21	3.41	0.59
8:S6:164:LYS:HB3	8:S6:167:LYS:HB3	1.85	0.59
34:SR:80:ALA:HB3	34:SR:92:TRP:HB2	2.36	0.59
36:1:1564:U:H2'	36:1:1565:G:C8	2.37	0.59
36:1:1798:A:H2'	36:1:1799:A:C8	2.38	0.59
36:1:2208:A:N1	88:1:4056:OHX:N4	2.50	0.59
1:2:1393:C:H2'	1:2:1394:G:O4'	2.02	0.59
38:4:10:A:H2'	38:4:11:C:C6	2.37	0.59
36:5:1155:C:O2'	36:5:1197:A:N1	2.32	0.59
36:5:2299:A:OP2	88:5:3963:OHX:N1	2.35	0.59
36:5:2444:C:H42	36:5:2503:G:H1	1.50	0.59
36:5:2568:C:O2'	36:5:2569:A:O5'	2.12	0.59
17:C5:122:THR:HB	1:6:1558:U:H3	366.81	0.59
1:6:221:A:OP2	1:6:832:U:O2'	2.18	0.59
1:6:488:G:N2	1:6:499:U:H3	1.97	0.59
23:D1:79:LEU:HD13	23:D1:82:VAL:HG11	1.84	0.59
28:D6:79:ILE:HG23	28:D6:84:VAL:HG21	1.83	0.59
29:D7:56:CYS:HB3	29:D7:61:THR:HG21	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:117:GLU:HB3	39:L2:119:LYS:O	2.02	0.59
57:N1:122:GLN:HB3	57:N1:124:VAL:HG23	6.88	0.59
66:O0:57:GLU:OE1	66:O0:69:TYR:OH	2.80	0.59
17:C5:129:GLY:HA3	35:SM:74:LYS:HG2	4.17	0.59
36:1:2514:U:H5'	45:L8:68:ARG:HG3	1.84	0.59
72:O6:25:LYS:HB3	36:5:156:G:OP2	88.58	0.59
40:L3:21:ARG:NH2	36:5:3309:G:O6	198.95	0.59
36:5:541:U:H2'	36:5:542:G:C8	2.38	0.59
1:6:116:U:H2'	1:6:117:U:C6	2.37	0.59
1:6:991:G:OP2	88:6:2168:OHX:N2	2.35	0.59
23:D1:73:ALA:HB1	23:D1:78:LEU:HG	1.85	0.59
25:D3:90:ASP:O	25:D3:136:TRP:NE1	2.30	0.59
40:L3:44:THR:HG23	40:L3:184:ASN:HB2	2.66	0.59
68:O2:119:VAL:O	68:O2:122:PRO:HD3	2.28	0.59
36:1:3276:G:O6	69:O3:60:ARG:NH1	2.36	0.59
73:O7:5:THR:HA	73:O7:8:PHE:CD2	2.36	0.59
2:S0:56:LYS:NZ	2:S0:158:VAL:HA	2.88	0.59
10:S8:99:ALA:HB3	1:6:329:G:H5'	270.82	0.59
36:1:3298:C:OP1	53:M7:74:LYS:NZ	2.35	0.59
88:1:4097:OHX:N4	55:M9:14:VAL:O	2.35	0.59
1:2:1067:C:H2'	1:2:1068:C:H6	1.67	0.59
1:2:1345:A:H2'	1:2:1348:A:H62	1.68	0.59
1:2:1537:C:N3	88:2:2154:OHX:N3	2.51	0.59
1:6:158:U:O2'	1:6:159:U:H3'	2.02	0.59
1:6:564:G:O6	88:6:2150:OHX:N5	2.35	0.59
15:C3:127:ARG:NH2	1:6:629:U:OP1	308.19	0.59
1:6:794:U:H4'	1:6:795:U:OP2	2.03	0.59
13:C1:21:ASN:N	13:C1:21:ASN:OD1	3.17	0.59
1:2:901:G:N2	16:C4:54:GLU:OE1	2.36	0.59
21:C9:49:ASP:OD1	21:C9:53:TRP:N	2.36	0.59
5:S3:40:ARG:HG2	22:D0:110:PRO:HB3	2.70	0.59
58:N2:47:VAL:O	58:N2:49:ASN:N	3.41	0.59
68:O2:4:LEU:HG	68:O2:5:PRO:HD3	4.60	0.59
36:1:2094:C:H2'	36:1:2095:G:H8	1.67	0.59
36:5:148:G:O2'	36:5:149:U:OP2	2.21	0.59
36:5:2533:G:O6	88:5:4044:OHX:N1	2.35	0.59
1:6:1714:A:H2'	1:6:1715:G:O4'	2.02	0.59
14:C2:54:ARG:O	14:C2:56:GLU:N	2.34	0.59
16:C4:131:GLY:O	16:C4:133:ARG:N	3.05	0.59
32:E0:33:ARG:HH11	32:E0:33:ARG:HB3	2.58	0.59
40:L3:25:ILE:H	40:L3:25:ILE:HD13	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:136:TYR:CZ	44:L7:231:ASN:HB2	2.37	0.59
36:1:743:C:N3	54:M8:141:ARG:NH1	2.50	0.59
58:N2:37:LEU:O	58:N2:41:ILE:HG13	2.02	0.59
1:2:143:G:N7	8:S6:177:ARG:NH2	2.51	0.59
36:1:3195:U:O2'	36:1:3197:G:N2	2.35	0.59
36:1:3152:U:O2	88:1:4158:OHX:N4	2.36	0.59
36:5:3341:U:H5''	36:5:3342:A:OP2	2.02	0.59
19:C7:4:VAL:HG13	1:6:1402:G:H5'	401.66	0.59
55:M9:163:ARG:HD3	1:6:813:U:C2	304.04	0.59
21:C9:28:LEU:HD13	21:C9:29:GLU:H	1.67	0.59
36:1:2969:A:N7	39:L2:215:ASN:ND2	2.48	0.59
41:L4:233:LEU:HD22	41:L4:238:LEU:HD11	2.91	0.59
43:L6:172:HIS:CD2	43:L6:173:MET:HG2	2.53	0.59
45:L8:54:GLU:HG2	45:L8:57:ARG:HH21	1.66	0.59
49:M3:58:VAL:HG13	36:5:75:G:H5''	87.78	0.59
52:M6:36:VAL:HG11	52:M6:108:ILE:HG23	1.84	0.59
61:N5:132:ALA:O	61:N5:135:ILE:HG22	2.03	0.59
2:S0:122:ILE:HG12	2:S0:144:ILE:HG13	4.19	0.59
8:S6:139:ASN:HA	8:S6:142:ARG:HB2	1.97	0.59
36:1:1443:G:O6	88:1:3988:OHX:N3	2.36	0.59
36:1:86:G:O2'	49:M3:11:LYS:HD3	2.02	0.59
1:2:894:U:H3	1:2:918:U:H3	1.51	0.59
38:4:107:G:OP2	88:4:229:OHX:N2	2.35	0.59
74:O8:17:ARG:NH2	36:5:1824:U:O3'	138.04	0.59
1:6:1524:A:H2'	1:6:1525:A:C8	2.38	0.59
1:6:1533:C:H4'	1:6:1539:G:N1	2.17	0.59
1:6:1700:C:O2'	1:6:1701:A:OP1	2.20	0.59
22:D0:106:ILE:HG13	22:D0:107:THR:H	1.68	0.59
32:E0:18:THR:HG21	1:6:584:C:H1'	389.41	0.59
40:L3:188:ILE:HA	40:L3:191:LYS:HD2	2.24	0.59
42:L5:140:ARG:NH2	36:5:1080:A:OP2	229.84	0.59
37:3:97:A:O4'	44:L7:225:GLN:NE2	2.36	0.59
51:M5:138:GLN:HA	51:M5:143:ARG:HH11	1.67	0.59
52:M6:18:ARG:O	52:M6:22:VAL:HG13	2.02	0.59
53:M7:38:GLY:H	53:M7:114:VAL:HG13	1.68	0.59
61:N5:139:ILE:HG13	61:N5:139:ILE:O	2.03	0.59
2:S0:66:ALA:HB2	23:D1:37:ALA:HB2	1.85	0.59
7:S5:166:ARG:HD2	30:D8:46:GLY:HA2	1.85	0.59
6:S4:10:LYS:HE2	11:S9:2:PRO:HB3	4.60	0.59
36:1:2660:G:O3'	36:1:2749:G:N2	2.36	0.59
36:1:3159:C:H2'	36:1:3160:U:C6	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:197:ARG:NH1	36:5:1381:A:OP1	109.58	0.59
36:5:495:G:H2'	36:5:496:C:O4'	2.02	0.59
1:6:1166:A:H2'	1:6:1167:G:O4'	2.02	0.59
1:6:1754:A:H4'	1:6:1755:A:O5'	2.03	0.59
19:C7:28:PHE:HA	19:C7:55:THR:HG21	2.44	0.59
19:C7:86:PRO:HG2	19:C7:88:VAL:HA	9.45	0.59
31:D9:19:ARG:NH2	1:6:1597:A:OP1	408.17	0.59
44:L7:83:LEU:HD22	44:L7:84:VAL:N	2.18	0.59
45:L8:82:LEU:HD21	45:L8:86:THR:HG22	2.89	0.59
66:O0:22:LYS:H	66:O0:94:GLU:HB2	1.67	0.59
2:S0:92:HIS:HB3	2:S0:182:LEU:HD11	2.54	0.59
3:S1:26:ARG:NH1	3:S1:49:ASN:OD1	2.35	0.59
4:S2:68:ILE:O	4:S2:72:LEU:HB2	2.03	0.59
6:S4:71:LYS:HB3	6:S4:76:VAL:HA	1.85	0.59
8:S6:137:ARG:HD3	8:S6:177:ARG:HE	1.67	0.59
36:1:1632:A:C8	36:1:1644:C:H2'	2.38	0.58
36:1:49:A:OP1	49:M3:16:LYS:NZ	2.35	0.58
1:2:1672:G:H2'	1:2:1673:G:C8	2.37	0.58
1:2:1769:U:OP2	88:2:2145:OHX:N1	2.36	0.58
1:2:23:G:O2'	1:2:368:U:OP1	2.21	0.58
53:M7:139:TYR:CE2	36:5:2355:G:H4'	147.56	0.58
36:5:953:G:H2'	36:5:1117:G:H5''	1.85	0.58
11:S9:124:HIS:HD2	1:6:478:A:O2'	449.26	0.58
14:C2:119:SER:OG	14:C2:120:VAL:N	2.35	0.58
1:2:896:U:H1'	16:C4:38:THR:HG21	1.85	0.58
17:C5:14:THR:HB	17:C5:22:LEU:HB2	1.85	0.58
5:S3:8:LYS:HG2	22:D0:63:LEU:HD21	2.64	0.58
27:D5:53:GLU:O	27:D5:56:THR:N	5.74	0.58
39:L2:211:HIS:O	39:L2:213:GLY:N	3.96	0.58
41:L4:192:GLY:HA2	41:L4:195:ARG:HG3	2.93	0.58
41:L4:316:ASN:OD1	41:L4:318:LEU:HB2	2.03	0.58
45:L8:26:LEU:HD13	63:N7:53:VAL:HG11	1.84	0.58
88:1:3898:OHX:N5	57:N1:13:TYR:O	2.36	0.58
62:N6:37:LYS:H	62:N6:37:LYS:CD	2.32	0.58
74:O8:65:LEU:HD23	74:O8:68:SER:HB2	3.67	0.58
34:SR:20:VAL:O	34:SR:291:SER:OG	2.21	0.58
36:1:1317:A:O2'	36:1:1318:A:H3'	2.02	0.58
36:1:917:A:OP2	88:1:4157:OHX:N2	2.36	0.58
1:2:1062:A:OP2	88:2:2165:OHX:N4	2.36	0.58
1:6:1688:U:H2'	1:6:1689:A:C8	2.38	0.58
15:C3:114:ARG:CG	15:C3:114:ARG:HH11	2.15	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:34:SER:HB3	18:C6:38:LEU:HD12	1.84	0.58
20:C8:86:LEU:HG	20:C8:99:HIS:HB2	2.63	0.58
25:D3:50:LYS:HD3	25:D3:101:GLU:HG2	1.85	0.58
1:2:584:C:H1'	32:E0:18:THR:HG21	1.84	0.58
36:1:911:C:N4	39:L2:3:ARG:HD3	2.16	0.58
41:L4:354:VAL:O	41:L4:358:THR:HG23	2.13	0.58
48:M1:59:ILE:HG21	48:M1:65:ILE:HD11	1.85	0.58
71:O5:90:ARG:NH1	36:5:20:A:OP2	86.19	0.58
73:O7:28:HIS:HD2	73:O7:31:LYS:HE2	2.85	0.58
75:O9:28:ARG:NH1	75:O9:36:ARG:O	2.36	0.58
7:S5:113:ILE:O	7:S5:117:THR:OG1	2.13	0.58
7:S5:208:SER:O	7:S5:210:ALA:N	3.07	0.58
36:1:1636:U:H5''	63:N7:73:LYS:NZ	2.19	0.58
36:1:3233:C:H2'	36:1:3234:A:C8	2.38	0.58
36:5:1024:G:N2	36:5:1026:A:OP2	2.36	0.58
36:5:1239:C:N4	36:5:1249:G:H1	1.93	0.58
36:5:173:G:H1'	36:5:174:C:H5'	1.86	0.58
36:5:1662:G:O6	88:5:3922:OHX:N1	2.36	0.58
36:5:1534:A:OP1	88:5:3925:OHX:N1	2.37	0.58
11:S9:9:SER:OG	1:6:771:A:OP1	390.78	0.58
21:C9:30:VAL:HG12	21:C9:54:PHE:CD2	2.60	0.58
28:D6:4:LYS:HE2	28:D6:5:ARG:NH2	2.22	0.58
42:L5:91:GLY:O	42:L5:94:ASN:ND2	2.36	0.58
5:S3:46:THR:HB	5:S3:84:ILE:HG12	1.85	0.58
7:S5:193:THR:HA	7:S5:196:GLU:HB2	1.83	0.58
36:1:1915:A:H2'	36:1:1916:U:C6	2.38	0.58
36:1:2534:G:H1	36:1:2545:C:H42	1.49	0.58
36:1:2927:C:H2'	36:1:2928:C:C6	2.38	0.58
36:1:3308:C:O2	53:M7:69:ARG:HD3	2.03	0.58
1:2:1449:U:H2'	1:2:1450:U:C6	2.38	0.58
1:2:1675:C:H1'	10:S8:32:GLN:NE2	2.18	0.58
1:2:446:A:N6	1:2:461:G:H21	2.01	0.58
41:L4:183:LYS:HE3	36:5:1386:A:N7	119.61	0.58
36:5:2509:U:H2'	36:5:2510:U:H5''	1.85	0.58
36:5:3283:U:H2'	36:5:3284:G:C8	2.38	0.58
1:6:1010:C:OP2	88:6:2168:OHX:N3	2.36	0.58
22:D0:27:THR:HB	22:D0:88:LYS:HG2	2.25	0.58
26:D4:12:VAL:HG13	26:D4:23:PHE:HB3	1.85	0.58
40:L3:345:ASN:OD1	40:L3:346:THR:N	3.36	0.58
42:L5:155:THR:HA	42:L5:179:ARG:HA	1.98	0.58
45:L8:163:VAL:HG22	45:L8:166:LEU:HD12	1.89	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:120:ASP:OD1	46:L9:124:ARG:NH2	2.36	0.58
51:M5:121:VAL:HG11	51:M5:131:GLU:HG3	2.62	0.58
52:M6:8:VAL:HG13	52:M6:34:VAL:HG22	2.40	0.58
36:1:2790:A:OP2	54:M8:181:SER:HB3	2.02	0.58
67:O1:44:MET:O	67:O1:46:THR:N	3.24	0.58
5:S3:168:ILE:HG22	5:S3:189:MET:HB2	2.95	0.58
36:1:1014:U:H2'	36:1:1015:U:H5''	1.85	0.58
36:1:3160:U:H5''	36:1:3396:U:H2'	1.85	0.58
36:1:425:G:O6	88:1:3883:OHX:N6	2.36	0.58
1:2:1147:A:H2'	1:2:1148:C:C6	2.38	0.58
1:2:1381:U:H1'	1:2:1516:A:N6	2.17	0.58
1:2:1486:G:H1'	1:2:1592:A:O2'	2.03	0.58
1:2:1783:C:H2'	1:2:1784:C:C6	2.39	0.58
79:Q3:36:ARG:HH22	36:5:1725:C:H5''	228.46	0.58
36:5:3155:U:OP1	88:5:4231:OHX:N2	2.36	0.58
35:SM:76:VAL:HG13	1:6:1460:A:C5	328.99	0.58
22:D0:22:ILE:HG22	22:D0:93:LEU:HB2	2.08	0.58
23:D1:3:ASN:ND2	23:D1:7:GLN:HB3	2.48	0.58
30:D8:12:VAL:HA	30:D8:30:VAL:HG12	1.84	0.58
33:E1:98:VAL:HG12	33:E1:99:LYS:H	3.28	0.58
40:L3:211:GLN:NE2	40:L3:283:TYR:O	2.34	0.58
41:L4:122:THR:HG22	41:L4:235:LEU:HB2	1.86	0.58
2:S0:112:THR:O	2:S0:115:PHE:HB2	2.03	0.58
6:S4:60:GLU:OE1	26:D4:20:ARG:NH1	3.04	0.58
6:S4:79:ASP:HB3	6:S4:82:TYR:HB2	1.84	0.58
34:SR:70:ASP:HB2	34:SR:112:SER:HA	1.85	0.58
36:1:2636:A:H5''	36:1:2637:A:H5'	1.86	0.58
1:2:499:U:O2'	1:2:500:C:O4'	2.21	0.58
1:2:514:G:O2'	1:2:515:A:H5'	2.04	0.58
1:2:953:G:H2'	1:2:954:G:C8	2.39	0.58
36:5:1231:A:H5''	36:5:1232:C:H5'	1.85	0.58
36:5:1734:G:O6	88:5:3972:OHX:N5	2.37	0.58
36:5:409:A:OP2	88:5:4106:OHX:N3	2.37	0.58
1:6:485:A:H61	1:6:502:U:H3	1.52	0.58
24:D2:27:ILE:HD11	24:D2:61:ILE:HD12	1.86	0.58
44:L7:151:ARG:HH11	44:L7:244:ASN:HD22	1.51	0.58
36:1:2828:G:OP1	47:M0:7:ARG:NH1	2.37	0.58
50:M4:47:ASP:CG	50:M4:55:ARG:HB2	2.46	0.58
62:N6:106:ILE:HG21	62:N6:109:LEU:HD23	2.67	0.58
70:O4:29:ILE:HG12	70:O4:30:LEU:N	2.19	0.58
79:Q3:73:THR:HB	79:Q3:76:ALA:H	4.41	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:59:LEU:HA	5:S3:66:ILE:HG13	1.85	0.58
6:S4:196:VAL:HG12	6:S4:197:HIS:HB2	2.37	0.58
10:S8:155:SER:HB2	10:S8:189:LEU:HD21	1.86	0.58
36:1:1674:G:N2	36:1:1773:C:O2	2.36	0.58
36:1:353:G:N7	73:O7:55:ARG:HD3	2.19	0.58
36:1:651:G:O2'	36:1:1435:A:OP1	2.22	0.58
71:O5:95:PHE:CD2	36:5:136:G:H5'	63.18	0.58
36:5:2537:U:O2	36:5:2543:U:N3	2.36	0.58
36:5:3259:U:H6	36:5:3259:U:H5'	1.69	0.58
14:C2:124:LYS:O	14:C2:126:TRP:N	2.31	0.58
28:D6:5:ARG:O	28:D6:8:ASN:N	2.59	0.58
40:L3:306:THR:HG22	40:L3:310:GLY:HA2	1.86	0.58
54:M8:122:ILE:HD11	54:M8:130:ARG:NH1	3.87	0.58
55:M9:102:LEU:HD22	55:M9:138:LEU:HD12	1.86	0.58
56:N0:23:LYS:O	56:N0:24:LEU:HB2	2.02	0.58
44:L7:80:GLN:OE1	57:N1:136:ARG:N	2.30	0.58
61:N5:82:LEU:HD11	61:N5:135:ILE:HD12	2.69	0.58
61:N5:38:LEU:HD11	61:N5:40:LEU:HD13	1.86	0.58
66:O0:73:GLY:O	66:O0:76:GLU:HG2	2.03	0.58
3:S1:51:SER:HB3	3:S1:57:ALA:H	3.05	0.58
4:S2:44:LEU:HD21	4:S2:247:ALA:HB2	2.17	0.58
6:S4:206:ASP:N	6:S4:206:ASP:OD1	2.36	0.58
9:S7:147:ASN:N	9:S7:147:ASN:OD1	2.36	0.58
34:SR:159:ASN:ND2	34:SR:166:SER:O	2.36	0.58
36:1:239:G:O2'	36:1:240:U:OP1	2.20	0.58
1:2:9:U:O4	88:2:2155:OHX:N6	2.36	0.58
1:6:1393:C:H2'	1:6:1394:G:C8	2.39	0.58
1:6:496:G:O6	1:6:497:G:N2	2.36	0.58
15:C3:41:ALA:HB1	15:C3:75:LEU:HD21	2.72	0.58
17:C5:86:VAL:HG22	17:C5:89:MET:HG2	1.85	0.58
18:C6:129:PHE:CE1	22:D0:78:THR:HA	2.39	0.58
19:C7:20:TYR:CG	19:C7:38:ILE:HD11	2.38	0.58
21:C9:33:TYR:CD1	21:C9:37:VAL:HG21	3.68	0.58
24:D2:105:THR:HG23	24:D2:110:ILE:HG12	1.84	0.58
41:L4:292:SER:OG	41:L4:293:SER:N	2.35	0.58
43:L6:48:ARG:NH2	36:5:3276:G:O2'	240.33	0.58
44:L7:191:VAL:HG12	44:L7:192:GLY:H	4.28	0.58
49:M3:42:ARG:O	49:M3:46:ILE:HG12	2.59	0.58
58:N2:50:LEU:O	58:N2:52:ASN:N	2.36	0.58
67:O1:44:MET:HB3	67:O1:77:ARG:CZ	4.56	0.58
3:S1:33:LYS:HE2	3:S1:41:ARG:HH12	5.13	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:35:LYS:O	9:S7:37:GLU:N	2.33	0.58
11:S9:157:ASP:OD1	11:S9:158:PHE:N	4.49	0.58
36:1:1017:C:O2'	36:1:1018:G:OP2	2.21	0.58
1:2:1426:C:H5''	35:SM:93:ARG:HH12	1.68	0.58
1:2:142:G:O6	8:S6:177:ARG:NH1	2.28	0.58
1:2:477:A:H2'	1:2:478:A:H8	1.69	0.58
42:L5:140:ARG:HD3	36:5:1080:A:OP1	226.69	0.58
36:5:2507:C:O2'	36:5:2508:U:OP1	2.18	0.58
51:M5:12:ARG:HG2	36:5:268:A:C5	127.76	0.58
36:5:3152:U:O2	88:5:4231:OHX:N5	2.37	0.58
7:S5:25:LEU:HB2	18:C6:27:GLY:O	2.33	0.58
20:C8:126:ARG:HG2	20:C8:133:VAL:HA	1.85	0.58
22:D0:57:ARG:HG3	22:D0:89:ARG:CZ	2.34	0.58
24:D2:15:ASN:HD21	24:D2:71:LYS:HG3	2.33	0.58
27:D5:87:GLY:C	27:D5:89:ILE:H	2.08	0.58
63:N7:15:ARG:HG3	63:N7:15:ARG:HH11	3.44	0.58
63:N7:21:LYS:NZ	63:N7:47:GLU:O	3.09	0.58
64:N8:74:ASN:HB3	64:N8:115:LYS:H	1.69	0.58
74:O8:23:ALA:HB3	74:O8:75:VAL:HG22	1.86	0.58
3:S1:76:SER:OG	3:S1:78:ASP:OD1	2.22	0.58
10:S8:192:TYR:O	10:S8:196:LEU:HB2	2.04	0.58
36:1:13:A:H8	36:1:13:A:H5''	1.68	0.58
36:1:246:U:H2'	36:1:247:C:H6	1.68	0.58
36:1:2683:U:H2'	36:1:2684:C:H6	1.67	0.58
36:5:1387:G:OP1	88:5:4205:OHX:N3	2.37	0.58
36:5:209:A:H4'	36:5:211:A:C8	2.39	0.58
36:5:879:U:O2	36:5:2357:A:H1'	2.04	0.58
33:E1:151:ASN:ND2	33:E1:151:ASN:O	2.37	0.58
44:L7:195:PHE:O	44:L7:199:ASN:HB3	2.67	0.58
45:L8:244:ALA:HA	45:L8:247:ASP:HB2	3.22	0.58
46:L9:1:MET:HE2	46:L9:3:TYR:CE1	2.39	0.58
47:M0:61:SER:HB2	47:M0:63:GLU:HG2	2.03	0.58
63:N7:51:LEU:HB2	63:N7:65:ARG:HB2	4.54	0.58
74:O8:42:LYS:HG2	74:O8:55:VAL:HG22	1.86	0.58
74:O8:9:LYS:O	74:O8:13:GLU:HG2	2.03	0.58
79:Q3:74:ALA:O	79:Q3:78:THR:HG23	2.96	0.58
3:S1:167:VAL:HG11	3:S1:200:ALA:HB1	2.51	0.58
4:S2:53:ILE:HD12	4:S2:53:ILE:H	4.07	0.58
6:S4:95:THR:HG23	6:S4:97:GLU:HG2	7.27	0.58
8:S6:53:SER:O	8:S6:110:ALA:HB3	2.04	0.58
36:1:1819:U:O4	88:1:4053:OHX:N4	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1430:U:O4'	22:D0:72:ASN:ND2	2.31	0.57
36:5:1940:G:H21	36:5:3362:A:H8	1.52	0.57
36:5:283:G:OP2	36:5:285:A:O2'	2.14	0.57
1:6:1202:A:OP1	88:6:2126:OHX:N1	2.37	0.57
1:6:1573:A:H4'	1:6:1574:G:O5'	2.03	0.57
1:6:1783:C:H2'	1:6:1784:C:C6	2.39	0.57
13:C1:21:ASN:HB3	13:C1:32:LYS:HD3	5.34	0.57
20:C8:140:THR:HA	20:C8:143:ARG:HH11	2.91	0.57
20:C8:82:PRO:HG3	21:C9:36:ILE:HD12	2.57	0.57
33:E1:82:LYS:O	33:E1:84:VAL:N	4.91	0.57
73:O7:21:ARG:HD2	73:O7:37:CYS:SG	2.44	0.57
4:S2:118:ALA:HB3	4:S2:124:ALA:HB2	2.26	0.57
34:SR:59:ARG:NH1	34:SR:96:THR:H	4.91	0.57
36:1:1040:A:N3	47:M0:198:LYS:NZ	2.48	0.57
36:1:1823:A:H2'	36:1:1824:U:C6	2.39	0.57
36:1:439:C:H3'	36:1:440:A:C8	2.39	0.57
1:2:1248:C:H2'	1:2:1249:U:C6	2.39	0.57
1:2:1592:A:H2'	1:2:1593:A:C8	2.38	0.57
36:5:787:G:H2'	36:5:788:C:C6	2.39	0.57
39:L2:201:GLY:HA2	39:L2:204:MET:HG3	1.86	0.57
43:L6:58:LEU:HD12	43:L6:78:ARG:HD3	1.85	0.57
46:L9:91:ARG:NH1	46:L9:141:LYS:O	2.32	0.57
47:M0:177:ASP:OD2	47:M0:177:ASP:N	3.42	0.57
44:L7:80:GLN:OE1	57:N1:136:ARG:HG2	2.04	0.57
10:S8:138:ASN:HA	10:S8:141:ARG:HB2	3.37	0.57
11:S9:125:ALA:O	11:S9:129:ILE:HG13	2.04	0.57
1:2:1738:U:O4	88:2:2041:OHX:N4	2.37	0.57
1:2:356:G:OP2	88:2:2036:OHX:N6	2.37	0.57
1:2:438:A:H1'	1:2:466:U:O2	2.04	0.57
36:5:1560:G:H1	36:5:1579:C:H42	1.52	0.57
36:5:1806:A:H2'	36:5:1807:G:O4'	2.04	0.57
1:6:1244:A:H3'	1:6:1244:A:N3	2.19	0.57
1:6:542:A:OP1	1:6:544:A:C5	2.58	0.57
1:6:846:G:H2'	1:6:847:A:C8	2.39	0.57
15:C3:62:GLN:HB2	15:C3:65:VAL:HG23	1.86	0.57
29:D7:36:LYS:HG2	29:D7:43:ILE:HA	4.63	0.57
41:L4:47:ARG:NH1	41:L4:109:TRP:O	2.69	0.57
53:M7:125:GLN:HB2	53:M7:141:SER:HB2	1.85	0.57
62:N6:57:LEU:HD13	62:N6:59:VAL:HG12	4.33	0.57
63:N7:135:ARG:HH21	63:N7:135:ARG:HB3	3.35	0.57
68:O2:105:ARG:O	68:O2:109:LEU:HB2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:178:GLY:O	3:S1:179:SER:HB2	4.69	0.57
3:S1:39:GLU:HB3	3:S1:73:LEU:O	2.05	0.57
5:S3:176:LEU:HD12	5:S3:176:LEU:H	1.68	0.57
6:S4:77:ARG:HD2	6:S4:82:TYR:CE1	4.61	0.57
9:S7:82:GLU:OE2	9:S7:165:LYS:HE2	2.04	0.57
36:1:716:A:OP2	64:N8:137:LYS:NZ	2.36	0.57
1:2:192:U:O2'	1:2:193:U:O5'	2.19	0.57
36:5:2440:G:H2'	36:5:2441:A:C8	2.38	0.57
12:C0:17:GLN:HG2	12:C0:18:GLU:HG2	1.86	0.57
14:C2:95:LYS:HA	14:C2:117:GLY:HA2	3.91	0.57
18:C6:50:GLU:OE2	18:C6:82:ARG:NH2	3.35	0.57
25:D3:68:ILE:O	25:D3:70:LYS:NZ	2.44	0.57
27:D5:41:ILE:HG23	27:D5:42:LEU:H	1.70	0.57
32:E0:59:GLY:C	32:E0:61:SER:H	3.48	0.57
39:L2:105:GLY:HA2	39:L2:139:HIS:CE1	5.07	0.57
40:L3:275:ARG:NH1	36:5:3045:G:O3'	234.67	0.57
40:L3:347:SER:HB3	40:L3:350:ALA:H	1.68	0.57
40:L3:81:THR:HG23	40:L3:81:THR:O	4.22	0.57
42:L5:181:PRO:HD2	42:L5:195:LEU:HD13	2.61	0.57
45:L8:245:LYS:HZ2	45:L8:246:MET:HB3	1.69	0.57
2:S0:26:ALA:HB3	2:S0:149:LEU:HB2	2.06	0.57
6:S4:3:ARG:HG2	1:6:399:A:H4'	320.21	0.57
7:S5:42:LEU:HB2	7:S5:46:TRP:O	2.05	0.57
9:S7:164:TYR:CE1	9:S7:165:LYS:HG3	2.44	0.57
1:2:1240:U:OP2	88:2:2144:OHX:N1	2.38	0.57
1:2:434:G:N7	88:2:2048:OHX:N4	2.53	0.57
1:2:488:G:N2	1:2:500:C:O2	2.38	0.57
36:5:3327:G:O6	88:5:3961:OHX:N1	2.37	0.57
36:5:549:U:H2'	36:5:550:A:H8	1.67	0.57
1:6:1482:C:OP2	1:6:1521:G:N1	2.36	0.57
17:C5:16:SER:HA	17:C5:20:VAL:O	2.04	0.57
22:D0:26:LEU:HD22	22:D0:114:VAL:HG22	1.86	0.57
25:D3:30:LYS:O	25:D3:34:LEU:HG	2.04	0.57
32:E0:39:LEU:HD12	32:E0:42:ARG:HH12	7.03	0.57
40:L3:153:LYS:HD3	40:L3:154:TYR:CZ	2.39	0.57
47:M0:38:LYS:HB2	47:M0:83:ASP:HA	1.85	0.57
50:M4:24:LYS:HE2	50:M4:25:LYS:HE2	1.85	0.57
55:M9:180:LYS:HA	55:M9:183:ALA:HB3	1.85	0.57
38:4:131:A:H5''	61:N5:93:TYR:CE2	2.40	0.57
63:N7:128:GLN:O	63:N7:131:PHE:N	3.24	0.57
70:O4:58:ARG:HH11	70:O4:58:ARG:CG	2.17	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:105:ARG:O	71:O5:109:ILE:HG13	2.96	0.57
36:1:316:U:O2'	72:O6:30:LYS:HD2	2.04	0.57
1:2:885:G:OP1	3:S1:136:ARG:NH1	2.36	0.57
10:S8:137:LYS:O	10:S8:140:GLU:N	3.31	0.57
1:2:398:G:OP2	10:S8:47:ARG:NH1	2.37	0.57
35:SM:35:ALA:HB1	35:SM:37:VAL:HG23	1.86	0.57
36:1:1029:G:H2'	36:1:1030:A:C8	2.39	0.57
36:1:2712:U:H2'	36:1:2713:U:C6	2.39	0.57
36:1:356:C:OP2	88:1:4155:OHX:N1	2.37	0.57
1:2:1347:U:O2	1:2:1516:A:H5'	2.04	0.57
1:2:1595:U:H3	1:2:1600:A:H2	1.53	0.57
1:2:732:G:O6	88:2:2129:OHX:N5	2.38	0.57
1:2:789:A:O2'	6:S4:106:LYS:NZ	2.23	0.57
1:2:918:U:O3'	16:C4:18:ARG:NH1	2.36	0.57
37:3:3:U:H2'	37:3:4:U:H6	1.70	0.57
36:5:3197:G:H2'	36:5:3198:U:H5''	1.86	0.57
1:6:1432:U:H4'	1:6:1433:G:H5''	1.87	0.57
1:6:776:G:H2'	1:6:777:C:H5''	1.86	0.57
13:C1:2:SER:HB2	13:C1:81:HIS:HD2	1.69	0.57
21:C9:28:LEU:O	21:C9:29:GLU:HB2	2.32	0.57
22:D0:50:LEU:HD22	22:D0:95:ALA:HB2	2.50	0.57
26:D4:89:TYR:HE1	26:D4:93:ARG:HH12	4.25	0.57
39:L2:214:GLY:O	39:L2:215:ASN:HB2	4.59	0.57
40:L3:111:SER:O	40:L3:114:VAL:HG23	2.18	0.57
46:L9:90:MET:HB2	46:L9:144:ILE:HG22	2.08	0.57
47:M0:16:PRO:HD3	47:M0:128:ARG:CZ	2.35	0.57
62:N6:24:SER:OG	62:N6:75:ARG:NH1	2.45	0.57
62:N6:83:ASP:O	62:N6:84:LYS:HB2	2.04	0.57
7:S5:146:THR:HG23	7:S5:221:ALA:HA	1.86	0.57
8:S6:19:ASP:OD1	8:S6:19:ASP:N	2.37	0.57
11:S9:163:PRO:HG2	11:S9:164:PHE:HD2	1.69	0.57
36:1:1222:G:O2'	36:1:1285:G:N1	2.33	0.57
36:1:900:G:H1'	36:1:1589:A:N6	2.20	0.57
36:1:3278:C:H2'	36:1:3278:C:O2	2.04	0.57
36:1:501:A:H2'	36:1:502:U:C6	2.39	0.57
1:2:1199:G:O6	22:D0:67:THR:HG23	2.04	0.57
1:2:67:A:O3'	1:2:68:A:H3'	2.05	0.57
36:5:2310:U:OP1	88:5:4203:OHX:N2	2.38	0.57
66:O0:53:LYS:HE2	36:5:2552:C:H5	241.77	0.57
36:5:3028:G:H2'	36:5:3029:A:C8	2.39	0.57
36:5:621:A:H2'	36:5:622:A:C8	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:355:G:OP1	88:6:2064:OHX:N5	2.38	0.57
12:C0:32:HIS:CD2	12:C0:35:ILE:HB	2.39	0.57
28:D6:41:ILE:HG22	28:D6:68:TYR:HA	1.86	0.57
40:L3:53:MET:HG2	40:L3:77:THR:HG22	2.21	0.57
44:L7:40:LYS:HE2	44:L7:170:GLU:OE1	3.87	0.57
45:L8:41:GLN:HG3	45:L8:44:ARG:HH12	2.98	0.57
52:M6:159:LYS:NZ	36:5:3243:A:OP1	267.36	0.57
52:M6:18:ARG:NH2	36:5:1318:A:OP1	277.02	0.57
65:N9:20:GLY:O	65:N9:21:ILE:HB	2.39	0.57
70:O4:16:ARG:HH11	70:O4:16:ARG:HG3	4.43	0.57
6:S4:118:GLU:HA	6:S4:121:TYR:CE1	3.21	0.57
6:S4:31:PRO:HB2	6:S4:38:LEU:HD22	1.86	0.57
34:SR:161:LYS:O	34:SR:161:LYS:HG2	2.04	0.57
34:SR:25:THR:HG21	34:SR:295:SER:HA	2.15	0.57
36:1:595:G:N1	36:1:609:G:H5''	2.19	0.57
1:2:701:U:H3	1:2:737:A:H61	1.52	0.57
36:5:677:A:H4'	36:5:678:G:O5'	2.05	0.57
15:C3:37:ILE:HD12	15:C3:74:ILE:HD12	1.87	0.57
18:C6:107:LYS:O	18:C6:111:SER:OG	4.24	0.57
48:M1:15:GLU:HB3	48:M1:130:VAL:HG22	3.08	0.57
58:N2:50:LEU:HB3	58:N2:54:VAL:HG22	1.87	0.57
71:O5:13:SER:C	71:O5:15:GLU:H	2.08	0.57
5:S3:179:GLN:HE21	5:S3:179:GLN:C	2.07	0.57
7:S5:90:ILE:O	7:S5:94:THR:HG23	2.29	0.57
34:SR:26:SER:OG	34:SR:75:ALA:O	2.22	0.57
34:SR:70:ASP:OD2	34:SR:155:ARG:NH2	2.32	0.57
36:1:1323:G:O3'	56:N0:2:ALA:HA	2.05	0.57
36:1:2960:C:H2'	36:1:2961:G:C8	2.40	0.57
1:2:1564:U:H2'	1:2:1565:C:H6	1.68	0.57
1:2:93:A:H1'	6:S4:3:ARG:HB3	1.87	0.57
36:5:129:U:H2'	36:5:130:A:C8	2.40	0.57
36:5:1192:C:N4	36:5:1301:A:O2'	2.36	0.57
75:O9:2:ALA:N	36:5:1493:G:O6	122.18	0.57
36:5:308:A:H5'	36:5:2223:A:O2'	2.05	0.57
36:5:604:G:N7	88:5:4172:OHX:N2	2.52	0.57
15:C3:5:HIS:CE1	15:C3:121:ARG:HG3	2.39	0.57
17:C5:98:ASN:HB3	17:C5:120:SER:OG	2.05	0.57
18:C6:26:LYS:NZ	1:6:1364:G:O3'	436.51	0.57
18:C6:40:GLU:HA	18:C6:42:GLU:N	2.18	0.57
18:C6:99:GLU:HG2	34:SR:57:PRO:HB2	2.64	0.57
24:D2:11:LEU:HD11	24:D2:37:PHE:CZ	2.88	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:37:LYS:O	28:D6:38:ARG:NH1	2.38	0.57
42:L5:64:ILE:HG13	42:L5:105:ILE:HD12	1.85	0.57
44:L7:170:GLU:HG3	44:L7:179:LEU:HB3	1.85	0.57
36:1:1097:G:H5'	57:N1:129:LYS:HE2	1.86	0.57
57:N1:17:ARG:O	57:N1:18:ASP:HB2	2.04	0.57
60:N4:23:ARG:NH2	60:N4:25:ASP:OD1	4.26	0.57
67:O1:10:ARG:HB3	67:O1:108:VAL:HA	1.87	0.57
11:S9:129:ILE:HA	11:S9:134:ILE:CG1	3.87	0.57
5:S3:117:ARG:HD3	35:SM:122:GLU:HB3	1.86	0.57
34:SR:70:ASP:CB	34:SR:112:SER:HA	2.33	0.57
36:1:249:U:O2	36:1:250:U:N3	2.37	0.57
1:2:1175:U:H2'	1:2:1176:G:C8	2.40	0.57
88:5:4023:OHX:N6	88:5:4222:OHX:N2	2.53	0.57
1:6:1255:G:O2'	1:6:1256:A:O5'	2.22	0.57
19:C7:23:LYS:O	19:C7:24:LEU:HB2	2.05	0.57
22:D0:51:VAL:HG13	22:D0:94:GLU:HB2	1.85	0.57
25:D3:28:ASN:N	25:D3:28:ASN:OD1	2.37	0.57
40:L3:37:ARG:O	40:L3:186:GLY:HA2	2.05	0.57
44:L7:139:PRO:HA	44:L7:237:ASN:ND2	2.18	0.57
46:L9:136:PHE:CE1	46:L9:144:ILE:HG12	4.71	0.57
46:L9:137:SER:HB2	46:L9:143:GLU:HB3	2.60	0.57
52:M6:15:LEU:HD21	52:M6:125:ARG:HG3	1.87	0.57
53:M7:67:ILE:HD12	53:M7:82:ARG:CZ	3.51	0.57
54:M8:148:GLU:O	54:M8:151:ARG:HG3	2.30	0.57
56:N0:12:ARG:HG3	56:N0:13:ARG:O	4.88	0.57
66:O0:41:LEU:HD12	66:O0:100:ILE:HD12	5.03	0.57
69:O3:75:HIS:HB3	69:O3:80:VAL:CG1	2.35	0.57
2:S0:86:VAL:HG12	2:S0:174:TRP:CZ2	2.66	0.57
6:S4:251:GLU:O	6:S4:255:ARG:HG3	2.57	0.57
7:S5:222:LYS:HA	7:S5:225:ARG:HH11	4.38	0.57
8:S6:142:ARG:HA	8:S6:147:LEU:HD12	1.87	0.57
8:S6:138:ALA:HB2	8:S6:177:ARG:HB3	4.07	0.57
9:S7:50:ASP:HA	9:S7:56:LYS:HA	1.87	0.57
35:SM:127:ALA:HA	35:SM:130:GLU:HB2	1.86	0.57
36:1:2303:A:OP1	77:Q1:23:ARG:NH2	2.38	0.56
1:2:1280:C:H2'	1:2:1281:G:C8	2.40	0.56
1:2:1795:U:H3'	28:D6:5:ARG:NH1	2.19	0.56
36:5:398:A:O2'	36:5:1416:C:OP1	2.19	0.56
36:5:2818:U:C6	36:5:2818:U:H5'	2.34	0.56
64:N8:27:LYS:NZ	36:5:801:A:OP1	155.42	0.56
1:6:1054:U:H2'	1:6:1055:U:H6	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:867:G:OP2	15:C3:3:ARG:NH1	2.37	0.56
16:C4:112:ILE:H	28:D6:57:SER:HA	2.06	0.56
1:2:780:A:H62	26:D4:8:ARG:HH21	1.53	0.56
45:L8:82:LEU:HD12	45:L8:83:ASP:H	1.68	0.56
46:L9:86:TYR:CD1	46:L9:151:VAL:HG13	2.83	0.56
47:M0:188:GLY:O	47:M0:190:VAL:N	2.31	0.56
36:1:1213:G:OP1	56:N0:137:ARG:HD3	2.05	0.56
64:N8:82:ILE:HG22	64:N8:87:ARG:HG3	2.87	0.56
67:O1:40:ALA:O	67:O1:43:HIS:N	3.81	0.56
67:O1:90:PHE:O	67:O1:91:SER:HB2	4.48	0.56
2:S0:56:LYS:HZ3	2:S0:158:VAL:HA	2.10	0.56
3:S1:87:ARG:NH2	3:S1:89:ASP:OD1	4.28	0.56
34:SR:225:LEU:HD12	34:SR:228:LYS:HG3	3.49	0.56
36:1:2997:G:O4'	36:1:3396:U:H5'	2.04	0.56
1:2:265:A:N7	8:S6:190:GLN:NE2	2.52	0.56
1:2:432:G:H2'	1:2:433:C:O4'	2.05	0.56
1:2:649:U:O2'	1:2:650:U:O4'	2.23	0.56
54:M8:185:LYS:NZ	36:5:779:G:OP1	179.84	0.56
8:S6:87:ARG:NH1	1:6:159:U:O2'	321.20	0.56
1:6:729:G:O2'	1:6:730:G:O5'	2.21	0.56
14:C2:89:ILE:HD13	14:C2:90:LYS:H	1.70	0.56
19:C7:26:LEU:HD13	19:C7:59:LYS:HG3	1.87	0.56
20:C8:117:LYS:O	20:C8:120:ARG:HD2	3.87	0.56
25:D3:108:GLY:HA2	1:6:600:U:OP2	357.57	0.56
40:L3:56:ILE:HG12	40:L3:323:MET:HE3	1.92	0.56
41:L4:295:ILE:HG23	41:L4:299:ILE:HD11	1.87	0.56
42:L5:279:LYS:HG2	42:L5:282:ARG:NH1	2.19	0.56
44:L7:121:LYS:HD2	44:L7:125:GLU:HG2	1.87	0.56
49:M3:119:TYR:O	49:M3:123:ILE:HG23	2.06	0.56
49:M3:59:ARG:NH1	49:M3:66:ASN:O	2.65	0.56
51:M5:190:THR:O	51:M5:194:GLN:HG2	2.05	0.56
54:M8:36:LEU:HB3	54:M8:45:ASN:ND2	2.81	0.56
57:N1:15:PHE:CE2	57:N1:44:ALA:HB3	2.40	0.56
62:N6:48:LEU:HD23	62:N6:49:PRO:HD2	1.87	0.56
34:SR:133:VAL:O	34:SR:141:LEU:N	2.55	0.56
36:1:132:C:H2'	36:1:133:U:H5''	1.86	0.56
36:1:2442:G:H22	36:1:2505:U:H3	1.52	0.56
36:1:3050:U:OP2	88:1:4195:OHX:N2	2.38	0.56
36:1:3243:A:C8	52:M6:156:LEU:HD22	2.40	0.56
88:1:3979:OHX:N1	38:4:31:G:OP2	2.38	0.56
36:5:1239:C:N3	36:5:1249:G:N2	2.52	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1861:G:OP2	88:5:3998:OHX:N2	2.38	0.56
33:E1:102:VAL:O	33:E1:104:SER:N	2.37	0.56
47:M0:140:THR:HG21	47:M0:144:ASN:HD22	1.71	0.56
50:M4:115:PHE:O	50:M4:119:GLN:HG3	2.05	0.56
54:M8:165:ILE:HG21	54:M8:168:THR:HG22	5.16	0.56
63:N7:4:PHE:CZ	66:O0:35:ARG:HA	2.39	0.56
71:O5:47:VAL:O	71:O5:51:ILE:HG13	2.37	0.56
3:S1:34:ALA:HB3	3:S1:41:ARG:HA	1.87	0.56
36:1:1062:A:N3	57:N1:130:ARG:NH2	2.53	0.56
1:2:1499:G:OP1	21:C9:122:ARG:NH1	2.38	0.56
1:2:331:A:H5'	10:S8:33:PRO:HA	1.88	0.56
37:3:4:U:H2'	37:3:5:G:H8	1.70	0.56
36:5:252:U:H4'	36:5:253:A:C5'	2.36	0.56
46:L9:70:THR:HB	36:5:3112:G:O2'	329.49	0.56
40:L3:274:SER:OG	36:5:3139:A:OP1	228.33	0.56
36:5:370:U:H4'	36:5:404:G:H5'	1.88	0.56
1:6:209:U:H2'	1:6:210:A:H8	1.68	0.56
38:8:77:A:H2'	38:8:78:G:O4'	2.05	0.56
22:D0:118:VAL:HG13	22:D0:119:ALA:H	3.32	0.56
32:E0:14:VAL:O	32:E0:18:THR:HG23	2.06	0.56
40:L3:233:TRP:CD1	40:L3:265:ALA:HB1	2.40	0.56
44:L7:229:PHE:HD1	44:L7:229:PHE:C	2.38	0.56
63:N7:36:HIS:HD2	63:N7:74:VAL:HG11	3.01	0.56
71:O5:105:ARG:HB2	71:O5:105:ARG:HH21	1.70	0.56
3:S1:59:ASP:HA	3:S1:62:LYS:HZ1	1.70	0.56
5:S3:114:ALA:HB3	5:S3:117:ARG:HB3	2.74	0.56
6:S4:242:LYS:N	6:S4:242:LYS:HE3	2.20	0.56
34:SR:69:GLN:O	34:SR:83:ALA:HB3	2.05	0.56
36:1:2900:A:N3	36:1:3025:C:O2'	2.37	0.56
36:1:3155:U:H3'	36:1:3156:U:C4'	2.36	0.56
36:1:562:C:H2'	36:1:563:U:C6	2.39	0.56
1:2:1226:A:O2'	1:2:1227:A:OP1	2.21	0.56
1:2:1358:G:H2'	1:2:1359:C:C6	2.40	0.56
1:2:1479:A:H2'	1:2:1480:G:H8	1.70	0.56
1:2:1588:G:H1	1:2:1608:U:H3	1.52	0.56
1:2:912:U:O4	1:2:914:G:N2	2.38	0.56
37:3:64:A:H3'	47:M0:204:GLY:O	2.04	0.56
88:5:4023:OHX:N5	88:5:4222:OHX:N2	2.53	0.56
36:5:816:A:H5''	36:5:920:A:H62	1.70	0.56
1:6:922:G:H2'	1:6:923:A:C8	2.40	0.56
37:7:23:A:H2'	37:7:24:A:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:93:LYS:HG3	15:C3:150:VAL:HG11	1.86	0.56
1:2:1609:U:OP2	18:C6:14:LYS:NZ	2.38	0.56
21:C9:97:SER:OG	21:C9:100:ILE:HB	2.06	0.56
26:D4:124:ARG:NH2	1:6:151:G:O6	319.60	0.56
39:L2:243:THR:OG1	36:5:2244:A:H5''	228.28	0.56
40:L3:296:THR:HB	40:L3:299:ASP:H	1.70	0.56
40:L3:76:VAL:HA	40:L3:326:GLY:H	1.71	0.56
41:L4:341:SER:O	41:L4:342:LYS:HB3	4.75	0.56
42:L5:49:TYR:CE1	42:L5:75:LEU:HD12	3.76	0.56
49:M3:185:LYS:NZ	49:M3:189:GLU:OE2	2.38	0.56
54:M8:150:VAL:HA	54:M8:153:PHE:CD1	2.40	0.56
56:N0:79:VAL:HG21	56:N0:106:LEU:HD21	2.15	0.56
78:Q2:71:ARG:HH21	78:Q2:80:ARG:HH21	1.53	0.56
3:S1:183:GLN:O	3:S1:187:LYS:N	2.38	0.56
6:S4:45:ILE:HB	6:S4:80:THR:HG22	1.88	0.56
7:S5:142:PRO:HG2	7:S5:170:GLN:HE22	1.70	0.56
7:S5:91:GLU:HA	7:S5:94:THR:HG23	1.86	0.56
8:S6:202:ARG:NH2	1:6:127:G:N7	330.32	0.56
36:1:2357:A:H2'	36:1:2358:A:C8	2.41	0.56
36:1:2676:A:H4'	36:1:2677:G:O5'	2.04	0.56
36:1:2989:U:O2'	40:L3:232:ARG:NH2	2.38	0.56
1:2:1726:G:N7	88:2:2099:OHX:N4	2.54	0.56
37:3:46:A:OP1	42:L5:158:ARG:HG2	2.05	0.56
45:L8:241:LYS:HB2	36:5:2586:G:N7	185.04	0.56
1:6:1688:U:H3	1:6:1713:G:H1	1.52	0.56
1:6:1783:C:H2'	1:6:1784:C:H6	1.71	0.56
38:8:16:G:O6	88:8:217:OHX:N6	2.38	0.56
25:D3:107:PHE:CE1	25:D3:123:LYS:HB3	2.41	0.56
32:E0:13:LYS:O	32:E0:17:GLN:HG2	2.27	0.56
32:E0:14:VAL:HA	32:E0:17:GLN:HG2	2.34	0.56
33:E1:108:VAL:HG12	33:E1:114:VAL:HG22	3.48	0.56
40:L3:159:ARG:HG2	40:L3:182:GLN:HA	1.88	0.56
42:L5:56:THR:O	42:L5:58:LYS:N	2.33	0.56
45:L8:50:VAL:HG22	45:L8:52:TRP:CE2	2.40	0.56
49:M3:64:LYS:HG3	64:N8:69:TRP:CG	2.39	0.56
36:1:2763:U:H5'	54:M8:176:ARG:HG3	1.88	0.56
55:M9:86:GLU:OE2	55:M9:91:SER:OG	2.18	0.56
59:N3:10:LYS:NZ	59:N3:56:ASP:OD1	2.39	0.56
62:N6:50:ILE:HD12	62:N6:70:ILE:HG12	2.70	0.56
5:S3:179:GLN:OE1	5:S3:180:GLY:N	5.08	0.56
5:S3:220:PRO:O	5:S3:221:SER:OG	2.26	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:114:VAL:HG12	8:S6:115:LYS:HD3	1.87	0.56
10:S8:8:ARG:HD3	10:S8:21:PHE:HD1	1.69	0.56
10:S8:31:ARG:NH2	1:6:333:A:OP1	297.66	0.56
36:1:1549:U:H2'	36:1:1550:C:H6	1.70	0.56
88:1:4015:OHX:N6	88:1:4186:OHX:N1	2.54	0.56
36:5:378:A:N7	36:5:391:A:H2	2.04	0.56
78:Q2:46:LYS:NZ	36:5:44:U:O2	164.53	0.56
1:6:329:G:H2'	1:6:330:G:H8	1.71	0.56
28:D6:79:ILE:HA	28:D6:84:VAL:HB	1.88	0.56
40:L3:77:THR:HG23	40:L3:326:GLY:O	2.13	0.56
48:M1:71:VAL:HB	48:M1:76:ALA:HB2	2.94	0.56
49:M3:177:LYS:HG3	72:O6:11:LEU:HD13	2.62	0.56
51:M5:110:ALA:HB1	51:M5:113:LEU:HD22	1.87	0.56
54:M8:123:THR:OG1	54:M8:126:GLN:HG3	2.05	0.56
54:M8:185:LYS:HG3	54:M8:186:VAL:HG23	1.87	0.56
59:N3:104:ASN:HD21	59:N3:108:GLU:HB2	2.80	0.56
61:N5:96:LYS:HE3	61:N5:107:VAL:HB	1.88	0.56
62:N6:11:ASP:HB3	62:N6:14:LYS:HG3	2.60	0.56
1:2:7:G:N7	4:S2:205:ARG:NH1	2.50	0.56
11:S9:58:ASP:O	11:S9:61:THR:OG1	4.72	0.56
4:S2:98:PHE:HE1	35:SM:113:ASP:HB3	1.71	0.56
34:SR:22:SER:CB	34:SR:70:ASP:HA	2.35	0.56
36:1:2314:U:O2'	36:1:2315:G:OP1	2.23	0.56
36:1:438:A:O2'	36:1:495:G:H4'	2.05	0.56
36:5:1631:C:H5''	36:5:1632:A:H5''	1.88	0.56
36:5:1804:A:H2'	36:5:1805:C:H6	1.66	0.56
1:6:1680:G:O6	88:6:2187:OHX:N1	2.38	0.56
1:6:837:G:O6	88:6:2098:OHX:N1	2.38	0.56
1:6:922:G:H2'	1:6:923:A:H8	1.70	0.56
51:M5:38:ARG:NH2	38:8:143:U:OP1	108.59	0.56
15:C3:129:TYR:HB3	15:C3:135:LEU:HG	2.34	0.56
1:2:953:G:OP2	15:C3:94:LYS:NZ	2.39	0.56
21:C9:57:ARG:HH11	21:C9:57:ARG:HG3	1.77	0.56
27:D5:71:ILE:HG22	27:D5:75:LEU:HB2	1.88	0.56
44:L7:160:ARG:HD2	44:L7:203:TRP:CE2	2.40	0.56
48:M1:155:THR:O	48:M1:159:THR:HG23	5.35	0.56
50:M4:17:VAL:HG22	50:M4:36:VAL:O	2.05	0.56
52:M6:156:LEU:HD22	36:5:3243:A:C8	265.32	0.56
57:N1:120:LYS:C	57:N1:122:GLN:H	2.08	0.56
49:M3:126:PHE:CD2	71:O5:115:LYS:HG2	2.39	0.56
78:Q2:71:ARG:HH21	78:Q2:80:ARG:NH2	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:206:PRO:O	3:S1:207:LEU:HB2	2.05	0.56
4:S2:111:VAL:O	4:S2:136:VAL:HA	2.05	0.56
6:S4:49:ARG:HB3	6:S4:55:ALA:HB3	4.28	0.56
36:1:1444:G:H2'	36:1:1445:U:O4'	2.05	0.56
1:2:526:A:H2'	1:2:527:A:O4'	2.06	0.56
1:2:771:A:OP1	11:S9:9:SER:OG	2.23	0.56
16:C4:37:GLU:HA	1:6:895:G:O2'	258.57	0.56
18:C6:109:PHE:HB3	18:C6:117:LEU:HD21	1.88	0.56
46:L9:92:TYR:CG	46:L9:142:ASP:HB3	2.83	0.56
48:M1:73:GLY:O	48:M1:75:LYS:N	2.39	0.56
49:M3:47:ALA:HB1	49:M3:48:PRO:HD2	2.08	0.56
49:M3:75:PHE:O	49:M3:79:GLU:HB2	2.06	0.56
62:N6:50:ILE:HG21	62:N6:80:VAL:HG21	2.17	0.56
65:N9:28:LYS:HG3	65:N9:29:TYR:CD1	2.40	0.56
70:O4:85:VAL:HA	70:O4:88:ARG:HG3	1.86	0.56
2:S0:88:LYS:O	2:S0:92:HIS:ND1	3.87	0.56
5:S3:134:CYS:SG	5:S3:135:GLU:N	2.79	0.56
7:S5:92:ARG:NH2	7:S5:169:ASN:OD1	2.45	0.56
7:S5:37:GLN:OE1	18:C6:53:LEU:HD22	2.53	0.56
7:S5:94:THR:CG2	7:S5:114:ILE:HG13	2.59	0.56
35:SM:107:ASN:CG	35:SM:112:ASP:HB3	2.25	0.56
36:1:1674:G:OP2	88:1:3957:OHX:N2	2.39	0.56
36:1:924:G:OP1	88:1:4157:OHX:N5	2.39	0.56
1:2:1274:C:H5	35:SM:96:ARG:H	1.53	0.56
1:2:542:A:N1	32:E0:28:LYS:HD2	2.21	0.56
1:2:74:U:O2'	1:2:75:U:OP2	2.23	0.56
56:N0:108:GLN:NE2	36:5:1322:U:O2	293.24	0.56
58:N2:82:LYS:NZ	36:5:1686:U:O4	162.25	0.56
36:5:3159:C:H2'	36:5:3160:U:C6	2.41	0.56
36:5:955:U:H2'	36:5:956:U:C6	2.41	0.56
13:C1:93:TYR:OH	13:C1:98:ASN:OD1	2.24	0.56
18:C6:115:THR:O	18:C6:117:LEU:N	2.38	0.56
26:D4:124:ARG:HH11	26:D4:124:ARG:HB3	1.71	0.56
30:D8:19:THR:O	30:D8:23:GLY:HA2	2.06	0.56
36:1:1493:G:O6	75:O9:2:ALA:HB2	2.05	0.56
78:Q2:78:LYS:HG2	78:Q2:79:THR:N	2.63	0.56
36:1:2554:A:N7	79:Q3:62:LYS:NZ	2.54	0.56
1:2:552:G:C6	1:2:553:G:C6	2.94	0.56
1:2:703:G:H2'	1:2:704:C:H5'	1.88	0.56
1:2:878:G:H21	15:C3:101:HIS:HE2	1.54	0.56
36:5:119:U:H4'	36:5:120:G:H3'	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1936:A:H2'	36:5:1937:U:O4'	2.05	0.56
36:5:2533:G:O6	88:5:4044:OHX:N2	2.39	0.56
88:5:4023:OHX:N5	88:5:4222:OHX:N1	2.54	0.56
12:C0:14:TYR:CE1	12:C0:18:GLU:HG3	2.41	0.56
15:C3:46:THR:O	15:C3:50:ILE:HG13	2.52	0.56
18:C6:127:LYS:HA	18:C6:134:ALA:HA	1.87	0.56
27:D5:60:VAL:HG13	27:D5:101:TYR:HB2	3.10	0.56
28:D6:88:SER:O	28:D6:92:ARG:HG3	2.05	0.56
41:L4:192:GLY:O	41:L4:195:ARG:N	2.51	0.56
44:L7:222:HIS:ND1	44:L7:224:ILE:HG13	2.21	0.56
46:L9:124:ARG:HG2	46:L9:164:ILE:HD12	1.88	0.56
59:N3:15:LEU:HD22	59:N3:51:ALA:HB3	4.23	0.56
66:O0:51:LEU:HD11	70:O4:91:ARG:HA	1.87	0.56
5:S3:178:ARG:NE	5:S3:178:ARG:H	1.96	0.56
8:S6:114:VAL:HG12	8:S6:115:LYS:HG2	4.66	0.56
1:2:196:G:O6	10:S8:141:ARG:NH2	2.39	0.56
36:1:1062:A:H5''	36:1:1063:G:H5'	1.88	0.55
36:1:2407:C:H2'	36:1:2408:U:H6	1.70	0.55
36:1:3157:U:H4'	36:1:3158:G:H5'	1.88	0.55
1:2:1488:G:H3'	1:2:1515:A:H61	1.72	0.55
1:2:355:G:O6	88:2:2027:OHX:N6	2.39	0.55
1:2:990:C:O2'	16:C4:127:ARG:HD3	2.05	0.55
36:5:1581:C:OP2	36:5:1581:C:H4'	2.06	0.55
36:5:1654:A:C2'	36:5:1655:G:H5'	2.35	0.55
36:5:2533:G:N2	36:5:2546:C:O2	2.39	0.55
1:6:1525:A:H2'	1:6:1526:A:O4'	2.05	0.55
18:C6:72:GLY:HA2	1:6:1608:U:H5''	402.77	0.55
1:6:1623:C:H2'	1:6:1624:C:H6	1.70	0.55
1:6:292:U:H2'	1:6:293:U:C6	2.40	0.55
1:6:540:G:O2'	1:6:542:A:H5'	2.06	0.55
13:C1:21:ASN:HD22	13:C1:32:LYS:H	2.06	0.55
20:C8:41:ARG:NH2	21:C9:36:ILE:O	3.56	0.55
21:C9:45:MET:HE3	21:C9:46:PRO:HD2	2.32	0.55
25:D3:43:PHE:CE1	25:D3:49:ALA:HB3	2.64	0.55
33:E1:119:ARG:HH11	33:E1:152:ALA:HB3	1.71	0.55
41:L4:271:LYS:HB2	41:L4:274:TYR:HB3	1.94	0.55
42:L5:187:THR:HG23	42:L5:189:GLU:HB2	1.88	0.55
44:L7:203:TRP:CD1	44:L7:204:PRO:HD2	2.42	0.55
48:M1:11:ASP:O	48:M1:12:LEU:HB2	2.06	0.55
56:N0:12:ARG:HG2	56:N0:24:LEU:HD23	1.87	0.55
56:N0:70:THR:O	56:N0:70:THR:OG1	2.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:56:PHE:CZ	57:N1:78:LYS:HD3	2.41	0.55
63:N7:76:ASN:HB3	63:N7:79:HIS:ND1	2.31	0.55
68:O2:24:ARG:HG2	68:O2:25:TYR:CZ	2.71	0.55
74:O8:45:VAL:HG23	74:O8:52:TYR:HB2	1.87	0.55
1:2:753:A:H5'	6:S4:221:ARG:HG3	1.86	0.55
6:S4:222:LEU:O	6:S4:224:ASN:N	2.39	0.55
6:S4:34:GLY:HA3	6:S4:83:PRO:HG2	2.33	0.55
36:1:2699:G:OP2	88:1:3916:OHX:N1	2.40	0.55
88:1:4015:OHX:N3	88:1:4186:OHX:N5	2.54	0.55
36:1:824:C:H2'	36:1:825:U:C6	2.41	0.55
1:2:1600:A:H4'	1:2:1601:G:OP1	2.06	0.55
1:2:38:C:C2'	1:2:39:A:H5'	2.36	0.55
36:5:2236:G:OP1	88:5:4254:OHX:N3	2.39	0.55
1:6:193:U:C4	1:6:195:G:C8	2.94	0.55
12:C0:77:ARG:HD3	12:C0:84:GLU:HA	1.87	0.55
18:C6:60:PHE:HA	18:C6:63:ILE:HG13	1.87	0.55
1:2:1459:C:N4	20:C8:139:LYS:HE2	2.21	0.55
21:C9:117:SER:HB2	21:C9:123:ARG:HB3	1.88	0.55
45:L8:161:GLU:HA	45:L8:164:VAL:HG22	1.96	0.55
45:L8:24:ASN:N	45:L8:27:THR:HG1	5.27	0.55
46:L9:172:ILE:HD13	46:L9:172:ILE:H	1.70	0.55
47:M0:174:THR:OG1	47:M0:175:ASN:O	6.30	0.55
52:M6:114:LYS:HG2	36:5:3180:A:C6	272.00	0.55
36:1:2355:G:H4'	53:M7:139:TYR:CE2	2.41	0.55
61:N5:115:ARG:HD3	61:N5:121:LYS:HE3	3.71	0.55
75:O9:4:GLN:HG2	36:5:1588:A:C2	125.51	0.55
2:S0:41:ARG:HH11	2:S0:45:VAL:HG21	2.59	0.55
7:S5:119:ASP:O	7:S5:123:VAL:HG23	2.42	0.55
1:2:405:C:O2'	8:S6:92:ARG:O	2.17	0.55
34:SR:153:GLN:HB3	34:SR:202:LEU:HD22	1.87	0.55
36:1:1506:A:H1'	36:1:1848:G:O6	2.07	0.55
36:1:1769:G:N7	88:1:4183:OHX:N2	2.55	0.55
1:2:1114:G:O2'	1:2:1130:G:O6	2.19	0.55
1:2:730:G:O6	88:2:2156:OHX:N4	2.39	0.55
1:2:513:U:H2'	1:2:514:G:C8	2.42	0.55
38:4:23:U:C4'	62:N6:17:LYS:HG2	2.37	0.55
68:O2:43:ARG:NH1	36:5:1368:U:H5'	194.22	0.55
39:L2:234:LYS:NZ	36:5:2162:U:OP1	197.14	0.55
1:6:1699:G:H22	1:6:1701:A:H3'	1.72	0.55
1:6:276:C:H1'	1:6:277:U:H5	1.70	0.55
13:C1:5:LEU:HD23	13:C1:7:VAL:HA	8.57	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:93:HIS:HA	18:C6:97:VAL:HG23	2.10	0.55
41:L4:283:THR:HG22	41:L4:285:ASP:N	2.13	0.55
52:M6:39:GLU:HG2	52:M6:40:GLU:HG2	1.86	0.55
55:M9:105:LEU:HD23	55:M9:138:LEU:HD13	1.88	0.55
36:1:3185:U:HO2'	56:N0:170:THR:HG1	1.53	0.55
67:O1:79:ARG:NE	67:O1:79:ARG:H	2.05	0.55
2:S0:41:ARG:NH1	2:S0:45:VAL:HG21	3.22	0.55
4:S2:90:THR:HG23	4:S2:92:ALA:H	1.72	0.55
6:S4:87:MET:SD	6:S4:123:LEU:HB2	2.80	0.55
7:S5:91:GLU:OE2	7:S5:107:LYS:NZ	2.33	0.55
36:1:2443:A:O2'	36:1:2444:C:OP2	2.22	0.55
36:1:2514:U:OP1	36:1:2514:U:H6	1.90	0.55
88:1:4015:OHX:N3	88:1:4186:OHX:N1	2.55	0.55
36:1:1231:A:OP2	88:1:4098:OHX:N6	2.39	0.55
1:2:264:G:N7	88:2:2034:OHX:N1	2.53	0.55
1:2:320:U:H3'	1:2:321:C:H5''	1.88	0.55
1:2:61:A:H8	1:2:269:G:HO2'	1.50	0.55
1:2:717:C:H42	1:2:720:G:H22	1.54	0.55
57:N1:130:ARG:NH1	36:5:1098:A:OP2	254.10	0.55
45:L8:241:LYS:HD3	36:5:2586:G:C8	185.31	0.55
36:5:395:A:H5''	36:5:396:A:OP2	2.07	0.55
36:5:2319:U:OP1	88:5:4004:OHX:N5	2.40	0.55
64:N8:40:HIS:HA	36:5:958:C:H1'	189.14	0.55
12:C0:15:LEU:HD13	12:C0:21:VAL:HG23	1.89	0.55
44:L7:229:PHE:CD1	44:L7:229:PHE:C	2.98	0.55
45:L8:151:VAL:HG13	45:L8:199:ALA:HB2	2.79	0.55
45:L8:215:VAL:O	45:L8:219:ASP:HB2	2.71	0.55
45:L8:225:LYS:O	45:L8:229:VAL:HG23	2.07	0.55
47:M0:187:ALA:HB3	47:M0:189:GLU:HG3	3.45	0.55
48:M1:20:ASN:HB3	48:M1:126:ASP:HB2	2.47	0.55
48:M1:9:MET:O	48:M1:11:ASP:N	3.62	0.55
49:M3:92:THR:HB	71:O5:114:ARG:HG2	1.88	0.55
51:M5:23:GLN:HG2	51:M5:122:ASN:ND2	2.22	0.55
52:M6:62:THR:HA	36:5:1306:G:C6	233.49	0.55
52:M6:62:THR:H	52:M6:69:GLY:HA3	1.86	0.55
46:L9:4:ILE:HG22	56:N0:142:GLN:CD	2.27	0.55
36:1:2698:G:O2'	57:N1:12:ARG:HG2	2.06	0.55
64:N8:3:SER:O	64:N8:6:THR:HG22	2.05	0.55
79:Q3:38:ASP:OD1	79:Q3:45:LYS:HB3	2.06	0.55
4:S2:179:VAL:O	4:S2:198:THR:OG1	2.20	0.55
4:S2:170:ILE:HB	4:S2:197:TYR:HB2	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:124:HIS:CE1	11:S9:128:LEU:HD11	4.05	0.55
36:1:1950:U:H3	36:1:2096:A:H2	1.54	0.55
10:S8:162:ALA:HA	36:1:3353:G:H5'	1.89	0.55
36:1:849:C:H2'	36:1:850:U:H6	1.72	0.55
36:1:863:C:H2'	36:1:864:G:O4'	2.06	0.55
1:2:1761:U:O2'	1:2:1762:A:OP2	2.23	0.55
1:2:782:U:H4'	1:2:783:G:OP2	2.07	0.55
38:4:43:A:OP1	88:4:231:OHX:N5	2.39	0.55
36:5:2537:U:HO2'	36:5:2538:U:C4'	2.19	0.55
36:5:2964:G:N2	36:5:2967:A:OP2	2.37	0.55
49:M3:63:VAL:HG22	36:5:72:C:H5'	113.67	0.55
1:6:1360:A:C4	1:6:1361:U:H1'	2.42	0.55
40:L3:106:TRP:HB2	40:L3:133:TYR:CE2	2.42	0.55
40:L3:169:THR:CG2	40:L3:171:LEU:HG	2.94	0.55
40:L3:46:PHE:CE2	40:L3:205:VAL:HG13	3.62	0.55
40:L3:204:ALA:O	40:L3:207:SER:OG	2.23	0.55
40:L3:30:LYS:NZ	36:5:3139:A:OP2	235.23	0.55
42:L5:68:THR:HG22	42:L5:71:GLY:H	2.89	0.55
46:L9:34:LEU:HD21	46:L9:149:ASN:HB3	1.89	0.55
48:M1:152:HIS:O	48:M1:153:LYS:HB3	4.81	0.55
56:N0:1:MET:HE1	56:N0:32:SER:N	2.21	0.55
59:N3:17:LEU:HD21	59:N3:98:ASN:ND2	2.22	0.55
65:N9:14:ARG:NH1	65:N9:18:ARG:HH11	2.04	0.55
67:O1:10:ARG:HH12	67:O1:44:MET:HG2	6.40	0.55
68:O2:31:ASN:N	68:O2:31:ASN:OD1	2.35	0.55
68:O2:49:ASN:OD1	68:O2:49:ASN:N	3.16	0.55
79:Q3:56:THR:HB	79:Q3:63:THR:OG1	2.07	0.55
3:S1:109:LYS:O	3:S1:113:MET:HG3	2.07	0.55
3:S1:36:SER:OG	3:S1:231:LEU:O	2.24	0.55
5:S3:53:THR:HG22	5:S3:91:VAL:HG12	1.88	0.55
6:S4:157:ASN:OD1	6:S4:222:LEU:HD11	4.82	0.55
7:S5:142:PRO:HG2	7:S5:170:GLN:NE2	2.21	0.55
7:S5:35:GLN:O	7:S5:37:GLN:N	3.04	0.55
10:S8:76:THR:HG22	10:S8:105:ASP:HB3	2.61	0.55
34:SR:135:THR:HG23	34:SR:141:LEU:HD21	3.63	0.55
34:SR:159:ASN:OD1	34:SR:159:ASN:N	3.89	0.55
36:1:573:C:H2'	36:1:574:U:C6	2.42	0.55
1:2:1252:C:O4'	33:E1:133:ALA:HB2	2.07	0.55
1:2:1459:C:OP1	20:C8:126:ARG:NH2	2.37	0.55
1:2:277:U:H6	1:2:279:G:H22	1.54	0.55
1:2:991:G:OP2	88:2:2131:OHX:N1	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:O2:55:ILE:HB	36:5:947:G:H5''	188.30	0.55
1:6:542:A:H8	1:6:543:C:H5'	1.70	0.55
1:6:711:U:H3'	1:6:712:G:H8	1.70	0.55
1:6:825:U:O2'	1:6:826:U:H6	1.90	0.55
13:C1:93:TYR:HB2	13:C1:100:TYR:CE1	2.73	0.55
13:C1:57:LYS:HB2	13:C1:110:HIS:CE1	2.42	0.55
18:C6:38:LEU:O	18:C6:40:GLU:N	2.63	0.55
22:D0:28:SER:HB2	22:D0:112:VAL:HA	1.87	0.55
24:D2:26:LEU:HD21	24:D2:60:LYS:HD3	1.89	0.55
27:D5:57:TYR:N	27:D5:57:TYR:CD2	3.05	0.55
41:L4:82:THR:HG23	41:L4:84:ARG:N	2.78	0.55
42:L5:39:GLN:OE1	42:L5:40:HIS:N	2.54	0.55
45:L8:100:GLU:OE1	45:L8:108:ARG:NH1	2.46	0.55
45:L8:186:LEU:HD23	45:L8:189:LEU:HD21	1.89	0.55
35:SM:39:PRO:HD3	48:M1:52:TYR:CZ	2.97	0.55
52:M6:108:ILE:HG12	52:M6:108:ILE:O	4.78	0.55
52:M6:181:ALA:O	52:M6:184:THR:HG22	2.06	0.55
73:O7:43:LYS:HE3	36:5:55:G:OP1	116.27	0.55
3:S1:190:PRO:HG2	3:S1:192:VAL:HG23	2.47	0.55
6:S4:179:LYS:N	6:S4:194:THR:O	2.35	0.55
10:S8:194:ARG:HD2	10:S8:195:ARG:HH12	3.09	0.55
34:SR:33:LEU:HB3	34:SR:45:TRP:HB2	1.88	0.55
36:1:2207:A:H2'	36:1:2208:A:H8	1.71	0.55
36:1:230:U:H2'	36:1:231:G:O4'	2.07	0.55
36:1:2407:C:H2'	36:1:2408:U:C6	2.42	0.55
36:1:770:G:N7	88:1:4108:OHX:N6	2.54	0.55
1:2:1683:C:O2'	1:2:1684:U:O5'	2.24	0.55
36:5:2592:G:H4'	36:5:2594:C:C2	2.41	0.55
36:5:272:G:OP2	88:5:4077:OHX:N6	2.40	0.55
36:5:306:A:C2	36:5:2784:G:H1'	2.42	0.55
1:6:1427:A:O2'	1:6:1428:G:OP1	2.22	0.55
1:6:1649:G:N7	88:6:2107:OHX:N2	2.55	0.55
1:6:416:A:H4'	1:6:417:A:OP2	2.07	0.55
1:6:542:A:C8	1:6:543:C:H5'	2.42	0.55
1:6:700:C:H2'	1:6:701:U:C6	2.42	0.55
38:8:68:G:O6	88:8:227:OHX:N6	2.39	0.55
12:C0:12:HIS:CE1	12:C0:49:LEU:HD21	2.42	0.55
15:C3:55:ARG:HD3	29:D7:47:PHE:CG	2.41	0.55
21:C9:28:LEU:CD1	21:C9:29:GLU:H	2.19	0.55
26:D4:120:GLY:HA2	1:6:85:A:O3'	335.42	0.55
47:M0:74:LYS:O	47:M0:78:THR:HG23	2.23	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:4:ILE:HG23	56:N0:142:GLN:CD	3.69	0.55
74:O8:43:PHE:HZ	74:O8:66:ILE:HG12	1.72	0.55
1:2:579:A:C8	5:S3:178:ARG:HD2	2.41	0.55
7:S5:92:ARG:HH11	7:S5:92:ARG:CG	3.07	0.55
34:SR:159:ASN:O	34:SR:161:LYS:N	4.11	0.55
36:1:1245:A:H3'	36:1:1246:G:H5''	1.87	0.55
36:1:1634:G:OP1	63:N7:107:ARG:NH1	2.40	0.55
36:1:1944:U:H2'	36:1:1945:A:H8	1.68	0.55
36:1:2273:G:O6	88:1:4152:OHX:N5	2.40	0.55
36:1:2273:G:N2	36:1:2311:G:H2'	2.21	0.55
36:1:3018:C:H2'	36:1:3019:U:O4'	2.07	0.55
1:2:1514:U:H5''	1:2:1515:A:O4'	2.06	0.55
36:5:1103:A:H3'	36:5:1104:G:H5'	1.88	0.55
43:L6:46:ARG:HD3	36:5:3270:U:O2'	242.52	0.55
1:6:1227:A:H4'	1:6:1228:G:H5'	1.87	0.55
8:S6:94:ARG:HH21	1:6:407:A:H5'	289.70	0.55
1:6:484:C:N4	1:6:503:G:H1	2.04	0.55
7:S5:73:THR:HG23	18:C6:114:ARG:HD2	1.89	0.55
42:L5:40:HIS:HB3	42:L5:43:LYS:HG3	1.88	0.55
47:M0:36:LEU:HD21	47:M0:69:ARG:HH11	1.72	0.55
56:N0:12:ARG:HB3	56:N0:24:LEU:HD23	2.24	0.55
56:N0:13:ARG:HH11	56:N0:13:ARG:HG3	4.42	0.55
36:1:1051:U:H4'	57:N1:19:PHE:CD2	2.41	0.55
57:N1:28:SER:HA	57:N1:31:LEU:HB2	1.89	0.55
59:N3:93:LEU:H	59:N3:93:LEU:HD23	1.71	0.55
61:N5:99:VAL:HG11	61:N5:124:VAL:HG11	1.88	0.55
63:N7:70:PRO:HG3	63:N7:115:LYS:HB2	1.87	0.55
79:Q3:62:LYS:NZ	36:5:2554:A:N7	218.60	0.55
2:S0:193:GLN:O	2:S0:195:TRP:N	2.40	0.55
4:S2:139:ILE:HG13	4:S2:218:ILE:HB	4.31	0.55
1:2:1277:G:H5'	5:S3:140:GLY:HA2	1.88	0.55
8:S6:148:SER:O	8:S6:151:ASP:HB2	3.22	0.55
8:S6:5:ILE:HG23	8:S6:111:LEU:HB2	1.89	0.55
36:1:1235:U:H4'	36:1:1236:G:H5'	1.89	0.55
36:1:2107:A:H2	36:1:3344:A:C8	2.24	0.55
36:1:75:G:H5''	49:M3:58:VAL:HG13	1.88	0.55
64:N8:34:MET:HB2	36:5:95:A:H5''	162.86	0.55
1:6:926:A:H2'	1:6:927:C:C6	2.42	0.55
37:7:3:U:H2'	37:7:4:U:H6	1.71	0.55
12:C0:50:THR:HG21	12:C0:57:THR:OG1	2.06	0.55
2:S0:200:ASP:HB2	19:C7:85:VAL:CG2	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:33:TYR:O	21:C9:34:VAL:HB	4.66	0.55
1:2:1234:A:H1'	33:E1:140:TYR:OH	2.06	0.55
40:L3:10:ARG:NH1	40:L3:12:GLY:O	2.40	0.55
42:L5:122:VAL:HG23	42:L5:123:GLU:N	3.06	0.55
48:M1:54:VAL:O	48:M1:56:THR:N	2.38	0.55
50:M4:17:VAL:HG21	50:M4:74:ARG:HB2	1.89	0.55
51:M5:31:ARG:HG3	51:M5:129:TYR:OH	3.36	0.55
67:O1:41:LYS:HA	67:O1:46:THR:HG23	4.15	0.55
69:O3:45:LEU:HA	69:O3:71:VAL:HG12	2.20	0.55
3:S1:61:LEU:HG	3:S1:64:ARG:HH21	1.72	0.55
9:S7:168:SER:O	9:S7:172:VAL:HG23	2.55	0.55
11:S9:163:PRO:HG2	11:S9:164:PHE:CD2	2.42	0.55
34:SR:109:ASP:O	34:SR:126:SER:OG	2.18	0.55
34:SR:255:ALA:HB2	34:SR:292:LEU:HD21	2.77	0.55
36:1:1226:G:H2'	36:1:1227:C:C6	2.42	0.55
36:1:2232:A:H2'	36:1:2233:A:C8	2.42	0.55
36:1:2615:G:H2'	36:1:2616:C:C6	2.42	0.55
36:5:208:C:C2'	36:5:209:A:H5'	2.37	0.55
36:5:2211:U:C5	36:5:2234:G:O6	2.54	0.55
36:5:2298:U:O4	36:5:2923:U:H5	1.90	0.55
36:5:2169:G:O6	88:5:3957:OHX:N5	2.39	0.55
1:6:1354:G:H5'	1:6:1355:C:OP2	2.07	0.55
1:6:407:A:H2'	1:6:408:C:C6	2.41	0.55
1:6:800:U:H2'	1:6:801:G:C8	2.42	0.55
37:7:91:G:H2'	37:7:92:A:C8	2.42	0.55
4:S2:229:LEU:O	23:D1:16:LYS:NZ	2.39	0.55
28:D6:71:LEU:HD13	28:D6:73:TYR:OH	3.41	0.55
39:L2:204:MET:CE	39:L2:209:HIS:HB2	2.37	0.55
40:L3:41:VAL:HA	40:L3:185:GLY:CA	2.30	0.55
36:1:1382:G:OP2	41:L4:188:ARG:NH1	2.40	0.55
37:3:27:A:O5'	42:L5:57:ASN:ND2	2.40	0.55
42:L5:88:ILE:HD13	42:L5:239:ILE:HG22	6.06	0.55
52:M6:78:ARG:HH11	52:M6:78:ARG:CG	2.20	0.55
54:M8:70:ALA:O	54:M8:73:GLN:HB2	2.07	0.55
55:M9:90:PRO:HG2	55:M9:93:VAL:HB	3.98	0.55
57:N1:104:GLU:OE1	57:N1:130:ARG:NH1	2.40	0.55
64:N8:13:GLY:HA2	36:5:943:U:H3'	163.95	0.55
67:O1:37:LYS:HA	67:O1:49:VAL:HG11	1.89	0.55
71:O5:13:SER:O	71:O5:15:GLU:N	2.40	0.55
71:O5:68:GLN:C	71:O5:70:TYR:H	2.11	0.55
72:O6:4:LYS:HD2	72:O6:14:GLY:HA3	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:81:PHE:HA	3:S1:106:THR:HG21	2.32	0.55
4:S2:159:THR:HG21	1:6:1097:U:O3'	383.14	0.55
10:S8:8:ARG:NH2	10:S8:28:GLU:OE1	9.77	0.55
34:SR:93:ASP:HB3	34:SR:96:THR:HG22	1.89	0.55
36:1:1562:C:H2'	36:1:1563:C:C6	2.42	0.54
36:1:2094:C:H2'	36:1:2095:G:C8	2.42	0.54
36:1:2616:C:C2'	36:1:2617:U:H5'	2.37	0.54
36:1:2677:G:H2'	36:1:2679:A:C2	2.40	0.54
1:2:1338:C:OP1	18:C6:12:LYS:NZ	2.40	0.54
1:2:1445:G:N2	33:E1:90:LYS:O	2.39	0.54
38:4:141:C:OP1	51:M5:109:ARG:NH1	2.37	0.54
1:6:230:C:N4	1:6:235:G:H1	2.01	0.54
1:6:538:A:C8	1:6:543:C:N4	2.74	0.54
17:C5:50:THR:O	17:C5:50:THR:OG1	2.26	0.54
18:C6:83:GLN:HE21	18:C6:115:THR:HG23	8.54	0.54
19:C7:27:ASP:O	19:C7:31:ASN:ND2	3.61	0.54
19:C7:71:PHE:CZ	19:C7:74:GLN:HB2	5.65	0.54
20:C8:6:GLN:O	27:D5:42:LEU:HD11	2.08	0.54
24:D2:86:ILE:HD12	24:D2:87:GLU:N	2.21	0.54
28:D6:11:ASN:HB3	1:6:934:C:H6	332.34	0.54
24:D2:24:GLN:HE22	29:D7:4:VAL:HA	3.47	0.54
40:L3:185:GLY:O	40:L3:191:LYS:NZ	2.76	0.54
56:N0:36:ILE:O	56:N0:40:ARG:HG2	4.94	0.54
63:N7:23:VAL:HB	63:N7:43:VAL:HB	1.89	0.54
63:N7:3:LYS:O	63:N7:5:LEU:HB2	4.31	0.54
63:N7:64:LYS:HD2	36:5:1812:G:O6	186.35	0.54
2:S0:175:TYR:HE1	2:S0:197:ILE:HG22	1.78	0.54
6:S4:128:LYS:HD3	6:S4:130:GLN:HE21	1.72	0.54
34:SR:22:SER:H	34:SR:291:SER:HB3	1.73	0.54
36:1:1658:G:H2'	36:1:1659:U:C6	2.42	0.54
36:1:263:C:H2'	36:1:264:G:O4'	2.06	0.54
36:1:2946:A:H5''	36:1:2947:G:H5'	1.89	0.54
1:2:219:A:H5'	1:2:831:U:O2'	2.08	0.54
1:2:918:U:H2'	1:2:919:A:C8	2.42	0.54
38:4:84:C:H1'	62:N6:113:LYS:HG3	1.89	0.54
36:5:1688:U:H2'	36:5:1689:U:C6	2.41	0.54
36:5:2209:U:H4'	36:5:2210:G:OP1	2.05	0.54
36:5:2718:U:H2'	36:5:2719:U:C6	2.43	0.54
36:5:3066:U:O4	88:5:4109:OHX:N4	2.40	0.54
36:5:3237:U:H2'	36:5:3238:G:O4'	2.07	0.54
1:6:453:U:O4	88:6:2059:OHX:N4	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:484:C:H42	1:6:503:G:H22	1.55	0.54
15:C3:23:PRO:HD2	15:C3:26:PHE:HB2	2.59	0.54
15:C3:41:ALA:CB	15:C3:75:LEU:HD21	3.21	0.54
18:C6:126:PRO:O	18:C6:128:LYS:HE3	2.08	0.54
28:D6:38:ARG:HH21	28:D6:83:ILE:HG21	1.72	0.54
29:D7:47:PHE:HD1	29:D7:49:HIS:O	1.91	0.54
39:L2:28:LYS:HB3	39:L2:123:ARG:HB3	1.89	0.54
41:L4:35:VAL:HG21	41:L4:244:LEU:HD21	1.88	0.54
42:L5:40:HIS:HD2	42:L5:42:ALA:H	1.55	0.54
44:L7:228:SER:HA	44:L7:232:ARG:NH2	3.16	0.54
47:M0:144:ASN:O	47:M0:148:VAL:HG23	2.59	0.54
50:M4:121:MET:HG3	36:5:3214:U:C4	282.94	0.54
52:M6:25:LYS:HE3	36:5:1176:C:OP1	247.44	0.54
55:M9:5:ARG:HH11	55:M9:5:ARG:HG3	2.16	0.54
67:O1:29:ALA:HB3	67:O1:30:PRO:HD3	2.03	0.54
70:O4:8:ARG:HH21	70:O4:31:ARG:HD2	5.46	0.54
38:4:79:A:H5''	71:O5:43:LYS:NZ	2.22	0.54
5:S3:80:ALA:HB3	5:S3:83:THR:HG21	1.89	0.54
10:S8:115:ALA:O	10:S8:117:TYR:N	4.25	0.54
36:1:190:U:H2'	62:N6:60:ARG:NH2	2.22	0.54
1:2:1239:U:O4	88:2:2047:OHX:N2	2.40	0.54
36:5:1657:C:C5	36:5:1797:A:H5''	2.43	0.54
46:L9:170:LYS:HE3	36:5:2902:A:OP1	318.88	0.54
36:5:441:U:H2'	36:5:442:G:C8	2.41	0.54
1:6:1458:G:H5''	1:6:1459:C:OP2	2.07	0.54
1:6:470:A:C8	1:6:470:A:H5''	2.42	0.54
1:6:492:A:H1'	1:6:496:G:H1	1.73	0.54
13:C1:80:MET:HB3	13:C1:83:THR:HG23	3.54	0.54
14:C2:52:LEU:O	14:C2:85:LYS:NZ	2.39	0.54
1:2:916:U:O2	16:C4:41:ARG:NH2	2.40	0.54
17:C5:73:PRO:HD2	17:C5:93:VAL:HG23	2.66	0.54
26:D4:2:SER:N	26:D4:32:ARG:HD3	4.77	0.54
1:2:1235:C:C2	33:E1:138:ARG:NH2	2.75	0.54
41:L4:22:LEU:HD22	41:L4:23:PRO:HD2	1.89	0.54
44:L7:158:LYS:HD2	44:L7:159:GLN:HA	5.71	0.54
45:L8:139:VAL:O	45:L8:143:ILE:HG13	2.65	0.54
46:L9:16:VAL:HG12	46:L9:29:GLY:HA3	1.89	0.54
50:M4:99:TRP:O	50:M4:103:ILE:HG13	2.06	0.54
36:1:1114:U:H5''	64:N8:22:ILE:HD13	1.89	0.54
2:S0:167:LYS:HB3	2:S0:168:HIS:CD2	3.31	0.54
8:S6:78:THR:HG23	8:S6:92:ARG:HG2	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:127:ARG:HG2	34:SR:150:TRP:CD1	2.42	0.54
36:1:1498:A:H2'	36:1:1499:C:C6	2.42	0.54
36:1:2339:C:P	59:N3:48:ARG:HG2	2.47	0.54
1:2:1320:U:O2	1:2:1322:A:H5'	2.07	0.54
1:2:145:A:O2'	1:2:146:U:O5'	2.23	0.54
1:2:1595:U:N3	1:2:1600:A:H2	2.05	0.54
1:2:16:G:H2'	1:2:17:C:C6	2.43	0.54
1:2:647:G:H1	1:2:687:G:H1	1.54	0.54
38:4:62:C:O2	88:4:225:OHX:N5	2.41	0.54
38:4:79:A:O3'	38:4:80:A:H4'	2.07	0.54
36:5:1949:G:N2	36:5:2097:U:O2	2.28	0.54
36:5:3166:C:H42	36:5:3284:G:H1	1.54	0.54
1:6:833:U:OP2	88:6:2200:OHX:N5	2.39	0.54
47:M0:202:LYS:HA	37:7:64:A:C6	342.42	0.54
16:C4:128:LYS:HD3	28:D6:27:SER:HB3	2.66	0.54
13:C1:98:ASN:HD22	24:D2:79:PHE:HD1	1.53	0.54
29:D7:47:PHE:CE1	29:D7:49:HIS:HB2	2.94	0.54
41:L4:36:HIS:O	41:L4:40:THR:HG23	2.07	0.54
42:L5:40:HIS:CD2	42:L5:42:ALA:H	2.25	0.54
42:L5:85:ARG:HD2	42:L5:86:TYR:CE2	2.42	0.54
44:L7:151:ARG:HD2	44:L7:244:ASN:HD22	1.73	0.54
44:L7:88:ARG:NH1	44:L7:91:GLY:O	2.80	0.54
45:L8:245:LYS:NZ	45:L8:246:MET:HB3	2.23	0.54
46:L9:113:GLU:OE1	46:L9:115:ARG:NE	2.70	0.54
36:1:1126:G:H5''	47:M0:119:TRP:HZ3	1.72	0.54
52:M6:24:ALA:HA	52:M6:27:LEU:HD12	2.30	0.54
59:N3:87:ARG:HH22	59:N3:137:VAL:CG2	2.20	0.54
63:N7:85:TYR:HE2	63:N7:129:TRP:CE2	3.54	0.54
64:N8:46:ASP:O	64:N8:47:LYS:HB3	2.36	0.54
7:S5:36:ALA:HB1	7:S5:42:LEU:HD12	5.11	0.54
1:2:1460:A:O3'	35:SM:72:ARG:NH2	2.41	0.54
34:SR:70:ASP:HB3	34:SR:113:VAL:HG12	1.90	0.54
36:1:1240:A:H3'	36:1:1241:U:C5'	2.37	0.54
36:1:1480:G:H4'	36:1:1481:A:OP1	2.08	0.54
36:1:2403:G:N2	36:1:2404:A:H62	2.04	0.54
36:1:595:G:C8	36:1:609:G:C6	2.95	0.54
1:2:1561:U:H2'	1:2:1562:G:H8	1.71	0.54
36:5:1157:G:H2'	36:5:1158:A:O4'	2.07	0.54
36:5:209:A:H4'	36:5:211:A:N7	2.22	0.54
36:5:253:A:HO2'	36:5:254:A:H8	1.56	0.54
36:5:3280:U:O2'	36:5:3281:U:H5''	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1173:C:H2'	1:6:1174:C:H6	1.72	0.54
1:6:1698:G:N2	1:6:1699:G:N7	2.55	0.54
1:6:1699:G:N1	1:6:1701:A:H5''	2.21	0.54
6:S4:187:ARG:NH1	1:6:753:A:OP2	376.76	0.54
20:C8:140:THR:HA	20:C8:143:ARG:NH1	2.61	0.54
28:D6:84:VAL:O	28:D6:86:VAL:N	2.31	0.54
41:L4:337:GLU:O	41:L4:339:LEU:N	2.41	0.54
46:L9:20:ILE:HD12	50:M4:7:VAL:HG22	1.89	0.54
70:O4:46:ASP:OD2	70:O4:80:ARG:NH1	4.97	0.54
2:S0:175:TYR:OH	2:S0:197:ILE:O	2.83	0.54
4:S2:157:LYS:HG2	4:S2:170:ILE:HG23	3.20	0.54
6:S4:52:LEU:HB3	6:S4:54:TYR:CD2	2.49	0.54
6:S4:93:ASP:O	6:S4:95:THR:N	3.76	0.54
7:S5:175:LEU:HD22	7:S5:198:LEU:HD23	1.90	0.54
11:S9:171:ARG:NH1	11:S9:174:ARG:HD3	3.51	0.54
35:SM:23:LYS:HG3	35:SM:24:GLU:H	4.57	0.54
36:1:2571:U:O2'	36:1:2572:C:O2	2.23	0.54
36:1:70:A:N1	36:1:313:A:O2'	2.33	0.54
1:2:296:U:H2'	1:2:297:U:H6	1.73	0.54
1:2:609:U:H4'	1:2:610:G:O5'	2.08	0.54
1:2:930:A:OP1	28:D6:32:LYS:NZ	2.40	0.54
36:5:1017:C:H2'	36:5:1017:C:OP1	2.07	0.54
36:5:1235:U:C4'	36:5:1236:G:H5'	2.37	0.54
36:5:2213:A:H2'	36:5:2214:A:C8	2.42	0.54
36:5:283:G:O6	36:5:304:G:H1'	2.07	0.54
36:5:3106:A:H2'	36:5:3107:U:O4'	2.08	0.54
88:5:4023:OHX:N3	88:5:4222:OHX:N1	2.55	0.54
14:C2:59:LEU:HA	14:C2:87:PRO:HB2	2.01	0.54
20:C8:145:ARG:HD3	35:SM:68:ARG:CZ	2.91	0.54
24:D2:82:LYS:O	24:D2:84:GLY:N	2.35	0.54
25:D3:57:LEU:HD22	32:E0:4:VAL:HG12	1.90	0.54
25:D3:92:CYS:HA	25:D3:95:PHE:CD2	2.42	0.54
27:D5:71:ILE:HG21	27:D5:76:ALA:HB2	4.43	0.54
33:E1:119:ARG:HB3	33:E1:119:ARG:NH2	4.83	0.54
40:L3:57:VAL:HG23	40:L3:358:TRP:HE3	1.71	0.54
40:L3:3:HIS:CD2	40:L3:3:HIS:O	2.61	0.54
41:L4:255:PHE:O	41:L4:258:LEU:HB2	2.07	0.54
42:L5:184:ASP:OD2	42:L5:187:THR:HG22	2.07	0.54
44:L7:143:THR:CG2	44:L7:241:LYS:HE3	2.38	0.54
52:M6:98:ALA:HA	52:M6:101:ARG:HH11	1.72	0.54
61:N5:91:ASN:O	61:N5:95:ILE:HG13	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2552:C:H5	66:O0:53:LYS:HE3	1.72	0.54
4:S2:235:LEU:HD13	23:D1:33:GLN:NE2	2.23	0.54
6:S4:43:PRO:HB2	6:S4:46:VAL:HG23	1.89	0.54
7:S5:149:VAL:HG13	7:S5:151:GLY:H	5.60	0.54
7:S5:62:VAL:HG13	7:S5:89:ILE:HG12	1.88	0.54
10:S8:84:HIS:CE1	10:S8:86:SER:HB2	2.52	0.54
35:SM:102:THR:CG2	35:SM:105:LYS:HB2	2.38	0.54
34:SR:260:ILE:HB	34:SR:274:LEU:HD12	3.07	0.54
34:SR:48:THR:HG22	34:SR:55:GLY:HA2	5.53	0.54
34:SR:64:HIS:NE2	34:SR:82:SER:HB2	2.22	0.54
36:1:1088:U:H2'	36:1:1089:G:H8	1.73	0.54
36:1:3351:U:O2'	36:1:3352:U:OP1	2.22	0.54
88:1:4015:OHX:N6	88:1:4186:OHX:N5	2.55	0.54
1:2:1186:U:O4	1:2:1200:G:N2	2.41	0.54
1:2:1362:U:H1'	1:2:1363:U:C4	2.43	0.54
1:2:1471:A:OP1	7:S5:185:ARG:NH1	2.41	0.54
1:2:1720:G:O6	88:2:2082:OHX:N5	2.39	0.54
1:2:485:A:H2'	1:2:486:G:O4'	2.08	0.54
38:4:52:A:H4'	75:O9:19:GLN:HA	1.89	0.54
36:5:1232:C:H2'	36:5:1233:G:H8	1.72	0.54
36:5:2844:C:H5''	36:5:2845:A:OP2	2.08	0.54
36:5:3362:A:H2'	36:5:3363:U:O4'	2.07	0.54
1:6:162:A:H2'	1:6:163:G:C8	2.43	0.54
1:6:449:C:H2'	1:6:450:U:H6	1.72	0.54
1:6:694:U:H3'	1:6:695:U:O2	2.08	0.54
20:C8:72:ILE:HG12	20:C8:79:TYR:CG	3.20	0.54
24:D2:104:LEU:HB2	24:D2:124:LYS:O	2.08	0.54
27:D5:49:ARG:NH2	27:D5:53:GLU:OE2	4.03	0.54
31:D9:33:LYS:O	31:D9:36:LEU:HD23	2.06	0.54
41:L4:304:GLN:C	41:L4:306:THR:H	2.31	0.54
44:L7:176:TYR:CZ	44:L7:197:GLN:HG2	2.42	0.54
49:M3:50:PRO:HB2	49:M3:140:SER:O	2.08	0.54
57:N1:78:LYS:HE3	57:N1:87:LYS:HD2	1.89	0.54
59:N3:83:LYS:HE3	59:N3:84:SER:O	4.08	0.54
64:N8:116:GLY:HA2	64:N8:137:LYS:HZ3	1.70	0.54
64:N8:86:LYS:O	64:N8:89:GLN:HB3	2.06	0.54
67:O1:43:HIS:O	67:O1:44:MET:HE2	5.07	0.54
3:S1:212:VAL:O	3:S1:214:LYS:N	2.40	0.54
8:S6:122:GLU:O	8:S6:124:LEU:N	2.56	0.54
10:S8:163:GLY:HA3	36:1:3354:U:H1'	1.88	0.54
34:SR:184:ASN:HD22	34:SR:185:GLN:H	5.25	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1234:G:H1	36:1:1254:C:H42	1.56	0.54
36:1:2373:A:N3	36:1:2824:G:O2'	2.35	0.54
36:1:246:U:H2'	36:1:247:C:C6	2.42	0.54
36:1:2947:G:H4'	36:1:2947:G:OP2	2.08	0.54
36:1:3006:A:H2'	36:1:3007:U:O4'	2.08	0.54
36:1:3230:G:H4'	50:M4:132:LYS:HD3	1.90	0.54
1:2:1291:G:H1	1:2:1324:G:H1	1.55	0.54
1:2:719:U:OP2	1:2:720:G:N1	2.40	0.54
36:5:1438:U:H2'	36:5:1439:U:C6	2.43	0.54
36:5:1566:A:H2'	36:5:1567:U:H5'	1.88	0.54
1:6:1133:A:H2'	1:6:1134:C:O4'	2.08	0.54
1:6:578:U:O2	88:6:2150:OHX:N3	2.40	0.54
1:6:217:A:C8	1:6:218:A:C8	2.96	0.54
6:S4:29:PRO:HD3	1:6:448:C:OP1	373.54	0.54
23:D1:30:ALA:O	23:D1:60:ARG:HD3	3.11	0.54
24:D2:77:PRO:HG3	25:D3:7:ARG:O	2.08	0.54
28:D6:44:ILE:HD12	28:D6:67:THR:HG22	9.29	0.54
40:L3:160:VAL:HG22	40:L3:183:LEU:HD22	1.90	0.54
41:L4:234:ASN:OD1	41:L4:236:LEU:N	2.59	0.54
51:M5:154:PRO:O	51:M5:157:LYS:HG3	3.27	0.54
52:M6:108:ILE:HD12	52:M6:160:ARG:CZ	2.38	0.54
36:1:2697:A:H2'	36:1:2698:G:C8	2.43	0.54
1:2:1586:A:H1'	1:2:1611:A:N6	2.23	0.54
1:2:417:A:H4'	1:2:418:G:O5'	2.07	0.54
1:6:1255:G:O2'	1:6:1256:A:H8	1.91	0.54
8:S6:176:GLN:CG	1:6:169:A:H5'	329.00	0.54
26:D4:89:TYR:CD1	1:6:525:A:H5''	396.78	0.54
1:6:710:U:H5'	1:6:711:U:OP2	2.08	0.54
26:D4:11:LYS:NZ	1:6:775:G:N7	413.49	0.54
1:6:848:C:H2'	1:6:849:C:C6	2.43	0.54
18:C6:110:THR:HA	18:C6:113:ASP:HB2	2.64	0.54
21:C9:84:LYS:HD2	21:C9:86:ARG:HG2	1.90	0.54
23:D1:71:ARG:O	23:D1:75:ASN:ND2	2.41	0.54
47:M0:138:VAL:HG21	47:M0:152:LEU:HD11	1.89	0.54
57:N1:78:LYS:HE2	36:5:2724:U:OP1	223.70	0.54
58:N2:14:THR:HG23	58:N2:66:VAL:HG13	1.89	0.54
61:N5:105:VAL:HG12	61:N5:130:TYR:CD2	4.36	0.54
65:N9:5:LYS:HG3	65:N9:6:ASN:H	2.22	0.54
67:O1:44:MET:HB3	67:O1:77:ARG:NH1	4.46	0.54
72:O6:60:LEU:HD11	72:O6:68:ARG:HE	1.72	0.54
74:O8:16:ARG:HG3	74:O8:70:PRO:HG3	2.63	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Q3:84:ARG:O	79:Q3:88:GLU:HG2	2.08	0.54
3:S1:30:PHE:HB3	3:S1:96:LEU:HD22	4.93	0.54
6:S4:176:ASP:HB2	6:S4:179:LYS:HZ3	1.72	0.54
7:S5:194:LEU:HD22	7:S5:198:LEU:HG	3.69	0.54
9:S7:162:ILE:HB	9:S7:169:PHE:CE2	2.42	0.54
20:C8:145:ARG:HB3	35:SM:68:ARG:NH1	3.76	0.54
36:1:209:A:H4'	36:1:211:A:C8	2.43	0.54
36:1:2626:A:H5'	36:1:2627:C:H5''	1.90	0.54
36:1:290:G:H2'	36:1:291:C:C6	2.43	0.54
36:1:3082:C:H2'	36:1:3083:G:C8	2.43	0.54
36:1:508:U:H2'	36:1:509:U:C6	2.43	0.54
1:2:1151:A:O2'	1:2:1152:A:H5'	2.08	0.54
1:2:1521:G:O6	21:C9:68:ARG:NH1	2.41	0.54
36:5:1019:G:H22	36:5:1033:U:H3	1.54	0.54
36:5:3016:A:H2'	36:5:3017:A:C8	2.43	0.54
79:Q3:4:ARG:NH1	36:5:837:A:OP2	237.92	0.54
1:6:1161:C:H2'	1:6:1162:C:H6	1.72	0.54
1:6:521:A:H2'	1:6:522:U:O4'	2.08	0.54
1:6:591:A:H2'	1:6:592:A:C8	2.43	0.54
16:C4:87:GLY:HA3	16:C4:120:PRO:HG2	2.10	0.54
16:C4:19:ILE:HB	16:C4:83:ILE:HG13	1.90	0.54
17:C5:126:VAL:HG13	17:C5:127:ARG:H	1.73	0.54
17:C5:87:PRO:HA	17:C5:90:ILE:HD12	1.89	0.54
23:D1:42:GLU:O	23:D1:44:ARG:N	2.39	0.54
28:D6:7:SER:O	28:D6:9:GLY:N	3.92	0.54
36:1:2880:U:H1'	40:L3:250:ALA:HB3	1.90	0.54
41:L4:300:ARG:CG	41:L4:300:ARG:HH11	2.81	0.54
43:L6:170:LYS:HB2	43:L6:173:MET:HB2	3.21	0.54
36:1:1864:A:OP1	55:M9:88:ARG:NH1	2.40	0.54
65:N9:7:HIS:O	36:5:1135:A:H5'	227.12	0.54
66:O0:53:LYS:HE2	36:5:2552:C:C5	241.10	0.54
69:O3:10:LYS:O	69:O3:33:GLU:HB2	2.38	0.54
70:O4:85:VAL:O	70:O4:89:ILE:HG13	2.34	0.54
76:Q0:83:LYS:O	76:Q0:87:SER:OG	3.02	0.54
4:S2:80:VAL:O	4:S2:81:MET:HB2	2.07	0.54
5:S3:21:LEU:HD22	5:S3:25:PHE:CE2	2.43	0.54
6:S4:34:GLY:HA3	6:S4:83:PRO:HG3	1.89	0.54
7:S5:152:GLY:O	7:S5:154:ALA:N	2.41	0.54
9:S7:63:PRO:O	9:S7:64:VAL:HB	2.21	0.54
34:SR:178:VAL:HB	34:SR:192:PHE:HB2	2.18	0.54
36:1:196:G:N2	36:1:198:A:H3'	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2689:A:H2'	36:1:2689:A:N3	2.22	0.53
1:2:1789:G:N7	16:C4:132:ARG:NH2	2.51	0.53
1:6:152:U:C2	1:6:163:G:N2	2.75	0.53
16:C4:136:ARG:HD2	1:6:1769:U:O2	303.45	0.53
1:6:224:C:H2'	1:6:225:A:C8	2.44	0.53
16:C4:103:ARG:HH12	28:D6:48:ALA:HB3	3.80	0.53
16:C4:25:ASP:OD1	16:C4:26:THR:N	2.90	0.53
17:C5:51:SER:OG	17:C5:53:PRO:HD2	7.13	0.53
22:D0:106:ILE:HG23	22:D0:107:THR:HG23	1.90	0.53
39:L2:104:LEU:O	39:L2:139:HIS:HE1	5.05	0.53
36:1:2401:A:O3'	41:L4:68:GLY:HA2	2.08	0.53
42:L5:120:LYS:NZ	42:L5:123:GLU:OE1	6.22	0.53
42:L5:140:ARG:HH21	36:5:1080:A:P	229.47	0.53
42:L5:279:LYS:HD2	42:L5:282:ARG:NH1	4.61	0.53
37:3:110:G:OP2	42:L5:279:LYS:HG3	2.07	0.53
47:M0:12:GLN:HE21	47:M0:128:ARG:NH1	2.06	0.53
47:M0:202:LYS:HA	37:7:64:A:C5	341.59	0.53
47:M0:215:GLU:CD	47:M0:215:GLU:H	4.61	0.53
47:M0:216:TYR:CG	47:M0:217:PHE:N	2.75	0.53
51:M5:184:LYS:H	51:M5:186:GLY:H	1.88	0.53
59:N3:79:VAL:HB	59:N3:118:VAL:HG13	2.56	0.53
62:N6:45:ILE:HD12	62:N6:119:ILE:HG23	1.90	0.53
63:N7:114:VAL:HA	63:N7:117:ALA:HB3	1.89	0.53
68:O2:122:PRO:O	68:O2:123:LYS:HB2	2.08	0.53
73:O7:58:THR:O	73:O7:61:THR:HG23	2.08	0.53
77:Q1:2:ARG:HD2	77:Q1:4:LYS:HB3	5.17	0.53
4:S2:125:ILE:O	4:S2:129:ILE:HG13	2.75	0.53
5:S3:203:PRO:HB3	1:6:1332:C:H4'	428.18	0.53
11:S9:92:LYS:O	11:S9:93:LEU:HD23	2.08	0.53
36:1:2767:U:OP2	88:1:4146:OHX:N2	2.41	0.53
1:2:527:A:OP2	88:2:2053:OHX:N4	2.41	0.53
1:2:540:G:H2'	1:2:540:G:OP2	2.09	0.53
45:L8:129:PRO:HB3	36:5:121:A:C2	101.50	0.53
36:5:2103:U:H2'	36:5:2104:A:C8	2.42	0.53
36:5:776:U:H5	36:5:2719:U:O2	1.92	0.53
1:6:1234:A:H2'	1:6:1235:C:H5	1.73	0.53
1:6:485:A:N6	1:6:486:G:N3	2.57	0.53
13:C1:69:LYS:O	13:C1:70:ILE:HD12	2.08	0.53
1:2:975:C:H5''	15:C3:109:LYS:HE3	1.89	0.53
17:C5:87:PRO:HA	17:C5:90:ILE:HG13	4.13	0.53
20:C8:123:ARG:HG3	20:C8:133:VAL:HG21	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:54:LEU:HD12	20:C8:54:LEU:H	4.26	0.53
21:C9:42:GLY:HA2	21:C9:84:LYS:HG3	1.90	0.53
24:D2:15:ASN:O	24:D2:19:LYS:HG3	2.29	0.53
25:D3:65:ASN:ND2	25:D3:116:ASP:OD1	2.64	0.53
30:D8:5:THR:O	30:D8:7:VAL:N	3.83	0.53
40:L3:293:ASN:HB2	40:L3:305:ILE:H	2.92	0.53
40:L3:60:LEU:HD11	40:L3:62:ARG:HE	1.73	0.53
43:L6:55:LEU:HD11	43:L6:66:SER:HB2	3.23	0.53
47:M0:205:SER:O	47:M0:209:ASN:HB2	2.08	0.53
50:M4:21:VAL:HB	50:M4:63:VAL:HG13	2.67	0.53
57:N1:91:LEU:HD12	57:N1:96:ILE:HD11	2.00	0.53
60:N4:62:GLY:O	60:N4:64:THR:OG1	2.26	0.53
66:O0:18:ILE:HD13	66:O0:81:VAL:HB	1.90	0.53
3:S1:39:GLU:HG3	3:S1:40:ASN:N	2.15	0.53
34:SR:90:ARG:HH21	34:SR:102:ARG:HE	2.78	0.53
36:1:528:U:H2'	36:1:529:A:C8	2.44	0.53
1:2:1031:U:H4'	1:2:1032:G:OP2	2.06	0.53
1:2:1130:G:OP2	88:2:2074:OHX:N2	2.42	0.53
1:2:161:U:OP2	8:S6:87:ARG:NH2	2.41	0.53
1:2:1654:G:H2'	1:2:1745:G:N2	2.22	0.53
1:2:197:A:H2'	1:2:198:A:C8	2.44	0.53
1:2:647:G:N2	1:2:687:G:N2	2.56	0.53
38:4:85:G:C8	38:4:85:G:H3'	2.43	0.53
36:5:1586:G:OP1	88:5:3994:OHX:N3	2.42	0.53
76:Q0:102:ARG:NE	36:5:2896:A:OP1	321.37	0.53
39:L2:215:ASN:HB2	36:5:2968:G:N7	217.25	0.53
36:5:3041:U:H2'	36:5:3042:U:C6	2.43	0.53
36:5:2822:U:OP2	88:5:3956:OHX:N1	2.41	0.53
16:C4:12:GLN:HB3	16:C4:77:THR:OG1	2.09	0.53
22:D0:96:PRO:HG2	22:D0:99:ILE:HG22	1.91	0.53
23:D1:81:ASN:OD1	23:D1:81:ASN:N	3.17	0.53
24:D2:15:ASN:HD21	24:D2:71:LYS:HA	1.73	0.53
7:S5:163:SER:HB3	30:D8:46:GLY:HA3	1.88	0.53
39:L2:90:ALA:HB2	39:L2:101:VAL:HG13	2.04	0.53
39:L2:209:HIS:HD2	39:L2:211:HIS:N	2.07	0.53
40:L3:92:TYR:O	40:L3:155:ALA:HA	2.09	0.53
41:L4:264:SER:OG	41:L4:267:VAL:HG12	2.09	0.53
45:L8:101:THR:OG1	45:L8:104:GLU:HG3	5.23	0.53
46:L9:44:THR:HG22	36:5:3186:A:C2	327.36	0.53
53:M7:26:PHE:HE1	53:M7:120:ASN:HA	1.74	0.53
7:S5:43:PHE:HZ	7:S5:90:ILE:HG21	1.80	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1117:G:OP1	65:N9:4:SER:HB2	2.08	0.53
36:1:1260:A:H1'	36:1:1280:C:H1'	1.91	0.53
68:O2:98:HIS:HB3	36:5:1411:C:P	147.07	0.53
36:5:1796:G:O6	88:5:4232:OHX:N5	2.42	0.53
1:6:250:C:H2'	1:6:251:A:C8	2.43	0.53
16:C4:108:SER:OG	16:C4:108:SER:O	2.26	0.53
21:C9:126:GLU:H	21:C9:126:GLU:CD	2.19	0.53
22:D0:70:THR:HG23	1:6:1280:C:O2'	389.09	0.53
22:D0:97:VAL:HG13	22:D0:98:GLN:H	2.33	0.53
30:D8:16:LEU:HB2	30:D8:27:GLN:O	2.08	0.53
61:N5:63:ILE:HA	61:N5:86:VAL:HG23	1.91	0.53
62:N6:52:ARG:C	62:N6:54:ASP:H	2.10	0.53
3:S1:111:ARG:HB3	28:D6:68:TYR:CD2	2.44	0.53
34:SR:11:GLY:HA3	34:SR:54:PHE:HB2	1.90	0.53
36:1:3344:A:H2	36:1:3361:G:N2	2.01	0.53
66:O0:50:VAL:HG11	36:5:2552:C:H2'	234.61	0.53
68:O2:23:ASP:OD2	36:5:424:G:O2'	184.31	0.53
1:6:1230:A:H8	1:6:1258:U:C5	2.27	0.53
1:6:312:A:H4'	1:6:313:U:H5''	1.90	0.53
1:6:484:C:H42	1:6:503:G:N2	2.06	0.53
22:D0:42:VAL:HG23	22:D0:91:ILE:HD13	1.90	0.53
23:D1:35:ASN:OD1	23:D1:52:THR:HB	2.41	0.53
2:S0:36:TYR:OH	23:D1:66:ASP:OD2	2.21	0.53
28:D6:26:CYS:SG	28:D6:74:CYS:SG	3.76	0.53
32:E0:51:ASN:HB3	32:E0:53:LYS:HG2	6.30	0.53
40:L3:161:LEU:HB3	40:L3:178:LEU:HD11	1.88	0.53
41:L4:293:SER:HB2	41:L4:294:GLU:OE1	2.08	0.53
42:L5:21:ARG:HH11	42:L5:21:ARG:HG2	2.06	0.53
43:L6:142:ASP:O	43:L6:146:ILE:HG12	2.09	0.53
50:M4:32:LEU:HD11	50:M4:94:TRP:CG	2.49	0.53
52:M6:68:ARG:NH1	36:5:2988:C:P	216.34	0.53
36:1:3276:G:O6	53:M7:171:ARG:NH1	2.41	0.53
53:M7:22:LEU:HD12	53:M7:146:ILE:HG13	1.90	0.53
63:N7:16:GLY:O	63:N7:18:TYR:N	2.48	0.53
66:O0:13:LYS:O	66:O0:17:VAL:HG23	2.29	0.53
69:O3:49:ILE:HG23	69:O3:100:ILE:HG13	1.90	0.53
71:O5:10:ARG:NH2	38:8:65:A:O3'	33.11	0.53
71:O5:47:VAL:HA	71:O5:50:SER:HB2	2.03	0.53
2:S0:167:LYS:HE3	2:S0:168:HIS:NE2	2.60	0.53
3:S1:23:PRO:O	3:S1:27:LYS:HG2	2.85	0.53
3:S1:70:LEU:HD12	3:S1:82:ARG:HB2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:86:PHE:O	6:S4:87:MET:HB2	2.08	0.53
8:S6:58:LYS:O	8:S6:59:GLN:HB2	2.08	0.53
34:SR:24:ALA:HB2	34:SR:72:THR:H	1.72	0.53
36:1:1765:U:H5''	55:M9:43:LYS:HE2	1.91	0.53
36:1:2254:U:H2'	36:1:2261:G:H22	1.74	0.53
36:1:2810:C:OP1	88:1:4095:OHX:N6	2.42	0.53
36:1:1942:U:O2'	36:1:3345:G:O2'	2.21	0.53
36:1:656:A:H2'	36:1:657:A:C8	2.43	0.53
1:2:511:A:N6	1:2:539:G:O6	2.37	0.53
36:5:1701:C:H2'	36:5:1702:U:O4'	2.08	0.53
36:5:2897:A:H2'	36:5:2899:C:C5'	2.38	0.53
36:5:378:A:H3'	36:5:379:C:H6	1.73	0.53
1:6:1429:G:H2'	1:6:1430:U:C6	2.43	0.53
1:6:180:A:H2'	1:6:181:A:O4'	2.07	0.53
37:7:3:U:H2'	37:7:4:U:C6	2.44	0.53
10:S8:185:GLU:HG2	13:C1:23:PRO:HG3	1.90	0.53
20:C8:4:VAL:HG21	27:D5:82:HIS:CG	3.41	0.53
28:D6:87:ARG:HD3	1:6:1796:C:OP1	345.75	0.53
40:L3:153:LYS:HG2	40:L3:154:TYR:CE2	3.87	0.53
41:L4:120:TYR:CE2	41:L4:277:PRO:HB3	2.44	0.53
46:L9:20:ILE:HD12	46:L9:45:PHE:CG	4.64	0.53
47:M0:192:ASP:HA	47:M0:197:VAL:HG23	3.02	0.53
49:M3:164:GLU:O	49:M3:166:ALA:N	2.38	0.53
49:M3:87:ALA:O	49:M3:91:ARG:HG3	2.09	0.53
52:M6:181:ALA:C	52:M6:183:ALA:H	2.12	0.53
68:O2:97:ALA:O	68:O2:100:ILE:HG12	2.45	0.53
71:O5:89:ARG:HD2	38:8:38:U:C4	67.86	0.53
2:S0:27:ARG:HG3	2:S0:44:GLY:O	2.09	0.53
3:S1:123:ALA:HB2	3:S1:165:ARG:HD2	1.91	0.53
4:S2:78:ASP:O	4:S2:79:GLU:HB3	2.08	0.53
8:S6:7:TYR:CE1	8:S6:125:THR:HA	3.32	0.53
36:1:1362:G:H2'	36:1:1363:A:C8	2.44	0.53
36:1:2257:C:H2'	36:1:2258:U:O4'	2.09	0.53
36:1:3174:A:H2'	36:1:3175:U:H5'	1.91	0.53
36:1:391:A:OP2	88:1:4160:OHX:N1	2.42	0.53
36:1:627:U:H4'	36:1:1399:A:O2'	2.09	0.53
1:2:71:A:H2'	1:2:72:A:O4'	2.09	0.53
1:2:755:A:H2'	1:2:756:A:C8	2.44	0.53
1:2:919:A:H5'	16:C4:18:ARG:HH12	1.73	0.53
1:6:1321:A:H4'	1:6:1322:A:O5'	2.09	0.53
1:6:738:G:O6	88:6:2071:OHX:N4	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:961:U:H2'	1:6:962:C:C6	2.44	0.53
13:C1:2:SER:HB2	13:C1:81:HIS:CD2	2.44	0.53
17:C5:25:LEU:HA	17:C5:28:MET:HE2	1.91	0.53
20:C8:12:GLN:NE2	20:C8:14:ILE:O	3.13	0.53
1:2:1366:U:O2'	21:C9:7:ARG:NH1	2.41	0.53
22:D0:27:THR:HB	22:D0:88:LYS:CG	2.39	0.53
2:S0:52:LYS:HD2	23:D1:82:VAL:HA	1.91	0.53
36:1:2522:G:O6	39:L2:70:ARG:NH2	2.42	0.53
40:L3:2:SER:O	40:L3:3:HIS:HB3	2.08	0.53
52:M6:182:ASN:O	52:M6:185:ALA:N	4.83	0.53
55:M9:172:ARG:O	55:M9:176:ARG:HG2	2.11	0.53
57:N1:44:ALA:HB2	57:N1:53:PRO:HG2	1.90	0.53
58:N2:67:SER:OG	58:N2:69:ALA:O	2.43	0.53
40:L3:73:VAL:HG22	59:N3:90:GLY:HA3	1.89	0.53
3:S1:184:LEU:HA	3:S1:187:LYS:HE3	1.91	0.53
4:S2:82:ASN:HB2	4:S2:207:LEU:HD13	1.91	0.53
8:S6:137:ARG:HH21	8:S6:177:ARG:HE	1.55	0.53
9:S7:64:VAL:HG22	9:S7:94:ALA:HB1	3.03	0.53
10:S8:138:ASN:HA	10:S8:141:ARG:HD2	1.90	0.53
20:C8:128:PHE:CD2	35:SM:61:ILE:HG22	2.44	0.53
36:1:2107:A:H2	36:1:3344:A:H8	1.57	0.53
36:1:3393:U:H2'	36:1:3394:U:C6	2.43	0.53
1:2:186:C:H3'	1:2:187:G:C8	2.43	0.53
1:2:773:C:OP1	6:S4:22:LYS:N	2.42	0.53
1:2:855:A:C2	1:2:857:U:H1'	2.44	0.53
1:2:881:A:H2'	1:2:882:U:O4'	2.08	0.53
36:5:2309:A:H4'	88:5:4203:OHX:N4	2.24	0.53
36:5:655:C:H2'	36:5:656:A:C8	2.44	0.53
2:S0:101:ARG:NH2	1:6:1321:A:OP2	401.32	0.53
1:6:1459:C:OP2	1:6:1459:C:H6	1.92	0.53
1:6:25:C:O2	88:6:2105:OHX:N2	2.42	0.53
13:C1:79:LYS:HB2	1:6:346:G:H5'	282.58	0.53
6:S4:220:THR:HG22	1:6:753:A:OP1	369.18	0.53
38:8:15:G:C6	38:8:16:G:N1	2.77	0.53
22:D0:20:ILE:HG13	22:D0:95:ALA:O	2.09	0.53
22:D0:23:ARG:HD3	22:D0:92:ASP:OD1	2.09	0.53
40:L3:103:THR:HG21	40:L3:147:GLU:OE2	2.20	0.53
40:L3:284:ARG:NH2	40:L3:295:ALA:O	2.42	0.53
43:L6:76:LEU:HD11	43:L6:141:VAL:HG21	2.40	0.53
44:L7:25:GLN:HG2	44:L7:29:GLU:HB2	1.90	0.53
46:L9:90:MET:O	46:L9:91:ARG:HD2	2.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:93:GLY:C	3:S1:95:ASN:H	2.59	0.53
7:S5:156:ARG:HA	7:S5:157:ARG:HH21	4.46	0.53
10:S8:116:HIS:CE1	10:S8:146:ARG:HD3	2.44	0.53
34:SR:144:LEU:HB3	34:SR:181:TRP:CZ3	3.09	0.53
1:2:1178:G:H2'	1:2:1179:G:O4'	2.09	0.53
1:2:1229:G:HO2'	1:2:1255:G:N2	2.07	0.53
1:2:1460:A:C8	17:C5:128:HIS:HB3	2.44	0.53
1:2:373:G:N7	88:2:2159:OHX:N6	2.56	0.53
1:2:788:A:OP2	6:S4:108:ARG:NH1	2.19	0.53
47:M0:4:ARG:NH2	36:5:1128:U:OP1	264.49	0.53
36:5:1819:U:H2'	36:5:1820:U:H5'	1.90	0.53
36:5:2180:G:H2'	36:5:2181:C:C6	2.44	0.53
36:5:2304:C:C5	36:5:2305:G:C6	2.97	0.53
36:5:2796:G:H5''	36:5:2798:C:O4'	2.08	0.53
36:5:3078:U:H1'	88:5:4200:OHX:N1	2.24	0.53
36:5:717:C:OP1	36:5:751:A:O2'	2.25	0.53
24:D2:71:LYS:NZ	1:6:1099:U:OP1	375.72	0.53
1:6:198:A:H2'	1:6:199:G:H5'	1.90	0.53
1:6:886:U:H2'	1:6:887:A:H8	1.74	0.53
17:C5:33:PHE:O	17:C5:36:LEU:HD23	2.09	0.53
17:C5:75:PRO:HA	17:C5:93:VAL:HG12	1.89	0.53
29:D7:50:ALA:O	29:D7:52:THR:N	2.42	0.53
39:L2:209:HIS:CE1	39:L2:210:PRO:HD2	3.30	0.53
40:L3:142:ALA:O	40:L3:146:ARG:N	3.76	0.53
42:L5:115:LEU:HD22	42:L5:115:LEU:H	1.74	0.53
42:L5:108:ARG:CZ	42:L5:253:PHE:HB2	2.39	0.53
43:L6:68:PRO:HB2	43:L6:71:VAL:HG23	2.25	0.53
45:L8:156:ASP:O	45:L8:183:LYS:HE3	7.25	0.53
46:L9:47:LYS:HB2	50:M4:7:VAL:HB	1.90	0.53
49:M3:154:VAL:HG12	49:M3:155:GLU:H	4.12	0.53
51:M5:155:VAL:O	51:M5:162:ARG:NH2	2.42	0.53
55:M9:15:VAL:HG12	55:M9:52:LYS:HE3	4.47	0.53
55:M9:82:LYS:O	36:5:1914:G:O2'	211.56	0.53
57:N1:104:GLU:HG3	57:N1:105:PHE:N	2.24	0.53
70:O4:86:LYS:O	70:O4:90:ILE:HG12	2.09	0.53
2:S0:139:VAL:O	2:S0:141:ILE:N	2.42	0.53
3:S1:226:GLY:HA2	36:5:2536:A:H4'	257.01	0.53
5:S3:182:LEU:H	5:S3:182:LEU:HD12	1.72	0.53
5:S3:38:GLU:HG3	5:S3:38:GLU:O	2.09	0.53
6:S4:11:ARG:HB2	6:S4:27:TYR:C	2.28	0.53
6:S4:19:LEU:HD11	6:S4:108:ARG:HD2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:SM:48:ARG:HA	36:5:1019:G:OP1	334.38	0.53
36:1:1742:U:H2'	36:1:1743:G:C8	2.44	0.53
36:1:1770:G:H5'	36:1:1771:C:OP2	2.09	0.53
36:1:2115:G:H22	36:1:2120:A:H1'	1.74	0.53
36:1:2582:C:H2'	36:1:2583:C:H6	1.74	0.53
36:1:956:U:OP1	88:1:4138:OHX:N1	2.42	0.53
36:1:612:U:H2'	36:1:613:G:C8	2.42	0.53
1:2:1435:G:N7	12:C0:25:LYS:NZ	2.57	0.53
1:2:377:G:O6	88:2:2078:OHX:N5	2.41	0.53
1:2:720:G:H1'	1:2:721:U:H5''	1.90	0.53
1:2:978:A:H2'	1:2:979:A:O4'	2.09	0.53
36:5:1340:G:H2'	36:5:1341:U:H6	1.74	0.53
68:O2:33:ARG:NH2	36:5:1407:A:O3'	161.92	0.53
36:5:1564:U:H2'	36:5:1565:G:C8	2.44	0.53
36:5:2225:U:H2'	36:5:2226:U:C6	2.44	0.53
36:5:2840:C:OP1	88:5:4142:OHX:N3	2.42	0.53
1:6:1393:C:H2'	1:6:1394:G:H8	1.74	0.53
42:L5:279:LYS:NZ	37:7:110:G:OP2	324.25	0.53
18:C6:95:LYS:O	34:SR:59:ARG:NH2	2.42	0.53
25:D3:62:LYS:HD2	25:D3:118:PRO:HB3	1.91	0.53
28:D6:53:LEU:O	28:D6:57:SER:OG	2.22	0.53
40:L3:178:LEU:HD12	40:L3:179:ALA:N	2.22	0.53
46:L9:76:ASP:O	46:L9:80:THR:HG23	2.09	0.53
48:M1:133:ARG:HB3	48:M1:134:PRO:HD2	2.37	0.53
48:M1:137:ARG:NH2	37:7:44:C:OP2	296.20	0.53
48:M1:16:LYS:HG2	48:M1:130:VAL:HG13	4.25	0.53
49:M3:190:LYS:NZ	49:M3:190:LYS:HB2	2.23	0.53
2:S0:189:VAL:HG22	2:S0:190:ASP:H	1.73	0.53
4:S2:174:ARG:HA	4:S2:195:ASP:OD2	2.40	0.53
7:S5:117:THR:HG21	7:S5:194:LEU:HD12	1.91	0.53
10:S8:82:VAL:HG13	10:S8:196:LEU:HD21	3.27	0.53
34:SR:114:ASP:OD1	34:SR:115:ILE:N	2.69	0.53
36:1:1636:U:H5''	63:N7:73:LYS:HZ2	1.74	0.52
36:1:3000:A:H2'	36:1:3001:C:C6	2.44	0.52
36:1:801:A:O2'	88:1:3992:OHX:N2	2.42	0.52
1:2:256:A:H2'	1:2:257:A:O4'	2.09	0.52
37:3:3:U:H2'	37:3:4:U:C6	2.45	0.52
37:3:48:U:O4	42:L5:58:LYS:NZ	2.39	0.52
36:5:1085:A:H5''	36:5:1085:A:H8	1.74	0.52
36:5:378:A:H3'	36:5:379:C:C6	2.44	0.52
1:6:1545:A:H2'	1:6:1546:G:H8	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:652:G:N2	1:6:682:C:O2	2.41	0.52
71:O5:63:ARG:NH2	38:8:97:A:OP1	57.28	0.52
16:C4:54:GLU:CD	1:6:901:G:H22	282.26	0.52
17:C5:115:TYR:HB2	17:C5:118:GLU:HG3	2.30	0.52
26:D4:14:SER:O	26:D4:16:PRO:HD3	2.09	0.52
29:D7:54:VAL:O	29:D7:63:LEU:HB2	2.08	0.52
36:1:2988:C:O2	40:L3:266:ARG:NH1	2.42	0.52
41:L4:138:ARG:NH2	41:L4:240:PRO:HB2	2.40	0.52
49:M3:8:PRO:HD3	54:M8:164:ARG:HB3	2.91	0.52
55:M9:160:GLU:HG2	55:M9:164:LEU:HD23	1.91	0.52
64:N8:132:LYS:O	64:N8:136:GLU:HG3	2.24	0.52
66:O0:9:SER:HB3	66:O0:12:GLN:HB3	1.91	0.52
3:S1:180:THR:HG22	3:S1:182:ALA:H	1.74	0.52
4:S2:225:LEU:HD22	4:S2:230:TRP:HD1	2.15	0.52
6:S4:227:VAL:O	6:S4:228:ILE:HG12	2.08	0.52
8:S6:102:VAL:HG13	8:S6:106:LEU:HD12	1.90	0.52
8:S6:59:GLN:OE1	1:6:418:G:O2'	295.08	0.52
11:S9:65:LYS:HA	11:S9:70:LEU:HD11	2.27	0.52
36:1:1110:U:H2'	36:1:1111:U:C6	2.43	0.52
36:1:1807:G:C6	36:1:1808:G:N1	2.77	0.52
36:1:2442:G:N2	36:1:2505:U:H3	2.07	0.52
36:1:3085:G:OP2	88:1:3895:OHX:N2	2.42	0.52
36:1:621:A:O2'	88:1:4178:OHX:N1	2.42	0.52
1:2:1738:U:H2'	1:2:1739:C:C6	2.44	0.52
1:2:329:G:H2'	1:2:330:G:H8	1.73	0.52
1:2:953:G:H2'	1:2:954:G:H8	1.74	0.52
36:5:1222:G:O6	88:5:4133:OHX:N1	2.42	0.52
36:5:1438:U:H2'	36:5:1439:U:H6	1.74	0.52
36:5:1818:U:H2'	36:5:1819:U:C6	2.44	0.52
57:N1:57:TYR:OH	36:5:2724:U:OP1	223.54	0.52
36:5:352:A:H61	36:5:365:A:H5''	1.74	0.52
36:5:594:U:H5''	36:5:609:G:H1	1.74	0.52
1:6:363:G:OP1	88:6:2109:OHX:N1	2.42	0.52
1:6:140:A:N6	1:6:281:G:OP1	2.42	0.52
1:6:950:C:H2'	1:6:951:A:C8	2.45	0.52
18:C6:32:ASN:O	18:C6:66:ARG:NH1	2.42	0.52
20:C8:15:LEU:HD12	20:C8:66:LEU:HD11	3.55	0.52
40:L3:117:ARG:CZ	40:L3:175:LYS:HD2	4.44	0.52
40:L3:305:ILE:HG12	40:L3:321:PHE:CZ	2.44	0.52
48:M1:90:GLN:OE1	48:M1:172:LEU:HD11	2.09	0.52
51:M5:143:ARG:NH2	71:O5:92:LEU:HD23	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:7:TYR:CE1	56:N0:34:GLU:HG2	2.81	0.52
59:N3:33:ASN:HD22	59:N3:33:ASN:C	2.12	0.52
59:N3:38:ALA:HB3	59:N3:59:MET:HB2	1.95	0.52
66:O0:66:LYS:H	66:O0:66:LYS:HD2	3.78	0.52
6:S4:181:VAL:HG11	6:S4:225:VAL:HG13	2.72	0.52
9:S7:75:THR:O	9:S7:79:ARG:HB2	2.09	0.52
9:S7:24:PHE:CE1	9:S7:77:LEU:HD11	3.12	0.52
34:SR:89:LEU:O	34:SR:103:PHE:HD2	1.91	0.52
36:1:1047:A:N3	36:1:2633:U:O2'	2.41	0.52
36:1:1352:A:H4'	36:1:1353:U:OP1	2.09	0.52
36:1:2108:C:H1'	36:1:3344:A:H8	1.75	0.52
1:2:158:U:O2'	1:2:159:U:H3'	2.09	0.52
1:2:1201:G:H21	1:2:1600:A:H5''	1.73	0.52
1:2:1600:A:O2'	1:2:1602:C:N4	2.42	0.52
1:2:1606:C:H2'	1:2:1607:G:C8	2.45	0.52
1:2:1369:U:O4	88:2:2095:OHX:N5	2.42	0.52
36:5:1764:U:H3'	36:5:1765:U:H5''	1.91	0.52
36:5:192:C:H2'	36:5:193:C:C6	2.44	0.52
36:5:2846:U:O2	88:5:4055:OHX:N5	2.41	0.52
36:5:3335:A:H2'	36:5:3336:A:C8	2.44	0.52
36:5:1877:U:OP2	88:5:3960:OHX:N1	2.43	0.52
14:C2:104:ALA:HB2	14:C2:115:VAL:HG22	5.22	0.52
20:C8:117:LYS:HE2	20:C8:128:PHE:HB2	2.61	0.52
21:C9:73:VAL:HG12	21:C9:77:ASN:HD21	1.74	0.52
22:D0:28:SER:OG	22:D0:29:THR:N	2.42	0.52
40:L3:259:HIS:CE1	36:5:2366:C:H5'	218.84	0.52
40:L3:3:HIS:C	40:L3:3:HIS:HD1	4.57	0.52
51:M5:184:LYS:HG2	51:M5:185:ALA:N	2.76	0.52
62:N6:90:VAL:HG11	36:5:392:G:O2'	88.74	0.52
63:N7:17:ARG:O	63:N7:19:ALA:N	2.42	0.52
63:N7:57:HIS:CD2	63:N7:65:ARG:HG3	2.44	0.52
74:O8:31:LEU:HD23	74:O8:31:LEU:H	1.74	0.52
4:S2:59:HIS:CE1	4:S2:238:SER:HA	3.38	0.52
7:S5:23:VAL:O	7:S5:34:GLN:NE2	2.38	0.52
9:S7:122:HIS:CE1	9:S7:177:THR:HB	2.64	0.52
36:1:1549:U:H2'	36:1:1550:C:C6	2.44	0.52
1:2:178:U:C4	8:S6:191:ARG:HD3	2.44	0.52
1:2:494:U:O2'	1:2:495:C:O5'	2.25	0.52
59:N3:48:ARG:HG2	36:5:2339:C:P	246.28	0.52
36:5:2426:U:H2'	36:5:2427:U:C6	2.45	0.52
36:5:2943:G:H2'	36:5:2944:U:O4'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1542:G:N2	1:6:1568:C:H1'	2.24	0.52
11:S9:149:ARG:NE	1:6:765:G:N7	429.29	0.52
12:C0:32:HIS:CG	12:C0:33:GLU:H	3.26	0.52
12:C0:80:LEU:O	12:C0:82:LEU:N	2.42	0.52
16:C4:102:LEU:HD22	16:C4:105:LEU:HD11	1.90	0.52
25:D3:130:VAL:O	25:D3:131:SER:HB3	2.66	0.52
26:D4:94:TYR:HB2	26:D4:96:LEU:HD11	1.92	0.52
43:L6:47:PHE:O	43:L6:50:LYS:HB2	2.10	0.52
44:L7:160:ARG:HD2	44:L7:203:TRP:CD1	2.44	0.52
45:L8:75:ILE:C	45:L8:77:GLN:H	2.13	0.52
47:M0:169:LYS:O	47:M0:170:LYS:HD3	3.15	0.52
52:M6:12:LYS:HA	52:M6:40:GLU:O	2.19	0.52
52:M6:72:HIS:O	52:M6:74:ARG:HD3	2.10	0.52
58:N2:50:LEU:HB3	58:N2:54:VAL:CG2	2.40	0.52
62:N6:63:LYS:O	62:N6:66:GLN:HG3	2.10	0.52
62:N6:82:VAL:O	62:N6:84:LYS:N	2.77	0.52
64:N8:123:VAL:HG12	64:N8:125:VAL:HG22	1.92	0.52
67:O1:54:GLU:OE2	67:O1:54:GLU:N	2.42	0.52
68:O2:63:THR:O	68:O2:66:LEU:HG	2.10	0.52
2:S0:4:PRO:HB2	2:S0:7:PHE:HB2	1.89	0.52
7:S5:146:THR:HG23	7:S5:157:ARG:HB3	4.32	0.52
7:S5:28:PRO:O	7:S5:29:ILE:HB	4.46	0.52
36:1:1584:U:H2'	36:1:1585:C:C6	2.45	0.52
36:1:2273:G:O2'	36:1:2274:U:OP2	2.28	0.52
36:1:410:U:O4	88:1:4069:OHX:N5	2.43	0.52
36:1:551:A:O2'	36:1:552:G:H8	1.93	0.52
36:1:929:A:H2'	36:1:930:U:C6	2.45	0.52
1:2:1244:A:N3	1:2:1244:A:H3'	2.24	0.52
1:2:1534:G:O6	27:D5:77:ARG:NE	2.42	0.52
36:5:1858:A:O2'	36:5:1859:A:OP2	2.27	0.52
36:5:314:U:O4	88:5:4196:OHX:N5	2.43	0.52
36:5:835:G:O2'	36:5:857:G:N2	2.31	0.52
1:6:830:U:H2'	1:6:831:U:H5'	1.92	0.52
12:C0:11:ILE:HD13	12:C0:42:VAL:HA	1.91	0.52
17:C5:127:ARG:O	17:C5:130:ARG:NH1	5.15	0.52
24:D2:37:PHE:CD2	24:D2:103:ILE:HD12	2.45	0.52
40:L3:169:THR:CG2	40:L3:171:LEU:H	2.47	0.52
36:1:2338:C:OP1	40:L3:236:LYS:HE2	2.09	0.52
41:L4:141:ARG:CZ	41:L4:180:LYS:HD3	2.79	0.52
41:L4:82:THR:O	41:L4:84:ARG:N	2.41	0.52
36:1:3198:U:O4	46:L9:26:LYS:HB2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:20:ILE:HD13	46:L9:45:PHE:CD1	2.45	0.52
53:M7:67:ILE:N	53:M7:67:ILE:HD13	3.14	0.52
64:N8:76:ASP:HB3	64:N8:115:LYS:O	6.84	0.52
65:N9:23:LYS:HB3	65:N9:24:PRO:CD	3.46	0.52
36:1:1073:U:H1'	65:N9:50:THR:HG22	1.91	0.52
2:S0:105:GLY:N	2:S0:135:GLU:OE2	2.39	0.52
3:S1:191:GLU:O	3:S1:194:ASN:HB2	2.59	0.52
5:S3:195:SER:OG	5:S3:200:LYS:HA	3.87	0.52
8:S6:121:LEU:H	8:S6:125:THR:HG1	2.48	0.52
11:S9:117:GLY:O	11:S9:119:ALA:N	2.85	0.52
36:1:1485:G:N2	70:O4:4:ARG:HD2	2.25	0.52
36:1:156:G:OP2	72:O6:25:LYS:HB3	2.09	0.52
36:1:2357:A:H2'	36:1:2358:A:H8	1.74	0.52
36:1:3106:A:H2'	36:1:3107:U:O4'	2.10	0.52
36:1:551:A:O2'	36:1:552:G:O5'	2.22	0.52
1:2:482:U:H2'	1:2:483:A:C8	2.44	0.52
37:3:27:A:OP2	42:L5:57:ASN:HB2	2.09	0.52
36:5:1882:G:H1	36:5:2350:C:H42	1.57	0.52
36:5:278:U:H2'	36:5:279:U:C6	2.43	0.52
36:5:286:U:H2'	36:5:287:G:C8	2.44	0.52
36:5:2931:C:H2'	36:5:2932:U:O4'	2.09	0.52
36:5:612:U:H2'	36:5:613:G:H8	1.75	0.52
1:6:191:C:O2'	1:6:192:U:O5'	2.27	0.52
1:6:463:U:OP1	88:6:2202:OHX:N1	2.42	0.52
1:6:75:U:O2'	1:6:76:A:O5'	2.19	0.52
37:7:95:A:OP2	88:7:225:OHX:N1	2.42	0.52
38:8:145:U:H2'	38:8:146:U:C6	2.45	0.52
5:S3:27:ARG:HB3	12:C0:58:GLN:HE22	1.75	0.52
14:C2:42:ALA:HB3	14:C2:122:VAL:HB	1.92	0.52
15:C3:96:VAL:O	15:C3:100:LYS:HG2	5.45	0.52
16:C4:122:PRO:C	16:C4:124:ASP:H	2.82	0.52
21:C9:24:ARG:O	21:C9:26:GLY:N	3.25	0.52
31:D9:20:GLN:HG3	31:D9:25:SER:HA	2.48	0.52
39:L2:227:ARG:HG2	39:L2:239:ALA:HB2	1.91	0.52
40:L3:56:ILE:HD13	40:L3:76:VAL:HG21	1.90	0.52
49:M3:89:TYR:CE1	49:M3:93:ILE:HD11	4.25	0.52
50:M4:55:ARG:HG2	56:N0:70:THR:HB	1.92	0.52
50:M4:58:ILE:HD11	50:M4:62:GLN:HG3	4.34	0.52
53:M7:30:ARG:HA	53:M7:119:VAL:HG11	2.23	0.52
53:M7:51:VAL:HA	53:M7:56:ARG:O	2.10	0.52
63:N7:39:GLY:C	63:N7:77:TYR:HD1	4.46	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:40:A:N7	64:N8:29:PRO:O	2.42	0.52
36:1:2552:C:H2'	66:O0:50:VAL:HG11	1.91	0.52
69:O3:13:HIS:O	69:O3:95:GLY:N	2.43	0.52
2:S0:172:LEU:HD13	2:S0:176:LEU:HD11	2.41	0.52
3:S1:181:LEU:N	3:S1:181:LEU:HD13	2.23	0.52
3:S1:183:GLN:HG2	3:S1:187:LYS:HE2	1.90	0.52
11:S9:126:ARG:O	11:S9:130:THR:HG22	2.09	0.52
34:SR:236:ALA:O	34:SR:261:LYS:NZ	2.43	0.52
34:SR:274:LEU:HD13	34:SR:313:TRP:CE2	2.45	0.52
36:1:20:A:OP2	71:O5:90:ARG:NH1	2.43	0.52
36:1:2746:A:H2'	36:1:2747:A:O4'	2.09	0.52
36:1:1196:C:O2	88:1:4005:OHX:N2	2.41	0.52
36:1:603:A:H2'	36:1:604:G:O4'	2.09	0.52
1:2:1149:G:H1'	1:2:1765:A:C4	2.44	0.52
1:2:1370:U:O4	88:2:2121:OHX:N1	2.42	0.52
1:2:704:C:OP2	1:2:704:C:H3'	2.10	0.52
1:2:887:A:H2'	1:2:888:U:C6	2.44	0.52
36:5:299:G:N7	88:5:4194:OHX:N1	2.57	0.52
40:L3:53:MET:HE1	36:5:3048:A:H5'	234.17	0.52
36:5:873:C:H5''	36:5:874:U:O5'	2.10	0.52
1:6:987:G:O6	88:6:2116:OHX:N4	2.43	0.52
12:C0:53:GLY:O	12:C0:55:VAL:N	2.36	0.52
19:C7:71:PHE:HE1	19:C7:73:LEU:HD22	1.75	0.52
6:S4:64:ILE:HG12	26:D4:18:LEU:HG	1.91	0.52
39:L2:27:ALA:O	39:L2:128:ARG:NH2	2.61	0.52
40:L3:168:LYS:O	40:L3:319:ASN:ND2	2.42	0.52
40:L3:19:ARG:HB3	40:L3:232:ARG:HH12	1.97	0.52
41:L4:271:LYS:HB2	41:L4:274:TYR:CB	2.52	0.52
45:L8:94:PHE:CZ	45:L8:200:LEU:HG	2.45	0.52
47:M0:47:PRO:HB3	47:M0:171:TRP:CZ2	2.44	0.52
56:N0:42:TRP:O	56:N0:46:GLN:HG3	2.29	0.52
57:N1:79:MET:HB3	57:N1:84:TYR:CE2	2.45	0.52
61:N5:137:ASN:HB3	61:N5:142:ILE:HG12	1.92	0.52
67:O1:55:LEU:HD23	67:O1:95:PRO:HB3	1.92	0.52
75:O9:23:LEU:HD11	75:O9:35:ILE:HG22	2.27	0.52
3:S1:119:THR:HB	3:S1:143:THR:HG23	1.92	0.52
4:S2:227:PRO:HA	4:S2:230:TRP:CG	3.00	0.52
5:S3:223:LYS:HD3	34:SR:191:ASP:HB2	4.27	0.52
5:S3:18:TYR:CE1	5:S3:37:VAL:HG23	2.44	0.52
6:S4:105:VAL:HG22	6:S4:243:GLY:HA2	1.92	0.52
7:S5:143:ARG:HB2	7:S5:218:GLU:OE2	3.18	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:767:U:H6	11:S9:141:VAL:HA	1.74	0.52
34:SR:123:ILE:HD13	34:SR:169:ILE:HG21	1.95	0.52
34:SR:195:HIS:NE2	34:SR:213:SER:HB2	2.25	0.52
36:1:2284:C:H3'	36:1:2285:C:C6	2.45	0.52
36:1:535:G:O2'	36:1:554:A:N1	2.40	0.52
1:2:1294:G:O2'	1:2:1321:A:N1	2.43	0.52
1:2:306:U:P	13:C1:105:LYS:HD2	2.50	0.52
1:2:329:G:H2'	1:2:330:G:C8	2.44	0.52
1:2:625:C:H2'	1:2:626:U:C6	2.45	0.52
37:3:45:A:H5'	42:L5:154:THR:HG21	1.92	0.52
36:5:1014:U:H3	36:5:1036:A:H61	1.58	0.52
36:5:112:U:O2'	36:5:113:C:OP2	2.27	0.52
36:5:3027:A:H2'	36:5:3028:G:O4'	2.09	0.52
36:5:612:U:H2'	36:5:613:G:C8	2.44	0.52
1:6:230:C:N3	1:6:235:G:N2	2.48	0.52
10:S8:51:GLY:N	1:6:397:A:H5''	312.96	0.52
1:6:74:U:H5''	1:6:75:U:OP2	2.10	0.52
1:6:887:A:H2'	1:6:888:U:C6	2.45	0.52
13:C1:75:VAL:HG13	13:C1:76:VAL:N	2.24	0.52
19:C7:26:LEU:HD22	19:C7:59:LYS:HA	1.91	0.52
22:D0:20:ILE:HD13	22:D0:22:ILE:HB	1.91	0.52
2:S0:142:PRO:HG3	23:D1:32:VAL:HG22	2.90	0.52
23:D1:40:ASP:HB3	23:D1:46:ILE:HD11	1.91	0.52
7:S5:189:THR:OG1	27:D5:98:GLN:OE1	2.21	0.52
28:D6:12:LYS:HB3	28:D6:12:LYS:NZ	3.16	0.52
32:E0:3:LYS:HB3	32:E0:3:LYS:NZ	2.25	0.52
46:L9:113:GLU:OE1	46:L9:115:ARG:NH2	3.75	0.52
52:M6:110:PRO:O	52:M6:111:PRO:C	3.33	0.52
52:M6:115:LYS:HD3	36:5:3178:A:C2	260.71	0.52
3:S1:147:ALA:O	3:S1:148:ASN:HB3	2.08	0.52
36:1:1608:C:H2'	36:1:1609:C:H6	1.74	0.52
36:1:171:G:H2'	36:1:172:G:O4'	2.08	0.52
1:2:1229:G:H1	14:C2:47:GLU:HG3	1.75	0.52
74:O8:28:ASN:ND2	36:5:1750:A:OP2	139.48	0.52
1:6:1202:A:OP1	88:6:2126:OHX:N2	2.42	0.52
1:6:152:U:O2	1:6:163:G:N2	2.43	0.52
1:6:499:U:O2	1:6:500:C:N4	2.43	0.52
1:6:542:A:H2'	1:6:542:A:OP1	2.09	0.52
1:6:66:U:H4'	1:6:67:A:OP1	2.10	0.52
1:2:1228:G:N1	14:C2:67:THR:HB	2.23	0.52
26:D4:19:ALA:HB1	26:D4:81:GLU:HG2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:40:VAL:C	27:D5:75:LEU:HD11	2.30	0.52
29:D7:15:GLU:OE2	29:D7:24:LEU:N	2.42	0.52
40:L3:50:LYS:HA	40:L3:79:VAL:HG23	4.36	0.52
42:L5:95:TRP:CH2	42:L5:181:PRO:HD3	4.36	0.52
45:L8:161:GLU:OE2	51:M5:26:ARG:NH2	2.67	0.52
46:L9:156:GLN:NE2	46:L9:160:ASP:OD1	2.42	0.52
46:L9:9:GLN:HG2	46:L9:52:LEU:HD21	1.92	0.52
50:M4:113:THR:HG22	50:M4:116:GLU:H	2.54	0.52
54:M8:96:PHE:CD2	54:M8:97:PRO:HD2	2.73	0.52
65:N9:38:LYS:NZ	36:5:1077:U:OP1	219.25	0.52
2:S0:63:ILE:HD13	23:D1:34:ILE:HG21	3.03	0.52
6:S4:160:VAL:HG13	6:S4:169:ILE:HG23	2.03	0.52
6:S4:206:ASP:HB2	6:S4:222:LEU:HD12	1.91	0.52
6:S4:230:GLU:HB2	6:S4:233:LYS:HB2	1.92	0.52
10:S8:57:ALA:HB2	10:S8:177:GLY:HA2	2.16	0.52
36:1:1508:C:C6	36:1:1880:U:H1'	2.45	0.52
36:1:1951:C:N4	36:1:2095:G:H1	1.99	0.52
88:1:3985:OHX:N6	78:Q2:48:SER:O	2.43	0.52
1:2:482:U:H2'	1:2:483:A:H8	1.75	0.52
1:2:542:A:H2'	1:2:543:C:H5'	1.92	0.52
36:5:1728:G:H4'	36:5:1729:A:H5''	1.92	0.52
36:5:2970:C:H4'	36:5:2971:A:N1	2.25	0.52
36:5:1536:G:N7	88:5:3925:OHX:N2	2.58	0.52
39:L2:181:LYS:HB3	36:5:860:G:C5	213.30	0.52
1:6:1079:U:H2'	1:6:1080:U:O4'	2.10	0.52
1:6:366:A:H2'	1:6:367:A:C8	2.45	0.52
1:6:432:G:H2'	1:6:433:C:O4'	2.10	0.52
1:6:924:A:H2'	1:6:925:G:C8	2.45	0.52
12:C0:34:GLU:O	12:C0:35:ILE:HB	4.20	0.52
17:C5:18:ARG:HG2	20:C8:92:ILE:HA	1.92	0.52
21:C9:53:TRP:HH2	21:C9:100:ILE:HD13	3.12	0.52
21:C9:61:VAL:O	21:C9:65:ILE:HG13	2.10	0.52
23:D1:32:VAL:HB	23:D1:60:ARG:HD2	2.58	0.52
1:2:1530:C:OP1	27:D5:95:HIS:HB3	2.10	0.52
40:L3:116:ARG:HH22	40:L3:174:LYS:HD3	1.74	0.52
41:L4:205:PRO:HB3	41:L4:247:PHE:CD2	2.46	0.52
42:L5:143:LYS:HG3	42:L5:172:TYR:HD2	1.75	0.52
43:L6:56:LYS:HD2	43:L6:98:VAL:HG13	1.92	0.52
45:L8:246:MET:HA	45:L8:249:ARG:HB3	1.92	0.52
53:M7:125:GLN:HB2	53:M7:141:SER:OG	2.70	0.52
56:N0:40:ARG:O	56:N0:43:TYR:HB3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:92:LYS:NZ	56:N0:109:ASP:OD2	2.43	0.52
63:N7:25:ILE:HG23	63:N7:41:ALA:HB1	3.09	0.52
65:N9:5:LYS:HG3	65:N9:6:ASN:N	2.45	0.52
68:O2:97:ALA:HB3	68:O2:100:ILE:CG1	2.38	0.52
69:O3:31:LYS:NZ	69:O3:35:VAL:O	2.39	0.52
2:S0:119:ARG:NH1	4:S2:241:ASP:OD2	2.74	0.52
2:S0:90:ALA:HA	2:S0:95:ALA:HB3	1.91	0.52
3:S1:104:ASP:OD1	3:S1:214:LYS:HD3	2.10	0.52
1:2:66:U:H5	8:S6:173:PRO:HG3	1.74	0.52
9:S7:56:LYS:HB2	9:S7:88:ARG:HH11	2.42	0.52
34:SR:192:PHE:HD1	34:SR:223:TRP:CE3	2.28	0.52
34:SR:64:HIS:HD1	34:SR:86:ASP:CG	2.30	0.52
36:1:103:G:OP1	49:M3:70:ARG:NH2	2.33	0.51
36:1:108:A:O2'	36:1:109:A:H2'	2.10	0.51
36:1:1278:A:HO2'	36:1:1279:C:H6	1.52	0.51
36:1:3035:A:OP2	88:1:4087:OHX:N4	2.44	0.51
36:1:3203:U:H2'	36:1:3204:C:C6	2.46	0.51
36:1:3275:U:H5''	69:O3:68:TRP:HZ2	1.74	0.51
1:2:1481:C:O2'	1:2:1482:C:O5'	2.24	0.51
1:2:1623:C:H2'	1:2:1624:C:H6	1.75	0.51
1:2:1795:U:OP2	28:D6:5:ARG:NH2	2.41	0.51
1:2:186:C:H3'	1:2:187:G:H8	1.75	0.51
36:5:2225:U:H2'	36:5:2226:U:H6	1.75	0.51
40:L3:132:LYS:NZ	36:5:3292:A:H4'	208.42	0.51
36:5:2964:G:N7	88:5:3985:OHX:N6	2.58	0.51
36:5:595:G:C8	36:5:609:G:C6	2.98	0.51
20:C8:138:THR:OG1	1:6:1459:C:OP2	349.63	0.51
1:6:1660:A:H2'	1:6:1661:U:C6	2.45	0.51
1:6:565:C:H4'	1:6:566:C:O5'	2.09	0.51
16:C4:84:ARG:HB2	16:C4:118:VAL:HG23	3.21	0.51
18:C6:109:PHE:O	18:C6:112:TYR:N	3.57	0.51
18:C6:49:TYR:HB3	18:C6:53:LEU:HD21	3.68	0.51
2:S0:198:MET:SD	19:C7:85:VAL:HG11	2.50	0.51
21:C9:23:GLN:HG2	21:C9:55:TYR:CD1	2.45	0.51
28:D6:87:ARG:HB3	28:D6:91:ASP:HB2	1.92	0.51
41:L4:16:THR:HG22	41:L4:18:ASN:H	1.75	0.51
42:L5:227:LEU:O	42:L5:229:ASP:N	2.43	0.51
42:L5:58:LYS:HA	42:L5:93:THR:HB	1.91	0.51
44:L7:178:ILE:HA	44:L7:183:ASP:HB3	2.17	0.51
46:L9:84:LYS:O	46:L9:187:ILE:HB	2.11	0.51
46:L9:94:TYR:CD2	46:L9:98:PRO:HA	2.55	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:130:ASN:C	55:M9:132:PHE:H	2.14	0.51
56:N0:155:ARG:NH2	56:N0:155:ARG:HG2	2.16	0.51
36:1:190:U:H2'	62:N6:60:ARG:HH22	1.75	0.51
64:N8:85:ASP:OD1	64:N8:86:LYS:N	2.43	0.51
69:O3:69:GLY:HA3	69:O3:85:PHE:HA	2.37	0.51
70:O4:2:ALA:HB1	36:5:1481:A:H61	155.91	0.51
71:O5:67:ARG:HG3	71:O5:80:LEU:HD22	2.07	0.51
1:2:1772:C:H3'	77:Q1:2:ARG:NH1	2.26	0.51
2:S0:73:VAL:O	2:S0:95:ALA:HA	2.10	0.51
5:S3:116:ARG:O	5:S3:120:TYR:HB2	2.09	0.51
6:S4:106:LYS:HG3	6:S4:108:ARG:NH1	2.45	0.51
8:S6:67:VAL:O	8:S6:68:LEU:HB2	2.32	0.51
34:SR:16:HIS:ND1	34:SR:39:ASP:OD2	2.99	0.51
36:1:3087:A:H5''	40:L3:365:PHE:CD1	2.45	0.51
36:1:3267:A:H2'	43:L6:69:PHE:CZ	2.45	0.51
36:1:976:U:H5'	54:M8:144:ARG:HH12	1.74	0.51
1:2:1062:A:H2'	1:2:1063:U:O4'	2.10	0.51
1:2:1662:G:C2'	1:2:1663:G:H5'	2.40	0.51
36:5:1307:G:C2	36:5:1308:A:C2	2.98	0.51
36:5:2157:G:N2	36:5:2177:G:O2'	2.44	0.51
36:5:2434:U:H4'	36:5:2435:G:O5'	2.09	0.51
40:L3:123:TYR:CD1	36:5:3315:G:H2'	181.88	0.51
36:5:78:U:O2'	36:5:79:U:H5'	2.10	0.51
1:6:1316:G:O2'	1:6:1401:A:O2'	2.28	0.51
1:6:1699:G:N2	1:6:1702:A:O4'	2.44	0.51
12:C0:31:LYS:H	12:C0:38:LYS:HA	3.65	0.51
16:C4:11:SER:OG	16:C4:12:GLN:N	4.19	0.51
1:2:901:G:H22	16:C4:54:GLU:CD	2.12	0.51
19:C7:87:GLU:O	19:C7:88:VAL:HB	3.18	0.51
27:D5:60:VAL:HA	27:D5:64:VAL:HG11	1.91	0.51
22:D0:65:ILE:HD11	31:D9:36:LEU:HD21	1.92	0.51
40:L3:169:THR:HG23	40:L3:171:LEU:H	2.32	0.51
44:L7:223:PHE:HA	44:L7:227:GLY:O	2.11	0.51
47:M0:156:ARG:NH1	47:M0:163:GLN:O	3.03	0.51
49:M3:50:PRO:HB3	49:M3:138:VAL:O	2.44	0.51
60:N4:38:SER:O	60:N4:42:GLN:HB2	2.09	0.51
62:N6:56:VAL:HG21	62:N6:104:LEU:HD13	1.93	0.51
49:M3:2:ALA:N	64:N8:31:GLY:O	3.92	0.51
49:M3:104:ARG:HA	72:O6:20:MET:HB2	1.93	0.51
79:Q3:17:ARG:NH1	36:5:860:G:OP1	219.91	0.51
4:S2:80:VAL:O	4:S2:102:VAL:HA	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:21:ASP:HB2	1:6:773:C:OP1	388.46	0.51
11:S9:113:VAL:HG21	11:S9:134:ILE:HD12	1.93	0.51
35:SM:43:ASP:OD1	35:SM:45:SER:OG	2.71	0.51
19:C7:29:GLN:HG2	34:SR:67:ILE:HD11	1.93	0.51
36:1:1445:U:H5''	36:1:1446:A:OP2	2.10	0.51
36:1:2986:U:H2'	36:1:2987:A:C8	2.45	0.51
1:2:192:U:HO2'	1:2:193:U:P	2.34	0.51
1:2:868:G:O6	88:2:2032:OHX:N6	2.43	0.51
36:5:1765:U:OP1	36:5:1765:U:H4'	2.09	0.51
36:5:538:G:O5'	36:5:538:G:H8	1.93	0.51
1:6:139:C:H4'	1:6:140:A:O5'	2.09	0.51
38:8:15:G:C6	38:8:16:G:C6	2.99	0.51
14:C2:36:LEU:HD12	14:C2:41:LEU:HD12	5.52	0.51
16:C4:88:GLY:O	16:C4:92:LYS:NZ	7.53	0.51
20:C8:13:HIS:O	20:C8:14:ILE:HG22	3.90	0.51
23:D1:74:GLN:HB2	23:D1:79:LEU:HB2	1.91	0.51
25:D3:59:ILE:HG13	25:D3:71:CYS:SG	2.50	0.51
26:D4:51:GLU:O	26:D4:53:ASP:N	3.18	0.51
20:C8:6:GLN:HA	27:D5:42:LEU:HD13	1.92	0.51
28:D6:35:ALA:HB3	28:D6:37:LYS:HE2	1.91	0.51
41:L4:182:LEU:C	41:L4:184:SER:H	2.14	0.51
42:L5:85:ARG:HH12	42:L5:254:LYS:H	2.65	0.51
45:L8:74:THR:HB	45:L8:230:LYS:NZ	2.25	0.51
48:M1:109:HIS:CD2	48:M1:114:ILE:HG21	2.45	0.51
51:M5:91:GLU:OE1	88:5:3924:OHX:N4	166.30	0.51
36:1:412:G:OP1	53:M7:62:ARG:NH1	2.43	0.51
47:M0:164:LYS:NZ	56:N0:85:SER:O	2.43	0.51
36:1:3043:C:P	59:N3:48:ARG:HH22	2.33	0.51
73:O7:28:HIS:CG	73:O7:31:LYS:HB2	2.45	0.51
76:Q0:77:ILE:HG23	76:Q0:78:ILE:HG22	5.25	0.51
3:S1:141:ALA:HB1	3:S1:207:LEU:HD22	3.67	0.51
5:S3:70:THR:HG22	5:S3:86:LEU:HB2	2.36	0.51
7:S5:222:LYS:HA	7:S5:225:ARG:NH1	3.89	0.51
9:S7:22:GLN:HA	9:S7:25:VAL:HG23	3.02	0.51
1:2:484:C:H42	1:2:503:G:H22	1.57	0.51
1:2:843:U:H2'	1:2:844:A:C8	2.45	0.51
38:4:85:G:H3'	38:4:85:G:H8	1.75	0.51
36:5:2369:G:H2'	36:5:2370:G:C8	2.46	0.51
36:5:243:G:O2'	36:5:244:G:H5'	2.10	0.51
1:6:1258:U:H5	1:6:1259:U:C2	2.29	0.51
1:6:189:C:C2'	1:6:190:C:H5'	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:341:A:H2'	1:6:342:C:C6	2.45	0.51
1:6:534:A:H5'	1:6:535:A:OP2	2.10	0.51
1:6:825:U:O2'	1:6:826:U:OP2	2.25	0.51
71:O5:49:LYS:NZ	38:8:62:C:OP1	53.98	0.51
5:S3:27:ARG:HE	12:C0:60:SER:HB2	1.76	0.51
12:C0:61:TRP:HZ3	31:D9:22:ARG:HD2	1.75	0.51
15:C3:89:TYR:OH	15:C3:93:LYS:NZ	3.94	0.51
18:C6:107:LYS:HA	18:C6:110:THR:HG22	5.55	0.51
20:C8:72:ILE:HG12	20:C8:79:TYR:CD2	3.43	0.51
25:D3:73:ARG:HH21	25:D3:84:THR:HG22	1.78	0.51
30:D8:44:VAL:HG21	30:D8:48:VAL:HG23	2.03	0.51
39:L2:68:LYS:HD3	39:L2:70:ARG:HH21	1.74	0.51
40:L3:187:SER:O	40:L3:190:GLU:N	2.46	0.51
41:L4:232:SER:O	41:L4:233:LEU:HB2	2.09	0.51
41:L4:304:GLN:O	41:L4:306:THR:N	2.57	0.51
41:L4:33:ASP:O	41:L4:37:THR:HG23	2.10	0.51
43:L6:80:ASN:O	43:L6:82:ARG:N	2.43	0.51
44:L7:85:PHE:O	44:L7:136:TYR:HB2	2.42	0.51
53:M7:24:VAL:HB	53:M7:29:THR:HG21	1.99	0.51
63:N7:124:ALA:O	63:N7:126:LYS:N	2.50	0.51
64:N8:82:ILE:HD13	64:N8:102:ILE:HG12	4.58	0.51
36:1:3325:G:H5'	67:O1:104:LEU:O	2.10	0.51
73:O7:88:ALA:O	88:O7:103:OHX:N4	2.44	0.51
78:Q2:20:HIS:ND1	36:5:2741:C:O2'	214.83	0.51
2:S0:169:SER:O	2:S0:173:ILE:HG12	2.20	0.51
5:S3:76:ARG:HG3	5:S3:77:PHE:CD1	6.13	0.51
6:S4:153:ASN:O	6:S4:174:LYS:NZ	2.37	0.51
6:S4:21:ASP:OD2	6:S4:24:SER:OG	3.41	0.51
9:S7:98:ILE:HD13	9:S7:118:LEU:HA	2.49	0.51
34:SR:200:ASN:N	34:SR:214:ALA:O	3.08	0.51
36:1:1194:G:H2'	36:1:1195:A:C8	2.46	0.51
36:1:1804:A:H2'	36:1:1805:C:C6	2.45	0.51
36:1:2284:C:N4	36:1:2308:C:OP2	2.43	0.51
36:1:3108:G:N3	46:L9:163:GLN:NE2	2.55	0.51
36:1:1019:G:O6	88:1:4071:OHX:N1	2.43	0.51
1:2:1119:G:O6	88:2:2148:OHX:N1	2.43	0.51
1:2:1002:G:N1	1:2:1761:U:OP1	2.35	0.51
1:2:569:C:H41	25:D3:69:ARG:NH1	2.06	0.51
57:N1:19:PHE:CD2	36:5:1051:U:H4'	285.33	0.51
36:5:1414:G:O6	88:5:4151:OHX:N1	2.44	0.51
36:5:3343:G:N2	36:5:3362:A:H2	2.03	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:201:A:OP2	88:5:3990:OHX:N1	2.44	0.51
1:6:604:A:OP2	88:6:2147:OHX:N4	2.44	0.51
37:7:64:A:H5'	37:7:65:G:H5''	1.93	0.51
19:C7:50:ILE:O	19:C7:53:TYR:N	3.29	0.51
21:C9:108:LEU:HA	21:C9:111:ILE:HG22	1.91	0.51
31:D9:39:CYS:SG	31:D9:42:CYS:HB2	2.51	0.51
39:L2:179:LEU:O	39:L2:184:ARG:HD2	2.53	0.51
39:L2:187:HIS:ND1	39:L2:190:ARG:NH2	2.59	0.51
43:L6:18:LEU:HB3	36:5:591:G:N2	220.70	0.51
43:L6:43:LEU:HD11	43:L6:85:ILE:HG13	1.93	0.51
44:L7:103:LEU:HA	44:L7:130:ILE:HD11	4.72	0.51
47:M0:29:SER:OG	47:M0:31:ILE:O	2.90	0.51
55:M9:78:TYR:HA	55:M9:81:ARG:HD3	1.93	0.51
44:L7:77:VAL:HG21	57:N1:139:ARG:HD3	2.54	0.51
63:N7:36:HIS:H	63:N7:37:PRO:HD3	2.95	0.51
67:O1:72:ARG:HD3	67:O1:104:LEU:HD13	4.11	0.51
36:1:817:A:H8	73:O7:15:SER:HG	1.57	0.51
73:O7:14:LYS:NZ	75:O9:51:ILE:HD11	2.26	0.51
78:Q2:28:TYR:HB3	78:Q2:69:VAL:HB	2.03	0.51
78:Q2:3:ASN:HA	78:Q2:92:GLU:O	2.11	0.51
2:S0:126:PRO:HG2	2:S0:151:SER:HB3	1.93	0.51
5:S3:70:THR:CG2	5:S3:86:LEU:HB2	2.63	0.51
5:S3:92:GLN:CD	5:S3:92:GLN:H	2.13	0.51
10:S8:37:LYS:H	10:S8:59:ARG:H	1.58	0.51
36:1:129:U:H2'	36:1:130:A:C8	2.45	0.51
36:1:2137:U:C6	36:1:2141:U:C4	2.99	0.51
36:1:2616:C:H2'	36:1:2617:U:H5'	1.93	0.51
36:1:2986:U:H2'	36:1:2987:A:H8	1.73	0.51
1:2:176:C:OP1	88:2:2073:OHX:N3	2.43	0.51
36:5:138:U:H2'	36:5:139:G:C8	2.45	0.51
36:5:1643:A:H4'	36:5:1822:C:H5'	1.92	0.51
36:5:1770:G:H5'	36:5:1771:C:OP2	2.11	0.51
15:C3:33:VAL:HG11	15:C3:66:ILE:HD11	4.07	0.51
19:C7:50:ILE:O	19:C7:54:THR:HG23	2.10	0.51
26:D4:62:THR:HB	26:D4:69:SER:OG	2.11	0.51
31:D9:19:ARG:H	31:D9:19:ARG:HD2	4.87	0.51
39:L2:140:ASN:OD1	39:L2:142:ASP:HB3	5.45	0.51
45:L8:134:TYR:CG	45:L8:190:VAL:HG21	2.45	0.51
45:L8:35:GLY:HA2	36:5:2549:G:N7	209.64	0.51
47:M0:16:PRO:HG3	47:M0:128:ARG:NH1	3.18	0.51
48:M1:37:LEU:HD13	48:M1:69:VAL:HG12	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:89:TYR:HB3	48:M1:169:ALA:CB	2.41	0.51
52:M6:51:LYS:HD2	52:M6:144:SER:OG	3.65	0.51
53:M7:141:SER:O	53:M7:143:PRO:HD3	2.86	0.51
70:O4:81:CYS:SG	70:O4:84:CYS:SG	3.16	0.51
73:O7:25:ARG:HB3	73:O7:25:ARG:HH11	3.48	0.51
3:S1:70:LEU:HB2	3:S1:73:LEU:HD23	1.93	0.51
5:S3:167:PHE:CE1	5:S3:192:PRO:HB3	2.54	0.51
6:S4:194:THR:O	6:S4:195:ILE:HB	2.10	0.51
7:S5:161:ASP:OD2	30:D8:42:ARG:NH1	4.02	0.51
7:S5:65:ARG:HE	7:S5:65:ARG:HA	4.39	0.51
34:SR:69:GLN:N	34:SR:83:ALA:O	2.38	0.51
36:1:1215:U:C2'	36:1:1216:C:H5''	2.39	0.51
36:1:2648:G:HO2'	36:1:2696:A:HO2'	1.59	0.51
1:2:1196:A:H4'	1:2:1197:C:O5'	2.11	0.51
36:5:1340:G:H2'	36:5:1341:U:C6	2.46	0.51
55:M9:88:ARG:NH1	36:5:2103:U:OP1	213.31	0.51
36:5:2746:A:H2'	36:5:2747:A:O4'	2.11	0.51
36:5:2985:C:H2'	36:5:2986:U:C6	2.46	0.51
1:6:678:A:N7	1:6:679:U:N3	2.59	0.51
13:C1:53:TYR:CD1	13:C1:113:PRO:HG2	2.59	0.51
15:C3:127:ARG:HH11	15:C3:127:ARG:HG2	1.75	0.51
17:C5:79:HIS:O	17:C5:81:ARG:N	2.50	0.51
18:C6:40:GLU:HG3	18:C6:42:GLU:N	2.25	0.51
19:C7:57:LEU:O	19:C7:61:ILE:N	2.77	0.51
21:C9:42:GLY:HA2	21:C9:84:LYS:HB2	2.00	0.51
1:2:778:G:H22	26:D4:10:ARG:NH2	2.08	0.51
45:L8:93:LEU:O	45:L8:95:ASN:N	2.44	0.51
46:L9:117:PHE:CE2	46:L9:118:LEU:HD12	2.95	0.51
46:L9:166:ARG:HH21	46:L9:168:ARG:NH1	12.21	0.51
47:M0:138:VAL:CG2	47:M0:152:LEU:HD11	2.41	0.51
49:M3:73:ARG:NH2	36:5:77:A:N7	80.73	0.51
47:M0:169:LYS:NZ	57:N1:158:THR:OG1	2.43	0.51
63:N7:34:LYS:O	63:N7:37:PRO:HG3	3.48	0.51
70:O4:22:VAL:HG12	70:O4:23:VAL:H	1.75	0.51
72:O6:97:SER:C	72:O6:99:ARG:H	2.14	0.51
79:Q3:56:THR:HB	79:Q3:63:THR:HG23	2.44	0.51
2:S0:64:ILE:HG23	2:S0:73:VAL:HG11	2.24	0.51
4:S2:227:PRO:HA	4:S2:230:TRP:CD1	2.87	0.51
5:S3:140:GLY:HA3	5:S3:182:LEU:HB3	1.93	0.51
6:S4:241:GLY:O	6:S4:244:ILE:HG12	2.10	0.51
6:S4:192:ILE:HG13	6:S4:243:GLY:HA3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:95:THR:O	6:S4:97:GLU:N	2.44	0.51
7:S5:68:ILE:HD13	7:S5:69:PHE:N	5.14	0.51
36:1:2726:C:O2'	36:1:2727:A:H2'	2.11	0.51
36:1:3316:A:OP1	36:1:3318:G:N2	2.44	0.51
36:1:3353:G:O2'	36:1:3354:U:OP1	2.28	0.51
36:1:352:A:H61	36:1:365:A:H5''	1.76	0.51
36:1:595:G:H1	36:1:609:G:H5''	1.76	0.51
1:2:1057:U:O2'	1:2:1058:U:OP2	2.23	0.51
1:2:1239:U:O2	1:2:1246:C:N4	2.43	0.51
1:2:1349:G:H2'	1:2:1350:U:C6	2.46	0.51
1:2:530:C:C2'	1:2:531:C:H5'	2.41	0.51
1:2:712:G:H2'	1:2:713:A:O4'	2.10	0.51
36:5:1240:A:H2'	36:5:1241:U:H5'	1.93	0.51
36:5:2927:C:H2'	36:5:2928:C:C6	2.46	0.51
1:6:1756:A:C8	1:6:1756:A:O5'	2.62	0.51
1:6:1769:U:OP2	88:6:2140:OHX:N2	2.44	0.51
1:6:647:G:H22	1:6:687:G:N2	2.09	0.51
1:6:75:U:O2'	1:6:76:A:O4'	2.29	0.51
1:6:9:U:O4	88:6:2142:OHX:N3	2.43	0.51
38:8:78:G:H2'	38:8:79:A:O4'	2.10	0.51
18:C6:95:LYS:HG2	18:C6:96:TYR:CE1	2.82	0.51
2:S0:157:ASP:OD2	23:D1:60:ARG:NH2	2.43	0.51
24:D2:89:TRP:O	24:D2:93:LEU:HB2	3.54	0.51
36:1:121:A:C2	45:L8:129:PRO:HB3	2.45	0.51
48:M1:155:THR:OG1	48:M1:156:LYS:N	2.43	0.51
50:M4:118:PHE:O	50:M4:122:VAL:HG23	2.11	0.51
36:1:268:A:C4	51:M5:12:ARG:HG2	2.45	0.51
56:N0:13:ARG:O	56:N0:22:PRO:HG2	2.11	0.51
68:O2:47:ARG:HD3	36:5:634:C:O2'	214.46	0.51
36:1:2303:A:P	77:Q1:23:ARG:HH22	2.33	0.51
3:S1:133:TYR:CG	3:S1:181:LEU:HD11	2.46	0.51
3:S1:175:GLU:HG3	3:S1:193:ILE:HG23	1.92	0.51
8:S6:64:LYS:O	8:S6:67:VAL:HG22	2.10	0.51
34:SR:309:VAL:HB	34:SR:311:ARG:NH1	2.69	0.51
36:1:1051:U:H4'	57:N1:19:PHE:CE2	2.45	0.51
36:1:1230:G:H1	36:1:1279:C:N4	2.04	0.51
36:1:1240:A:H2	36:1:1248:C:H41	1.57	0.51
36:1:1877:U:H5''	36:1:1878:G:O4'	2.11	0.51
36:1:1884:A:H5''	36:1:1884:A:H8	1.75	0.51
36:1:864:G:OP2	88:1:3891:OHX:N5	2.44	0.51
1:2:1001:A:C6	1:2:1002:G:C6	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1114:G:O6	88:2:2074:OHX:N5	2.44	0.51
1:2:1291:G:H22	1:2:1324:G:N2	2.08	0.51
1:2:1592:A:H2'	1:2:1593:A:H8	1.76	0.51
1:2:623:A:OP1	88:2:2157:OHX:N2	2.44	0.51
1:2:324:U:OP1	13:C1:133:LYS:NZ	2.36	0.51
1:2:717:C:N4	1:2:720:G:H22	2.09	0.51
1:2:850:A:H5'	55:M9:165:LYS:HD3	1.92	0.51
1:2:868:G:H1	1:2:960:U:H3	1.57	0.51
36:5:1915:A:H2'	36:5:1916:U:C6	2.46	0.51
36:5:2279:A:H2'	36:5:2288:G:O6	2.10	0.51
36:5:3279:A:H2'	36:5:3280:U:H5'	1.92	0.51
19:C7:7:LYS:HB3	1:6:1316:G:OP1	409.58	0.51
1:6:1324:G:N7	88:6:2101:OHX:N2	2.59	0.51
1:6:209:U:H2'	1:6:210:A:C8	2.44	0.51
1:6:513:U:H2'	1:6:514:G:C8	2.46	0.51
1:6:654:C:H2'	1:6:655:G:C8	2.46	0.51
1:2:1584:G:C8	18:C6:122:ARG:HB3	2.46	0.51
24:D2:24:GLN:OE1	29:D7:4:VAL:HA	2.10	0.51
39:L2:59:ALA:HB2	39:L2:78:ALA:HB2	1.93	0.51
41:L4:230:VAL:O	41:L4:232:SER:N	3.20	0.51
41:L4:311:HIS:CE1	41:L4:314:LYS:HA	2.46	0.51
42:L5:178:ASN:HA	42:L5:183:TRP:CG	2.73	0.51
44:L7:144:ILE:HD12	44:L7:189:ILE:HD12	1.93	0.51
45:L8:133:LYS:HB2	45:L8:199:ALA:O	3.19	0.51
36:1:1009:A:O3'	47:M0:39:LYS:NZ	2.44	0.51
61:N5:135:ILE:O	61:N5:139:ILE:HG22	2.10	0.51
2:S0:147:THR:O	2:S0:161:PRO:HA	2.63	0.51
3:S1:48:VAL:HG21	3:S1:61:LEU:HD22	4.84	0.51
6:S4:15:PRO:HG2	6:S4:18:TRP:CE2	2.48	0.51
10:S8:188:GLU:HG3	10:S8:192:TYR:HE2	1.75	0.51
10:S8:76:THR:HG21	10:S8:105:ASP:O	5.45	0.51
34:SR:83:ALA:HB1	34:SR:110:VAL:HG12	1.93	0.51
36:1:1039:U:H2'	36:1:1040:A:C8	2.45	0.51
36:1:1166:G:N7	88:1:3873:OHX:N4	2.59	0.51
36:1:1170:A:OP2	88:1:3968:OHX:N5	2.44	0.51
36:1:2213:A:H2'	36:1:2214:A:C8	2.46	0.51
36:1:706:A:H4'	36:1:781:G:O2'	2.11	0.51
1:2:1055:U:H3	1:2:1064:G:H1	1.57	0.51
1:2:1785:U:OP2	16:C4:133:ARG:NH2	2.44	0.51
1:2:83:G:OP2	88:2:2066:OHX:N5	2.44	0.51
36:5:3287:U:H2'	36:5:3288:G:H5'	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3308:C:OP2	36:5:3309:G:N2	2.44	0.51
36:5:568:G:N7	88:5:3942:OHX:N6	2.59	0.51
36:5:748:U:H2'	36:5:749:C:C6	2.46	0.51
1:6:1595:U:N3	1:6:1600:A:H2	2.09	0.51
1:6:16:G:H2'	1:6:17:C:C6	2.46	0.51
1:6:96:G:H22	1:6:387:A:H2	1.58	0.51
32:E0:28:LYS:HD3	1:6:542:A:N1	430.10	0.51
17:C5:30:THR:O	17:C5:34:VAL:HG12	2.11	0.51
25:D3:100:ASP:O	25:D3:101:GLU:HB3	4.67	0.51
25:D3:48:HIS:CD2	25:D3:105:ALA:HB2	2.45	0.51
27:D5:66:VAL:HA	27:D5:71:ILE:HG22	6.43	0.51
29:D7:31:TYR:CD2	29:D7:81:ARG:HG3	3.44	0.51
30:D8:15:VAL:O	30:D8:17:GLY:N	2.39	0.51
45:L8:107:GLU:O	45:L8:111:LYS:HG2	2.11	0.51
47:M0:66:GLU:CD	47:M0:69:ARG:HH21	2.13	0.51
50:M4:36:VAL:HG11	50:M4:55:ARG:NH2	2.47	0.51
51:M5:102:ALA:O	51:M5:106:VAL:HG13	2.25	0.51
52:M6:175:THR:HA	52:M6:178:VAL:HB	1.93	0.51
36:1:1348:U:OP2	54:M8:38:ARG:NH2	2.43	0.51
41:L4:302:ALA:HB2	54:M8:39:ARG:NH1	2.74	0.51
54:M8:73:GLN:HB3	54:M8:76:ALA:HB2	1.92	0.51
57:N1:82:ASN:N	57:N1:82:ASN:OD1	2.39	0.51
66:O0:28:LYS:O	66:O0:32:LYS:HD3	2.35	0.51
66:O0:25:LEU:HD22	66:O0:87:VAL:HG21	1.93	0.51
3:S1:185:THR:HG22	3:S1:189:ILE:HD11	2.98	0.51
7:S5:140:THR:HG22	7:S5:211:ILE:HG12	2.89	0.51
7:S5:20:PHE:CE1	7:S5:34:GLN:HB3	3.38	0.51
9:S7:35:LYS:HG2	9:S7:36:ALA:H	1.75	0.51
36:1:1262:G:O6	36:1:1278:A:N6	2.43	0.50
36:1:1482:A:C2	36:1:1867:A:H5''	2.46	0.50
36:1:2688:U:OP1	42:L5:12:TYR:OH	2.29	0.50
37:3:99:G:O2'	44:L7:128:LYS:NZ	2.43	0.50
36:5:2402:A:OP2	88:5:4114:OHX:N3	2.43	0.50
36:5:742:G:N7	88:5:4006:OHX:N4	2.58	0.50
1:6:1017:U:H2'	1:6:1018:U:C6	2.47	0.50
1:6:1491:U:H5'	1:6:1492:A:OP1	2.10	0.50
1:6:25:C:H4'	1:6:25:C:OP2	2.11	0.50
1:6:703:G:H2'	1:6:704:C:C6	2.45	0.50
1:6:793:A:H3'	1:6:794:U:H5'	1.91	0.50
71:O5:81:ARG:HB3	38:8:38:U:C4	67.37	0.50
18:C6:120:ASP:OD1	18:C6:121:SER:N	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:57:ARG:HH11	21:C9:57:ARG:CG	2.25	0.50
39:L2:230:VAL:H	39:L2:233:GLN:HG3	3.54	0.50
41:L4:191:LYS:HG3	41:L4:194:TYR:CZ	4.52	0.50
41:L4:212:ASP:OD1	41:L4:216:VAL:HG22	2.11	0.50
42:L5:236:LEU:HA	42:L5:239:ILE:HD12	1.91	0.50
45:L8:74:THR:HB	45:L8:230:LYS:HZ2	1.75	0.50
52:M6:8:VAL:HG12	52:M6:117:ARG:HB3	1.93	0.50
44:L7:79:ALA:CB	57:N1:137:GLU:HA	2.42	0.50
77:Q1:4:LYS:HG2	77:Q1:5:TRP:CE3	3.61	0.50
4:S2:67:GLN:O	4:S2:71:THR:HG23	2.65	0.50
8:S6:14:LYS:HD3	8:S6:16:PHE:CZ	3.15	0.50
9:S7:46:ILE:HD11	9:S7:60:ILE:HG12	1.93	0.50
11:S9:89:ASP:HB2	11:S9:90:LYS:HE2	1.94	0.50
34:SR:33:LEU:O	34:SR:45:TRP:HD1	2.40	0.50
36:1:1471:U:H2'	36:1:1472:U:C6	2.46	0.50
36:1:2662:G:H2'	36:1:2663:G:C8	2.46	0.50
36:5:1550:C:O2'	36:5:2167:A:N1	2.40	0.50
36:5:2228:A:H2'	36:5:2229:A:C8	2.46	0.50
36:5:2439:A:H4'	36:5:2439:A:OP1	2.11	0.50
36:5:3122:A:H2'	36:5:3123:A:H5'	1.93	0.50
36:5:3241:G:H2'	36:5:3245:A:C8	2.46	0.50
53:M7:69:ARG:NH1	36:5:3308:C:N3	190.19	0.50
36:5:599:C:H2'	36:5:600:G:O4'	2.11	0.50
45:L8:193:LYS:HB3	36:5:7:C:H5''	122.14	0.50
1:6:1429:G:H2'	1:6:1430:U:H6	1.77	0.50
1:6:190:C:O2'	1:6:191:C:O5'	2.30	0.50
1:6:196:G:O2'	1:6:197:A:OP2	2.22	0.50
1:6:1662:G:O6	88:6:2060:OHX:N6	2.43	0.50
1:6:366:A:C2	1:6:376:C:C2	2.99	0.50
1:6:500:C:O2'	1:6:501:U:O4'	2.29	0.50
1:6:591:A:H2'	1:6:592:A:H8	1.76	0.50
1:6:619:A:H5'	1:6:620:A:OP2	2.12	0.50
1:6:653:C:H42	1:6:677:G:H1	1.58	0.50
18:C6:83:GLN:HE22	18:C6:119:ALA:HB2	1.76	0.50
21:C9:5:SER:OG	21:C9:6:VAL:N	2.44	0.50
1:2:359:A:C2	25:D3:38:PHE:HB3	2.45	0.50
28:D6:12:LYS:HB2	28:D6:33:ASP:OD2	2.11	0.50
36:1:3315:G:OP1	40:L3:174:LYS:NZ	2.44	0.50
43:L6:69:PHE:CZ	36:5:3267:A:H2'	259.76	0.50
47:M0:208:ASN:HB3	47:M0:211:ARG:NH1	3.68	0.50
48:M1:92:ARG:HB2	48:M1:94:ARG:HG2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:64:LYS:HD3	49:M3:65:TYR:CE1	2.47	0.50
51:M5:73:ARG:HG2	51:M5:75:VAL:HG22	1.96	0.50
62:N6:114:ASP:OD1	88:8:225:OHX:N2	21.71	0.50
67:O1:44:MET:O	67:O1:46:THR:HG22	4.45	0.50
67:O1:72:ARG:O	67:O1:96:VAL:HG13	2.11	0.50
72:O6:25:LYS:HB2	72:O6:28:TYR:CD2	2.44	0.50
2:S0:7:PHE:HZ	23:D1:43:GLY:HA2	2.90	0.50
6:S4:147:ILE:HG21	6:S4:169:ILE:HG13	1.92	0.50
6:S4:247:SER:OG	6:S4:250:GLU:HG3	2.11	0.50
6:S4:34:GLY:HA3	6:S4:83:PRO:CG	2.53	0.50
7:S5:35:GLN:C	7:S5:37:GLN:H	2.88	0.50
8:S6:173:PRO:HG3	1:6:66:U:C5	334.42	0.50
9:S7:11:GLN:HG3	9:S7:12:ALA:H	1.76	0.50
9:S7:14:THR:HG22	9:S7:17:GLU:HB2	1.93	0.50
34:SR:14:GLU:HG2	34:SR:309:VAL:HG22	5.15	0.50
36:1:2371:G:O6	88:1:3880:OHX:N3	2.45	0.50
36:1:3013:U:H2'	36:1:3014:U:C6	2.47	0.50
1:2:651:G:N7	88:2:2104:OHX:N6	2.60	0.50
1:2:705:U:H2'	1:2:706:A:C8	2.46	0.50
37:3:121:U:C2	42:L5:268:GLU:HB3	2.47	0.50
36:5:1479:U:C3'	36:5:1480:G:H5'	2.41	0.50
36:5:1595:U:C2	36:5:1596:C:C5	2.99	0.50
36:5:2696:A:H2'	36:5:2697:A:C8	2.46	0.50
41:L4:322:GLN:OE1	36:5:598:A:H1'	256.97	0.50
36:5:975:C:H2'	36:5:976:U:H6	1.76	0.50
1:6:492:A:H2'	1:6:493:U:H5''	1.93	0.50
38:8:26:U:H2'	38:8:27:U:C6	2.47	0.50
19:C7:20:TYR:CE1	19:C7:38:ILE:HD11	2.47	0.50
24:D2:103:ILE:HB	24:D2:112:ASP:HA	2.84	0.50
29:D7:19:HIS:CD2	29:D7:21:LEU:N	5.10	0.50
39:L2:209:HIS:ND1	39:L2:210:PRO:HD2	3.19	0.50
40:L3:296:THR:HG22	40:L3:298:PHE:N	3.38	0.50
41:L4:184:SER:HB2	41:L4:202:ARG:HG2	2.32	0.50
41:L4:23:PRO:HD2	41:L4:26:PHE:CD2	2.74	0.50
41:L4:296:GLN:HA	41:L4:299:ILE:HD11	3.03	0.50
42:L5:233:ALA:O	42:L5:235:SER:N	2.44	0.50
46:L9:17:THR:HG21	50:M4:3:THR:O	2.11	0.50
48:M1:166:LYS:C	48:M1:168:ASP:H	2.87	0.50
52:M6:42:ASN:OD1	52:M6:125:ARG:HD3	2.12	0.50
53:M7:4:TYR:HA	53:M7:18:ARG:HH21	2.57	0.50
55:M9:133:LYS:HB3	55:M9:134:HIS:CD2	4.37	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:108:ARG:HH22	1:6:788:A:H3'	393.67	0.50
6:S4:32:SER:HB2	6:S4:83:PRO:HD3	1.92	0.50
7:S5:42:LEU:HD21	7:S5:45:LYS:HD2	1.92	0.50
9:S7:185:ILE:HG22	9:S7:186:PRO:HD3	2.64	0.50
9:S7:38:LEU:N	9:S7:40:PRO:HD2	2.27	0.50
9:S7:43:PHE:CE1	9:S7:46:ILE:HG12	2.47	0.50
11:S9:174:ARG:HE	11:S9:174:ARG:HA	1.77	0.50
34:SR:274:LEU:HD13	34:SR:313:TRP:CD2	2.46	0.50
36:1:1307:G:C2	36:1:1308:A:C2	3.00	0.50
36:1:138:U:H2'	36:1:139:G:C8	2.46	0.50
36:1:1456:A:C6	67:O1:64:VAL:HG22	2.47	0.50
36:1:1889:G:OP1	40:L3:247:ARG:HG3	2.11	0.50
36:1:2278:C:OP1	88:1:3967:OHX:N3	2.45	0.50
1:2:208:U:H2'	1:2:209:U:C6	2.45	0.50
1:2:240:U:OP1	1:2:240:U:H4'	2.12	0.50
38:4:104:A:C8	38:4:105:A:C8	3.00	0.50
36:5:1024:G:OP2	36:5:1024:G:N2	2.44	0.50
36:5:1819:U:O4	88:5:4053:OHX:N5	2.45	0.50
36:5:571:U:H2'	36:5:572:A:H8	1.76	0.50
1:6:1193:A:H8	1:6:1193:A:OP1	1.94	0.50
1:6:1308:G:C2	1:6:1309:C:C2	2.98	0.50
1:6:1799:U:H4'	1:6:1800:A:H2'	1.94	0.50
1:6:329:G:H2'	1:6:330:G:C8	2.46	0.50
13:C1:100:TYR:O	25:D3:10:ASN:HA	2.11	0.50
14:C2:132:GLU:HA	14:C2:135:MET:HB2	1.93	0.50
20:C8:101:LEU:O	20:C8:104:ASN:HB3	2.59	0.50
22:D0:34:LEU:HD21	22:D0:89:ARG:HD2	3.69	0.50
39:L2:113:VAL:HG23	39:L2:134:VAL:HG22	1.92	0.50
39:L2:225:ILE:HG21	39:L2:234:LYS:HA	1.93	0.50
40:L3:267:ALA:O	36:5:2989:U:O2'	211.81	0.50
41:L4:130:ALA:O	41:L4:148:ILE:HG21	2.11	0.50
43:L6:108:LYS:C	43:L6:109:GLU:HG2	2.30	0.50
46:L9:20:ILE:HG12	46:L9:25:VAL:HG13	1.94	0.50
46:L9:3:TYR:HA	56:N0:142:GLN:OE1	2.12	0.50
46:L9:89:LYS:HD3	46:L9:183:HIS:HB3	1.94	0.50
49:M3:124:ILE:HG23	49:M3:126:PHE:HE1	5.25	0.50
49:M3:168:ARG:O	49:M3:172:LEU:HG	2.32	0.50
49:M3:59:ARG:NH1	36:5:73:C:N3	95.65	0.50
51:M5:153:ASP:OD2	51:M5:155:VAL:HG23	3.53	0.50
51:M5:45:PRO:O	51:M5:49:ARG:HB2	4.44	0.50
51:M5:70:ASN:HB3	51:M5:92:LEU:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:171:LYS:O	52:M6:175:THR:HG23	2.68	0.50
49:M3:8:PRO:HA	54:M8:164:ARG:O	2.41	0.50
57:N1:57:TYR:HA	57:N1:60:LYS:HG3	4.60	0.50
63:N7:54:THR:OG1	63:N7:55:LYS:N	2.45	0.50
67:O1:41:LYS:O	67:O1:45:GLY:HA2	2.78	0.50
68:O2:12:LYS:HD3	68:O2:57:TYR:O	2.11	0.50
74:O8:31:LEU:HA	74:O8:37:PRO:HA	1.94	0.50
6:S4:11:ARG:H	6:S4:27:TYR:HA	1.76	0.50
34:SR:172:ALA:HB2	34:SR:202:LEU:HD13	1.93	0.50
34:SR:66:HIS:HB3	34:SR:85:TRP:HB2	2.30	0.50
36:1:1332:A:H2'	36:1:1333:C:C6	2.46	0.50
36:1:1441:G:O6	88:1:3934:OHX:N1	2.45	0.50
36:1:1807:G:C6	36:1:1808:G:C6	2.99	0.50
36:1:3006:A:C2	36:1:3141:A:C4	2.99	0.50
36:1:3084:C:H2'	36:1:3085:G:O4'	2.11	0.50
36:1:372:A:H2'	36:1:373:A:O4'	2.11	0.50
36:1:700:C:OP1	49:M3:65:TYR:OH	2.25	0.50
36:1:784:A:C6	54:M8:93:ILE:HG22	2.47	0.50
37:3:71:G:H2'	37:3:72:A:C8	2.46	0.50
36:5:1200:A:H5'	36:5:1201:C:O5'	2.12	0.50
36:5:1573:G:C5	36:5:1574:C:H1'	2.45	0.50
36:5:158:G:N2	36:5:264:G:H1'	2.27	0.50
74:O8:26:LYS:NZ	36:5:1751:G:OP1	131.49	0.50
1:6:1540:G:C6	1:6:1541:G:C4	3.00	0.50
23:D1:64:GLU:OE1	29:D7:3:LEU:HB2	2.11	0.50
39:L2:28:LYS:HE3	39:L2:123:ARG:HH11	4.07	0.50
40:L3:296:THR:H	40:L3:299:ASP:HB3	1.77	0.50
42:L5:86:TYR:CE1	42:L5:247:ILE:HA	2.46	0.50
43:L6:129:GLU:HG2	43:L6:130:ILE:H	3.99	0.50
43:L6:50:LYS:HE3	43:L6:72:ASN:HB2	1.93	0.50
51:M5:136:ASP:OD2	51:M5:138:GLN:HG2	2.24	0.50
51:M5:42:PRO:HG3	51:M5:61:ILE:HG13	2.03	0.50
47:M0:168:SER:OG	57:N1:160:ILE:O	2.22	0.50
62:N6:102:SER:OG	62:N6:103:LYS:HE2	2.83	0.50
68:O2:76:VAL:HG21	68:O2:94:ALA:HB1	2.18	0.50
78:Q2:71:ARG:NH1	78:Q2:80:ARG:HD3	4.92	0.50
3:S1:184:LEU:HD12	3:S1:188:LEU:HG	3.82	0.50
6:S4:117:GLU:O	6:S4:120:SER:OG	2.17	0.50
8:S6:116:LYS:NZ	8:S6:120:GLU:OE2	2.31	0.50
8:S6:48:TYR:CE2	8:S6:121:LEU:HD22	5.17	0.50
9:S7:142:TYR:O	24:D2:49:GLU:HB2	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:158:ASP:O	9:S7:160:GLN:N	2.45	0.50
34:SR:44:SER:O	34:SR:58:VAL:HG22	2.12	0.50
36:1:2662:G:H2'	36:1:2663:G:H8	1.77	0.50
36:1:561:C:H2'	36:1:562:C:H6	1.77	0.50
36:1:701:G:H2'	36:1:702:C:C6	2.47	0.50
36:1:807:A:H61	36:1:934:G:H22	1.58	0.50
36:1:846:A:H2'	36:1:847:A:O4'	2.12	0.50
1:2:1509:C:H2'	1:2:1510:U:O4'	2.10	0.50
1:2:1576:A:H2'	1:2:1577:A:O4'	2.11	0.50
36:5:1708:C:H2'	36:5:1709:C:H6	1.76	0.50
36:5:2440:G:O2'	36:5:2441:A:OP1	2.29	0.50
47:M0:4:ARG:NH1	36:5:2828:G:O2'	265.02	0.50
36:5:27:C:O2'	36:5:327:A:N3	2.40	0.50
88:5:3907:OHX:N2	38:8:1:A:OP1	2.45	0.50
36:5:2762:A:OP2	88:5:3992:OHX:N5	2.44	0.50
36:5:411:U:H2'	36:5:412:G:H8	1.75	0.50
1:6:727:U:H2'	1:6:728:U:H6	1.76	0.50
1:6:828:U:H2'	1:6:829:A:H5''	1.94	0.50
36:5:1196:C:O2	88:7:218:OHX:N1	2.44	0.50
22:D0:104:THR:HG22	22:D0:116:VAL:HG21	1.94	0.50
22:D0:83:GLU:CD	22:D0:85:ARG:HH21	2.15	0.50
23:D1:68:SER:O	23:D1:72:LEU:HG	2.78	0.50
23:D1:62:ARG:NH1	24:D2:20:THR:HG22	3.18	0.50
25:D3:51:GLY:O	25:D3:101:GLU:HA	2.83	0.50
39:L2:61:VAL:HG22	39:L2:63:PHE:CE1	5.85	0.50
40:L3:81:THR:OG1	40:L3:321:PHE:HA	2.12	0.50
41:L4:203:ARG:NH2	41:L4:240:PRO:HB3	3.34	0.50
41:L4:62:ALA:HB1	41:L4:76:ARG:O	2.11	0.50
46:L9:162:GLN:HG3	46:L9:163:GLN:N	2.38	0.50
36:1:1719:G:H5''	55:M9:110:ARG:HH22	1.75	0.50
67:O1:28:ARG:HB3	67:O1:64:VAL:O	3.77	0.50
69:O3:53:TYR:CZ	69:O3:65:ARG:HB2	2.46	0.50
3:S1:184:LEU:O	3:S1:188:LEU:HG	2.21	0.50
5:S3:62:ASN:ND2	5:S3:62:ASN:O	4.53	0.50
6:S4:166:SER:O	6:S4:168:LYS:HG2	5.81	0.50
7:S5:177:ILE:HG12	7:S5:180:ARG:HH12	2.76	0.50
7:S5:43:PHE:CZ	7:S5:90:ILE:HG21	2.47	0.50
8:S6:164:LYS:HB3	8:S6:167:LYS:O	2.46	0.50
10:S8:95:THR:HG22	10:S8:97:THR:HG22	1.93	0.50
11:S9:176:ASN:HA	11:S9:179:ARG:HG2	5.12	0.50
11:S9:38:ASN:HB3	11:S9:40:LYS:H	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2136:C:H2'	36:1:2142:A:N6	2.27	0.50
36:1:2218:G:H2'	36:1:2219:A:H8	1.76	0.50
36:1:2376:G:H2'	36:1:2377:G:C8	2.46	0.50
36:1:820:A:OP1	88:1:3951:OHX:N5	2.45	0.50
36:1:402:A:C6	53:M7:21:TYR:CE2	3.00	0.50
1:2:480:G:N2	1:2:509:G:H1'	2.26	0.50
1:2:605:A:OP2	1:2:606:A:O2'	2.20	0.50
36:5:1368:U:O2'	36:5:1369:A:H5'	2.12	0.50
36:5:188:U:H1'	36:5:208:C:H1'	1.94	0.50
36:5:247:C:C2	36:5:248:U:H1'	2.47	0.50
36:5:3029:A:H5''	36:5:3030:G:OP2	2.11	0.50
36:5:3242:G:H5''	36:5:3245:A:H8	1.76	0.50
36:5:3347:A:H61	36:5:3358:U:H3	1.60	0.50
36:5:668:G:OP1	88:5:4145:OHX:N1	2.43	0.50
1:6:1050:G:N2	1:6:1068:C:O2	2.44	0.50
1:6:1071:U:H2'	1:6:1072:C:C6	2.47	0.50
1:6:1175:U:H2'	1:6:1176:G:C8	2.47	0.50
38:8:6:U:H2'	38:8:7:U:C6	2.47	0.50
13:C1:29:LYS:O	13:C1:31:THR:N	2.44	0.50
20:C8:35:ILE:HB	20:C8:38:VAL:HG22	1.94	0.50
21:C9:66:TYR:HA	21:C9:124:ILE:HB	1.94	0.50
22:D0:100:VAL:O	22:D0:104:THR:HG23	2.12	0.50
24:D2:80:ASN:OD1	24:D2:124:LYS:HG2	2.12	0.50
26:D4:34:ASN:ND2	1:6:521:A:N3	425.17	0.50
26:D4:88:THR:O	26:D4:92:VAL:HG22	4.08	0.50
14:C2:46:ARG:HB2	33:E1:103:LEU:HD12	1.94	0.50
42:L5:34:LYS:HD2	57:N1:30:TYR:CZ	2.47	0.50
42:L5:34:LYS:O	42:L5:38:THR:HG23	2.12	0.50
43:L6:78:ARG:HG3	43:L6:78:ARG:NH1	2.10	0.50
44:L7:108:LEU:HD23	44:L7:113:SER:O	2.11	0.50
44:L7:179:LEU:HD22	44:L7:183:ASP:OD2	2.12	0.50
46:L9:189:GLU:C	46:L9:191:LEU:H	2.15	0.50
51:M5:68:ARG:HD2	51:M5:128:LYS:HE3	4.52	0.50
53:M7:59:PRO:HG3	53:M7:76:PHE:CD1	2.47	0.50
36:1:1722:U:H5''	55:M9:99:LEU:HD12	1.94	0.50
57:N1:130:ARG:HD3	36:5:1098:A:OP2	255.19	0.50
62:N6:39:LEU:HD13	62:N6:43:TYR:CE2	3.26	0.50
71:O5:54:VAL:O	71:O5:58:ILE:HG13	2.36	0.50
72:O6:56:ARG:HH22	72:O6:76:ARG:NH1	2.10	0.50
74:O8:4:GLU:HG3	74:O8:5:ILE:N	2.26	0.50
2:S0:140:ASN:ND2	23:D1:29:HIS:HA	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:148:ASP:HB2	2:S0:164:ASN:ND2	2.93	0.50
2:S0:38:PHE:HB3	2:S0:47:VAL:O	2.12	0.50
3:S1:97:LEU:HD12	3:S1:98:THR:H	1.76	0.50
9:S7:33:GLU:HA	9:S7:37:GLU:OE2	2.12	0.50
10:S8:176:SER:O	10:S8:178:ARG:HG2	3.40	0.50
11:S9:178:ALA:HA	11:S9:181:ALA:HB3	3.68	0.50
34:SR:113:VAL:HG13	34:SR:114:ASP:H	1.77	0.50
34:SR:29:GLN:C	34:SR:31:ASN:H	2.14	0.50
36:1:1130:A:C8	36:1:1132:C:C6	2.99	0.50
36:1:2358:A:H2'	36:1:2359:C:O4'	2.11	0.50
36:1:2444:C:H3'	36:1:2445:A:H5''	1.94	0.50
36:1:428:A:H2'	36:1:429:U:C6	2.47	0.50
36:1:979:U:H1'	36:1:980:A:C8	2.47	0.50
1:2:1760:G:H2'	1:2:1761:U:H5'	1.93	0.50
36:5:2277:C:O2'	36:5:2278:C:H5'	2.11	0.50
36:5:686:G:C6	36:5:687:U:C2	3.00	0.50
1:6:108:A:H2'	1:6:109:G:C8	2.47	0.50
18:C6:19:VAL:HG21	1:6:1379:C:H1'	431.98	0.50
13:C1:139:VAL:HG12	13:C1:140:VAL:N	2.24	0.50
13:C1:72:THR:O	13:C1:88:ARG:NH1	6.16	0.50
15:C3:119:GLU:O	15:C3:122:ILE:HB	2.12	0.50
15:C3:2:GLY:O	1:6:866:G:H5''	330.01	0.50
18:C6:27:GLY:HA2	18:C6:60:PHE:O	2.12	0.50
22:D0:18:GLN:O	22:D0:19:ILE:HG13	4.45	0.50
22:D0:60:THR:HG22	1:6:1382:A:H5''	436.49	0.50
24:D2:82:LYS:C	24:D2:84:GLY:H	2.15	0.50
25:D3:23:ARG:NH1	25:D3:23:ARG:HG3	2.80	0.50
25:D3:92:CYS:HB3	25:D3:132:LEU:HD23	4.41	0.50
1:2:780:A:C8	26:D4:8:ARG:HB3	2.47	0.50
28:D6:45:VAL:O	28:D6:49:ALA:HB3	4.81	0.50
39:L2:20:THR:HA	39:L2:23:ARG:HD2	1.94	0.50
40:L3:41:VAL:HG22	40:L3:185:GLY:HA3	1.93	0.50
51:M5:56:LYS:NZ	51:M5:145:ASP:OD2	2.78	0.50
53:M7:67:ILE:HD12	53:M7:82:ARG:NH1	3.41	0.50
54:M8:120:GLU:CD	54:M8:130:ARG:HH22	2.15	0.50
55:M9:167:ARG:HH11	55:M9:167:ARG:HB3	4.46	0.50
55:M9:89:LEU:HD12	55:M9:90:PRO:HD2	2.91	0.50
62:N6:57:LEU:HB3	62:N6:105:VAL:HG12	2.13	0.50
49:M3:64:LYS:HE3	64:N8:69:TRP:CD1	2.47	0.50
39:L2:48:ILE:HD11	79:Q3:54:ILE:HG23	1.92	0.50
2:S0:22:THR:HG21	2:S0:173:ILE:HD11	2.60	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:87:GLN:HG3	1:6:11:A:H5'	380.06	0.50
8:S6:95:LYS:NZ	1:6:160:C:O3'	308.35	0.50
10:S8:114:GLU:HG2	10:S8:120:THR:HA	1.94	0.50
11:S9:120:LYS:O	11:S9:121:SER:HB3	2.12	0.50
35:SM:52:PRO:O	35:SM:54:PRO:HD3	4.82	0.50
34:SR:23:LEU:HD12	34:SR:292:LEU:HA	1.94	0.50
36:1:1712:G:N2	36:1:1731:A:OP2	2.41	0.50
36:1:256:G:H2'	36:1:257:U:C6	2.47	0.50
1:2:116:U:H2'	1:2:117:U:C6	2.47	0.50
1:2:272:U:O2'	1:2:273:G:O4'	2.27	0.50
37:3:60:G:H2'	37:3:61:G:H8	1.76	0.50
36:1:407:A:C2	38:4:17:A:H1'	2.47	0.50
36:5:1530:U:OP1	88:5:3994:OHX:N1	2.45	0.50
36:5:1573:G:C6	36:5:1574:C:H1'	2.47	0.50
36:5:3353:G:O2'	36:5:3356:G:OP2	2.28	0.50
36:5:750:G:H2'	36:5:751:A:H8	1.77	0.50
68:O2:33:ARG:NH1	36:5:944:C:H4'	161.98	0.50
1:6:1058:U:H4'	1:6:1059:U:OP1	2.12	0.50
25:D3:38:PHE:HB3	1:6:359:A:C2	325.52	0.50
1:6:486:G:H4'	1:6:486:G:OP1	2.11	0.50
1:6:768:C:H2'	1:6:769:A:O4'	2.12	0.50
15:C3:70:LYS:NZ	1:6:963:A:OP2	331.36	0.50
18:C6:103:ASN:HA	18:C6:106:LYS:HB2	3.13	0.50
23:D1:71:ARG:HG3	23:D1:83:TRP:CZ2	2.47	0.50
28:D6:23:CYS:SG	28:D6:74:CYS:HB3	2.51	0.50
40:L3:171:LEU:HD21	40:L3:314:TYR:CE2	3.92	0.50
40:L3:339:ARG:NH1	40:L3:342:LEU:HD11	2.26	0.50
41:L4:293:SER:HA	41:L4:296:GLN:HB2	3.23	0.50
49:M3:144:THR:HG21	71:O5:118:ILE:HG21	1.94	0.50
50:M4:135:LEU:HD11	52:M6:178:VAL:HG22	1.93	0.50
56:N0:78:TRP:CE3	56:N0:125:LYS:HG2	2.96	0.50
58:N2:20:SER:OG	58:N2:21:SER:N	2.44	0.50
36:1:3173:G:C2	69:O3:96:ALA:HB2	2.47	0.50
71:O5:4:VAL:HG13	71:O5:50:SER:OG	2.12	0.50
72:O6:66:GLU:HB3	72:O6:70:ARG:HH21	1.77	0.50
2:S0:105:GLY:O	2:S0:109:ASN:HB3	2.52	0.50
3:S1:146:GLN:O	3:S1:148:ASN:N	2.49	0.50
3:S1:71:ALA:HB3	16:C4:114:ARG:NH1	2.70	0.50
5:S3:168:ILE:HD12	5:S3:187:LYS:HE3	1.93	0.50
6:S4:45:ILE:HB	6:S4:80:THR:HG23	2.46	0.50
7:S5:97:LEU:O	7:S5:99:MET:N	2.69	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:153:VAL:HG21	8:S6:175:ILE:HG21	3.84	0.50
9:S7:133:THR:HG22	9:S7:157:LYS:O	3.10	0.50
10:S8:38:ILE:HA	10:S8:60:ILE:O	2.42	0.50
1:2:592:A:OP1	11:S9:39:LYS:HG2	2.11	0.50
34:SR:42:LEU:HB2	34:SR:61:PHE:HB2	1.94	0.50
36:1:256:G:H2'	36:1:257:U:H6	1.77	0.49
36:1:2299:A:OP1	88:1:3956:OHX:N1	2.45	0.49
36:1:730:C:H2'	36:1:731:U:H6	1.77	0.49
1:2:1480:G:H3'	1:2:1481:C:C6	2.47	0.49
36:5:2400:G:H5''	36:5:2401:A:OP2	2.12	0.49
44:L7:70:LYS:NZ	36:5:519:A:OP2	314.80	0.49
36:5:566:G:N7	88:5:4135:OHX:N5	2.60	0.49
49:M3:101:ARG:HB2	36:5:76:G:N7	85.46	0.49
1:6:1491:U:H4'	1:6:1492:A:H5''	1.94	0.49
30:D8:22:ARG:HD2	1:6:1619:C:C2	342.26	0.49
12:C0:1:MET:HG2	12:C0:2:LEU:N	2.27	0.49
14:C2:91:VAL:HG22	14:C2:92:ALA:H	4.32	0.49
16:C4:123:SER:O	16:C4:124:ASP:HB2	4.90	0.49
1:2:1769:U:O2	16:C4:136:ARG:NH1	2.45	0.49
16:C4:43:THR:OG1	16:C4:44:GLY:N	2.40	0.49
18:C6:35:PRO:HG2	18:C6:38:LEU:HG	1.93	0.49
22:D0:27:THR:HG23	22:D0:113:ASP:OD1	4.05	0.49
24:D2:78:ARG:HD2	24:D2:126:LEU:HD23	1.94	0.49
1:2:1101:G:O3'	24:D2:76:SER:HB2	2.12	0.49
25:D3:53:VAL:HG23	25:D3:100:ASP:O	2.11	0.49
44:L7:55:TYR:HE2	44:L7:141:TYR:CE2	2.66	0.49
48:M1:107:ASP:HA	48:M1:124:GLY:HA2	1.94	0.49
48:M1:34:SER:HB2	48:M1:67:VAL:HG11	1.94	0.49
55:M9:21:LYS:HE3	55:M9:55:VAL:HA	1.94	0.49
49:M3:2:ALA:HA	64:N8:41:HIS:HE1	4.64	0.49
68:O2:40:SER:O	68:O2:44:ARG:HG3	2.25	0.49
74:O8:14:LEU:HD21	74:O8:52:TYR:CD2	4.76	0.49
2:S0:36:TYR:CD1	2:S0:161:PRO:HG3	2.48	0.49
3:S1:90:GLU:OE1	3:S1:91:VAL:N	3.51	0.49
7:S5:94:THR:HB	7:S5:114:ILE:HG13	1.94	0.49
8:S6:48:TYR:CZ	8:S6:121:LEU:HD22	5.57	0.49
1:2:209:U:H5'	10:S8:171:SER:HB3	1.94	0.49
11:S9:85:VAL:HG13	11:S9:103:ASP:HB2	1.94	0.49
35:SM:64:LYS:O	35:SM:66:ALA:N	2.89	0.49
34:SR:112:SER:HB2	34:SR:153:GLN:HA	2.41	0.49
36:1:1212:A:H2'	36:1:1213:G:H5''	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2655:U:H4'	36:1:2656:A:O4'	2.13	0.49
36:1:13:A:OP2	88:1:4217:OHX:N5	2.46	0.49
1:2:1483:A:H2'	1:2:1484:G:C8	2.46	0.49
1:2:1646:C:H2'	1:2:1647:U:C6	2.47	0.49
1:2:495:C:H3'	1:2:496:G:O4'	2.12	0.49
38:4:103:G:O6	88:4:222:OHX:N4	2.45	0.49
36:5:1615:C:H2'	36:5:1616:U:C6	2.47	0.49
1:6:150:U:H2'	1:6:151:G:O4'	2.11	0.49
6:S4:106:LYS:NZ	1:6:788:A:OP1	397.53	0.49
1:6:219:A:H2'	1:6:831:U:O2	2.12	0.49
37:7:106:U:H2'	37:7:107:C:O4'	2.11	0.49
16:C4:127:ARG:HD3	1:6:990:C:O2'	282.75	0.49
16:C4:91:THR:O	16:C4:93:THR:N	2.69	0.49
17:C5:37:ALA:HB1	17:C5:38:PRO:HD2	1.94	0.49
18:C6:82:ARG:HH22	18:C6:114:ARG:CB	2.25	0.49
20:C8:139:LYS:HE2	1:6:1459:C:N4	351.60	0.49
23:D1:71:ARG:HG3	23:D1:83:TRP:CH2	2.48	0.49
40:L3:212:ASN:O	40:L3:281:LYS:NZ	2.43	0.49
56:N0:13:ARG:NH1	56:N0:13:ARG:HG3	4.77	0.49
57:N1:57:TYR:CD1	57:N1:89:LEU:HD21	2.47	0.49
71:O5:21:LEU:HD22	71:O5:25:LYS:HG3	1.94	0.49
73:O7:21:ARG:HD2	73:O7:39:TYR:HB2	2.31	0.49
3:S1:126:THR:CG2	3:S1:136:ARG:HE	2.25	0.49
4:S2:183:ALA:HB1	4:S2:211:LEU:HD21	1.94	0.49
1:2:283:U:H5''	8:S6:188:ARG:HD3	1.94	0.49
10:S8:82:VAL:HG22	10:S8:196:LEU:HD11	1.93	0.49
36:1:2534:G:H2'	36:1:2535:A:H8	1.77	0.49
1:2:1393:C:H42	1:2:1405:G:H1	1.61	0.49
1:2:1545:A:H2'	1:2:1546:G:C8	2.47	0.49
1:2:1600:A:HO2'	1:2:1602:C:N4	2.11	0.49
1:2:1609:U:H2'	1:2:1610:G:O4'	2.12	0.49
1:2:25:C:O2	88:2:2084:OHX:N1	2.45	0.49
1:2:717:C:H2'	1:2:718:U:H5''	1.94	0.49
36:5:113:C:C2	36:5:319:A:C2	3.00	0.49
1:6:1041:G:OP1	88:6:2172:OHX:N4	2.44	0.49
1:6:542:A:O2'	1:6:543:C:O5'	2.29	0.49
1:6:886:U:H2'	1:6:887:A:C8	2.47	0.49
12:C0:32:HIS:CD2	12:C0:33:GLU:HG2	7.01	0.49
13:C1:93:TYR:HB2	13:C1:100:TYR:HE1	2.57	0.49
14:C2:68:GLU:C	14:C2:70:ASN:H	2.14	0.49
15:C3:119:GLU:HG2	15:C3:141:TYR:CE2	3.68	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:23:PHE:HE2	16:C4:91:THR:HG21	1.77	0.49
17:C5:96:ILE:HD11	17:C5:116:LEU:HD22	1.93	0.49
19:C7:108:ASP:HA	19:C7:111:LYS:HB2	3.79	0.49
20:C8:82:PRO:O	20:C8:84:TRP:N	2.43	0.49
28:D6:23:CYS:HB3	28:D6:28:LYS:H	2.11	0.49
33:E1:96:LYS:O	33:E1:97:LYS:HB2	3.35	0.49
39:L2:189:TYR:HA	39:L2:192:LYS:HB2	2.47	0.49
40:L3:232:ARG:NH1	40:L3:269:GLN:O	2.71	0.49
40:L3:332:ARG:O	40:L3:333:LYS:HB2	2.11	0.49
42:L5:44:TYR:HE1	57:N1:35:LYS:HB3	1.76	0.49
44:L7:145:ARG:HA	44:L7:185:ILE:HD13	2.31	0.49
44:L7:173:LEU:HD23	44:L7:178:ILE:HG21	1.94	0.49
45:L8:101:THR:CG2	45:L8:104:GLU:H	2.25	0.49
46:L9:93:VAL:O	46:L9:177:ASP:HA	2.13	0.49
48:M1:8:PRO:HD2	48:M1:10:ARG:H	1.77	0.49
50:M4:72:LEU:HD23	50:M4:73:PRO:HD2	1.92	0.49
51:M5:46:ASP:OD1	51:M5:50:ARG:NH2	2.35	0.49
57:N1:101:CYS:SG	57:N1:102:ARG:N	3.41	0.49
57:N1:12:ARG:HD3	57:N1:13:TYR:CE1	3.55	0.49
63:N7:97:SER:OG	63:N7:98:THR:N	4.33	0.49
64:N8:89:GLN:O	64:N8:93:SER:HB2	5.35	0.49
66:O0:100:ILE:HG13	66:O0:101:LEU:HD13	7.80	0.49
67:O1:44:MET:HB3	67:O1:77:ARG:NH2	5.70	0.49
68:O2:71:HIS:CE1	68:O2:118:LYS:HD2	5.63	0.49
68:O2:20:HIS:O	68:O2:21:HIS:HB2	2.12	0.49
3:S1:129:THR:HA	3:S1:177:GLN:HA	1.94	0.49
11:S9:5:PRO:HG3	1:6:380:U:C2	368.50	0.49
35:SM:76:VAL:HG11	1:6:1461:C:H1'	329.16	0.49
36:1:1074:U:O2'	36:1:1075:A:H2'	2.12	0.49
36:1:2112:U:H6	36:1:2112:U:O5'	1.95	0.49
36:1:2259:A:OP2	88:1:3942:OHX:N2	2.45	0.49
36:1:2383:C:H5'	52:M6:71:PHE:CE2	2.48	0.49
1:2:538:A:H8	1:2:543:C:N4	2.10	0.49
51:M5:172:ARG:HH22	36:5:63:A:P	101.62	0.49
1:6:1120:U:H2'	1:6:1121:C:C6	2.47	0.49
1:6:119:A:H1'	1:6:397:A:C5	2.46	0.49
1:6:702:G:N7	88:6:2096:OHX:N4	2.60	0.49
37:7:80:G:H2'	37:7:81:U:O4'	2.12	0.49
12:C0:16:PHE:O	12:C0:88:PRO:HA	2.12	0.49
16:C4:16:VAL:HG11	16:C4:18:ARG:HE	1.76	0.49
17:C5:124:THR:OG1	17:C5:124:THR:O	3.34	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:33:PHE:O	17:C5:36:LEU:HD22	3.61	0.49
1:2:775:G:N7	26:D4:11:LYS:NZ	2.61	0.49
26:D4:60:PHE:O	1:6:523:G:H5'	413.90	0.49
28:D6:10:ARG:NH1	28:D6:36:ILE:HG13	4.27	0.49
30:D8:10:ALA:HB1	30:D8:30:VAL:HB	1.94	0.49
32:E0:53:LYS:HE2	32:E0:55:ARG:HD3	8.90	0.49
39:L2:9:ARG:NH1	36:5:912:G:OP2	180.45	0.49
40:L3:116:ARG:HD2	40:L3:122:TRP:CG	2.48	0.49
45:L8:100:GLU:OE1	45:L8:108:ARG:HD3	2.12	0.49
47:M0:144:ASN:ND2	47:M0:147:VAL:HB	3.61	0.49
51:M5:122:ASN:OD1	51:M5:123:GLN:N	2.45	0.49
52:M6:110:PRO:HA	52:M6:113:ASP:OD2	2.12	0.49
53:M7:4:TYR:CZ	53:M7:18:ARG:HG3	2.47	0.49
53:M7:29:THR:HG22	53:M7:87:SER:CB	2.42	0.49
56:N0:42:TRP:CD2	56:N0:53:LYS:HB3	4.57	0.49
59:N3:87:ARG:HH22	59:N3:137:VAL:HG23	1.77	0.49
66:O0:27:TYR:O	66:O0:31:VAL:HG23	2.12	0.49
2:S0:125:ASP:O	2:S0:127:ARG:N	2.45	0.49
3:S1:186:SER:HA	3:S1:189:ILE:HD12	2.72	0.49
5:S3:64:ARG:HG2	5:S3:65:ARG:H	4.05	0.49
6:S4:104:ASP:HB3	6:S4:106:LYS:H	1.78	0.49
6:S4:45:ILE:HD11	6:S4:49:ARG:HH21	1.76	0.49
1:2:68:A:OP1	8:S6:160:ARG:NH2	2.44	0.49
34:SR:129:LYS:HG2	34:SR:149:ASP:O	2.34	0.49
36:1:3004:C:O2'	36:1:3005:A:H5'	2.12	0.49
36:1:371:G:H4'	36:1:396:A:N1	2.27	0.49
36:1:3048:A:O3'	88:1:4195:OHX:N4	2.45	0.49
36:1:558:U:H6	36:1:558:U:O5'	1.95	0.49
36:1:650:C:O2'	36:1:651:G:H5'	2.12	0.49
1:2:1085:G:N2	1:2:1087:A:H3'	2.27	0.49
1:2:1357:A:H2'	1:2:1358:G:C8	2.48	0.49
1:2:1543:A:H2'	1:2:1544:U:O4'	2.12	0.49
1:2:29:U:H2'	1:2:30:G:H8	1.77	0.49
36:5:1798:A:H2'	36:5:1799:A:C8	2.47	0.49
36:5:2213:A:N1	36:5:2429:G:H1'	2.27	0.49
36:5:2254:U:H2'	36:5:2261:G:N2	2.27	0.49
1:6:1249:U:H2'	1:6:1250:U:O4'	2.12	0.49
1:6:713:A:H2'	1:6:714:G:H5''	1.92	0.49
37:7:27:A:C2	37:7:28:C:C2	3.01	0.49
5:S3:209:ILE:HG22	19:C7:38:ILE:O	2.47	0.49
23:D1:60:ARG:HA	23:D1:65:SER:HB2	2.08	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:50:LYS:HG2	25:D3:77:ILE:HD12	3.42	0.49
29:D7:58:SER:O	29:D7:60:SER:N	3.91	0.49
31:D9:15:GLY:O	31:D9:17:GLY:N	3.39	0.49
12:C0:61:TRP:CZ3	31:D9:22:ARG:HD2	2.47	0.49
39:L2:201:GLY:HA2	39:L2:204:MET:SD	2.88	0.49
49:M3:57:VAL:HG13	49:M3:147:ILE:CG2	2.68	0.49
54:M8:175:ALA:HB3	64:N8:53:PHE:O	2.11	0.49
58:N2:20:SER:O	58:N2:24:GLU:HG2	2.59	0.49
61:N5:79:GLY:O	61:N5:81:ILE:HD12	3.57	0.49
70:O4:16:ARG:HD2	70:O4:37:LYS:HD2	1.92	0.49
2:S0:134:LYS:O	2:S0:137:SER:OG	2.22	0.49
2:S0:82:GLY:O	2:S0:86:VAL:HG22	2.12	0.49
3:S1:130:SER:OG	3:S1:180:THR:N	2.43	0.49
3:S1:84:ILE:HG22	3:S1:86:LEU:HD22	1.94	0.49
7:S5:117:THR:HG21	7:S5:194:LEU:HD13	2.86	0.49
7:S5:62:VAL:HG13	7:S5:89:ILE:HG21	1.95	0.49
9:S7:123:ASP:OD1	9:S7:138:LYS:NZ	2.45	0.49
10:S8:117:TYR:CD1	10:S8:150:ALA:HB2	2.47	0.49
10:S8:196:LEU:HD22	10:S8:200:LYS:HD3	6.97	0.49
36:1:1355:A:H4'	36:1:1356:U:O5'	2.11	0.49
36:1:439:C:H3'	36:1:440:A:H8	1.77	0.49
36:1:872:U:H2'	36:1:873:C:C6	2.47	0.49
1:2:1339:C:O2'	1:2:1340:U:OP1	2.31	0.49
1:2:1474:G:P	7:S5:109:LYS:HE2	2.52	0.49
1:2:1519:U:H2'	1:2:1520:U:C5	2.48	0.49
1:2:1785:U:H2'	1:2:1786:G:H8	1.77	0.49
1:2:487:G:H3'	1:2:488:G:H5''	1.93	0.49
36:5:1214:U:H2'	36:5:1215:U:C6	2.48	0.49
36:5:1464:G:N2	36:5:1466:G:H3'	2.28	0.49
58:N2:103:TYR:OH	36:5:1677:G:OP2	147.58	0.49
36:5:2546:C:H2'	36:5:2547:A:C8	2.47	0.49
36:5:2890:A:N1	36:5:2913:C:N3	2.60	0.49
36:5:374:A:N3	36:5:376:G:H5''	2.27	0.49
49:M3:59:ARG:HG2	36:5:73:C:O2'	95.09	0.49
1:6:104:A:N6	1:6:308:C:H5'	2.23	0.49
15:C3:66:ILE:HG13	15:C3:67:THR:HG23	1.95	0.49
1:2:1597:A:OP1	31:D9:19:ARG:NH2	2.45	0.49
33:E1:126:CYS:O	33:E1:128:ALA:N	2.45	0.49
40:L3:10:ARG:NH2	40:L3:263:SER:O	2.45	0.49
40:L3:210:GLU:O	40:L3:213:GLU:HB2	2.16	0.49
46:L9:144:ILE:HD13	46:L9:161:LEU:HD11	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:60:ARG:O	48:M1:63:GLU:HB2	2.12	0.49
50:M4:23:ILE:HD13	50:M4:63:VAL:HG23	1.94	0.49
52:M6:85:ARG:HD3	52:M6:90:HIS:ND1	2.63	0.49
55:M9:101:VAL:HG13	55:M9:104:ARG:HH22	1.78	0.49
56:N0:117:ARG:O	56:N0:121:ILE:HD12	2.93	0.49
56:N0:68:HIS:O	56:N0:73:LYS:NZ	2.45	0.49
63:N7:54:THR:HG22	63:N7:57:HIS:CD2	4.04	0.49
64:N8:16:SER:HA	36:5:942:U:N3	169.58	0.49
67:O1:88:PRO:O	67:O1:89:LEU:HD12	2.55	0.49
34:SR:63:GLY:HA3	34:SR:90:ARG:NH1	2.27	0.49
36:1:1270:A:N6	36:1:1271:A:N3	2.60	0.49
36:1:1495:U:C5	36:1:1835:A:N1	2.76	0.49
36:1:501:A:H2'	36:1:502:U:H6	1.76	0.49
36:1:561:C:OP1	50:M4:77:ARG:HG3	2.12	0.49
36:1:95:A:C5	36:1:96:G:H1'	2.48	0.49
1:2:1347:U:C2	1:2:1517:U:C5	3.01	0.49
1:2:138:A:N6	1:2:266:A:H61	2.11	0.49
1:2:1480:G:H3'	1:2:1481:C:H6	1.78	0.49
1:2:1764:C:H3'	1:2:1767:G:N7	2.27	0.49
1:2:788:A:C4	6:S4:19:LEU:HD13	2.48	0.49
35:SM:46:LYS:HA	36:5:1018:G:H4'	325.13	0.49
36:5:1020:G:H2'	36:5:1021:G:O4'	2.13	0.49
36:5:2187:G:OP2	88:5:3975:OHX:N4	2.45	0.49
36:5:2911:A:H4'	36:5:2912:G:C8	2.47	0.49
36:5:3016:A:H2'	36:5:3017:A:H8	1.77	0.49
36:5:3049:A:H8	36:5:3049:A:H5'	1.78	0.49
36:5:3269:U:O2	36:5:3271:G:N1	2.46	0.49
36:5:3377:G:O6	88:5:4091:OHX:N2	2.45	0.49
36:5:430:U:OP2	88:5:3986:OHX:N5	2.45	0.49
1:6:1734:U:H2'	1:6:1735:U:H6	1.78	0.49
1:2:348:U:OP1	13:C1:85:VAL:HG11	2.13	0.49
21:C9:79:LEU:HD23	21:C9:80:TYR:CZ	3.39	0.49
23:D1:38:LYS:HE3	23:D1:51:VAL:HG23	1.93	0.49
26:D4:90:ARG:O	26:D4:93:ARG:HB2	2.53	0.49
27:D5:92:ILE:HG23	27:D5:100:ILE:HG22	1.94	0.49
27:D5:71:ILE:CG2	27:D5:76:ALA:HB2	4.58	0.49
40:L3:169:THR:HG23	40:L3:171:LEU:HG	2.53	0.49
40:L3:227:GLU:HG3	40:L3:270:ARG:CD	4.71	0.49
40:L3:73:VAL:CG2	59:N3:90:GLY:HA3	2.42	0.49
44:L7:173:LEU:HD21	44:L7:198:ALA:HA	1.94	0.49
44:L7:118:LYS:HG3	44:L7:191:VAL:HG11	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:79:ILE:O	46:L9:83:THR:HG23	2.55	0.49
48:M1:7:ASN:HA	48:M1:10:ARG:HD2	3.06	0.49
53:M7:70:THR:HG21	53:M7:81:ALA:HB3	2.41	0.49
53:M7:57:ALA:HB2	53:M7:83:TRP:CE2	2.61	0.49
54:M8:64:VAL:O	54:M8:96:PHE:HE2	1.95	0.49
55:M9:77:GLY:HA3	36:5:1939:G:OP1	219.08	0.49
61:N5:67:ILE:HD13	61:N5:115:ARG:NH2	2.27	0.49
63:N7:128:GLN:O	63:N7:130:PHE:N	3.51	0.49
63:N7:10:VAL:HG23	63:N7:86:THR:HA	1.95	0.49
71:O5:44:ILE:O	71:O5:47:VAL:HG13	2.12	0.49
71:O5:68:GLN:HA	71:O5:71:LYS:HB2	1.94	0.49
36:1:1493:G:C6	75:O9:2:ALA:HB2	2.46	0.49
2:S0:52:LYS:HD3	23:D1:82:VAL:HA	2.30	0.49
3:S1:70:LEU:O	3:S1:74:GLN:N	2.33	0.49
4:S2:116:LYS:NZ	4:S2:117:THR:O	4.51	0.49
5:S3:18:TYR:HE1	5:S3:37:VAL:HG23	1.78	0.49
7:S5:57:SER:HB2	30:D8:53:ILE:HB	2.74	0.49
7:S5:64:VAL:CG1	7:S5:89:ILE:HD11	4.08	0.49
8:S6:24:ILE:O	8:S6:26:VAL:N	2.74	0.49
9:S7:113:PRO:HG2	9:S7:116:ARG:HD2	1.94	0.49
34:SR:156:VAL:HA	34:SR:169:ILE:HG22	2.19	0.49
36:1:1069:C:H2'	36:1:1070:U:H6	1.78	0.49
36:1:1097:G:H4'	36:1:1098:A:O5'	2.12	0.49
36:1:1553:U:H4'	36:1:1554:U:H5'	1.95	0.49
36:1:217:U:H4'	62:N6:100:HIS:CD2	2.47	0.49
36:1:2707:C:H2'	36:1:2708:C:H6	1.77	0.49
36:1:3322:A:H2'	36:1:3323:A:C8	2.47	0.49
1:2:1316:G:O2'	1:2:1401:A:O2'	2.20	0.49
1:2:186:C:OP1	10:S8:146:ARG:NH2	2.43	0.49
1:2:793:A:H5''	1:2:794:U:C6	2.48	0.49
37:3:23:A:H2'	37:3:24:A:C8	2.47	0.49
38:4:71:A:O2'	62:N6:52:ARG:NH2	2.45	0.49
36:5:2946:A:H5''	36:5:2947:G:H5'	1.94	0.49
36:5:420:G:O5'	36:5:420:G:OP2	2.29	0.49
36:5:501:A:H2'	36:5:502:U:C6	2.47	0.49
1:6:1535:U:O2'	1:6:1536:G:O5'	2.31	0.49
1:6:1648:A:H2'	1:6:1649:G:C8	2.47	0.49
1:6:918:U:H2'	1:6:919:A:H8	1.76	0.49
17:C5:43:ARG:HD3	1:6:1553:G:O6	397.07	0.49
20:C8:57:ARG:NH1	1:6:1534:G:OP2	343.37	0.49
28:D6:38:ARG:NH2	28:D6:83:ILE:HG21	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:224:HIS:HB2	40:L3:270:ARG:O	2.50	0.49
40:L3:77:THR:HG23	40:L3:327:CYS:HA	1.95	0.49
36:1:660:A:H5''	41:L4:100:PHE:CD1	2.48	0.49
41:L4:209:TYR:CZ	41:L4:229:ASN:HB2	2.48	0.49
42:L5:119:TYR:CZ	42:L5:135:VAL:HG12	2.46	0.49
42:L5:160:PHE:O	42:L5:180:PHE:HE1	1.96	0.49
42:L5:265:TYR:O	42:L5:269:SER:HB3	3.85	0.49
43:L6:131:LYS:HB2	43:L6:134:ARG:HG2	6.25	0.49
46:L9:91:ARG:HD2	46:L9:143:GLU:HG3	1.94	0.49
64:N8:104:THR:OG1	64:N8:127:ALA:HB2	2.70	0.49
73:O7:65:ARG:HG3	73:O7:65:ARG:NH1	2.22	0.49
78:Q2:35:LEU:H	78:Q2:35:LEU:HD23	1.77	0.49
2:S0:126:PRO:CG	2:S0:151:SER:HB2	3.99	0.49
3:S1:67:GLU:CD	3:S1:83:LYS:HE2	4.00	0.49
6:S4:246:LEU:HB2	6:S4:251:GLU:HG3	1.95	0.49
7:S5:156:ARG:HA	7:S5:157:ARG:NH2	4.25	0.49
1:2:639:U:OP1	9:S7:118:LEU:N	2.45	0.49
35:SM:68:ARG:HD3	1:6:1460:A:P	336.17	0.49
34:SR:241:PHE:O	34:SR:255:ALA:HB3	2.12	0.49
34:SR:50:ASP:HB3	34:SR:53:LYS:HG3	1.93	0.49
36:1:1367:G:OP1	68:O2:45:ARG:NH2	2.45	0.49
36:1:1639:C:N4	70:O4:73:SER:HB2	2.28	0.49
36:1:3343:G:N2	36:1:3362:A:H2	2.08	0.49
36:1:612:U:OP1	43:L6:21:THR:HB	2.13	0.49
36:1:792:G:H2'	36:1:793:C:C6	2.47	0.49
1:2:1149:G:H5''	1:2:1150:G:OP1	2.12	0.49
1:2:1255:G:O6	14:C2:46:ARG:HD3	2.12	0.49
1:2:396:G:N2	1:2:398:G:H3'	2.28	0.49
1:2:959:U:H6	15:C3:61:THR:HB	1.76	0.49
36:5:1366:A:C2	36:5:1367:G:C4	3.01	0.49
36:5:2319:U:O4	88:5:3999:OHX:N2	2.46	0.49
36:5:3299:A:H61	36:5:3315:G:H1	1.61	0.49
33:E1:135:HIS:HB3	1:6:1250:U:O2'	432.28	0.49
1:6:1477:G:H2'	1:6:1478:G:C8	2.48	0.49
1:6:1595:U:N3	1:6:1600:A:C2	2.81	0.49
1:6:187:G:H8	1:6:187:G:O5'	1.95	0.49
1:6:282:C:H2'	1:6:283:U:O4'	2.12	0.49
10:S8:175:GLN:NE2	1:6:332:U:OP2	286.07	0.49
1:6:542:A:H1'	1:6:543:C:OP1	2.13	0.49
36:5:408:A:N6	38:8:15:G:H1'	2.28	0.49
12:C0:7:ASP:O	12:C0:11:ILE:HG13	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:25:TRP:HA	15:C3:27:LYS:HE2	5.93	0.49
17:C5:34:VAL:HG21	17:C5:45:PHE:CB	2.42	0.49
18:C6:14:LYS:HE2	1:6:1584:G:N7	395.65	0.49
27:D5:44:GLN:HA	27:D5:47:TYR:HB3	2.62	0.49
28:D6:57:SER:OG	28:D6:58:VAL:O	4.90	0.49
45:L8:195:SER:O	45:L8:195:SER:OG	2.28	0.49
49:M3:157:ARG:NH1	64:N8:146:GLU:OE2	3.66	0.49
52:M6:68:ARG:HH12	36:5:2988:C:P	215.50	0.49
61:N5:67:ILE:HB	61:N5:83:VAL:HG12	2.49	0.49
63:N7:95:VAL:O	63:N7:100:THR:HG21	2.58	0.49
72:O6:40:VAL:O	72:O6:44:VAL:HG23	2.13	0.49
79:Q3:30:GLU:HA	79:Q3:33:GLN:HG2	1.95	0.49
79:Q3:84:ARG:NH2	79:Q3:88:GLU:OE2	2.46	0.49
2:S0:195:TRP:NE1	2:S0:197:ILE:HD13	2.54	0.49
2:S0:119:ARG:NE	4:S2:240:LEU:HD23	3.93	0.49
4:S2:241:ASP:HA	4:S2:244:SER:HB3	3.34	0.49
6:S4:211:LYS:HA	6:S4:216:ASN:O	2.13	0.49
6:S4:73:ASP:OD2	6:S4:122:LYS:NZ	2.33	0.49
6:S4:75:LYS:HD3	6:S4:77:ARG:NH2	2.72	0.49
9:S7:43:PHE:HB2	9:S7:61:PHE:O	2.28	0.49
10:S8:122:GLY:O	88:S8:302:OHX:N5	2.45	0.49
35:SM:120:GLU:O	35:SM:122:GLU:N	3.73	0.49
36:1:1033:U:H2'	36:1:1034:U:C6	2.48	0.49
36:1:114:A:OP1	51:M5:54:LYS:NZ	2.46	0.49
36:1:1214:U:H2'	36:1:1215:U:C6	2.48	0.49
36:1:2404:A:N3	36:1:2404:A:H2'	2.28	0.49
36:1:242:C:HO2'	36:1:243:G:H8	1.60	0.49
36:1:507:U:H2'	36:1:508:U:C6	2.48	0.49
36:1:677:A:N7	36:1:785:G:O2'	2.38	0.49
36:1:729:C:OP1	54:M8:43:PRO:HD2	2.12	0.49
1:2:1071:U:H2'	1:2:1072:C:C6	2.48	0.49
1:2:793:A:H5''	1:2:794:U:C5	2.48	0.49
1:2:823:G:HO2'	1:2:824:G:P	2.35	0.49
36:5:624:G:H2'	36:5:625:G:H8	1.77	0.49
36:5:715:A:H4'	36:5:716:A:OP1	2.13	0.49
1:6:867:G:O6	88:6:2055:OHX:N1	2.46	0.49
1:6:250:C:H5'	1:6:250:C:C6	2.48	0.49
1:6:30:G:H2'	1:6:31:C:C6	2.48	0.49
1:6:485:A:C5	1:6:486:G:H1'	2.48	0.49
37:7:55:A:H2'	37:7:56:A:O4'	2.13	0.49
37:7:91:G:H2'	37:7:92:A:H8	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:31:VAL:O	14:C2:34:THR:OG1	2.28	0.49
16:C4:24:ASN:O	16:C4:25:ASP:HB2	2.13	0.49
30:D8:11:LYS:HB3	30:D8:33:LEU:HD23	2.58	0.49
30:D8:50:GLU:O	30:D8:51:ASN:HB2	2.13	0.49
33:E1:109:ASP:HB2	33:E1:113:LYS:HE2	1.95	0.49
39:L2:183:GLY:O	39:L2:186:PHE:HB3	2.27	0.49
42:L5:155:THR:HB	42:L5:179:ARG:HD3	1.95	0.49
43:L6:96:VAL:HG12	43:L6:98:VAL:HG23	1.94	0.49
44:L7:151:ARG:NH1	44:L7:244:ASN:O	2.75	0.49
47:M0:72:ALA:HB2	47:M0:155:ALA:HB2	2.27	0.49
47:M0:77:THR:HG23	47:M0:85:PHE:CZ	2.71	0.49
48:M1:90:GLN:NE2	48:M1:170:ASP:OD1	3.62	0.49
50:M4:32:LEU:HD11	50:M4:94:TRP:CD1	2.48	0.49
36:1:1546:A:N7	51:M5:71:ARG:NH1	2.60	0.49
63:N7:53:VAL:HA	63:N7:57:HIS:HD2	2.51	0.49
68:O2:24:ARG:HG2	68:O2:25:TYR:CE2	2.91	0.49
36:1:634:C:H5'	69:O3:21:ARG:O	2.12	0.49
70:O4:31:ARG:HG2	70:O4:31:ARG:HH11	1.77	0.49
72:O6:81:THR:HA	72:O6:84:LYS:HE3	5.22	0.49
3:S1:180:THR:HG22	3:S1:181:LEU:N	2.28	0.49
5:S3:12:VAL:O	5:S3:16:VAL:HG23	2.46	0.49
9:S7:109:VAL:HG13	9:S7:110:GLN:HB2	6.16	0.49
11:S9:167:ALA:O	11:S9:168:ARG:HB2	2.13	0.49
11:S9:92:LYS:HB2	11:S9:95:TYR:CD2	8.04	0.49
36:1:2551:U:O4	39:L2:95:SER:HB3	2.12	0.48
36:1:2582:C:H2'	36:1:2583:C:C6	2.47	0.48
36:1:2513:U:H2'	36:1:2592:G:H1	1.78	0.48
36:1:2767:U:O2'	78:Q2:30:ALA:O	2.31	0.48
36:1:2808:A:H4'	36:1:2809:C:O5'	2.13	0.48
36:1:3151:U:OP1	40:L3:132:LYS:NZ	2.45	0.48
36:1:789:A:H2'	36:1:790:U:C6	2.48	0.48
1:2:1019:A:OP2	15:C3:107:LYS:HE3	2.12	0.48
1:2:206:A:H1'	1:2:262:U:C2	2.48	0.48
1:2:1618:C:O2'	88:2:2166:OHX:N3	2.46	0.48
1:2:702:G:N2	1:2:703:G:H1'	2.28	0.48
36:5:2882:U:H2'	36:5:2883:U:O4'	2.13	0.48
59:N3:48:ARG:NH2	36:5:3043:C:P	251.28	0.48
40:L3:315:GLY:HA2	36:5:3379:C:H4'	214.56	0.48
36:5:501:A:H2'	36:5:502:U:H6	1.78	0.48
1:6:300:A:C2'	1:6:301:A:H5'	2.43	0.48
1:6:38:C:C2'	1:6:39:A:H5'	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:538:A:H2	1:6:540:G:H22	1.61	0.48
1:6:587:C:H2'	1:6:588:U:O4'	2.13	0.48
15:C3:54:LEU:HB3	15:C3:60:VAL:HG13	4.13	0.48
15:C3:67:THR:C	15:C3:69:ASN:H	2.15	0.48
17:C5:92:SER:HB2	17:C5:107:ILE:HD11	4.76	0.48
19:C7:28:PHE:CZ	19:C7:48:ASN:HB3	2.48	0.48
1:2:1389:C:O2'	19:C7:52:GLY:HA3	2.12	0.48
28:D6:6:ALA:N	1:6:1796:C:C5	344.88	0.48
41:L4:178:LEU:O	41:L4:182:LEU:HD23	3.56	0.48
42:L5:279:LYS:HG2	42:L5:282:ARG:CZ	2.43	0.48
36:1:1334:U:H1'	44:L7:208:SER:HB2	1.95	0.48
44:L7:24:GLU:O	44:L7:26:VAL:N	2.37	0.48
36:1:147:U:O4	45:L8:157:VAL:HA	2.12	0.48
47:M0:162:GLN:HE22	56:N0:85:SER:HB2	1.78	0.48
48:M1:65:ILE:HG22	48:M1:66:ALA:HB2	2.93	0.48
48:M1:85:LYS:HB2	48:M1:85:LYS:HE3	1.69	0.48
49:M3:52:ASP:N	49:M3:52:ASP:OD1	2.45	0.48
52:M6:167:TYR:OH	52:M6:171:LYS:HE3	2.13	0.48
52:M6:89:SER:O	52:M6:91:LYS:N	2.46	0.48
62:N6:112:ASP:H	62:N6:115:ARG:HB2	1.78	0.48
62:N6:14:LYS:HE3	36:5:335:G:OP2	76.87	0.48
62:N6:25:SER:OG	38:8:91:C:O2'	46.88	0.48
74:O8:11:PHE:O	74:O8:15:THR:HG23	2.34	0.48
3:S1:120:LEU:HG	3:S1:142:PHE:CE1	2.49	0.48
1:2:138:A:O2'	8:S6:149:LYS:NZ	2.45	0.48
9:S7:154:LEU:HD21	9:S7:183:PHE:HD1	1.78	0.48
36:1:1795:U:OP1	39:L2:191:LEU:HD22	2.14	0.48
36:1:2376:G:C6	36:1:2377:G:O6	2.66	0.48
36:1:351:A:N6	75:O9:37:TYR:O	2.46	0.48
36:1:398:A:C8	53:M7:3:ARG:NH2	2.81	0.48
36:1:715:A:H4'	36:1:716:A:OP1	2.13	0.48
36:1:764:U:O4	88:1:3972:OHX:N5	2.46	0.48
1:2:45:U:O2	1:2:434:G:H1'	2.13	0.48
1:2:448:C:OP2	6:S4:49:ARG:NH2	2.42	0.48
1:2:602:U:H2'	1:2:603:U:C6	2.47	0.48
1:2:649:U:O2'	1:2:650:U:H6	1.96	0.48
1:2:89:G:C6	1:2:90:C:C4	3.01	0.48
1:2:929:A:C8	16:C4:123:SER:HA	2.48	0.48
1:2:990:C:H2'	1:2:991:G:O4'	2.13	0.48
36:5:2705:A:OP2	88:5:3901:OHX:N2	2.46	0.48
36:5:979:U:H1'	36:5:980:A:C4	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1005:A:C5	1:6:1006:C:C4	3.01	0.48
1:6:1477:G:H2'	1:6:1478:G:H8	1.78	0.48
1:6:151:G:N2	1:6:163:G:N2	2.61	0.48
1:6:1557:U:O2'	1:6:1558:U:H2'	2.13	0.48
1:6:1759:C:H2'	1:6:1760:G:O4'	2.12	0.48
1:6:5:U:H2'	1:6:6:G:H8	1.77	0.48
12:C0:14:TYR:CE2	12:C0:21:VAL:HG22	2.48	0.48
17:C5:108:ARG:HH21	20:C8:119:ILE:HD12	3.24	0.48
21:C9:10:ALA:HB3	21:C9:13:ASP:OD2	2.12	0.48
23:D1:85:TYR:CD1	29:D7:6:ASP:HB2	2.67	0.48
27:D5:65:LEU:HD22	27:D5:71:ILE:HD11	1.95	0.48
40:L3:167:ARG:O	88:L3:404:OHX:N5	24.29	0.48
36:1:3140:G:OP1	40:L3:20:LYS:NZ	2.46	0.48
41:L4:16:THR:HG22	41:L4:18:ASN:N	2.28	0.48
44:L7:160:ARG:HD2	44:L7:203:TRP:NE1	2.28	0.48
44:L7:219:LYS:O	44:L7:228:SER:HB2	2.90	0.48
45:L8:75:ILE:O	45:L8:77:GLN:N	2.46	0.48
47:M0:54:SER:HB2	47:M0:135:ILE:HD11	1.95	0.48
49:M3:105:ASN:OD1	49:M3:107:GLU:HG2	2.13	0.48
55:M9:17:VAL:HG21	55:M9:21:LYS:HB2	4.48	0.48
67:O1:25:PHE:HB3	67:O1:65:LYS:HG2	3.94	0.48
69:O3:38:PRO:HD3	69:O3:77:ASN:O	2.51	0.48
70:O4:99:LYS:C	70:O4:103:LYS:HZ2	2.17	0.48
72:O6:34:SER:OG	72:O6:37:THR:HG23	2.58	0.48
72:O6:76:ARG:HA	72:O6:76:ARG:HE	1.77	0.48
78:Q2:35:LEU:HA	78:Q2:40:LYS:HG2	1.95	0.48
5:S3:59:LEU:HG	5:S3:63:GLY:HA2	1.95	0.48
36:1:1477:A:OP1	36:1:3075:G:O2'	2.30	0.48
36:1:1589:A:OP1	70:O4:11:ASN:HB2	2.14	0.48
36:1:1615:C:H2'	36:1:1616:U:C6	2.47	0.48
36:1:1804:A:H2'	36:1:1805:C:H6	1.79	0.48
36:1:265:A:O3'	51:M5:5:LYS:NZ	2.46	0.48
36:1:3321:C:H2'	36:1:3322:A:C8	2.48	0.48
36:1:3200:G:O6	88:1:4141:OHX:N4	2.47	0.48
1:2:1231:U:H4'	1:2:1258:U:H6	1.78	0.48
1:2:1450:U:H2'	1:2:1451:C:H6	1.78	0.48
1:2:1660:A:H2'	1:2:1661:U:C6	2.48	0.48
1:2:197:A:N6	10:S8:141:ARG:HH12	2.11	0.48
1:2:241:U:H5'	1:2:242:U:OP2	2.13	0.48
1:2:686:C:H2'	1:2:687:G:O4'	2.13	0.48
1:2:110:U:O2'	1:2:797:G:H1'	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
88:5:4023:OHX:N6	88:5:4222:OHX:N4	2.62	0.48
1:6:454:U:P	1:6:455:C:H41	2.35	0.48
56:N0:50:LYS:NZ	37:7:76:A:O2'	302.48	0.48
13:C1:44:THR:HB	13:C1:60:PHE:CD1	2.48	0.48
14:C2:42:ALA:HB2	14:C2:124:LYS:HD2	2.73	0.48
18:C6:34:SER:HB3	18:C6:35:PRO:HD2	1.93	0.48
20:C8:26:ILE:HG12	20:C8:31:ALA:HB2	2.41	0.48
26:D4:62:THR:HA	26:D4:69:SER:HA	1.95	0.48
39:L2:46:LYS:O	39:L2:47:GLN:HB2	2.13	0.48
42:L5:58:LYS:HD2	42:L5:93:THR:OG1	2.14	0.48
43:L6:60:ASP:O	43:L6:61:ASN:HB2	2.13	0.48
44:L7:150:LYS:HD3	44:L7:244:ASN:HD21	1.77	0.48
44:L7:90:LYS:HB2	44:L7:220:PHE:HE1	2.54	0.48
45:L8:42:PRO:HD2	45:L8:44:ARG:NH1	2.29	0.48
36:1:1048:A:H2'	47:M0:22:TYR:CZ	2.49	0.48
48:M1:10:ARG:HA	48:M1:134:PRO:HD2	3.25	0.48
49:M3:54:LEU:HD12	49:M3:75:PHE:CE2	2.49	0.48
51:M5:66:VAL:HG11	51:M5:101:THR:HG22	2.23	0.48
51:M5:96:ARG:HG2	51:M5:96:ARG:HH11	1.88	0.48
57:N1:68:THR:HG22	57:N1:71:SER:O	4.46	0.48
59:N3:75:PRO:HG2	59:N3:105:PRO:HD3	1.94	0.48
60:N4:63:ILE:O	60:N4:65:GLU:N	2.68	0.48
64:N8:3:SER:O	64:N8:6:THR:HB	4.01	0.48
68:O2:104:ASN:O	68:O2:108:ILE:HG13	2.13	0.48
3:S1:129:THR:HG22	3:S1:135:LEU:HD12	6.37	0.48
7:S5:106:LYS:HB3	7:S5:109:LYS:HG3	1.95	0.48
10:S8:57:ALA:HB1	10:S8:60:ILE:HD11	1.95	0.48
36:1:1599:G:H2'	36:1:1600:U:H6	1.78	0.48
36:1:1895:A:O2'	36:1:3053:G:H4'	2.12	0.48
36:1:2355:G:H4'	53:M7:139:TYR:CZ	2.48	0.48
36:1:551:A:C4	36:1:552:G:C8	3.01	0.48
1:2:1584:G:H5''	18:C6:122:ARG:HG2	1.94	0.48
1:2:1164:G:O2'	1:2:1612:U:O2	2.30	0.48
1:2:190:C:O2'	1:2:191:C:H5'	2.13	0.48
1:2:301:A:H2'	1:2:302:U:O4'	2.13	0.48
1:2:480:G:H22	1:2:509:G:H1'	1.79	0.48
1:2:4:C:OP2	4:S2:200:SER:OG	2.31	0.48
1:2:811:A:C2	1:2:858:G:H1'	2.48	0.48
1:2:818:C:N4	1:2:819:G:O6	2.38	0.48
36:5:1137:C:H2'	36:5:1138:U:O4'	2.14	0.48
36:5:2105:G:H2'	36:5:2106:A:H8	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:114:GLY:HA2	36:5:2864:A:H5''	242.60	0.48
36:5:916:G:H4'	36:5:917:A:O5'	2.12	0.48
1:6:151:G:N2	1:6:163:G:H22	2.10	0.48
1:6:1600:A:H4'	1:6:1601:G:OP1	2.14	0.48
1:6:546:U:H2'	1:6:547:U:C6	2.49	0.48
88:5:4111:OHX:N5	38:8:139:U:O4	2.46	0.48
14:C2:81:ASP:HA	14:C2:82:PRO:HD3	1.60	0.48
16:C4:106:ALA:HA	16:C4:112:ILE:HD11	2.36	0.48
19:C7:61:ILE:HD11	19:C7:69:ILE:HG13	1.94	0.48
24:D2:114:GLU:O	24:D2:118:ARG:HG3	2.13	0.48
24:D2:41:MET:HG2	24:D2:129:VAL:HG11	2.34	0.48
28:D6:74:CYS:SG	28:D6:77:CYS:HB2	2.53	0.48
40:L3:122:TRP:CZ2	40:L3:127:LYS:HD2	4.36	0.48
44:L7:158:LYS:HD2	44:L7:159:GLN:N	4.88	0.48
46:L9:27:VAL:HG11	46:L9:79:ILE:HA	1.95	0.48
47:M0:3:ARG:CZ	47:M0:63:GLU:HG3	2.43	0.48
47:M0:36:LEU:HD12	47:M0:87:LEU:HB3	2.30	0.48
49:M3:91:ARG:CZ	49:M3:97:VAL:HB	2.69	0.48
69:O3:75:HIS:HB3	69:O3:80:VAL:HG13	1.94	0.48
77:Q1:13:LEU:HD11	77:Q1:17:ARG:CZ	2.43	0.48
78:Q2:38:GLN:NE2	78:Q2:38:GLN:O	2.62	0.48
3:S1:71:ALA:HB3	16:C4:114:ARG:HH12	2.65	0.48
7:S5:222:LYS:HE3	7:S5:225:ARG:HH12	1.78	0.48
8:S6:2:LYS:HE2	8:S6:17:GLU:OE2	5.07	0.48
34:SR:178:VAL:HG13	34:SR:202:LEU:HD12	1.96	0.48
36:1:1555:U:O2'	36:1:2169:G:N2	2.45	0.48
36:1:2403:G:H21	36:1:2404:A:H62	1.62	0.48
36:1:283:G:O6	36:1:304:G:H1'	2.12	0.48
36:1:42:C:H5''	36:1:2612:U:OP1	2.14	0.48
36:1:73:C:N3	49:M3:59:ARG:NH1	2.61	0.48
36:1:849:C:H2'	36:1:850:U:C6	2.48	0.48
1:2:1102:G:P	24:D2:76:SER:HB2	2.54	0.48
1:2:833:U:OP2	88:2:2141:OHX:N4	2.47	0.48
1:2:603:U:H2'	1:2:604:A:H8	1.78	0.48
1:2:987:G:C2	39:L2:249:SER:HB2	2.49	0.48
38:4:9:A:H2'	38:4:10:A:C8	2.48	0.48
36:5:1064:A:H4'	36:5:1065:A:O5'	2.13	0.48
36:5:3141:A:C2	36:5:3144:G:H1'	2.49	0.48
36:5:1650:G:N7	88:5:4186:OHX:N3	2.62	0.48
54:M8:151:ARG:NH1	36:5:781:G:OP1	159.55	0.48
31:D9:19:ARG:HH22	1:6:1597:A:P	406.98	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:213:A:OP2	88:6:2146:OHX:N1	2.46	0.48
1:6:509:G:H2'	1:6:510:G:O4'	2.14	0.48
26:D4:61:ARG:NH2	1:6:530:C:O2	408.65	0.48
1:6:517:U:H3	1:6:535:A:H61	1.62	0.48
1:6:620:A:H5'	1:6:620:A:C8	2.44	0.48
1:6:686:C:H2'	1:6:687:G:C8	2.49	0.48
12:C0:52:LYS:HE2	1:6:1220:C:H4'	443.83	0.48
13:C1:59:PRO:HB3	13:C1:66:ILE:HD11	1.95	0.48
13:C1:98:ASN:O	13:C1:98:ASN:ND2	2.46	0.48
15:C3:54:LEU:HB3	15:C3:60:VAL:CG1	3.29	0.48
18:C6:55:VAL:HG21	18:C6:105:LEU:HG	1.96	0.48
18:C6:82:ARG:HH12	18:C6:114:ARG:HB2	3.85	0.48
20:C8:18:LEU:HD21	20:C8:101:LEU:HD13	1.94	0.48
21:C9:127:ASN:OD1	21:C9:130:ARG:NH1	7.81	0.48
25:D3:103:LEU:HB3	25:D3:126:LYS:HB2	1.96	0.48
1:2:1076:A:O5'	28:D6:13:LYS:HB3	2.13	0.48
31:D9:6:VAL:O	31:D9:8:PHE:N	4.40	0.48
41:L4:34:ILE:HD12	41:L4:120:TYR:CE1	2.78	0.48
44:L7:70:LYS:NZ	36:5:519:A:O5'	316.95	0.48
48:M1:34:SER:HB2	48:M1:67:VAL:HG21	3.00	0.48
53:M7:26:PHE:CE1	53:M7:120:ASN:HA	2.49	0.48
56:N0:155:ARG:HD3	56:N0:172:TYR:CD2	2.55	0.48
43:L6:3:ALA:HB1	68:O2:75:LEU:HD13	2.46	0.48
49:M3:123:ILE:HG22	71:O5:118:ILE:HG12	2.68	0.48
79:Q3:8:VAL:O	79:Q3:11:THR:HB	2.13	0.48
2:S0:185:ARG:HA	23:D1:44:ARG:HA	1.95	0.48
2:S0:90:ALA:HB1	2:S0:95:ALA:O	3.82	0.48
4:S2:149:GLY:H	23:D1:4:ASP:HB2	4.44	0.48
4:S2:78:ASP:OD2	4:S2:79:GLU:N	2.38	0.48
35:SM:37:VAL:HG12	35:SM:38:PRO:O	2.90	0.48
36:1:1063:G:C6	36:1:1097:G:C5	3.01	0.48
36:1:128:G:H2'	36:1:129:U:O4'	2.13	0.48
36:1:1936:A:H2'	36:1:1937:U:O4'	2.13	0.48
36:1:2830:G:H1'	36:1:2861:U:C2	2.48	0.48
36:1:501:A:H5''	43:L6:28:GLN:HE21	1.79	0.48
1:2:1175:U:H2'	1:2:1176:G:H8	1.78	0.48
1:2:1178:G:H5'	1:2:1190:C:H42	1.78	0.48
1:2:196:G:O2'	1:2:197:A:P	2.71	0.48
1:2:200:A:H2'	1:2:201:G:C8	2.48	0.48
1:2:499:U:O2'	1:2:500:C:P	2.71	0.48
36:5:1018:G:C2	36:5:1019:G:H1'	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
76:Q0:113:ARG:NH1	36:5:1298:C:O3'	291.50	0.48
36:5:279:U:H2'	36:5:280:U:C6	2.48	0.48
36:5:770:G:N7	88:5:4100:OHX:N6	2.62	0.48
36:5:69:C:H2'	36:5:70:A:O4'	2.12	0.48
13:C1:60:PHE:O	13:C1:62:GLY:N	4.31	0.48
14:C2:60:VAL:HG22	14:C2:122:VAL:HG22	2.35	0.48
14:C2:66:VAL:HB	14:C2:67:THR:H	1.34	0.48
1:2:896:U:C1'	16:C4:38:THR:HG21	2.43	0.48
18:C6:114:ARG:O	18:C6:115:THR:OG1	2.28	0.48
22:D0:20:ILE:HD12	22:D0:100:VAL:HG21	4.22	0.48
22:D0:58:LEU:HD11	22:D0:88:LYS:HD2	1.94	0.48
22:D0:70:THR:OG1	22:D0:72:ASN:OD1	2.30	0.48
24:D2:66:ASN:OD1	24:D2:68:ARG:HG2	2.76	0.48
25:D3:63:GLN:HA	25:D3:65:ASN:N	2.29	0.48
1:2:958:U:OP2	29:D7:20:LYS:HE3	2.14	0.48
41:L4:107:ARG:HG2	41:L4:108:LYS:N	2.29	0.48
41:L4:20:LEU:HD22	41:L4:256:THR:HG22	3.30	0.48
41:L4:237:GLN:O	41:L4:246:ARG:HG3	2.14	0.48
42:L5:257:GLU:C	42:L5:258:LYS:HD3	4.96	0.48
41:L4:316:ASN:ND2	44:L7:150:LYS:HG3	2.28	0.48
51:M5:103:GLU:OE1	51:M5:118:SER:OG	2.19	0.48
51:M5:140:LYS:HB3	51:M5:144:ARG:NH1	2.28	0.48
51:M5:143:ARG:HH21	71:O5:92:LEU:HD23	1.78	0.48
53:M7:34:GLN:C	53:M7:36:ILE:H	2.16	0.48
56:N0:27:MET:HE1	57:N1:153:PRO:HD3	1.95	0.48
63:N7:10:VAL:HB	63:N7:83:THR:HG21	1.96	0.48
66:O0:41:LEU:HD22	66:O0:42:ILE:N	2.27	0.48
66:O0:43:ILE:HD12	66:O0:90:VAL:HB	2.40	0.48
68:O2:16:LYS:O	68:O2:17:PHE:HB2	4.69	0.48
5:S3:61:GLU:O	5:S3:63:GLY:N	2.47	0.48
9:S7:132:PRO:O	9:S7:133:THR:OG1	4.72	0.48
36:1:1245:A:C3'	36:1:1246:G:H5''	2.42	0.48
36:1:1584:U:H2'	36:1:1585:C:H6	1.78	0.48
36:1:2674:A:C2	48:M1:124:GLY:HA3	2.49	0.48
36:1:2676:A:N1	48:M1:22:SER:OG	2.37	0.48
36:1:2718:U:H2'	36:1:2719:U:C6	2.48	0.48
36:1:884:A:OP1	73:O7:5:THR:HG23	2.14	0.48
1:2:1080:U:O2'	1:2:1081:A:H5'	2.13	0.48
1:2:139:C:O4'	1:2:141:U:H5''	2.13	0.48
1:2:223:U:H2'	1:2:224:C:C6	2.48	0.48
1:2:602:U:H2'	1:2:603:U:H6	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:66:U:H5'	8:S6:173:PRO:HA	1.95	0.48
1:2:740:A:C2'	1:2:741:C:H5''	2.39	0.48
36:5:3340:G:H4'	36:5:3341:U:OP1	2.13	0.48
36:5:2810:C:OP1	88:5:4082:OHX:N3	2.46	0.48
51:M5:85:THR:HG23	36:5:44:U:H5''	161.57	0.48
6:S4:33:ALA:O	1:6:121:U:H1'	351.03	0.48
1:6:1629:G:H5''	1:6:1794:A:OP2	2.14	0.48
1:6:872:G:H2'	1:6:873:U:O4'	2.14	0.48
13:C1:127:GLN:HG2	13:C1:128:CYS:H	1.78	0.48
13:C1:46:LYS:HA	13:C1:46:LYS:HD2	3.21	0.48
20:C8:139:LYS:O	20:C8:143:ARG:NH1	2.52	0.48
39:L2:21:ARG:HD3	36:5:824:C:H5''	170.32	0.48
40:L3:323:MET:HE1	40:L3:356:LEU:HD11	2.13	0.48
41:L4:98:ARG:HB3	41:L4:98:ARG:CZ	2.59	0.48
42:L5:152:ARG:HG3	42:L5:152:ARG:NH1	2.46	0.48
44:L7:136:TYR:CE2	44:L7:231:ASN:HB2	2.49	0.48
45:L8:108:ARG:O	45:L8:112:GLU:N	3.13	0.48
47:M0:208:ASN:O	47:M0:212:GLU:HB2	3.19	0.48
36:1:685:G:P	49:M3:35:ARG:HH11	2.36	0.48
50:M4:103:ILE:HG23	50:M4:106:ARG:HH21	3.78	0.48
57:N1:12:ARG:HD2	57:N1:13:TYR:CE1	2.49	0.48
62:N6:125:LYS:C	62:N6:126:LEU:HG	2.33	0.48
63:N7:60:LYS:HA	63:N7:60:LYS:HD2	1.72	0.48
69:O3:62:SER:OG	69:O3:63:LYS:N	2.61	0.48
79:Q3:35:ALA:HB3	79:Q3:37:TYR:CE2	3.26	0.48
2:S0:179:ARG:O	2:S0:183:ARG:HG3	2.13	0.48
5:S3:72:LEU:HD22	12:C0:65:TYR:CD1	2.81	0.48
8:S6:21:GLU:O	8:S6:25:ARG:HB2	2.13	0.48
8:S6:56:ASN:O	8:S6:107:ALA:N	2.82	0.48
34:SR:79:TYR:HE1	34:SR:100:TYR:CE1	2.85	0.48
36:1:1695:U:O2'	36:1:1749:A:N1	2.36	0.48
36:1:2419:A:H2'	36:1:2420:C:C6	2.48	0.48
36:1:315:C:OP2	72:O6:28:TYR:OH	2.27	0.48
1:2:1274:C:C5	35:SM:95:SER:HA	2.49	0.48
1:2:131:C:O2'	1:2:132:U:OP1	2.26	0.48
1:2:488:G:OP1	1:2:488:G:H4'	2.13	0.48
1:2:558:U:H2'	1:2:558:U:O2	2.13	0.48
38:4:70:G:O6	88:O7:103:OHX:N4	2.47	0.48
56:N0:90:MET:CG	36:5:1213:G:H4'	318.27	0.48
36:5:127:G:H2'	36:5:128:G:C8	2.48	0.48
36:5:2103:U:H2'	36:5:2104:A:H8	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3091:A:N3	36:5:3093:C:O2'	2.42	0.48
36:5:507:U:H2'	36:5:508:U:C6	2.48	0.48
1:6:107:C:H1'	1:6:362:G:O2'	2.14	0.48
1:6:215:A:H5''	1:6:216:U:OP2	2.14	0.48
1:6:653:C:N4	1:6:677:G:H1	2.12	0.48
13:C1:4:GLU:OE1	13:C1:82:ARG:NH2	11.31	0.48
15:C3:119:GLU:HA	15:C3:122:ILE:HD12	1.96	0.48
15:C3:27:LYS:HE3	15:C3:27:LYS:H	1.79	0.48
3:S1:69:CYS:SG	16:C4:114:ARG:HD3	2.54	0.48
22:D0:24:ILE:HG12	22:D0:116:VAL:HG12	3.96	0.48
39:L2:62:VAL:HG21	39:L2:71:LEU:HD23	1.96	0.48
40:L3:169:THR:HG23	40:L3:170:PRO:HD2	1.95	0.48
40:L3:194:TRP:O	40:L3:198:HIS:ND1	2.54	0.48
40:L3:46:PHE:CD1	40:L3:208:VAL:HG21	3.36	0.48
40:L3:25:ILE:N	40:L3:25:ILE:HD13	2.28	0.48
41:L4:229:ASN:OD1	41:L4:231:ALA:N	2.84	0.48
41:L4:61:SER:OG	41:L4:61:SER:O	2.31	0.48
43:L6:144:ALA:O	43:L6:147:ALA:HB3	2.36	0.48
46:L9:26:LYS:HG3	46:L9:35:THR:HG22	2.12	0.48
47:M0:5:PRO:HB2	47:M0:7:ARG:HB3	2.98	0.48
49:M3:144:THR:O	49:M3:146:PRO:HD3	3.29	0.48
36:1:73:C:O2	49:M3:59:ARG:HD3	2.13	0.48
54:M8:44:PHE:CD2	54:M8:134:GLY:HA3	2.49	0.48
59:N3:19:VAL:HG13	59:N3:37:ILE:HA	2.19	0.48
62:N6:51:ARG:HG3	62:N6:52:ARG:N	2.27	0.48
67:O1:36:ILE:HG12	67:O1:73:LEU:HD11	3.09	0.48
68:O2:32:TRP:CZ2	68:O2:53:PRO:HD2	2.49	0.48
2:S0:64:ILE:HG12	2:S0:122:ILE:HD11	1.95	0.48
5:S3:135:GLU:HB3	5:S3:187:LYS:HB3	1.96	0.48
6:S4:136:VAL:HG12	6:S4:137:PRO:O	2.64	0.48
34:SR:225:LEU:O	34:SR:228:LYS:HG3	2.13	0.48
36:1:1826:C:H2'	36:1:1827:C:C6	2.48	0.48
36:1:2902:A:H2'	36:1:2903:A:O4'	2.13	0.48
1:2:1301:U:H2'	1:2:1302:U:O4'	2.14	0.48
1:2:1545:A:H2'	1:2:1546:G:H8	1.79	0.48
1:2:17:C:H2'	1:2:18:C:C6	2.48	0.48
1:2:912:U:H4'	1:2:913:G:H2'	1.95	0.48
38:4:91:C:H2'	38:4:92:A:C8	2.48	0.48
36:5:2623:G:H2'	36:5:2624:G:O4'	2.14	0.48
36:5:3084:C:H2'	36:5:3085:G:O4'	2.13	0.48
36:5:3103:A:OP2	88:5:4163:OHX:N4	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:121:MET:HE1	36:5:3215:A:H5'	275.65	0.48
36:5:655:C:H2'	36:5:656:A:H8	1.79	0.48
1:6:1110:G:N2	1:6:1136:U:H1'	2.29	0.48
1:6:1212:G:C2	1:6:1213:G:C8	3.02	0.48
1:6:1685:G:H1	1:6:1716:C:H42	1.60	0.48
14:C2:60:VAL:HG13	14:C2:122:VAL:HG22	1.96	0.48
15:C3:55:ARG:HD3	29:D7:47:PHE:CD1	2.49	0.48
18:C6:95:LYS:HE3	18:C6:96:TYR:CZ	2.49	0.48
17:C5:111:MET:HG2	20:C8:119:ILE:CG1	4.12	0.48
21:C9:66:TYR:HD1	21:C9:67:MET:HE3	1.79	0.48
22:D0:63:LEU:HB2	22:D0:84:MET:HB3	2.66	0.48
26:D4:8:ARG:NH1	26:D4:26:ASP:OD1	2.47	0.48
26:D4:29:HIS:HB2	26:D4:67:GLY:HA2	5.79	0.48
26:D4:19:ALA:CB	26:D4:81:GLU:HG2	2.43	0.48
40:L3:116:ARG:NH2	40:L3:174:LYS:HD3	2.28	0.48
40:L3:37:ARG:HA	40:L3:186:GLY:HA2	2.92	0.48
41:L4:327:LEU:H	41:L4:327:LEU:HD22	1.79	0.48
43:L6:164:SER:HB2	69:O3:4:SER:OG	2.13	0.48
45:L8:67:ILE:HA	45:L8:67:ILE:HD13	4.32	0.48
53:M7:30:ARG:HA	53:M7:119:VAL:CG1	2.62	0.48
55:M9:38:ARG:O	55:M9:41:ILE:HG22	2.14	0.48
57:N1:105:PHE:CE2	36:5:1062:A:H4'	244.96	0.48
64:N8:13:GLY:O	68:O2:36:LYS:HE2	2.44	0.48
36:1:256:G:H4'	71:O5:111:PHE:HZ	1.79	0.48
71:O5:24:LEU:HB3	71:O5:51:ILE:HG12	2.34	0.48
72:O6:43:LEU:O	72:O6:47:ILE:HG13	2.14	0.48
78:Q2:39:GLY:HA3	36:5:2765:C:O3'	173.66	0.48
2:S0:200:ASP:HA	2:S0:203:PHE:CZ	2.48	0.48
4:S2:103:VAL:HG12	4:S2:190:LEU:HD12	1.96	0.48
7:S5:145:ASP:OD1	30:D8:45:LYS:HE2	5.06	0.48
9:S7:133:THR:O	9:S7:134:GLU:HB2	2.14	0.48
34:SR:10:ARG:NH1	34:SR:51:ASP:OD1	6.09	0.48
36:1:1947:G:H1	36:1:2101:C:N4	2.12	0.48
36:1:2421:U:H2'	36:1:2422:C:O4'	2.13	0.48
36:1:3151:U:H4'	36:1:3294:A:H1'	1.96	0.48
36:1:3377:G:O6	88:1:4048:OHX:N2	2.47	0.48
36:1:661:G:OP2	64:N8:12:ARG:NH2	2.47	0.48
1:2:1234:A:HO2'	33:E1:146:SER:HB3	1.79	0.48
1:2:1340:U:C2	1:2:1378:U:H4'	2.49	0.48
1:2:1565:C:H2'	1:2:1566:U:O4'	2.14	0.48
1:2:350:U:O2	1:2:352:A:C6	2.67	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:413:U:H2'	1:2:414:C:C6	2.48	0.48
36:5:2248:C:OP2	88:5:3981:OHX:N6	2.47	0.48
36:5:2655:U:H4'	36:5:2656:A:O4'	2.14	0.48
35:SM:68:ARG:HD3	1:6:1460:A:OP2	336.26	0.48
1:6:828:U:O2'	1:6:829:A:OP1	2.29	0.48
1:6:869:A:H2'	1:6:870:C:O4'	2.14	0.48
1:6:918:U:H2'	1:6:919:A:C8	2.48	0.48
37:7:110:G:C6	37:7:111:U:C4	3.02	0.48
37:7:58:C:OP1	88:7:216:OHX:N3	2.47	0.48
10:S8:10:LYS:HG2	13:C1:133:LYS:HE2	4.26	0.48
13:C1:57:LYS:HB2	13:C1:110:HIS:NE2	2.29	0.48
17:C5:122:THR:CG2	1:6:1558:U:H3	367.07	0.48
17:C5:69:GLU:OE1	88:C5:201:OHX:N2	2.47	0.48
18:C6:38:LEU:O	18:C6:45:ARG:NE	2.46	0.48
18:C6:28:LEU:HD12	18:C6:65:ILE:H	1.78	0.48
20:C8:125:ILE:HG23	35:SM:61:ILE:HG23	1.96	0.48
21:C9:37:VAL:HG11	21:C9:100:ILE:HD11	2.75	0.48
24:D2:53:ILE:HD11	24:D2:62:VAL:HG23	6.47	0.48
39:L2:65:ASP:HB3	39:L2:68:LYS:O	2.14	0.48
41:L4:193:LYS:HE3	41:L4:193:LYS:HB3	2.02	0.48
41:L4:98:ARG:HG2	41:L4:99:MET:N	2.67	0.48
42:L5:106:ALA:O	42:L5:110:LEU:HB2	2.14	0.48
48:M1:13:LYS:NZ	48:M1:14:ILE:O	2.37	0.48
51:M5:71:ARG:NH1	36:5:1546:A:N7	137.81	0.48
54:M8:121:CYS:O	54:M8:122:ILE:HD13	2.14	0.48
36:1:1766:G:N7	55:M9:46:LYS:NZ	2.62	0.48
61:N5:86:VAL:O	61:N5:120:LYS:HB3	2.13	0.48
63:N7:46:ILE:HD11	63:N7:48:ARG:C	2.53	0.48
63:N7:57:HIS:HD2	63:N7:65:ARG:HG3	1.78	0.48
49:M3:3:ILE:HG12	64:N8:34:MET:HE2	1.96	0.48
64:N8:96:LYS:C	64:N8:98:THR:H	2.17	0.48
65:N9:6:ASN:ND2	36:5:2643:A:H5'	227.47	0.48
66:O0:40:LYS:HB3	66:O0:101:LEU:HD11	1.95	0.48
69:O3:17:GLN:HG2	69:O3:24:ASN:HB3	3.60	0.48
71:O5:94:LYS:O	71:O5:97:ALA:HB3	2.14	0.48
3:S1:191:GLU:HB2	3:S1:194:ASN:HB2	1.96	0.48
4:S2:37:PRO:HA	4:S2:65:GLU:OE1	2.71	0.48
4:S2:99:LYS:HE2	4:S2:208:GLU:OE1	2.14	0.48
6:S4:193:GLY:O	6:S4:210:ILE:HG23	2.14	0.48
6:S4:87:MET:O	6:S4:122:LYS:HE3	2.14	0.48
9:S7:182:VAL:HG12	9:S7:183:PHE:H	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1556:C:O5'	36:1:2169:G:N2	2.47	0.47
36:1:2552:C:C5	66:O0:53:LYS:HE3	2.48	0.47
36:1:27:C:H1'	36:1:328:U:H1'	1.96	0.47
36:1:437:G:H2'	36:1:438:A:O4'	2.13	0.47
36:1:563:U:OP1	56:N0:71:LYS:NZ	2.47	0.47
1:2:366:A:OP1	1:2:758:U:O2'	2.18	0.47
1:2:542:A:C2	32:E0:28:LYS:HD2	2.49	0.47
1:2:639:U:H5''	9:S7:101:LYS:HB2	1.95	0.47
36:5:1072:G:H1'	36:5:1087:G:N2	2.28	0.47
36:5:1554:U:H4'	36:5:1555:U:OP1	2.13	0.47
36:5:2112:U:H4'	36:5:2113:A:H5'	1.95	0.47
36:5:913:A:H2	36:5:2134:G:N3	2.12	0.47
36:5:2904:U:H2'	36:5:2905:U:C6	2.48	0.47
36:5:3018:C:C4	36:5:3019:U:C4	3.02	0.47
36:5:8:C:H2'	36:5:9:U:O4'	2.14	0.47
1:6:1031:U:H4'	1:6:1032:G:OP2	2.14	0.47
4:S2:206:THR:HG21	1:6:14:C:OP2	375.89	0.47
1:6:1636:C:H4'	1:6:1637:C:C5'	2.25	0.47
1:6:276:C:H1'	1:6:277:U:C5	2.49	0.47
1:6:577:G:H3'	1:6:577:G:C8	2.48	0.47
12:C0:80:LEU:HB2	12:C0:82:LEU:HG	1.96	0.47
14:C2:45:LEU:H	14:C2:120:VAL:HG23	5.02	0.47
14:C2:93:ASP:HB3	14:C2:96:GLN:HB2	4.45	0.47
15:C3:99:ARG:O	15:C3:103:GLU:HG2	2.14	0.47
16:C4:16:VAL:HG22	16:C4:33:LEU:HA	1.96	0.47
20:C8:145:ARG:HE	20:C8:145:ARG:HA	4.75	0.47
20:C8:143:ARG:C	20:C8:145:ARG:H	4.05	0.47
20:C8:41:ARG:NH1	21:C9:38:LYS:HG3	2.29	0.47
26:D4:89:TYR:HE1	26:D4:93:ARG:NH1	3.88	0.47
7:S5:116:HIS:NE2	27:D5:95:HIS:HE1	2.11	0.47
40:L3:84:VAL:HG22	40:L3:162:VAL:HB	2.19	0.47
40:L3:209:PHE:HA	40:L3:213:GLU:OE2	2.42	0.47
40:L3:55:THR:O	40:L3:56:ILE:HD12	2.14	0.47
41:L4:181:VAL:HG11	41:L4:224:GLY:HA3	2.68	0.47
41:L4:338:LYS:HA	41:L4:338:LYS:HD2	2.00	0.47
42:L5:79:TYR:HB2	42:L5:81:HIS:CE1	2.49	0.47
46:L9:90:MET:HG2	46:L9:181:VAL:HG22	1.96	0.47
46:L9:94:TYR:CE2	46:L9:98:PRO:HA	2.49	0.47
47:M0:16:PRO:O	47:M0:18:PRO:HD3	2.14	0.47
51:M5:19:LEU:HD12	51:M5:19:LEU:HA	1.68	0.47
52:M6:38:ALA:O	52:M6:41:LEU:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3268:A:OP2	53:M7:181:ARG:NH1	2.46	0.47
54:M8:64:VAL:HG13	54:M8:93:ILE:HD11	1.96	0.47
57:N1:120:LYS:O	57:N1:122:GLN:N	2.47	0.47
42:L5:41:LYS:HB2	57:N1:68:THR:O	2.27	0.47
59:N3:11:PHE:CG	59:N3:88:ARG:HD2	2.48	0.47
63:N7:25:ILE:HA	63:N7:43:VAL:HG12	1.96	0.47
70:O4:67:LYS:HA	70:O4:70:LYS:HE3	1.95	0.47
71:O5:24:LEU:HD12	71:O5:54:VAL:HG21	2.83	0.47
72:O6:95:ALA:O	72:O6:99:ARG:HB2	2.14	0.47
2:S0:163:ASN:C	2:S0:165:ARG:H	2.16	0.47
6:S4:36:HIS:CD2	6:S4:85:GLY:HA3	2.49	0.47
9:S7:99:LEU:HA	9:S7:100:PRO:HD2	2.53	0.47
9:S7:124:LYS:HD2	9:S7:127:GLU:OE2	4.87	0.47
9:S7:38:LEU:HA	9:S7:38:LEU:HD23	1.97	0.47
10:S8:171:SER:HB3	10:S8:180:ASP:HB2	2.37	0.47
10:S8:87:ASN:HB3	10:S8:90:LEU:HG	1.96	0.47
36:1:1577:G:H2'	36:1:1578:C:O4'	2.14	0.47
36:1:2883:U:H2'	36:1:2884:C:C6	2.49	0.47
36:1:624:G:OP2	88:1:4145:OHX:N3	2.47	0.47
1:2:1789:G:O2'	1:2:1790:A:H5'	2.15	0.47
1:2:39:A:O2'	1:2:40:A:OP2	2.28	0.47
1:2:488:G:O6	1:2:498:G:N2	2.47	0.47
36:5:1560:G:N2	36:5:1579:C:N3	2.52	0.47
36:5:1506:A:H1'	36:5:1848:G:O6	2.13	0.47
36:5:924:G:OP1	88:5:4219:OHX:N4	2.47	0.47
1:6:1319:A:H2'	1:6:1320:U:O4'	2.14	0.47
1:6:1334:U:H2'	1:6:1335:U:O4'	2.14	0.47
1:6:1392:U:H2'	1:6:1393:C:C6	2.49	0.47
1:6:1592:A:H2'	1:6:1593:A:C8	2.48	0.47
28:D6:8:ASN:HB3	1:6:1791:A:H5''	328.90	0.47
1:6:1385:G:N7	88:6:2118:OHX:N6	2.62	0.47
1:6:320:U:H3'	1:6:321:C:H2'	1.96	0.47
1:6:404:G:H2'	1:6:405:C:C6	2.49	0.47
1:6:542:A:H1'	1:6:543:C:P	2.54	0.47
38:8:10:A:H2'	38:8:11:C:C6	2.48	0.47
38:8:126:A:O2'	38:8:128:U:OP2	2.24	0.47
19:C7:53:TYR:O	19:C7:57:LEU:HG	2.14	0.47
22:D0:23:ARG:HD2	22:D0:90:TYR:HB2	2.27	0.47
39:L2:209:HIS:CD2	39:L2:210:PRO:HD2	2.49	0.47
40:L3:133:TYR:O	40:L3:136:LYS:HB2	2.13	0.47
40:L3:187:SER:OG	40:L3:188:ILE:HD12	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2341:A:OP2	40:L3:247:ARG:NH2	2.47	0.47
41:L4:222:VAL:HG22	41:L4:225:VAL:HB	1.95	0.47
42:L5:148:ILE:HG12	42:L5:159:VAL:HG21	1.95	0.47
42:L5:61:ILE:HG23	42:L5:79:TYR:CE1	2.49	0.47
43:L6:166:LYS:HA	43:L6:166:LYS:HD3	2.10	0.47
45:L8:222:PHE:O	45:L8:223:ALA:HB2	4.58	0.47
48:M1:106:ILE:H	48:M1:106:ILE:HD13	2.07	0.47
48:M1:82:ARG:HG2	48:M1:112:LEU:HB2	1.95	0.47
50:M4:134:ALA:O	50:M4:136:ALA:N	2.46	0.47
51:M5:120:TRP:HZ2	51:M5:123:GLN:HG2	1.81	0.47
52:M6:109:PRO:O	52:M6:110:PRO:O	2.57	0.47
55:M9:11:ALA:O	55:M9:15:VAL:HG23	2.19	0.47
9:S7:39:ARG:CZ	55:M9:189:ALA:HB2	7.69	0.47
56:N0:131:LYS:HE3	56:N0:134:ASP:OD2	4.53	0.47
57:N1:102:ARG:O	57:N1:105:PHE:HB3	2.14	0.47
62:N6:45:ILE:HG13	62:N6:122:LYS:HE2	5.88	0.47
66:O0:24:THR:HG22	66:O0:91:SER:HB3	2.52	0.47
67:O1:8:VAL:HG23	67:O1:77:ARG:HH21	1.80	0.47
68:O2:82:LEU:HD11	68:O2:112:ALA:HA	1.95	0.47
70:O4:37:LYS:HE3	70:O4:58:ARG:NH2	2.29	0.47
74:O8:62:ALA:O	74:O8:66:ILE:HG13	2.14	0.47
2:S0:28:ASN:O	2:S0:150:ASP:HB3	6.15	0.47
3:S1:109:LYS:HG3	3:S1:113:MET:HE3	1.96	0.47
3:S1:129:THR:OG1	3:S1:131:ASP:O	2.87	0.47
8:S6:72:ARG:HG2	8:S6:98:ARG:HG2	2.82	0.47
10:S8:117:TYR:CE1	10:S8:150:ALA:HA	3.12	0.47
36:1:2218:G:H2'	36:1:2219:A:C8	2.49	0.47
36:1:2226:U:O2'	36:1:2227:C:H5'	2.14	0.47
36:1:3318:G:H2'	36:1:3318:G:OP2	2.14	0.47
36:1:863:C:OP1	88:1:3891:OHX:N5	2.47	0.47
36:1:539:C:H2'	36:1:540:U:C6	2.49	0.47
1:2:1229:G:HO2'	1:2:1255:G:H22	1.63	0.47
1:2:1520:U:OP2	21:C9:75:LYS:NZ	2.41	0.47
1:2:252:U:H2'	1:2:253:A:H8	1.78	0.47
1:2:61:A:H8	1:2:269:G:O2'	1.97	0.47
75:O9:10:LYS:NZ	36:5:1833:G:OP1	103.90	0.47
36:5:2207:A:H2'	36:5:2208:A:O4'	2.14	0.47
51:M5:68:ARG:NH1	36:5:291:C:OP1	146.58	0.47
36:5:1808:G:O6	88:5:4027:OHX:N3	2.47	0.47
43:L6:23:LYS:NZ	36:5:503:C:O2	240.26	0.47
1:6:1391:A:H2'	1:6:1392:U:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:156:A:H2'	1:6:157:A:O4'	2.15	0.47
1:6:198:A:C2'	1:6:199:G:H5'	2.45	0.47
1:6:45:U:O4	1:6:434:G:N2	2.46	0.47
1:6:876:G:H1'	1:6:944:A:O4'	2.13	0.47
38:8:106:C:H4'	38:8:107:G:H5''	1.96	0.47
38:8:121:U:O2'	38:8:122:U:H5'	2.14	0.47
38:8:92:A:H2'	38:8:93:U:O4'	2.14	0.47
13:C1:109:VAL:HG11	13:C1:125:VAL:HG11	1.96	0.47
13:C1:80:MET:HE2	13:C1:80:MET:HB3	1.48	0.47
16:C4:81:VAL:N	16:C4:115:ILE:HG22	2.27	0.47
16:C4:17:ALA:HB3	16:C4:81:VAL:HA	1.96	0.47
17:C5:83:MET:SD	17:C5:89:MET:HE1	3.00	0.47
19:C7:10:LYS:NZ	1:6:1401:A:O3'	407.24	0.47
19:C7:85:VAL:HG12	19:C7:87:GLU:H	1.79	0.47
20:C8:120:ARG:HD2	35:SM:61:ILE:HD11	1.95	0.47
20:C8:2:SER:HB3	20:C8:4:VAL:HG22	9.56	0.47
26:D4:113:ASN:HA	26:D4:116:LYS:HD3	1.97	0.47
1:2:1530:C:OP2	27:D5:95:HIS:CD2	2.67	0.47
29:D7:8:LEU:HA	29:D7:8:LEU:HD23	1.76	0.47
39:L2:70:ARG:HD2	39:L2:72:ARG:NE	4.26	0.47
41:L4:99:MET:SD	41:L4:102:PRO:HA	2.55	0.47
46:L9:92:TYR:CD1	46:L9:142:ASP:HB3	3.77	0.47
48:M1:42:GLY:HA3	48:M1:75:LYS:NZ	2.28	0.47
49:M3:109:PHE:O	49:M3:113:VAL:HG23	2.13	0.47
51:M5:147:ARG:HH11	51:M5:147:ARG:HG3	1.80	0.47
53:M7:136:ILE:O	53:M7:137:ASN:ND2	2.46	0.47
57:N1:56:PHE:CZ	57:N1:78:LYS:HD2	3.69	0.47
58:N2:36:TYR:OH	58:N2:82:LYS:HG2	2.14	0.47
64:N8:128:ARG:HB3	72:O6:8:ALA:CB	3.17	0.47
2:S0:23:HIS:H	2:S0:23:HIS:CD2	3.76	0.47
5:S3:162:GLN:O	5:S3:164:VAL:N	3.10	0.47
5:S3:64:ARG:O	5:S3:66:ILE:N	3.39	0.47
9:S7:99:LEU:HD23	9:S7:116:ARG:HG2	5.76	0.47
10:S8:96:LEU:HD13	10:S8:179:CYS:SG	2.54	0.47
10:S8:194:ARG:HH11	10:S8:195:ARG:HH22	6.00	0.47
36:1:1097:G:N3	36:1:1097:G:H2'	2.29	0.47
36:1:109:A:H4'	36:1:110:G:OP1	2.13	0.47
36:1:1273:A:H2'	36:1:1274:A:H8	1.79	0.47
36:1:1849:C:H6	36:1:1849:C:H5'	1.78	0.47
36:1:2523:A:OP1	61:N5:31:THR:OG1	2.25	0.47
36:1:3288:G:O2'	36:1:3289:G:OP2	2.24	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3304:U:O3'	40:L3:334:ARG:NH2	2.47	0.47
36:1:900:G:H1'	36:1:1589:A:H61	1.79	0.47
1:2:1542:G:N2	1:2:1568:C:O2'	2.46	0.47
1:2:947:U:H2'	1:2:948:G:C8	2.50	0.47
36:5:1317:A:O2'	36:5:1318:A:H3'	2.14	0.47
39:L2:7:ASN:O	36:5:2163:C:H4'	185.43	0.47
36:5:3316:A:H4'	36:5:3317:U:O2	2.13	0.47
88:5:4023:OHX:N3	88:5:4222:OHX:N4	2.61	0.47
1:6:1001:A:C6	1:6:1002:G:C6	3.03	0.47
19:C7:7:LYS:N	1:6:1316:G:OP1	410.22	0.47
1:6:138:A:N6	1:6:266:A:H61	2.12	0.47
1:6:1735:U:H2'	1:6:1736:G:O4'	2.15	0.47
1:6:844:A:H2'	1:6:845:G:C8	2.49	0.47
1:2:1530:C:OP2	27:D5:95:HIS:HD2	1.97	0.47
30:D8:65:ARG:HG2	30:D8:67:ARG:CZ	2.45	0.47
22:D0:80:GLU:HG2	31:D9:54:LYS:NZ	3.83	0.47
39:L2:245:LEU:HG	39:L2:247:ARG:HD3	1.95	0.47
36:1:3048:A:H5'	40:L3:53:MET:HE1	1.96	0.47
41:L4:146:PRO:O	88:L4:402:OHX:N5	2.47	0.47
42:L5:257:GLU:OE1	42:L5:257:GLU:N	5.65	0.47
42:L5:68:THR:HG22	42:L5:71:GLY:N	3.41	0.47
44:L7:33:ARG:O	44:L7:36:ALA:N	2.47	0.47
45:L8:72:PRO:HA	45:L8:73:PRO:HD3	1.64	0.47
53:M7:5:GLY:O	53:M7:7:THR:HG22	2.13	0.47
54:M8:100:THR:HG23	54:M8:120:GLU:HB3	1.95	0.47
63:N7:54:THR:H	63:N7:57:HIS:CD2	3.05	0.47
67:O1:77:ARG:HD3	67:O1:89:LEU:HD23	3.99	0.47
36:1:1407:A:O3'	68:O2:33:ARG:NH2	2.47	0.47
68:O2:4:LEU:HD12	68:O2:5:PRO:HD2	1.96	0.47
61:N5:50:ALA:N	71:O5:79:ASP:OD1	4.32	0.47
73:O7:2:GLY:N	36:5:2138:A:HO2'	173.15	0.47
78:Q2:40:LYS:HE3	78:Q2:44:ASP:OD2	2.14	0.47
2:S0:164:ASN:OD1	2:S0:165:ARG:NH1	2.48	0.47
2:S0:200:ASP:OD1	2:S0:200:ASP:N	2.48	0.47
2:S0:80:THR:HA	2:S0:83:GLN:OE1	2.43	0.47
4:S2:81:MET:HB2	4:S2:101:VAL:O	2.14	0.47
4:S2:116:LYS:HG2	4:S2:127:ALA:HB3	2.00	0.47
5:S3:74:GLN:OE1	5:S3:81:PRO:HA	2.14	0.47
6:S4:248:ILE:H	6:S4:248:ILE:HD13	1.78	0.47
1:2:297:U:OP1	6:S4:37:LYS:HD3	2.15	0.47
6:S4:71:LYS:HD2	6:S4:74:GLY:HA2	3.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:10:ASN:HB3	8:S6:128:THR:HA	3.04	0.47
8:S6:135:PRO:HB2	8:S6:141:ILE:HG13	1.96	0.47
1:2:79:C:H4'	8:S6:173:PRO:O	2.13	0.47
8:S6:54:GLY:O	8:S6:63:MET:HE3	2.14	0.47
10:S8:106:ALA:HB1	10:S8:160:PHE:CD1	2.49	0.47
11:S9:109:LEU:CB	11:S9:146:PHE:HB3	2.44	0.47
20:C8:146:ALA:HB3	35:SM:68:ARG:HH21	1.78	0.47
36:1:1064:A:H5''	36:1:1066:G:O4'	2.14	0.47
36:1:1104:G:O5'	36:1:1104:G:H8	1.97	0.47
36:1:1273:A:HO2'	36:1:1274:A:P	2.37	0.47
36:1:1493:G:N3	36:1:1493:G:H2'	2.30	0.47
36:1:2585:G:C6	61:N5:24:LEU:HD13	2.49	0.47
36:1:317:A:C2	36:1:318:A:C4	3.02	0.47
36:1:367:A:OP1	88:1:3892:OHX:N2	2.47	0.47
36:1:970:A:OP2	65:N9:19:ASN:ND2	2.44	0.47
1:2:1321:A:H4'	1:2:1322:A:O5'	2.15	0.47
1:2:912:U:H4'	1:2:913:G:O5'	2.15	0.47
38:4:77:A:OP2	88:4:223:OHX:N2	2.47	0.47
36:5:1716:U:H5'	36:5:1716:U:C6	2.47	0.47
3:S1:149:GLN:HE21	1:6:1066:C:H4'	341.22	0.47
1:6:1526:A:N1	1:6:1608:U:O2'	2.39	0.47
1:6:1541:G:C6	1:6:1542:G:N1	2.82	0.47
1:6:884:A:O2'	1:6:885:G:H5'	2.14	0.47
37:7:4:U:H2'	37:7:5:G:C8	2.50	0.47
17:C5:21:ASP:O	17:C5:24:LYS:N	3.42	0.47
19:C7:63:LYS:NZ	34:SR:284:ALA:HB2	2.30	0.47
28:D6:38:ARG:HH21	28:D6:83:ILE:HG13	1.80	0.47
39:L2:3:ARG:HD3	36:5:911:C:N4	179.14	0.47
40:L3:136:LYS:HB3	40:L3:144:ILE:HD12	1.94	0.47
40:L3:252:ILE:HA	40:L3:252:ILE:HD12	2.14	0.47
40:L3:4:ARG:CG	40:L3:4:ARG:HH11	2.68	0.47
42:L5:111:GLN:CA	42:L5:116:ASP:HB3	4.67	0.47
42:L5:227:LEU:HD12	42:L5:227:LEU:HA	2.19	0.47
43:L6:175:LYS:HD2	43:L6:175:LYS:HA	4.59	0.47
44:L7:142:SER:O	44:L7:146:GLN:HG3	2.14	0.47
46:L9:166:ARG:HD2	46:L9:168:ARG:NH1	11.54	0.47
46:L9:89:LYS:HE3	46:L9:191:LEU:HD11	18.43	0.47
47:M0:89:VAL:HG13	47:M0:136:PHE:CE1	2.49	0.47
58:N2:28:PHE:HE1	58:N2:83:TYR:HE2	1.94	0.47
59:N3:87:ARG:HH12	59:N3:137:VAL:HG21	1.79	0.47
36:1:2338:C:H1'	59:N3:49:LEU:HD12	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:105:VAL:HG11	61:N5:126:LEU:HD13	1.95	0.47
61:N5:24:LEU:HB3	61:N5:25:LYS:H	2.56	0.47
68:O2:85:LEU:HB2	68:O2:117:ILE:HD13	2.47	0.47
36:1:1488:G:O2'	70:O4:10:ARG:O	2.31	0.47
3:S1:34:ALA:HB1	3:S1:35:PRO:HD2	1.96	0.47
3:S1:48:VAL:HG22	3:S1:64:ARG:NH2	3.67	0.47
4:S2:212:LYS:O	4:S2:216:VAL:HG23	2.36	0.47
9:S7:46:ILE:HG12	9:S7:60:ILE:HA	3.30	0.47
1:2:332:U:P	10:S8:56:ARG:HH22	2.37	0.47
36:1:1240:A:H61	36:1:1244:A:H5''	1.78	0.47
36:1:1488:G:H5''	36:1:1838:G:O6	2.15	0.47
36:1:2117:A:C8	36:1:3064:U:H1'	2.49	0.47
36:1:2691:A:H2'	36:1:2692:A:C8	2.49	0.47
36:1:2723:U:H2'	36:1:2724:U:C6	2.50	0.47
36:1:3094:A:H2'	36:1:3095:U:C6	2.49	0.47
36:1:3119:U:OP2	88:1:3900:OHX:N3	2.47	0.47
36:1:2112:U:O2	88:1:3969:OHX:N1	2.48	0.47
1:2:1578:U:O2'	1:2:1579:U:H5'	2.15	0.47
1:2:1584:G:O2'	1:2:1610:G:O6	2.29	0.47
1:2:1729:C:H2'	1:2:1730:A:O4'	2.14	0.47
1:2:1670:G:N7	88:2:2123:OHX:N5	2.61	0.47
1:2:328:A:H2'	1:2:329:G:O4'	2.15	0.47
1:2:410:A:H2	1:2:423:G:H22	1.62	0.47
1:2:918:U:H2'	1:2:919:A:H8	1.78	0.47
36:5:1037:C:H2'	36:5:1038:C:H6	1.80	0.47
36:5:1070:U:C4	36:5:1071:U:C4	3.02	0.47
36:5:1560:G:O2'	36:5:1561:G:OP1	2.28	0.47
36:5:2211:U:H2'	36:5:2212:C:O4'	2.15	0.47
36:5:2264:U:OP2	88:5:3959:OHX:N4	2.48	0.47
36:5:2516:U:O2	36:5:2594:C:N4	2.47	0.47
36:5:996:A:H2'	36:5:997:A:O4'	2.14	0.47
1:6:1371:A:H5'	1:6:1372:U:OP2	2.14	0.47
1:6:15:U:H2'	1:6:16:G:O4'	2.15	0.47
1:6:539:G:OP2	1:6:539:G:C8	2.65	0.47
1:6:826:U:H2'	1:6:827:C:C6	2.50	0.47
1:6:921:U:O4	88:6:2177:OHX:N3	2.48	0.47
5:S3:20:GLU:HG3	12:C0:61:TRP:CD2	2.50	0.47
14:C2:52:LEU:HD22	14:C2:57:ALA:HB2	1.95	0.47
14:C2:73:LYS:NZ	33:E1:108:VAL:HG13	2.29	0.47
21:C9:117:SER:OG	21:C9:118:PRO:O	2.30	0.47
25:D3:29:TYR:CE1	25:D3:33:LEU:HD13	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:26:ASP:OD1	26:D4:68:LYS:HE2	2.28	0.47
28:D6:28:LYS:HD2	28:D6:29:SER:H	4.83	0.47
39:L2:181:LYS:HE2	39:L2:184:ARG:HH21	1.79	0.47
39:L2:47:GLN:HA	39:L2:84:THR:HG22	3.30	0.47
41:L4:6:VAL:N	41:L4:20:LEU:O	2.41	0.47
42:L5:235:SER:O	42:L5:239:ILE:HG13	2.15	0.47
44:L7:157:ASN:O	44:L7:159:GLN:HG2	2.15	0.47
46:L9:67:ALA:O	46:L9:71:VAL:HG23	2.14	0.47
53:M7:109:ALA:HA	53:M7:112:LEU:HD22	2.02	0.47
53:M7:40:GLU:HA	53:M7:113:TYR:HA	2.77	0.47
54:M8:170:ARG:O	54:M8:171:LYS:HG2	2.14	0.47
56:N0:151:PRO:C	56:N0:153:PRO:HD3	2.35	0.47
56:N0:74:ASN:OD1	56:N0:95:ARG:NH1	2.48	0.47
60:N4:52:THR:O	60:N4:56:ARG:HG3	2.14	0.47
63:N7:51:LEU:HB2	63:N7:65:ARG:HD2	1.96	0.47
70:O4:58:ARG:NH1	36:5:1592:G:OP1	160.80	0.47
71:O5:118:ILE:O	71:O5:119:LYS:HB2	2.14	0.47
71:O5:20:GLN:HG2	71:O5:24:LEU:HD12	1.95	0.47
36:1:284:A:O4'	78:Q2:41:ARG:HD3	2.15	0.47
7:S5:43:PHE:HB3	7:S5:46:TRP:H	2.12	0.47
8:S6:162:VAL:N	8:S6:169:TYR:O	2.94	0.47
8:S6:56:ASN:ND2	8:S6:60:GLY:O	2.36	0.47
9:S7:24:PHE:HE1	9:S7:77:LEU:HD11	2.29	0.47
34:SR:123:ILE:HD11	34:SR:156:VAL:HG22	3.68	0.47
36:1:1564:U:H2'	36:1:1565:G:H8	1.78	0.47
36:1:2278:C:C2	36:1:2307:G:C2	3.03	0.47
36:1:25:U:O4	88:1:3878:OHX:N4	2.47	0.47
36:1:3000:A:H2'	36:1:3001:C:H6	1.78	0.47
36:1:3385:U:H2'	36:1:3386:G:O4'	2.15	0.47
1:2:1049:U:H2'	1:2:1050:G:H8	1.79	0.47
1:2:229:U:H2'	1:2:230:C:C6	2.50	0.47
36:5:982:C:H42	36:5:1101:G:H1	1.62	0.47
36:5:3238:G:N2	36:5:3250:U:H1'	2.29	0.47
36:5:3160:U:OP1	88:5:4187:OHX:N1	2.48	0.47
1:6:1011:G:HO2'	1:6:1012:U:H6	1.63	0.47
1:6:1263:G:C2	1:6:1264:G:H1'	2.49	0.47
1:6:1320:U:O2	1:6:1322:A:H5'	2.15	0.47
1:6:1375:A:H2'	1:6:1376:C:O4'	2.15	0.47
1:6:737:A:H2'	1:6:738:G:C8	2.50	0.47
15:C3:19:SER:OG	15:C3:22:ALA:HB2	3.70	0.47
16:C4:127:ARG:HG2	28:D6:22:ARG:HH12	2.54	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:106:ILE:O	22:D0:107:THR:OG1	2.30	0.47
26:D4:45:ALA:C	26:D4:47:VAL:H	2.16	0.47
28:D6:43:ASN:OD1	28:D6:43:ASN:N	4.05	0.47
40:L3:115:LYS:HA	40:L3:118:PHE:HD1	1.79	0.47
41:L4:300:ARG:NH1	41:L4:300:ARG:HG2	4.07	0.47
42:L5:232:ASP:OD1	42:L5:233:ALA:N	3.31	0.47
42:L5:21:ARG:O	42:L5:25:GLU:HG3	2.15	0.47
36:1:2748:A:N3	42:L5:36:LEU:HD23	2.29	0.47
45:L8:160:ILE:HG23	45:L8:164:VAL:HG13	4.01	0.47
45:L8:190:VAL:HG13	45:L8:192:GLN:HG2	1.96	0.47
46:L9:106:LYS:O	46:L9:109:ALA:HB2	2.38	0.47
46:L9:166:ARG:NH2	46:L9:168:ARG:HH12	12.30	0.47
36:1:3122:A:N1	46:L9:70:THR:HG21	2.30	0.47
47:M0:51:HIS:CG	47:M0:134:ILE:HD13	2.50	0.47
47:M0:74:LYS:HB2	47:M0:74:LYS:NZ	2.78	0.47
49:M3:46:ILE:CG2	49:M3:49:ARG:HB2	2.44	0.47
52:M6:51:LYS:HE3	52:M6:144:SER:OG	2.14	0.47
59:N3:24:ASN:O	59:N3:99:ALA:HA	2.31	0.47
63:N7:88:ASP:HB3	63:N7:121:ARG:HH22	1.88	0.47
65:N9:14:ARG:HH12	65:N9:18:ARG:NH1	2.27	0.47
69:O3:88:ASN:HB2	36:5:429:U:H5'	215.00	0.47
79:Q3:73:THR:HG23	79:Q3:76:ALA:H	1.80	0.47
2:S0:9:LEU:HD21	2:S0:14:ALA:HB2	4.44	0.47
4:S2:225:LEU:HD22	4:S2:230:TRP:CD1	2.77	0.47
5:S3:49:ILE:CG2	5:S3:89:GLU:HG3	2.45	0.47
7:S5:99:MET:O	7:S5:100:ASN:HB2	2.15	0.47
1:2:66:U:C5	8:S6:173:PRO:HG3	2.49	0.47
10:S8:42:ARG:O	10:S8:58:LEU:HD12	4.63	0.47
36:1:274:G:H2'	36:1:275:U:O4'	2.15	0.47
36:1:3113:A:OP1	46:L9:73:SER:OG	2.25	0.47
36:1:3349:C:H42	36:1:3356:G:H1	1.63	0.47
36:1:386:A:C5	36:1:387:A:H1'	2.50	0.47
1:2:254:A:H2'	1:2:255:U:H6	1.79	0.47
1:2:73:U:H4'	1:2:74:U:OP1	2.14	0.47
37:3:28:C:O2	37:3:52:G:N2	2.28	0.47
68:O2:61:LYS:HD3	36:5:1339:C:OP1	193.08	0.47
36:5:916:G:O2'	36:5:917:A:H5''	2.14	0.47
33:E1:146:SER:HA	1:6:1234:A:O2'	436.88	0.47
1:6:476:U:OP1	1:6:477:A:O2'	2.23	0.47
25:D3:114:LYS:HE2	1:6:571:G:H5'	363.57	0.47
1:2:246:G:C2	13:C1:40:LEU:HD22	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:131:ASP:HB2	14:C2:132:GLU:OE1	2.15	0.47
15:C3:65:VAL:O	15:C3:67:THR:N	4.19	0.47
1:2:1769:U:O2	16:C4:136:ARG:HG3	2.14	0.47
2:S0:142:PRO:HB3	23:D1:34:ILE:HD12	3.15	0.47
24:D2:77:PRO:HG2	24:D2:79:PHE:CZ	2.49	0.47
26:D4:63:GLN:HB2	26:D4:68:LYS:HB3	1.96	0.47
29:D7:61:THR:OG1	29:D7:62:ILE:N	2.75	0.47
42:L5:211:LEU:HB3	42:L5:219:PHE:HB2	2.01	0.47
43:L6:175:LYS:O	50:M4:117:ARG:NH2	2.47	0.47
46:L9:161:LEU:O	46:L9:161:LEU:HD22	3.45	0.47
47:M0:42:THR:HG23	47:M0:45:GLU:HB2	1.97	0.47
48:M1:8:PRO:CG	48:M1:9:MET:H	3.36	0.47
49:M3:168:ARG:CZ	49:M3:172:LEU:HD21	3.28	0.47
56:N0:139:TYR:HD2	56:N0:140:VAL:HG23	2.33	0.47
59:N3:46:LEU:O	59:N3:47:ASN:HB2	2.46	0.47
75:O9:15:LYS:O	75:O9:19:GLN:HG3	2.44	0.47
78:Q2:65:THR:OG1	78:Q2:87:ARG:HD3	2.20	0.47
2:S0:110:TYR:HA	2:S0:115:PHE:CE2	2.50	0.47
2:S0:110:TYR:HA	2:S0:115:PHE:CZ	2.50	0.47
8:S6:5:ILE:O	8:S6:13:GLN:HA	2.83	0.47
10:S8:168:CYS:HB3	10:S8:182:TYR:CE2	3.08	0.47
34:SR:286:GLU:HA	34:SR:287:PRO:HD3	1.72	0.47
36:1:1613:A:OP1	74:O8:2:ALA:N	2.48	0.47
36:1:1409:G:N7	88:1:4079:OHX:N3	2.63	0.47
36:1:962:A:N1	36:1:2814:G:O2'	2.40	0.47
1:2:1044:U:H2'	1:2:1045:C:C6	2.50	0.47
1:2:1173:C:OP1	20:C8:132:ARG:NH1	2.47	0.47
1:2:1785:U:H2'	1:2:1786:G:C8	2.49	0.47
1:2:454:U:H3'	1:2:455:C:C6	2.50	0.47
1:2:512:A:H2'	1:2:513:U:C6	2.50	0.47
36:5:145:G:O6	88:5:4021:OHX:N5	2.48	0.47
36:5:1807:G:C6	36:5:1808:G:N1	2.82	0.47
36:5:2919:A:N1	36:5:2927:C:O2	2.48	0.47
36:5:2971:A:N3	36:5:2971:A:H3'	2.29	0.47
1:6:105:A:H2'	1:6:106:U:O4'	2.15	0.47
1:6:1230:A:H8	1:6:1258:U:C4	2.33	0.47
1:6:1623:C:H2'	1:6:1624:C:C6	2.50	0.47
1:6:1734:U:H2'	1:6:1735:U:C6	2.50	0.47
11:S9:8:TYR:O	88:6:2175:OHX:N4	384.00	0.47
1:6:1050:G:O6	88:6:2193:OHX:N4	2.48	0.47
38:8:83:C:H4'	38:8:85:G:N3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:105:ASN:HB3	1:6:879:G:O2'	276.31	0.47
15:C3:92:ILE:O	15:C3:96:VAL:HG23	2.15	0.47
1:2:918:U:H4'	16:C4:29:HIS:HE1	1.79	0.47
18:C6:9:THR:HG21	18:C6:88:GLY:HA2	1.97	0.47
22:D0:35:GLU:OE1	22:D0:89:ARG:NH1	6.18	0.47
39:L2:118:GLU:HG2	39:L2:126:LEU:HD21	3.03	0.47
39:L2:190:ARG:HH11	39:L2:191:LEU:HD11	1.80	0.47
39:L2:45:VAL:HA	39:L2:61:VAL:HA	2.21	0.47
40:L3:53:MET:HB2	36:5:3049:A:H5''	233.58	0.47
41:L4:143:GLU:O	88:L4:402:OHX:N2	2.48	0.47
43:L6:22:ARG:O	43:L6:23:LYS:HD3	2.15	0.47
45:L8:78:PHE:O	45:L8:79:GLN:HB3	2.28	0.47
47:M0:84:ALA:O	47:M0:140:THR:HG22	2.14	0.47
51:M5:172:ARG:HD2	36:5:30:G:P	110.27	0.47
51:M5:68:ARG:NH1	51:M5:68:ARG:HG2	2.29	0.47
52:M6:62:THR:HG22	52:M6:65:ASN:H	1.80	0.47
54:M8:21:SER:OG	54:M8:22:ASP:N	2.48	0.47
56:N0:21:GLU:N	56:N0:22:PRO:HD3	2.29	0.47
57:N1:7:TYR:OH	57:N1:54:HIS:HB2	2.38	0.47
62:N6:87:LYS:HB2	62:N6:97:ILE:HD11	3.79	0.47
68:O2:24:ARG:HD3	68:O2:25:TYR:CZ	2.50	0.47
69:O3:13:HIS:HB3	69:O3:93:THR:O	2.15	0.47
71:O5:6:ALA:O	71:O5:10:ARG:HG3	2.44	0.47
74:O8:18:ALA:C	74:O8:20:VAL:H	2.72	0.47
75:O9:35:ILE:H	75:O9:35:ILE:HD12	3.74	0.47
6:S4:136:VAL:HG11	6:S4:148:ARG:NH2	2.48	0.47
6:S4:176:ASP:HB2	6:S4:179:LYS:NZ	2.29	0.47
7:S5:150:GLY:O	7:S5:152:GLY:N	3.57	0.47
11:S9:110:GLN:NE2	11:S9:126:ARG:HG2	2.27	0.47
11:S9:178:ALA:O	11:S9:182:GLU:HG2	2.14	0.47
5:S3:115:ILE:HG21	35:SM:110:TRP:HA	1.97	0.47
35:SM:23:LYS:HG3	35:SM:24:GLU:N	4.77	0.47
36:1:2316:G:H2'	36:1:2317:A:O4'	2.15	0.47
36:1:2898:G:H5''	36:1:2899:C:H5'	1.97	0.47
1:2:648:G:O6	1:2:686:C:N4	2.35	0.47
1:2:76:A:H5'	1:2:77:U:OP2	2.15	0.47
36:5:1024:G:H2'	36:5:1026:A:H8	1.78	0.47
36:5:1734:G:H2'	36:5:1735:G:O4'	2.14	0.47
40:L3:247:ARG:HD3	36:5:1888:U:OP1	210.36	0.47
59:N3:92:PHE:CZ	36:5:3051:U:H1'	246.02	0.47
36:5:356:C:OP2	88:5:4214:OHX:N2	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1933:A:OP2	88:5:3918:OHX:N6	2.48	0.47
36:5:48:A:O4'	36:5:50:U:C6	2.68	0.47
1:6:1368:G:C5	1:6:1369:U:C5	3.03	0.47
1:6:1619:C:H2'	1:6:1620:C:H6	1.79	0.47
1:6:76:A:H2'	1:6:76:A:N3	2.30	0.47
17:C5:34:VAL:O	17:C5:42:ARG:HG2	2.14	0.47
19:C7:71:PHE:CD1	19:C7:73:LEU:HB3	2.49	0.47
20:C8:132:ARG:HG3	20:C8:138:THR:HG22	1.97	0.47
22:D0:105:GLN:HG3	22:D0:106:ILE:N	2.29	0.47
24:D2:17:ALA:HB2	24:D2:25:VAL:HG13	1.96	0.47
33:E1:86:THR:C	33:E1:87:THR:HG1	2.54	0.47
39:L2:118:GLU:CG	39:L2:126:LEU:HD21	3.01	0.47
40:L3:152:LYS:HD3	40:L3:189:SER:HA	2.01	0.47
42:L5:107:ARG:HA	42:L5:107:ARG:HE	1.79	0.47
42:L5:76:ALA:CB	42:L5:109:THR:HG22	2.44	0.47
42:L5:218:ARG:HH21	42:L5:222:LEU:HD21	1.80	0.47
43:L6:54:TYR:HA	43:L6:65:ILE:CD1	6.20	0.47
43:L6:52:VAL:HG23	43:L6:67:GLY:HA2	1.95	0.47
44:L7:102:VAL:HG13	44:L7:126:LEU:HD22	1.97	0.47
46:L9:20:ILE:HG23	46:L9:25:VAL:HG22	2.59	0.47
47:M0:165:ILE:O	47:M0:166:ILE:HG13	2.15	0.47
47:M0:86:HIS:O	47:M0:138:VAL:HA	2.31	0.47
48:M1:16:LYS:HD2	48:M1:70:THR:HB	1.97	0.47
51:M5:140:LYS:O	51:M5:144:ARG:HB2	3.15	0.47
53:M7:90:PHE:O	53:M7:94:LEU:HD13	2.14	0.47
54:M8:176:ARG:HA	54:M8:182:LYS:O	2.15	0.47
55:M9:116:ASP:OD1	55:M9:116:ASP:N	3.60	0.47
56:N0:155:ARG:HD3	56:N0:172:TYR:CG	2.69	0.47
57:N1:31:LEU:HD23	57:N1:31:LEU:HA	1.69	0.47
59:N3:128:ARG:H	59:N3:128:ARG:HG2	1.33	0.47
60:N4:54:LEU:HD13	60:N4:54:LEU:HA	3.51	0.47
61:N5:114:VAL:HB	75:O9:10:LYS:NZ	2.29	0.47
63:N7:38:PHE:CZ	36:5:1636:U:H1'	223.91	0.47
64:N8:72:VAL:HG12	64:N8:111:LYS:HB3	1.96	0.47
79:Q3:49:ARG:HG2	79:Q3:50:GLY:N	2.74	0.47
3:S1:133:TYR:CZ	3:S1:181:LEU:HD12	5.26	0.47
3:S1:142:PHE:O	3:S1:207:LEU:HA	2.21	0.47
4:S2:90:THR:OG1	4:S2:91:ARG:N	3.61	0.47
5:S3:34:TYR:OH	5:S3:37:VAL:HG22	2.28	0.47
6:S4:130:GLN:HB3	6:S4:138:TYR:CZ	4.38	0.47
8:S6:58:LYS:HG2	8:S6:105:ASP:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:96:VAL:O	11:S9:99:LEU:HB2	2.85	0.47
36:1:1073:U:H2'	36:1:1074:U:C6	2.49	0.47
36:1:1262:G:C6	36:1:1278:A:N6	2.83	0.47
36:1:2155:G:OP1	39:L2:241:ARG:HG2	2.15	0.47
36:1:29:C:H4'	36:1:62:A:H4'	1.97	0.47
36:1:3152:U:O2'	36:1:3153:U:H5'	2.14	0.47
36:1:429:U:H5''	69:O3:87:ASN:HB3	1.97	0.47
36:1:860:G:C5	39:L2:181:LYS:HB2	2.50	0.47
1:2:1183:A:C6	1:2:1184:A:N1	2.83	0.47
88:2:2044:OHX:N1	88:2:2099:OHX:N5	2.63	0.47
1:2:47:A:N1	1:2:386:G:H1'	2.30	0.47
36:5:1560:G:H2'	36:5:1561:G:C8	2.49	0.47
36:5:2289:U:H2'	36:5:2290:C:C6	2.50	0.47
36:5:22:G:H1'	38:8:104:A:N3	2.29	0.47
36:5:2314:U:OP2	36:5:2314:U:H4'	2.16	0.47
36:5:3084:C:O2'	36:5:3332:U:OP1	2.23	0.47
36:5:872:U:H2'	36:5:873:C:C6	2.50	0.47
5:S3:162:GLN:HG3	1:6:1333:C:H4'	428.10	0.47
1:6:145:A:O2'	1:6:146:U:OP1	2.31	0.47
1:6:1592:A:H2'	1:6:1593:A:H8	1.79	0.47
1:2:338:C:P	13:C1:133:LYS:HG3	2.55	0.47
22:D0:43:LYS:HA	22:D0:43:LYS:HD2	1.70	0.47
24:D2:18:GLU:OE1	24:D2:65:LEU:HD12	7.51	0.47
28:D6:37:LYS:HG2	28:D6:72:HIS:ND1	2.30	0.47
41:L4:232:SER:OG	41:L4:233:LEU:N	2.45	0.47
41:L4:26:PHE:HA	41:L4:127:ALA:HA	2.10	0.47
48:M1:139:THR:HG22	48:M1:146:GLY:O	2.15	0.47
54:M8:42:ALA:HA	54:M8:43:PRO:HD3	1.61	0.47
36:1:1949:G:OP1	55:M9:104:ARG:NH2	2.48	0.47
55:M9:47:ASN:HB3	55:M9:49:THR:HG23	7.54	0.47
56:N0:77:VAL:HG11	56:N0:106:LEU:HD12	1.96	0.47
56:N0:139:TYR:CD2	56:N0:140:VAL:HG23	2.69	0.47
56:N0:155:ARG:NH2	56:N0:171:PHE:O	2.48	0.47
52:M6:121:PRO:HD2	56:N0:162:THR:O	2.28	0.47
57:N1:12:ARG:HD3	57:N1:13:TYR:CZ	4.10	0.47
59:N3:126:TRP:HB2	59:N3:129:VAL:HG23	2.74	0.47
60:N4:3:VAL:HG11	60:N4:12:LYS:HE2	1.97	0.47
62:N6:32:SER:O	62:N6:101:PRO:HB2	2.15	0.47
67:O1:19:ARG:HD3	67:O1:35:GLU:CG	2.45	0.47
68:O2:27:ARG:HB3	36:5:655:C:OP1	161.91	0.47
70:O4:21:LYS:HE2	70:O4:21:LYS:HB3	3.92	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:45:LYS:O	71:O5:49:LYS:HG2	4.98	0.47
71:O5:49:LYS:O	71:O5:52:ALA:N	3.14	0.47
73:O7:54:LYS:O	73:O7:58:THR:HG23	2.51	0.47
74:O8:18:ALA:O	74:O8:20:VAL:N	3.41	0.47
79:Q3:70:THR:HG23	79:Q3:72:SER:H	2.26	0.47
2:S0:9:LEU:HD23	2:S0:54:TRP:CD2	2.50	0.47
5:S3:21:LEU:HD23	5:S3:21:LEU:HA	1.91	0.47
6:S4:121:TYR:HA	6:S4:164:LEU:HG	1.96	0.47
9:S7:162:ILE:O	9:S7:166:LEU:HD13	2.15	0.47
10:S8:90:LEU:HD13	10:S8:97:THR:HG21	1.97	0.47
11:S9:53:ARG:O	11:S9:56:ALA:HB3	2.38	0.47
11:S9:64:GLU:O	11:S9:65:LYS:HB2	2.22	0.47
35:SM:65:THR:OG1	35:SM:66:ALA:N	3.98	0.47
36:1:2523:A:H62	45:L8:57:ARG:HD2	1.79	0.46
36:1:255:A:O2'	36:1:256:G:H5'	2.15	0.46
36:1:3106:A:N6	36:1:3128:G:H1'	2.30	0.46
36:1:3294:A:H2'	36:1:3295:A:O4'	2.15	0.46
36:1:994:G:H3'	57:N1:13:TYR:CD2	2.51	0.46
1:2:1781:A:H2'	1:2:1782:A:O4'	2.15	0.46
1:2:779:U:OP2	1:2:780:A:H2	1.98	0.46
36:5:1249:G:H2'	36:5:1250:G:H8	1.80	0.46
36:5:3041:U:H2'	36:5:3042:U:H6	1.80	0.46
36:5:370:U:H5''	36:5:371:G:OP2	2.14	0.46
1:6:1000:C:N4	1:6:1003:A:OP2	2.41	0.46
1:6:1161:C:O5'	1:6:1161:C:H6	1.98	0.46
1:6:1398:U:H3'	1:6:1399:C:H4'	1.97	0.46
8:S6:171:LYS:NZ	1:6:67:A:OP1	348.25	0.46
24:D2:65:LEU:HA	24:D2:65:LEU:HD13	3.90	0.46
25:D3:86:PHE:O	25:D3:88:PRO:HD3	2.43	0.46
28:D6:20:PRO:HA	28:D6:31:PRO:HA	1.97	0.46
30:D8:66:LEU:HA	30:D8:66:LEU:HD23	1.77	0.46
40:L3:141:GLY:O	40:L3:143:GLY:N	3.78	0.46
40:L3:339:ARG:HG2	40:L3:340:LYS:O	2.28	0.46
41:L4:139:GLY:O	41:L4:141:ARG:NH1	4.22	0.46
41:L4:334:PHE:HA	41:L4:339:LEU:HD11	3.01	0.46
41:L4:341:SER:O	41:L4:342:LYS:CB	4.13	0.46
43:L6:153:PRO:O	43:L6:154:LEU:HB2	2.15	0.46
44:L7:228:SER:HA	44:L7:232:ARG:HH22	3.03	0.46
45:L8:78:PHE:C	45:L8:80:TYR:H	2.18	0.46
49:M3:75:PHE:HA	49:M3:101:ARG:HH12	1.80	0.46
51:M5:38:ARG:CZ	51:M5:60:VAL:HG13	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:24:LEU:O	61:N5:25:LYS:HB2	4.61	0.46
62:N6:120:GLN:HG2	62:N6:126:LEU:HD23	3.87	0.46
38:4:71:A:H2'	62:N6:51:ARG:NH1	2.30	0.46
49:M3:174:ARG:CZ	72:O6:9:ILE:HD13	2.45	0.46
7:S5:41:LYS:NZ	7:S5:67:PRO:O	3.51	0.46
11:S9:70:LEU:O	11:S9:74:ASN:HB2	2.15	0.46
35:SM:55:SER:O	35:SM:59:GLY:N	2.41	0.46
36:1:1057:A:N3	36:1:1057:A:H2'	2.30	0.46
36:1:1922:A:H2'	36:1:1923:C:O4'	2.14	0.46
36:1:239:G:O6	88:1:4046:OHX:N3	2.48	0.46
36:1:2611:U:H2'	36:1:2612:U:H6	1.76	0.46
1:2:883:C:H2'	1:2:884:A:H8	1.80	0.46
1:2:915:A:H5''	1:2:916:U:H5	1.80	0.46
36:5:1081:U:H6	36:5:1081:U:H2'	1.49	0.46
36:5:1294:A:O2'	36:5:1295:G:H5''	2.14	0.46
36:5:2712:U:H2'	36:5:2713:U:C6	2.51	0.46
36:5:2953:U:H2'	36:5:2954:U:H2'	1.96	0.46
36:5:2954:U:H6	36:5:2954:U:HO2'	1.62	0.46
36:5:789:A:H2'	36:5:790:U:C6	2.50	0.46
1:6:281:G:C6	1:6:282:C:C4	3.03	0.46
10:S8:51:GLY:H	1:6:397:A:H5''	313.18	0.46
38:8:145:U:H2'	38:8:146:U:O4'	2.15	0.46
36:5:407:A:C2	38:8:17:A:H1'	2.49	0.46
12:C0:31:LYS:HE3	12:C0:36:ASP:OD1	2.13	0.46
15:C3:23:PRO:HD2	15:C3:26:PHE:HB3	1.96	0.46
3:S1:83:LYS:NZ	16:C4:116:GLU:OE2	2.36	0.46
18:C6:32:ASN:HD21	18:C6:69:VAL:HG23	4.45	0.46
21:C9:84:LYS:HE2	21:C9:94:ILE:HG13	4.42	0.46
26:D4:105:ARG:NH1	26:D4:109:LYS:HE2	2.30	0.46
26:D4:43:LYS:O	26:D4:47:VAL:HG23	2.15	0.46
40:L3:105:VAL:HG21	40:L3:148:LEU:HD13	1.96	0.46
40:L3:92:TYR:CE1	40:L3:159:ARG:HD2	2.51	0.46
42:L5:146:LEU:HB3	36:5:2746:A:H2	259.76	0.46
46:L9:86:TYR:CZ	46:L9:151:VAL:HG22	2.51	0.46
55:M9:17:VAL:HG11	55:M9:52:LYS:HG3	4.05	0.46
36:1:1095:U:N3	57:N1:127:GLN:OE1	2.39	0.46
67:O1:74:ARG:NH1	67:O1:109:VAL:HG21	2.30	0.46
2:S0:131:GLN:HE22	2:S0:135:GLU:HG3	5.55	0.46
3:S1:168:ILE:O	3:S1:172:LEU:HG	2.39	0.46
4:S2:141:ARG:H	4:S2:141:ARG:HG2	2.08	0.46
6:S4:17:HIS:HB2	6:S4:108:ARG:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:159:ARG:NH2	8:S6:170:THR:OG1	3.11	0.46
8:S6:199:GLN:HG3	8:S6:202:ARG:NH2	2.31	0.46
11:S9:20:GLU:O	11:S9:24:LEU:HG	2.78	0.46
34:SR:130:THR:HG22	34:SR:145:LEU:HB3	1.96	0.46
36:1:1069:C:H2'	36:1:1070:U:C6	2.51	0.46
36:1:1278:A:O2'	36:1:1279:C:H6	1.97	0.46
36:1:2558:U:O2'	36:1:2559:U:H5'	2.15	0.46
36:1:2850:G:O6	88:1:4088:OHX:N6	2.49	0.46
36:1:3174:A:C2'	36:1:3175:U:H5'	2.46	0.46
1:2:1682:U:O2'	1:2:1683:C:H5'	2.15	0.46
1:2:223:U:H2'	1:2:224:C:H6	1.80	0.46
1:2:30:G:H2'	1:2:31:C:C6	2.51	0.46
1:2:979:A:N3	1:2:1775:U:O2'	2.46	0.46
36:5:2573:G:H2'	36:5:2574:G:O4'	2.15	0.46
17:C5:43:ARG:NH1	1:6:1553:G:N7	401.55	0.46
1:6:1640:C:O5'	1:6:1640:C:H6	1.98	0.46
1:6:194:U:H2'	1:6:194:U:O2	2.16	0.46
1:6:486:G:O6	1:6:488:G:N2	2.48	0.46
1:6:839:U:H2'	1:6:840:U:C6	2.50	0.46
38:8:141:C:H2'	38:8:142:C:C6	2.50	0.46
13:C1:131:ILE:HA	13:C1:131:ILE:HD13	1.74	0.46
13:C1:21:ASN:ND2	13:C1:32:LYS:H	2.60	0.46
15:C3:94:LYS:HB2	15:C3:94:LYS:HE3	1.76	0.46
23:D1:14:PRO:HB2	23:D1:23:ILE:HG23	2.11	0.46
24:D2:94:LEU:HA	24:D2:95:PRO:HD3	1.62	0.46
26:D4:124:ARG:HA	26:D4:127:LYS:HG2	1.96	0.46
26:D4:15:ASN:OD1	26:D4:17:LEU:HB2	2.76	0.46
32:E0:28:LYS:HZ2	32:E0:31:LYS:HE2	1.80	0.46
33:E1:103:LEU:HA	33:E1:105:TYR:HD2	2.78	0.46
33:E1:119:ARG:NH1	33:E1:120:GLU:O	8.91	0.46
41:L4:118:LYS:O	41:L4:122:THR:HG23	2.15	0.46
42:L5:122:VAL:O	42:L5:123:GLU:HB2	4.76	0.46
44:L7:47:ARG:NH1	44:L7:183:ASP:OD2	2.67	0.46
45:L8:84:ARG:HH12	45:L8:181:LYS:NZ	2.13	0.46
46:L9:92:TYR:CD2	46:L9:92:TYR:N	4.17	0.46
49:M3:186:ARG:O	49:M3:190:LYS:HB3	2.15	0.46
60:N4:9:SER:HA	60:N4:52:THR:HG22	2.05	0.46
61:N5:58:ASP:OD2	61:N5:61:LYS:N	2.48	0.46
64:N8:128:ARG:HG2	72:O6:8:ALA:HB2	1.95	0.46
65:N9:47:LEU:HA	65:N9:50:THR:HG23	1.97	0.46
3:S1:193:ILE:H	3:S1:193:ILE:HG12	1.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:59:HIS:NE2	4:S2:238:SER:HA	3.40	0.46
5:S3:215:GLU:HA	5:S3:216:PRO:HD2	2.28	0.46
6:S4:240:LYS:HA	6:S4:242:LYS:NZ	2.31	0.46
8:S6:178:LEU:O	8:S6:180:THR:HG23	2.15	0.46
9:S7:114:ARG:O	9:S7:117:THR:HB	2.95	0.46
9:S7:23:ALA:O	9:S7:27:LEU:HG	2.15	0.46
10:S8:39:GLY:HA2	10:S8:61:GLU:HB3	1.96	0.46
10:S8:8:ARG:HD3	10:S8:21:PHE:CD1	2.50	0.46
34:SR:246:SER:HB3	34:SR:251:TRP:HB2	3.21	0.46
36:1:1014:U:C2'	36:1:1015:U:H5''	2.46	0.46
36:1:1304:A:N6	36:1:2860:U:OP1	2.47	0.46
36:1:1706:C:H2'	36:1:1707:A:O4'	2.15	0.46
36:1:239:G:HO2'	36:1:240:U:P	2.38	0.46
36:1:2665:U:H4'	36:1:2666:C:OP1	2.16	0.46
36:1:3259:U:H5'	36:1:3259:U:C6	2.40	0.46
36:1:508:U:H2'	36:1:509:U:H6	1.81	0.46
36:1:535:G:O6	88:1:4073:OHX:N3	2.49	0.46
36:1:824:C:H2'	36:1:825:U:H6	1.81	0.46
1:2:1044:U:H2'	1:2:1045:C:H6	1.81	0.46
1:2:1153:G:H2'	1:2:1154:G:O4'	2.15	0.46
1:2:1508:U:H2'	1:2:1509:C:H6	1.81	0.46
1:2:463:U:H2'	1:2:464:A:H8	1.79	0.46
1:2:763:G:C6	1:2:764:U:C4	3.04	0.46
1:2:992:A:C2	1:2:1012:U:N3	2.75	0.46
37:3:76:A:C8	37:3:78:U:C2	3.03	0.46
36:5:121:A:H4'	36:5:122:A:OP2	2.15	0.46
36:5:2561:A:O2'	36:5:2562:A:H5''	2.15	0.46
36:5:2419:A:H1'	36:5:2804:A:O4'	2.15	0.46
1:6:1080:U:O2'	1:6:1081:A:H5'	2.15	0.46
1:6:1087:A:H5'	1:6:1298:U:O4	2.15	0.46
1:6:393:C:H2'	1:6:394:C:C6	2.50	0.46
16:C4:104:ALA:HA	16:C4:107:ARG:HB3	3.09	0.46
19:C7:53:TYR:O	19:C7:56:HIS:HB3	2.56	0.46
22:D0:74:GLU:HG2	1:6:1429:G:H1'	377.28	0.46
2:S0:32:HIS:CE1	23:D1:63:GLY:HA3	9.80	0.46
24:D2:106:THR:HG21	24:D2:121:VAL:HG23	5.40	0.46
33:E1:141:CYS:SG	33:E1:143:LYS:HB3	3.24	0.46
39:L2:230:VAL:O	39:L2:233:GLN:HG3	3.20	0.46
40:L3:86:VAL:HG22	40:L3:162:VAL:HG12	2.09	0.46
40:L3:169:THR:HG21	40:L3:171:LEU:HD12	1.97	0.46
44:L7:92:ILE:HA	44:L7:92:ILE:HD12	1.56	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:164:VAL:O	45:L8:167:PRO:HD2	2.15	0.46
46:L9:111:PHE:CD1	46:L9:127:PRO:HA	2.71	0.46
46:L9:49:ASN:OD1	46:L9:51:GLN:N	2.80	0.46
36:1:2680:A:C2	48:M1:24:GLY:HA2	2.50	0.46
52:M6:36:VAL:HB	52:M6:108:ILE:HB	4.60	0.46
55:M9:90:PRO:HB2	55:M9:93:VAL:HG23	1.95	0.46
56:N0:137:ARG:HD3	36:5:1213:G:OP1	325.22	0.46
61:N5:54:TYR:O	61:N5:56:ARG:N	2.93	0.46
62:N6:27:ARG:HG2	62:N6:78:PHE:CE1	2.50	0.46
63:N7:113:VAL:O	63:N7:117:ALA:N	2.36	0.46
6:S4:156:VAL:O	6:S4:157:ASN:HB2	2.16	0.46
9:S7:14:THR:HG22	9:S7:17:GLU:H	2.56	0.46
11:S9:122:VAL:O	11:S9:125:ALA:HB3	2.15	0.46
11:S9:3:ARG:HH21	11:S9:3:ARG:CG	3.67	0.46
36:1:1016:C:H1'	36:1:1028:U:C2	2.50	0.46
36:1:1559:A:H4'	36:1:1560:G:OP2	2.15	0.46
36:1:2883:U:H2'	36:1:2884:C:H6	1.80	0.46
36:1:3160:U:H2'	36:1:3161:C:C6	2.51	0.46
36:1:434:U:H3	36:1:625:G:H1	1.63	0.46
36:1:627:U:H2'	36:1:628:A:C8	2.50	0.46
1:2:274:G:C2	1:2:275:C:H1'	2.50	0.46
1:2:325:G:H2'	1:2:326:G:H8	1.81	0.46
1:2:460:A:H3'	1:2:461:G:H8	1.79	0.46
1:2:819:G:H22	1:2:853:G:H2'	1.80	0.46
37:3:47:C:H2'	37:3:48:U:H6	1.81	0.46
36:5:1696:A:OP2	88:5:4190:OHX:N6	2.49	0.46
36:5:174:C:H2'	36:5:175:C:O4'	2.14	0.46
55:M9:20:ARG:HD3	36:5:1874:A:OP2	141.89	0.46
36:5:2946:A:C5'	36:5:2947:G:H5'	2.45	0.46
36:5:305:U:C5	36:5:2776:C:H1'	2.50	0.46
36:5:3288:G:O2'	36:5:3289:G:P	2.74	0.46
1:6:1269:U:H4'	1:6:1270:G:C5'	2.46	0.46
1:6:625:C:H2'	1:6:626:U:C6	2.50	0.46
26:D4:121:THR:H	1:6:85:A:H4'	338.52	0.46
14:C2:29:LYS:HG3	14:C2:100:TRP:CD1	2.51	0.46
23:D1:9:VAL:HG22	23:D1:10:GLU:H	2.02	0.46
28:D6:10:ARG:HH12	28:D6:36:ILE:HG13	4.05	0.46
1:2:1796:C:H5	28:D6:6:ALA:N	2.14	0.46
31:D9:21:CYS:HA	31:D9:30:LEU:HD21	2.87	0.46
33:E1:109:ASP:N	33:E1:109:ASP:OD1	2.49	0.46
33:E1:143:LYS:N	1:6:1253:U:H4'	449.89	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:113:VAL:HG12	39:L2:166:ILE:HA	1.98	0.46
39:L2:185:ALA:O	39:L2:189:TYR:HD1	1.99	0.46
41:L4:313:LEU:HA	41:L4:313:LEU:HD23	2.90	0.46
42:L5:184:ASP:HB3	42:L5:187:THR:O	2.16	0.46
46:L9:88:TYR:CE1	46:L9:184:LYS:HB2	4.88	0.46
46:L9:88:TYR:CE2	46:L9:184:LYS:HG2	2.51	0.46
47:M0:153:ARG:HG2	47:M0:156:ARG:HH21	3.28	0.46
47:M0:38:LYS:CG	47:M0:41:ALA:HB2	2.67	0.46
48:M1:150:ASN:C	48:M1:152:HIS:H	2.18	0.46
48:M1:93:ASP:C	48:M1:94:ARG:O	2.74	0.46
50:M4:22:LEU:HD13	50:M4:32:LEU:HD23	1.96	0.46
50:M4:22:LEU:HB3	50:M4:64:VAL:HG13	1.98	0.46
44:L7:224:ILE:HG23	56:N0:36:ILE:HA	1.97	0.46
64:N8:88:ASP:OD1	64:N8:88:ASP:N	2.49	0.46
66:O0:46:ALA:HB2	66:O0:70:PHE:O	3.44	0.46
70:O4:16:ARG:CG	70:O4:16:ARG:HH11	4.10	0.46
75:O9:30:ARG:HE	75:O9:30:ARG:HB2	1.46	0.46
2:S0:147:THR:OG1	2:S0:159:ALA:HB1	2.15	0.46
3:S1:36:SER:O	3:S1:38:PHE:N	2.49	0.46
6:S4:19:LEU:HD13	1:6:788:A:C4	393.58	0.46
7:S5:149:VAL:HG13	7:S5:151:GLY:N	5.00	0.46
8:S6:137:ARG:HH21	8:S6:177:ARG:NE	2.14	0.46
8:S6:31:ARG:N	8:S6:34:GLN:OE1	3.49	0.46
8:S6:68:LEU:HD13	8:S6:68:LEU:HA	2.02	0.46
11:S9:109:LEU:HB2	11:S9:146:PHE:CB	2.86	0.46
11:S9:126:ARG:O	11:S9:129:ILE:N	2.99	0.46
11:S9:97:LEU:HD23	11:S9:97:LEU:HA	1.79	0.46
34:SR:80:ALA:O	34:SR:91:LEU:HD12	2.47	0.46
36:1:1290:A:O2'	36:1:1291:A:H5'	2.16	0.46
36:1:1541:G:OP2	88:1:4031:OHX:N5	2.49	0.46
36:1:1638:A:HO2'	36:1:1708:C:HO2'	1.61	0.46
36:1:16:A:H2'	36:1:17:G:O4'	2.16	0.46
36:1:2116:G:C4	36:1:3063:C:O2'	2.69	0.46
36:1:2403:G:H21	36:1:2404:A:N6	2.14	0.46
36:1:2747:A:H2'	36:1:2748:A:C8	2.49	0.46
36:1:3004:C:H4'	40:L3:99:LEU:O	2.15	0.46
36:1:3106:A:H61	36:1:3128:G:H1'	1.80	0.46
36:1:3215:A:O5'	50:M4:121:MET:HE1	2.16	0.46
36:1:3317:U:H4'	36:1:3318:G:O5'	2.16	0.46
36:1:394:G:N1	36:1:397:A:OP2	2.44	0.46
1:2:15:U:H2'	1:2:16:G:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:304:U:OP1	13:C1:136:ARG:HD3	2.15	0.46
1:2:330:G:OP2	10:S8:172:ARG:NH1	2.48	0.46
1:2:416:A:H4'	1:2:417:A:OP2	2.15	0.46
1:2:463:U:H2'	1:2:464:A:C8	2.51	0.46
1:2:502:U:H2'	1:2:503:G:O4'	2.16	0.46
1:2:501:U:HO2'	1:2:502:U:H6	1.61	0.46
1:2:839:U:C2'	1:2:840:U:H5'	2.44	0.46
1:2:905:A:H5''	16:C4:52:ARG:HD3	1.98	0.46
37:3:60:G:H2'	37:3:61:G:C8	2.50	0.46
36:5:1258:U:O2	36:5:1260:A:H8	1.98	0.46
36:5:1397:C:O2'	36:5:1398:U:H5'	2.16	0.46
36:5:1801:U:H2'	36:5:1802:C:C6	2.51	0.46
73:O7:3:LYS:HB3	36:5:2138:A:C4	171.14	0.46
47:M0:116:ARG:NH2	36:5:2617:U:O3'	228.51	0.46
36:5:2628:A:C2	36:5:2629:U:H1'	2.50	0.46
36:5:2726:C:O2'	36:5:2727:A:H2'	2.16	0.46
12:C0:8:ARG:NH1	1:6:1257:U:H4'	446.02	0.46
1:6:1350:U:H2'	1:6:1351:G:H8	1.77	0.46
1:6:1698:G:H1'	1:6:1699:G:OP1	2.15	0.46
1:6:219:A:N6	1:6:843:U:C2	2.84	0.46
1:6:526:A:N6	1:6:527:A:C6	2.83	0.46
12:C0:58:GLN:HB3	12:C0:65:TYR:HB2	2.79	0.46
14:C2:63:VAL:HG13	14:C2:119:SER:O	2.15	0.46
20:C8:83:ALA:O	20:C8:86:LEU:HB2	2.16	0.46
22:D0:99:ILE:O	22:D0:103:ILE:N	2.49	0.46
29:D7:47:PHE:CD1	29:D7:49:HIS:O	2.68	0.46
40:L3:199:PHE:C	40:L3:201:LYS:H	2.19	0.46
41:L4:56:ALA:C	41:L4:58:HIS:H	2.17	0.46
42:L5:231:ILE:HD12	42:L5:239:ILE:HD11	5.51	0.46
44:L7:27:ALA:HA	44:L7:30:ARG:HB3	1.96	0.46
53:M7:178:ALA:HA	53:M7:181:ARG:HB3	1.98	0.46
59:N3:62:VAL:HG21	59:N3:69:LEU:HB3	1.97	0.46
61:N5:103:TYR:O	61:N5:105:VAL:HG23	2.16	0.46
62:N6:52:ARG:HA	62:N6:70:ILE:CG2	2.90	0.46
65:N9:14:ARG:NH1	65:N9:18:ARG:HD2	2.30	0.46
68:O2:32:TRP:CG	68:O2:33:ARG:N	2.92	0.46
68:O2:3:SER:HB3	68:O2:71:HIS:CE1	2.51	0.46
68:O2:4:LEU:HD12	68:O2:4:LEU:HA	2.23	0.46
74:O8:4:GLU:HG2	74:O8:5:ILE:N	3.37	0.46
2:S0:156:VAL:O	23:D1:65:SER:HB3	2.59	0.46
2:S0:175:TYR:CD1	2:S0:199:PRO:HA	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:172:LEU:O	3:S1:176:VAL:HG23	2.14	0.46
3:S1:144:ARG:HB3	3:S1:208:GLN:HG2	4.01	0.46
7:S5:41:LYS:HG2	7:S5:69:PHE:CZ	4.69	0.46
8:S6:94:ARG:NH2	1:6:407:A:H5'	289.01	0.46
9:S7:151:LYS:HE3	9:S7:151:LYS:HB2	2.39	0.46
1:2:856:A:H1'	9:S7:64:VAL:HG11	1.98	0.46
11:S9:164:PHE:HE2	1:6:512:A:H4'	452.90	0.46
36:1:1482:A:H4'	36:1:1483:G:OP2	2.15	0.46
36:1:304:G:N3	36:1:304:G:H5'	2.31	0.46
36:1:550:A:N6	36:1:551:A:H62	2.14	0.46
36:1:670:C:OP1	54:M8:147:ARG:NH2	2.43	0.46
1:2:1098:U:O3'	24:D2:71:LYS:NZ	2.46	0.46
1:2:1332:C:O2'	5:S3:162:GLN:HB3	2.16	0.46
1:2:1469:A:H2'	1:2:1470:C:C6	2.50	0.46
1:2:539:G:OP2	1:2:539:G:H8	1.97	0.46
1:2:852:C:O5'	1:2:852:C:H6	1.99	0.46
36:5:1313:G:H2'	36:5:1314:C:H6	1.81	0.46
70:O4:60:ARG:NH2	36:5:1616:U:H4'	140.51	0.46
36:5:1694:U:N3	36:5:1695:U:C4	2.84	0.46
36:5:2801:A:O2'	36:5:2802:A:H2'	2.14	0.46
34:SR:102:ARG:NH2	1:6:1341:A:O2'	459.13	0.46
1:6:1649:G:H2'	1:6:1650:U:C6	2.51	0.46
10:S8:33:PRO:HA	1:6:331:A:H5'	277.36	0.46
1:6:89:G:C6	1:6:90:C:C4	3.04	0.46
1:6:913:G:H3'	1:6:914:G:C5'	2.45	0.46
12:C0:55:VAL:HA	12:C0:69:THR:HG23	1.98	0.46
14:C2:74:LEU:O	14:C2:78:LEU:N	3.11	0.46
18:C6:26:LYS:HE3	18:C6:26:LYS:HB2	4.49	0.46
18:C6:47:LYS:HZ1	18:C6:114:ARG:NE	2.14	0.46
22:D0:55:PRO:HA	22:D0:91:ILE:HG12	1.98	0.46
24:D2:53:ILE:HG13	24:D2:54:ASP:N	2.30	0.46
25:D3:109:ARG:HB3	25:D3:112:LYS:HB2	1.97	0.46
7:S5:123:VAL:O	27:D5:58:ARG:HD2	2.15	0.46
30:D8:44:VAL:HG11	30:D8:48:VAL:HG21	2.61	0.46
32:E0:28:LYS:NZ	32:E0:31:LYS:HE2	2.30	0.46
39:L2:101:VAL:HB	39:L2:165:VAL:HG12	3.66	0.46
39:L2:87:PHE:O	39:L2:88:ILE:HD13	2.16	0.46
40:L3:284:ARG:HB2	40:L3:284:ARG:HH11	1.81	0.46
40:L3:77:THR:CG2	40:L3:327:CYS:HA	2.61	0.46
42:L5:22:ARG:NH1	42:L5:27:LYS:HD3	2.31	0.46
45:L8:155:ASN:OD1	45:L8:181:LYS:HA	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:100:ARG:O	49:M3:101:ARG:HB3	4.61	0.46
51:M5:137:PRO:HD2	51:M5:138:GLN:NE2	2.31	0.46
51:M5:156:HIS:O	51:M5:159:ARG:HG2	2.15	0.46
55:M9:146:LYS:HD3	55:M9:146:LYS:HA	4.41	0.46
56:N0:34:GLU:HB3	56:N0:61:ILE:HD13	3.89	0.46
58:N2:58:GLU:O	58:N2:60:GLY:N	2.49	0.46
58:N2:54:VAL:HG12	58:N2:67:SER:HA	1.97	0.46
66:O0:53:LYS:HE3	66:O0:57:GLU:OE1	3.36	0.46
36:1:944:C:H4'	68:O2:33:ARG:NH1	2.30	0.46
74:O8:10:GLN:O	74:O8:14:LEU:HB2	3.81	0.46
3:S1:170:GLU:O	3:S1:174:LYS:HG3	2.16	0.46
5:S3:137:VAL:HG22	5:S3:151:LYS:HE2	1.96	0.46
5:S3:102:ALA:HB1	5:S3:173:ARG:HG3	2.63	0.46
5:S3:71:LEU:O	5:S3:75:LYS:HG2	3.26	0.46
7:S5:222:LYS:HG3	7:S5:225:ARG:CZ	2.46	0.46
9:S7:126:LEU:HD12	9:S7:126:LEU:HA	2.20	0.46
9:S7:130:VAL:HB	9:S7:162:ILE:HD12	1.98	0.46
9:S7:78:THR:HG22	9:S7:92:PHE:HE1	2.73	0.46
10:S8:36:THR:OG1	10:S8:96:LEU:HB2	2.16	0.46
11:S9:134:ILE:HD13	11:S9:141:VAL:O	4.20	0.46
35:SM:79:SER:HA	35:SM:82:THR:HG23	1.96	0.46
36:1:1851:G:H8	36:1:1851:G:O5'	1.98	0.46
36:1:2426:U:H2'	36:1:2427:U:C6	2.51	0.46
36:1:2653:C:P	78:Q2:89:LYS:HB2	2.55	0.46
36:1:287:G:OP1	51:M5:179:LYS:HE3	2.16	0.46
36:1:3284:G:H8	36:1:3284:G:O5'	1.97	0.46
36:1:618:C:H5'	53:M7:169:THR:HG22	1.96	0.46
1:2:1428:G:H5'	1:2:1428:G:C8	2.47	0.46
88:2:2044:OHX:N1	88:2:2099:OHX:N3	2.64	0.46
38:4:34:U:C5	73:O7:74:PHE:CE2	3.04	0.46
36:5:1243:G:C6	36:5:1244:A:N7	2.84	0.46
36:5:1667:A:H2'	36:5:1668:G:C8	2.51	0.46
36:5:2133:U:O4	36:5:2147:A:H2	1.99	0.46
36:5:3122:A:C2'	36:5:3123:A:H5'	2.45	0.46
52:M6:148:LYS:HE2	36:5:3135:U:OP1	257.10	0.46
36:5:3163:A:O2'	36:5:3164:C:H5'	2.15	0.46
36:5:956:U:H2'	36:5:957:C:C6	2.51	0.46
36:5:996:A:C2	36:5:1054:A:C4	3.04	0.46
1:6:1585:U:H2'	1:6:1586:A:H8	1.81	0.46
1:6:1699:G:N2	1:6:1702:A:H5''	2.31	0.46
1:6:184:C:H2'	1:6:185:U:H6	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:805:U:C2'	1:6:806:A:H5'	2.46	0.46
1:6:836:U:H2'	1:6:837:G:C8	2.51	0.46
13:C1:123:VAL:CG2	13:C1:139:VAL:HG13	2.46	0.46
13:C1:3:THR:OG1	13:C1:82:ARG:NE	2.43	0.46
13:C1:94:ILE:HA	13:C1:95:PRO:HD3	1.79	0.46
14:C2:97:LEU:HD12	14:C2:118:ALA:HB1	1.98	0.46
19:C7:105:GLN:O	19:C7:108:ASP:HB2	2.76	0.46
19:C7:106:THR:O	19:C7:110:VAL:HG23	2.16	0.46
20:C8:24:GLY:O	20:C8:59:GLY:N	2.74	0.46
21:C9:53:TRP:HH2	21:C9:100:ILE:HD11	1.80	0.46
24:D2:23:ARG:NH1	24:D2:66:ASN:HA	2.99	0.46
26:D4:89:TYR:CE1	1:6:525:A:H5''	397.05	0.46
27:D5:39:ALA:O	27:D5:71:ILE:HA	2.16	0.46
28:D6:62:TYR:CG	28:D6:63:ALA:N	2.86	0.46
29:D7:33:LEU:HD23	29:D7:81:ARG:HA	4.61	0.46
39:L2:251:LYS:HB3	39:L2:252:THR:H	3.67	0.46
40:L3:102:LEU:O	36:5:3147:G:H4'	241.05	0.46
41:L4:92:ASN:HA	41:L4:98:ARG:O	2.16	0.46
42:L5:85:ARG:HG2	42:L5:86:TYR:CD2	4.99	0.46
47:M0:2:ALA:O	47:M0:3:ARG:HB2	4.38	0.46
52:M6:65:ASN:O	52:M6:67:THR:N	2.80	0.46
53:M7:16:SER:HB3	53:M7:149:VAL:HG22	1.96	0.46
57:N1:124:VAL:HG12	57:N1:125:ALA:H	2.14	0.46
60:N4:42:GLN:HB3	60:N4:44:LYS:HG2	1.96	0.46
63:N7:24:VAL:HG11	63:N7:87:LEU:HB3	3.90	0.46
64:N8:14:HIS:N	64:N8:14:HIS:ND1	2.77	0.46
66:O0:60:ALA:O	66:O0:63:SER:N	3.06	0.46
36:1:428:A:H1'	69:O3:25:PRO:HG2	1.97	0.46
72:O6:93:ILE:O	72:O6:97:SER:HB3	2.16	0.46
78:Q2:100:LYS:HE3	78:Q2:100:LYS:H	1.80	0.46
78:Q2:15:LYS:HA	78:Q2:18:ARG:NH2	2.30	0.46
36:1:1927:G:P	79:Q3:5:THR:HB	2.55	0.46
3:S1:229:MET:C	3:S1:231:LEU:H	2.35	0.46
5:S3:133:GLY:HA3	5:S3:157:LEU:HD23	6.28	0.46
6:S4:105:VAL:HG11	6:S4:245:LYS:H	2.55	0.46
6:S4:248:ILE:HD11	11:S9:71:PHE:CG	5.69	0.46
6:S4:60:GLU:O	6:S4:64:ILE:HG13	2.30	0.46
8:S6:73:ILE:CD1	8:S6:75:LEU:HD21	2.70	0.46
34:SR:200:ASN:O	34:SR:201:THR:HB	2.15	0.46
36:1:1573:G:H2'	36:1:1573:G:N3	2.30	0.46
36:1:1581:C:H2'	36:1:1582:C:H5''	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3309:G:N3	36:1:3309:G:H5''	2.30	0.46
36:1:812:G:N7	88:1:3995:OHX:N1	2.63	0.46
1:2:1111:G:C6	1:2:1112:G:C4	3.04	0.46
1:2:1234:A:HO2'	1:2:1235:C:P	2.38	0.46
1:2:1504:G:H2'	1:2:1505:A:C8	2.50	0.46
1:2:196:G:O2'	1:2:197:A:H8	1.99	0.46
36:5:1565:G:N2	36:5:1566:A:H1'	2.31	0.46
36:5:1614:C:O2'	36:5:1615:C:H5'	2.16	0.46
36:5:2376:G:H2'	36:5:2377:G:C8	2.51	0.46
36:5:2572:C:O2'	36:5:2573:G:OP2	2.27	0.46
36:5:3132:C:H2'	36:5:3133:C:C6	2.50	0.46
1:6:1268:G:H1'	1:6:1448:G:H5''	1.97	0.46
31:D9:14:TYR:OH	1:6:1553:G:O2'	402.74	0.46
1:6:720:G:H5''	1:6:720:G:N3	2.31	0.46
12:C0:49:LEU:HB3	12:C0:55:VAL:CG1	2.46	0.46
12:C0:6:GLU:O	12:C0:10:LYS:HG3	2.16	0.46
13:C1:33:ARG:NH2	13:C1:52:SER:HA	3.12	0.46
14:C2:45:LEU:O	14:C2:49:THR:HG23	2.38	0.46
17:C5:98:ASN:HD21	17:C5:101:ALA:HB3	5.12	0.46
18:C6:46:PHE:HA	18:C6:49:TYR:HB2	2.14	0.46
1:2:1253:U:H4'	33:E1:143:LYS:N	2.31	0.46
39:L2:169:ILE:HG22	39:L2:170:ALA:O	2.60	0.46
39:L2:206:PRO:HD3	39:L2:212:GLY:O	4.03	0.46
37:3:62:U:H5''	42:L5:277:LEU:HD22	1.97	0.46
42:L5:289:LYS:HD3	47:M0:206:LEU:HD23	1.98	0.46
44:L7:89:ILE:HD12	44:L7:214:TRP:CH2	2.51	0.46
47:M0:99:ILE:HG22	47:M0:123:HIS:HB2	1.97	0.46
49:M3:76:THR:HG23	49:M3:101:ARG:NH1	2.30	0.46
53:M7:94:LEU:HB3	53:M7:148:LEU:HD21	3.10	0.46
54:M8:8:LYS:HB2	54:M8:8:LYS:HE3	1.85	0.46
55:M9:40:ALA:O	55:M9:44:LEU:HD23	2.16	0.46
59:N3:48:ARG:HH11	59:N3:48:ARG:HG3	1.80	0.46
64:N8:117:ARG:HH11	64:N8:117:ARG:HG3	3.37	0.46
72:O6:35:ASN:HA	72:O6:38:LYS:HB2	2.68	0.46
73:O7:39:TYR:CG	73:O7:40:PRO:HA	2.50	0.46
78:Q2:14:GLY:O	78:Q2:16:THR:N	2.43	0.46
78:Q2:47:GLN:NE2	78:Q2:53:GLN:OE1	3.40	0.46
3:S1:59:ASP:HA	3:S1:62:LYS:NZ	2.31	0.46
4:S2:121:VAL:O	4:S2:125:ILE:HG13	3.43	0.46
6:S4:232:GLY:O	6:S4:234:PRO:HD3	2.16	0.46
9:S7:97:ARG:HD3	9:S7:97:ARG:HA	3.22	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:9:LEU:HA	9:S7:9:LEU:HD23	1.80	0.46
36:1:1048:A:H2'	47:M0:22:TYR:CE1	2.50	0.46
36:1:1240:A:N6	36:1:1244:A:OP2	2.49	0.46
36:1:1282:G:C6	36:1:1283:C:C4	3.05	0.46
36:1:1602:A:C6	36:1:1603:A:C6	3.04	0.46
36:1:2295:A:N3	59:N3:37:ILE:HD12	2.30	0.46
36:1:2890:A:N1	36:1:2913:C:N3	2.63	0.46
36:1:3275:U:C5'	69:O3:68:TRP:HZ2	2.28	0.46
36:1:915:A:H2'	36:1:915:A:N3	2.31	0.46
36:1:965:A:H1'	64:N8:40:HIS:O	2.15	0.46
1:2:1417:A:H2'	1:2:1418:G:O4'	2.15	0.46
1:2:1727:G:H2'	1:2:1728:A:C8	2.51	0.46
1:2:1748:G:O6	88:2:2105:OHX:N4	2.49	0.46
1:2:606:A:H4'	1:2:607:G:O5'	2.16	0.46
1:2:838:G:H2'	1:2:839:U:C6	2.51	0.46
36:5:1109:U:H2'	36:5:1110:U:O4'	2.16	0.46
36:5:1519:G:H2'	36:5:1520:G:H8	1.79	0.46
36:5:2255:A:H5'	36:5:2261:G:N2	2.28	0.46
36:5:2660:G:O3'	36:5:2749:G:N2	2.49	0.46
46:L9:168:ARG:HD2	36:5:2894:C:OP1	305.99	0.46
1:6:1171:A:H2'	1:6:1172:G:C8	2.50	0.46
1:6:1263:G:H2'	1:6:1264:G:O4'	2.16	0.46
1:6:650:U:H2'	1:6:651:G:H5'	1.97	0.46
13:C1:46:LYS:HE2	1:6:846:G:N2	312.11	0.46
37:7:43:U:C4	37:7:44:C:C4	3.04	0.46
20:C8:113:LEU:HD21	20:C8:127:HIS:CE1	2.51	0.46
17:C5:111:MET:HG2	20:C8:119:ILE:HD11	5.86	0.46
22:D0:15:GLN:O	22:D0:16:GLN:HB2	3.39	0.46
22:D0:16:GLN:HB3	22:D0:17:GLN:H	1.47	0.46
24:D2:55:ASP:O	24:D2:57:ARG:N	2.92	0.46
24:D2:89:TRP:HE3	24:D2:93:LEU:HD21	1.81	0.46
26:D4:45:ALA:HB2	26:D4:55:VAL:HG21	1.98	0.46
27:D5:57:TYR:OH	27:D5:68:ARG:HG3	2.16	0.46
41:L4:5:GLN:HA	41:L4:20:LEU:O	2.15	0.46
41:L4:60:THR:CG2	41:L4:62:ALA:HB2	2.46	0.46
42:L5:282:ARG:HD3	37:7:63:A:OP2	334.65	0.46
51:M5:10:LEU:HD23	72:O6:44:VAL:HG13	4.45	0.46
51:M5:186:GLY:O	51:M5:190:THR:HG23	2.16	0.46
51:M5:38:ARG:NH2	51:M5:60:VAL:HG13	2.31	0.46
51:M5:94:TYR:CE2	51:M5:96:ARG:HB2	2.86	0.46
52:M6:119:VAL:HG23	56:N0:164:SER:HB3	2.06	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:130:ARG:HH11	36:5:1098:A:P	253.44	0.46
57:N1:130:ARG:O	36:5:1098:A:O2'	256.62	0.46
42:L5:38:THR:HG22	57:N1:30:TYR:HB3	1.98	0.46
36:1:1629:U:O4	63:N7:111:LYS:HE3	2.15	0.46
72:O6:33:ALA:HB1	72:O6:38:LYS:HD2	4.27	0.46
73:O7:28:HIS:HE1	73:O7:30:GLN:HG3	3.75	0.46
76:Q0:110:CYS:HB2	76:Q0:121:LEU:HD21	1.98	0.46
2:S0:74:VAL:CG2	2:S0:118:PRO:HB3	2.74	0.46
7:S5:164:PRO:O	7:S5:168:VAL:HG23	2.16	0.46
7:S5:63:GLN:HB3	7:S5:88:PRO:HA	2.17	0.46
9:S7:159:VAL:O	9:S7:162:ILE:HG12	2.16	0.46
11:S9:2:PRO:HD2	1:6:461:G:OP1	359.63	0.46
4:S2:83:ILE:HD12	35:SM:117:LEU:HD12	1.97	0.46
34:SR:251:TRP:NE1	34:SR:271:VAL:HG21	3.00	0.46
34:SR:278:PHE:CE2	34:SR:287:PRO:HG2	2.51	0.46
36:1:1534:A:O4'	36:1:1797:A:H2	1.99	0.45
36:1:1796:G:H5''	36:1:1797:A:OP1	2.17	0.45
36:1:2258:U:H2'	36:1:2259:A:O4'	2.15	0.45
36:1:2320:A:H2	79:Q3:16:VAL:HG13	1.82	0.45
36:1:2535:A:N6	36:1:2544:U:H3	2.14	0.45
36:1:2807:U:O3'	36:1:2808:A:H3'	2.17	0.45
36:1:553:U:H2'	36:1:554:A:O4'	2.16	0.45
1:2:463:U:C2	1:2:464:A:C8	3.04	0.45
37:3:106:U:H2'	37:3:107:C:H6	1.78	0.45
36:5:1068:C:H2'	36:5:1069:C:C6	2.52	0.45
36:5:1597:C:H2'	36:5:1598:G:H8	1.80	0.45
58:N2:100:THR:HA	36:5:1677:G:OP1	140.70	0.45
36:5:177:U:O4	36:5:239:G:N2	2.49	0.45
36:5:1902:G:C6	36:5:1903:U:C2	3.04	0.45
40:L3:329:PRO:HA	36:5:3047:U:H5'	233.72	0.45
36:5:3259:U:H5'	36:5:3259:U:C6	2.50	0.45
36:5:810:A:H2'	36:5:811:U:C6	2.51	0.45
1:6:661:A:N3	1:6:670:U:N3	2.64	0.45
1:6:708:C:H2'	1:6:709:C:O4'	2.16	0.45
71:O5:83:LYS:HA	38:8:38:U:C5	66.40	0.45
16:C4:20:TYR:CD1	16:C4:84:ARG:HD3	4.73	0.45
22:D0:51:VAL:HG22	22:D0:94:GLU:H	4.82	0.45
24:D2:30:SER:OG	24:D2:31:SER:N	2.86	0.45
24:D2:36:LYS:O	24:D2:40:VAL:HG23	2.68	0.45
25:D3:17:VAL:HG23	25:D3:20:ARG:NH2	4.90	0.45
27:D5:57:TYR:HD2	27:D5:57:TYR:N	2.44	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1199:G:H1	31:D9:31:ILE:CD1	2.29	0.45
33:E1:125:THR:OG1	33:E1:126:CYS:SG	2.74	0.45
39:L2:111:THR:HB	39:L2:136:ILE:HD13	1.97	0.45
40:L3:257:PRO:HG2	40:L3:261:MET:HE1	1.99	0.45
41:L4:148:ILE:HA	41:L4:149:PRO:C	2.58	0.45
36:1:1385:C:OP2	41:L4:202:ARG:HD3	2.16	0.45
41:L4:285:ASP:OD2	41:L4:288:ARG:HB2	2.15	0.45
41:L4:330:TYR:O	41:L4:333:VAL:HG13	2.54	0.45
41:L4:82:THR:C	41:L4:84:ARG:H	2.18	0.45
41:L4:91:GLY:O	41:L4:94:CYS:HB2	2.63	0.45
43:L6:76:LEU:HD12	43:L6:138:GLN:HA	1.98	0.45
43:L6:35:VAL:O	43:L6:38:THR:OG1	2.42	0.45
48:M1:80:LEU:HD22	48:M1:80:LEU:O	2.52	0.45
36:1:1547:G:P	51:M5:105:ARG:NH1	2.89	0.45
53:M7:48:LEU:HD22	53:M7:88:VAL:HG13	2.44	0.45
54:M8:46:LYS:O	54:M8:50:LYS:HG3	5.07	0.45
61:N5:131:ASP:O	61:N5:135:ILE:HG22	4.14	0.45
63:N7:17:ARG:C	63:N7:19:ALA:H	2.19	0.45
64:N8:148:ILE:HB	64:N8:149:ALA:H	1.52	0.45
66:O0:20:SER:OG	66:O0:96:GLY:HA3	2.42	0.45
67:O1:14:ILE:HG23	67:O1:16:LEU:HD22	3.33	0.45
67:O1:46:THR:HG21	67:O1:91:SER:OG	2.50	0.45
69:O3:89:LEU:HA	69:O3:89:LEU:HD23	1.70	0.45
72:O6:45:ARG:NH2	72:O6:54:GLU:OE2	2.49	0.45
36:1:2139:A:H62	73:O7:4:GLY:HA3	1.80	0.45
4:S2:69:ILE:HG12	4:S2:133:LYS:HB3	2.55	0.45
8:S6:49:VAL:HB	8:S6:115:LYS:HG3	5.04	0.45
11:S9:129:ILE:HG22	11:S9:142:ASN:HA	1.98	0.45
35:SM:34:LYS:HA	35:SM:34:LYS:HD3	2.86	0.45
35:SM:47:ALA:HB2	36:1:2678:A:C8	2.50	0.45
34:SR:112:SER:CB	34:SR:153:GLN:HA	2.50	0.45
34:SR:147:HIS:CD2	34:SR:179:LYS:HE2	5.08	0.45
34:SR:253:ALA:O	34:SR:292:LEU:HD11	2.16	0.45
34:SR:10:ARG:HG2	34:SR:51:ASP:O	2.16	0.45
36:1:1060:U:O2	57:N1:101:CYS:HB2	2.16	0.45
36:1:2190:U:C4	36:1:2191:U:C4	3.04	0.45
36:1:2240:G:H2'	36:1:2241:U:O4'	2.16	0.45
36:1:2443:A:N6	36:1:2504:U:C4	2.84	0.45
36:1:2828:G:C6	36:1:2829:U:C2	3.04	0.45
36:1:3229:G:P	50:M4:137:LYS:HZ1	2.39	0.45
36:1:3143:C:O2'	88:1:3909:OHX:N2	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:999:G:C6	36:1:1000:C:N4	2.85	0.45
1:2:1171:A:H2'	1:2:1172:G:C8	2.50	0.45
1:2:191:C:O2'	1:2:192:U:O5'	2.34	0.45
1:2:25:C:H1'	1:2:26:A:OP2	2.16	0.45
1:2:755:A:HO2'	1:2:756:A:P	2.40	0.45
1:2:221:A:H5''	1:2:833:U:H1'	1.97	0.45
1:2:959:U:C4	29:D7:32:PHE:HE2	2.35	0.45
36:5:1817:G:O2'	36:5:1818:U:OP2	2.28	0.45
36:5:2372:A:H5''	36:5:2373:A:H5'	1.98	0.45
36:5:2546:C:H2'	36:5:2547:A:H8	1.81	0.45
36:5:2943:G:N7	36:5:2944:U:C5	2.84	0.45
36:5:372:A:H2'	36:5:373:A:O4'	2.16	0.45
24:D2:9:ASP:OD1	1:6:1036:A:H1'	358.01	0.45
1:6:792:U:O2'	1:6:793:A:H5'	2.15	0.45
1:6:982:U:OP1	88:6:2073:OHX:N2	2.49	0.45
14:C2:131:ASP:OD1	14:C2:132:GLU:N	2.49	0.45
20:C8:146:ALA:H	35:SM:68:ARG:NH2	2.13	0.45
21:C9:22:LEU:HD22	21:C9:28:LEU:HG	9.03	0.45
29:D7:41:LEU:H	29:D7:41:LEU:HD23	3.21	0.45
32:E0:29:LYS:HG2	32:E0:35:TYR:HE2	4.16	0.45
40:L3:360:ASP:OD1	40:L3:361:THR:N	3.16	0.45
36:1:3329:U:O2'	40:L3:363:SER:OG	2.30	0.45
47:M0:47:PRO:HB3	47:M0:171:TRP:CE2	2.51	0.45
47:M0:7:ARG:NH1	36:5:2828:G:OP2	270.36	0.45
36:1:266:A:P	51:M5:5:LYS:HZ1	2.39	0.45
52:M6:124:LEU:HA	52:M6:124:LEU:HD12	1.49	0.45
52:M6:183:ALA:C	52:M6:185:ALA:N	2.70	0.45
52:M6:28:LEU:HD23	52:M6:28:LEU:HA	2.25	0.45
54:M8:162:ALA:HA	54:M8:163:PRO:HD2	1.59	0.45
55:M9:7:GLN:OE1	55:M9:35:ALA:HB3	5.72	0.45
56:N0:155:ARG:HH21	56:N0:155:ARG:CG	2.23	0.45
59:N3:12:ARG:HG3	59:N3:13:ILE:N	4.37	0.45
59:N3:48:ARG:NH1	59:N3:48:ARG:HG3	2.30	0.45
64:N8:24:LYS:HB2	64:N8:26:ARG:HG2	2.69	0.45
66:O0:70:PHE:O	66:O0:72:GLY:N	2.48	0.45
68:O2:82:LEU:HD22	68:O2:117:ILE:HD12	2.77	0.45
72:O6:11:LEU:HA	72:O6:11:LEU:HD13	1.68	0.45
74:O8:59:ALA:O	74:O8:62:ALA:HB3	2.25	0.45
75:O9:23:LEU:HA	75:O9:24:PRO:HD2	2.26	0.45
2:S0:162:CYS:HB2	2:S0:163:ASN:H	1.44	0.45
2:S0:9:LEU:HD23	2:S0:54:TRP:CG	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:50:LYS:O	3:S1:52:THR:N	2.48	0.45
4:S2:188:LEU:O	4:S2:191:ALA:HB3	2.17	0.45
4:S2:40:LYS:HA	4:S2:43:ARG:NH1	2.31	0.45
6:S4:104:ASP:HB3	6:S4:105:VAL:H	1.42	0.45
7:S5:90:ILE:HA	7:S5:90:ILE:HD13	2.19	0.45
8:S6:174:LYS:HG3	1:6:79:C:H1'	342.10	0.45
19:C7:30:THR:HG22	34:SR:127:ARG:NH2	4.09	0.45
34:SR:249:ARG:O	34:SR:251:TRP:N	3.24	0.45
36:1:1301:A:H4'	36:1:1302:A:O5'	2.16	0.45
36:1:2675:C:N4	48:M1:22:SER:HB3	2.31	0.45
36:1:2764:C:H2'	36:1:2765:C:O4'	2.16	0.45
36:1:3169:U:H2'	36:1:3170:A:O4'	2.16	0.45
36:1:3344:A:H5''	36:1:3345:G:OP2	2.16	0.45
36:1:54:C:O2'	36:1:1547:G:H1'	2.16	0.45
1:2:1389:C:OP1	19:C7:48:ASN:ND2	2.49	0.45
1:2:1613:U:OP2	7:S5:84:LYS:HE3	2.16	0.45
1:2:1767:G:OP2	1:2:1770:U:O2'	2.28	0.45
1:2:1385:G:N7	88:2:2132:OHX:N3	2.65	0.45
1:2:296:U:H2'	1:2:297:U:C6	2.52	0.45
1:2:319:U:H1'	1:2:323:A:C4	2.51	0.45
1:2:720:G:O2'	1:2:721:U:H5'	2.17	0.45
38:4:93:U:H2'	38:4:94:C:O4'	2.17	0.45
36:5:1093:A:H4'	36:5:1093:A:OP1	2.16	0.45
36:5:1597:C:H5'	36:5:1696:A:H1'	1.97	0.45
36:5:2373:A:N7	36:5:2867:C:H1'	2.31	0.45
40:L3:129:ALA:O	36:5:3150:A:H5'	211.54	0.45
36:5:59:G:C4'	36:5:60:A:H4'	2.45	0.45
1:6:1267:G:H2'	1:6:1268:G:C8	2.52	0.45
8:S6:177:ARG:NH2	1:6:143:G:N7	311.70	0.45
12:C0:27:PHE:HB3	12:C0:40:LEU:HD23	1.98	0.45
13:C1:110:HIS:O	13:C1:139:VAL:HG23	2.17	0.45
13:C1:6:THR:CB	13:C1:9:SER:HB3	2.45	0.45
14:C2:67:THR:C	14:C2:69:ALA:H	2.20	0.45
15:C3:134:VAL:O	15:C3:135:LEU:HD23	2.43	0.45
18:C6:25:GLY:H	18:C6:63:ILE:HA	1.81	0.45
22:D0:87:HIS:N	22:D0:87:HIS:CD2	3.19	0.45
23:D1:1:MET:HB3	23:D1:10:GLU:HB3	4.40	0.45
23:D1:32:VAL:HG21	23:D1:60:ARG:NH2	2.31	0.45
23:D1:71:ARG:HD2	23:D1:75:ASN:HD21	1.80	0.45
25:D3:50:LYS:HA	25:D3:102:VAL:O	2.69	0.45
26:D4:58:PHE:CE2	26:D4:72:PHE:HB3	2.72	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:104:ALA:O	27:D5:105:THR:OG1	4.02	0.45
33:E1:88:PRO:HA	33:E1:89:LYS:HA	4.75	0.45
39:L2:116:VAL:HG11	39:L2:134:VAL:HG11	2.67	0.45
40:L3:97:ARG:NH1	36:5:3244:A:N1	245.09	0.45
42:L5:234:ASP:OD2	42:L5:234:ASP:N	2.48	0.45
44:L7:151:ARG:HD2	44:L7:244:ASN:OD1	3.95	0.45
45:L8:139:VAL:HG21	45:L8:197:VAL:HG23	2.09	0.45
46:L9:170:LYS:HD3	46:L9:170:LYS:HA	1.74	0.45
48:M1:116:TYR:CD2	48:M1:122:ILE:HD11	2.51	0.45
48:M1:85:LYS:HA	48:M1:89:TYR:CE2	2.51	0.45
50:M4:103:ILE:HG12	50:M4:106:ARG:HH21	3.06	0.45
36:1:1547:G:OP2	51:M5:105:ARG:NH1	2.48	0.45
52:M6:73:PHE:CD1	52:M6:78:ARG:HG2	2.50	0.45
53:M7:4:TYR:OH	53:M7:18:ARG:HG3	2.17	0.45
55:M9:101:VAL:HA	55:M9:104:ARG:NH1	2.31	0.45
55:M9:85:ARG:NH2	36:5:1916:U:H4'	228.86	0.45
56:N0:101:ALA:O	56:N0:105:THR:HG23	2.16	0.45
63:N7:97:SER:HB3	63:N7:99:GLU:HG3	1.98	0.45
67:O1:84:ASP:N	67:O1:84:ASP:OD1	2.48	0.45
76:Q0:79:GLU:HA	76:Q0:80:PRO:HD2	1.77	0.45
3:S1:181:LEU:O	3:S1:184:LEU:N	2.50	0.45
5:S3:34:TYR:HE2	5:S3:37:VAL:HG13	2.31	0.45
7:S5:177:ILE:HG12	7:S5:180:ARG:NH1	3.50	0.45
1:2:284:G:N7	8:S6:188:ARG:NH1	2.64	0.45
9:S7:51:VAL:HG11	9:S7:168:SER:HB3	3.82	0.45
10:S8:103:GLN:HB3	10:S8:164:ARG:HG2	1.98	0.45
35:SM:47:ALA:O	35:SM:48:ARG:HB2	4.76	0.45
36:1:13:A:H5''	36:1:13:A:C8	2.50	0.45
36:1:1562:C:O2'	36:1:1563:C:O5'	2.30	0.45
36:1:1554:U:O2'	36:1:1582:C:H5	2.00	0.45
36:1:1615:C:H2'	36:1:1616:U:H6	1.82	0.45
36:1:1899:G:N7	88:1:3940:OHX:N3	2.64	0.45
36:1:284:A:OP2	78:Q2:41:ARG:HD2	2.16	0.45
36:1:2816:G:C8	36:1:2869:U:H3'	2.52	0.45
36:1:3118:C:H4'	76:Q0:106:ARG:NH2	2.28	0.45
36:1:3231:U:H2'	36:1:3232:G:C8	2.51	0.45
1:2:1336:A:O2'	18:C6:123:ARG:HG2	2.16	0.45
1:2:1376:C:N4	1:2:1377:U:O4	2.50	0.45
1:2:1535:U:H4'	1:2:1535:U:OP1	2.15	0.45
1:2:698:U:O4	88:2:2097:OHX:N3	2.49	0.45
1:2:585:A:H2'	1:2:586:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:711:U:H4'	1:2:712:G:OP1	2.17	0.45
1:2:774:A:H2'	1:2:775:G:O4'	2.16	0.45
36:5:2440:G:N2	36:5:2508:U:C2	2.85	0.45
40:L3:3:HIS:H	36:5:2940:A:H62	240.14	0.45
55:M9:59:SER:N	36:5:3068:U:OP1	165.17	0.45
36:5:3078:U:O2	36:5:3078:U:O4'	2.34	0.45
36:5:3328:G:C2	36:5:3329:U:H1'	2.51	0.45
36:5:508:U:H2'	36:5:509:U:C6	2.51	0.45
1:6:486:G:O2'	1:6:487:G:H5'	2.17	0.45
1:6:489:C:O2'	1:6:490:C:O5'	2.32	0.45
1:6:567:A:H2'	1:6:568:G:O4'	2.16	0.45
42:L5:54:ARG:HG3	37:7:5:G:O3'	281.67	0.45
12:C0:59:PHE:CE1	12:C0:62:GLN:HA	2.52	0.45
13:C1:50:GLU:HG2	13:C1:50:GLU:H	3.71	0.45
14:C2:67:THR:O	14:C2:68:GLU:HB2	2.32	0.45
16:C4:81:VAL:HG22	16:C4:115:ILE:HB	1.99	0.45
18:C6:47:LYS:HD2	18:C6:47:LYS:HA	2.13	0.45
21:C9:30:VAL:O	21:C9:32:GLY:N	2.50	0.45
25:D3:93:LEU:O	25:D3:96:VAL:HG22	2.16	0.45
26:D4:7:ILE:HD11	26:D4:40:LEU:HD22	1.98	0.45
32:E0:44:PHE:O	32:E0:45:VAL:HG23	3.24	0.45
40:L3:107:ALA:HA	40:L3:199:PHE:CD2	2.51	0.45
40:L3:376:LYS:HG2	40:L3:380:MET:HG3	2.54	0.45
41:L4:142:VAL:O	41:L4:144:LYS:N	3.10	0.45
47:M0:153:ARG:HG3	47:M0:165:ILE:HD12	5.20	0.45
55:M9:109:TYR:CD2	55:M9:114:LYS:HD2	5.77	0.45
56:N0:12:ARG:HB3	56:N0:24:LEU:HA	1.98	0.45
58:N2:43:VAL:HG23	58:N2:49:ASN:HB3	2.30	0.45
59:N3:27:ASP:HA	59:N3:113:ALA:O	2.43	0.45
59:N3:33:ASN:HD21	59:N3:63:LYS:N	2.13	0.45
4:S2:207:LEU:HA	4:S2:207:LEU:HD23	2.36	0.45
4:S2:140:ARG:HH22	4:S2:228:ASN:HD21	1.63	0.45
6:S4:184:THR:C	6:S4:189:LEU:HD13	2.83	0.45
6:S4:240:LYS:HE2	6:S4:240:LYS:H	1.81	0.45
8:S6:211:LEU:O	8:S6:215:ARG:HB2	2.16	0.45
9:S7:111:LYS:O	9:S7:112:ARG:HB2	2.16	0.45
9:S7:12:ALA:HB3	9:S7:13:PRO:HD3	1.99	0.45
11:S9:132:ARG:O	11:S9:134:ILE:HD12	7.96	0.45
34:SR:50:ASP:HB3	34:SR:51:ASP:H	4.26	0.45
36:1:1109:U:H2'	36:1:1110:U:C6	2.51	0.45
36:1:1717:U:H2'	36:1:1718:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1927:G:OP1	79:Q3:8:VAL:HG13	2.16	0.45
36:1:210:U:C2	36:1:230:U:H4'	2.51	0.45
36:1:2261:G:O2'	36:1:2263:C:N4	2.49	0.45
36:1:2970:C:H4'	36:1:2971:A:N1	2.31	0.45
36:1:306:A:C2	36:1:307:A:C8	3.05	0.45
36:1:3348:G:H1	36:1:3357:U:H3	1.65	0.45
36:1:2674:A:OP2	88:1:4061:OHX:N3	2.50	0.45
36:1:422:A:C2	36:1:2363:A:H4'	2.52	0.45
1:2:1426:C:H5''	35:SM:93:ARG:NH1	2.32	0.45
1:2:1662:G:O2'	1:2:1663:G:H5'	2.17	0.45
1:2:711:U:H1'	1:2:712:G:H5'	1.97	0.45
36:5:1176:C:H2'	36:5:1177:G:N2	2.32	0.45
36:5:166:C:H2'	36:5:167:U:H6	1.81	0.45
36:5:1813:A:H2'	36:5:1814:A:H5''	1.98	0.45
36:5:2566:C:H1'	36:5:2576:G:N2	2.31	0.45
78:Q2:20:HIS:CG	36:5:2741:C:HO2'	216.34	0.45
43:L6:73:GLY:HA3	36:5:3267:A:C4	261.48	0.45
36:5:3276:G:OP2	36:5:3276:G:H2'	2.16	0.45
88:5:3981:OHX:N2	88:5:4203:OHX:N1	2.64	0.45
88:5:4025:OHX:N2	38:8:31:G:OP2	2.50	0.45
36:5:920:A:OP1	36:5:922:U:H5	1.99	0.45
17:C5:128:HIS:HA	1:6:1180:C:O2'	334.46	0.45
1:6:1645:G:H22	1:6:1756:A:H2	1.63	0.45
1:6:358:U:O2'	1:6:360:A:H5''	2.17	0.45
1:6:815:G:H5'	1:6:815:G:H8	1.80	0.45
36:5:408:A:H61	38:8:15:G:H1'	1.81	0.45
14:C2:63:VAL:HG11	14:C2:94:ALA:HB2	1.99	0.45
20:C8:46:VAL:HG21	20:C8:73:MET:HG2	1.99	0.45
20:C8:8:GLN:H	20:C8:8:GLN:HG3	1.48	0.45
21:C9:118:PRO:HD2	21:C9:123:ARG:NH2	2.32	0.45
21:C9:6:VAL:HG13	21:C9:66:TYR:CZ	2.68	0.45
26:D4:86:GLU:OE1	26:D4:90:ARG:NH1	3.64	0.45
40:L3:83:PRO:O	40:L3:165:GLN:HG3	2.17	0.45
41:L4:15:ALA:O	41:L4:16:THR:OG1	2.32	0.45
42:L5:233:ALA:O	42:L5:236:LEU:HB2	2.82	0.45
42:L5:34:LYS:HA	57:N1:27:LEU:HD11	1.98	0.45
44:L7:186:HIS:O	44:L7:190:THR:HG23	2.16	0.45
50:M4:113:THR:HG22	50:M4:115:PHE:N	2.31	0.45
53:M7:41:LEU:O	53:M7:45:GLN:HG3	2.17	0.45
55:M9:115:ILE:HG12	55:M9:119:LEU:HD23	1.98	0.45
55:M9:90:PRO:HG2	55:M9:93:VAL:CG2	3.33	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:80:ASN:ND2	61:N5:132:ALA:H	2.14	0.45
71:O5:59:ASN:O	71:O5:63:ARG:HG2	3.95	0.45
72:O6:98:ARG:HB3	72:O6:99:ARG:H	4.32	0.45
77:Q1:13:LEU:HD13	77:Q1:17:ARG:NH2	3.39	0.45
78:Q2:83:LEU:HD23	78:Q2:84:THR:H	2.11	0.45
2:S0:12:GLU:HG2	2:S0:13:ASP:N	2.32	0.45
2:S0:14:ALA:O	2:S0:18:LEU:HG	2.17	0.45
3:S1:180:THR:HG23	3:S1:183:GLN:OE1	9.40	0.45
4:S2:140:ARG:HB2	4:S2:222:TYR:CD2	2.83	0.45
6:S4:191:ARG:HH21	6:S4:218:PHE:HB3	1.81	0.45
7:S5:118:LEU:HA	7:S5:121:ILE:HD12	1.97	0.45
8:S6:211:LEU:HD21	8:S6:215:ARG:HH21	1.81	0.45
8:S6:58:LYS:C	8:S6:59:GLN:HE21	3.64	0.45
9:S7:164:TYR:CZ	9:S7:165:LYS:HE2	3.81	0.45
9:S7:74:GLN:NE2	9:S7:92:PHE:HB2	2.31	0.45
1:2:767:U:H5	11:S9:142:ASN:OD1	1.99	0.45
11:S9:172:VAL:HG13	1:6:512:A:OP2	454.45	0.45
11:S9:61:THR:O	11:S9:61:THR:OG1	2.26	0.45
35:SM:23:LYS:HA	35:SM:23:LYS:NZ	5.93	0.45
34:SR:128:ASP:OD1	34:SR:130:THR:OG1	2.64	0.45
34:SR:136:ILE:H	34:SR:136:ILE:HD13	1.80	0.45
34:SR:283:LYS:HG3	34:SR:284:ALA:N	4.87	0.45
36:1:1146:C:H4'	36:1:1331:U:C4	2.52	0.45
36:1:1556:C:H5''	36:1:2169:G:H22	1.82	0.45
36:1:1632:A:H2'	36:1:1633:C:C6	2.51	0.45
36:1:1925:U:O2	79:Q3:19:GLY:HA2	2.17	0.45
36:1:2838:A:C2	36:1:2839:G:H1'	2.52	0.45
36:1:3159:C:H2'	36:1:3160:U:H6	1.81	0.45
36:1:712:G:H2'	36:1:713:U:C6	2.52	0.45
36:1:810:A:H2'	36:1:811:U:C6	2.51	0.45
1:2:1085:G:N2	1:2:1088:A:OP2	2.33	0.45
1:2:1231:U:O5'	1:2:1259:U:H1'	2.16	0.45
1:2:1214:U:OP1	1:2:1246:C:H1'	2.17	0.45
1:2:1324:G:C6	1:2:1325:A:N7	2.85	0.45
1:2:531:C:H1'	26:D4:61:ARG:HD2	1.99	0.45
38:4:122:U:H2'	38:4:123:G:H8	1.80	0.45
36:5:1519:G:H2'	36:5:1520:G:C8	2.52	0.45
36:5:2514:U:OP1	36:5:2514:U:C6	2.69	0.45
36:5:2882:U:H2'	36:5:2883:U:C6	2.52	0.45
36:5:3316:A:H5''	36:5:3318:G:N2	2.31	0.45
88:5:3976:OHX:N3	88:5:4248:OHX:N5	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:641:C:H42	36:5:645:A:H8	1.63	0.45
36:5:717:C:H2'	36:5:718:G:O4'	2.17	0.45
77:Q1:21:ARG:NH2	1:6:1118:G:OP2	285.23	0.45
8:S6:137:ARG:HH11	1:6:144:U:H5	312.30	0.45
1:6:1708:U:H2'	1:6:1709:C:C6	2.52	0.45
1:6:697:C:OP2	88:6:2071:OHX:N5	2.50	0.45
1:6:1282:U:OP1	88:6:2133:OHX:N4	2.50	0.45
1:6:66:U:O2'	1:6:67:A:H5''	2.16	0.45
1:6:820:U:H5''	1:6:821:U:OP2	2.16	0.45
16:C4:78:ALA:HB2	16:C4:111:ARG:HB2	2.21	0.45
20:C8:11:PHE:CZ	20:C8:59:GLY:HA3	4.04	0.45
22:D0:108:ILE:H	22:D0:108:ILE:HG13	1.52	0.45
22:D0:80:GLU:HG2	31:D9:54:LYS:HZ1	4.63	0.45
25:D3:22:ASN:HB3	1:6:609:U:H5	336.46	0.45
26:D4:91:LEU:O	26:D4:96:LEU:HD12	2.15	0.45
41:L4:22:LEU:HA	41:L4:23:PRO:HD3	1.77	0.45
44:L7:132:PRO:HA	44:L7:229:PHE:CD2	2.57	0.45
46:L9:73:SER:HA	46:L9:76:ASP:HB2	2.82	0.45
48:M1:110:ILE:O	48:M1:112:LEU:N	2.49	0.45
49:M3:124:ILE:HD11	49:M3:126:PHE:CZ	2.52	0.45
50:M4:40:ASP:HA	56:N0:143:PHE:CE1	3.75	0.45
51:M5:35:VAL:HG23	36:5:1543:G:OP1	140.45	0.45
45:L8:140:VAL:HG21	51:M5:3:ALA:HB2	2.34	0.45
53:M7:27:LYS:HA	53:M7:63:PHE:CD2	2.52	0.45
57:N1:56:PHE:CE1	57:N1:78:LYS:HD3	2.52	0.45
71:O5:21:LEU:HD21	71:O5:25:LYS:HE3	4.11	0.45
72:O6:5:THR:HG23	72:O6:12:ASN:C	2.36	0.45
72:O6:57:LEU:O	72:O6:61:ILE:HG13	2.51	0.45
74:O8:64:LYS:HG3	74:O8:65:LEU:N	5.19	0.45
76:Q0:93:LYS:HG3	76:Q0:102:ARG:HG2	1.99	0.45
2:S0:140:ASN:OD1	4:S2:62:PRO:HD3	2.17	0.45
2:S0:177:LEU:O	2:S0:181:VAL:HG13	2.24	0.45
3:S1:121:ILE:HG23	3:S1:161:ILE:HG23	1.98	0.45
3:S1:31:ASP:OD2	3:S1:45:LYS:HE2	6.45	0.45
4:S2:90:THR:C	4:S2:92:ALA:H	2.44	0.45
6:S4:16:HIS:C	6:S4:18:TRP:H	2.20	0.45
6:S4:87:MET:HG3	6:S4:226:PHE:CE2	2.51	0.45
7:S5:51:VAL:HG13	7:S5:131:GLN:HB2	1.98	0.45
8:S6:153:VAL:O	8:S6:155:ASP:N	2.49	0.45
9:S7:110:GLN:HE21	9:S7:110:GLN:HB3	3.92	0.45
10:S8:196:LEU:HD12	10:S8:196:LEU:HA	1.73	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:SM:84:LYS:HZ2	35:SM:86:ASN:HD22	1.64	0.45
34:SR:103:PHE:CZ	34:SR:122:ILE:HD12	3.10	0.45
34:SR:19:TRP:CD2	34:SR:306:THR:HG22	2.56	0.45
36:1:1105:A:H2'	36:1:1106:G:C8	2.52	0.45
36:1:1415:U:H2'	36:1:1416:C:O4'	2.17	0.45
36:1:1951:C:H5'	36:1:1952:G:OP1	2.16	0.45
36:1:26:A:C4	36:1:330:G:C8	3.05	0.45
36:1:3330:A:H2'	36:1:3331:U:H6	1.82	0.45
36:1:2107:A:C2	36:1:3344:A:H8	2.35	0.45
36:1:435:C:H2'	36:1:436:A:C8	2.51	0.45
1:2:1349:G:H2'	1:2:1350:U:H6	1.82	0.45
1:2:1489:U:H5'	1:2:1494:C:H1'	1.98	0.45
1:2:386:G:N3	1:2:425:A:H2	2.14	0.45
1:2:524:U:H1'	1:2:527:A:N7	2.31	0.45
36:5:1805:C:H2'	36:5:1806:A:C8	2.52	0.45
36:5:2830:G:H1'	36:5:2861:U:C2	2.52	0.45
36:5:626:U:O4	88:5:3986:OHX:N4	2.49	0.45
36:5:370:U:H1'	36:5:403:C:C2	2.51	0.45
36:5:1070:U:O4	88:5:4115:OHX:N6	2.50	0.45
36:5:29:C:H4'	36:5:62:A:H4'	1.98	0.45
36:5:734:C:H2'	36:5:735:A:O4'	2.17	0.45
1:6:1469:A:H2'	1:6:1470:C:C6	2.52	0.45
10:S8:42:ARG:NH1	1:6:1677:C:OP1	262.77	0.45
1:6:168:A:C6	1:6:169:A:N6	2.85	0.45
1:6:819:G:O2'	1:6:821:U:OP2	2.34	0.45
1:6:939:A:H2'	1:6:940:A:C8	2.52	0.45
37:7:8:G:C6	37:7:9:C:C4	3.04	0.45
12:C0:54:TYR:CZ	12:C0:75:TYR:HB2	3.61	0.45
19:C7:5:ARG:O	19:C7:10:LYS:HE2	2.33	0.45
19:C7:21:TYR:HE2	19:C7:61:ILE:HG21	2.22	0.45
23:D1:74:GLN:O	23:D1:77:GLY:N	3.10	0.45
26:D4:89:TYR:O	26:D4:93:ARG:HG3	2.32	0.45
26:D4:91:LEU:HA	26:D4:91:LEU:HD22	3.05	0.45
27:D5:70:LYS:HA	27:D5:70:LYS:HD3	1.75	0.45
31:D9:10:HIS:CG	31:D9:11:PRO:HD2	2.52	0.45
41:L4:286:VAL:HA	41:L4:289:ILE:HG13	2.34	0.45
43:L6:170:LYS:O	43:L6:173:MET:HB2	2.49	0.45
44:L7:118:LYS:HG3	44:L7:191:VAL:CG1	2.47	0.45
44:L7:89:ILE:HG22	44:L7:220:PHE:HE1	1.81	0.45
45:L8:153:ILE:HD13	45:L8:166:LEU:HB3	2.55	0.45
47:M0:52:LEU:HA	47:M0:52:LEU:HD23	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:36:LEU:CD1	47:M0:87:LEU:HB3	2.74	0.45
50:M4:96:ALA:O	50:M4:101:LYS:HE3	2.16	0.45
52:M6:181:ALA:O	52:M6:183:ALA:N	2.50	0.45
53:M7:18:ARG:HG3	53:M7:147:GLU:HB3	3.52	0.45
55:M9:104:ARG:NH1	36:5:1949:G:H5'	217.01	0.45
59:N3:57:MET:HE3	59:N3:126:TRP:CH2	5.67	0.45
60:N4:30:ARG:HH11	60:N4:30:ARG:HG2	1.82	0.45
60:N4:9:SER:HB2	60:N4:51:TRP:CZ3	2.52	0.45
61:N5:64:GLU:O	61:N5:65:GLN:HB2	3.58	0.45
63:N7:109:GLU:O	63:N7:112:LYS:HB2	2.17	0.45
64:N8:77:LYS:HD3	64:N8:77:LYS:HA	1.66	0.45
66:O0:56:LEU:HA	66:O0:56:LEU:HD23	2.07	0.45
74:O8:70:PRO:HB2	74:O8:73:LEU:HB2	1.99	0.45
2:S0:57:LEU:HD12	2:S0:173:ILE:HG23	3.06	0.45
3:S1:182:ALA:O	3:S1:185:THR:HB	2.16	0.45
5:S3:200:LYS:HB3	5:S3:200:LYS:HE2	4.26	0.45
7:S5:149:VAL:HG12	7:S5:156:ARG:O	3.32	0.45
9:S7:166:LEU:HD12	9:S7:183:PHE:CD2	4.13	0.45
10:S8:155:SER:O	10:S8:159:GLN:HG3	2.17	0.45
34:SR:9:LEU:HG	34:SR:10:ARG:N	2.32	0.45
36:1:1131:G:C4	36:1:2373:A:C2	3.05	0.45
36:1:1161:G:H5'	36:1:1365:G:O2'	2.16	0.45
36:1:1273:A:O2'	36:1:1274:A:OP1	2.30	0.45
36:1:650:C:H2'	36:1:651:G:C8	2.52	0.45
1:2:1000:C:H2'	1:2:1002:G:OP2	2.17	0.45
1:2:872:G:N2	1:2:1047:G:H4'	2.32	0.45
1:2:1601:G:O5'	21:C9:90:PRO:HG2	2.16	0.45
1:2:1645:G:H22	1:2:1756:A:H2	1.65	0.45
1:2:505:A:N3	1:2:505:A:H2'	2.31	0.45
1:2:555:A:C6	1:2:556:A:N1	2.85	0.45
1:2:886:U:H2'	1:2:887:A:O4'	2.17	0.45
1:2:915:A:H2'	1:2:915:A:N3	2.32	0.45
38:4:144:G:O2'	38:4:145:U:H5'	2.17	0.45
36:5:776:U:C5	36:5:2719:U:O2	2.69	0.45
36:5:2733:A:H2'	36:5:2734:A:O4'	2.17	0.45
36:5:3195:U:H4'	36:5:3196:U:OP2	2.16	0.45
36:5:1502:C:OP2	88:5:3915:OHX:N3	2.50	0.45
88:5:3976:OHX:N1	88:5:4248:OHX:N5	2.64	0.45
1:6:1613:U:H6	1:6:1613:U:O5'	2.00	0.45
1:6:1673:G:C5	1:6:1674:C:C5	3.04	0.45
1:6:920:U:H2'	1:6:921:U:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:28:SER:OG	37:7:9:C:OP1	267.22	0.45
14:C2:43:ARG:HA	14:C2:121:VAL:HG12	1.99	0.45
2:S0:198:MET:SD	19:C7:88:VAL:HG23	2.84	0.45
23:D1:46:ILE:H	23:D1:46:ILE:HD12	4.69	0.45
24:D2:37:PHE:CE2	24:D2:103:ILE:HD12	2.52	0.45
26:D4:23:PHE:HE2	26:D4:75:VAL:HG12	1.82	0.45
40:L3:209:PHE:HB3	40:L3:282:ILE:HD12	2.14	0.45
42:L5:140:ARG:HB2	42:L5:140:ARG:HH21	1.82	0.45
44:L7:179:LEU:H	44:L7:179:LEU:HD22	2.14	0.45
45:L8:101:THR:HG22	45:L8:104:GLU:CG	2.47	0.45
46:L9:7:GLU:HA	46:L9:68:LEU:HD11	2.13	0.45
48:M1:75:LYS:HE2	48:M1:75:LYS:HB3	4.42	0.45
48:M1:92:ARG:HH21	48:M1:94:ARG:HD2	8.58	0.45
50:M4:49:PRO:HG3	50:M4:78:THR:HG23	3.13	0.45
51:M5:51:LEU:CD1	51:M5:119:TYR:HB3	2.81	0.45
51:M5:165:THR:O	51:M5:169:LYS:HG3	2.17	0.45
53:M7:31:GLU:CG	53:M7:60:PHE:HA	3.38	0.45
54:M8:147:ARG:O	54:M8:150:VAL:HG22	2.32	0.45
63:N7:14:VAL:HG12	63:N7:79:HIS:HA	1.99	0.45
49:M3:159:VAL:HA	64:N8:124:ILE:HD11	3.01	0.45
67:O1:52:ALA:O	67:O1:55:LEU:N	2.48	0.45
69:O3:13:HIS:HE2	69:O3:28:SER:HG	1.64	0.45
70:O4:22:VAL:HG12	70:O4:23:VAL:N	2.31	0.45
74:O8:12:LEU:HA	74:O8:12:LEU:HD13	2.76	0.45
78:Q2:3:ASN:O	36:5:2655:U:H2'	238.91	0.45
79:Q3:38:ASP:HA	79:Q3:45:LYS:HA	1.98	0.45
3:S1:46:THR:OG1	3:S1:47:LEU:N	4.04	0.45
5:S3:167:PHE:O	5:S3:190:ARG:HG2	2.28	0.45
6:S4:160:VAL:HG11	6:S4:169:ILE:HG12	2.69	0.45
9:S7:57:ALA:HA	9:S7:89:HIS:O	2.16	0.45
9:S7:98:ILE:HG12	9:S7:121:VAL:HG21	1.99	0.45
35:SM:113:ASP:O	35:SM:116:GLU:HB2	2.17	0.45
35:SM:97:THR:HG22	35:SM:99:LYS:HG3	1.98	0.45
34:SR:273:ASP:CG	34:SR:275:ARG:HH22	2.20	0.45
36:1:3316:A:O2'	36:1:3317:U:OP2	2.22	0.45
36:1:530:G:H2'	36:1:531:G:O4'	2.17	0.45
1:2:1015:U:OP1	88:2:2045:OHX:N3	2.50	0.45
1:2:1101:G:H5''	24:D2:76:SER:HB3	1.99	0.45
1:2:332:U:OP2	10:S8:56:ARG:NH2	2.50	0.45
36:5:1063:G:H2'	36:5:1097:G:N2	2.32	0.45
36:5:1131:G:C4	36:5:2373:A:C2	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1348:U:O4'	36:5:1355:A:N6	2.50	0.45
36:5:1563:C:O2	36:5:1577:G:N2	2.50	0.45
36:5:1597:C:H2'	36:5:1598:G:C8	2.52	0.45
36:5:1724:U:H1'	36:5:1725:C:C6	2.52	0.45
36:5:3006:A:H2'	36:5:3007:U:O4'	2.17	0.45
88:5:4014:OHX:N6	88:5:4205:OHX:N2	2.65	0.45
36:5:766:U:H4'	36:5:767:U:O5'	2.17	0.45
36:5:839:C:H4'	36:5:1724:U:H2'	1.98	0.45
36:5:848:A:C5	36:5:849:C:H1'	2.52	0.45
1:6:1541:G:C5	1:6:1542:G:C6	3.05	0.45
1:6:1595:U:H3	1:6:1600:A:H2	1.62	0.45
26:D4:37:LYS:HE3	1:6:523:G:OP2	413.65	0.45
17:C5:80:MET:HE2	17:C5:83:MET:HB2	1.98	0.45
18:C6:87:LYS:HA	18:C6:90:VAL:HG22	1.98	0.45
19:C7:113:LEU:HG	19:C7:114:GLY:N	2.32	0.45
31:D9:43:PHE:O	31:D9:47:ALA:N	2.68	0.45
33:E1:119:ARG:HG2	33:E1:119:ARG:H	1.56	0.45
33:E1:136:LYS:O	33:E1:138:ARG:HB2	2.17	0.45
40:L3:88:GLY:O	40:L3:161:LEU:N	2.38	0.45
42:L5:191:ASP:HA	42:L5:192:PRO:HD3	1.91	0.45
46:L9:29:GLY:HA3	46:L9:82:VAL:HG13	2.06	0.45
52:M6:41:LEU:O	52:M6:138:LEU:HB2	2.89	0.45
54:M8:100:THR:CG2	54:M8:120:GLU:HB3	2.47	0.45
56:N0:132:THR:O	56:N0:133:ALA:HB3	2.17	0.45
63:N7:4:PHE:CE2	66:O0:35:ARG:HA	2.51	0.45
64:N8:112:ILE:HA	64:N8:112:ILE:HD13	1.72	0.45
66:O0:100:ILE:HD12	66:O0:101:LEU:H	1.81	0.45
67:O1:12:TYR:O	67:O1:73:LEU:N	2.92	0.45
36:1:1162:U:H4'	68:O2:57:TYR:CD1	2.52	0.45
78:Q2:104:LEU:HA	78:Q2:104:LEU:HD12	1.71	0.45
3:S1:116:LYS:HB3	3:S1:117:TRP:CD1	3.60	0.45
3:S1:172:LEU:HD23	3:S1:172:LEU:HA	1.78	0.45
5:S3:202:LEU:O	5:S3:204:ASP:N	3.23	0.45
5:S3:42:THR:OG1	5:S3:44:THR:O	5.20	0.45
6:S4:86:PHE:HE1	6:S4:226:PHE:CD2	2.35	0.45
9:S7:60:ILE:HD12	9:S7:92:PHE:CZ	2.52	0.45
10:S8:152:ILE:HD13	10:S8:157:GLU:OE1	2.17	0.45
1:2:478:A:O2'	11:S9:124:HIS:ND1	2.40	0.45
34:SR:211:ILE:HG22	34:SR:223:TRP:CD1	2.52	0.45
36:1:1306:G:C6	52:M6:62:THR:HA	2.52	0.45
36:1:2777:G:H5''	36:1:2778:G:OP1	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3042:U:OP2	36:1:3092:C:N4	2.46	0.45
36:1:3321:C:H2'	36:1:3322:A:H8	1.81	0.45
36:1:1540:U:OP1	88:1:4031:OHX:N1	2.50	0.45
36:1:415:G:H2'	36:1:416:A:C8	2.53	0.45
36:1:730:C:H2'	36:1:731:U:C6	2.52	0.45
36:1:785:G:OP2	54:M8:66:ARG:NH1	2.50	0.45
36:1:796:U:H2'	36:1:797:U:C6	2.52	0.45
1:2:1410:A:H2'	1:2:1411:A:O4'	2.17	0.45
1:2:861:U:H5'	1:2:862:A:OP2	2.17	0.45
36:5:1393:A:C8	36:5:1418:A:C6	3.05	0.45
36:5:1621:A:H2'	36:5:1622:U:C6	2.52	0.45
36:5:2668:U:H2'	36:5:2669:G:C8	2.52	0.45
36:5:3056:U:OP2	88:5:3944:OHX:N2	2.49	0.45
88:5:3981:OHX:N4	88:5:4203:OHX:N3	2.65	0.45
1:6:675:U:H2'	1:6:676:G:C8	2.52	0.45
8:S6:173:PRO:O	1:6:79:C:H4'	344.45	0.45
38:8:154:C:H2'	38:8:155:A:O4'	2.17	0.45
88:8:218:OHX:N2	88:8:225:OHX:N1	2.65	0.45
12:C0:23:ALA:O	12:C0:24:LYS:HB3	4.58	0.45
12:C0:77:ARG:HA	12:C0:82:LEU:CD1	2.47	0.45
14:C2:59:LEU:HD23	14:C2:60:VAL:N	2.32	0.45
15:C3:87:ASP:OD2	15:C3:129:TYR:OH	2.79	0.45
20:C8:60:GLU:H	20:C8:60:GLU:HG2	1.50	0.45
21:C9:93:HIS:O	21:C9:94:ILE:HD13	3.15	0.45
24:D2:18:GLU:HG3	24:D2:69:LEU:HD23	2.27	0.45
24:D2:38:LEU:HD23	24:D2:41:MET:CE	2.71	0.45
28:D6:7:SER:HG	1:6:1796:C:H6	339.98	0.45
39:L2:107:VAL:HB	39:L2:111:THR:OG1	2.17	0.45
39:L2:116:VAL:HG22	39:L2:126:LEU:HD12	1.98	0.45
42:L5:269:SER:O	42:L5:272:TYR:HD2	3.63	0.45
42:L5:33:ARG:HD2	37:7:7:G:OP1	271.56	0.45
43:L6:31:ARG:O	43:L6:33:SER:N	2.86	0.45
44:L7:191:VAL:HG12	44:L7:192:GLY:N	3.83	0.45
45:L8:178:ALA:HB2	45:L8:218:ILE:HG23	2.11	0.45
46:L9:34:LEU:HD21	46:L9:149:ASN:CB	2.47	0.45
47:M0:68:ALA:HB1	47:M0:155:ALA:HB1	2.25	0.45
51:M5:118:SER:HB3	51:M5:132:VAL:HG22	2.18	0.45
51:M5:57:GLN:HB3	51:M5:139:HIS:NE2	3.28	0.45
52:M6:124:LEU:HD23	56:N0:168:PRO:HG3	2.21	0.45
55:M9:86:GLU:OE2	55:M9:91:SER:N	2.40	0.45
61:N5:92:LYS:HE3	36:5:1831:U:OP2	104.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:58:VAL:HA	62:N6:104:LEU:HD23	1.99	0.45
62:N6:124:GLY:C	62:N6:126:LEU:H	4.95	0.45
64:N8:75:LEU:O	64:N8:77:LYS:N	2.84	0.45
68:O2:37:GLY:HA3	36:5:639:G:P	185.26	0.45
68:O2:47:ARG:HG2	68:O2:48:GLY:N	2.32	0.45
68:O2:6:HIS:HA	68:O2:7:PRO:HD2	3.03	0.45
70:O4:11:ASN:HA	70:O4:12:PRO:HD3	1.58	0.45
78:Q2:55:LYS:NZ	91:Q2:503:C:O2	2.81	0.45
2:S0:103:THR:HA	2:S0:104:PRO:HD3	1.75	0.45
2:S0:9:LEU:HD13	2:S0:10:THR:O	2.43	0.45
2:S0:118:PRO:HG2	2:S0:141:ILE:HD13	2.15	0.45
3:S1:131:ASP:O	3:S1:133:TYR:N	2.41	0.45
4:S2:150:GLN:HA	4:S2:151:PRO:HD3	1.90	0.45
8:S6:1:MET:N	8:S6:18:ILE:O	2.50	0.45
8:S6:199:GLN:O	8:S6:203:GLU:HG3	3.30	0.45
8:S6:70:PRO:HD2	8:S6:71:THR:HG23	1.98	0.45
9:S7:104:ARG:HG2	9:S7:104:ARG:H	1.53	0.45
9:S7:31:SER:N	9:S7:32:PRO:HD2	3.99	0.45
10:S8:136:SER:HB2	10:S8:139:ALA:HB3	3.70	0.45
11:S9:150:LEU:HD12	11:S9:150:LEU:HA	2.09	0.45
11:S9:42:ILE:O	11:S9:46:SER:OG	2.35	0.45
34:SR:122:ILE:HB	34:SR:134:TRP:HB2	2.67	0.45
36:1:1211:U:H2'	36:1:1212:A:C8	2.53	0.44
36:1:1492:G:O2'	75:O9:48:LYS:NZ	2.50	0.44
36:1:1668:G:C6	36:1:1669:C:C4	3.06	0.44
36:1:1915:A:H5''	55:M9:84:THR:HG22	1.99	0.44
36:1:2213:A:N1	36:1:2429:G:H1'	2.32	0.44
36:1:2898:G:H5''	36:1:2899:C:C5'	2.47	0.44
10:S8:162:ALA:HA	36:1:3353:G:C5'	2.47	0.44
1:2:1396:U:H2'	1:2:1397:U:C6	2.52	0.44
1:2:1335:U:H3	1:2:1416:G:H1	1.64	0.44
1:2:1474:G:H2'	1:2:1475:A:C8	2.52	0.44
1:2:1573:A:H4'	1:2:1574:G:H5'	1.98	0.44
1:2:1746:A:H2'	1:2:1747:G:O4'	2.16	0.44
1:2:812:A:OP1	1:2:814:A:C8	2.70	0.44
36:5:1021:G:N1	36:5:1032:C:O2	2.49	0.44
36:5:1245:A:H5'	36:5:1247:U:OP2	2.17	0.44
36:5:123:A:C6	36:5:150:A:C5	3.05	0.44
49:M3:128:ARG:NH1	36:5:170:G:OP1	36.42	0.44
36:5:2147:A:H2'	36:5:2148:U:O4'	2.17	0.44
53:M7:139:TYR:CZ	36:5:2355:G:H4'	146.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
88:5:3981:OHX:N6	88:5:4203:OHX:N3	2.65	0.44
36:5:621:A:H2'	36:5:622:A:H8	1.78	0.44
36:5:736:A:C5	36:5:737:G:H1'	2.52	0.44
1:6:1625:C:H2'	1:6:1626:U:C6	2.52	0.44
1:6:974:A:H2'	1:6:975:C:O4'	2.17	0.44
12:C0:45:ALA:O	12:C0:49:LEU:HD23	2.54	0.44
13:C1:132:SER:O	13:C1:132:SER:OG	3.26	0.44
15:C3:54:LEU:O	15:C3:60:VAL:HB	2.17	0.44
23:D1:78:LEU:HD12	23:D1:78:LEU:HA	4.52	0.44
25:D3:108:GLY:O	25:D3:109:ARG:HG2	2.17	0.44
31:D9:30:LEU:HA	31:D9:39:CYS:HA	2.32	0.44
33:E1:98:VAL:HG22	33:E1:99:LYS:H	1.81	0.44
33:E1:98:VAL:HG13	33:E1:99:LYS:N	2.32	0.44
40:L3:232:ARG:HG2	40:L3:233:TRP:CD1	2.61	0.44
40:L3:257:PRO:O	40:L3:259:HIS:N	2.44	0.44
41:L4:264:SER:C	41:L4:266:THR:H	2.31	0.44
42:L5:92:LEU:HD23	42:L5:92:LEU:HA	2.55	0.44
44:L7:101:LYS:HD3	44:L7:101:LYS:C	2.37	0.44
45:L8:214:LEU:HA	45:L8:214:LEU:HD12	1.96	0.44
52:M6:14:HIS:HE1	52:M6:119:VAL:HG12	1.99	0.44
53:M7:62:ARG:O	53:M7:64:ASN:N	2.51	0.44
61:N5:108:LEU:HA	61:N5:108:LEU:HD22	2.66	0.44
61:N5:105:VAL:HA	61:N5:130:TYR:CE2	2.55	0.44
61:N5:136:ALA:O	61:N5:139:ILE:HG23	2.17	0.44
62:N6:47:ALA:O	62:N6:122:LYS:NZ	3.34	0.44
63:N7:87:LEU:HB2	63:N7:127:ASN:ND2	2.32	0.44
63:N7:135:ARG:HG2	63:N7:135:ARG:HH21	1.81	0.44
67:O1:97:LEU:HD22	67:O1:97:LEU:HA	2.69	0.44
72:O6:43:LEU:HD22	72:O6:43:LEU:HA	2.37	0.44
2:S0:190:ASP:C	2:S0:192:THR:H	4.84	0.44
5:S3:192:PRO:O	5:S3:195:SER:OG	4.36	0.44
6:S4:195:ILE:O	6:S4:210:ILE:HA	4.88	0.44
10:S8:8:ARG:HG3	10:S8:8:ARG:O	2.17	0.44
11:S9:133:HIS:HB3	11:S9:162:SER:HB2	4.97	0.44
11:S9:95:TYR:O	11:S9:98:ALA:HB3	2.16	0.44
34:SR:38:ARG:HG2	34:SR:67:ILE:CG2	2.38	0.44
34:SR:22:SER:OG	34:SR:70:ASP:HA	2.48	0.44
36:1:2664:C:O2'	36:1:2665:U:H5'	2.17	0.44
36:1:2947:G:C2	40:L3:250:ALA:HB1	2.53	0.44
36:1:3305:A:OP1	40:L3:334:ARG:NH2	2.48	0.44
36:1:329:U:H4'	36:1:330:G:OP2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1017:U:H2'	1:2:1018:U:C6	2.51	0.44
1:2:1553:G:N2	1:2:1555:A:H3'	2.32	0.44
88:2:2044:OHX:N4	88:2:2099:OHX:N6	2.65	0.44
1:2:279:G:N7	1:2:281:G:C8	2.86	0.44
1:2:768:C:C2	11:S9:143:ILE:HG12	2.52	0.44
38:4:35:C:H5''	73:O7:70:VAL:HG11	1.99	0.44
36:5:1039:U:H2'	36:5:1040:A:C8	2.51	0.44
74:O8:49:SER:OG	36:5:1825:G:OP1	134.93	0.44
36:5:2258:U:H2'	36:5:2259:A:O4'	2.18	0.44
36:5:2529:A:H2'	36:5:2530:G:O4'	2.17	0.44
40:L3:53:MET:HE1	36:5:3047:U:O2'	235.57	0.44
36:5:3046:A:H2'	36:5:3047:U:O4'	2.18	0.44
36:5:1208:U:H6	36:5:3115:C:H42	1.63	0.44
36:5:2718:U:OP2	88:5:4071:OHX:N6	2.49	0.44
36:5:998:A:H2	36:5:1051:U:O4	1.99	0.44
1:6:1224:A:C6	1:6:1225:U:C4	3.04	0.44
1:6:1541:G:C6	1:6:1542:G:C6	3.05	0.44
1:6:188:A:H3'	1:6:189:C:H6	1.83	0.44
26:D4:108:ARG:NH2	1:6:444:C:OP2	373.55	0.44
1:6:825:U:O2'	1:6:826:U:P	2.75	0.44
12:C0:69:THR:O	12:C0:73:VAL:HG23	2.17	0.44
13:C1:112:SER:C	13:C1:114:ALA:H	2.20	0.44
15:C3:26:PHE:CE2	15:C3:28:LEU:HB2	2.75	0.44
15:C3:53:LEU:HA	15:C3:53:LEU:HD12	1.79	0.44
17:C5:15:HIS:CG	17:C5:16:SER:N	3.05	0.44
17:C5:70:ASN:O	17:C5:71:GLU:HG2	4.29	0.44
19:C7:46:LEU:O	19:C7:50:ILE:HG13	2.17	0.44
20:C8:129:TRP:O	35:SM:68:ARG:HB2	3.13	0.44
25:D3:87:VAL:HA	25:D3:88:PRO:HD3	1.73	0.44
39:L2:137:ILE:HG23	39:L2:147:ARG:O	5.47	0.44
40:L3:169:THR:HG23	40:L3:170:PRO:N	2.83	0.44
40:L3:82:PRO:HA	40:L3:83:PRO:HD2	1.65	0.44
41:L4:150:LEU:HD11	41:L4:172:VAL:HG12	1.99	0.44
43:L6:155:LEU:HD23	43:L6:155:LEU:HA	1.78	0.44
44:L7:152:GLY:O	44:L7:163:LEU:HG	2.17	0.44
46:L9:188:THR:O	46:L9:189:GLU:HB2	4.43	0.44
47:M0:93:PRO:HA	47:M0:126:ALA:O	2.51	0.44
47:M0:19:LYS:HE3	47:M0:26:VAL:HG22	3.41	0.44
50:M4:50:LYS:HD2	50:M4:91:CYS:SG	6.70	0.44
51:M5:143:ARG:HH21	71:O5:92:LEU:HA	2.01	0.44
55:M9:38:ARG:HH21	36:5:1603:A:P	111.14	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:27:LEU:O	57:N1:28:SER:C	3.04	0.44
59:N3:87:ARG:HB2	59:N3:89:ASP:OD1	2.48	0.44
64:N8:91:LEU:HA	64:N8:121:VAL:HG21	1.98	0.44
67:O1:16:LEU:HD12	67:O1:16:LEU:HA	1.59	0.44
67:O1:17:HIS:CG	67:O1:69:TYR:HD1	2.34	0.44
68:O2:72:LYS:O	68:O2:92:TYR:HA	2.17	0.44
73:O7:2:GLY:O	73:O7:7:SER:HB3	2.22	0.44
3:S1:127:VAL:HG13	3:S1:176:VAL:HG11	1.98	0.44
4:S2:108:ASN:HA	4:S2:141:ARG:HH12	1.81	0.44
5:S3:74:GLN:NE2	5:S3:81:PRO:HG3	2.32	0.44
8:S6:210:GLN:HB3	8:S6:214:LYS:NZ	2.32	0.44
9:S7:15:GLU:O	9:S7:19:GLN:HG3	2.91	0.44
11:S9:114:TYR:HA	11:S9:119:ALA:HB3	2.09	0.44
11:S9:145:SER:HB2	1:6:474:A:OP1	419.43	0.44
11:S9:148:VAL:HG12	11:S9:150:LEU:H	1.83	0.44
11:S9:28:LEU:HD23	11:S9:28:LEU:HA	1.98	0.44
11:S9:63:ASP:O	11:S9:66:ASP:N	2.89	0.44
34:SR:302:PHE:CD2	34:SR:302:PHE:N	2.84	0.44
36:1:1185:C:OP1	50:M4:42:LYS:HE2	2.18	0.44
36:1:1204:A:H2	36:1:2834:G:N3	2.15	0.44
36:1:1701:C:H2'	36:1:1702:U:O4'	2.17	0.44
36:1:1947:G:H1	36:1:2101:C:H42	1.64	0.44
36:1:1952:G:H3'	36:1:1953:G:H5''	1.99	0.44
36:1:2157:G:O6	39:L2:152:SER:HB3	2.16	0.44
36:1:911:C:H5''	39:L2:15:ILE:HD13	1.99	0.44
1:2:1009:U:H2'	1:2:1010:C:C6	2.51	0.44
1:2:1331:A:H8	1:2:1331:A:O5'	2.01	0.44
1:2:1560:U:C4	1:2:1561:U:C4	3.05	0.44
1:2:778:G:H1	26:D4:10:ARG:NH1	2.15	0.44
51:M5:49:ARG:NH1	36:5:149:U:OP1	101.19	0.44
36:5:1553:U:H1'	36:5:1554:U:H5	1.81	0.44
36:5:1580:A:HO2'	36:5:1581:C:P	2.39	0.44
36:5:2505:U:H2'	36:5:2506:U:C5	2.53	0.44
36:5:2799:A:H5''	36:5:2800:G:O5'	2.17	0.44
36:5:783:A:OP2	88:5:4198:OHX:N6	2.51	0.44
36:5:731:U:H2'	36:5:732:C:C6	2.53	0.44
1:6:846:G:H2'	1:6:847:A:H8	1.82	0.44
13:C1:75:VAL:CG1	13:C1:120:GLY:H	2.30	0.44
13:C1:128:CYS:O	13:C1:129:ARG:HB3	4.22	0.44
1:2:1555:A:P	17:C5:47:ARG:HH21	2.40	0.44
18:C6:11:GLY:HA2	18:C6:83:GLN:HE21	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:30:THR:HG22	34:SR:127:ARG:HH22	3.33	0.44
22:D0:102:ARG:O	22:D0:106:ILE:HG22	2.18	0.44
22:D0:20:ILE:HD13	22:D0:22:ILE:HD13	1.99	0.44
28:D6:4:LYS:HG3	28:D6:4:LYS:O	2.16	0.44
33:E1:95:HIS:CG	33:E1:96:LYS:H	2.84	0.44
40:L3:188:ILE:O	40:L3:192:VAL:HG12	2.17	0.44
40:L3:261:MET:HE2	52:M6:63:ALA:C	2.38	0.44
43:L6:149:ILE:HG23	43:L6:155:LEU:HB3	1.98	0.44
44:L7:217:PRO:O	88:5:4005:OHX:N6	259.63	0.44
45:L8:32:LYS:HD3	45:L8:32:LYS:HA	4.30	0.44
46:L9:129:ARG:O	46:L9:132:VAL:HG13	2.83	0.44
46:L9:38:LEU:HD13	46:L9:71:VAL:HG22	3.79	0.44
47:M0:16:PRO:C	47:M0:18:PRO:HD3	2.37	0.44
47:M0:190:VAL:HG13	47:M0:197:VAL:CG2	2.47	0.44
47:M0:210:ILE:HG12	47:M0:217:PHE:CZ	2.51	0.44
48:M1:141:ARG:NH2	48:M1:144:CYS:O	2.33	0.44
49:M3:16:LYS:HE3	51:M5:195:ASN:OD1	2.18	0.44
51:M5:106:VAL:O	51:M5:109:ARG:N	2.49	0.44
58:N2:47:VAL:C	58:N2:49:ASN:N	3.21	0.44
61:N5:108:LEU:HD12	61:N5:125:ARG:HD2	1.99	0.44
61:N5:115:ARG:HH11	61:N5:115:ARG:HG3	1.82	0.44
62:N6:56:VAL:HG22	62:N6:104:LEU:HB3	1.98	0.44
63:N7:14:VAL:HG21	70:O4:90:ILE:HD11	1.99	0.44
64:N8:73:LEU:HB2	64:N8:109:TYR:CD2	2.53	0.44
64:N8:40:HIS:CD2	64:N8:41:HIS:CE1	3.05	0.44
66:O0:24:THR:CG2	66:O0:91:SER:HB3	2.71	0.44
68:O2:72:LYS:HB2	68:O2:92:TYR:CE1	3.09	0.44
70:O4:64:THR:OG1	70:O4:64:THR:O	2.30	0.44
71:O5:93:THR:HG23	71:O5:96:GLU:CD	2.38	0.44
36:1:817:A:C4	73:O7:13:ASN:O	2.71	0.44
78:Q2:10:THR:O	78:Q2:20:HIS:HA	2.38	0.44
2:S0:188:LEU:HD12	2:S0:189:VAL:HB	2.00	0.44
2:S0:61:ALA:HA	2:S0:181:VAL:HG12	2.12	0.44
3:S1:160:HIS:O	3:S1:164:ILE:HG13	2.35	0.44
3:S1:70:LEU:HA	3:S1:73:LEU:HD23	2.22	0.44
4:S2:98:PHE:CE1	35:SM:116:GLU:HG3	2.52	0.44
5:S3:32:GLU:O	5:S3:52:ALA:HB1	2.18	0.44
6:S4:29:PRO:O	6:S4:30:ARG:HB3	4.65	0.44
7:S5:194:LEU:HD22	7:S5:194:LEU:HA	1.81	0.44
7:S5:29:ILE:HG22	7:S5:34:GLN:HG2	1.99	0.44
9:S7:96:ARG:NH1	9:S7:128:ASP:OD2	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:166:TYR:O	10:S8:183:ILE:HD12	6.35	0.44
10:S8:8:ARG:HH22	10:S8:21:PHE:H	1.63	0.44
1:2:767:U:H5	11:S9:142:ASN:H	1.65	0.44
35:SM:58:GLU:OE2	35:SM:62:ARG:HD2	4.12	0.44
34:SR:243:LEU:HD23	34:SR:254:ALA:HA	1.99	0.44
34:SR:314:GLN:HG3	34:SR:315:VAL:N	3.60	0.44
36:1:1919:G:N7	88:1:4025:OHX:N5	2.64	0.44
36:1:2278:C:C2	36:1:2307:G:N2	2.86	0.44
36:1:2144:A:C4	36:1:2281:A:N6	2.86	0.44
36:1:2902:A:P	46:L9:170:LYS:HE3	2.57	0.44
1:2:1165:G:C6	1:2:1166:A:C6	3.05	0.44
1:2:1174:C:H2'	1:2:1175:U:O4'	2.18	0.44
1:2:1433:G:H22	31:D9:45:GLU:CD	2.21	0.44
1:2:387:A:OP2	1:2:387:A:H8	2.00	0.44
1:2:558:U:HO2'	1:2:559:C:P	2.41	0.44
1:2:582:U:H3'	1:2:583:C:H6	1.83	0.44
1:2:603:U:H2'	1:2:604:A:C8	2.52	0.44
68:O2:45:ARG:NH1	36:5:1160:C:N3	206.14	0.44
36:5:2101:C:H2'	36:5:2102:U:H6	1.83	0.44
36:5:2117:A:H3'	36:5:2118:C:C6	2.52	0.44
36:5:2433:U:OP2	36:5:2434:U:O2'	2.34	0.44
36:5:2518:C:C2	36:5:2590:A:C2	3.05	0.44
36:5:2530:G:H2'	36:5:2531:C:H5''	2.00	0.44
36:5:878:G:C2	36:5:2980:U:H5'	2.53	0.44
36:5:3169:U:H2'	36:5:3170:A:C8	2.52	0.44
36:5:3306:U:H2'	36:5:3307:A:H5''	2.00	0.44
36:5:3349:C:H2'	36:5:3350:C:O4'	2.17	0.44
36:5:3355:U:O2'	36:5:3356:G:H5''	2.18	0.44
88:5:3976:OHX:N4	88:5:4248:OHX:N2	2.66	0.44
36:5:1409:G:N7	88:5:4166:OHX:N6	2.66	0.44
88:5:4014:OHX:N4	88:5:4205:OHX:N1	2.66	0.44
36:5:618:C:H2'	36:5:619:A:C8	2.53	0.44
36:5:435:C:H42	36:5:624:G:H1	1.65	0.44
3:S1:149:GLN:NE2	1:6:1066:C:H4'	341.03	0.44
1:6:621:A:N3	1:6:1107:G:H1'	2.32	0.44
1:6:1648:A:H2'	1:6:1649:G:H8	1.82	0.44
1:6:82:U:H2'	1:6:83:G:O4'	2.17	0.44
37:7:4:U:H2'	37:7:5:G:H8	1.83	0.44
21:C9:53:TRP:HA	21:C9:56:LYS:HB2	1.99	0.44
23:D1:11:LEU:H	23:D1:11:LEU:HG	1.50	0.44
23:D1:78:LEU:O	23:D1:79:LEU:HD23	2.37	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:E0:46:ASN:OD1	32:E0:47:VAL:N	2.99	0.44
41:L4:77:VAL:HB	41:L4:85:SER:HA	1.98	0.44
36:1:1429:G:C5	41:L4:99:MET:HE1	2.52	0.44
42:L5:106:ALA:HB2	42:L5:166:ALA:HA	2.00	0.44
45:L8:180:VAL:HG11	45:L8:186:LEU:HD21	2.84	0.44
46:L9:162:GLN:HB2	46:L9:179:ILE:O	2.19	0.44
47:M0:16:PRO:HD3	47:M0:128:ARG:NH1	2.32	0.44
48:M1:25:GLU:OE1	48:M1:29:ARG:HB3	2.17	0.44
36:1:665:A:H1'	49:M3:14:PHE:CE1	2.52	0.44
49:M3:57:VAL:HG13	49:M3:147:ILE:HG23	1.98	0.44
50:M4:113:THR:CG2	50:M4:116:GLU:H	3.02	0.44
52:M6:22:VAL:HG11	52:M6:120:VAL:HG11	2.54	0.44
53:M7:46:LYS:HB2	53:M7:46:LYS:HE3	2.70	0.44
53:M7:27:LYS:HG2	53:M7:63:PHE:CG	3.50	0.44
53:M7:67:ILE:HD11	36:5:1447:G:H3'	165.32	0.44
54:M8:99:THR:HB	54:M8:100:THR:H	1.47	0.44
54:M8:40:THR:C	54:M8:42:ALA:H	2.21	0.44
55:M9:143:ILE:HG12	36:5:2093:A:H5''	249.90	0.44
55:M9:163:ARG:O	55:M9:167:ARG:HG2	4.26	0.44
55:M9:169:ALA:HA	55:M9:172:ARG:HD2	1.99	0.44
55:M9:61:SER:OG	55:M9:62:ARG:N	2.68	0.44
56:N0:77:VAL:HG11	56:N0:106:LEU:HG	3.01	0.44
57:N1:18:ASP:OD2	57:N1:18:ASP:N	3.41	0.44
57:N1:63:VAL:HG12	57:N1:64:VAL:N	2.70	0.44
58:N2:19:VAL:HG12	58:N2:105:LEU:HD22	2.40	0.44
59:N3:30:GLY:HA3	59:N3:66:LYS:HD2	1.99	0.44
61:N5:38:LEU:HD22	61:N5:40:LEU:HD13	3.80	0.44
68:O2:12:LYS:HE2	68:O2:57:TYR:HA	1.98	0.44
68:O2:9:ILE:HG23	68:O2:63:THR:HB	2.00	0.44
73:O7:76:ASN:O	73:O7:79:GLN:HG3	3.61	0.44
78:Q2:57:VAL:HG22	91:Q2:503:C:H4'	1.99	0.44
3:S1:145:LYS:HG2	3:S1:149:GLN:HB3	3.20	0.44
3:S1:187:LYS:O	3:S1:190:PRO:HD2	2.16	0.44
3:S1:140:ILE:HG21	3:S1:213:ARG:HD3	1.99	0.44
3:S1:104:ASP:HA	3:S1:214:LYS:HG3	1.99	0.44
3:S1:61:LEU:HD23	3:S1:62:LYS:H	1.82	0.44
4:S2:166:THR:HG23	4:S2:201:ASN:HB3	2.00	0.44
4:S2:212:LYS:HB3	4:S2:212:LYS:HE2	1.63	0.44
6:S4:57:ASN:HB2	6:S4:60:GLU:H	1.82	0.44
10:S8:188:GLU:HG3	10:S8:192:TYR:CE2	2.51	0.44
36:1:2656:A:C8	36:1:2658:G:C8	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:776:U:C5	36:1:2719:U:O2	2.59	0.44
36:1:3045:G:O3'	40:L3:275:ARG:NH1	2.51	0.44
36:1:685:G:OP1	49:M3:35:ARG:HD2	2.17	0.44
36:1:715:A:H8	64:N8:115:LYS:HG2	1.81	0.44
1:2:1049:U:H2'	1:2:1050:G:C8	2.52	0.44
1:2:1146:G:C6	1:2:1147:A:C6	3.06	0.44
1:2:1475:A:H2'	1:2:1476:C:O4'	2.17	0.44
1:2:117:U:H5'	1:2:333:A:O2'	2.17	0.44
1:2:558:U:O2'	1:2:559:C:O5'	2.32	0.44
37:3:19:C:H42	37:3:60:G:H1	1.66	0.44
38:4:59:A:N1	38:4:100:U:H1'	2.32	0.44
36:5:1773:C:H2'	36:5:1774:C:C6	2.53	0.44
36:5:1781:C:H2'	36:5:1782:U:H6	1.82	0.44
39:L2:222:ALA:HA	36:5:2245:C:O4'	221.76	0.44
59:N3:14:SER:OG	36:5:3094:A:OP1	251.85	0.44
36:5:3133:C:H2'	36:5:3134:A:O4'	2.17	0.44
50:M4:109:ARG:NH1	36:5:3210:A:OP1	292.51	0.44
36:5:345:G:OP1	36:5:1429:G:N1	2.38	0.44
36:5:731:U:H2'	36:5:732:C:H6	1.81	0.44
36:5:855:U:H2'	36:5:856:G:C8	2.53	0.44
1:6:1081:A:OP2	1:6:1081:A:H8	2.00	0.44
1:6:1273:G:O5'	1:6:1274:C:H3'	2.18	0.44
1:6:1671:A:H2'	1:6:1672:G:O4'	2.18	0.44
28:D6:5:ARG:NH1	1:6:1796:C:OP2	340.45	0.44
1:6:760:A:OP2	88:6:2081:OHX:N5	2.51	0.44
13:C1:133:LYS:HG2	1:6:337:G:H3'	292.19	0.44
1:6:341:A:H2'	1:6:342:C:H6	1.83	0.44
1:6:485:A:N6	1:6:502:U:H3	2.16	0.44
1:6:777:C:C2	1:6:778:G:C8	3.06	0.44
38:8:44:A:H2'	38:8:45:C:C6	2.52	0.44
13:C1:58:CYS:HA	13:C1:59:PRO:HD3	2.38	0.44
15:C3:136:PRO:HA	15:C3:137:PRO:HD2	2.31	0.44
16:C4:29:HIS:HA	16:C4:41:ARG:HA	1.99	0.44
17:C5:37:ALA:O	17:C5:42:ARG:HD3	2.22	0.44
20:C8:140:THR:O	20:C8:143:ARG:HD2	4.77	0.44
20:C8:145:ARG:HB3	20:C8:146:ALA:H	1.49	0.44
20:C8:8:GLN:HB3	20:C8:9:GLY:H	3.08	0.44
21:C9:85:SER:C	21:C9:87:GLY:H	2.21	0.44
24:D2:74:VAL:HA	24:D2:127:GLY:HA3	1.99	0.44
25:D3:14:LYS:HA	25:D3:17:VAL:HG12	5.03	0.44
25:D3:86:PHE:O	25:D3:124:VAL:HG23	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:190:ARG:NH1	39:L2:191:LEU:HD11	2.33	0.44
40:L3:183:LEU:HA	40:L3:183:LEU:HD12	1.96	0.44
40:L3:205:VAL:HA	40:L3:208:VAL:HG23	3.11	0.44
40:L3:214:MET:SD	40:L3:281:LYS:HG3	2.57	0.44
41:L4:333:VAL:HA	41:L4:336:ALA:HB3	1.99	0.44
42:L5:269:SER:C	42:L5:271:LYS:H	2.69	0.44
42:L5:281:GLU:O	42:L5:284:ALA:HB3	2.92	0.44
42:L5:4:GLN:N	42:L5:4:GLN:OE1	2.50	0.44
43:L6:109:GLU:H	43:L6:109:GLU:CD	4.18	0.44
46:L9:88:TYR:CD1	46:L9:184:LYS:HB2	5.25	0.44
46:L9:4:ILE:HG22	56:N0:142:GLN:OE1	2.18	0.44
47:M0:171:TRP:CE3	47:M0:178:ARG:HD2	3.54	0.44
47:M0:176:LEU:HD12	47:M0:181:TYR:HD1	2.19	0.44
47:M0:53:VAL:HG21	47:M0:166:ILE:HD12	1.99	0.44
48:M1:12:LEU:HD12	48:M1:131:MET:HE3	1.99	0.44
49:M3:105:ASN:OD1	49:M3:105:ASN:C	2.80	0.44
49:M3:67:ARG:HG3	49:M3:67:ARG:H	1.48	0.44
55:M9:38:ARG:NH2	36:5:1603:A:OP1	111.96	0.44
57:N1:132:PRO:O	57:N1:134:GLN:HG2	2.86	0.44
58:N2:89:LEU:HD13	58:N2:93:ILE:HD12	3.23	0.44
59:N3:126:TRP:HA	59:N3:127:PRO:HD3	1.84	0.44
59:N3:93:LEU:HB2	60:N4:20:LEU:HD22	2.00	0.44
64:N8:24:LYS:HD2	64:N8:26:ARG:NH2	2.32	0.44
70:O4:43:LYS:HB3	70:O4:48:GLY:O	2.64	0.44
71:O5:89:ARG:HH11	71:O5:89:ARG:HG2	1.82	0.44
51:M5:143:ARG:NH2	71:O5:91:ALA:O	3.18	0.44
72:O6:51:SER:O	72:O6:55:ARG:HG3	4.88	0.44
6:S4:132:GLY:N	6:S4:136:VAL:O	2.97	0.44
6:S4:212:ASP:N	6:S4:212:ASP:OD2	2.49	0.44
8:S6:57:ASP:OD1	8:S6:72:ARG:NH1	2.68	0.44
9:S7:157:LYS:O	9:S7:159:VAL:N	2.48	0.44
10:S8:11:ARG:O	13:C1:133:LYS:NZ	2.51	0.44
11:S9:115:LYS:HD2	11:S9:115:LYS:HA	1.65	0.44
35:SM:117:LEU:HD23	35:SM:121:LYS:HG3	2.00	0.44
34:SR:216:LYS:O	34:SR:218:GLY:N	2.51	0.44
18:C6:99:GLU:OE2	34:SR:60:SER:HB2	2.18	0.44
34:SR:74:THR:HG21	34:SR:79:TYR:HD2	1.83	0.44
36:1:1470:U:H2'	36:1:1471:U:H6	1.83	0.44
36:1:1818:U:H2'	36:1:1819:U:O4'	2.17	0.44
36:1:2922:G:H1'	36:1:2951:G:N3	2.32	0.44
36:1:440:A:OP2	36:1:440:A:H8	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1329:A:O5'	1:2:1329:A:H8	2.00	0.44
1:2:1572:G:N3	1:2:1572:G:H2'	2.32	0.44
1:2:1646:C:H2'	1:2:1647:U:H6	1.83	0.44
1:2:1760:G:C2'	1:2:1761:U:H5'	2.47	0.44
1:2:1773:C:H2'	1:2:1774:G:C8	2.53	0.44
1:2:355:G:OP2	88:2:2036:OHX:N4	2.50	0.44
38:4:143:U:H2'	38:4:144:G:O4'	2.16	0.44
42:L5:15:ARG:CZ	36:5:1003:A:H1'	290.53	0.44
36:5:1119:C:H2'	36:5:1120:A:C8	2.52	0.44
36:5:1260:A:H1'	36:5:1280:C:H1'	2.00	0.44
51:M5:93:LYS:HG3	36:5:289:A:C2	146.63	0.44
36:5:3365:U:OP1	88:5:4239:OHX:N1	2.50	0.44
14:C2:46:ARG:NH2	1:6:1253:U:OP2	453.73	0.44
1:6:1699:G:H2'	1:6:1700:C:H5'	2.00	0.44
1:6:992:A:OP1	1:6:1786:G:H5'	2.16	0.44
1:6:38:C:H2'	1:6:39:A:H5'	2.00	0.44
1:6:507:U:H2'	1:6:508:U:O4'	2.18	0.44
1:6:563:U:C4	1:6:564:G:C6	3.06	0.44
12:C0:24:LYS:HB2	12:C0:63:TYR:CE1	2.53	0.44
15:C3:5:HIS:HB3	15:C3:117:LEU:HD13	1.99	0.44
15:C3:16:ILE:HG23	15:C3:62:GLN:OE1	3.63	0.44
17:C5:64:LYS:NZ	17:C5:90:ILE:O	2.50	0.44
19:C7:119:LEU:HD12	19:C7:119:LEU:H	1.83	0.44
19:C7:16:LEU:HA	19:C7:16:LEU:HD23	1.84	0.44
20:C8:8:GLN:O	20:C8:10:SER:N	3.20	0.44
22:D0:16:GLN:HG3	22:D0:18:GLN:HG2	7.11	0.44
25:D3:74:VAL:HG21	25:D3:104:LEU:HD11	2.00	0.44
26:D4:21:LYS:N	26:D4:21:LYS:HD2	2.32	0.44
27:D5:55:PRO:HG3	27:D5:88:ILE:HG23	5.99	0.44
28:D6:90:GLU:N	28:D6:90:GLU:OE1	2.98	0.44
30:D8:10:ALA:HA	30:D8:33:LEU:HB2	4.73	0.44
31:D9:31:ILE:HB	31:D9:38:ILE:O	2.18	0.44
40:L3:10:ARG:NH1	40:L3:11:HIS:O	2.98	0.44
40:L3:140:ASP:OD1	40:L3:142:ALA:HB2	2.17	0.44
42:L5:261:THR:HG23	42:L5:264:GLN:OE1	2.17	0.44
37:3:22:A:H1'	42:L5:272:TYR:CZ	2.53	0.44
45:L8:160:ILE:HD12	45:L8:164:VAL:HG13	5.70	0.44
45:L8:41:GLN:HG3	45:L8:44:ARG:NH1	3.49	0.44
47:M0:129:VAL:HA	47:M0:133:GLN:OE1	2.57	0.44
47:M0:4:ARG:HD2	47:M0:9:TYR:OH	2.31	0.44
48:M1:24:GLY:H	48:M1:65:ILE:HG23	6.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:91:LEU:HB3	48:M1:95:ASN:HD22	1.83	0.44
36:1:684:G:OP2	49:M3:28:GLN:NE2	2.50	0.44
52:M6:138:LEU:HA	52:M6:138:LEU:HD12	1.65	0.44
55:M9:60:LYS:HB2	55:M9:60:LYS:HE2	1.62	0.44
56:N0:106:LEU:HD23	56:N0:110:MET:HG2	1.99	0.44
50:M4:43:LYS:HE2	56:N0:96:ASP:OD2	2.17	0.44
56:N0:59:VAL:HG22	57:N1:141:VAL:HG11	2.00	0.44
58:N2:22:PRO:HG3	58:N2:105:LEU:HB3	1.99	0.44
63:N7:97:SER:O	63:N7:100:THR:OG1	3.69	0.44
64:N8:116:GLY:HA2	64:N8:137:LYS:NZ	2.33	0.44
67:O1:12:TYR:O	67:O1:72:ARG:HD2	2.17	0.44
67:O1:97:LEU:HD23	67:O1:97:LEU:HA	1.75	0.44
71:O5:85:THR:HG22	71:O5:88:LEU:N	2.98	0.44
72:O6:94:ILE:HD13	72:O6:94:ILE:HA	4.36	0.44
74:O8:18:ALA:H	74:O8:20:VAL:CG2	4.20	0.44
77:Q1:6:ARG:O	77:Q1:10:THR:HG23	2.18	0.44
2:S0:74:VAL:HG12	2:S0:76:ILE:HG12	3.06	0.44
3:S1:145:LYS:HE3	3:S1:152:ARG:O	2.17	0.44
3:S1:168:ILE:HG12	3:S1:197:ILE:HD12	2.00	0.44
3:S1:63:GLY:HA2	3:S1:88:VAL:HB	1.99	0.44
5:S3:69:LEU:HA	5:S3:69:LEU:HD12	4.59	0.44
6:S4:18:TRP:HH2	6:S4:31:PRO:HD3	2.13	0.44
7:S5:110:ALA:HA	7:S5:113:ILE:HD12	1.99	0.44
8:S6:176:GLN:HB2	8:S6:176:GLN:HE21	1.65	0.44
11:S9:182:GLU:HG3	11:S9:182:GLU:H	2.34	0.44
36:1:2768:U:H2'	36:1:2769:A:C8	2.52	0.44
36:1:3217:C:H2'	36:1:3217:C:O2	2.18	0.44
36:1:981:U:HO2'	36:1:982:C:P	2.41	0.44
36:1:996:A:C2	36:1:1054:A:C4	3.05	0.44
1:2:1369:U:OP2	21:C9:69:LYS:HE3	2.17	0.44
1:2:1391:A:H2'	1:2:1392:U:C6	2.52	0.44
1:2:1617:U:O2'	1:2:1618:C:H5'	2.18	0.44
1:2:853:G:N7	55:M9:173:ARG:NH2	2.59	0.44
36:5:1074:U:O2'	36:5:1075:A:H2'	2.18	0.44
36:5:111:C:O2'	36:5:112:U:H5'	2.17	0.44
36:5:1282:G:H2'	36:5:1283:C:O4'	2.17	0.44
36:5:128:G:H2'	36:5:129:U:O4'	2.18	0.44
36:5:1307:G:H1'	36:5:1308:A:C8	2.52	0.44
36:5:166:C:H2'	36:5:167:U:C6	2.52	0.44
75:O9:10:LYS:HD3	36:5:1833:G:H5''	108.04	0.44
36:5:2172:A:OP2	88:5:4156:OHX:N5	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:249:U:O2'	36:5:250:U:H5''	2.18	0.44
36:5:2759:U:H5''	36:5:2760:C:H5'	1.99	0.44
36:5:3153:U:H1'	36:5:3154:C:C6	2.52	0.44
52:M6:93:ALA:HB3	36:5:632:G:OP1	220.40	0.44
36:5:929:A:H2'	36:5:930:U:C6	2.52	0.44
1:6:1288:G:N7	1:6:1314:U:H2'	2.33	0.44
1:6:46:A:N6	1:6:433:C:H4'	2.33	0.44
1:6:647:G:H1	1:6:687:G:H22	1.63	0.44
1:6:901:G:C2	1:6:902:G:C6	3.06	0.44
1:6:986:G:OP2	88:6:2116:OHX:N2	2.50	0.44
42:L5:24:ARG:NH2	37:7:13:A:N3	293.24	0.44
12:C0:72:GLY:C	12:C0:74:GLU:H	3.09	0.44
14:C2:48:SER:O	14:C2:52:LEU:HD23	2.17	0.44
18:C6:94:GLN:HG3	18:C6:95:LYS:N	2.71	0.44
24:D2:75:ILE:HG13	24:D2:125:ILE:HD11	1.99	0.44
25:D3:11:SER:O	25:D3:13:ARG:N	2.51	0.44
26:D4:43:LYS:O	26:D4:47:VAL:HG13	5.65	0.44
27:D5:43:ASP:C	27:D5:45:GLU:H	2.73	0.44
27:D5:54:VAL:HG22	27:D5:57:TYR:CE1	2.53	0.44
16:C4:102:LEU:HD11	28:D6:45:VAL:HG12	6.79	0.44
29:D7:26:GLN:NE2	1:6:864:U:OP2	352.83	0.44
29:D7:74:SER:O	29:D7:76:GLY:N	2.50	0.44
30:D8:36:THR:OG1	30:D8:37:SER:N	2.48	0.44
39:L2:200:ARG:HG3	36:5:2147:A:OP1	208.25	0.44
40:L3:255:TRP:CD1	36:5:2395:G:H5''	216.37	0.44
40:L3:4:ARG:HG3	40:L3:6:TYR:O	4.75	0.44
41:L4:206:LEU:HD23	41:L4:226:GLU:HB2	2.12	0.44
42:L5:218:ARG:HG3	42:L5:222:LEU:HD12	6.93	0.44
44:L7:156:ILE:HD12	44:L7:172:ASN:ND2	5.80	0.44
44:L7:95:ILE:HD12	44:L7:133:TYR:CE1	3.11	0.44
46:L9:121:LYS:HD2	46:L9:121:LYS:HA	2.12	0.44
46:L9:134:ILE:HD11	46:L9:146:LEU:HD23	1.99	0.44
46:L9:44:THR:HG22	36:5:3186:A:N3	326.80	0.44
49:M3:47:ALA:HB1	49:M3:48:PRO:CD	2.49	0.44
51:M5:44:ARG:HH22	36:5:269:G:P	125.30	0.44
52:M6:127:LEU:HD11	56:N0:168:PRO:HG3	2.26	0.44
37:3:10:C:OP2	57:N1:26:HIS:HD2	1.99	0.44
58:N2:90:ARG:O	58:N2:91:ASP:HB2	2.34	0.44
71:O5:31:LEU:HB3	71:O5:44:ILE:HD12	4.12	0.44
36:1:2765:C:O3'	78:Q2:39:GLY:HA3	2.18	0.44
3:S1:219:LYS:NZ	79:Q3:89:MET:O	9.25	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:179:ARG:HD3	2:S0:183:ARG:HD2	1.98	0.44
2:S0:74:VAL:HG22	2:S0:96:THR:HG23	2.28	0.44
4:S2:113:LEU:HB2	4:S2:215:PHE:CD1	2.65	0.44
6:S4:90:ILE:HB	6:S4:99:PHE:HB2	1.99	0.44
7:S5:57:SER:O	7:S5:59:VAL:HG23	2.18	0.44
10:S8:35:ASN:O	10:S8:37:LYS:HD3	2.17	0.44
11:S9:141:VAL:HG11	11:S9:146:PHE:CD2	3.52	0.44
11:S9:133:HIS:HB3	11:S9:162:SER:CB	5.06	0.44
36:1:1362:G:H1'	44:L7:159:GLN:NE2	2.33	0.44
36:1:1791:C:H2'	36:1:1792:C:C6	2.53	0.44
36:1:2534:G:N2	36:1:2545:C:N3	2.50	0.44
36:1:668:G:OP1	88:1:4133:OHX:N2	2.51	0.44
36:1:2596:U:O2'	88:1:4220:OHX:N3	2.51	0.44
1:2:1488:G:H5''	1:2:1489:U:OP1	2.17	0.44
1:2:1:U:C4	1:2:369:A:C6	3.06	0.44
1:2:876:G:H1'	1:2:944:A:O4'	2.17	0.44
37:3:62:U:OP1	42:L5:277:LEU:HB2	2.18	0.44
38:4:107:G:C2	38:4:116:G:C5	3.06	0.44
36:5:1168:U:O4	36:5:1329:U:H2'	2.17	0.44
36:5:1596:C:H2'	36:5:1597:C:C6	2.53	0.44
36:5:1937:U:C4	36:5:1938:U:O4	2.71	0.44
36:5:2294:U:O2	36:5:2296:A:H8	1.99	0.44
36:5:3269:U:H5'	36:5:3271:G:O4'	2.18	0.44
40:L3:174:LYS:N	36:5:3314:A:OP1	204.44	0.44
36:5:815:G:C6	36:5:906:A:C4	3.06	0.44
1:6:1199:G:OP1	1:6:1200:G:H8	2.01	0.44
42:L5:269:SER:CB	37:7:1:G:H21	318.28	0.44
38:8:132:G:C6	38:8:133:G:N7	2.85	0.44
38:8:145:U:H2'	38:8:146:U:H6	1.82	0.44
38:8:28:C:H2'	38:8:29:U:H6	1.83	0.44
14:C2:128:ALA:HB3	14:C2:133:LEU:HD22	4.13	0.44
14:C2:83:GLU:C	14:C2:85:LYS:H	4.55	0.44
17:C5:33:PHE:CZ	17:C5:112:LEU:HD13	4.12	0.44
2:S0:38:PHE:CD2	19:C7:109:LEU:HD13	3.21	0.44
20:C8:28:ILE:HG13	20:C8:28:ILE:H	4.31	0.44
22:D0:106:ILE:C	22:D0:108:ILE:H	2.20	0.44
24:D2:26:LEU:HD22	24:D2:27:ILE:N	2.33	0.44
25:D3:69:ARG:NH1	25:D3:116:ASP:OD2	2.80	0.44
25:D3:68:ILE:HG22	25:D3:70:LYS:HD3	1.99	0.44
26:D4:10:ARG:HD2	26:D4:26:ASP:HB2	2.00	0.44
28:D6:19:LYS:HE3	28:D6:19:LYS:HB2	1.78	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:66:LYS:HB2	28:D6:68:TYR:CZ	4.12	0.44
7:S5:61:TYR:OH	30:D8:52:ASP:OD1	4.57	0.44
31:D9:46:LYS:O	31:D9:50:ILE:HG13	2.86	0.44
33:E1:147:VAL:HG23	33:E1:148:TYR:CG	2.53	0.44
39:L2:28:LYS:HE3	39:L2:123:ARG:NH1	4.19	0.44
40:L3:56:ILE:HD12	40:L3:56:ILE:HA	2.22	0.44
41:L4:138:ARG:HH21	41:L4:240:PRO:HB2	2.23	0.44
41:L4:290:ILE:HG23	54:M8:35:PHE:CE2	2.53	0.44
43:L6:92:SER:OG	43:L6:93:VAL:N	3.39	0.44
46:L9:23:ARG:NH2	46:L9:41:ILE:O	5.38	0.44
46:L9:93:VAL:HG22	76:Q0:82:LEU:HB3	2.09	0.44
48:M1:133:ARG:HD2	48:M1:152:HIS:O	2.17	0.44
49:M3:53:LEU:HA	49:M3:53:LEU:HD23	2.01	0.44
50:M4:127:LYS:O	50:M4:130:THR:HG23	4.48	0.44
50:M4:17:VAL:HG11	50:M4:74:ARG:HA	1.99	0.44
50:M4:27:GLN:H	50:M4:27:GLN:HG2	2.20	0.44
50:M4:47:ASP:OD1	50:M4:55:ARG:HB2	2.17	0.44
51:M5:46:ASP:HB2	51:M5:50:ARG:HH21	4.22	0.44
53:M7:53:ASP:O	88:M7:206:OHX:N3	2.50	0.44
57:N1:136:ARG:HD2	57:N1:139:ARG:NH1	2.33	0.44
57:N1:154:VAL:HA	57:N1:155:PRO:HD3	2.25	0.44
61:N5:57:LEU:HA	61:N5:57:LEU:HD12	1.83	0.44
63:N7:34:LYS:HA	63:N7:34:LYS:HD2	2.22	0.44
66:O0:77:LEU:HD23	66:O0:87:VAL:O	2.42	0.44
67:O1:105:GLN:O	67:O1:107:VAL:HG23	4.66	0.44
67:O1:35:GLU:O	67:O1:38:LYS:HB3	2.18	0.44
68:O2:123:LYS:HA	68:O2:126:LEU:CG	2.54	0.44
70:O4:22:VAL:CG1	70:O4:30:LEU:HD22	2.44	0.44
71:O5:10:ARG:NH1	71:O5:60:GLU:OE1	3.12	0.44
72:O6:45:ARG:HH21	72:O6:50:LEU:HA	3.77	0.44
2:S0:140:ASN:OD1	23:D1:29:HIS:HA	3.82	0.44
3:S1:32:ILE:HB	3:S1:43:VAL:HB	2.83	0.44
3:S1:58:SER:HA	3:S1:62:LYS:HD3	2.00	0.44
3:S1:81:PHE:HB2	3:S1:82:ARG:H	1.65	0.44
8:S6:7:TYR:OH	8:S6:116:LYS:HD2	3.53	0.44
9:S7:149:ILE:HG12	9:S7:180:GLN:HB3	2.00	0.44
9:S7:163:ASP:O	9:S7:166:LEU:HB2	2.18	0.44
36:1:1593:A:O4'	70:O4:60:ARG:HD3	2.18	0.44
36:1:2253:G:C2'	36:1:2254:U:H5'	2.48	0.44
36:1:2383:C:H5'	52:M6:71:PHE:HE2	1.83	0.44
36:1:2700:G:O2'	36:1:2705:A:N1	2.45	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2759:U:H6	36:1:2759:U:O5'	2.00	0.44
36:1:2882:U:H2'	36:1:2883:U:C6	2.52	0.44
36:1:2921:U:H2'	36:1:2923:U:OP2	2.18	0.44
36:1:3136:G:OP2	88:1:4112:OHX:N6	2.51	0.44
36:1:3084:C:O2'	36:1:3332:U:OP1	2.26	0.44
88:1:3982:OHX:N3	88:1:4170:OHX:N1	2.66	0.44
1:2:1515:A:OP2	5:S3:7:LYS:HB2	2.18	0.44
1:2:1519:U:H5	1:2:1520:U:HO2'	1.65	0.44
1:2:1767:G:OP1	1:2:1770:U:H4'	2.18	0.44
1:2:320:U:H3'	1:2:321:C:C5'	2.45	0.44
36:5:180:C:H2'	36:5:181:U:H6	1.83	0.44
36:5:1839:A:N6	36:5:1843:C:C2	2.86	0.44
36:5:1863:G:N1	36:5:1866:C:OP2	2.42	0.44
36:5:293:C:H2'	36:5:294:U:O4'	2.18	0.44
36:5:3117:C:N3	88:5:4209:OHX:N2	2.65	0.44
1:6:1097:U:H5''	1:6:1099:U:O4'	2.18	0.44
1:6:1232:U:H2'	1:6:1233:G:O4'	2.18	0.44
1:6:1213:G:O2'	1:6:1244:A:N6	2.51	0.44
1:6:1382:A:O2'	1:6:1383:G:H5''	2.18	0.44
17:C5:122:THR:CB	1:6:1558:U:H3	366.29	0.44
1:6:366:A:H2'	1:6:367:A:H8	1.82	0.44
1:6:452:A:H3'	1:6:453:U:C5	2.53	0.44
1:6:493:U:H2'	1:6:494:U:H5''	2.00	0.44
1:6:49:C:H2'	1:6:50:C:O4'	2.18	0.44
13:C1:37:ASN:HA	13:C1:44:THR:HG21	1.98	0.44
15:C3:98:VAL:CG2	1:6:952:A:H5'	293.27	0.44
16:C4:136:ARG:H	16:C4:136:ARG:HG2	1.71	0.44
16:C4:92:LYS:HD2	16:C4:121:VAL:HG22	6.87	0.44
18:C6:82:ARG:HH22	18:C6:114:ARG:HB2	2.12	0.44
24:D2:5:SER:HB3	24:D2:8:ALA:HB3	2.96	0.44
24:D2:11:LEU:HD12	24:D2:74:VAL:HB	1.99	0.44
27:D5:60:VAL:HG13	27:D5:101:TYR:O	2.18	0.44
28:D6:10:ARG:HD3	28:D6:34:LYS:O	2.43	0.44
30:D8:32:PHE:HE2	30:D8:38:ARG:HB3	1.82	0.44
32:E0:48:THR:HB	32:E0:49:LEU:H	1.57	0.44
32:E0:59:GLY:O	32:E0:61:SER:N	3.34	0.44
33:E1:91:ILE:HB	1:6:1445:G:C6	386.85	0.44
41:L4:145:ILE:O	88:L4:402:OHX:N5	2.51	0.44
41:L4:51:ALA:O	38:8:27:U:H5'	110.22	0.44
42:L5:107:ARG:O	42:L5:111:GLN:N	2.99	0.44
44:L7:25:GLN:HE21	44:L7:29:GLU:HB2	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:142:LEU:HD13	45:L8:201:THR:HG21	2.65	0.44
45:L8:68:ARG:HA	45:L8:236:GLY:O	4.70	0.44
45:L8:238:LEU:HD12	45:L8:238:LEU:HA	1.79	0.44
47:M0:4:ARG:HA	47:M0:5:PRO:HD2	2.11	0.44
50:M4:15:VAL:HG13	56:N0:150:PHE:O	2.17	0.44
46:L9:47:LYS:NZ	50:M4:5:SER:O	5.48	0.44
54:M8:96:PHE:CG	54:M8:97:PRO:HD2	2.78	0.44
55:M9:8:LYS:HG3	55:M9:22:VAL:HG21	2.00	0.44
41:L4:359:LEU:HA	56:N0:8:GLN:OE1	2.29	0.44
74:O8:17:ARG:O	74:O8:19:ASP:N	2.49	0.44
75:O9:43:ASN:O	75:O9:45:ARG:N	2.50	0.44
76:Q0:98:LYS:HE2	76:Q0:115:CYS:HB2	2.00	0.44
3:S1:222:LYS:HA	3:S1:222:LYS:HD3	2.22	0.44
4:S2:53:ILE:H	4:S2:53:ILE:CD1	3.78	0.44
4:S2:88:LYS:CG	4:S2:89:GLN:H	3.96	0.44
6:S4:121:TYR:OH	6:S4:235:TYR:O	2.66	0.44
7:S5:33:VAL:HG13	7:S5:37:GLN:NE2	2.48	0.44
7:S5:45:LYS:HA	7:S5:45:LYS:HD3	1.22	0.44
7:S5:64:VAL:O	7:S5:65:ARG:HB2	2.18	0.44
8:S6:94:ARG:NH2	1:6:406:U:O3'	291.21	0.44
34:SR:37:SER:OG	34:SR:38:ARG:N	2.91	0.44
36:1:1065:A:C4	65:N9:28:LYS:HB2	2.53	0.43
36:1:1306:G:O2'	36:1:1307:G:H5'	2.18	0.43
36:1:1561:G:HO2'	36:1:1562:C:H6	1.62	0.43
36:1:1614:C:H2'	36:1:1615:C:H6	1.82	0.43
36:1:1742:U:H2'	36:1:1743:G:H8	1.81	0.43
36:1:2438:A:H2'	36:1:2439:A:C8	2.53	0.43
36:1:3063:C:O2'	36:1:3064:U:H5'	2.17	0.43
36:1:3174:A:C6	36:1:3175:U:C4	3.06	0.43
36:1:94:G:H2'	36:1:95:A:C8	2.53	0.43
1:2:1470:C:OP1	1:2:1540:G:O2'	2.32	0.43
1:2:392:G:H4'	1:2:1672:G:N2	2.33	0.43
1:2:530:C:H2'	1:2:531:C:H5'	1.98	0.43
1:2:926:A:H2'	1:2:927:C:O4'	2.17	0.43
36:5:1018:G:H2'	36:5:1019:G:O4'	2.18	0.43
36:5:953:G:C8	36:5:1117:G:C8	3.06	0.43
36:5:114:A:H2'	36:5:115:A:O4'	2.18	0.43
67:O1:64:VAL:HG13	36:5:1456:A:C6	163.10	0.43
36:5:1640:G:C6	36:5:1641:U:C4	3.06	0.43
36:5:2405:C:O2	36:5:2819:A:N1	2.51	0.43
36:5:2572:C:O2	36:5:2572:C:H2'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2775:U:H2'	36:5:2776:C:C6	2.52	0.43
36:5:2949:U:O2'	36:5:2950:G:H5'	2.17	0.43
36:5:3106:A:H61	36:5:3128:G:H1'	1.82	0.43
88:5:4014:OHX:N3	88:5:4205:OHX:N5	2.66	0.43
88:5:4014:OHX:N6	88:5:4205:OHX:N5	2.66	0.43
36:5:687:U:O2'	36:5:688:G:H5'	2.18	0.43
1:6:648:G:C4	1:6:687:G:N2	2.86	0.43
1:6:716:C:H2'	1:6:717:C:O4'	2.18	0.43
38:8:72:A:C5	38:8:73:U:C5	3.06	0.43
15:C3:12:SER:HB3	1:6:956:C:OP2	334.98	0.43
15:C3:56:ASP:OD2	29:D7:51:GLN:N	5.43	0.43
17:C5:28:MET:HE3	17:C5:33:PHE:HB2	2.33	0.43
17:C5:60:LEU:HD23	17:C5:76:VAL:HG21	2.33	0.43
18:C6:54:LEU:HD22	18:C6:54:LEU:HA	1.68	0.43
18:C6:58:ASP:OD2	18:C6:59:LYS:HD2	4.53	0.43
21:C9:15:ILE:HD13	21:C9:60:SER:HA	2.46	0.43
22:D0:48:HIS:O	22:D0:48:HIS:CG	2.70	0.43
25:D3:19:ARG:NH1	1:6:610:G:H21	341.94	0.43
25:D3:23:ARG:HB3	25:D3:29:TYR:CE1	2.81	0.43
25:D3:24:TRP:CZ3	25:D3:30:LYS:HG3	3.72	0.43
27:D5:56:THR:O	27:D5:58:ARG:N	2.51	0.43
33:E1:127:GLY:O	33:E1:129:GLY:N	2.50	0.43
40:L3:83:PRO:HB2	40:L3:165:GLN:HE22	3.17	0.43
45:L8:71:VAL:HB	51:M5:21:PHE:CE1	2.52	0.43
41:L4:299:ILE:CG2	54:M8:39:ARG:HB3	2.48	0.43
55:M9:158:GLU:O	55:M9:161:ALA:HB3	2.17	0.43
55:M9:46:LYS:HZ2	36:5:1766:G:H8	100.90	0.43
63:N7:26:VAL:HB	63:N7:89:VAL:HG21	1.98	0.43
63:N7:81:LEU:HA	63:N7:81:LEU:HD23	1.69	0.43
68:O2:75:LEU:HA	68:O2:75:LEU:HD23	1.86	0.43
69:O3:21:ARG:HH11	69:O3:21:ARG:HG3	1.83	0.43
73:O7:24:ARG:NH1	36:5:361:A:OP1	120.60	0.43
73:O7:52:LYS:HA	73:O7:55:ARG:CD	2.93	0.43
76:Q0:122:ARG:NH2	36:5:2896:A:O2'	319.41	0.43
78:Q2:14:GLY:O	78:Q2:18:ARG:HG3	5.15	0.43
4:S2:58:LEU:O	4:S2:58:LEU:HD22	3.15	0.43
5:S3:105:MET:HA	5:S3:108:LYS:HB2	1.99	0.43
5:S3:217:ILE:C	5:S3:219:ALA:H	4.16	0.43
5:S3:216:PRO:HB2	5:S3:217:ILE:H	1.59	0.43
7:S5:68:ILE:HD13	7:S5:69:PHE:H	5.00	0.43
6:S4:152:PRO:HD2	8:S6:215:ARG:HD3	6.57	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:61:PHE:CE1	8:S6:96:SER:HB2	2.84	0.43
9:S7:101:LYS:HA	9:S7:102:PRO:HD3	1.88	0.43
35:SM:51:ARG:HB2	35:SM:52:PRO:HD2	2.00	0.43
34:SR:42:LEU:HD11	34:SR:68:VAL:HG11	2.00	0.43
36:1:177:U:C4	36:1:178:U:C4	3.07	0.43
36:1:208:C:C2'	36:1:209:A:H5'	2.47	0.43
36:1:952:A:OP1	65:N9:14:ARG:NH2	2.51	0.43
1:2:1172:G:H21	21:C9:88:VAL:CG2	2.32	0.43
1:2:1754:A:H4'	1:2:1755:A:O4'	2.18	0.43
88:2:2044:OHX:N2	88:2:2099:OHX:N6	2.66	0.43
1:2:702:G:C2	1:2:703:G:H1'	2.54	0.43
1:2:748:U:O2	1:2:802:G:C2	2.71	0.43
1:2:895:G:O2'	16:C4:38:THR:N	2.46	0.43
1:2:967:A:H2'	1:2:968:U:O4'	2.18	0.43
68:O2:105:ARG:NH2	36:5:1412:G:OP1	146.27	0.43
36:5:3131:U:H2'	36:5:3132:C:C6	2.53	0.43
36:5:3218:A:H8	36:5:3218:A:H2'	1.68	0.43
36:5:374:A:O2'	36:5:376:G:H5'	2.18	0.43
36:5:2234:G:O6	88:5:3965:OHX:N1	2.52	0.43
36:5:3239:G:N7	88:5:3991:OHX:N5	2.66	0.43
1:6:1279:C:H2'	1:6:1280:C:O4'	2.18	0.43
19:C7:49:LYS:HA	1:6:1389:C:H4'	422.39	0.43
1:6:1531:G:C6	1:6:1532:U:C4	3.06	0.43
1:6:53:G:H2'	1:6:54:C:O4'	2.18	0.43
1:6:853:G:H2'	1:6:854:U:C6	2.53	0.43
1:6:880:C:H2'	1:6:881:A:C8	2.53	0.43
38:8:149:A:H2'	38:8:150:G:C8	2.54	0.43
12:C0:49:LEU:HB3	12:C0:55:VAL:HG11	1.99	0.43
24:D2:24:GLN:HA	24:D2:63:VAL:O	2.18	0.43
7:S5:166:ARG:HD2	30:D8:46:GLY:CA	2.48	0.43
32:E0:49:LEU:H	32:E0:49:LEU:HD22	3.02	0.43
39:L2:178:PRO:HG2	79:Q3:26:VAL:CG2	2.47	0.43
41:L4:84:ARG:O	41:L4:87:GLN:HG3	2.20	0.43
42:L5:115:LEU:HA	42:L5:115:LEU:HD13	2.53	0.43
42:L5:183:TRP:CH2	42:L5:188:GLU:HA	2.52	0.43
42:L5:219:PHE:C	42:L5:221:GLU:H	3.29	0.43
42:L5:278:SER:N	42:L5:281:GLU:OE2	2.51	0.43
43:L6:89:THR:HG21	50:M4:115:PHE:HB2	2.03	0.43
45:L8:26:LEU:HA	45:L8:26:LEU:HD23	4.42	0.43
47:M0:193:ASP:OD2	47:M0:198:LYS:HE3	3.17	0.43
47:M0:12:GLN:NE2	47:M0:57:LEU:HD22	3.88	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:80:LEU:O	48:M1:84:LEU:HG	2.71	0.43
50:M4:8:LYS:HE3	50:M4:8:LYS:HB3	1.69	0.43
36:1:1103:A:H2	54:M8:9:GLN:HE22	1.63	0.43
55:M9:173:ARG:O	55:M9:177:VAL:HG23	2.18	0.43
58:N2:56:VAL:HG13	58:N2:65:VAL:HG22	2.00	0.43
49:M3:9:ILE:HG12	64:N8:34:MET:HE3	1.99	0.43
65:N9:23:LYS:HD2	65:N9:23:LYS:HA	1.55	0.43
63:N7:136:PHE:CE1	70:O4:89:ILE:HG12	3.55	0.43
72:O6:60:LEU:HD22	72:O6:64:SER:HB2	2.00	0.43
73:O7:45:ARG:HD2	73:O7:45:ARG:HH11	1.65	0.43
79:Q3:73:THR:HB	79:Q3:76:ALA:CB	5.00	0.43
2:S0:76:ILE:HB	2:S0:123:VAL:HG23	2.32	0.43
2:S0:77:SER:OG	2:S0:82:GLY:HA3	2.19	0.43
3:S1:31:ASP:HB3	3:S1:45:LYS:HD3	1.99	0.43
3:S1:70:LEU:HB3	3:S1:79:HIS:CB	6.07	0.43
6:S4:126:VAL:HG13	6:S4:158:ASP:O	2.18	0.43
6:S4:128:LYS:HB3	6:S4:128:LYS:HE2	1.73	0.43
6:S4:159:THR:OG1	6:S4:226:PHE:HE1	2.01	0.43
7:S5:151:GLY:HA3	7:S5:156:ARG:H	4.88	0.43
7:S5:89:ILE:HD12	7:S5:90:ILE:N	2.36	0.43
8:S6:5:ILE:HG12	8:S6:111:LEU:HD12	3.04	0.43
11:S9:107:ARG:NH1	11:S9:112:GLN:OE1	2.51	0.43
11:S9:132:ARG:HH11	11:S9:132:ARG:HG3	1.83	0.43
11:S9:59:LEU:O	11:S9:62:ARG:HB2	2.57	0.43
11:S9:79:ARG:O	11:S9:83:VAL:HG22	3.33	0.43
35:SM:82:THR:HB	35:SM:83:LYS:H	1.64	0.43
34:SR:273:ASP:OD1	34:SR:275:ARG:NH1	2.51	0.43
36:1:1556:C:C5'	36:1:2169:G:H22	2.31	0.43
36:1:1881:A:H61	36:1:2351:U:H3	1.65	0.43
36:1:2167:A:C6	36:1:2168:A:C6	3.05	0.43
36:1:2267:C:H2'	36:1:2268:U:O4'	2.18	0.43
36:1:2419:A:H2'	36:1:2420:C:H6	1.83	0.43
36:1:2396:G:N2	36:1:2985:C:C2	2.86	0.43
36:1:1345:G:N7	88:1:3970:OHX:N4	2.66	0.43
36:1:401:U:H4'	36:1:403:C:C2	2.53	0.43
88:1:3982:OHX:N5	88:1:4170:OHX:N2	2.66	0.43
36:1:784:A:H2'	54:M8:69:ARG:HH21	1.83	0.43
1:2:730:G:H21	1:2:731:C:H5'	1.84	0.43
1:2:737:A:OP2	1:2:737:A:H2'	2.19	0.43
1:2:788:A:H3'	6:S4:108:ARG:NH2	2.33	0.43
37:3:47:C:H2'	37:3:48:U:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:23:U:H4'	62:N6:17:LYS:HG2	2.00	0.43
36:5:999:G:C6	36:5:1000:C:N4	2.86	0.43
57:N1:129:LYS:HG2	36:5:1095:U:O2	252.76	0.43
36:5:127:G:H2'	36:5:128:G:H8	1.83	0.43
36:5:2541:U:H4'	36:5:2542:U:OP1	2.18	0.43
36:5:3198:U:H4'	36:5:3199:G:OP2	2.17	0.43
36:5:3218:A:C2	36:5:3277:U:H1'	2.53	0.43
54:M8:89:ASP:HB3	36:5:677:A:OP1	134.33	0.43
36:5:706:A:H4'	36:5:781:G:O2'	2.18	0.43
1:6:1159:C:H5''	1:6:1160:A:H5'	1.99	0.43
1:6:1424:A:H2'	1:6:1425:A:O4'	2.18	0.43
1:6:447:U:C4	1:6:448:C:C4	3.06	0.43
37:7:114:U:H2'	37:7:115:G:H8	1.83	0.43
12:C0:29:GLN:HB2	12:C0:39:ASN:CB	2.46	0.43
12:C0:49:LEU:HB3	12:C0:55:VAL:HG13	2.52	0.43
12:C0:25:LYS:HB2	12:C0:59:PHE:HE2	2.68	0.43
21:C9:86:ARG:HG3	21:C9:86:ARG:HH11	1.82	0.43
22:D0:92:ASP:O	22:D0:93:LEU:HD23	2.87	0.43
22:D0:20:ILE:O	22:D0:94:GLU:HA	5.44	0.43
1:2:1792:G:O5'	28:D6:3:LYS:HA	2.18	0.43
29:D7:67:THR:HG22	29:D7:68:GLY:H	1.83	0.43
30:D8:8:THR:HB	30:D8:56:LEU:O	2.19	0.43
40:L3:92:TYR:HE1	40:L3:159:ARG:HD2	1.83	0.43
41:L4:329:PRO:HB2	41:L4:330:TYR:H	3.98	0.43
41:L4:71:VAL:HG22	41:L4:72:ALA:H	1.82	0.43
42:L5:269:SER:O	42:L5:271:LYS:N	3.21	0.43
49:M3:99:HIS:CE1	49:M3:100:ARG:HG2	2.53	0.43
50:M4:85:TRP:NE1	50:M4:90:VAL:HG13	2.33	0.43
51:M5:96:ARG:NH1	51:M5:96:ARG:HG2	2.40	0.43
57:N1:83:ARG:HD2	57:N1:85:LEU:HD21	2.00	0.43
58:N2:77:LYS:HD2	58:N2:95:PHE:CD1	4.76	0.43
67:O1:78:LYS:O	67:O1:90:PHE:HB2	5.55	0.43
69:O3:45:LEU:HA	69:O3:71:VAL:CG1	2.85	0.43
70:O4:56:THR:HA	70:O4:62:TYR:OH	2.19	0.43
71:O5:14:LYS:HB3	71:O5:15:GLU:OE2	7.31	0.43
71:O5:74:LYS:HE2	71:O5:75:TYR:CZ	4.43	0.43
2:S0:180:GLU:O	2:S0:183:ARG:N	2.51	0.43
6:S4:52:LEU:HB3	6:S4:54:TYR:HD2	1.94	0.43
7:S5:27:THR:HA	7:S5:28:PRO:HD2	2.58	0.43
9:S7:102:PRO:HD3	9:S7:112:ARG:HD3	2.93	0.43
11:S9:129:ILE:O	11:S9:134:ILE:HD11	4.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:66:ASP:OD2	11:S9:68:LYS:N	2.98	0.43
35:SM:50:ASN:N	35:SM:50:ASN:OD1	2.62	0.43
35:SM:54:PRO:HB2	35:SM:59:GLY:HA2	2.37	0.43
34:SR:85:TRP:N	34:SR:85:TRP:CD1	2.86	0.43
36:1:1101:G:H5''	44:L7:107:ARG:HD3	2.00	0.43
36:1:1734:G:H2'	36:1:1735:G:O4'	2.19	0.43
36:1:2186:U:H2'	36:1:2187:G:O4'	2.19	0.43
36:1:2342:U:H5''	36:1:3089:C:O2'	2.19	0.43
88:1:4044:OHX:N4	88:1:4057:OHX:N1	2.66	0.43
36:1:40:A:C2	64:N8:40:HIS:CE1	3.07	0.43
36:1:819:U:OP1	73:O7:10:LYS:NZ	2.45	0.43
1:2:1556:A:C5	1:2:1560:U:C2	3.06	0.43
1:2:1671:A:H2'	1:2:1672:G:O4'	2.18	0.43
1:2:545:A:H4'	1:2:546:U:OP1	2.19	0.43
1:2:892:A:H2'	1:2:893:U:C6	2.53	0.43
38:4:125:U:HO2'	38:4:126:A:P	2.41	0.43
36:5:1454:A:OP1	88:5:4200:OHX:N6	2.52	0.43
55:M9:9:ARG:NH2	36:5:1603:A:OP1	110.24	0.43
39:L2:156:LYS:NZ	36:5:2158:A:OP2	204.24	0.43
36:5:2610:G:H2'	36:5:2611:U:O4'	2.17	0.43
36:5:2691:A:H2'	36:5:2692:A:C8	2.53	0.43
36:5:3193:C:H2'	36:5:3194:C:C6	2.53	0.43
36:5:3362:A:C2	36:5:3363:U:C2	3.07	0.43
36:5:352:A:N6	36:5:365:A:H5''	2.32	0.43
36:5:971:G:H2'	36:5:972:A:O4'	2.17	0.43
1:6:1005:A:H2'	1:6:1006:C:C6	2.53	0.43
1:6:1147:A:C6	1:6:1148:C:C4	3.07	0.43
1:6:1450:U:OP2	88:6:2124:OHX:N4	2.51	0.43
1:6:1690:G:H1	1:6:1711:C:H42	1.66	0.43
1:6:727:U:H2'	1:6:728:U:C6	2.53	0.43
1:6:72:A:H5'	1:6:73:U:OP2	2.17	0.43
14:C2:89:ILE:HD13	14:C2:90:LYS:N	2.33	0.43
16:C4:90:ARG:HB3	16:C4:91:THR:H	1.57	0.43
17:C5:22:LEU:HA	17:C5:25:LEU:HD12	2.64	0.43
18:C6:113:ASP:CG	18:C6:114:ARG:H	2.22	0.43
19:C7:27:ASP:OD2	19:C7:30:THR:HG23	2.18	0.43
20:C8:42:TYR:HE2	20:C8:73:MET:HG2	2.55	0.43
23:D1:64:GLU:O	23:D1:68:SER:HB2	2.19	0.43
28:D6:78:ALA:HA	28:D6:83:ILE:HG13	7.86	0.43
29:D7:59:CYS:O	29:D7:61:THR:N	3.29	0.43
1:2:1235:C:O2'	33:E1:149:LYS:HE3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:79:ASN:ND2	39:L2:165:VAL:HG22	2.33	0.43
39:L2:185:ALA:O	39:L2:188:LYS:HB3	2.19	0.43
36:1:3295:A:H5'	40:L3:119:TYR:HE1	1.82	0.43
42:L5:40:HIS:CE1	42:L5:42:ALA:HB3	3.72	0.43
42:L5:81:HIS:O	42:L5:84:PRO:HD2	2.19	0.43
43:L6:170:LYS:HB3	43:L6:172:HIS:CE1	3.31	0.43
45:L8:71:VAL:HG13	45:L8:234:GLY:C	2.39	0.43
47:M0:12:GLN:HG2	47:M0:128:ARG:CZ	2.48	0.43
36:1:77:A:H5'	49:M3:100:ARG:NH1	2.34	0.43
51:M5:116:LEU:HB3	51:M5:133:ILE:HG13	2.00	0.43
52:M6:116:LYS:HG3	52:M6:117:ARG:N	2.33	0.43
52:M6:65:ASN:O	52:M6:68:ARG:HG2	2.38	0.43
55:M9:70:LYS:HA	55:M9:70:LYS:HD2	1.64	0.43
59:N3:69:LEU:HD12	59:N3:69:LEU:HA	2.22	0.43
63:N7:46:ILE:HD11	63:N7:49:TYR:CA	2.43	0.43
64:N8:82:ILE:HA	64:N8:82:ILE:HD12	4.32	0.43
66:O0:66:LYS:H	66:O0:66:LYS:CD	3.36	0.43
1:2:1774:G:N7	77:Q1:4:LYS:NZ	2.66	0.43
78:Q2:43:TYR:O	78:Q2:47:GLN:HB2	2.55	0.43
3:S1:161:ILE:HG13	3:S1:161:ILE:H	1.80	0.43
6:S4:108:ARG:NH1	1:6:788:A:OP2	397.21	0.43
7:S5:201:ALA:HA	7:S5:211:ILE:HG13	3.34	0.43
7:S5:41:LYS:HB3	7:S5:41:LYS:HE2	2.70	0.43
9:S7:74:GLN:O	9:S7:78:THR:OG1	2.18	0.43
1:2:577:G:H2'	35:SM:99:LYS:NZ	2.33	0.43
34:SR:115:ILE:HG13	34:SR:121:MET:O	3.28	0.43
34:SR:81:LEU:HD21	34:SR:122:ILE:HD13	2.00	0.43
34:SR:231:MET:HB3	34:SR:232:TYR:HD2	1.83	0.43
36:1:1063:G:H2'	36:1:1097:G:N2	2.33	0.43
36:1:1080:A:OP1	42:L5:140:ARG:HB2	2.18	0.43
36:1:1108:U:H2'	36:1:1109:U:C6	2.53	0.43
36:1:1489:A:OP1	70:O4:10:ARG:NH1	2.51	0.43
36:1:1864:A:O4'	55:M9:83:GLY:HA3	2.18	0.43
36:1:2973:G:N7	88:1:4111:OHX:N2	2.67	0.43
36:1:3082:C:H2'	36:1:3083:G:H8	1.84	0.43
36:1:3276:G:OP1	36:1:3276:G:H4'	2.19	0.43
1:2:1074:G:H2'	1:2:1075:C:C6	2.53	0.43
88:2:2044:OHX:N2	88:2:2099:OHX:N5	2.66	0.43
1:2:580:A:H5''	5:S3:143:ARG:HH12	1.84	0.43
1:2:582:U:H3'	1:2:583:C:C6	2.53	0.43
36:5:1015:U:O3'	36:5:1016:C:H2'	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:22:TYR:CZ	36:5:1048:A:H2'	268.07	0.43
36:5:1690:C:C4	36:5:1691:U:C4	3.06	0.43
36:5:3379:C:H2'	36:5:3380:U:O4'	2.19	0.43
36:5:561:C:H2'	36:5:562:C:H6	1.83	0.43
36:5:571:U:H2'	36:5:572:A:C8	2.53	0.43
1:6:1045:C:C2	1:6:1074:G:C2	3.06	0.43
1:6:1390:U:H5	1:6:1412:G:HO2'	1.65	0.43
88:6:2057:OHX:N1	88:6:2143:OHX:N3	2.67	0.43
13:C1:46:LYS:O	13:C1:50:GLU:HG2	4.45	0.43
24:D2:126:LEU:HA	24:D2:126:LEU:HD23	2.83	0.43
25:D3:142:LYS:HA	25:D3:143:PRO:HD3	1.83	0.43
26:D4:35:VAL:HG11	26:D4:40:LEU:HD21	1.99	0.43
26:D4:44:LEU:O	26:D4:47:VAL:HB	2.18	0.43
27:D5:59:TYR:CE1	27:D5:100:ILE:HG23	6.05	0.43
28:D6:36:ILE:HD12	28:D6:78:ALA:HB1	2.01	0.43
29:D7:19:HIS:HD2	29:D7:21:LEU:N	5.96	0.43
15:C3:15:ALA:HB2	29:D7:20:LYS:HD3	3.89	0.43
39:L2:187:HIS:ND1	39:L2:190:ARG:NH1	4.47	0.43
40:L3:247:ARG:HG3	36:5:1889:G:OP1	209.10	0.43
40:L3:284:ARG:NH2	40:L3:293:ASN:O	3.65	0.43
40:L3:285:VAL:HG13	40:L3:322:ILE:CD1	2.48	0.43
41:L4:203:ARG:NH1	41:L4:226:GLU:OE2	2.60	0.43
42:L5:22:ARG:HG2	42:L5:28:THR:OG1	2.19	0.43
45:L8:186:LEU:O	45:L8:189:LEU:HB3	4.30	0.43
45:L8:47:SER:O	45:L8:50:VAL:HG13	2.18	0.43
45:L8:65:LEU:HD22	45:L8:65:LEU:O	2.82	0.43
46:L9:104:VAL:HG11	46:L9:113:GLU:OE2	2.33	0.43
47:M0:48:LEU:HD22	47:M0:49:CYS:N	2.33	0.43
49:M3:106:GLN:HG3	49:M3:110:ASP:OD2	2.18	0.43
49:M3:59:ARG:HD3	36:5:73:C:C2	93.73	0.43
53:M7:131:ARG:HA	53:M7:131:ARG:HD2	1.90	0.43
57:N1:73:GLY:HA2	57:N1:89:LEU:O	2.33	0.43
63:N7:51:LEU:HA	63:N7:51:LEU:HD23	2.61	0.43
64:N8:79:TRP:CH2	64:N8:91:LEU:HD13	2.63	0.43
69:O3:49:ILE:CG2	69:O3:100:ILE:HG13	2.48	0.43
69:O3:8:TYR:CE2	69:O3:99:ARG:HG2	2.58	0.43
72:O6:21:THR:HA	72:O6:22:PRO:HD2	2.23	0.43
38:4:67:U:H5''	73:O7:84:SER:O	2.18	0.43
79:Q3:50:GLY:O	79:Q3:51:ALA:HB3	2.19	0.43
2:S0:126:PRO:HG2	2:S0:151:SER:HB2	3.33	0.43
2:S0:57:LEU:HD21	2:S0:177:LEU:HA	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:180:THR:OG1	3:S1:181:LEU:N	4.36	0.43
4:S2:186:LYS:HD2	4:S2:189:GLN:OE1	4.20	0.43
4:S2:139:ILE:HD12	4:S2:191:ALA:HB1	2.66	0.43
5:S3:7:LYS:NZ	22:D0:27:THR:HG21	2.33	0.43
7:S5:124:LEU:HA	7:S5:124:LEU:HD12	3.37	0.43
7:S5:144:GLU:HA	7:S5:162:VAL:HG13	2.84	0.43
7:S5:94:THR:O	7:S5:97:LEU:HB2	2.18	0.43
9:S7:21:ALA:O	9:S7:24:PHE:HB2	2.31	0.43
10:S8:21:PHE:CZ	10:S8:22:ARG:HD3	2.53	0.43
19:C7:22:PRO:HA	34:SR:216:LYS:NZ	2.33	0.43
36:1:1256:G:O6	36:1:1261:G:N2	2.51	0.43
36:1:1483:G:O6	70:O4:4:ARG:NH2	2.40	0.43
36:1:1645:U:H2'	36:1:1646:G:H5'	2.00	0.43
36:1:3024:A:C2	36:1:3032:A:C5	3.07	0.43
36:1:3228:C:H4'	36:1:3229:G:O5'	2.18	0.43
36:1:675:C:O2'	36:1:679:U:OP1	2.36	0.43
36:1:684:G:H5''	49:M3:35:ARG:NH1	2.33	0.43
1:2:1086:A:C6	1:2:1087:A:C6	3.07	0.43
1:2:1207:C:H42	1:2:1456:C:H5	1.65	0.43
1:2:210:A:H2'	1:2:211:U:O4'	2.19	0.43
1:2:38:C:H2'	1:2:39:A:H5'	2.01	0.43
1:2:38:C:O2'	1:2:39:A:H5'	2.19	0.43
1:2:70:C:H2'	1:2:71:A:O4'	2.19	0.43
38:4:79:A:H2'	38:4:80:A:H1'	2.01	0.43
36:5:2516:U:O2'	36:5:2595:A:N1	2.46	0.43
36:5:2833:A:C2	36:5:2834:G:C8	3.07	0.43
36:5:411:U:H2'	36:5:412:G:C8	2.52	0.43
88:5:4014:OHX:N3	88:5:4205:OHX:N1	2.67	0.43
36:5:960:U:H4'	36:5:963:G:N1	2.33	0.43
1:6:1091:A:H4'	1:6:1092:A:O5'	2.18	0.43
1:6:1483:A:H2'	1:6:1484:G:C8	2.54	0.43
1:6:206:A:H1'	1:6:262:U:C2	2.54	0.43
1:6:518:A:O2'	1:6:534:A:N6	2.52	0.43
1:6:569:C:H2'	1:6:570:A:O4'	2.18	0.43
38:8:43:A:OP1	88:8:226:OHX:N3	2.51	0.43
18:C6:23:LYS:O	18:C6:63:ILE:HG22	2.18	0.43
19:C7:41:ILE:HG23	19:C7:46:LEU:HD13	2.00	0.43
1:2:1400:A:H4'	19:C7:60:ARG:HH22	1.83	0.43
20:C8:76:PRO:O	20:C8:81:ILE:HB	2.25	0.43
4:S2:141:ARG:HG2	23:D1:10:GLU:OE2	2.18	0.43
25:D3:29:TYR:CZ	25:D3:33:LEU:HD13	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:112:LYS:O	26:D4:115:ASP:HB2	2.18	0.43
26:D4:37:LYS:O	26:D4:41:ARG:HG3	2.19	0.43
39:L2:150:LEU:HB3	39:L2:151:PRO:CD	2.49	0.43
39:L2:113:VAL:HG12	39:L2:166:ILE:HD13	2.17	0.43
40:L3:287:LYS:HE3	40:L3:287:LYS:HB3	2.47	0.43
41:L4:216:VAL:HG13	41:L4:227:THR:OG1	4.19	0.43
41:L4:295:ILE:HG22	41:L4:299:ILE:HD11	2.32	0.43
42:L5:252:ALA:O	42:L5:253:PHE:HB3	2.19	0.43
47:M0:24:ARG:O	47:M0:25:ALA:HB3	4.63	0.43
47:M0:77:THR:HG23	47:M0:85:PHE:HZ	1.86	0.43
47:M0:98:ARG:HB3	47:M0:120:GLY:HA3	2.05	0.43
48:M1:30:LEU:HD21	48:M1:67:VAL:HG13	2.00	0.43
49:M3:16:LYS:O	49:M3:17:HIS:HB2	4.60	0.43
49:M3:32:LYS:HA	49:M3:35:ARG:NH1	3.14	0.43
49:M3:93:ILE:HA	49:M3:93:ILE:HD13	1.66	0.43
50:M4:128:ARG:HG2	50:M4:132:LYS:HG3	2.01	0.43
53:M7:127:ARG:HB2	53:M7:139:TYR:O	2.89	0.43
53:M7:32:THR:HG21	53:M7:87:SER:HB2	2.01	0.43
54:M8:26:LEU:O	54:M8:30:VAL:HG23	2.19	0.43
58:N2:17:VAL:HA	58:N2:103:TYR:O	2.19	0.43
58:N2:104:ARG:NH2	36:5:1758:G:H5'	119.77	0.43
63:N7:15:ARG:NH1	63:N7:15:ARG:HG3	3.80	0.43
63:N7:3:LYS:O	63:N7:6:LYS:HG3	2.18	0.43
64:N8:126:LYS:HA	64:N8:146:GLU:O	2.43	0.43
67:O1:23:VAL:HG11	67:O1:28:ARG:HA	2.41	0.43
67:O1:71:LEU:HA	67:O1:71:LEU:HD23	1.83	0.43
71:O5:62:GLN:O	71:O5:66:VAL:HG23	2.18	0.43
76:Q0:110:CYS:SG	76:Q0:111:ARG:N	2.91	0.43
77:Q1:2:ARG:HB3	77:Q1:5:TRP:CD1	2.53	0.43
77:Q1:5:TRP:CH2	1:6:1784:C:N4	296.86	0.43
3:S1:36:SER:H	3:S1:231:LEU:HD13	1.83	0.43
4:S2:163:GLY:HA3	4:S2:209:ASN:ND2	2.34	0.43
4:S2:235:LEU:HD11	23:D1:54:ALA:HB2	2.01	0.43
5:S3:68:GLU:OE2	12:C0:67:THR:HG23	2.19	0.43
6:S4:170:THR:O	6:S4:170:THR:OG1	3.79	0.43
6:S4:77:ARG:HD2	6:S4:82:TYR:CD1	5.24	0.43
1:2:144:U:H5	8:S6:137:ARG:NH1	2.17	0.43
8:S6:194:LYS:HD2	1:6:178:U:O4	326.83	0.43
8:S6:7:TYR:CD1	8:S6:125:THR:HA	3.28	0.43
11:S9:80:LEU:HB3	11:S9:86:LEU:HB2	2.32	0.43
11:S9:77:ILE:HG23	11:S9:86:LEU:HD23	2.12	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:135:THR:CG2	34:SR:141:LEU:HD23	2.46	0.43
34:SR:57:PRO:HB2	34:SR:58:VAL:H	1.43	0.43
36:1:1103:A:H1'	36:1:1104:G:OP1	2.19	0.43
36:1:1573:G:N2	36:1:1574:C:O2'	2.52	0.43
36:1:1599:G:H2'	36:1:1600:U:C6	2.54	0.43
36:1:2369:G:H2'	36:1:2370:G:O4'	2.18	0.43
88:1:4044:OHX:N4	88:1:4057:OHX:N3	2.67	0.43
36:1:829:U:N3	36:1:895:A:N6	2.64	0.43
1:2:1165:G:O6	1:2:1166:A:N6	2.52	0.43
1:2:150:U:P	26:D4:123:LYS:HZ3	2.42	0.43
1:2:1566:U:O2'	1:2:1567:U:H5'	2.19	0.43
1:2:27:U:OP1	88:2:2084:OHX:N6	2.51	0.43
1:2:720:G:H1'	1:2:721:U:C5'	2.49	0.43
1:2:823:G:O2'	1:2:824:G:OP1	2.26	0.43
1:2:826:U:H2'	1:2:827:C:C6	2.53	0.43
1:2:864:U:C5	29:D7:22:LYS:HG2	2.54	0.43
1:2:960:U:H2'	1:2:961:U:C6	2.53	0.43
36:5:1313:G:H2'	36:5:1314:C:C6	2.54	0.43
52:M6:18:ARG:NH1	36:5:1315:U:OP1	278.14	0.43
36:5:1566:A:C2'	36:5:1567:U:H5'	2.48	0.43
36:5:1783:U:H2'	36:5:1784:G:C8	2.53	0.43
36:5:189:G:H2'	36:5:224:C:OP1	2.18	0.43
36:5:2207:A:N6	36:5:2236:G:H1	2.16	0.43
36:5:2880:U:H2'	36:5:2881:C:C6	2.53	0.43
36:5:638:C:N4	36:5:647:A:OP1	2.41	0.43
64:N8:8:THR:HG21	36:5:662:U:OP1	150.02	0.43
1:6:1234:A:H2'	1:6:1235:C:C5	2.53	0.43
1:6:154:G:H1	1:6:160:C:H42	1.67	0.43
1:6:1552:U:H2'	1:6:1553:G:O4'	2.19	0.43
1:6:250:C:H2'	1:6:251:A:H8	1.82	0.43
1:6:892:A:H2'	1:6:893:U:O4'	2.19	0.43
38:8:27:U:H6	38:8:27:U:O5'	2.01	0.43
36:5:59:G:H2'	38:8:33:A:O2'	2.19	0.43
15:C3:85:PRO:HG2	15:C3:129:TYR:CE2	2.71	0.43
16:C4:31:THR:OG1	16:C4:32:ASP:O	3.02	0.43
18:C6:127:LYS:HE2	18:C6:132:LYS:O	4.83	0.43
19:C7:24:LEU:HD22	19:C7:31:ASN:ND2	2.33	0.43
21:C9:57:ARG:NH2	21:C9:80:TYR:HB3	2.34	0.43
24:D2:82:LYS:O	24:D2:83:ILE:HG22	2.19	0.43
27:D5:82:HIS:O	27:D5:85:LYS:HB2	3.16	0.43
28:D6:37:LYS:O	28:D6:38:ARG:NE	3.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:52:ASP:N	30:D8:52:ASP:OD2	3.92	0.43
30:D8:64:ARG:HB3	30:D8:65:ARG:H	1.73	0.43
32:E0:46:ASN:O	32:E0:47:VAL:HG12	2.19	0.43
39:L2:51:ASP:HB3	39:L2:54:ARG:HD2	2.19	0.43
39:L2:69:TYR:O	39:L2:70:ARG:HB3	2.18	0.43
36:1:3315:G:C5	40:L3:123:TYR:CE2	3.06	0.43
40:L3:256:HIS:HA	40:L3:257:PRO:C	2.45	0.43
41:L4:3:ARG:O	41:L4:5:GLN:N	2.52	0.43
42:L5:261:THR:OG1	42:L5:264:GLN:HG3	2.18	0.43
43:L6:31:ARG:HH11	69:O3:107:ILE:C	2.20	0.43
45:L8:94:PHE:HB3	45:L8:189:LEU:HD21	4.77	0.43
51:M5:49:ARG:NH1	36:5:149:U:P	100.75	0.43
57:N1:48:ILE:HG13	57:N1:94:GLU:HG2	2.56	0.43
59:N3:46:LEU:HD12	59:N3:46:LEU:HA	1.74	0.43
59:N3:70:ARG:HB3	59:N3:70:ARG:CZ	3.03	0.43
61:N5:74:LYS:O	61:N5:78:ASP:HB2	2.46	0.43
62:N6:109:LEU:HD22	62:N6:115:ARG:CZ	2.49	0.43
62:N6:69:LYS:O	62:N6:83:ASP:N	2.73	0.43
63:N7:105:SER:HA	63:N7:108:GLU:HG3	2.01	0.43
64:N8:74:ASN:CB	64:N8:115:LYS:HB2	2.48	0.43
68:O2:12:LYS:HD3	68:O2:57:TYR:HA	3.21	0.43
71:O5:10:ARG:HD3	71:O5:60:GLU:OE1	2.18	0.43
75:O9:42:ARG:HG2	75:O9:43:ASN:N	2.58	0.43
78:Q2:77:CYS:SG	78:Q2:79:THR:HG23	4.71	0.43
2:S0:119:ARG:NH1	2:S0:119:ARG:HB3	2.32	0.43
3:S1:68:VAL:HG22	3:S1:69:CYS:O	2.17	0.43
6:S4:48:LEU:HD12	6:S4:48:LEU:HA	1.78	0.43
6:S4:5:PRO:HB2	6:S4:7:LYS:HZ2	1.84	0.43
7:S5:59:VAL:O	7:S5:60:ASP:HB2	2.19	0.43
8:S6:63:MET:HA	8:S6:98:ARG:O	2.18	0.43
10:S8:18:ARG:HG2	10:S8:18:ARG:H	3.41	0.43
10:S8:89:GLU:HA	10:S8:92:ARG:NH1	6.32	0.43
35:SM:58:GLU:O	35:SM:62:ARG:HB2	2.74	0.43
36:1:1213:G:C2	36:1:1293:U:C2	3.06	0.43
36:1:1336:U:H2'	36:1:1337:A:C8	2.54	0.43
36:1:158:G:H2'	36:1:159:A:C8	2.54	0.43
36:1:158:G:H2'	36:1:159:A:H8	1.82	0.43
36:1:1863:G:N1	36:1:1866:C:OP2	2.48	0.43
36:1:2344:U:H2'	36:1:2345:A:C8	2.54	0.43
36:1:3022:G:O2'	36:1:3031:G:O6	2.30	0.43
36:1:3047:U:O2'	36:1:3048:A:H5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
88:1:3982:OHX:N3	88:1:4170:OHX:N4	2.66	0.43
36:1:543:C:H3'	36:1:544:C:C6	2.54	0.43
1:2:1097:U:O4	4:S2:201:ASN:ND2	2.50	0.43
1:2:1317:C:H2'	1:2:1318:G:O4'	2.19	0.43
1:2:1388:A:C5	1:2:1411:A:C6	3.06	0.43
1:2:434:G:N2	1:2:436:A:H3'	2.34	0.43
1:2:436:A:H5''	1:2:437:A:OP1	2.18	0.43
1:2:473:A:H4'	1:2:768:C:O2	2.19	0.43
36:5:1470:U:H2'	36:5:1471:U:C6	2.54	0.43
36:5:1815:U:O2'	36:5:1816:A:P	2.77	0.43
36:5:268:A:O4'	36:5:270:U:H1'	2.19	0.43
36:5:2993:G:C6	36:5:3142:A:C4	3.07	0.43
88:5:3981:OHX:N6	88:5:4203:OHX:N5	2.67	0.43
20:C8:135:GLY:CA	1:6:1559:A:H5''	365.41	0.43
1:6:488:G:H2'	1:6:498:G:O6	2.19	0.43
6:S4:187:ARG:NH2	1:6:753:A:N7	373.88	0.43
11:S9:78:ARG:NH1	1:6:764:U:OP2	419.15	0.43
1:6:827:C:C2'	1:6:828:U:H5'	2.49	0.43
1:6:970:A:H2'	1:6:971:A:H5'	2.01	0.43
61:N5:56:ARG:HG2	38:8:134:G:OP1	78.69	0.43
13:C1:5:LEU:HD22	13:C1:5:LEU:H	4.67	0.43
14:C2:67:THR:HG22	14:C2:68:GLU:HG3	2.01	0.43
16:C4:18:ARG:HB2	16:C4:18:ARG:HE	4.28	0.43
16:C4:31:THR:HA	16:C4:38:THR:HA	2.49	0.43
19:C7:84:TYR:C	19:C7:85:VAL:HG23	2.39	0.43
19:C7:99:VAL:HA	19:C7:118:PRO:CB	2.94	0.43
20:C8:18:LEU:HA	20:C8:18:LEU:HD12	1.88	0.43
21:C9:100:ILE:HD13	21:C9:100:ILE:HA	1.75	0.43
22:D0:33:GLN:OE1	22:D0:33:GLN:N	2.71	0.43
23:D1:41:GLU:OE2	23:D1:41:GLU:N	2.52	0.43
24:D2:96:ALA:HB3	24:D2:99:PHE:CE1	2.65	0.43
25:D3:69:ARG:HH11	25:D3:116:ASP:CG	2.22	0.43
26:D4:20:ARG:HD3	26:D4:76:TYR:CE2	3.72	0.43
26:D4:77:ASN:O	26:D4:78:SER:HB3	4.36	0.43
28:D6:87:ARG:HD2	1:6:1797:A:C6	343.94	0.43
31:D9:31:ILE:HD13	31:D9:31:ILE:HA	1.92	0.43
39:L2:117:GLU:HB3	39:L2:122:ASP:OD2	2.88	0.43
39:L2:15:ILE:HG23	39:L2:194:ASN:ND2	5.37	0.43
39:L2:112:ILE:HD11	39:L2:168:VAL:HG12	5.76	0.43
39:L2:174:ARG:O	79:Q3:69:TYR:OH	2.32	0.43
40:L3:27:ALA:HB2	40:L3:220:VAL:HG23	2.11	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:119:ARG:O	41:L4:120:TYR:C	2.56	0.43
41:L4:209:TYR:O	41:L4:230:VAL:HG22	2.38	0.43
41:L4:39:PHE:CD2	41:L4:242:ALA:HB2	2.71	0.43
41:L4:4:PRO:O	41:L4:5:GLN:HB2	2.25	0.43
43:L6:171:PRO:C	43:L6:173:MET:H	2.42	0.43
44:L7:124:LEU:HD22	44:L7:124:LEU:HA	1.90	0.43
44:L7:125:GLU:HA	44:L7:128:LYS:HG3	2.53	0.43
46:L9:19:SER:C	46:L9:20:ILE:HG13	2.39	0.43
47:M0:119:TRP:HZ3	36:5:1126:G:H5'	256.99	0.43
47:M0:210:ILE:HD13	47:M0:217:PHE:CE2	4.50	0.43
47:M0:38:LYS:NZ	47:M0:45:GLU:OE1	2.69	0.43
48:M1:94:ARG:C	48:M1:96:PHE:H	2.16	0.43
49:M3:144:THR:HB	49:M3:145:PHE:CD2	2.53	0.43
51:M5:164:LEU:HA	51:M5:164:LEU:HD23	1.86	0.43
51:M5:172:ARG:CZ	51:M5:174:ILE:HD11	2.49	0.43
55:M9:81:ARG:HG2	55:M9:88:ARG:CZ	2.48	0.43
56:N0:20:PRO:O	56:N0:21:GLU:HB2	2.19	0.43
57:N1:9:SER:O	57:N1:11:THR:HG23	2.78	0.43
36:1:3050:U:O2'	60:N4:16:GLY:O	2.34	0.43
61:N5:92:LYS:HD3	61:N5:110:VAL:O	4.40	0.43
62:N6:108:LYS:HA	62:N6:108:LYS:HD3	4.29	0.43
64:N8:58:MET:SD	36:5:2775:U:H1'	153.38	0.43
72:O6:82:ARG:O	72:O6:86:LYS:N	2.47	0.43
2:S0:163:ASN:HB3	2:S0:169:SER:OG	3.16	0.43
2:S0:170:ILE:HD12	2:S0:170:ILE:H	1.83	0.43
2:S0:41:ARG:HE	2:S0:45:VAL:CG2	2.32	0.43
3:S1:27:LYS:HD3	3:S1:48:VAL:C	2.39	0.43
3:S1:58:SER:O	3:S1:62:LYS:HD3	2.63	0.43
5:S3:217:ILE:HG22	5:S3:218:LEU:H	1.83	0.43
5:S3:49:ILE:HG21	5:S3:89:GLU:HG3	2.00	0.43
5:S3:98:ALA:HB1	5:S3:171:ALA:H	3.69	0.43
6:S4:128:LYS:HD3	6:S4:130:GLN:OE1	4.60	0.43
7:S5:25:LEU:HD22	7:S5:25:LEU:H	1.83	0.43
10:S8:108:PRO:HA	10:S8:111:GLN:HB2	2.42	0.43
11:S9:118:LEU:HD23	11:S9:158:PHE:CE1	4.29	0.43
36:1:1567:U:H5	36:1:1568:U:C2	2.37	0.43
36:1:2310:U:OP1	88:1:4152:OHX:N1	2.51	0.43
36:1:2413:A:H2'	36:1:2414:G:C8	2.54	0.43
36:1:2707:C:H2'	36:1:2708:C:C6	2.53	0.43
36:1:3210:A:H2'	36:1:3211:C:C6	2.53	0.43
36:1:3282:U:H2'	36:1:3283:U:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:371:G:O6	88:1:4194:OHX:N4	2.51	0.43
36:1:1887:A:OP1	88:1:4100:OHX:N3	2.52	0.43
36:1:2236:G:OP1	88:1:4131:OHX:N6	2.52	0.43
1:2:63:G:H4'	1:2:170:U:C5	2.54	0.43
1:2:142:G:N2	1:2:173:A:H2	2.11	0.43
1:2:381:C:H2'	1:2:382:C:C6	2.54	0.43
1:2:383:G:N7	88:2:2130:OHX:N4	2.66	0.43
38:4:124:G:N2	38:4:130:C:C2	2.87	0.43
36:5:1465:A:H5''	36:5:1466:G:OP2	2.19	0.43
36:5:2947:G:N2	36:5:2948:C:C2	2.87	0.43
40:L3:232:ARG:NH2	36:5:2989:U:O3'	216.38	0.43
36:5:3088:G:H2'	36:5:3089:C:O4'	2.19	0.43
36:5:3164:C:O2'	36:5:3165:A:P	2.77	0.43
1:6:1586:A:H2'	1:6:1587:A:O4'	2.18	0.43
1:6:484:C:N4	1:6:503:G:H22	2.16	0.43
32:E0:55:ARG:NH1	1:6:557:G:OP1	417.26	0.43
1:6:844:A:H2'	1:6:845:G:H8	1.84	0.43
37:7:112:G:H2'	37:7:113:C:C6	2.54	0.43
20:C8:50:ALA:HB3	20:C8:52:VAL:HG23	2.00	0.43
21:C9:57:ARG:HH22	21:C9:80:TYR:HB3	2.27	0.43
22:D0:37:VAL:O	22:D0:41:ILE:HD13	2.19	0.43
22:D0:58:LEU:CD1	22:D0:88:LYS:HD2	2.49	0.43
24:D2:125:ILE:HG13	24:D2:126:LEU:O	2.19	0.43
9:S7:143:LEU:O	24:D2:42:GLN:NE2	4.10	0.43
24:D2:45:GLY:O	24:D2:47:ILE:N	2.52	0.43
25:D3:41:SER:HA	25:D3:42:PRO:HD3	1.94	0.43
1:2:590:C:H5''	32:E0:43:ARG:HH12	1.83	0.43
33:E1:121:CYS:HB3	33:E1:130:VAL:HG11	4.81	0.43
40:L3:205:VAL:O	40:L3:208:VAL:HG23	3.30	0.43
41:L4:136:LEU:HA	41:L4:136:LEU:HD23	1.69	0.43
41:L4:42:VAL:HA	41:L4:45:ASN:ND2	2.34	0.43
43:L6:46:ARG:HH11	43:L6:46:ARG:HG3	3.34	0.43
44:L7:207:LEU:HD23	44:L7:207:LEU:HA	1.74	0.43
45:L8:157:VAL:HG21	45:L8:163:VAL:HG21	2.39	0.43
46:L9:41:ILE:O	46:L9:42:ASP:HB2	2.17	0.43
47:M0:76:MET:CE	47:M0:148:VAL:HG13	2.49	0.43
47:M0:184:LYS:HA	47:M0:189:GLU:OE2	2.19	0.43
47:M0:210:ILE:HA	47:M0:217:PHE:HE2	2.16	0.43
47:M0:33:ILE:HG12	47:M0:33:ILE:O	2.19	0.43
49:M3:178:LYS:HD3	49:M3:179:PHE:CE2	2.64	0.43
51:M5:63:ARG:NH2	51:M5:131:GLU:OE2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:289:A:H5'	51:M5:95:GLN:O	2.19	0.43
52:M6:182:ASN:OD1	52:M6:186:ALA:HB2	5.74	0.43
36:1:1364:C:H4'	54:M8:9:GLN:OE1	2.19	0.43
55:M9:128:LYS:HE2	36:5:1723:A:OP1	232.67	0.43
58:N2:29:ASP:OD2	58:N2:31:ALA:HB3	5.22	0.43
62:N6:36:SER:HB3	62:N6:106:ILE:O	2.18	0.43
63:N7:36:HIS:N	63:N7:37:PRO:HD3	2.54	0.43
65:N9:22:LYS:HG2	65:N9:22:LYS:H	1.50	0.43
65:N9:28:LYS:HD3	36:5:1065:A:N3	216.02	0.43
67:O1:36:ILE:O	67:O1:39:PHE:HB3	2.19	0.43
36:1:1433:A:N3	68:O2:27:ARG:NH1	2.67	0.43
72:O6:99:ARG:HB3	72:O6:100:HIS:H	1.53	0.43
3:S1:101:HIS:HA	3:S1:217:LEU:CD2	2.49	0.43
4:S2:45:VAL:HG21	4:S2:68:ILE:HG12	2.00	0.43
6:S4:148:ARG:HG2	6:S4:148:ARG:H	2.00	0.43
8:S6:121:LEU:N	8:S6:125:THR:OG1	3.79	0.43
8:S6:58:LYS:H	8:S6:58:LYS:HG2	1.54	0.43
1:2:329:G:H5'	10:S8:99:ALA:HB3	2.01	0.43
36:1:1522:U:H3'	61:N5:113:LEU:HD22	2.01	0.43
36:1:1554:U:H4'	36:1:1555:U:H5'	2.01	0.43
36:1:196:G:N1	36:1:199:A:OP2	2.51	0.43
36:1:2284:C:H5''	36:1:2285:C:OP2	2.19	0.43
36:1:2561:A:O2'	36:1:2562:A:H8	1.98	0.43
36:1:1054:A:H5''	36:1:2637:A:H61	1.84	0.43
36:1:2407:C:H1'	36:1:2818:U:C2	2.54	0.43
36:1:3174:A:H2'	36:1:3175:U:C5'	2.49	0.43
36:1:629:U:H2'	36:1:630:A:C8	2.54	0.43
36:1:705:A:C4	36:1:715:A:N6	2.86	0.43
1:2:1229:G:O2'	1:2:1255:G:N2	2.41	0.43
1:2:1230:A:H2'	1:2:1258:U:C5	2.54	0.43
1:2:156:A:H2'	1:2:157:A:O4'	2.19	0.43
88:2:2044:OHX:N4	88:2:2099:OHX:N3	2.67	0.43
1:2:767:U:C5	11:S9:142:ASN:OD1	2.72	0.43
1:2:832:U:H2'	1:2:833:U:H5''	2.01	0.43
38:4:5:U:H2'	38:4:6:U:O4'	2.19	0.43
44:L7:208:SER:HB2	36:5:1334:U:H1'	241.82	0.43
88:5:3981:OHX:N4	88:5:4203:OHX:N1	2.67	0.43
49:M3:28:GLN:NE2	36:5:683:U:OP2	100.04	0.43
36:5:824:C:H2'	36:5:825:U:C6	2.54	0.43
1:6:1242:A:H5''	1:6:1243:G:OP1	2.19	0.43
1:6:1467:C:H2'	1:6:1468:U:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:71:GLY:HA2	1:6:1483:A:H4'	409.92	0.43
20:C8:40:ARG:NH1	1:6:1539:G:O4'	353.06	0.43
1:6:1150:G:C6	1:6:1768:G:C6	3.07	0.43
1:6:460:A:H3'	1:6:461:G:H8	1.84	0.43
1:6:20:G:H5'	1:6:571:G:C4	2.54	0.43
15:C3:124:ARG:NH2	1:6:967:A:OP2	319.38	0.43
12:C0:32:HIS:NE2	12:C0:35:ILE:HB	2.34	0.43
14:C2:86:VAL:N	14:C2:87:PRO:HD3	2.60	0.43
15:C3:52:VAL:HG13	15:C3:55:ARG:HH12	2.13	0.43
15:C3:93:LYS:O	15:C3:96:VAL:HB	2.19	0.43
19:C7:19:ARG:HG3	19:C7:20:TYR:CD1	2.52	0.43
20:C8:120:ARG:HD3	20:C8:120:ARG:HA	1.77	0.43
21:C9:28:LEU:HD23	21:C9:111:ILE:HD11	7.54	0.43
22:D0:36:ASN:O	22:D0:40:ASN:HB2	2.19	0.43
26:D4:76:TYR:HB2	26:D4:82:ALA:HB2	2.66	0.43
28:D6:28:LYS:HB3	28:D6:29:SER:H	4.18	0.43
30:D8:38:ARG:HH11	30:D8:40:ILE:HD11	1.83	0.43
22:D0:80:GLU:OE1	31:D9:44:ARG:HD2	2.66	0.43
31:D9:56:ARG:HA	1:6:1419:G:O4'	409.23	0.43
39:L2:15:ILE:HG23	39:L2:194:ASN:HD22	4.76	0.43
36:1:2607:G:H5'	39:L2:232:GLY:O	2.19	0.43
40:L3:85:VAL:O	40:L3:162:VAL:HA	2.34	0.43
41:L4:185:LYS:HA	41:L4:200:THR:O	2.19	0.43
42:L5:124:GLU:O	42:L5:125:VAL:HB	2.19	0.43
44:L7:153:PHE:CE1	44:L7:162:PRO:HB3	2.54	0.43
45:L8:143:ILE:HD11	45:L8:151:VAL:HG21	2.00	0.43
45:L8:221:ASN:OD1	45:L8:225:LYS:NZ	3.65	0.43
45:L8:71:VAL:HG13	45:L8:235:GLY:N	2.90	0.43
36:1:3124:G:H5'	46:L9:40:HIS:ND1	2.34	0.43
46:L9:99:ILE:HG22	46:L9:101:VAL:HG23	2.67	0.43
47:M0:190:VAL:HG12	47:M0:197:VAL:HG21	3.14	0.43
48:M1:165:GLN:O	48:M1:166:LYS:C	2.57	0.43
50:M4:121:MET:O	50:M4:125:LYS:HG3	3.11	0.43
51:M5:68:ARG:CG	51:M5:68:ARG:HH11	2.30	0.43
51:M5:97:SER:O	51:M5:100:ALA:N	3.06	0.43
52:M6:138:LEU:O	52:M6:141:LEU:N	2.89	0.43
52:M6:78:ARG:HH11	52:M6:78:ARG:HB3	3.81	0.43
55:M9:4:LEU:O	55:M9:7:GLN:HG2	4.91	0.43
56:N0:27:MET:CE	57:N1:153:PRO:HD3	2.48	0.43
69:O3:102:LEU:HA	69:O3:102:LEU:HD23	1.71	0.43
36:1:1821:U:C4	70:O4:67:LYS:HD2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:172:GLY:HA3	79:Q3:67:GLY:HA2	3.67	0.43
2:S0:86:VAL:O	2:S0:89:PHE:N	2.52	0.43
3:S1:130:SER:OG	3:S1:131:ASP:N	2.52	0.43
3:S1:137:ILE:HG22	3:S1:215:VAL:HG23	2.01	0.43
3:S1:26:ARG:HG2	3:S1:26:ARG:O	2.51	0.43
4:S2:148:LEU:HB3	4:S2:149:GLY:H	1.59	0.43
4:S2:234:PRO:O	4:S2:235:LEU:HB2	2.32	0.43
1:2:1572:G:H1'	7:S5:185:ARG:HH22	1.83	0.43
7:S5:20:PHE:CZ	7:S5:22:PRO:HG3	3.54	0.43
9:S7:20:VAL:O	9:S7:23:ALA:HB3	2.27	0.43
10:S8:140:GLU:HG2	10:S8:143:TRP:CE3	5.99	0.43
10:S8:2:GLY:HA2	1:6:1729:C:O2'	286.63	0.43
11:S9:133:HIS:C	11:S9:134:ILE:HG13	4.55	0.43
34:SR:164:ASP:C	34:SR:166:SER:H	2.22	0.43
36:1:1322:U:O2	56:N0:108:GLN:NE2	2.48	0.42
36:1:1846:C:OP1	36:1:1849:C:N4	2.46	0.42
36:1:2567:C:C2'	36:1:2568:C:H5'	2.49	0.42
36:1:2633:U:H2'	36:1:2634:U:O4'	2.19	0.42
1:2:1012:U:H6	1:2:1012:U:O5'	2.02	0.42
1:2:143:G:C2	1:2:173:A:N3	2.87	0.42
1:2:641:G:H2'	1:2:642:G:C8	2.54	0.42
1:2:694:U:H2'	1:2:694:U:O2	2.19	0.42
1:2:831:U:H2'	1:2:831:U:O2	2.18	0.42
65:N9:6:ASN:HB2	36:5:1135:A:OP1	225.09	0.42
36:5:115:A:H2'	36:5:265:A:N3	2.34	0.42
36:5:2781:U:C4	36:5:2782:U:C4	3.06	0.42
76:Q0:112:LYS:HZ3	36:5:3107:U:P	304.58	0.42
1:6:1469:A:H4'	1:6:1541:G:H4'	2.01	0.42
28:D6:5:ARG:HG2	1:6:1796:C:C6	342.67	0.42
1:6:300:A:O2'	1:6:301:A:H5'	2.19	0.42
10:S8:56:ARG:HH22	1:6:332:U:P	287.69	0.42
1:6:862:A:C2	1:6:963:A:C4	3.07	0.42
38:8:114:G:C2'	38:8:115:C:H5'	2.49	0.42
61:N5:48:SER:HB2	38:8:136:G:OP1	82.87	0.42
14:C2:103:LEU:HG	14:C2:116:VAL:HG12	5.07	0.42
15:C3:76:LYS:HG2	15:C3:81:ALA:HB2	3.67	0.42
18:C6:82:ARG:NH2	18:C6:114:ARG:HB3	2.30	0.42
18:C6:6:SER:OG	18:C6:7:VAL:N	4.22	0.42
19:C7:50:ILE:O	19:C7:51:ALA:C	2.92	0.42
20:C8:91:ASP:O	20:C8:92:ILE:HB	2.20	0.42
21:C9:30:VAL:HA	21:C9:31:PRO:HD2	1.70	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:87:VAL:HG22	25:D3:124:VAL:HG21	2.01	0.42
27:D5:89:ILE:HB	27:D5:101:TYR:HB3	2.00	0.42
27:D5:43:ASP:HB3	27:D5:46:LYS:H	3.61	0.42
30:D8:34:GLU:O	30:D8:35:ASP:HB2	2.19	0.42
32:E0:49:LEU:HD12	32:E0:51:ASN:HB2	2.01	0.42
40:L3:114:VAL:HG22	40:L3:163:HIS:CE1	2.69	0.42
41:L4:129:THR:HB	41:L4:246:ARG:O	2.93	0.42
41:L4:49:ALA:HA	41:L4:109:TRP:CZ2	2.65	0.42
42:L5:187:THR:HG1	42:L5:187:THR:H	4.92	0.42
42:L5:269:SER:HB2	37:7:1:G:H21	318.13	0.42
47:M0:139:ARG:HB3	47:M0:173:PHE:CE1	2.53	0.42
47:M0:26:VAL:HG11	47:M0:96:VAL:HG21	2.75	0.42
48:M1:25:GLU:HG3	48:M1:26:SER:O	2.19	0.42
51:M5:168:GLY:O	51:M5:172:ARG:HB2	2.84	0.42
51:M5:88:GLY:HA2	78:Q2:50:PHE:CE1	3.08	0.42
53:M7:171:ARG:HG3	53:M7:171:ARG:H	1.39	0.42
53:M7:48:LEU:HB3	53:M7:88:VAL:CG1	2.49	0.42
36:1:3206:C:O2	56:N0:155:ARG:NH1	2.52	0.42
37:3:73:C:H42	56:N0:19:VAL:HG11	1.84	0.42
60:N4:43:ARG:HH11	60:N4:43:ARG:HB3	1.84	0.42
64:N8:36:GLY:O	64:N8:41:HIS:HB2	2.54	0.42
68:O2:123:LYS:HA	68:O2:126:LEU:HD12	2.01	0.42
36:1:156:G:P	72:O6:27:SER:HB3	2.58	0.42
79:Q3:45:LYS:HE3	79:Q3:45:LYS:HB2	1.50	0.42
3:S1:111:ARG:CG	28:D6:68:TYR:HB2	2.49	0.42
3:S1:129:THR:OG1	3:S1:131:ASP:OD1	6.16	0.42
4:S2:59:HIS:CE1	4:S2:239:PRO:HD3	2.54	0.42
5:S3:60:GLY:HA3	5:S3:65:ARG:HB3	3.91	0.42
6:S4:15:PRO:HG2	6:S4:18:TRP:CD2	2.54	0.42
7:S5:43:PHE:CG	7:S5:44:ASN:N	2.87	0.42
8:S6:214:LYS:HD2	8:S6:218:GLU:OE1	9.14	0.42
9:S7:7:LYS:NZ	55:M9:188:ASP:OD2	5.41	0.42
10:S8:84:HIS:NE2	10:S8:90:LEU:HD13	2.88	0.42
11:S9:99:LEU:HB3	11:S9:100:LYS:H	1.69	0.42
34:SR:255:ALA:HB2	34:SR:292:LEU:HD22	2.01	0.42
36:1:1072:G:C4	36:1:1087:G:C2	3.07	0.42
36:1:954:U:O4	36:1:1115:G:H1'	2.19	0.42
36:1:1238:C:H41	36:1:1245:A:P	2.41	0.42
36:1:1675:G:O2'	36:1:1676:A:H5'	2.19	0.42
36:1:2424:A:H2'	36:1:2425:G:O4'	2.18	0.42
36:1:2652:U:C4	36:1:2653:C:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2856:G:H2'	36:1:2857:C:C6	2.55	0.42
36:1:3099:C:O2'	36:1:3100:U:H5'	2.18	0.42
36:1:3186:A:O2'	46:L9:42:ASP:HA	2.19	0.42
36:1:419:G:O6	88:1:3881:OHX:N6	2.52	0.42
36:1:867:G:C6	36:1:868:C:C4	3.07	0.42
1:2:1009:U:H2'	1:2:1010:C:H6	1.84	0.42
1:2:1459:C:H6	1:2:1459:C:OP2	2.02	0.42
1:2:1629:G:H2'	1:2:1630:U:C6	2.54	0.42
1:2:1285:U:OP1	88:2:2115:OHX:N4	2.52	0.42
1:2:268:C:O2'	1:2:269:G:H5'	2.19	0.42
1:2:339:C:H2'	1:2:340:U:H6	1.83	0.42
1:2:380:U:C5	11:S9:5:PRO:HG3	2.54	0.42
1:2:462:G:OP1	11:S9:3:ARG:HG2	2.19	0.42
1:2:517:U:H3	1:2:535:A:H61	1.66	0.42
1:2:71:A:N1	1:2:72:A:C6	2.87	0.42
36:5:1202:A:N6	36:5:1301:A:C4	2.87	0.42
36:5:1650:G:H2'	36:5:1651:U:O4'	2.20	0.42
36:5:1908:A:H2'	36:5:1909:A:O4'	2.19	0.42
36:5:23:A:H2'	36:5:24:G:O4'	2.19	0.42
47:M0:116:ARG:HH21	36:5:2618:G:H5'	229.99	0.42
41:L4:73:ARG:NH2	36:5:2814:G:OP1	172.50	0.42
36:5:2921:U:H2'	36:5:2923:U:OP2	2.19	0.42
36:5:3242:G:N2	36:5:3245:A:H5''	2.33	0.42
88:5:3927:OHX:N5	38:8:17:A:OP1	2.52	0.42
1:6:1489:U:H5'	1:6:1494:C:H1'	1.99	0.42
1:6:1638:G:C2	1:6:1639:C:H1'	2.54	0.42
1:6:40:A:H61	1:6:467:G:H1'	1.84	0.42
38:8:19:C:H2'	38:8:20:U:O4'	2.18	0.42
88:8:218:OHX:N2	88:8:225:OHX:N4	2.67	0.42
12:C0:35:ILE:HG22	12:C0:37:THR:H	1.84	0.42
17:C5:96:ILE:O	17:C5:103:ASN:N	3.14	0.42
18:C6:113:ASP:C	18:C6:115:THR:H	3.31	0.42
18:C6:109:PHE:CB	18:C6:117:LEU:HD21	2.48	0.42
18:C6:141:SER:O	18:C6:143:ARG:N	2.52	0.42
18:C6:48:VAL:HA	18:C6:82:ARG:HB3	2.00	0.42
24:D2:27:ILE:HB	24:D2:61:ILE:HB	4.59	0.42
24:D2:31:SER:H	24:D2:34:ILE:HB	1.83	0.42
28:D6:84:VAL:HG13	28:D6:85:ARG:H	1.84	0.42
40:L3:284:ARG:NH1	40:L3:356:LEU:HD12	2.34	0.42
41:L4:191:LYS:HG3	41:L4:194:TYR:CE2	4.55	0.42
41:L4:227:THR:O	36:5:689:U:N3	91.15	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:64:SER:HA	41:L4:75:PRO:HA	2.02	0.42
42:L5:260:PHE:CE2	37:7:121:U:H5'	320.56	0.42
44:L7:160:ARG:HB2	44:L7:203:TRP:CZ3	2.54	0.42
45:L8:160:ILE:H	45:L8:160:ILE:HG12	1.38	0.42
47:M0:142:ASP:C	47:M0:144:ASN:H	2.22	0.42
48:M1:15:GLU:OE2	48:M1:132:ASN:ND2	2.52	0.42
48:M1:54:VAL:HG11	48:M1:57:PHE:CG	2.54	0.42
49:M3:149:GLN:HA	49:M3:150:PRO:HD3	1.76	0.42
49:M3:54:LEU:HD22	49:M3:54:LEU:HA	1.78	0.42
36:1:99:A:H5'	51:M5:194:GLN:CD	2.39	0.42
52:M6:128:ARG:HA	52:M6:128:ARG:HD3	2.10	0.42
54:M8:19:PRO:HD3	54:M8:53:PHE:CD1	2.54	0.42
55:M9:105:LEU:HD21	55:M9:139:VAL:HG12	5.85	0.42
63:N7:67:LYS:HD3	63:N7:67:LYS:HA	1.81	0.42
36:1:1162:U:OP1	68:O2:54:LYS:HE3	2.18	0.42
36:1:1177:G:H5'	69:O3:18:ARG:NH1	2.34	0.42
71:O5:68:GLN:C	71:O5:70:TYR:N	2.73	0.42
72:O6:79:SER:HB3	72:O6:80:PHE:H	1.69	0.42
79:Q3:17:ARG:O	79:Q3:23:ARG:HD3	3.64	0.42
2:S0:39:ASN:O	2:S0:47:VAL:HG23	2.45	0.42
3:S1:144:ARG:HG2	3:S1:145:LYS:O	2.18	0.42
3:S1:56:SER:HB2	3:S1:59:ASP:OD2	7.69	0.42
3:S1:86:LEU:HB3	3:S1:98:THR:OG1	2.19	0.42
6:S4:226:PHE:C	6:S4:226:PHE:CD1	2.93	0.42
8:S6:64:LYS:HB2	8:S6:97:VAL:CG1	2.49	0.42
9:S7:166:LEU:HA	9:S7:166:LEU:HD12	1.93	0.42
35:SM:102:THR:HG22	35:SM:105:LYS:HB2	2.01	0.42
35:SM:61:ILE:HG13	35:SM:61:ILE:H	1.63	0.42
34:SR:85:TRP:HA	34:SR:109:ASP:HA	2.02	0.42
36:1:118:U:C5	36:1:119:U:C4	3.07	0.42
36:1:150:A:OP1	51:M5:56:LYS:NZ	2.45	0.42
36:1:1815:U:O2'	36:1:1816:A:P	2.77	0.42
36:1:2402:A:OP1	41:L4:70:ALA:N	2.45	0.42
1:2:136:C:H4'	1:2:137:U:OP1	2.17	0.42
1:2:1500:C:H5'	21:C9:106:GLN:NE2	2.34	0.42
1:2:1508:U:H2'	1:2:1509:C:C6	2.54	0.42
38:4:122:U:H2'	38:4:123:G:C8	2.53	0.42
36:5:1155:C:H2'	36:5:1156:C:H6	1.84	0.42
36:5:1466:G:O6	88:5:3915:OHX:N5	2.51	0.42
36:5:169:U:H4'	36:5:170:G:OP1	2.19	0.42
66:O0:28:LYS:HB2	36:5:1730:G:C5	240.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3049:A:H2'	36:5:3050:U:O4'	2.18	0.42
36:5:385:A:H2'	36:5:386:A:C8	2.54	0.42
36:5:864:G:OP2	88:5:3919:OHX:N4	2.53	0.42
1:6:1228:G:H2'	1:6:1228:G:N3	2.34	0.42
1:6:1402:G:C6	1:6:1403:C:C4	3.08	0.42
1:6:151:G:H22	1:6:163:G:N2	2.16	0.42
10:S8:98:LYS:HB3	1:6:329:G:H5''	274.64	0.42
1:6:385:A:H2'	1:6:386:G:C8	2.55	0.42
1:6:52:U:H2'	1:6:53:G:C8	2.54	0.42
11:S9:142:ASN:OD1	1:6:767:U:H5	425.44	0.42
1:6:846:G:C2	1:6:847:A:C4	3.08	0.42
71:O5:83:LYS:HA	38:8:38:U:H5	65.54	0.42
15:C3:151:ASN:O	88:C3:201:OHX:N6	3.14	0.42
17:C5:129:GLY:O	17:C5:130:ARG:HB2	2.52	0.42
20:C8:94:ASP:OD1	20:C8:98:TYR:OH	2.32	0.42
26:D4:60:PHE:CD2	26:D4:71:GLY:HA3	3.75	0.42
29:D7:23:THR:HG21	29:D7:29:ARG:NH2	3.91	0.42
40:L3:169:THR:HG22	40:L3:171:LEU:H	1.84	0.42
40:L3:35:ASP:HA	40:L3:184:ASN:ND2	3.08	0.42
40:L3:387:LEU:HD12	40:L3:387:LEU:H	1.84	0.42
41:L4:334:PHE:HA	41:L4:339:LEU:HD12	2.02	0.42
37:3:121:U:H5''	42:L5:265:TYR:HE1	1.83	0.42
43:L6:133:GLU:O	43:L6:136:GLU:N	3.30	0.42
44:L7:150:LYS:HD3	44:L7:244:ASN:OD1	4.12	0.42
44:L7:50:ALA:O	44:L7:51:TYR:C	2.57	0.42
45:L8:81:THR:OG1	45:L8:181:LYS:HG3	4.17	0.42
46:L9:48:VAL:HG11	46:L9:52:LEU:HD13	2.00	0.42
36:1:2644:C:O2	47:M0:116:ARG:HD3	2.20	0.42
47:M0:156:ARG:HD3	47:M0:163:GLN:O	2.18	0.42
47:M0:76:MET:CE	47:M0:148:VAL:HA	2.71	0.42
49:M3:131:LYS:H	49:M3:131:LYS:HD3	4.14	0.42
49:M3:131:LYS:HG2	49:M3:131:LYS:H	1.53	0.42
50:M4:46:ILE:HD13	50:M4:58:ILE:HG21	2.00	0.42
51:M5:5:LYS:HA	51:M5:5:LYS:HD3	2.50	0.42
36:1:3180:A:C6	52:M6:114:LYS:HD2	2.54	0.42
52:M6:182:ASN:O	52:M6:184:THR:N	4.61	0.42
54:M8:53:PHE:CD1	54:M8:53:PHE:N	2.86	0.42
56:N0:107:TYR:CZ	56:N0:118:PHE:CE1	3.28	0.42
56:N0:74:ASN:HD21	56:N0:144:LEU:HD21	1.83	0.42
42:L5:69:ILE:HG22	57:N1:31:LEU:HB3	2.01	0.42
57:N1:42:ILE:HG12	57:N1:91:LEU:HD11	2.99	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:N2:79:LEU:O	58:N2:82:LYS:HB3	2.18	0.42
8:S6:160:ARG:CD	60:N4:84:GLY:HA3	2.49	0.42
36:1:716:A:C6	64:N8:117:ARG:HD3	2.55	0.42
74:O8:13:GLU:H	74:O8:13:GLU:HG2	1.62	0.42
75:O9:7:PHE:CE2	38:8:113:U:C4	98.62	0.42
78:Q2:43:TYR:CZ	78:Q2:47:GLN:NE2	2.86	0.42
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CD2	3.60	0.42
2:S0:4:PRO:HB2	2:S0:5:ALA:H	1.79	0.42
3:S1:205:PHE:HA	3:S1:206:PRO:HD2	1.79	0.42
6:S4:90:ILE:HD11	6:S4:101:LEU:HD11	2.00	0.42
7:S5:166:ARG:HA	7:S5:169:ASN:HB2	2.59	0.42
8:S6:64:LYS:HB2	8:S6:97:VAL:HG11	2.01	0.42
36:1:1237:G:H2'	36:1:1237:G:N3	2.34	0.42
36:1:1340:G:H2'	36:1:1341:U:H6	1.83	0.42
36:1:1430:U:H2'	64:N8:9:ARG:HH22	1.84	0.42
36:1:1447:G:H3'	53:M7:67:ILE:CD1	2.49	0.42
36:1:3055:U:O5'	36:1:3055:U:H6	2.03	0.42
36:1:3380:U:H2'	36:1:3381:U:C6	2.55	0.42
36:1:717:C:N4	36:1:718:G:N1	2.68	0.42
1:2:1677:C:H2'	1:2:1678:A:O4'	2.19	0.42
1:2:333:A:C6	1:2:334:G:C6	3.07	0.42
1:2:994:G:OP1	1:2:1778:G:H4'	2.20	0.42
36:5:1241:U:O2'	36:5:1242:G:O5'	2.31	0.42
36:5:1348:U:H5''	36:5:1355:A:H61	1.84	0.42
36:5:142:C:H2'	36:5:143:G:O4'	2.18	0.42
36:5:2240:G:H2'	36:5:2241:U:O4'	2.19	0.42
36:5:422:A:C2	36:5:2363:A:H4'	2.54	0.42
36:5:286:U:H2'	36:5:287:G:H8	1.84	0.42
36:5:3055:U:O2'	36:5:3057:U:OP1	2.29	0.42
36:5:3337:G:O5'	36:5:3337:G:H8	2.01	0.42
88:5:3945:OHX:N5	88:5:4239:OHX:N6	2.67	0.42
36:5:1450:G:OP1	88:5:4234:OHX:N2	2.52	0.42
36:5:773:G:N7	88:5:3941:OHX:N5	2.68	0.42
1:6:138:A:H5''	1:6:138:A:N3	2.34	0.42
1:6:1580:C:H2'	1:6:1581:C:O4'	2.18	0.42
1:6:719:U:C4	1:6:721:U:H5	2.38	0.42
36:5:409:A:H61	38:8:15:G:H1'	1.84	0.42
36:5:406:G:H1'	38:8:16:G:N2	2.35	0.42
12:C0:48:SER:O	12:C0:52:LYS:HG2	2.18	0.42
15:C3:55:ARG:O	29:D7:47:PHE:HB2	2.77	0.42
16:C4:41:ARG:O	16:C4:42:VAL:HG22	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:63:ALA:HA	17:C5:66:ALA:HB3	2.77	0.42
17:C5:86:VAL:HB	17:C5:87:PRO:HD2	2.36	0.42
18:C6:32:ASN:OD1	18:C6:69:VAL:HG23	2.20	0.42
19:C7:96:SER:HA	19:C7:97:ASN:HA	1.52	0.42
21:C9:105:LEU:HA	21:C9:105:LEU:HD23	1.89	0.42
21:C9:112:GLY:O	21:C9:125:SER:OG	3.88	0.42
4:S2:225:LEU:HD13	24:D2:68:ARG:HA	2.17	0.42
25:D3:56:LYS:HG2	25:D3:93:LEU:HD11	2.00	0.42
26:D4:18:LEU:HA	26:D4:18:LEU:HD23	2.35	0.42
29:D7:37:CYS:HA	29:D7:38:PRO:HD3	2.09	0.42
33:E1:123:ASN:OD1	33:E1:124:PRO:HD2	2.19	0.42
36:1:824:C:H5'	39:L2:21:ARG:HD3	2.01	0.42
39:L2:153:GLY:HA3	39:L2:251:LYS:HG2	9.04	0.42
39:L2:55:GLY:O	39:L2:56:ALA:HB3	4.54	0.42
39:L2:70:ARG:HG3	39:L2:71:LEU:N	3.00	0.42
40:L3:37:ARG:HG2	40:L3:187:SER:N	3.03	0.42
41:L4:202:ARG:HA	41:L4:202:ARG:NE	2.48	0.42
41:L4:269:SER:OG	41:L4:269:SER:O	2.23	0.42
41:L4:327:LEU:HA	44:L7:166:ASN:HD21	2.24	0.42
43:L6:41:ILE:HB	43:L6:85:ILE:HB	2.08	0.42
44:L7:154:GLY:N	44:L7:161:VAL:O	2.64	0.42
44:L7:158:LYS:O	44:L7:203:TRP:HZ3	2.59	0.42
45:L8:64:ILE:O	45:L8:68:ARG:HG2	2.62	0.42
46:L9:88:TYR:CE2	46:L9:155:SER:HB3	2.89	0.42
49:M3:144:THR:C	49:M3:146:PRO:HD3	3.14	0.42
50:M4:59:ASN:O	50:M4:62:GLN:HG2	4.85	0.42
51:M5:10:LEU:HD23	51:M5:10:LEU:O	2.19	0.42
51:M5:187:ARG:HH22	51:M5:188:ARG:NH1	3.50	0.42
54:M8:86:THR:HB	54:M8:105:ARG:HB2	2.08	0.42
57:N1:119:ALA:O	57:N1:123:GLY:N	2.99	0.42
42:L5:38:THR:HG22	57:N1:30:TYR:CB	2.49	0.42
59:N3:104:ASN:OD1	59:N3:107:GLY:N	2.53	0.42
59:N3:94:TYR:CE2	60:N4:21:PHE:HB2	3.02	0.42
36:1:12:A:H1'	61:N5:37:THR:HG21	2.01	0.42
63:N7:25:ILE:H	63:N7:25:ILE:HG12	4.15	0.42
36:1:1072:G:H21	65:N9:50:THR:HB	1.85	0.42
36:1:1368:U:H5'	68:O2:43:ARG:NH1	2.34	0.42
70:O4:88:ARG:HG3	36:5:2555:G:O2'	208.07	0.42
76:Q0:88:LYS:HB3	76:Q0:88:LYS:HE3	3.99	0.42
91:Q2:502:C:H4'	91:Q2:503:C:OP1	2.44	0.42
79:Q3:11:THR:HG21	79:Q3:27:LYS:HB2	3.80	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:80:THR:O	2:S0:83:GLN:HB2	2.83	0.42
7:S5:186:ASN:OD1	7:S5:188:LYS:HB2	2.21	0.42
7:S5:30:PRO:O	7:S5:33:VAL:HB	2.19	0.42
8:S6:76:LEU:HD23	8:S6:76:LEU:HA	2.21	0.42
8:S6:64:LYS:NZ	8:S6:82:SER:O	2.53	0.42
9:S7:166:LEU:HA	9:S7:166:LEU:HD13	2.68	0.42
5:S3:124:ARG:HD2	35:SM:128:ALA:HA	9.63	0.42
34:SR:42:LEU:O	34:SR:43:ILE:HD13	2.19	0.42
34:SR:86:ASP:O	34:SR:88:THR:HG23	2.19	0.42
36:1:1307:G:C4	52:M6:60:LYS:HD3	2.54	0.42
36:1:1496:C:C2	36:1:1521:G:N2	2.87	0.42
36:1:1832:C:O2'	36:1:1833:G:H5'	2.19	0.42
36:1:2390:A:H2'	36:1:2391:G:O4'	2.18	0.42
36:1:3110:C:O3'	46:L9:155:SER:HB2	2.20	0.42
36:1:3384:U:H2'	36:1:3385:U:C6	2.54	0.42
1:2:1325:A:C2	1:2:1326:A:C5	3.07	0.42
1:2:1393:C:N4	1:2:1405:G:H1	2.18	0.42
1:2:1580:C:H2'	1:2:1581:C:O4'	2.19	0.42
1:2:601:A:H2'	1:2:602:U:O4'	2.20	0.42
1:2:823:G:H3'	1:2:824:G:H8	1.83	0.42
56:N0:115:ARG:NH1	36:5:1295:G:O2'	295.56	0.42
36:5:1690:C:H2'	36:5:1691:U:O4'	2.19	0.42
36:5:1597:C:C4'	36:5:1696:A:H1'	2.50	0.42
36:5:2105:G:H2'	36:5:2106:A:C8	2.54	0.42
57:N1:55:LYS:HE2	36:5:2640:A:OP1	236.57	0.42
36:5:2871:G:H5''	36:5:2872:A:H5'	2.02	0.42
36:5:3163:A:C6	36:5:3164:C:N4	2.87	0.42
36:5:7:C:H2'	36:5:8:C:C6	2.55	0.42
1:6:114:C:H6	1:6:114:C:H5'	1.84	0.42
8:S6:132:ARG:NH2	1:6:68:A:C5	337.60	0.42
1:6:772:G:C6	1:6:773:C:N4	2.87	0.42
37:7:28:C:O2'	37:7:55:A:N1	2.49	0.42
38:8:100:U:OP2	88:8:219:OHX:N2	2.52	0.42
1:2:895:G:HO2'	16:C4:38:THR:H	1.64	0.42
1:2:1584:G:H5'	18:C6:123:ARG:H	1.85	0.42
2:S0:88:LYS:HZ1	19:C7:82:ASP:HB3	1.84	0.42
21:C9:105:LEU:HB3	21:C9:122:ARG:NE	2.97	0.42
23:D1:17:CYS:HB2	23:D1:56:SER:HB3	2.01	0.42
28:D6:87:ARG:NH2	28:D6:91:ASP:O	2.79	0.42
32:E0:33:ARG:NH1	32:E0:33:ARG:HB3	2.68	0.42
33:E1:146:SER:OG	1:6:1234:A:H4'	435.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:180:LEU:HA	39:L2:180:LEU:HD23	1.89	0.42
40:L3:116:ARG:HD2	40:L3:122:TRP:CD1	2.55	0.42
36:1:3314:A:H5''	40:L3:174:LYS:HD2	2.01	0.42
40:L3:19:ARG:HG3	40:L3:273:HIS:NE2	2.35	0.42
40:L3:347:SER:HB2	40:L3:350:ALA:H	2.73	0.42
40:L3:375:GLU:O	40:L3:378:ALA:HB3	2.20	0.42
41:L4:150:LEU:HA	41:L4:150:LEU:HD23	1.81	0.42
41:L4:157:GLU:HB3	41:L4:211:GLU:O	2.20	0.42
41:L4:22:LEU:CD1	41:L4:26:PHE:HB2	2.41	0.42
41:L4:8:VAL:HG23	41:L4:18:ASN:O	3.22	0.42
42:L5:258:LYS:N	42:L5:258:LYS:HD3	3.88	0.42
42:L5:78:ALA:HB1	42:L5:104:LEU:HD23	2.01	0.42
43:L6:5:LYS:HA	43:L6:5:LYS:HD2	2.11	0.42
43:L6:62:THR:OG1	43:L6:78:ARG:HD2	2.19	0.42
44:L7:89:ILE:HG22	44:L7:220:PHE:CE1	2.54	0.42
45:L8:49:TYR:OH	36:5:2525:G:H4'	187.51	0.42
50:M4:134:ALA:C	50:M4:136:ALA:H	2.44	0.42
50:M4:22:LEU:HD12	50:M4:22:LEU:HA	1.70	0.42
50:M4:20:VAL:HG22	50:M4:68:LEU:HB2	2.36	0.42
51:M5:93:LYS:O	51:M5:94:TYR:HB3	2.20	0.42
36:1:741:U:O2'	54:M8:73:GLN:HG2	2.19	0.42
56:N0:9:VAL:O	56:N0:26:ARG:HA	2.20	0.42
58:N2:18:ASP:HB3	58:N2:104:ARG:HB2	2.02	0.42
63:N7:54:THR:CG2	63:N7:56:LYS:HB3	5.52	0.42
66:O0:13:LYS:NZ	66:O0:103:THR:HG21	3.27	0.42
68:O2:121:ASN:OD1	68:O2:121:ASN:N	2.47	0.42
70:O4:94:LEU:HA	70:O4:94:LEU:HD23	2.03	0.42
71:O5:13:SER:OG	71:O5:16:GLN:HG3	2.65	0.42
74:O8:14:LEU:O	74:O8:20:VAL:HG21	2.19	0.42
74:O8:69:LEU:HA	74:O8:70:PRO:HD2	1.88	0.42
2:S0:172:LEU:HD22	2:S0:176:LEU:HG	2.38	0.42
2:S0:185:ARG:HB3	2:S0:186:GLY:H	3.94	0.42
3:S1:185:THR:O	3:S1:189:ILE:HG13	2.18	0.42
3:S1:225:VAL:O	3:S1:229:MET:HB2	2.20	0.42
6:S4:227:VAL:HB	6:S4:228:ILE:H	1.62	0.42
7:S5:109:LYS:O	7:S5:113:ILE:HG13	2.26	0.42
1:2:127:G:O6	8:S6:202:ARG:NH2	2.52	0.42
9:S7:68:ALA:HA	9:S7:71:HIS:HB2	3.00	0.42
10:S8:106:ALA:O	10:S8:110:ARG:N	2.41	0.42
11:S9:171:ARG:HE	11:S9:174:ARG:CB	5.20	0.42
36:1:3112:G:O2'	46:L9:70:THR:HB	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:727:G:H2'	36:1:728:G:O4'	2.19	0.42
1:2:624:G:C8	1:2:1027:A:C6	3.08	0.42
1:2:1357:A:H2'	1:2:1358:G:H8	1.84	0.42
1:2:679:U:H2'	1:2:680:U:C6	2.54	0.42
1:2:706:A:C6	1:2:734:A:N6	2.87	0.42
38:4:85:G:C8	38:4:85:G:C3'	3.03	0.42
53:M7:23:ARG:NH2	36:5:1505:C:OP1	128.85	0.42
36:5:1786:G:H2'	36:5:1787:A:C8	2.55	0.42
36:5:209:A:H1'	36:5:212:G:N2	2.35	0.42
62:N6:103:LYS:NZ	36:5:217:U:O2	78.43	0.42
36:5:2822:U:H2'	36:5:2823:G:O4'	2.20	0.42
36:5:3155:U:H4'	36:5:3156:U:OP2	2.18	0.42
50:M4:121:MET:HE1	36:5:3215:A:C5'	275.09	0.42
36:5:3241:G:H2'	36:5:3245:A:H8	1.84	0.42
36:5:3316:A:OP1	36:5:3318:G:N2	2.38	0.42
36:5:928:C:H2'	36:5:929:A:C8	2.55	0.42
18:C6:30:LYS:HD3	1:6:1366:U:OP1	425.11	0.42
28:D6:87:ARG:NH1	1:6:1796:C:OP1	344.73	0.42
37:7:33:U:H2'	37:7:34:C:O4'	2.18	0.42
88:8:218:OHX:N6	88:8:225:OHX:N4	2.67	0.42
13:C1:142:VAL:HG12	13:C1:144:ALA:H	1.83	0.42
13:C1:54:ILE:HD12	13:C1:54:ILE:HG23	4.19	0.42
13:C1:75:VAL:HG11	13:C1:120:GLY:N	2.34	0.42
19:C7:23:LYS:HE3	34:SR:174:ASN:HB3	4.24	0.42
1:2:1175:U:O4	20:C8:140:THR:HG21	2.20	0.42
17:C5:18:ARG:NH1	20:C8:90:ASN:O	2.52	0.42
24:D2:37:PHE:CE2	24:D2:103:ILE:HD11	3.89	0.42
30:D8:11:LYS:HD2	30:D8:51:ASN:HA	3.30	0.42
39:L2:9:ARG:HH21	39:L2:9:ARG:HD3	1.93	0.42
40:L3:350:ALA:O	40:L3:351:LEU:HB2	2.19	0.42
40:L3:308:MET:HE3	40:L3:370:PHE:HB2	4.01	0.42
40:L3:97:ARG:NH1	36:5:3244:A:C2	244.14	0.42
41:L4:135:VAL:O	41:L4:140:HIS:HB2	2.20	0.42
41:L4:295:ILE:CG2	41:L4:299:ILE:HD11	2.48	0.42
41:L4:311:HIS:NE2	41:L4:314:LYS:HA	2.35	0.42
42:L5:294:ALA:C	42:L5:296:GLN:H	2.23	0.42
43:L6:137:ASP:O	43:L6:141:VAL:HG23	2.62	0.42
43:L6:65:ILE:HD11	43:L6:77:ARG:HB3	2.02	0.42
44:L7:102:VAL:HG12	44:L7:130:ILE:HD12	3.96	0.42
47:M0:115:MET:HB2	36:5:2864:A:O3'	240.74	0.42
47:M0:169:LYS:HE3	57:N1:158:THR:OG1	4.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:174:THR:HG23	47:M0:175:ASN:N	2.34	0.42
47:M0:201:SER:OG	47:M0:203:LYS:HG2	2.20	0.42
49:M3:46:ILE:HA	49:M3:49:ARG:HH11	3.97	0.42
43:L6:158:TYR:CG	50:M4:115:PHE:CD2	3.08	0.42
50:M4:85:TRP:CD1	50:M4:90:VAL:HG13	2.54	0.42
54:M8:103:ALA:HB3	54:M8:106:PHE:CE2	2.88	0.42
54:M8:159:LYS:HD2	54:M8:159:LYS:HA	3.27	0.42
55:M9:38:ARG:O	55:M9:42:ARG:HG2	4.87	0.42
58:N2:90:ARG:C	58:N2:92:TRP:H	3.02	0.42
62:N6:126:LEU:HB2	62:N6:127:GLU:H	2.41	0.42
62:N6:12:ARG:HG2	36:5:215:G:OP1	87.91	0.42
62:N6:50:ILE:CD1	62:N6:70:ILE:HG12	2.49	0.42
67:O1:20:LEU:HD23	67:O1:20:LEU:HA	1.84	0.42
68:O2:15:LYS:HE3	68:O2:15:LYS:HB3	4.32	0.42
36:1:1844:C:O2	73:O7:9:GLY:HA2	2.19	0.42
75:O9:5:LYS:HD3	75:O9:13:MET:HE3	2.19	0.42
77:Q1:4:LYS:HG3	77:Q1:5:TRP:CE3	2.54	0.42
2:S0:109:ASN:OD1	2:S0:111:ILE:HB	2.20	0.42
2:S0:31:VAL:N	2:S0:149:LEU:O	2.49	0.42
2:S0:179:ARG:HD3	2:S0:183:ARG:CD	2.87	0.42
2:S0:41:ARG:HE	2:S0:45:VAL:HB	1.84	0.42
3:S1:114:VAL:HG22	3:S1:142:PHE:HZ	2.92	0.42
4:S2:143:TYR:CD2	4:S2:147:ASN:HA	4.08	0.42
4:S2:38:VAL:HG12	4:S2:65:GLU:OE1	2.20	0.42
6:S4:7:LYS:HB2	1:6:94:U:O2'	345.58	0.42
7:S5:29:ILE:HA	7:S5:30:PRO:HD3	2.12	0.42
11:S9:38:ASN:HB3	11:S9:40:LYS:N	2.34	0.42
11:S9:6:ARG:HD3	11:S9:6:ARG:HA	1.75	0.42
20:C8:120:ARG:HH21	35:SM:61:ILE:HD11	1.84	0.42
34:SR:123:ILE:HD11	34:SR:156:VAL:CG2	3.34	0.42
34:SR:256:THR:OG1	34:SR:259:GLY:N	2.48	0.42
36:1:1691:U:H2'	36:1:1692:U:C6	2.54	0.42
36:1:1915:A:H2'	36:1:1916:U:H6	1.84	0.42
36:1:2175:U:H4'	36:1:2176:U:OP2	2.20	0.42
36:1:237:G:H2'	36:1:238:A:O4'	2.20	0.42
36:1:2565:U:H2'	36:1:2566:C:H6	1.83	0.42
36:1:2887:A:N3	36:1:2887:A:H2'	2.34	0.42
36:1:61:A:H2'	36:1:62:A:O4'	2.18	0.42
36:1:871:U:H2'	36:1:872:U:H6	1.80	0.42
1:2:1143:A:O2'	1:2:1144:U:H5'	2.19	0.42
1:2:1487:A:H2'	1:2:1488:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1500:C:H5'	21:C9:106:GLN:HE22	1.85	0.42
1:2:193:U:H2'	1:2:194:U:H2'	2.01	0.42
1:2:830:U:O2	1:2:830:U:H2'	2.19	0.42
38:4:27:U:H2'	38:4:28:C:H6	1.85	0.42
36:5:3225:C:H2'	36:5:3226:A:O4'	2.19	0.42
36:5:3242:G:H21	36:5:3245:A:H5''	1.85	0.42
36:5:3245:A:H2	36:5:3246:G:N1	2.17	0.42
36:5:428:A:H2'	36:5:429:U:C6	2.55	0.42
1:6:1639:C:OP1	88:6:2152:OHX:N5	2.52	0.42
1:6:683:C:H5'	1:6:684:A:OP2	2.18	0.42
1:6:84:A:H2'	1:6:85:A:O4'	2.19	0.42
16:C4:35:GLY:HA3	1:6:919:A:H5'	269.53	0.42
38:8:120:C:H2'	38:8:121:U:O4'	2.20	0.42
14:C2:52:LEU:HD22	14:C2:52:LEU:HA	2.10	0.42
15:C3:16:ILE:HD13	15:C3:16:ILE:HA	4.42	0.42
17:C5:22:LEU:O	17:C5:26:LEU:HD12	3.31	0.42
18:C6:14:LYS:O	18:C6:123:ARG:NH1	2.52	0.42
20:C8:99:HIS:HD2	20:C8:101:LEU:HD21	1.85	0.42
21:C9:28:LEU:HB3	21:C9:29:GLU:H	3.54	0.42
21:C9:57:ARG:HG3	21:C9:57:ARG:NH1	2.39	0.42
21:C9:86:ARG:O	21:C9:89:ARG:HG3	2.19	0.42
22:D0:17:GLN:HG3	22:D0:18:GLN:H	5.16	0.42
39:L2:205:ASN:HB3	39:L2:206:PRO:HD2	2.42	0.42
40:L3:57:VAL:HG21	60:N4:15:PRO:HG2	2.02	0.42
41:L4:138:ARG:HG3	41:L4:244:LEU:O	2.20	0.42
41:L4:180:LYS:HE2	41:L4:180:LYS:HB3	1.81	0.42
41:L4:154:THR:HG23	41:L4:253:ALA:HB2	2.43	0.42
42:L5:152:ARG:CG	42:L5:152:ARG:HH11	2.59	0.42
42:L5:85:ARG:NH1	42:L5:254:LYS:H	2.98	0.42
43:L6:18:LEU:N	43:L6:18:LEU:HD22	2.34	0.42
44:L7:110:ARG:O	44:L7:113:SER:HB2	2.19	0.42
44:L7:156:ILE:HD12	44:L7:161:VAL:HB	2.02	0.42
44:L7:51:TYR:O	44:L7:54:GLU:HB3	2.19	0.42
45:L8:187:GLY:O	45:L8:190:VAL:HG12	2.20	0.42
45:L8:187:GLY:HA2	45:L8:195:SER:HB2	2.21	0.42
45:L8:25:PRO:HG2	45:L8:27:THR:HB	2.02	0.42
39:L2:66:PRO:O	45:L8:41:GLN:HG2	2.20	0.42
48:M1:17:LEU:HB3	48:M1:76:ALA:HB1	2.74	0.42
49:M3:126:PHE:HA	49:M3:127:PRO:HD2	1.57	0.42
50:M4:55:ARG:NH2	50:M4:77:ARG:HA	2.35	0.42
53:M7:34:GLN:NE2	36:5:413:U:H5''	156.62	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:841:A:H5'	55:M9:125:LYS:O	2.20	0.42
55:M9:81:ARG:HG2	55:M9:88:ARG:NH2	2.73	0.42
36:1:3209:A:OP2	56:N0:161:LYS:HD2	2.19	0.42
57:N1:11:THR:HB	57:N1:15:PHE:CD1	2.55	0.42
67:O1:17:HIS:HB2	67:O1:69:TYR:HB3	2.01	0.42
68:O2:122:PRO:O	68:O2:123:LYS:CB	2.68	0.42
36:1:424:G:O2'	68:O2:23:ASP:OD2	2.32	0.42
68:O2:89:THR:H	68:O2:89:THR:HG22	3.01	0.42
69:O3:67:MET:HE1	69:O3:90:PRO:HD3	2.70	0.42
74:O8:44:LYS:HA	74:O8:53:THR:HA	2.37	0.42
77:Q1:1:MET:HE2	77:Q1:5:TRP:HB2	2.27	0.42
78:Q2:73:GLU:HG3	78:Q2:80:ARG:HG2	2.56	0.42
2:S0:186:GLY:O	2:S0:188:LEU:N	2.53	0.42
5:S3:48:VAL:HB	5:S3:86:LEU:HD12	2.17	0.42
5:S3:59:LEU:HA	5:S3:66:ILE:CG1	2.48	0.42
6:S4:124:GLY:HA2	6:S4:142:HIS:CE1	2.54	0.42
6:S4:212:ASP:OD2	6:S4:216:ASN:HB2	2.58	0.42
6:S4:234:PRO:HG3	6:S4:238:LEU:HD11	2.14	0.42
8:S6:57:ASP:C	8:S6:59:GLN:H	4.21	0.42
34:SR:63:GLY:HA2	1:6:1341:A:OP1	450.23	0.42
36:1:1694:U:N3	36:1:1695:U:C4	2.87	0.42
36:1:3252:G:H2'	36:1:3253:G:C8	2.55	0.42
36:1:781:G:O6	88:1:3950:OHX:N5	2.53	0.42
36:1:718:G:N1	36:1:721:G:H1'	2.35	0.42
36:1:745:C:H2'	36:1:746:A:C8	2.55	0.42
1:2:1538:U:HO2'	1:2:1539:G:H8	1.67	0.42
1:2:252:U:H2'	1:2:253:A:C8	2.54	0.42
1:2:523:G:H5''	26:D4:59:GLY:O	2.20	0.42
1:2:690:G:C2	1:2:691:C:C2	3.08	0.42
1:2:749:U:H3	1:2:800:U:H3	1.68	0.42
36:1:345:G:O2'	38:4:25:G:N3	2.47	0.42
38:4:59:A:H5''	38:4:61:A:C8	2.55	0.42
36:5:1708:C:H2'	36:5:1709:C:C6	2.55	0.42
36:5:2984:C:H2'	36:5:2985:C:H6	1.84	0.42
36:5:3309:G:H2'	36:5:3310:A:C5'	2.50	0.42
36:5:574:U:H2'	36:5:575:G:O4'	2.20	0.42
36:5:718:G:N7	36:5:721:G:H1'	2.34	0.42
36:5:811:U:H2'	36:5:812:G:C8	2.55	0.42
1:6:1053:G:N7	88:6:2194:OHX:N4	2.67	0.42
1:6:386:G:H2'	1:6:387:A:C8	2.55	0.42
1:6:894:U:H2'	1:6:895:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:52:LYS:HE2	1:6:1220:C:H5'	444.35	0.42
13:C1:75:VAL:HB	13:C1:121:ASP:O	2.20	0.42
13:C1:33:ARG:HD3	13:C1:49:ILE:O	2.54	0.42
15:C3:125:LEU:HA	15:C3:125:LEU:HD23	1.87	0.42
16:C4:32:ASP:O	16:C4:35:GLY:N	2.51	0.42
16:C4:42:VAL:HA	16:C4:46:MET:SD	2.59	0.42
1:2:1211:A:H1'	17:C5:99:GLY:O	2.19	0.42
18:C6:143:ARG:HH22	35:SM:84:LYS:NZ	2.16	0.42
20:C8:28:ILE:HD11	20:C8:56:LYS:HB2	7.12	0.42
20:C8:28:ILE:O	20:C8:31:ALA:N	3.59	0.42
21:C9:101:ASN:O	21:C9:104:VAL:HB	2.53	0.42
22:D0:42:VAL:HG13	22:D0:52:LYS:NZ	2.35	0.42
24:D2:103:ILE:CD1	24:D2:126:LEU:HD12	2.50	0.42
25:D3:137:LYS:O	25:D3:138:GLU:HB2	2.62	0.42
26:D4:105:ARG:O	26:D4:109:LYS:HG3	2.19	0.42
28:D6:87:ARG:NH2	28:D6:94:ASN:O	2.52	0.42
29:D7:50:ALA:HB1	29:D7:52:THR:O	2.19	0.42
11:S9:37:LYS:HA	32:E0:33:ARG:HA	2.01	0.42
39:L2:230:VAL:O	39:L2:233:GLN:HB2	2.20	0.42
39:L2:62:VAL:HB	39:L2:73:GLU:HA	2.82	0.42
40:L3:173:GLN:O	40:L3:174:LYS:HB2	2.20	0.42
41:L4:188:ARG:O	41:L4:193:LYS:HE3	2.19	0.42
41:L4:209:TYR:C	41:L4:254:ALA:HB2	2.51	0.42
42:L5:263:GLU:O	42:L5:266:ALA:HB3	2.19	0.42
43:L6:40:LEU:HB3	43:L6:84:VAL:CG1	3.24	0.42
43:L6:46:ARG:HG3	43:L6:47:PHE:CD1	2.54	0.42
45:L8:71:VAL:HA	45:L8:72:PRO:HD2	1.72	0.42
45:L8:79:GLN:O	45:L8:81:THR:HG22	2.20	0.42
49:M3:27:ASP:OD1	49:M3:31:LYS:HE2	2.20	0.42
50:M4:108:ARG:NH2	52:M6:196:ALA:O	2.53	0.42
43:L6:174:LEU:HD22	50:M4:117:ARG:CZ	3.99	0.42
50:M4:118:PHE:O	50:M4:121:MET:HB3	2.81	0.42
52:M6:98:ALA:HA	52:M6:101:ARG:NH1	2.52	0.42
53:M7:27:LYS:HE2	53:M7:63:PHE:CD1	2.69	0.42
54:M8:152:HIS:N	54:M8:152:HIS:CD2	2.88	0.42
50:M4:12:TRP:HB2	56:N0:151:PRO:HB3	2.12	0.42
44:L7:80:GLN:HG3	57:N1:136:ARG:HB3	5.57	0.42
63:N7:5:LEU:HD11	63:N7:30:ASP:OD1	6.57	0.42
64:N8:65:GLN:HG2	64:N8:65:GLN:H	1.59	0.42
57:N1:82:ASN:HA	65:N9:21:ILE:HD13	2.02	0.42
68:O2:103:LYS:O	68:O2:106:VAL:HG12	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:44:TYR:HA	69:O3:47:LYS:HG3	2.11	0.42
70:O4:63:ALA:HB2	36:5:1803:C:H5'	157.63	0.42
71:O5:84:LYS:HB3	71:O5:85:THR:H	1.63	0.42
49:M3:170:LEU:HD22	72:O6:9:ILE:CG2	4.99	0.42
79:Q3:11:THR:CG2	79:Q3:27:LYS:HB2	4.08	0.42
2:S0:3:LEU:HA	2:S0:4:PRO:HD2	1.99	0.42
3:S1:133:TYR:CE1	3:S1:220:GLN:HB3	2.55	0.42
3:S1:35:PRO:O	3:S1:41:ARG:HG2	2.19	0.42
4:S2:140:ARG:CZ	23:D1:1:MET:SD	3.08	0.42
11:S9:132:ARG:HA	11:S9:132:ARG:HD2	3.10	0.42
11:S9:49:LEU:CD2	11:S9:53:ARG:HG3	3.95	0.42
11:S9:7:THR:HG23	1:6:772:G:OP1	386.70	0.42
11:S9:88:GLU:O	11:S9:91:LYS:HB2	2.20	0.42
35:SM:47:ALA:HA	36:1:2678:A:H5'	2.02	0.42
34:SR:21:THR:HG23	34:SR:36:ALA:O	4.67	0.42
36:1:1331:U:OP2	36:1:1332:A:N6	2.48	0.42
36:1:1566:A:H2'	36:1:1567:U:H5''	2.02	0.42
36:1:1716:U:HO2'	36:1:1717:U:H4'	1.85	0.42
36:1:1674:G:C2	36:1:1774:C:N3	2.88	0.42
36:1:2799:A:H5''	36:1:2800:G:O5'	2.20	0.42
36:1:2296:A:H2	36:1:2918:G:N3	2.18	0.42
36:1:3133:C:H2'	36:1:3134:A:O4'	2.20	0.42
36:1:3165:A:H2'	36:1:3166:C:C6	2.55	0.42
36:1:3279:A:C6	36:1:3280:U:C4	3.08	0.42
36:1:3295:A:OP2	40:L3:126:LYS:N	2.42	0.42
36:1:373:A:H62	36:1:396:A:N6	2.18	0.42
36:1:499:G:H2'	36:1:500:C:C6	2.54	0.42
36:1:860:G:H5'	36:1:861:C:H5'	2.01	0.42
1:2:1498:G:H5''	21:C9:72:GLY:HA3	2.01	0.42
1:2:215:A:OP2	1:2:215:A:H8	2.03	0.42
1:2:5:U:N3	1:2:20:G:C2	2.87	0.42
1:2:735:C:O2'	1:2:736:C:H5''	2.20	0.42
1:2:901:G:C6	1:2:902:G:C6	3.07	0.42
1:2:976:G:C6	1:2:1023:A:C4	3.08	0.42
37:3:36:C:H2'	37:3:37:G:C8	2.55	0.42
36:5:1049:C:H2'	36:5:1050:U:C6	2.55	0.42
36:5:1203:A:H5'	37:7:90:U:N3	2.35	0.42
36:5:1576:G:H5'	36:5:1577:G:OP2	2.19	0.42
70:O4:22:VAL:HG12	36:5:1668:G:H4'	156.88	0.42
36:5:2313:A:O4'	36:5:2315:G:C8	2.73	0.42
36:5:2372:A:H4'	36:5:2373:A:OP2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2572:C:O2'	36:5:2573:G:P	2.78	0.42
36:5:2900:A:H2'	36:5:2901:G:O5'	2.20	0.42
36:5:2997:G:O4'	36:5:3396:U:H5'	2.19	0.42
36:5:3163:A:C6	36:5:3288:G:O6	2.73	0.42
36:5:3316:A:H5''	36:5:3318:G:H22	1.84	0.42
36:5:434:U:H2'	36:5:435:C:C6	2.55	0.42
56:N0:132:THR:OG1	36:5:534:U:OP1	353.79	0.42
36:5:802:C:O2'	36:5:803:C:H5'	2.20	0.42
1:6:1160:A:H2'	1:6:1161:C:H6	1.77	0.42
1:6:1215:C:H2'	1:6:1216:C:C6	2.54	0.42
1:6:1376:C:O2'	1:6:1377:U:H5'	2.19	0.42
1:6:1594:G:C6	1:6:1595:U:N3	2.88	0.42
1:6:55:A:N6	1:6:403:G:H1'	2.34	0.42
1:6:715:U:H2'	1:6:716:C:C6	2.55	0.42
37:7:92:A:C5	37:7:93:C:H1'	2.55	0.42
38:8:104:A:C8	38:8:105:A:C8	3.08	0.42
13:C1:112:SER:HA	13:C1:113:PRO:HD2	1.66	0.42
14:C2:131:ASP:OD1	14:C2:133:LEU:HD12	2.33	0.42
1:2:905:A:H4'	16:C4:52:ARG:NH1	2.34	0.42
18:C6:43:ILE:H	18:C6:43:ILE:HD13	1.85	0.42
20:C8:134:ARG:O	20:C8:136:GLN:N	4.37	0.42
21:C9:65:ILE:HG12	21:C9:71:VAL:HG13	5.31	0.42
1:2:1467:C:O2'	21:C9:90:PRO:HD3	2.20	0.42
22:D0:26:LEU:HD23	22:D0:114:VAL:HA	2.67	0.42
23:D1:64:GLU:OE2	29:D7:2:VAL:HG13	3.16	0.42
27:D5:46:LYS:O	27:D5:50:ILE:HG13	3.40	0.42
28:D6:9:GLY:O	28:D6:10:ARG:HG3	2.20	0.42
33:E1:123:ASN:HA	33:E1:124:PRO:HD2	1.97	0.42
40:L3:21:ARG:HD3	40:L3:269:GLN:OE1	2.93	0.42
40:L3:258:ALA:O	40:L3:259:HIS:CD2	2.77	0.42
40:L3:347:SER:HB2	40:L3:350:ALA:HB2	3.13	0.42
40:L3:361:THR:HG22	40:L3:371:GLN:OE1	2.55	0.42
40:L3:95:THR:C	40:L3:97:ARG:H	2.30	0.42
41:L4:193:LYS:HE3	41:L4:193:LYS:HB2	1.70	0.42
41:L4:48:GLN:HB3	41:L4:48:GLN:HE21	1.62	0.42
42:L5:238:ASP:HA	42:L5:241:THR:HB	2.01	0.42
42:L5:274:GLN:OE1	37:7:60:G:N2	332.59	0.42
43:L6:148:GLU:O	43:L6:151:LYS:HB2	2.20	0.42
44:L7:175:LYS:HE2	44:L7:175:LYS:HB2	1.71	0.42
45:L8:101:THR:N	45:L8:104:GLU:OE2	2.49	0.42
45:L8:224:ASP:OD1	45:L8:224:ASP:N	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:29:SER:O	45:L8:31:PRO:HD3	3.04	0.42
45:L8:94:PHE:HB3	45:L8:189:LEU:CD1	2.49	0.42
47:M0:169:LYS:HD3	57:N1:158:THR:O	4.99	0.42
48:M1:150:ASN:O	48:M1:152:HIS:N	2.53	0.42
49:M3:6:ASN:O	54:M8:164:ARG:HD2	2.20	0.42
50:M4:121:MET:O	50:M4:125:LYS:HG2	2.19	0.42
50:M4:24:LYS:HG3	50:M4:25:LYS:HG2	2.01	0.42
52:M6:193:GLN:O	52:M6:196:ALA:HB3	2.20	0.42
55:M9:25:ASP:HB3	55:M9:28:GLU:HB2	2.93	0.42
56:N0:141:LYS:HE3	56:N0:141:LYS:HB3	4.59	0.42
57:N1:139:ARG:HH21	57:N1:139:ARG:CG	3.48	0.42
61:N5:79:GLY:C	61:N5:81:ILE:HD12	3.71	0.42
38:4:23:U:P	62:N6:16:ARG:HH21	2.43	0.42
64:N8:90:TYR:CD1	64:N8:100:PRO:HG3	2.54	0.42
64:N8:7:LYS:HA	64:N8:7:LYS:HD2	1.77	0.42
70:O4:10:ARG:O	36:5:1488:G:O2'	139.49	0.42
70:O4:60:ARG:HH21	36:5:1616:U:H4'	140.75	0.42
70:O4:78:GLY:O	70:O4:80:ARG:N	4.44	0.42
4:S2:115:ILE:HD13	4:S2:208:GLU:HG2	2.01	0.42
4:S2:99:LYS:HB2	4:S2:117:THR:HB	2.82	0.42
5:S3:6:SER:O	5:S3:10:LYS:HB2	2.20	0.42
6:S4:43:PRO:HA	6:S4:82:TYR:O	2.20	0.42
7:S5:164:PRO:O	7:S5:167:ARG:HB2	2.20	0.42
7:S5:92:ARG:HB3	7:S5:172:ILE:HD13	2.02	0.42
7:S5:48:PHE:CG	7:S5:67:PRO:HB3	2.55	0.42
8:S6:189:HIS:CE1	8:S6:193:LEU:HD12	3.27	0.42
9:S7:142:TYR:HE1	24:D2:39:GLN:NE2	2.18	0.42
11:S9:36:LEU:HA	11:S9:36:LEU:HD23	3.00	0.42
34:SR:162:ALA:O	34:SR:163:ASP:HB3	2.20	0.42
36:1:1191:U:C2	52:M6:48:PHE:CE1	3.08	0.42
36:1:1216:C:H6	36:1:1216:C:C5'	2.33	0.42
36:1:155:G:H1'	72:O6:26:ILE:CD1	2.49	0.42
36:1:2111:G:C8	60:N4:49:ILE:HD13	2.55	0.42
36:1:2842:U:HO2'	36:1:2843:U:P	2.41	0.42
36:1:2856:G:H2'	36:1:2857:C:H6	1.84	0.42
36:1:99:A:H5'	51:M5:194:GLN:NE2	2.35	0.42
1:2:1003:A:H1'	1:2:1005:A:N7	2.35	0.42
1:2:1032:G:C6	1:2:1033:C:C4	3.08	0.42
1:2:1033:C:H2'	1:2:1034:C:H6	1.85	0.42
1:2:1067:C:H2'	1:2:1068:C:C6	2.52	0.42
1:2:1492:A:N3	1:2:1493:A:C8	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1537:C:C4	88:2:2154:OHX:N3	2.88	0.42
1:2:260:U:H3'	1:2:261:U:C5'	2.50	0.42
1:2:598:U:H2'	1:2:599:A:C8	2.55	0.42
1:2:851:U:H2'	1:2:852:C:C5	2.54	0.42
1:2:888:U:H1'	16:C4:126:THR:HG21	2.01	0.42
37:3:10:C:OP2	57:N1:26:HIS:CD2	2.73	0.42
38:4:120:C:H2'	38:4:121:U:O4'	2.20	0.42
36:5:1013:G:H2'	36:5:1014:U:O4'	2.20	0.42
36:5:1276:U:OP2	88:5:4010:OHX:N1	2.53	0.42
52:M6:83:ALA:HB1	36:5:1313:G:H5'	259.55	0.42
36:5:2762:A:H1'	36:5:2800:G:C6	2.55	0.42
59:N3:12:ARG:HB2	36:5:3040:A:H5''	267.50	0.42
36:5:3094:A:H2'	36:5:3095:U:C6	2.54	0.42
36:5:3132:C:H2'	36:5:3133:C:H6	1.84	0.42
36:5:3288:G:O2'	36:5:3289:G:OP2	2.32	0.42
36:5:3317:U:H4'	36:5:3318:G:O5'	2.20	0.42
88:5:4014:OHX:N4	88:5:4205:OHX:N2	2.68	0.42
36:5:624:G:H2'	36:5:625:G:C8	2.53	0.42
36:5:797:U:O2'	36:5:798:G:H5'	2.20	0.42
36:5:94:G:H2'	36:5:95:A:C8	2.54	0.42
1:6:1751:C:H2'	1:6:1752:U:O4'	2.20	0.42
38:8:4:C:H2'	38:8:5:U:H6	1.84	0.42
12:C0:14:TYR:CD2	12:C0:35:ILE:HD11	2.54	0.42
13:C1:7:VAL:HG13	13:C1:8:GLN:H	1.85	0.42
14:C2:28:LEU:HD22	14:C2:32:LEU:HG	2.15	0.42
15:C3:27:LYS:HB2	15:C3:28:LEU:H	1.62	0.42
15:C3:28:LEU:O	15:C3:29:SER:OG	3.91	0.42
18:C6:50:GLU:O	18:C6:54:LEU:HB2	2.19	0.42
18:C6:11:GLY:HA2	18:C6:83:GLN:NE2	2.35	0.42
19:C7:6:THR:HG23	19:C7:9:VAL:HG23	2.19	0.42
20:C8:28:ILE:HA	20:C8:31:ALA:HB3	2.01	0.42
26:D4:89:TYR:O	26:D4:92:VAL:HG23	4.30	0.42
28:D6:46:GLU:HG3	28:D6:47:ALA:N	2.68	0.42
28:D6:79:ILE:HA	28:D6:84:VAL:CB	2.48	0.42
1:2:871:G:O2'	29:D7:66:PRO:HB2	2.20	0.42
29:D7:75:GLU:HB3	29:D7:76:GLY:H	2.46	0.42
39:L2:118:GLU:OE1	36:5:2158:A:O2'	196.55	0.42
39:L2:144:ASN:ND2	39:L2:161:ASP:OD1	3.92	0.42
39:L2:204:MET:HE2	39:L2:209:HIS:ND1	2.35	0.42
40:L3:259:HIS:NE2	36:5:2366:C:H5'	217.61	0.42
42:L5:41:LYS:HD2	57:N1:93:VAL:HG11	4.26	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:L6:136:GLU:OE2	43:L6:136:GLU:HA	2.76	0.42
45:L8:189:LEU:O	45:L8:190:VAL:HG23	3.82	0.42
45:L8:82:LEU:HD12	45:L8:83:ASP:N	2.35	0.42
45:L8:97:TYR:O	45:L8:132:VAL:HG13	3.20	0.42
48:M1:117:ASP:OD2	48:M1:119:SER:HB3	2.19	0.42
48:M1:11:ASP:O	48:M1:12:LEU:HB3	3.52	0.42
49:M3:164:GLU:O	64:N8:139:ARG:NH1	7.71	0.42
50:M4:68:LEU:HD23	50:M4:68:LEU:HA	2.02	0.42
51:M5:7:LEU:HD12	51:M5:7:LEU:HA	2.27	0.42
52:M6:27:LEU:HG	52:M6:27:LEU:H	1.67	0.42
53:M7:132:ALA:O	53:M7:133:HIS:HB2	2.44	0.42
54:M8:54:LEU:HA	54:M8:54:LEU:HD23	1.97	0.42
36:1:1472:U:H5'	55:M9:4:LEU:HB2	2.01	0.42
58:N2:50:LEU:HG	58:N2:50:LEU:H	1.92	0.42
61:N5:132:ALA:O	61:N5:136:ALA:N	2.62	0.42
38:4:23:U:O4'	62:N6:17:LYS:HG2	2.20	0.42
63:N7:44:ALA:HB1	63:N7:114:VAL:HG11	2.02	0.42
71:O5:21:LEU:O	71:O5:25:LYS:HG3	2.20	0.42
73:O7:19:CYS:SG	73:O7:34:CYS:HB2	2.60	0.42
2:S0:41:ARG:CB	2:S0:45:VAL:HG23	5.02	0.42
4:S2:108:ASN:HA	4:S2:141:ARG:NH1	2.35	0.42
4:S2:132:ALA:O	4:S2:135:SER:OG	2.38	0.42
4:S2:163:GLY:O	4:S2:164:SER:HB3	4.18	0.42
4:S2:53:ILE:HG12	4:S2:72:LEU:HB3	2.01	0.42
4:S2:77:GLN:HG3	4:S2:105:GLY:O	2.20	0.42
5:S3:32:GLU:O	5:S3:54:ARG:HB2	3.50	0.42
6:S4:139:VAL:HG13	6:S4:150:PRO:CG	2.61	0.42
6:S4:146:THR:HG21	1:6:123:G:H21	341.00	0.42
7:S5:87:CYS:HA	7:S5:88:PRO:HD2	1.73	0.42
8:S6:33:GLY:HA2	8:S6:51:LYS:HE2	2.02	0.42
8:S6:67:VAL:HG23	8:S6:68:LEU:O	2.46	0.42
9:S7:48:GLU:OE2	9:S7:88:ARG:NH2	2.51	0.42
11:S9:57:ARG:O	11:S9:61:THR:HG22	2.20	0.42
35:SM:65:THR:C	35:SM:67:GLY:H	4.93	0.42
34:SR:121:MET:HE3	34:SR:167:VAL:HG11	4.29	0.42
36:1:1599:G:C5	36:1:1600:U:C5	3.07	0.41
36:1:2225:U:H2'	36:1:2226:U:C6	2.55	0.41
36:1:2927:C:H2'	36:1:2928:C:H6	1.85	0.41
36:1:2946:A:C5'	36:1:2947:G:H5'	2.50	0.41
36:1:3066:U:O4	88:1:4148:OHX:N5	2.53	0.41
1:2:1188:G:H5''	1:2:1189:A:OP2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:158:U:H5'	1:2:158:U:H6	1.85	0.41
1:2:1636:C:C2	1:2:1638:G:C5	3.08	0.41
1:2:169:A:OP1	8:S6:137:ARG:NH2	2.53	0.41
1:2:1542:G:O2'	88:2:2102:OHX:N4	2.53	0.41
1:2:717:C:H42	1:2:720:G:N2	2.17	0.41
37:3:64:A:H5'	37:3:65:G:H5''	2.02	0.41
36:5:1345:G:N7	88:5:4069:OHX:N5	2.68	0.41
36:5:137:G:N2	36:5:138:U:C2	2.88	0.41
36:5:247:C:N3	36:5:248:U:H1'	2.35	0.41
36:5:2689:A:H4'	36:5:2690:G:H5'	2.01	0.41
36:5:2724:U:C4	36:5:2725:U:O4	2.73	0.41
78:Q2:63:LYS:NZ	36:5:2761:G:N7	211.47	0.41
36:5:2836:C:O2	36:5:2836:C:O4'	2.38	0.41
40:L3:259:HIS:HB3	36:5:2987:A:O2'	217.16	0.41
36:5:3302:U:H3	36:5:3312:U:H3	1.67	0.41
36:5:368:G:OP1	88:5:3927:OHX:N4	2.53	0.41
36:5:561:C:H2'	36:5:562:C:C6	2.55	0.41
1:6:1078:C:H2'	1:6:1079:U:C6	2.55	0.41
1:6:1078:C:H2'	1:6:1079:U:H6	1.85	0.41
31:D9:16:LYS:HG2	1:6:1596:C:OP1	400.66	0.41
88:6:2057:OHX:N1	88:6:2143:OHX:N4	2.68	0.41
1:6:246:G:C6	1:6:247:A:C6	3.08	0.41
6:S4:10:LYS:HD3	1:6:381:C:H5''	358.81	0.41
1:6:448:C:H2'	1:6:449:C:C6	2.55	0.41
1:6:609:U:H4'	1:6:610:G:O5'	2.20	0.41
1:6:647:G:N2	1:6:687:G:N2	2.67	0.41
1:6:841:U:H2'	1:6:842:C:C6	2.55	0.41
88:8:218:OHX:N5	88:8:225:OHX:N3	2.68	0.41
13:C1:36:LYS:O	13:C1:44:THR:HG21	2.39	0.41
14:C2:24:ILE:O	14:C2:26:ASP:N	2.89	0.41
15:C3:83:GLU:HG2	15:C3:83:GLU:H	1.60	0.41
16:C4:26:THR:HG21	16:C4:97:GLY:CA	2.50	0.41
17:C5:60:LEU:HD23	17:C5:60:LEU:HA	2.46	0.41
21:C9:23:GLN:HG3	21:C9:55:TYR:CE2	4.22	0.41
23:D1:41:GLU:CD	23:D1:41:GLU:H	2.59	0.41
2:S0:185:ARG:CA	23:D1:45:ALA:H	2.33	0.41
23:D1:5:LYS:HG2	23:D1:5:LYS:H	1.73	0.41
25:D3:23:ARG:HH11	25:D3:23:ARG:CG	2.80	0.41
1:2:930:A:H5''	28:D6:70:LYS:HE2	2.00	0.41
39:L2:136:ILE:HA	39:L2:148:VAL:HG12	2.02	0.41
40:L3:115:LYS:HE3	40:L3:129:ALA:HB3	5.31	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:281:ILE:HG22	54:M8:25:TYR:HB3	2.02	0.41
42:L5:113:LEU:HA	42:L5:113:LEU:HD12	1.82	0.41
42:L5:148:ILE:HG23	42:L5:151:GLN:HB3	2.36	0.41
44:L7:89:ILE:HA	44:L7:89:ILE:HD13	1.62	0.41
45:L8:156:ASP:CG	45:L8:183:LYS:HG2	3.06	0.41
45:L8:203:VAL:HG13	45:L8:204:ARG:O	2.98	0.41
45:L8:25:PRO:HB2	45:L8:26:LEU:H	1.56	0.41
46:L9:106:LYS:HG3	46:L9:107:ASP:OD2	3.71	0.41
48:M1:162:TRP:CZ2	48:M1:166:LYS:HD2	2.55	0.41
49:M3:116:LEU:HA	49:M3:116:LEU:HD23	1.68	0.41
49:M3:171:ARG:HA	49:M3:171:ARG:HD3	1.73	0.41
49:M3:35:ARG:NH1	36:5:685:G:P	83.78	0.41
53:M7:33:ALA:HB1	53:M7:117:ILE:HG12	2.22	0.41
36:1:1764:U:H5'	55:M9:43:LYS:NZ	2.34	0.41
55:M9:91:SER:H	55:M9:91:SER:HG	1.32	0.41
58:N2:34:ALA:O	58:N2:38:ILE:HG13	4.57	0.41
59:N3:67:PRO:C	59:N3:69:LEU:H	2.85	0.41
61:N5:115:ARG:NH1	61:N5:119:THR:HG1	2.90	0.41
62:N6:124:GLY:O	62:N6:126:LEU:N	4.74	0.41
63:N7:135:ARG:NH1	36:5:1807:G:H5'	195.05	0.41
63:N7:64:LYS:HB2	63:N7:64:LYS:HE2	2.89	0.41
74:O8:17:ARG:HB3	74:O8:20:VAL:CG2	3.22	0.41
2:S0:78:SER:OG	2:S0:129:ASP:OD1	3.23	0.41
3:S1:126:THR:HA	3:S1:136:ARG:HA	2.72	0.41
3:S1:31:ASP:HA	3:S1:45:LYS:HA	2.01	0.41
7:S5:173:ALA:O	7:S5:177:ILE:HG13	2.20	0.41
7:S5:56:ALA:HA	7:S5:59:VAL:HG23	3.10	0.41
10:S8:48:THR:CG2	10:S8:54:LYS:HB2	2.49	0.41
11:S9:66:ASP:HA	11:S9:67:PRO:HD2	1.94	0.41
34:SR:170:ILE:HD12	34:SR:211:ILE:HG23	3.52	0.41
36:1:1599:G:C6	36:1:1600:U:C4	3.07	0.41
36:1:1645:U:C2'	36:1:1646:G:H5'	2.51	0.41
36:1:181:U:H2'	36:1:182:U:O4'	2.20	0.41
1:2:1181:U:H2'	1:2:1182:U:O4'	2.20	0.41
1:2:339:C:O2'	1:2:340:U:H5'	2.20	0.41
1:2:498:G:C4	1:2:499:U:N3	2.88	0.41
1:2:872:G:H22	1:2:1047:G:H4'	1.85	0.41
1:2:872:G:H2'	1:2:873:U:O4'	2.20	0.41
36:5:1013:G:C2	36:5:1014:U:H1'	2.56	0.41
36:5:980:A:N6	36:5:1102:A:C6	2.88	0.41
36:5:1560:G:HO2'	36:5:1561:G:P	2.43	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1631:C:H5''	36:5:1632:A:C5'	2.50	0.41
36:5:253:A:O2'	36:5:254:A:H8	2.02	0.41
63:N7:61:LYS:HE3	36:5:2573:G:OP1	181.88	0.41
36:5:2724:U:O4	88:5:3962:OHX:N1	2.53	0.41
36:5:3287:U:H2'	36:5:3288:G:C5'	2.50	0.41
36:5:439:C:H1'	36:5:440:A:C8	2.54	0.41
36:5:662:U:H2'	36:5:663:C:C6	2.54	0.41
36:5:871:U:H2'	36:5:872:U:C6	2.55	0.41
1:6:1185:U:C2	1:6:1458:G:N7	2.88	0.41
8:S6:177:ARG:NH2	1:6:142:G:C6	313.29	0.41
1:6:1606:C:H2'	1:6:1607:G:C8	2.55	0.41
1:6:1673:G:O5'	1:6:1673:G:H8	2.03	0.41
1:6:525:A:C6	1:6:526:A:C6	3.08	0.41
1:6:976:G:O6	88:6:2077:OHX:N6	2.52	0.41
1:2:839:U:H5''	13:C1:28:SER:OG	2.19	0.41
15:C3:56:ASP:HA	29:D7:47:PHE:HB3	2.48	0.41
15:C3:47:PRO:HG3	15:C3:75:LEU:HD22	2.02	0.41
15:C3:89:TYR:CZ	15:C3:150:VAL:HG22	3.45	0.41
18:C6:47:LYS:HZ1	18:C6:114:ARG:HG2	1.85	0.41
18:C6:5:PRO:HG2	18:C6:24:ALA:CB	2.47	0.41
21:C9:116:ILE:HG13	21:C9:116:ILE:H	1.58	0.41
23:D1:56:SER:O	23:D1:60:ARG:HG3	2.75	0.41
24:D2:103:ILE:HA	24:D2:112:ASP:HA	2.02	0.41
27:D5:49:ARG:HD3	27:D5:53:GLU:OE2	2.19	0.41
32:E0:50:VAL:HA	32:E0:53:LYS:O	2.20	0.41
39:L2:20:THR:HG22	39:L2:23:ARG:CZ	7.38	0.41
40:L3:147:GLU:O	40:L3:150:ARG:HB3	2.30	0.41
40:L3:311:PHE:HE2	40:L3:317:ILE:HG13	1.99	0.41
41:L4:289:ILE:HG12	41:L4:289:ILE:H	1.81	0.41
36:1:343:U:O2	41:L4:95:ARG:HD2	2.20	0.41
42:L5:107:ARG:NE	42:L5:107:ARG:HA	2.35	0.41
44:L7:232:ARG:HG3	44:L7:235:PHE:HB2	2.27	0.41
44:L7:150:LYS:HD3	44:L7:244:ASN:ND2	2.35	0.41
47:M0:182:LEU:HD21	47:M0:185:ARG:NH1	3.17	0.41
49:M3:120:GLN:C	49:M3:122:LYS:H	2.83	0.41
49:M3:136:GLU:O	49:M3:136:GLU:HG3	2.16	0.41
43:L6:89:THR:HG21	50:M4:115:PHE:CB	2.50	0.41
36:1:3199:G:H5''	50:M4:6:ILE:HG21	2.02	0.41
53:M7:127:ARG:O	53:M7:139:TYR:N	2.60	0.41
54:M8:44:PHE:CD1	54:M8:139:ILE:HD11	2.56	0.41
55:M9:69:SER:HA	55:M9:72:GLU:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:89:LEU:HD21	55:M9:94:VAL:HG22	2.02	0.41
36:1:534:U:O2	56:N0:146:LYS:HA	2.21	0.41
56:N0:84:ARG:HG3	36:5:1295:G:OP1	295.08	0.41
59:N3:81:GLN:O	59:N3:82:ALA:CB	2.69	0.41
59:N3:86:ARG:HB2	59:N3:92:PHE:CE1	2.54	0.41
61:N5:27:ARG:HG2	61:N5:27:ARG:H	1.62	0.41
62:N6:27:ARG:CZ	62:N6:78:PHE:CZ	3.03	0.41
64:N8:104:THR:HG23	64:N8:126:LYS:O	2.41	0.41
68:O2:32:TRP:CE2	68:O2:53:PRO:HD2	2.55	0.41
68:O2:55:ILE:HA	68:O2:55:ILE:HD12	1.77	0.41
70:O4:8:ARG:HB2	70:O4:34:HIS:NE2	2.35	0.41
74:O8:25:VAL:HB	74:O8:77:ARG:HD2	2.31	0.41
48:M1:49:LYS:NZ	78:Q2:101:GLY:O	2.53	0.41
79:Q3:36:ARG:NH2	79:Q3:46:THR:HG22	2.35	0.41
79:Q3:70:THR:HG23	79:Q3:71:VAL:N	2.46	0.41
2:S0:184:LEU:HD12	23:D1:45:ALA:HB2	2.57	0.41
2:S0:9:LEU:HD22	2:S0:9:LEU:O	4.29	0.41
5:S3:170:THR:HG23	5:S3:187:LYS:HG3	5.38	0.41
5:S3:90:ARG:HH21	5:S3:91:VAL:HG12	7.42	0.41
6:S4:36:HIS:NE2	6:S4:88:ASP:OD1	2.79	0.41
1:2:140:A:O4'	8:S6:179:VAL:HG21	2.20	0.41
10:S8:8:ARG:NH2	10:S8:21:PHE:HB3	2.34	0.41
10:S8:44:HIS:O	10:S8:56:ARG:N	2.82	0.41
36:1:1316:C:C6	52:M6:130:LYS:HB2	2.55	0.41
36:1:1348:U:H4'	36:1:1349:G:OP1	2.19	0.41
36:1:1408:G:P	68:O2:33:ARG:HH22	2.42	0.41
36:1:2207:A:H2'	36:1:2208:A:C8	2.53	0.41
36:1:2273:G:H22	36:1:2311:G:H2'	1.84	0.41
36:1:285:A:C8	36:1:285:A:H3'	2.54	0.41
36:1:2948:C:H2'	36:1:2949:U:O4'	2.20	0.41
36:1:310:U:H2'	36:1:311:C:O4'	2.20	0.41
36:1:503:C:OP1	43:L6:26:ARG:NH1	2.53	0.41
1:2:1206:U:H5''	1:2:1207:C:OP2	2.19	0.41
1:2:1540:G:C6	1:2:1541:G:C4	3.09	0.41
1:2:1196:A:C8	1:2:1602:C:H4'	2.55	0.41
1:2:1657:U:C4	88:2:2089:OHX:N4	2.88	0.41
36:5:1152:G:N2	36:5:1200:A:H61	2.17	0.41
36:5:20:A:O2'	36:5:21:G:H5'	2.21	0.41
36:5:2179:C:H4'	36:5:2180:G:OP2	2.20	0.41
36:5:2204:C:H4'	36:5:2205:U:OP1	2.20	0.41
36:5:2206:G:O2'	36:5:2207:A:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2591:A:O2'	36:5:2592:G:H5'	2.20	0.41
36:5:3279:A:N6	36:5:3280:U:C4	2.89	0.41
36:5:3287:U:H2'	36:5:3287:U:O2	2.20	0.41
36:5:372:A:C6	36:5:373:A:C6	3.08	0.41
1:6:168:A:H2'	1:6:169:A:C8	2.55	0.41
13:C1:54:ILE:HG22	13:C1:55:ASP:N	2.35	0.41
13:C1:69:LYS:HB3	13:C1:71:LEU:HD21	3.38	0.41
26:D4:109:LYS:O	26:D4:112:LYS:HB3	2.55	0.41
30:D8:8:THR:HB	30:D8:56:LEU:HB2	2.74	0.41
39:L2:19:HIS:N	39:L2:19:HIS:CD2	3.01	0.41
40:L3:113:GLU:OE2	40:L3:167:ARG:HB3	2.20	0.41
40:L3:261:MET:HG2	52:M6:64:PHE:HA	2.01	0.41
36:1:3138:U:OP2	40:L3:30:LYS:HD3	2.20	0.41
41:L4:191:LYS:HD2	41:L4:194:TYR:OH	3.57	0.41
42:L5:131:LEU:HA	42:L5:131:LEU:HD13	4.43	0.41
42:L5:55:PHE:CD1	42:L5:60:ILE:HG12	2.55	0.41
43:L6:38:THR:HG23	43:L6:90:LYS:HG3	3.66	0.41
43:L6:82:ARG:HH11	43:L6:82:ARG:HD2	2.28	0.41
45:L8:108:ARG:HH11	45:L8:108:ARG:HD3	1.84	0.41
47:M0:149:VAL:O	47:M0:152:LEU:N	2.53	0.41
48:M1:95:ASN:O	48:M1:102:PHE:HA	2.28	0.41
48:M1:117:ASP:O	48:M1:120:ILE:HG22	2.20	0.41
51:M5:135:VAL:HG13	51:M5:142:ILE:HG12	2.01	0.41
51:M5:197:LEU:HA	51:M5:197:LEU:HD12	3.14	0.41
53:M7:136:ILE:HD13	53:M7:136:ILE:HG21	1.91	0.41
53:M7:69:ARG:HD3	36:5:3308:C:O2	185.66	0.41
41:L4:302:ALA:HB2	54:M8:39:ARG:CZ	2.50	0.41
55:M9:154:ALA:O	55:M9:158:GLU:HG2	2.20	0.41
55:M9:37:SER:HG	55:M9:40:ALA:H	1.63	0.41
58:N2:20:SER:O	58:N2:23:THR:N	2.54	0.41
62:N6:103:LYS:HA	62:N6:103:LYS:HD3	1.74	0.41
63:N7:5:LEU:HA	63:N7:5:LEU:HD23	1.72	0.41
64:N8:46:ASP:N	64:N8:46:ASP:OD1	2.53	0.41
70:O4:81:CYS:O	70:O4:83:ASN:N	2.53	0.41
71:O5:10:ARG:HG2	71:O5:57:VAL:HG13	2.01	0.41
61:N5:46:TYR:OH	71:O5:78:LYS:HE3	2.56	0.41
2:S0:60:ALA:CB	2:S0:160:ILE:HD11	2.65	0.41
4:S2:148:LEU:O	23:D1:4:ASP:HB2	2.19	0.41
4:S2:36:VAL:O	4:S2:36:VAL:HG12	2.19	0.41
6:S4:88:ASP:HB2	6:S4:101:LEU:HD12	2.03	0.41
7:S5:149:VAL:O	7:S5:155:ALA:HB1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:767:U:C5	11:S9:143:ILE:HD12	2.55	0.41
34:SR:57:PRO:O	34:SR:58:VAL:HG13	2.20	0.41
36:1:155:G:H4'	36:1:156:G:H2'	2.03	0.41
36:1:1597:C:C4'	36:1:1696:A:H1'	2.50	0.41
36:1:2395:G:H4'	40:L3:258:ALA:HB1	2.02	0.41
36:1:2523:A:N6	45:L8:57:ARG:HD2	2.35	0.41
36:1:3121:U:H1'	36:1:3122:A:H5''	2.02	0.41
36:1:3362:A:H2'	36:1:3363:U:O4'	2.20	0.41
88:1:3982:OHX:N6	88:1:4170:OHX:N4	2.67	0.41
36:1:660:A:H5'	41:L4:92:ASN:ND2	2.35	0.41
1:2:1487:A:H2	1:2:1495:C:O2'	2.03	0.41
1:2:1773:C:H2'	1:2:1774:G:H8	1.85	0.41
1:2:215:A:N6	1:2:242:U:H3'	2.36	0.41
36:5:1073:U:H2'	36:5:1074:U:C6	2.55	0.41
36:5:1085:A:H5'	36:5:1086:C:OP2	2.20	0.41
58:N2:13:LYS:NZ	36:5:1676:A:OP1	157.73	0.41
36:5:1785:U:H2'	36:5:1786:G:C8	2.55	0.41
36:5:22:G:O4'	38:8:104:A:H1'	2.20	0.41
36:5:3053:G:H2'	36:5:3054:U:C6	2.55	0.41
36:5:3207:U:O2'	36:5:3208:G:H5'	2.19	0.41
88:5:3945:OHX:N5	88:5:4239:OHX:N3	2.67	0.41
36:5:529:A:H2'	36:5:530:G:O4'	2.20	0.41
36:5:541:U:O4	88:5:4016:OHX:N3	2.53	0.41
33:E1:134:ASN:N	1:6:1251:U:H4'	442.68	0.41
1:6:1511:U:H2'	1:6:1512:G:C8	2.56	0.41
1:6:1620:C:O2'	1:6:1621:U:OP1	2.34	0.41
1:6:1711:C:H2'	1:6:1712:A:H5''	2.02	0.41
1:6:330:G:H2'	1:6:331:A:O4'	2.20	0.41
1:6:453:U:H3'	1:6:453:U:O2	2.21	0.41
1:6:583:C:OP1	88:6:2047:OHX:N6	2.54	0.41
1:6:86:A:OP2	88:6:2186:OHX:N1	2.53	0.41
88:8:218:OHX:N6	88:8:225:OHX:N3	2.68	0.41
13:C1:83:THR:HA	13:C1:111:VAL:HG12	2.03	0.41
1:2:1226:A:C2	14:C2:116:VAL:HG11	2.55	0.41
18:C6:6:SER:HA	18:C6:23:LYS:HA	2.52	0.41
18:C6:38:LEU:HA	18:C6:38:LEU:HD23	2.22	0.41
21:C9:68:ARG:HG2	21:C9:68:ARG:H	1.63	0.41
21:C9:88:VAL:CG2	1:6:1172:G:H21	356.12	0.41
26:D4:52:LYS:C	26:D4:54:ALA:H	2.24	0.41
15:C3:15:ALA:HB2	29:D7:20:LYS:CD	3.84	0.41
39:L2:117:GLU:OE2	39:L2:120:PRO:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:227:GLU:HB3	40:L3:232:ARG:HB2	2.51	0.41
40:L3:293:ASN:HB2	40:L3:305:ILE:N	3.52	0.41
42:L5:5:LYS:HA	42:L5:5:LYS:NZ	4.01	0.41
43:L6:159:LEU:HD23	43:L6:159:LEU:HA	1.95	0.41
44:L7:101:LYS:O	44:L7:101:LYS:HD3	2.21	0.41
45:L8:115:ALA:O	45:L8:119:GLY:N	2.84	0.41
46:L9:82:VAL:O	46:L9:82:VAL:HG13	2.51	0.41
55:M9:12:ALA:HB1	55:M9:17:VAL:O	2.29	0.41
58:N2:100:THR:O	58:N2:102:GLU:HG3	2.93	0.41
72:O6:66:GLU:OE2	72:O6:91:ASN:ND2	4.00	0.41
74:O8:58:ASP:HB3	74:O8:61:LYS:HD3	4.01	0.41
2:S0:202:TYR:N	2:S0:202:TYR:CD2	2.88	0.41
2:S0:203:PHE:CD2	2:S0:203:PHE:N	2.87	0.41
3:S1:125:VAL:CG1	3:S1:173:THR:HG22	3.13	0.41
5:S3:133:GLY:HA2	5:S3:155:GLY:HA3	2.35	0.41
6:S4:126:VAL:HG21	6:S4:155:LYS:O	2.91	0.41
6:S4:207:LEU:HD23	6:S4:207:LEU:HA	2.29	0.41
6:S4:92:LEU:HB2	6:S4:95:THR:CG2	4.98	0.41
7:S5:20:PHE:O	7:S5:21:THR:OG1	2.42	0.41
8:S6:214:LYS:HE3	8:S6:214:LYS:HB2	4.43	0.41
8:S6:30:LYS:O	8:S6:102:VAL:HG23	2.21	0.41
10:S8:42:ARG:CB	10:S8:59:ARG:HB2	3.47	0.41
34:SR:21:THR:OG1	34:SR:69:GLN:O	5.91	0.41
36:1:1598:G:OP2	70:O4:31:ARG:NH2	2.48	0.41
36:1:1613:A:OP2	74:O8:46:ARG:NH2	2.53	0.41
36:1:225:C:H2'	36:1:226:C:C6	2.55	0.41
36:1:2261:G:H21	36:1:2262:A:N6	2.19	0.41
36:1:30:G:P	51:M5:172:ARG:HE	2.44	0.41
36:1:3251:U:H2'	36:1:3252:G:C8	2.56	0.41
36:1:2659:G:N7	88:1:3888:OHX:N5	2.69	0.41
36:1:783:A:H5''	36:1:784:A:C5'	2.51	0.41
36:1:8:C:H2'	36:1:9:U:O4'	2.21	0.41
1:2:1142:A:H2'	1:2:1143:A:C8	2.55	0.41
1:2:1524:A:C6	1:2:1525:A:C6	3.08	0.41
1:2:1597:A:OP2	31:D9:32:ARG:NH2	2.53	0.41
1:2:701:U:H3	1:2:737:A:N6	2.17	0.41
1:2:732:G:H2'	1:2:732:G:N3	2.36	0.41
1:2:702:G:C6	1:2:737:A:N6	2.87	0.41
36:5:2201:G:H2'	36:5:2202:C:C6	2.55	0.41
40:L3:53:MET:HB2	36:5:3049:A:C5'	233.97	0.41
36:5:330:G:OP2	88:5:4052:OHX:N1	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:726:G:H5'	36:5:727:G:P	2.60	0.41
36:5:915:A:H8	36:5:2136:C:O2'	2.04	0.41
1:6:1079:U:H2'	1:6:1080:U:C6	2.56	0.41
1:6:1497:U:C2	1:6:1498:G:C8	3.08	0.41
1:6:1713:G:H8	1:6:1713:G:O5'	2.03	0.41
1:6:88:U:H4'	1:6:171:A:O4'	2.20	0.41
88:6:2057:OHX:N2	88:6:2143:OHX:N4	2.69	0.41
1:6:291:G:H2'	1:6:292:U:C6	2.55	0.41
1:6:905:A:C2	1:6:906:A:H1'	2.55	0.41
38:8:37:A:H5''	38:8:39:G:O4'	2.21	0.41
38:8:59:A:H5''	38:8:61:A:C8	2.55	0.41
12:C0:53:GLY:O	12:C0:54:TYR:HB2	2.61	0.41
15:C3:78:ASN:HB3	15:C3:80:LEU:HD23	2.02	0.41
16:C4:25:ASP:N	16:C4:55:SER:HB3	2.36	0.41
16:C4:92:LYS:HG2	28:D6:69:ASN:HD21	1.86	0.41
19:C7:20:TYR:CD1	19:C7:38:ILE:HD12	3.70	0.41
21:C9:16:ASN:HA	21:C9:56:LYS:NZ	2.35	0.41
25:D3:47:SER:HB2	25:D3:48:HIS:ND1	2.36	0.41
27:D5:55:PRO:HG3	27:D5:88:ILE:CG2	6.24	0.41
29:D7:31:TYR:CD2	29:D7:48:SER:HB3	2.56	0.41
39:L2:30:ARG:O	39:L2:123:ARG:HG2	3.59	0.41
40:L3:370:PHE:CD1	40:L3:376:LYS:HA	2.56	0.41
41:L4:181:VAL:HG11	41:L4:224:GLY:CA	3.27	0.41
41:L4:72:ALA:O	41:L4:76:ARG:NH1	3.18	0.41
42:L5:55:PHE:CE1	42:L5:60:ILE:HG12	2.56	0.41
45:L8:41:GLN:CG	45:L8:44:ARG:HH12	3.09	0.41
48:M1:59:ILE:CG2	48:M1:65:ILE:HD11	2.49	0.41
49:M3:46:ILE:HG23	49:M3:46:ILE:HD12	2.39	0.41
53:M7:36:ILE:HG21	53:M7:36:ILE:HD13	1.76	0.41
53:M7:95:LEU:HD23	53:M7:95:LEU:HA	1.89	0.41
54:M8:81:VAL:HG22	54:M8:101:VAL:HG22	2.19	0.41
36:1:2789:U:OP1	54:M8:179:ARG:NH1	2.53	0.41
55:M9:122:VAL:O	55:M9:126:GLU:HB2	2.20	0.41
59:N3:2:SER:N	59:N3:57:MET:H	2.19	0.41
62:N6:115:ARG:HG3	62:N6:115:ARG:HH11	2.65	0.41
62:N6:3:LYS:HG3	62:N6:8:VAL:CG1	2.45	0.41
65:N9:23:LYS:CD	65:N9:24:PRO:HD3	2.50	0.41
66:O0:41:LEU:HD22	66:O0:42:ILE:H	1.84	0.41
63:N7:82:PRO:HD2	66:O0:59:TYR:CZ	2.54	0.41
66:O0:30:THR:HG21	66:O0:89:VAL:HG22	2.73	0.41
68:O2:104:ASN:O	68:O2:108:ILE:HD12	3.82	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:5:VAL:HG22	70:O4:6:THR:N	2.35	0.41
71:O5:13:SER:C	71:O5:15:GLU:N	2.72	0.41
3:S1:41:ARG:O	3:S1:43:VAL:HG23	2.20	0.41
3:S1:72:ASP:OD1	16:C4:114:ARG:NH1	3.90	0.41
4:S2:203:LYS:O	4:S2:206:THR:HG23	3.34	0.41
4:S2:46:LYS:C	4:S2:48:GLY:H	2.23	0.41
5:S3:137:VAL:HB	5:S3:185:LYS:HB2	2.01	0.41
6:S4:66:MET:HE1	6:S4:78:THR:OG1	3.50	0.41
11:S9:120:LYS:O	11:S9:120:LYS:HE2	5.87	0.41
11:S9:169:PRO:HG2	11:S9:174:ARG:HG3	3.79	0.41
6:S4:252:ARG:HH11	11:S9:71:PHE:HA	1.85	0.41
34:SR:201:THR:OG1	34:SR:242:SER:HA	2.20	0.41
34:SR:239:GLU:O	34:SR:257:ALA:N	2.72	0.41
34:SR:250:TYR:O	34:SR:251:TRP:HD1	2.03	0.41
34:SR:50:ASP:CB	34:SR:53:LYS:HG3	2.50	0.41
36:1:1220:U:H4'	36:1:1222:G:C8	2.56	0.41
36:1:138:U:H2'	36:1:139:G:H8	1.85	0.41
36:1:1608:C:H2'	36:1:1609:C:C6	2.53	0.41
36:1:2119:A:H8	36:1:2119:A:O5'	2.04	0.41
36:1:2761:G:C4	36:1:2795:U:C5	3.08	0.41
36:1:2771:U:H2'	36:1:2772:C:O2	2.21	0.41
36:1:3306:U:O2	36:1:3306:U:O4'	2.38	0.41
36:1:1464:G:O2'	88:1:3887:OHX:N4	2.54	0.41
36:1:564:G:H2'	36:1:565:U:H6	1.83	0.41
36:1:73:C:C4	72:O6:15:LYS:HD3	2.56	0.41
1:2:1357:A:C6	1:2:1358:G:C6	3.09	0.41
1:2:226:A:N3	1:2:226:A:H2'	2.34	0.41
1:2:819:G:O6	1:2:853:G:C6	2.73	0.41
38:4:79:A:O5'	38:4:79:A:H8	2.03	0.41
36:5:1262:G:H5''	36:5:1263:A:OP2	2.20	0.41
36:5:1611:G:H2'	36:5:1612:A:C8	2.56	0.41
36:5:2239:G:N7	88:5:4197:OHX:N5	2.68	0.41
36:5:2397:A:H8	36:5:2941:A:N1	2.19	0.41
36:5:244:G:C6	36:5:245:U:C4	3.09	0.41
36:5:2816:G:C8	36:5:2869:U:H3'	2.56	0.41
36:5:2962:U:O5'	36:5:2962:U:H6	2.03	0.41
36:5:316:U:H4'	36:5:317:A:H5'	2.01	0.41
36:5:540:U:C2	36:5:552:G:N2	2.89	0.41
1:6:151:G:N2	1:6:164:A:C4	2.88	0.41
1:6:1533:C:H4'	1:6:1539:G:C6	2.56	0.41
1:6:1664:C:H2'	1:6:1665:U:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:293:U:H2'	1:6:294:C:C6	2.55	0.41
1:6:219:A:N6	1:6:843:U:H1'	2.35	0.41
1:6:861:U:H5''	1:6:862:A:OP2	2.21	0.41
12:C0:50:THR:O	12:C0:53:GLY:N	2.53	0.41
13:C1:75:VAL:CG1	13:C1:119:VAL:HA	2.78	0.41
17:C5:25:LEU:O	17:C5:28:MET:HE2	2.35	0.41
24:D2:111:MET:SD	24:D2:115:GLU:HG2	2.60	0.41
24:D2:23:ARG:H	24:D2:24:GLN:NE2	4.00	0.41
27:D5:41:ILE:HG23	27:D5:42:LEU:N	2.33	0.41
28:D6:26:CYS:HB3	28:D6:77:CYS:SG	2.61	0.41
28:D6:64:LEU:HD22	28:D6:64:LEU:HA	1.87	0.41
28:D6:84:VAL:HG22	28:D6:85:ARG:N	2.34	0.41
33:E1:96:LYS:HG3	33:E1:97:LYS:N	4.87	0.41
39:L2:177:LYS:HA	39:L2:178:PRO:HD2	1.88	0.41
40:L3:252:ILE:HA	40:L3:252:ILE:HD13	1.55	0.41
40:L3:294:GLY:H	40:L3:304:THR:HA	1.86	0.41
40:L3:358:TRP:CZ2	40:L3:360:ASP:HA	2.56	0.41
42:L5:148:ILE:HD11	42:L5:160:PHE:CZ	2.55	0.41
44:L7:106:LEU:HA	44:L7:106:LEU:HD23	1.78	0.41
44:L7:236:ILE:O	44:L7:240:VAL:HG23	2.95	0.41
45:L8:73:PRO:HD3	45:L8:233:TRP:CD2	2.55	0.41
45:L8:78:PHE:C	45:L8:80:TYR:N	2.73	0.41
46:L9:129:ARG:HB3	46:L9:132:VAL:CG1	4.17	0.41
36:1:1011:A:O4'	47:M0:194:GLY:HA2	2.21	0.41
47:M0:19:LYS:HG3	47:M0:26:VAL:HG13	2.02	0.41
50:M4:53:VAL:HA	50:M4:54:PRO:HD3	1.65	0.41
51:M5:68:ARG:HD2	51:M5:127:TYR:C	2.40	0.41
54:M8:178:ARG:HA	54:M8:178:ARG:HD2	3.07	0.41
55:M9:150:GLN:OE1	55:M9:153:LYS:HD2	7.01	0.41
56:N0:45:LEU:HD13	56:N0:45:LEU:HA	2.30	0.41
57:N1:95:HIS:O	57:N1:96:ILE:HD13	2.56	0.41
58:N2:58:GLU:HA	58:N2:62:VAL:O	2.20	0.41
59:N3:16:GLY:O	59:N3:18:PRO:HD3	2.98	0.41
59:N3:33:ASN:HD21	59:N3:63:LYS:HB2	1.85	0.41
59:N3:45:ARG:HD2	59:N3:46:LEU:N	2.36	0.41
59:N3:10:LYS:NZ	59:N3:53:SER:OG	3.36	0.41
60:N4:87:LEU:O	60:N4:91:LYS:N	4.48	0.41
63:N7:135:ARG:NH2	63:N7:135:ARG:HB3	3.46	0.41
70:O4:99:LYS:O	70:O4:103:LYS:HG2	2.21	0.41
70:O4:20:ILE:HD13	70:O4:20:ILE:HG21	4.45	0.41
71:O5:101:THR:HG23	71:O5:104:GLN:H	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:167:LYS:HE3	2:S0:168:HIS:CD2	3.59	0.41
2:S0:30:GLN:HA	2:S0:149:LEU:O	2.21	0.41
2:S0:69:ASN:HB3	2:S0:71:GLU:OE1	2.21	0.41
3:S1:217:LEU:O	3:S1:218:LEU:HD22	2.20	0.41
3:S1:63:GLY:HA2	3:S1:88:VAL:O	2.20	0.41
6:S4:16:HIS:O	6:S4:18:TRP:N	2.54	0.41
6:S4:210:ILE:O	6:S4:217:THR:HA	2.20	0.41
6:S4:246:LEU:HB2	6:S4:251:GLU:HG2	2.33	0.41
10:S8:34:ALA:CB	10:S8:36:THR:HG22	2.51	0.41
11:S9:108:ARG:HH21	11:S9:145:SER:HB2	1.86	0.41
11:S9:171:ARG:HH11	11:S9:174:ARG:HB3	4.20	0.41
34:SR:200:ASN:ND2	34:SR:215:GLY:HA2	2.35	0.41
34:SR:49:GLY:C	34:SR:51:ASP:H	2.24	0.41
34:SR:79:TYR:HB3	34:SR:91:LEU:HD11	2.48	0.41
36:1:1591:G:O2'	36:1:1799:A:N1	2.51	0.41
36:1:2565:U:H2'	36:1:2566:C:C6	2.55	0.41
36:1:3219:G:H4'	36:1:3220:G:H5'	2.03	0.41
36:1:668:G:H2'	36:1:669:U:H6	1.86	0.41
36:1:815:G:C2	36:1:906:A:C2	3.09	0.41
36:1:826:G:OP1	36:1:1590:G:H4'	2.20	0.41
36:1:852:U:O2'	36:1:853:G:H5'	2.21	0.41
36:1:955:U:H2'	36:1:956:U:C6	2.56	0.41
36:1:958:C:OP1	36:1:2799:A:H3'	2.21	0.41
36:1:978:G:O2'	36:1:979:U:O2	2.27	0.41
1:2:1202:A:H2'	1:2:1203:A:H5''	2.02	0.41
1:2:1220:C:H42	1:2:1263:G:H1	1.69	0.41
1:2:140:A:OP2	8:S6:187:LYS:NZ	2.38	0.41
1:2:1533:C:H4'	1:2:1539:G:H1	1.85	0.41
1:2:1612:U:H4'	7:S5:96:SER:OG	2.21	0.41
1:2:367:A:C6	1:2:368:U:C4	3.09	0.41
1:2:387:A:H5''	1:2:389:G:OP2	2.20	0.41
1:2:400:A:C4	10:S8:26:LYS:HB2	2.55	0.41
1:2:799:A:H5''	6:S4:201:HIS:NE2	2.35	0.41
1:2:926:A:H2'	1:2:927:C:C6	2.55	0.41
37:3:7:G:H5''	42:L5:22:ARG:HD3	2.03	0.41
38:4:140:G:H2'	38:4:141:C:O4'	2.20	0.41
57:N1:127:GLN:HG2	36:5:1095:U:N3	259.95	0.41
36:5:1656:A:H4'	36:5:1657:C:O4'	2.21	0.41
36:5:2442:G:C2	36:5:2443:A:N7	2.88	0.41
78:Q2:33:ALA:HA	36:5:2767:U:OP1	184.47	0.41
40:L3:251:CYS:SG	36:5:2944:U:H1'	224.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3253:G:N7	88:5:4243:OHX:N1	2.68	0.41
36:5:3165:A:H61	36:5:3285:C:N4	2.19	0.41
36:5:65:A:H4'	36:5:66:A:O5'	2.21	0.41
36:5:683:U:H2'	36:5:684:G:O4'	2.20	0.41
36:5:703:G:O2'	36:5:787:G:H4'	2.20	0.41
1:6:1179:G:C6	1:6:1180:C:N3	2.88	0.41
12:C0:51:SER:OG	1:6:1219:A:N3	430.97	0.41
1:6:1240:U:H5'	1:6:1241:G:OP2	2.21	0.41
1:6:1329:A:H8	1:6:1329:A:O5'	2.03	0.41
1:6:1344:A:O2'	1:6:1345:A:OP1	2.33	0.41
1:6:119:A:H1'	1:6:397:A:C4	2.56	0.41
1:6:72:A:H2'	1:6:73:U:C1'	2.51	0.41
1:2:869:A:H4'	15:C3:90:TYR:CE1	2.56	0.41
16:C4:19:ILE:HA	16:C4:27:PHE:O	2.44	0.41
20:C8:108:LYS:O	20:C8:111:ASP:HB2	2.63	0.41
20:C8:90:ASN:O	20:C8:91:ASP:C	2.58	0.41
23:D1:11:LEU:HD12	23:D1:11:LEU:O	2.20	0.41
24:D2:86:ILE:H	24:D2:86:ILE:HG13	1.59	0.41
26:D4:35:VAL:O	26:D4:36:SER:HB3	2.21	0.41
29:D7:44:THR:HB	29:D7:63:LEU:HD11	4.44	0.41
39:L2:219:ILE:HG22	39:L2:221:LYS:O	2.21	0.41
42:L5:286:VAL:O	42:L5:290:ILE:HG12	2.21	0.41
44:L7:105:LEU:HA	44:L7:105:LEU:HD23	1.67	0.41
44:L7:217:PRO:HA	88:5:4005:OHX:N5	263.24	0.41
44:L7:223:PHE:HA	44:L7:227:GLY:HA2	4.63	0.41
45:L8:57:ARG:O	45:L8:61:GLN:HG3	2.58	0.41
45:L8:73:PRO:HD3	45:L8:233:TRP:CE2	2.55	0.41
46:L9:91:ARG:HD2	46:L9:91:ARG:HA	2.36	0.41
47:M0:99:ILE:CG2	47:M0:123:HIS:HB2	2.50	0.41
48:M1:171:VAL:O	48:M1:172:LEU:HB2	2.20	0.41
48:M1:172:LEU:HG	48:M1:172:LEU:H	3.52	0.41
49:M3:85:LEU:HD22	49:M3:120:GLN:OE1	2.20	0.41
50:M4:8:LYS:HB3	50:M4:9:ALA:H	1.39	0.41
51:M5:150:TRP:O	51:M5:153:ASP:HB2	2.68	0.41
51:M5:98:LEU:O	51:M5:101:THR:HB	2.42	0.41
55:M9:23:TRP:CZ3	55:M9:25:ASP:HB2	2.55	0.41
59:N3:13:ILE:HG13	59:N3:14:SER:N	4.22	0.41
59:N3:94:TYR:CZ	60:N4:21:PHE:HB2	2.64	0.41
64:N8:62:HIS:CG	64:N8:62:HIS:O	2.76	0.41
69:O3:49:ILE:HD13	69:O3:49:ILE:HG21	3.31	0.41
69:O3:26:ASN:O	69:O3:84:THR:HG22	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:O4:85:VAL:HA	70:O4:88:ARG:HB2	2.65	0.41
72:O6:60:LEU:HD21	72:O6:68:ARG:HE	1.86	0.41
72:O6:68:ARG:O	72:O6:72:VAL:HG23	4.89	0.41
74:O8:12:LEU:HD21	74:O8:65:LEU:HD21	2.50	0.41
75:O9:9:ILE:HD12	75:O9:9:ILE:HG23	1.80	0.41
79:Q3:6:LYS:HE2	79:Q3:7:LYS:HE3	4.29	0.41
2:S0:122:ILE:HG23	2:S0:144:ILE:HB	2.81	0.41
2:S0:182:LEU:CB	2:S0:188:LEU:HD23	2.48	0.41
3:S1:109:LYS:O	3:S1:112:SER:OG	2.49	0.41
3:S1:189:ILE:HB	3:S1:190:PRO:HD3	2.03	0.41
3:S1:61:LEU:O	3:S1:63:GLY:N	2.54	0.41
4:S2:120:GLU:OE2	5:S3:120:TYR:OH	5.30	0.41
6:S4:131:LEU:HA	6:S4:131:LEU:HD22	1.86	0.41
6:S4:11:ARG:HB2	6:S4:27:TYR:O	2.21	0.41
8:S6:215:ARG:HD3	8:S6:215:ARG:HA	1.91	0.41
9:S7:168:SER:O	9:S7:171:ALA:N	2.54	0.41
11:S9:73:GLY:O	11:S9:77:ILE:HG13	2.20	0.41
20:C8:146:ALA:CB	35:SM:68:ARG:HH21	2.34	0.41
34:SR:103:PHE:CE1	34:SR:138:GLY:HA2	2.56	0.41
34:SR:131:ILE:HG23	34:SR:154:VAL:HG11	2.19	0.41
34:SR:256:THR:N	34:SR:259:GLY:O	2.70	0.41
34:SR:267:PRO:HG2	34:SR:269:TYR:CE1	2.56	0.41
36:1:1764:U:H5''	55:M9:43:LYS:HZ3	1.86	0.41
36:1:2784:G:H2'	36:1:2785:A:O4'	2.21	0.41
88:1:3982:OHX:N6	88:1:4170:OHX:N2	2.69	0.41
36:1:912:G:O5'	36:1:912:G:H8	2.03	0.41
1:2:1059:U:O2'	1:2:1060:U:N3	2.54	0.41
1:2:113:U:O3'	1:2:114:C:H3'	2.20	0.41
1:2:1390:U:O2	1:2:1412:G:H1'	2.20	0.41
1:2:66:U:O4	8:S6:134:GLY:N	2.45	0.41
1:2:989:U:H2'	1:2:990:C:C6	2.55	0.41
36:5:1239:C:H3'	36:5:1240:A:C8	2.56	0.41
36:5:145:G:H8	36:5:145:G:O5'	2.03	0.41
55:M9:9:ARG:NH2	36:5:1602:A:O3'	107.99	0.41
36:5:1668:G:H2'	36:5:1669:C:O4'	2.20	0.41
36:5:1757:A:H2'	36:5:1758:G:C8	2.56	0.41
36:5:2115:G:H22	36:5:2120:A:H1'	1.85	0.41
36:5:2294:U:O2	36:5:2296:A:C8	2.74	0.41
36:5:2396:G:OP1	36:5:2397:A:H4'	2.21	0.41
36:5:2406:C:H2'	36:5:2407:C:C6	2.56	0.41
39:L2:40:TYR:O	36:5:2550:U:H5	211.37	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2584:G:H3'	36:5:2585:G:H4'	2.02	0.41
36:5:2885:C:C2'	36:5:2886:U:H5'	2.50	0.41
36:5:3302:U:C2	36:5:3313:U:C2	3.09	0.41
36:5:420:G:OP1	36:5:420:G:OP2	2.39	0.41
19:C7:2:GLY:N	1:6:1312:A:N7	394.62	0.41
1:6:1595:U:H3'	1:6:1596:C:O2	2.21	0.41
77:Q1:1:MET:HA	1:6:1783:C:OP1	313.70	0.41
1:6:398:G:O5'	1:6:398:G:H8	2.03	0.41
1:6:74:U:H3'	1:6:75:U:H3'	2.02	0.41
13:C1:21:ASN:ND2	13:C1:31:THR:HA	3.10	0.41
17:C5:15:HIS:CG	17:C5:16:SER:H	2.94	0.41
17:C5:28:MET:HE3	17:C5:28:MET:HB2	3.44	0.41
1:2:600:U:OP2	25:D3:108:GLY:HA2	2.21	0.41
26:D4:127:LYS:O	26:D4:131:ARG:HG2	2.20	0.41
28:D6:49:ALA:O	28:D6:53:LEU:HB2	2.21	0.41
28:D6:96:ALA:HA	28:D6:97:PRO:HD3	1.72	0.41
40:L3:252:ILE:HG23	40:L3:260:VAL:HG13	2.03	0.41
40:L3:275:ARG:HH11	40:L3:275:ARG:HD2	1.74	0.41
40:L3:74:GLU:OE2	40:L3:325:LYS:HE3	2.20	0.41
46:L9:80:THR:O	46:L9:84:LYS:N	2.65	0.41
47:M0:178:ARG:H	47:M0:178:ARG:HG2	1.61	0.41
49:M3:68:LYS:HE3	36:5:699:A:OP1	98.56	0.41
51:M5:69:GLY:O	36:5:290:G:H4'	145.84	0.41
55:M9:44:LEU:HA	55:M9:47:ASN:HB2	5.77	0.41
58:N2:95:PHE:HA	58:N2:105:LEU:HD12	2.25	0.41
64:N8:125:VAL:HG21	64:N8:138:ILE:HD13	2.02	0.41
64:N8:21:ARG:HD2	36:5:1369:A:H5''	185.30	0.41
64:N8:74:ASN:OD1	64:N8:113:LEU:HB2	2.20	0.41
36:1:1075:A:C6	65:N9:45:HIS:CE1	3.09	0.41
75:O9:14:ALA:O	75:O9:16:ALA:N	2.54	0.41
76:Q0:112:LYS:HD2	76:Q0:112:LYS:HA	1.83	0.41
76:Q0:112:LYS:NZ	36:5:3107:U:P	304.85	0.41
36:1:2802:A:C8	78:Q2:56:PRO:HA	2.55	0.41
78:Q2:98:LYS:HD2	36:5:2656:A:H4'	252.00	0.41
39:L2:171:GLY:O	79:Q3:68:ALA:HB2	2.20	0.41
5:S3:136:VAL:HB	5:S3:152:PHE:HB2	2.02	0.41
7:S5:57:SER:CB	30:D8:53:ILE:HB	2.63	0.41
9:S7:102:PRO:HD3	9:S7:112:ARG:CD	3.40	0.41
10:S8:48:THR:OG1	10:S8:52:ASN:HB3	2.35	0.41
10:S8:6:ASP:OD1	10:S8:8:ARG:N	2.54	0.41
34:SR:159:ASN:C	34:SR:161:LYS:H	4.17	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:183:LEU:HD12	34:SR:186:PHE:CD1	6.27	0.41
34:SR:23:LEU:HA	34:SR:23:LEU:HD23	1.87	0.41
34:SR:29:GLN:O	34:SR:31:ASN:N	2.54	0.41
34:SR:74:THR:HG21	34:SR:79:TYR:CD2	2.56	0.41
34:SR:32:LEU:HD21	34:SR:94:VAL:HG11	2.02	0.41
36:1:1720:U:OP2	55:M9:120:TYR:OH	2.22	0.41
36:1:2615:G:H2'	36:1:2616:C:H6	1.84	0.41
36:1:2822:U:H2'	36:1:2823:G:O4'	2.21	0.41
36:1:2263:C:OP1	88:1:3997:OHX:N1	2.53	0.41
36:1:65:A:C4	36:1:110:G:N7	2.88	0.41
36:1:681:U:C2	41:L4:115:HIS:ND1	2.89	0.41
1:2:1064:G:H2'	1:2:1065:A:C8	2.55	0.41
1:2:608:U:H4'	1:2:610:G:O6	2.21	0.41
1:2:610:G:H2'	1:2:610:G:N3	2.35	0.41
1:2:707:A:H2'	1:2:708:C:H5''	2.03	0.41
1:2:735:C:OP2	1:2:735:C:H2'	2.20	0.41
37:3:121:U:OP2	42:L5:265:TYR:OH	2.13	0.41
36:5:1013:G:N2	36:5:1014:U:H1'	2.36	0.41
36:5:1024:G:N7	36:5:1027:A:N6	2.69	0.41
36:5:1307:G:H1'	36:5:1308:A:C5	2.56	0.41
36:5:1538:G:O5'	36:5:1538:G:H8	2.03	0.41
36:5:1813:A:OP1	36:5:1817:G:H4'	2.21	0.41
36:5:1880:U:H2'	36:5:1881:A:O4'	2.20	0.41
36:5:421:G:C8	36:5:2365:C:C6	3.09	0.41
36:5:242:C:H2'	36:5:243:G:H8	1.85	0.41
51:M5:204:LYS:O	88:5:3982:OHX:N4	124.28	0.41
88:5:4069:OHX:N5	88:5:4147:OHX:N2	2.68	0.41
36:5:409:A:H2	36:5:1441:G:N3	2.19	0.41
41:L4:209:TYR:OH	36:5:689:U:O4	86.89	0.41
1:6:1214:U:OP1	1:6:1246:C:H1'	2.21	0.41
1:6:1698:G:O2'	1:6:1699:G:O5'	2.34	0.41
1:6:217:A:O2'	1:6:218:A:H8	2.03	0.41
13:C1:36:LYS:HD3	1:6:248:U:H4'	312.09	0.41
1:6:517:U:H2'	1:6:518:A:O4'	2.20	0.41
1:6:578:U:H4'	1:6:579:A:H5'	2.03	0.41
1:6:839:U:H2'	1:6:840:U:H6	1.83	0.41
37:7:44:C:C2'	37:7:45:A:H5'	2.51	0.41
10:S8:85:PRO:HA	13:C1:11:ARG:HE	1.86	0.41
14:C2:130:THR:HB	14:C2:131:ASP:H	1.68	0.41
14:C2:68:GLU:O	14:C2:70:ASN:N	2.54	0.41
15:C3:61:THR:HB	1:6:959:U:O2	351.30	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1482:C:O2'	18:C6:72:GLY:O	2.38	0.41
18:C6:79:TYR:HA	18:C6:82:ARG:HD3	2.03	0.41
19:C7:23:LYS:HB3	19:C7:34:LEU:HD11	2.02	0.41
20:C8:141:THR:HG21	1:6:1174:C:OP2	353.19	0.41
24:D2:104:LEU:HB2	24:D2:125:ILE:HA	2.02	0.41
26:D4:89:TYR:CE1	26:D4:93:ARG:NH1	4.77	0.41
28:D6:34:LYS:NZ	1:6:1793:G:N7	323.04	0.41
28:D6:85:ARG:HA	28:D6:85:ARG:HD3	1.90	0.41
33:E1:103:LEU:HA	33:E1:103:LEU:HD23	1.87	0.41
33:E1:146:SER:HB3	1:6:1235:C:H5'	433.99	0.41
40:L3:347:SER:O	40:L3:349:LYS:N	2.51	0.41
43:L6:22:ARG:NH1	36:5:608:A:C4	242.32	0.41
43:L6:97:ASN:O	43:L6:98:VAL:HB	2.27	0.41
45:L8:186:LEU:HA	45:L8:186:LEU:HD23	1.79	0.41
45:L8:33:ASN:O	45:L8:39:ALA:HB3	2.21	0.41
46:L9:92:TYR:OH	46:L9:101:VAL:HB	2.21	0.41
48:M1:131:MET:HB3	48:M1:131:MET:HE3	1.97	0.41
49:M3:25:HIS:CD2	51:M5:200:TRP:CD2	3.97	0.41
36:1:1543:G:OP1	51:M5:35:VAL:HG23	2.20	0.41
53:M7:10:ASN:OD1	53:M7:12:ALA:HB3	2.20	0.41
56:N0:152:LEU:HA	56:N0:152:LEU:HD23	2.43	0.41
58:N2:51:GLY:C	58:N2:52:ASN:HD22	2.18	0.41
63:N7:52:LYS:H	63:N7:52:LYS:HG2	1.43	0.41
68:O2:45:ARG:NH2	36:5:1367:G:OP1	198.20	0.41
70:O4:91:ARG:O	70:O4:95:ILE:HG13	2.21	0.41
71:O5:83:LYS:O	71:O5:89:ARG:NE	2.54	0.41
74:O8:36:LYS:HA	74:O8:37:PRO:HD3	2.28	0.41
2:S0:71:GLU:HA	2:S0:95:ALA:N	2.35	0.41
3:S1:134:VAL:O	3:S1:218:LEU:HD22	2.21	0.41
4:S2:228:ASN:OD1	4:S2:229:LEU:N	2.54	0.41
5:S3:162:GLN:HG3	1:6:1333:C:C4'	427.59	0.41
6:S4:126:VAL:HG23	6:S4:156:VAL:HA	2.18	0.41
6:S4:9:LEU:HD12	6:S4:30:ARG:HA	2.54	0.41
9:S7:31:SER:O	9:S7:35:LYS:HB3	2.38	0.41
9:S7:35:LYS:O	9:S7:37:GLU:HG2	2.21	0.41
10:S8:66:SER:HA	10:S8:73:SER:HA	2.03	0.41
10:S8:76:THR:HB	10:S8:105:ASP:HB2	2.03	0.41
11:S9:31:ALA:HA	11:S9:36:LEU:CD1	2.50	0.41
11:S9:39:LYS:HD3	11:S9:39:LYS:HA	2.92	0.41
35:SM:99:LYS:O	35:SM:100:THR:HG22	2.21	0.41
1:2:1341:A:OP1	34:SR:63:GLY:HA2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:14:U:H1'	61:N5:42:ARG:HD2	2.02	0.41
36:1:1501:U:H6	36:1:1501:U:O5'	2.02	0.41
36:1:1658:G:H2'	36:1:1659:U:H6	1.85	0.41
36:1:1750:A:H4'	36:1:1751:G:H5'	2.03	0.41
36:1:1764:U:OP1	55:M9:43:LYS:NZ	2.46	0.41
36:1:1763:U:H5'	36:1:1764:U:OP2	2.20	0.41
36:1:1845:G:O2'	73:O7:5:THR:HB	2.21	0.41
36:1:2705:A:OP2	88:1:3877:OHX:N1	2.54	0.41
36:1:285:A:C8	36:1:285:A:C3'	3.04	0.41
36:1:285:A:H8	36:1:285:A:H3'	1.85	0.41
36:1:722:G:O6	88:1:4027:OHX:N6	2.53	0.41
1:2:608:U:H5''	1:2:610:G:N7	2.35	0.41
1:2:652:G:H1	1:2:682:C:N4	2.13	0.41
36:5:1560:G:O2'	36:5:1561:G:P	2.79	0.41
70:O4:59:PRO:HB3	36:5:1654:A:N3	165.38	0.41
36:5:1887:A:OP1	88:5:4118:OHX:N6	2.54	0.41
36:5:2542:U:O2'	36:5:2543:U:H3'	2.21	0.41
36:5:2876:C:H2'	36:5:2877:G:O4'	2.21	0.41
36:5:3309:G:H2'	36:5:3310:A:O5'	2.21	0.41
56:N0:146:LYS:HD2	36:5:534:U:O3'	357.53	0.41
54:M8:55:SER:CB	36:5:671:U:H5''	161.55	0.41
49:M3:35:ARG:NH1	36:5:685:G:OP2	84.39	0.41
36:5:887:G:H2'	36:5:888:A:O4'	2.21	0.41
1:6:1001:A:N6	1:6:1002:G:O6	2.54	0.41
1:6:99:C:H1'	1:6:100:A:N7	2.36	0.41
1:6:1054:U:H2'	1:6:1055:U:C6	2.54	0.41
1:6:1066:C:C2'	1:6:1067:C:H5'	2.51	0.41
1:6:1267:G:H2'	1:6:1268:G:H8	1.85	0.41
1:6:1489:U:C4	1:6:1513:G:C6	3.09	0.41
1:6:1738:U:H2'	1:6:1739:C:C6	2.56	0.41
12:C0:65:TYR:N	12:C0:65:TYR:CD2	2.89	0.41
12:C0:56:LYS:N	12:C0:67:THR:O	2.57	0.41
17:C5:44:ARG:HE	1:6:1556:A:P	394.46	0.41
1:2:1555:A:OP2	17:C5:47:ARG:NH2	2.54	0.41
18:C6:42:GLU:HG3	18:C6:43:ILE:HD13	4.92	0.41
20:C8:110:ARG:O	20:C8:114:GLU:HB2	2.55	0.41
20:C8:70:VAL:O	20:C8:74:GLN:HG2	2.73	0.41
23:D1:60:ARG:HG2	23:D1:65:SER:OG	2.21	0.41
25:D3:66:SER:O	25:D3:66:SER:OG	3.34	0.41
25:D3:98:GLU:O	25:D3:99:ASN:HB2	2.20	0.41
26:D4:45:ALA:HB1	26:D4:51:GLU:H	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:39:ALA:HB1	27:D5:72:GLY:N	2.36	0.41
28:D6:41:ILE:O	28:D6:42:ARG:HG2	3.08	0.41
29:D7:29:ARG:HD3	29:D7:29:ARG:HA	4.24	0.41
40:L3:347:SER:HB2	40:L3:350:ALA:CB	3.01	0.41
41:L4:139:GLY:O	41:L4:180:LYS:HE2	6.89	0.41
41:L4:177:ASP:O	41:L4:180:LYS:HB3	2.34	0.41
41:L4:99:MET:HE1	36:5:1429:G:C5	122.85	0.41
44:L7:55:TYR:CE2	44:L7:141:TYR:CE2	3.12	0.41
45:L8:134:TYR:CE2	45:L8:190:VAL:HG13	5.25	0.41
45:L8:73:PRO:HG3	45:L8:233:TRP:CD1	2.69	0.41
47:M0:55:ASN:ND2	47:M0:164:LYS:HE2	2.36	0.41
48:M1:139:THR:C	48:M1:140:ARG:HD2	3.17	0.41
49:M3:131:LYS:HB3	49:M3:131:LYS:NZ	2.36	0.41
50:M4:102:LYS:HB2	50:M4:102:LYS:HE3	1.79	0.41
36:1:1543:G:P	51:M5:35:VAL:HG23	2.61	0.41
52:M6:108:ILE:HA	52:M6:109:PRO:HD2	2.08	0.41
52:M6:108:ILE:HG23	52:M6:160:ARG:NH1	6.06	0.41
56:N0:119:ARG:NH1	37:7:87:G:O2'	278.74	0.41
57:N1:139:ARG:NH2	57:N1:139:ARG:CG	3.84	0.41
58:N2:43:VAL:O	58:N2:44:GLU:C	2.59	0.41
59:N3:28:ASN:ND2	59:N3:112:SER:OG	2.40	0.41
60:N4:45:ASN:HA	60:N4:46:PRO:HD3	1.81	0.41
70:O4:65:VAL:CG1	70:O4:69:HIS:HB2	2.59	0.41
72:O6:74:LYS:HA	72:O6:83:ALA:HB2	2.16	0.41
74:O8:61:LYS:H	74:O8:61:LYS:HG2	2.86	0.41
79:Q3:29:LEU:HA	79:Q3:29:LEU:HD23	1.81	0.41
2:S0:123:VAL:O	2:S0:145:ALA:HA	2.45	0.41
2:S0:27:ARG:HA	2:S0:44:GLY:O	2.21	0.41
5:S3:30:ALA:C	5:S3:32:GLU:H	2.24	0.41
6:S4:235:TYR:N	6:S4:235:TYR:CD2	3.18	0.41
6:S4:244:ILE:HD12	6:S4:244:ILE:HA	2.88	0.41
6:S4:30:ARG:HA	6:S4:31:PRO:HD2	2.23	0.41
7:S5:20:PHE:CE1	7:S5:22:PRO:HA	2.87	0.41
7:S5:27:THR:HG22	18:C6:30:LYS:HE2	2.03	0.41
8:S6:70:PRO:C	8:S6:98:ARG:HH11	2.24	0.41
10:S8:107:THR:HA	10:S8:110:ARG:HB3	2.03	0.41
10:S8:194:ARG:HB3	10:S8:195:ARG:HH12	3.80	0.41
11:S9:60:LEU:HA	11:S9:60:LEU:HD23	3.29	0.41
36:1:1077:U:O3'	42:L5:43:LYS:HD3	2.21	0.41
36:1:1334:U:H2'	36:1:1335:C:C6	2.56	0.41
36:1:1752:A:H2'	36:1:1753:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1781:C:H2'	36:1:1782:U:C6	2.55	0.41
36:1:198:A:C6	36:1:219:A:C6	3.09	0.41
36:1:2316:G:C6	36:1:2317:A:C5	3.09	0.41
36:1:2853:A:O3'	47:M0:64:ALA:HB2	2.21	0.41
36:1:2911:A:H4'	36:1:2912:G:C8	2.56	0.41
36:1:352:A:N6	36:1:365:A:H5''	2.36	0.41
88:1:3982:OHX:N5	88:1:4170:OHX:N1	2.68	0.41
36:1:83:U:H2'	36:1:84:U:O4'	2.20	0.41
1:2:517:U:H2'	1:2:518:A:O4'	2.20	0.41
1:2:69:G:C2	1:2:70:C:C2	3.09	0.41
1:2:778:G:H1	26:D4:10:ARG:CZ	2.34	0.41
1:2:795:U:C5	1:2:796:A:C8	3.08	0.41
1:2:224:C:C2	1:2:838:G:C2	3.09	0.41
38:4:104:A:H3'	38:4:105:A:C5'	2.51	0.41
36:5:1066:G:C6	36:5:1067:U:C4	3.09	0.41
36:5:1354:G:C6	36:5:1358:C:H5'	2.55	0.41
36:5:1498:A:H2'	36:5:1499:C:C6	2.56	0.41
36:5:2111:G:H4'	36:5:2112:U:OP2	2.21	0.41
36:5:2631:U:H4'	36:5:2697:A:H2	1.86	0.41
51:M5:179:LYS:HG2	36:5:287:G:OP1	127.97	0.41
36:5:3006:A:C2	36:5:3141:A:C4	3.08	0.41
36:5:3160:U:H2'	36:5:3161:C:C6	2.56	0.41
36:5:3164:C:H1'	36:5:3165:A:H5'	2.03	0.41
36:5:3385:U:H2'	36:5:3386:G:O4'	2.21	0.41
36:5:643:U:O4	36:5:644:G:C6	2.74	0.41
54:M8:93:ILE:HG23	36:5:784:A:C6	151.15	0.41
36:5:850:U:H2'	36:5:851:C:C6	2.56	0.41
1:6:1029:U:O2'	1:6:1030:A:H5'	2.21	0.41
1:6:189:C:O2'	1:6:190:C:H5'	2.20	0.41
11:S9:133:HIS:NE2	1:6:513:U:OP1	447.06	0.41
1:6:765:G:N3	1:6:765:G:C2'	2.84	0.41
1:6:926:A:H2'	1:6:927:C:H6	1.85	0.41
12:C0:44:LYS:HD3	12:C0:44:LYS:HA	1.88	0.41
12:C0:56:LYS:HG3	12:C0:67:THR:HB	2.02	0.41
13:C1:46:LYS:HE2	1:6:846:G:H21	312.01	0.41
18:C6:52:LEU:HA	18:C6:60:PHE:CE1	3.05	0.41
20:C8:119:ILE:HA	20:C8:119:ILE:HD12	2.65	0.41
5:S3:7:LYS:HZ2	22:D0:27:THR:HG21	1.85	0.41
23:D1:17:CYS:SG	23:D1:56:SER:HB3	2.90	0.41
25:D3:6:PRO:HG2	25:D3:15:LEU:HD21	2.03	0.41
27:D5:38:HIS:HA	27:D5:70:LYS:HG2	9.10	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:D8:38:ARG:NH1	30:D8:40:ILE:HD11	2.36	0.41
33:E1:135:HIS:HB2	33:E1:138:ARG:CB	2.51	0.41
39:L2:22:LEU:HD22	36:5:1796:G:H5''	184.06	0.41
40:L3:303:LYS:CD	40:L3:361:THR:HG21	2.84	0.41
41:L4:206:LEU:HB2	41:L4:246:ARG:CZ	2.51	0.41
41:L4:91:GLY:HA3	41:L4:93:MET:CE	2.51	0.41
42:L5:259:LYS:O	42:L5:260:PHE:HB2	2.21	0.41
44:L7:219:LYS:HE2	44:L7:219:LYS:HB3	1.92	0.41
44:L7:66:LYS:HG3	44:L7:76:TYR:CD2	2.56	0.41
46:L9:174:LYS:HA	46:L9:174:LYS:HD3	3.09	0.41
49:M3:57:VAL:HG12	49:M3:58:VAL:H	2.06	0.41
53:M7:173:ARG:H	53:M7:173:ARG:HG3	1.71	0.41
55:M9:35:ALA:O	55:M9:37:SER:N	3.82	0.41
55:M9:3:ASN:OD1	55:M9:3:ASN:C	2.89	0.41
56:N0:23:LYS:O	57:N1:146:ASN:ND2	2.37	0.41
61:N5:82:LEU:HD11	61:N5:135:ILE:HG21	2.02	0.41
62:N6:112:ASP:HB2	62:N6:115:ARG:HB2	2.03	0.41
62:N6:48:LEU:HA	62:N6:48:LEU:HD23	1.92	0.41
63:N7:64:LYS:HD3	63:N7:64:LYS:HA	1.78	0.41
64:N8:112:ILE:HD12	64:N8:112:ILE:HG23	1.91	0.41
67:O1:11:GLU:HG2	67:O1:74:ARG:HB2	2.03	0.41
68:O2:25:TYR:HB2	68:O2:28:VAL:HG23	2.36	0.41
68:O2:29:ALA:HB1	68:O2:31:ASN:OD1	2.21	0.41
69:O3:100:ILE:N	69:O3:100:ILE:HD12	2.48	0.41
77:Q1:3:ALA:HB3	1:6:1773:C:OP1	312.52	0.41
78:Q2:99:GLN:OE1	78:Q2:102:GLN:HG3	2.70	0.41
2:S0:57:LEU:HG	2:S0:160:ILE:HD13	2.03	0.41
2:S0:41:ARG:HH21	19:C7:103:ASP:CB	3.11	0.41
2:S0:59:LEU:HD12	2:S0:59:LEU:HA	1.68	0.41
3:S1:163:ALA:O	3:S1:167:VAL:HG23	3.56	0.41
3:S1:131:ASP:CG	3:S1:180:THR:HB	5.45	0.41
3:S1:207:LEU:HB3	3:S1:210:ILE:HD11	2.03	0.41
3:S1:55:LYS:HA	3:S1:55:LYS:HD3	2.10	0.41
4:S2:245:ASP:N	4:S2:245:ASP:OD1	2.54	0.41
5:S3:17:PHE:HE1	5:S3:77:PHE:CD2	3.12	0.41
5:S3:183:GLY:O	5:S3:184:ILE:HD13	2.80	0.41
6:S4:5:PRO:HB2	6:S4:7:LYS:NZ	2.36	0.41
9:S7:49:ILE:HD12	9:S7:172:VAL:HA	2.53	0.41
10:S8:58:LEU:O	10:S8:59:ARG:HB2	2.20	0.41
35:SM:61:ILE:HD12	35:SM:62:ARG:N	2.36	0.41
36:1:1299:U:H2'	36:1:1300:G:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1404:G:C6	36:1:1408:G:C6	3.09	0.40
36:1:1734:G:N7	88:1:3924:OHX:N5	2.69	0.40
36:1:1941:C:O2'	36:1:3344:A:N6	2.50	0.40
36:1:2301:U:H2'	36:1:2302:G:H8	1.86	0.40
36:1:2585:G:N3	38:4:151:C:H5	2.19	0.40
36:1:281:G:C6	36:1:282:G:C6	3.08	0.40
36:1:436:A:H2'	36:1:437:G:O4'	2.22	0.40
36:1:662:U:H2'	36:1:663:C:C6	2.56	0.40
36:1:743:C:O2	54:M8:141:ARG:HD3	2.22	0.40
1:2:1403:C:H2'	1:2:1404:C:C6	2.56	0.40
1:2:1472:C:H4'	1:2:1473:U:H5'	2.02	0.40
1:2:1:U:C4	11:S9:54:ARG:HG3	2.56	0.40
1:2:739:G:O6	88:2:2097:OHX:N4	2.55	0.40
1:2:906:A:C6	1:2:907:A:C6	3.09	0.40
38:4:70:G:H8	38:4:70:G:OP2	2.03	0.40
36:5:1121:U:C4	36:5:1122:U:C4	3.09	0.40
36:5:1338:C:H2'	36:5:1339:C:H6	1.85	0.40
36:5:1456:A:H4'	36:5:1457:U:O5'	2.20	0.40
62:N6:103:LYS:NZ	36:5:221:A:N6	79.53	0.40
36:5:2194:G:H1'	36:5:2274:U:C2	2.56	0.40
36:5:2585:G:N3	36:5:2585:G:H2'	2.35	0.40
36:5:2726:C:O2	36:5:2726:C:O5'	2.38	0.40
36:5:2950:G:C5	36:5:2979:U:C4	3.09	0.40
36:5:3279:A:C2'	36:5:3280:U:H5'	2.51	0.40
36:5:71:A:C2	36:5:313:A:H1'	2.56	0.40
36:5:75:G:O6	36:5:76:G:N1	2.54	0.40
1:6:1673:G:C6	1:6:1674:C:C4	3.09	0.40
1:6:469:C:H2'	1:6:470:A:H5''	2.03	0.40
1:6:61:A:C6	1:6:62:A:C6	3.10	0.40
1:6:780:A:H3'	1:6:781:U:H5'	2.02	0.40
1:6:901:G:C2	1:6:902:G:O6	2.75	0.40
38:8:1:A:C2	38:8:2:A:C4	3.09	0.40
13:C1:28:SER:OG	13:C1:28:SER:O	2.34	0.40
13:C1:86:ILE:HD11	13:C1:125:VAL:HG11	3.45	0.40
15:C3:117:LEU:HA	15:C3:117:LEU:HD23	2.37	0.40
15:C3:132:VAL:HG23	15:C3:134:VAL:CG1	2.51	0.40
15:C3:22:ALA:HB1	15:C3:23:PRO:CA	2.52	0.40
16:C4:102:LEU:HA	16:C4:102:LEU:HD22	1.78	0.40
17:C5:81:ARG:HH12	17:C5:120:SER:HB3	1.85	0.40
17:C5:14:THR:CB	17:C5:22:LEU:HB2	2.49	0.40
17:C5:53:PRO:O	17:C5:56:PHE:HB3	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:13:LYS:HD3	18:C6:14:LYS:N	2.35	0.40
20:C8:122:HIS:CD2	1:6:1558:U:C5	361.89	0.40
20:C8:133:VAL:CG1	1:6:1545:A:H5''	352.44	0.40
23:D1:9:VAL:HG13	23:D1:10:GLU:N	2.59	0.40
25:D3:112:LYS:HA	25:D3:112:LYS:HD3	1.97	0.40
26:D4:84:LYS:HD2	26:D4:85:PHE:CE2	2.55	0.40
33:E1:121:CYS:HB2	33:E1:132:LEU:HD21	2.38	0.40
39:L2:188:LYS:HD3	39:L2:192:LYS:HE3	4.89	0.40
40:L3:188:ILE:O	40:L3:191:LYS:HB2	2.21	0.40
40:L3:205:VAL:C	40:L3:207:SER:H	2.35	0.40
40:L3:211:GLN:NE2	40:L3:284:ARG:HA	2.36	0.40
40:L3:299:ASP:O	40:L3:300:ARG:HB2	2.22	0.40
40:L3:305:ILE:H	40:L3:305:ILE:HG13	1.55	0.40
40:L3:49:TYR:O	40:L3:80:ASP:N	2.75	0.40
41:L4:104:LYS:HD2	41:L4:106:TRP:CZ2	2.56	0.40
42:L5:182:GLY:HA2	42:L5:194:LEU:HD13	2.03	0.40
44:L7:221:LYS:HB3	44:L7:227:GLY:HA3	2.03	0.40
46:L9:150:SER:HB3	46:L9:153:ASP:HB2	2.03	0.40
47:M0:216:TYR:CD2	47:M0:217:PHE:N	2.89	0.40
49:M3:17:HIS:O	49:M3:20:GLU:HB2	2.21	0.40
52:M6:106:GLU:H	52:M6:106:GLU:HG2	1.56	0.40
53:M7:60:PHE:CE2	53:M7:82:ARG:HB2	2.56	0.40
53:M7:75:GLU:OE2	36:5:3392:U:O2'	168.86	0.40
36:1:745:C:H5''	54:M8:145:ASN:ND2	2.36	0.40
54:M8:83:VAL:O	54:M8:85:GLY:N	2.79	0.40
55:M9:149:ALA:O	55:M9:152:GLU:HB3	2.22	0.40
56:N0:45:LEU:HD12	56:N0:51:VAL:HG21	2.02	0.40
63:N7:70:PRO:HD3	63:N7:115:LYS:HG3	2.03	0.40
70:O4:103:LYS:O	70:O4:107:GLU:HB2	2.21	0.40
70:O4:47:CYS:HB3	70:O4:84:CYS:SG	2.60	0.40
74:O8:70:PRO:HA	74:O8:71:PRO:HD3	1.85	0.40
36:1:1841:A:H2	75:O9:45:ARG:HH12	1.67	0.40
5:S3:175:VAL:HG13	5:S3:182:LEU:CD1	2.45	0.40
6:S4:121:TYR:HA	6:S4:163:ASP:O	3.59	0.40
7:S5:113:ILE:HG21	7:S5:190:ILE:HB	5.12	0.40
7:S5:66:GLN:CD	7:S5:66:GLN:H	2.25	0.40
7:S5:90:ILE:HD12	7:S5:90:ILE:HG23	2.00	0.40
9:S7:9:LEU:HB3	9:S7:10:SER:H	3.34	0.40
9:S7:170:GLN:HA	9:S7:181:ILE:CG2	2.51	0.40
11:S9:29:LYS:HA	32:E0:40:TYR:CE2	2.55	0.40
34:SR:144:LEU:HD13	34:SR:144:LEU:HA	1.78	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:71:CYS:HB3	34:SR:72:THR:H	1.35	0.40
36:1:126:U:H2'	36:1:127:G:O4'	2.20	0.40
36:1:1202:A:N6	36:1:1301:A:C4	2.89	0.40
36:1:1659:U:H2'	36:1:1660:C:C6	2.56	0.40
36:1:1939:G:C6	36:1:1940:G:C5	3.09	0.40
36:1:1949:G:H2'	36:1:1950:U:C6	2.56	0.40
36:1:199:A:C4	36:1:201:A:C8	3.09	0.40
36:1:890:C:O2'	36:1:2324:A:N3	2.46	0.40
36:1:3007:U:OP1	52:M6:73:PHE:HA	2.21	0.40
36:1:2264:U:OP2	88:1:3997:OHX:N5	2.55	0.40
36:1:39:A:N6	36:1:42:C:OP2	2.54	0.40
36:1:551:A:HO2'	36:1:552:G:P	2.41	0.40
1:2:633:U:O2'	1:2:1102:G:H4'	2.21	0.40
1:2:187:G:H4'	1:2:188:A:OP1	2.21	0.40
88:2:2036:OHX:N2	10:S8:17:LYS:O	2.53	0.40
1:2:755:A:O2'	1:2:756:A:P	2.79	0.40
36:1:22:G:H1'	38:4:104:A:N3	2.36	0.40
38:4:123:G:C6	38:4:131:A:N1	2.89	0.40
36:5:2442:G:H22	36:5:2506:U:H3	1.68	0.40
36:5:2573:G:O6	88:5:4199:OHX:N6	2.54	0.40
36:5:2594:C:H2'	36:5:2595:A:O4'	2.20	0.40
36:5:278:U:H2'	36:5:279:U:H6	1.85	0.40
40:L3:132:LYS:HZ1	36:5:3292:A:H4'	207.68	0.40
53:M7:3:ARG:NH1	36:5:398:A:C6	132.84	0.40
36:5:532:A:C8	36:5:555:U:C4	3.09	0.40
51:M5:177:GLY:HA2	36:5:68:C:O3'	111.05	0.40
1:6:1486:G:C6	1:6:1522:U:H5	2.39	0.40
31:D9:14:TYR:CD2	1:6:1597:A:C8	404.28	0.40
1:6:394:C:H2'	1:6:395:U:O4'	2.20	0.40
1:6:477:A:H62	1:6:539:G:N2	2.19	0.40
1:6:486:G:N7	1:6:488:G:C2	2.89	0.40
1:6:714:G:H2'	1:6:715:U:O4'	2.22	0.40
1:6:808:U:H2'	1:6:809:A:C8	2.56	0.40
37:7:76:A:H61	37:7:102:A:H5'	1.85	0.40
12:C0:49:LEU:O	12:C0:54:TYR:HB2	2.21	0.40
14:C2:33:ARG:O	14:C2:37:VAL:HG23	2.22	0.40
15:C3:65:VAL:C	15:C3:67:THR:H	3.40	0.40
17:C5:49:MET:HB3	17:C5:50:THR:H	4.23	0.40
17:C5:68:PRO:O	88:C5:201:OHX:N1	6.50	0.40
19:C7:20:TYR:CD2	19:C7:38:ILE:HD11	2.56	0.40
19:C7:95:ARG:CB	19:C7:96:SER:HA	5.06	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:30:VAL:HA	21:C9:31:PRO:HD3	2.77	0.40
22:D0:67:THR:HG22	22:D0:68:ARG:N	2.36	0.40
22:D0:25:THR:CG2	22:D0:88:LYS:HD3	2.51	0.40
24:D2:26:LEU:HD21	24:D2:60:LYS:HB3	2.02	0.40
25:D3:11:SER:O	25:D3:14:LYS:N	2.54	0.40
28:D6:8:ASN:N	28:D6:8:ASN:OD1	4.18	0.40
29:D7:36:LYS:HB3	29:D7:43:ILE:HG22	2.04	0.40
39:L2:109:GLU:H	39:L2:109:GLU:HG2	1.55	0.40
36:1:2941:A:N7	40:L3:255:TRP:CE2	2.89	0.40
40:L3:212:ASN:OD1	40:L3:354:VAL:HG13	2.22	0.40
41:L4:324:LEU:HG	41:L4:324:LEU:O	2.40	0.40
41:L4:44:LYS:HB3	41:L4:47:ARG:HH11	1.86	0.40
42:L5:152:ARG:CG	42:L5:152:ARG:NH1	3.06	0.40
44:L7:239:LEU:O	44:L7:242:SER:OG	2.32	0.40
45:L8:203:VAL:HG11	45:L8:211:LEU:HD23	2.03	0.40
46:L9:124:ARG:HD3	46:L9:164:ILE:O	2.21	0.40
47:M0:153:ARG:HG2	47:M0:156:ARG:NH2	4.12	0.40
36:1:2853:A:H5'	47:M0:3:ARG:NH2	2.37	0.40
48:M1:166:LYS:C	48:M1:168:ASP:N	3.46	0.40
49:M3:107:GLU:OE2	49:M3:107:GLU:N	2.55	0.40
49:M3:48:PRO:HB2	71:O5:117:ALA:HB2	2.03	0.40
50:M4:20:VAL:HG22	50:M4:66:THR:OG1	2.21	0.40
51:M5:149:ASN:OD1	88:M5:303:OHX:N2	2.55	0.40
52:M6:46:GLU:HB3	52:M6:134:LYS:HB3	2.18	0.40
54:M8:67:ILE:HG12	54:M8:81:VAL:HG21	2.02	0.40
55:M9:15:VAL:CG1	55:M9:52:LYS:HE3	5.14	0.40
58:N2:58:GLU:HB2	58:N2:63:VAL:HG13	5.05	0.40
64:N8:47:LYS:HG3	64:N8:48:TYR:N	2.64	0.40
66:O0:100:ILE:H	66:O0:100:ILE:HG13	1.48	0.40
66:O0:11:ASN:HA	66:O0:14:LEU:HD12	2.02	0.40
66:O0:45:ALA:HB3	66:O0:48:THR:HG23	2.17	0.40
71:O5:67:ARG:CG	71:O5:80:LEU:HD22	2.86	0.40
77:Q1:19:LYS:O	77:Q1:22:ALA:HB3	2.63	0.40
77:Q1:25:LYS:HE3	77:Q1:25:LYS:HB2	1.67	0.40
2:S0:31:VAL:HG12	2:S0:33:GLN:H	1.86	0.40
3:S1:41:ARG:HH22	3:S1:232:HIS:HB3	1.87	0.40
3:S1:30:PHE:CZ	3:S1:94:LYS:HA	2.55	0.40
6:S4:102:VAL:HG23	6:S4:182:TYR:CE1	2.57	0.40
9:S7:13:PRO:HB3	9:S7:14:THR:HB	2.02	0.40
9:S7:39:ARG:N	9:S7:40:PRO:HD2	2.36	0.40
9:S7:51:VAL:HG11	9:S7:168:SER:OG	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:29:LYS:O	11:S9:33:GLU:HB2	2.21	0.40
11:S9:86:LEU:HA	11:S9:86:LEU:HD12	1.88	0.40
35:SM:140:ASP:N	35:SM:140:ASP:OD1	2.54	0.40
34:SR:202:LEU:HA	34:SR:212:ALA:O	2.21	0.40
36:1:1617:G:H2'	36:1:1618:G:O4'	2.21	0.40
36:1:2359:C:O5'	36:1:2359:C:H6	2.04	0.40
36:1:2535:A:H3'	36:1:2536:A:C8	2.56	0.40
36:1:324:A:H2'	36:1:325:A:C8	2.57	0.40
36:1:668:G:H2'	36:1:669:U:C6	2.57	0.40
36:1:855:U:H2'	36:1:856:G:O4'	2.21	0.40
36:1:943:U:O2	36:1:1431:G:H5''	2.22	0.40
1:2:1015:U:H5''	1:2:1016:C:OP2	2.22	0.40
1:2:1133:A:N3	1:2:1650:U:O2'	2.47	0.40
1:2:1167:G:H2'	1:2:1168:U:H6	1.87	0.40
1:2:1322:A:H2'	1:2:1323:C:H6	1.86	0.40
1:2:143:G:H2'	1:2:144:U:H5''	2.01	0.40
1:2:1622:G:H2'	1:2:1623:C:C6	2.56	0.40
1:2:1675:C:H1'	10:S8:32:GLN:HE22	1.84	0.40
1:2:532:U:O2'	26:D4:33:ALA:HB1	2.22	0.40
1:2:848:C:H2'	1:2:849:C:C6	2.56	0.40
1:2:887:A:H1'	16:C4:122:PRO:HB3	2.03	0.40
1:2:916:U:H3	16:C4:41:ARG:NH2	2.12	0.40
38:4:58:G:O6	73:O7:63:ARG:NH2	2.53	0.40
36:5:2259:A:H2'	36:5:2260:U:O4'	2.21	0.40
36:5:2289:U:H2'	36:5:2290:C:H6	1.85	0.40
36:5:242:C:H2'	36:5:243:G:C8	2.56	0.40
36:5:250:U:H2'	36:5:251:G:H21	1.87	0.40
36:5:2995:A:H5''	36:5:2996:U:OP2	2.21	0.40
36:5:3288:G:C4	36:5:3289:G:C8	3.10	0.40
36:5:419:G:O3'	36:5:420:G:OP2	2.38	0.40
36:5:701:G:H2'	36:5:702:C:C6	2.56	0.40
54:M8:141:ARG:NH1	36:5:743:C:N3	180.23	0.40
1:6:1699:G:C2'	1:6:1700:C:H5'	2.52	0.40
13:C1:70:ILE:O	13:C1:71:LEU:HD23	2.22	0.40
14:C2:67:THR:HB	1:6:1228:G:N7	459.20	0.40
15:C3:136:PRO:O	15:C3:138:ASN:N	3.60	0.40
15:C3:16:ILE:HA	15:C3:17:PRO:HD3	1.98	0.40
6:S4:54:TYR:CD1	26:D4:17:LEU:HD12	3.04	0.40
27:D5:52:LYS:HB3	27:D5:52:LYS:HE2	4.56	0.40
32:E0:59:GLY:C	32:E0:61:SER:N	3.63	0.40
39:L2:104:LEU:HD12	39:L2:104:LEU:HA	2.06	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:L1:2180:G:P	39:L2:174:ARG:HH22	2.45	0.40
40:L3:46:PHE:CD2	40:L3:205:VAL:HG13	3.16	0.40
40:L3:3:HIS:O	40:L3:4:ARG:C	2.59	0.40
41:L4:195:ARG:O	41:L4:196:ASN:HB2	2.33	0.40
43:L6:7:PRO:HD2	43:L6:10:TYR:OH	3.15	0.40
43:L6:50:LYS:NZ	43:L6:72:ASN:O	3.24	0.40
44:L7:43:ILE:O	44:L7:47:ARG:HG3	2.45	0.40
47:M0:193:ASP:CG	47:M0:198:LYS:HE3	2.52	0.40
47:M0:191:LYS:HE2	47:M0:212:GLU:CD	2.42	0.40
48:M1:155:THR:OG1	48:M1:157:GLU:N	2.53	0.40
49:M3:76:THR:HG23	49:M3:101:ARG:CZ	2.52	0.40
49:M3:41:THR:O	49:M3:44:ALA:HB3	2.52	0.40
52:M6:147:TRP:CZ3	52:M6:150:GLU:HA	2.56	0.40
52:M6:73:PHE:CG	52:M6:78:ARG:HG2	2.56	0.40
54:M8:133:LYS:N	54:M8:135:GLN:OE1	2.52	0.40
54:M8:32:LEU:O	54:M8:35:PHE:HB3	2.51	0.40
57:N1:87:LYS:HB3	57:N1:87:LYS:HE3	4.25	0.40
36:L1:1687:U:H1'	58:N2:75:TYR:CD2	2.56	0.40
62:N6:104:LEU:HA	62:N6:104:LEU:HD23	2.13	0.40
65:N9:40:ARG:O	65:N9:41:ARG:C	2.83	0.40
67:O1:90:PHE:HB3	67:O1:91:SER:H	3.93	0.40
68:O2:109:LEU:HA	68:O2:109:LEU:HD22	1.91	0.40
68:O2:21:HIS:CE1	68:O2:24:ARG:HD2	2.62	0.40
69:O3:21:ARG:NH1	69:O3:21:ARG:HG3	2.37	0.40
70:O4:46:ASP:CG	70:O4:80:ARG:HD2	2.78	0.40
71:O5:38:ARG:HD2	71:O5:41:LEU:HD13	2.03	0.40
71:O5:90:ARG:HG2	71:O5:90:ARG:H	1.76	0.40
78:Q2:74:CYS:HB3	78:Q2:77:CYS:SG	2.86	0.40
79:Q3:18:TYR:H	36:5:2131:A:N6	227.29	0.40
3:S1:83:LYS:HD2	3:S1:106:THR:H	3.87	0.40
3:S1:175:GLU:O	3:S1:187:LYS:NZ	2.51	0.40
5:S3:217:ILE:HB	5:S3:218:LEU:H	2.06	0.40
6:S4:104:ASP:OD2	6:S4:108:ARG:HB2	2.21	0.40
1:2:154:G:H5'	8:S6:108:VAL:HG21	2.04	0.40
8:S6:109:LEU:HA	8:S6:109:LEU:HD23	1.91	0.40
9:S7:64:VAL:O	9:S7:67:LEU:HB2	2.22	0.40
9:S7:74:GLN:HE22	9:S7:92:PHE:HB2	1.94	0.40
10:S8:105:ASP:OD1	10:S8:106:ALA:N	3.76	0.40
10:S8:25:ARG:HD3	10:S8:25:ARG:HA	1.92	0.40
11:S9:105:LEU:HD12	11:S9:105:LEU:HA	2.89	0.40
11:S9:52:ILE:HG23	11:S9:76:LEU:HD11	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:205:SER:HA	34:SR:245:PHE:CD2	2.86	0.40
36:1:1080:A:P	42:L5:140:ARG:NH2	2.95	0.40
36:1:1230:G:H2'	36:1:1231:A:H8	1.86	0.40
36:1:1603:A:OP1	55:M9:38:ARG:NH1	2.54	0.40
36:1:1789:G:O6	88:1:4182:OHX:N2	2.55	0.40
36:1:2124:G:C2	36:1:2330:C:C2	3.09	0.40
36:1:2209:U:H6	36:1:2209:U:OP2	2.05	0.40
36:1:173:G:N2	36:1:246:U:H1'	2.37	0.40
36:1:3121:U:C2	36:1:3122:A:N7	2.90	0.40
36:1:3215:A:C5'	50:M4:121:MET:HE1	2.52	0.40
1:2:153:G:OP2	26:D4:131:ARG:NH1	2.38	0.40
1:2:107:C:N4	1:2:307:G:H1	2.17	0.40
1:2:768:C:H1'	11:S9:143:ILE:HG21	2.03	0.40
1:2:927:C:H1'	16:C4:125:SER:HB2	2.04	0.40
37:3:98:C:OP1	56:N0:39:SER:OG	2.29	0.40
36:5:1238:C:H2'	36:5:1239:C:O4'	2.22	0.40
36:5:1700:G:C6	36:5:1701:C:C4	3.10	0.40
36:5:1724:U:O2	36:5:1725:C:C2	2.74	0.40
36:5:1845:G:C2	36:5:1851:G:C6	3.10	0.40
36:5:1882:G:H1	36:5:2350:C:N4	2.18	0.40
36:5:2194:G:H1'	36:5:2274:U:O2	2.21	0.40
36:5:2278:C:C2	36:5:2307:G:C2	3.10	0.40
36:5:2951:G:N3	36:5:2951:G:H2'	2.36	0.40
88:5:4069:OHX:N3	88:5:4147:OHX:N4	2.69	0.40
36:5:712:G:H2'	36:5:713:U:C6	2.57	0.40
36:5:942:U:O5'	36:5:942:U:H6	2.03	0.40
1:6:1173:C:H2'	1:6:1174:C:C6	2.54	0.40
1:6:1228:G:H4'	1:6:1228:G:OP2	2.22	0.40
1:6:1258:U:H6	1:6:1258:U:H2'	1.78	0.40
1:6:696:C:H3'	1:6:697:C:H5'	2.02	0.40
75:O9:7:PHE:HB3	38:8:113:U:H5''	108.40	0.40
12:C0:23:ALA:CB	12:C0:64:TYR:HB2	3.69	0.40
12:C0:32:HIS:CD2	12:C0:34:GLU:O	4.58	0.40
5:S3:75:LYS:NZ	12:C0:34:GLU:OE2	2.25	0.40
12:C0:46:LEU:O	12:C0:50:THR:N	2.46	0.40
18:C6:29:ILE:HA	18:C6:65:ILE:HB	2.03	0.40
19:C7:5:ARG:HB2	19:C7:10:LYS:HE2	2.03	0.40
20:C8:11:PHE:HB2	20:C8:59:GLY:O	2.21	0.40
23:D1:56:SER:OG	23:D1:59:VAL:HG23	2.24	0.40
24:D2:82:LYS:C	24:D2:84:GLY:N	2.75	0.40
27:D5:43:ASP:N	27:D5:46:LYS:HD2	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:142:ASP:C	39:L2:143:GLU:HG3	2.42	0.40
39:L2:192:LYS:HB3	39:L2:193:ARG:CZ	2.51	0.40
39:L2:201:GLY:O	39:L2:204:MET:HB2	3.24	0.40
41:L4:361:HIS:HB3	56:N0:26:ARG:NH1	2.37	0.40
41:L4:361:HIS:ND1	41:L4:362:ASP:HB2	2.35	0.40
41:L4:60:THR:HG22	41:L4:61:SER:N	2.36	0.40
42:L5:276:LYS:HB2	42:L5:276:LYS:HE3	3.74	0.40
43:L6:52:VAL:HG13	43:L6:65:ILE:HG23	4.49	0.40
43:L6:85:ILE:HG23	69:O3:107:ILE:CG2	3.32	0.40
46:L9:118:LEU:CD1	46:L9:167:VAL:HG13	2.99	0.40
36:L1:2899:C:H41	46:L9:172:ILE:HD11	1.86	0.40
46:L9:70:THR:O	46:L9:74:LEU:HG	2.67	0.40
47:M0:9:TYR:CD1	47:M0:97:LEU:HD13	2.56	0.40
48:M1:30:LEU:CD2	48:M1:67:VAL:HG13	2.51	0.40
49:M3:133:PRO:O	49:M3:135:ALA:N	3.39	0.40
51:M5:62:TYR:O	51:M5:131:GLU:HA	2.21	0.40
51:M5:8:GLU:HG3	51:M5:50:ARG:NH1	4.12	0.40
52:M6:108:ILE:HG21	52:M6:108:ILE:HD12	2.95	0.40
54:M8:151:ARG:HD2	54:M8:151:ARG:HH11	1.97	0.40
55:M9:138:LEU:HD22	55:M9:142:ILE:HD11	2.03	0.40
55:M9:40:ALA:HB2	55:M9:43:LYS:NZ	2.35	0.40
57:N1:30:TYR:OH	57:N1:94:GLU:OE2	2.58	0.40
61:N5:92:LYS:HE2	61:N5:110:VAL:O	2.21	0.40
68:O2:115:LEU:HA	68:O2:115:LEU:HD23	1.71	0.40
68:O2:123:LYS:HA	68:O2:126:LEU:CD1	2.62	0.40
69:O3:8:TYR:CD2	69:O3:99:ARG:HG2	2.82	0.40
73:O7:22:CYS:SG	73:O7:24:ARG:HG3	4.38	0.40
78:Q2:55:LYS:HA	78:Q2:56:PRO:HD3	1.96	0.40
2:S0:84:ARG:HD2	2:S0:203:PHE:O	2.21	0.40
5:S3:113:LEU:HD22	5:S3:113:LEU:HA	1.79	0.40
6:S4:11:ARG:O	6:S4:12:LEU:CB	2.72	0.40
6:S4:159:THR:CG2	6:S4:227:VAL:HB	2.51	0.40
7:S5:143:ARG:HA	7:S5:167:ARG:HD3	2.03	0.40
7:S5:76:ARG:HD2	18:C6:122:ARG:NE	2.70	0.40
9:S7:129:LEU:HD21	9:S7:172:VAL:HG11	2.03	0.40
9:S7:161:GLN:H	9:S7:161:GLN:HG2	1.57	0.40
9:S7:89:HIS:CE1	9:S7:165:LYS:HA	3.11	0.40
9:S7:91:ILE:HD12	9:S7:91:ILE:HA	1.67	0.40
10:S8:77:ARG:HE	10:S8:77:ARG:HB2	1.62	0.40
11:S9:149:ARG:H	11:S9:149:ARG:HG2	1.83	0.40
11:S9:182:GLU:HG3	11:S9:183:ALA:H	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:220:ILE:HD12	34:SR:263:PHE:HE2	1.85	0.40
34:SR:15:GLY:H	34:SR:45:TRP:HH2	1.69	0.40
36:1:1103:A:H2'	36:1:1103:A:N3	2.36	0.40
36:1:1637:A:P	63:N7:73:LYS:HZ1	2.44	0.40
36:1:1694:U:C2	36:1:1695:U:C5	3.10	0.40
36:1:2208:A:O3'	36:1:2209:U:H6	2.04	0.40
36:1:2258:U:OP2	88:1:3942:OHX:N1	2.55	0.40
36:1:2376:G:C6	36:1:2377:G:C6	3.10	0.40
36:1:2402:A:H5''	41:L4:67:THR:OG1	2.21	0.40
36:1:265:A:H5''	36:1:266:A:OP2	2.22	0.40
36:1:3027:A:H2'	36:1:3028:G:O4'	2.21	0.40
36:1:3095:U:H2'	36:1:3096:C:C6	2.57	0.40
36:1:3393:U:H2'	36:1:3394:U:H6	1.84	0.40
36:1:783:A:H5''	36:1:784:A:H5'	2.02	0.40
1:2:193:U:C2'	1:2:194:U:H2'	2.52	0.40
1:2:344:A:C6	1:2:345:U:C4	3.09	0.40
1:2:734:A:O2'	1:2:735:C:H5'	2.22	0.40
1:2:630:A:H1'	1:2:970:A:N6	2.36	0.40
36:5:1069:C:H2'	36:5:1070:U:H6	1.86	0.40
36:5:1084:A:C6	36:5:1085:A:C6	3.10	0.40
70:O4:37:LYS:NZ	36:5:1591:G:OP1	160.47	0.40
36:5:1692:U:O4	36:5:1693:C:N4	2.54	0.40
36:5:2518:C:H2'	36:5:2519:A:H8	1.87	0.40
48:M1:142:LYS:HE2	36:5:2664:C:OP2	282.83	0.40
36:5:911:C:O2	36:5:917:A:N1	2.54	0.40
1:6:1553:G:N2	1:6:1555:A:H3'	2.36	0.40
1:6:1678:A:C6	1:6:1679:G:C5	3.10	0.40
1:6:1688:U:H2'	1:6:1689:A:H8	1.85	0.40
1:6:1758:U:H1'	36:5:2255:A:N3	2.36	0.40
1:6:281:G:C2	1:6:282:C:C2	3.09	0.40
1:6:46:A:H1'	1:6:48:G:C8	2.57	0.40
1:6:914:G:H8	1:6:914:G:OP2	2.05	0.40
42:L5:33:ARG:NH2	37:7:7:G:O3'	270.64	0.40
12:C0:59:PHE:CZ	12:C0:62:GLN:HA	2.57	0.40
15:C3:119:GLU:HG2	15:C3:141:TYR:HE2	3.24	0.40
16:C4:48:VAL:HG22	16:C4:49:LYS:N	2.58	0.40
17:C5:125:PRO:HG3	20:C8:129:TRP:CH2	2.57	0.40
18:C6:99:GLU:O	18:C6:102:LYS:N	3.00	0.40
19:C7:99:VAL:CB	19:C7:118:PRO:HB2	2.52	0.40
19:C7:60:ARG:CZ	19:C7:66:VAL:HG22	3.20	0.40
20:C8:134:ARG:HB2	20:C8:136:GLN:OE1	3.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:84:TRP:HA	20:C8:89:GLN:OE1	2.22	0.40
21:C9:108:LEU:HB3	21:C9:114:VAL:HG22	6.31	0.40
21:C9:127:ASN:O	21:C9:130:ARG:HB3	2.37	0.40
21:C9:23:GLN:HG2	21:C9:55:TYR:CG	2.56	0.40
22:D0:58:LEU:HD23	1:6:1516:A:C8	445.46	0.40
24:D2:95:PRO:HD3	24:D2:130:TYR:CD1	3.16	0.40
25:D3:69:ARG:HD2	25:D3:116:ASP:OD2	2.20	0.40
27:D5:85:LYS:HG3	27:D5:86:GLU:N	2.53	0.40
30:D8:29:ARG:HH11	30:D8:29:ARG:HD2	1.82	0.40
40:L3:188:ILE:HD12	40:L3:189:SER:H	1.87	0.40
40:L3:209:PHE:HB3	40:L3:282:ILE:CD1	2.74	0.40
40:L3:361:THR:HG23	40:L3:371:GLN:O	2.64	0.40
41:L4:276:LEU:HA	41:L4:277:PRO:HD3	1.91	0.40
43:L6:50:LYS:HG2	43:L6:74:VAL:CG2	2.52	0.40
43:L6:98:VAL:HA	43:L6:101:PHE:CD2	2.57	0.40
46:L9:173:ARG:HH11	46:L9:173:ARG:HD3	1.79	0.40
46:L9:20:ILE:HD12	46:L9:45:PHE:CD1	3.86	0.40
48:M1:110:ILE:C	48:M1:112:LEU:H	2.24	0.40
48:M1:86:VAL:HG22	48:M1:111:ASP:O	2.21	0.40
49:M3:33:VAL:HG12	49:M3:34:SER:N	2.35	0.40
53:M7:26:PHE:HZ	36:5:412:G:H5'	150.91	0.40
53:M7:64:ASN:O	53:M7:67:ILE:HB	2.21	0.40
56:N0:12:ARG:O	56:N0:13:ARG:C	2.59	0.40
56:N0:141:LYS:HA	56:N0:144:LEU:HD12	2.04	0.40
61:N5:40:LEU:HB3	61:N5:41:ALA:H	4.03	0.40
63:N7:54:THR:HG23	63:N7:57:HIS:CE1	2.56	0.40
64:N8:9:ARG:HE	64:N8:9:ARG:HB3	1.83	0.40
66:O0:78:GLY:HA2	66:O0:87:VAL:HG13	3.10	0.40
68:O2:120:THR:HG23	68:O2:120:THR:H	1.81	0.40
68:O2:98:HIS:CG	68:O2:99:ASN:N	2.90	0.40
70:O4:8:ARG:NH1	70:O4:8:ARG:HG2	2.35	0.40
71:O5:118:ILE:HG21	71:O5:118:ILE:HD13	1.88	0.40
36:1:294:U:H5'	72:O6:76:ARG:HG3	2.03	0.40
74:O8:41:THR:HG21	74:O8:62:ALA:HB2	2.03	0.40
75:O9:29:LEU:HD12	75:O9:29:LEU:HA	1.71	0.40
78:Q2:61:LYS:H	78:Q2:61:LYS:HG2	4.14	0.40
36:1:2656:A:OP2	78:Q2:97:LYS:HB3	2.22	0.40
2:S0:184:LEU:C	2:S0:186:GLY:N	2.75	0.40
2:S0:62:ARG:HE	23:D1:39:VAL:HG13	2.08	0.40
3:S1:180:THR:HB	3:S1:182:ALA:HB3	2.03	0.40
4:S2:49:LYS:HD2	4:S2:243:TYR:CE1	2.63	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:37:VAL:O	5:S3:38:GLU:C	2.59	0.40
6:S4:222:LEU:HB3	6:S4:223:ASN:H	1.81	0.40
7:S5:69:PHE:CD2	18:C6:50:GLU:HG2	2.57	0.40
8:S6:173:PRO:HB2	8:S6:174:LYS:H	1.60	0.40
8:S6:87:ARG:HD3	8:S6:87:ARG:HA	1.86	0.40
9:S7:16:LEU:HD22	9:S7:46:ILE:HG21	2.02	0.40
10:S8:117:TYR:HE1	10:S8:150:ALA:HA	3.08	0.40
11:S9:110:GLN:OE1	11:S9:126:ARG:HG2	2.22	0.40
11:S9:168:ARG:HD2	11:S9:174:ARG:HD2	6.24	0.40
35:SM:70:ASN:O	35:SM:74:LYS:HD3	2.21	0.40
34:SR:247:PRO:HG2	34:SR:248:ASN:OD1	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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%)	143 (70%)	34 (17%)	27 (13%)	0	1
2	s0	204/251 (81%)	152 (74%)	33 (16%)	19 (9%)	1	4
3	S1	212/254 (84%)	141 (66%)	38 (18%)	33 (16%)	0	1
3	s1	214/254 (84%)	171 (80%)	30 (14%)	13 (6%)	1	13
4	S2	215/253 (85%)	173 (80%)	27 (13%)	15 (7%)	1	8
4	s2	215/253 (85%)	184 (86%)	21 (10%)	10 (5%)	2	19
5	S3	221/239 (92%)	182 (82%)	24 (11%)	15 (7%)	1	10
5	s3	221/239 (92%)	174 (79%)	31 (14%)	16 (7%)	1	8
6	S4	258/260 (99%)	206 (80%)	34 (13%)	18 (7%)	1	8
6	s4	258/260 (99%)	210 (81%)	28 (11%)	20 (8%)	1	7
7	S5	204/224 (91%)	154 (76%)	34 (17%)	16 (8%)	1	7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	s5	204/224 (91%)	154 (76%)	35 (17%)	15 (7%)	1	8
8	S6	224/236 (95%)	197 (88%)	15 (7%)	12 (5%)	2	16
8	s6	216/236 (92%)	184 (85%)	22 (10%)	10 (5%)	2	20
9	S7	182/189 (96%)	136 (75%)	25 (14%)	21 (12%)	0	2
9	s7	184/189 (97%)	141 (77%)	28 (15%)	15 (8%)	1	6
10	S8	184/200 (92%)	148 (80%)	23 (12%)	13 (7%)	1	8
10	s8	184/200 (92%)	155 (84%)	16 (9%)	13 (7%)	1	8
11	S9	183/196 (93%)	147 (80%)	26 (14%)	10 (6%)	2	16
11	s9	183/196 (93%)	148 (81%)	28 (15%)	7 (4%)	3	24
12	C0	94/105 (90%)	68 (72%)	17 (18%)	9 (10%)	1	4
13	C1	153/155 (99%)	114 (74%)	24 (16%)	15 (10%)	1	3
13	c1	144/155 (93%)	122 (85%)	16 (11%)	6 (4%)	3	23
14	C2	122/142 (86%)	67 (55%)	34 (28%)	21 (17%)	0	0
14	c2	122/142 (86%)	67 (55%)	32 (26%)	23 (19%)	0	0
15	C3	148/150 (99%)	122 (82%)	20 (14%)	6 (4%)	3	23
15	c3	148/150 (99%)	120 (81%)	18 (12%)	10 (7%)	1	10
16	C4	125/136 (92%)	90 (72%)	19 (15%)	16 (13%)	0	1
16	c4	126/136 (93%)	96 (76%)	19 (15%)	11 (9%)	1	4
17	C5	122/141 (86%)	88 (72%)	22 (18%)	12 (10%)	1	3
17	c5	133/141 (94%)	94 (71%)	20 (15%)	19 (14%)	0	1
18	C6	139/142 (98%)	117 (84%)	11 (8%)	11 (8%)	1	6
18	c6	140/142 (99%)	120 (86%)	12 (9%)	8 (6%)	2	15
19	C7	116/136 (85%)	87 (75%)	21 (18%)	8 (7%)	1	9
19	c7	113/136 (83%)	84 (74%)	19 (17%)	10 (9%)	1	4
20	C8	143/145 (99%)	111 (78%)	20 (14%)	12 (8%)	1	5
20	c8	143/145 (99%)	115 (80%)	18 (13%)	10 (7%)	1	8
21	C9	141/143 (99%)	120 (85%)	14 (10%)	7 (5%)	2	18
21	c9	141/143 (99%)	114 (81%)	21 (15%)	6 (4%)	3	22
22	D0	105/120 (88%)	82 (78%)	19 (18%)	4 (4%)	3	24
22	d0	108/120 (90%)	87 (81%)	10 (9%)	11 (10%)	0	3
23	D1	85/87 (98%)	64 (75%)	12 (14%)	9 (11%)	0	3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
23	d1	85/87 (98%)	72 (85%)	10 (12%)	3 (4%)	4	27
24	D2	127/129 (98%)	112 (88%)	12 (9%)	3 (2%)	6	37
24	d2	127/129 (98%)	112 (88%)	14 (11%)	1 (1%)	21	62
25	D3	142/144 (99%)	109 (77%)	19 (13%)	14 (10%)	0	3
25	d3	142/144 (99%)	119 (84%)	18 (13%)	5 (4%)	4	27
26	D4	132/134 (98%)	106 (80%)	18 (14%)	8 (6%)	1	13
26	d4	132/134 (98%)	106 (80%)	16 (12%)	10 (8%)	1	7
27	D5	68/107 (64%)	44 (65%)	11 (16%)	13 (19%)	0	0
27	d5	67/107 (63%)	49 (73%)	11 (16%)	7 (10%)	0	3
28	D6	95/97 (98%)	62 (65%)	19 (20%)	14 (15%)	0	1
28	d6	95/97 (98%)	67 (70%)	18 (19%)	10 (10%)	0	3
29	D7	79/81 (98%)	63 (80%)	9 (11%)	7 (9%)	1	4
29	d7	79/81 (98%)	60 (76%)	12 (15%)	7 (9%)	1	4
30	D8	61/66 (92%)	49 (80%)	6 (10%)	6 (10%)	1	3
30	d8	61/66 (92%)	43 (70%)	13 (21%)	5 (8%)	1	6
31	D9	51/55 (93%)	41 (80%)	8 (16%)	2 (4%)	3	24
31	d9	51/55 (93%)	36 (71%)	9 (18%)	6 (12%)	0	2
32	E0	58/60 (97%)	47 (81%)	10 (17%)	1 (2%)	10	46
33	E1	69/76 (91%)	38 (55%)	12 (17%)	19 (28%)	0	0
34	SR	316/318 (99%)	244 (77%)	45 (14%)	27 (8%)	1	5
34	sR	316/318 (99%)	261 (83%)	42 (13%)	13 (4%)	3	23
35	SM	155/273 (57%)	111 (72%)	27 (17%)	17 (11%)	0	2
35	sM	98/273 (36%)	57 (58%)	28 (29%)	13 (13%)	0	1
39	L2	250/253 (99%)	224 (90%)	17 (7%)	9 (4%)	4	26
39	l2	250/253 (99%)	214 (86%)	23 (9%)	13 (5%)	2	17
40	L3	384/386 (100%)	322 (84%)	45 (12%)	17 (4%)	3	21
40	l3	384/386 (100%)	339 (88%)	32 (8%)	13 (3%)	4	27
41	L4	359/361 (99%)	297 (83%)	34 (10%)	28 (8%)	1	7
41	l4	359/361 (99%)	299 (83%)	38 (11%)	22 (6%)	1	13
42	L5	294/296 (99%)	237 (81%)	35 (12%)	22 (8%)	1	7
42	l5	292/296 (99%)	253 (87%)	32 (11%)	7 (2%)	6	37

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
43	L6	152/175 (87%)	134 (88%)	12 (8%)	6 (4%)	3	24
43	l6	153/175 (87%)	130 (85%)	17 (11%)	6 (4%)	3	24
44	L7	220/243 (90%)	184 (84%)	26 (12%)	10 (4%)	3	21
44	l7	221/243 (91%)	189 (86%)	27 (12%)	5 (2%)	7	38
45	L8	231/255 (91%)	189 (82%)	31 (13%)	11 (5%)	2	19
45	l8	229/255 (90%)	188 (82%)	23 (10%)	18 (8%)	1	6
46	L9	189/191 (99%)	166 (88%)	21 (11%)	2 (1%)	16	56
46	l9	189/191 (99%)	166 (88%)	17 (9%)	6 (3%)	4	29
47	M0	207/220 (94%)	171 (83%)	28 (14%)	8 (4%)	3	24
47	m0	209/220 (95%)	172 (82%)	23 (11%)	14 (7%)	1	10
48	M1	167/173 (96%)	122 (73%)	29 (17%)	16 (10%)	1	4
48	m1	167/173 (96%)	141 (84%)	15 (9%)	11 (7%)	1	10
49	M3	191/198 (96%)	154 (81%)	26 (14%)	11 (6%)	2	14
49	m3	192/198 (97%)	150 (78%)	28 (15%)	14 (7%)	1	8
50	M4	134/137 (98%)	113 (84%)	12 (9%)	9 (7%)	1	10
50	m4	135/137 (98%)	118 (87%)	16 (12%)	1 (1%)	24	66
51	M5	201/203 (99%)	183 (91%)	14 (7%)	4 (2%)	8	42
51	m5	201/203 (99%)	181 (90%)	16 (8%)	4 (2%)	8	42
52	M6	195/198 (98%)	176 (90%)	12 (6%)	7 (4%)	4	26
52	m6	195/198 (98%)	179 (92%)	10 (5%)	6 (3%)	4	30
53	M7	181/183 (99%)	144 (80%)	27 (15%)	10 (6%)	2	16
53	m7	153/183 (84%)	132 (86%)	18 (12%)	3 (2%)	8	42
54	M8	183/185 (99%)	154 (84%)	24 (13%)	5 (3%)	5	34
54	m8	183/185 (99%)	151 (82%)	26 (14%)	6 (3%)	4	28
55	M9	186/188 (99%)	172 (92%)	13 (7%)	1 (0%)	31	71
55	m9	186/188 (99%)	167 (90%)	14 (8%)	5 (3%)	5	34
56	N0	170/172 (99%)	154 (91%)	13 (8%)	3 (2%)	9	45
56	n0	170/172 (99%)	160 (94%)	7 (4%)	3 (2%)	9	45
57	N1	157/159 (99%)	139 (88%)	11 (7%)	7 (4%)	3	21
57	n1	157/159 (99%)	140 (89%)	12 (8%)	5 (3%)	4	29
58	N2	98/120 (82%)	72 (74%)	15 (15%)	11 (11%)	0	2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
58	n2	96/120 (80%)	78 (81%)	15 (16%)	3 (3%)	4	30
59	N3	134/136 (98%)	120 (90%)	12 (9%)	2 (2%)	11	49
59	n3	134/136 (98%)	124 (92%)	10 (8%)	0	100	100
60	N4	96/155 (62%)	78 (81%)	13 (14%)	5 (5%)	2	17
60	n4	133/155 (86%)	109 (82%)	15 (11%)	9 (7%)	1	10
61	N5	119/141 (84%)	106 (89%)	11 (9%)	2 (2%)	10	46
61	n5	118/141 (84%)	98 (83%)	11 (9%)	9 (8%)	1	7
62	N6	124/126 (98%)	104 (84%)	14 (11%)	6 (5%)	2	19
62	n6	124/126 (98%)	112 (90%)	8 (6%)	4 (3%)	4	29
63	N7	133/135 (98%)	111 (84%)	11 (8%)	11 (8%)	1	5
63	n7	133/135 (98%)	101 (76%)	21 (16%)	11 (8%)	1	5
64	N8	146/148 (99%)	121 (83%)	18 (12%)	7 (5%)	2	19
64	n8	146/148 (99%)	119 (82%)	22 (15%)	5 (3%)	4	27
65	N9	56/58 (97%)	47 (84%)	6 (11%)	3 (5%)	2	16
65	n9	56/58 (97%)	44 (79%)	7 (12%)	5 (9%)	1	4
66	O0	95/104 (91%)	76 (80%)	15 (16%)	4 (4%)	3	23
66	o0	98/104 (94%)	85 (87%)	13 (13%)	0	100	100
67	O1	107/112 (96%)	91 (85%)	8 (8%)	8 (8%)	1	7
67	o1	107/112 (96%)	85 (79%)	13 (12%)	9 (8%)	1	5
68	O2	125/129 (97%)	108 (86%)	17 (14%)	0	100	100
68	o2	125/129 (97%)	109 (87%)	9 (7%)	7 (6%)	2	15
69	O3	104/106 (98%)	92 (88%)	9 (9%)	3 (3%)	5	32
69	o3	104/106 (98%)	96 (92%)	4 (4%)	4 (4%)	3	24
70	O4	110/119 (92%)	94 (86%)	14 (13%)	2 (2%)	9	45
70	o4	110/119 (92%)	100 (91%)	9 (8%)	1 (1%)	19	60
71	O5	117/119 (98%)	99 (85%)	10 (8%)	8 (7%)	1	10
71	o5	117/119 (98%)	95 (81%)	17 (14%)	5 (4%)	3	22
72	O6	97/99 (98%)	78 (80%)	13 (13%)	6 (6%)	1	12
72	o6	97/99 (98%)	76 (78%)	15 (16%)	6 (6%)	1	12
73	O7	85/87 (98%)	74 (87%)	8 (9%)	3 (4%)	4	27
73	o7	85/87 (98%)	70 (82%)	11 (13%)	4 (5%)	2	19

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
74	O8	75/77 (97%)	65 (87%)	7 (9%)	3 (4%)	3	24
74	o8	75/77 (97%)	60 (80%)	12 (16%)	3 (4%)	3	24
75	O9	48/50 (96%)	40 (83%)	6 (12%)	2 (4%)	3	23
75	o9	48/50 (96%)	43 (90%)	5 (10%)	0	100	100
76	Q0	50/52 (96%)	39 (78%)	9 (18%)	2 (4%)	3	24
76	q0	50/52 (96%)	49 (98%)	0	1 (2%)	8	42
77	Q1	23/25 (92%)	19 (83%)	4 (17%)	0	100	100
77	q1	23/25 (92%)	20 (87%)	2 (9%)	1 (4%)	3	22
78	Q2	103/105 (98%)	84 (82%)	13 (13%)	6 (6%)	2	14
78	q2	103/105 (98%)	92 (89%)	9 (9%)	2 (2%)	9	43
79	Q3	89/91 (98%)	76 (85%)	10 (11%)	3 (3%)	4	27
79	q3	89/91 (98%)	81 (91%)	7 (8%)	1 (1%)	16	56
80	c0	92/105 (88%)	59 (64%)	16 (17%)	17 (18%)	0	0
81	e0	60/62 (97%)	43 (72%)	10 (17%)	7 (12%)	0	2
82	e1	74/76 (97%)	34 (46%)	21 (28%)	19 (26%)	0	0
84	p0	139/311 (45%)	116 (84%)	16 (12%)	7 (5%)	2	18
All	All	22333/24141 (92%)	18253 (82%)	2722 (12%)	1358 (6%)	1	13

All (1358) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	S0	4	PRO
2	S0	30	GLN
2	S0	39	ASN
2	S0	66	ALA
2	S0	111	ILE
2	S0	140	ASN
2	S0	158	VAL
2	S0	185	ARG
2	S0	187	ALA
2	S0	191	ARG
3	S1	36	SER
3	S1	37	THR
3	S1	49	ASN
3	S1	63	GLY
3	S1	79	HIS

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Mol	Chain	Res	Type
3	S1	132	ASP
3	S1	147	ALA
3	S1	148	ASN
3	S1	206	PRO
3	S1	223	PHE
3	S1	224	ASP
4	S2	78	ASP
4	S2	80	VAL
4	S2	135	SER
4	S2	148	LEU
5	S3	62	ASN
5	S3	93	ASP
5	S3	211	PRO
5	S3	220	PRO
6	S4	104	ASP
6	S4	142	HIS
6	S4	223	ASN
6	S4	227	VAL
6	S4	228	ILE
7	S5	26	ALA
7	S5	39	GLU
7	S5	43	PHE
7	S5	63	GLN
7	S5	84	LYS
7	S5	153	GLY
8	S6	54	GLY
8	S6	122	GLU
8	S6	173	PRO
8	S6	174	LYS
9	S7	31	SER
9	S7	32	PRO
9	S7	64	VAL
9	S7	85	PHE
9	S7	111	LYS
9	S7	116	ARG
9	S7	131	PHE
9	S7	134	GLU
11	S9	121	SER
11	S9	134	ILE
11	S9	169	PRO
12	C0	60	SER
12	C0	81	ASN

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Mol	Chain	Res	Type
12	C0	87	VAL
12	C0	88	PRO
13	C1	7	VAL
13	C1	75	VAL
13	C1	76	VAL
13	C1	140	VAL
14	C2	108	ARG
14	C2	126	TRP
14	C2	127	GLY
15	C3	27	LYS
16	C4	42	VAL
16	C4	50	ALA
16	C4	126	THR
17	C5	60	LEU
17	C5	125	PRO
17	C5	126	VAL
18	C6	39	VAL
18	C6	42	GLU
18	C6	58	ASP
18	C6	59	LYS
18	C6	97	VAL
18	C6	114	ARG
18	C6	115	THR
18	C6	138	PHE
19	C7	85	VAL
19	C7	86	PRO
19	C7	88	VAL
20	C8	14	ILE
20	C8	60	GLU
20	C8	91	ASP
20	C8	92	ILE
21	C9	31	PRO
21	C9	53	TRP
21	C9	116	ILE
24	D2	83	ILE
25	D3	3	LYS
25	D3	12	ALA
25	D3	92	CYS
25	D3	114	LYS
25	D3	137	LYS
27	D5	37	GLN
27	D5	39	ALA

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Mol	Chain	Res	Type
27	D5	43	ASP
27	D5	44	GLN
27	D5	55	PRO
27	D5	56	THR
27	D5	57	TYR
27	D5	97	LYS
28	D6	36	ILE
28	D6	45	VAL
28	D6	46	GLU
28	D6	65	PRO
28	D6	82	ARG
28	D6	84	VAL
28	D6	85	ARG
29	D7	38	PRO
29	D7	62	ILE
30	D8	36	THR
30	D8	37	SER
30	D8	61	ARG
32	E0	47	VAL
33	E1	85	TYR
33	E1	103	LEU
33	E1	138	ARG
34	SR	24	ALA
34	SR	57	PRO
34	SR	58	VAL
34	SR	155	ARG
34	SR	160	GLU
34	SR	161	LYS
34	SR	201	THR
34	SR	203	THR
34	SR	318	ALA
35	SM	102	THR
35	SM	140	ASP
35	SM	166	VAL
35	SM	167	PRO
40	L3	4	ARG
40	L3	5	LYS
40	L3	83	PRO
40	L3	140	ASP
40	L3	347	SER
40	L3	378	ALA
41	L4	131	VAL

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Mol	Chain	Res	Type
41	L4	182	LEU
41	L4	268	ALA
41	L4	292	SER
41	L4	293	SER
41	L4	311	HIS
41	L4	317	PRO
41	L4	318	LEU
41	L4	338	LYS
41	L4	361	HIS
42	L5	233	ALA
42	L5	234	ASP
42	L5	258	LYS
44	L7	24	GLU
44	L7	26	VAL
45	L8	25	PRO
45	L8	36	ILE
47	M0	189	GLU
47	M0	207	GLU
48	M1	8	PRO
48	M1	9	MET
48	M1	11	ASP
48	M1	12	LEU
48	M1	28	ASP
48	M1	74	PRO
48	M1	165	GLN
49	M3	47	ALA
49	M3	129	ASN
49	M3	141	ALA
50	M4	9	ALA
50	M4	135	LEU
50	M4	136	ALA
52	M6	111	PRO
53	M7	157	VAL
54	M8	98	LYS
54	M8	99	THR
56	N0	13	ARG
57	N1	36	VAL
57	N1	124	VAL
58	N2	44	GLU
58	N2	51	GLY
58	N2	60	GLY
60	N4	26	SER

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Mol	Chain	Res	Type
60	N4	64	THR
60	N4	81	PRO
61	N5	44	PRO
63	N7	18	TYR
63	N7	125	GLY
64	N8	57	GLY
64	N8	76	ASP
67	O1	83	GLU
71	O5	96	GLU
71	O5	97	ALA
71	O5	98	SER
71	O5	119	LYS
72	O6	33	ALA
72	O6	98	ARG
73	O7	84	SER
76	Q0	78	ILE
76	Q0	79	GLU
78	Q2	100	LYS
2	s0	4	PRO
2	s0	30	GLN
2	s0	62	ARG
2	s0	95	ALA
2	s0	158	VAL
2	s0	164	ASN
2	s0	189	VAL
2	s0	203	PHE
2	s0	206	ASP
3	s1	106	THR
3	s1	147	ALA
3	s1	206	PRO
3	s1	223	PHE
4	s2	106	ASP
4	s2	238	SER
5	s3	179	GLN
5	s3	195	SER
5	s3	211	PRO
5	s3	216	PRO
5	s3	217	ILE
5	s3	220	PRO
6	s4	24	SER
6	s4	95	THR
6	s4	163	ASP

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Mol	Chain	Res	Type
6	s4	196	VAL
6	s4	242	LYS
7	s5	28	PRO
7	s5	43	PHE
7	s5	151	GLY
7	s5	184	PHE
7	s5	209	TYR
8	s6	25	ARG
8	s6	138	ALA
8	s6	173	PRO
8	s6	174	LYS
9	s7	30	SER
9	s7	64	VAL
9	s7	66	SER
9	s7	106	SER
9	s7	131	PHE
9	s7	163	ASP
9	s7	185	ILE
10	s8	101	ILE
10	s8	115	ALA
10	s8	116	HIS
10	s8	136	SER
11	s9	117	GLY
11	s9	147	MET
80	c0	2	LEU
80	c0	32	HIS
80	c0	82	LEU
80	c0	83	PRO
80	c0	88	PRO
80	c0	94	GLU
80	c0	97	PRO
13	c1	61	THR
13	c1	114	ALA
14	c2	22	VAL
15	c3	19	SER
15	c3	66	ILE
15	c3	87	ASP
15	c3	137	PRO
15	c3	143	SER
16	c4	126	THR
16	c4	132	ARG
17	c5	11	VAL

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Mol	Chain	Res	Type
17	c5	17	TYR
17	c5	50	THR
17	c5	51	SER
17	c5	68	PRO
17	c5	125	PRO
17	c5	126	VAL
17	c5	127	ARG
17	c5	131	ALA
18	c6	39	VAL
18	c6	42	GLU
19	c7	88	VAL
20	c8	91	ASP
20	c8	92	ILE
21	c9	25	GLN
21	c9	29	GLU
21	c9	34	VAL
22	d0	15	GLN
22	d0	118	VAL
23	d1	4	ASP
26	d4	30	PRO
26	d4	33	ALA
26	d4	35	VAL
26	d4	52	LYS
26	d4	121	THR
27	d5	38	HIS
27	d5	85	LYS
27	d5	104	ALA
28	d6	13	LYS
28	d6	28	LYS
28	d6	47	ALA
29	d7	38	PRO
29	d7	59	CYS
29	d7	60	SER
31	d9	6	VAL
82	e1	87	THR
82	e1	92	LYS
82	e1	97	LYS
82	e1	98	VAL
82	e1	102	VAL
82	e1	103	LEU
82	e1	106	TYR
82	e1	127	GLY

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Mol	Chain	Res	Type
34	sR	4	ASN
34	sR	96	THR
34	sR	163	ASP
34	sR	165	ASP
34	sR	250	TYR
35	sM	47	ALA
35	sM	48	ARG
35	sM	50	ASN
35	sM	60	ALA
35	sM	172	VAL
39	l2	24	GLN
40	l3	129	ALA
40	l3	140	ASP
40	l3	142	ALA
40	l3	188	ILE
40	l3	347	SER
41	l4	14	GLU
41	l4	145	ILE
41	l4	301	PRO
41	l4	302	ALA
41	l4	329	PRO
41	l4	330	TYR
41	l4	339	LEU
41	l4	342	LYS
42	l5	5	LYS
42	l5	258	LYS
42	l5	260	PHE
42	l5	269	SER
44	l7	158	LYS
45	l8	25	PRO
45	l8	39	ALA
45	l8	122	LYS
45	l8	190	VAL
45	l8	203	VAL
45	l8	223	ALA
47	m0	7	ARG
47	m0	204	GLY
47	m0	219	ALA
47	m0	220	GLN
48	m1	8	PRO
48	m1	9	MET
48	m1	10	ARG

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Mol	Chain	Res	Type
48	m1	108	GLU
48	m1	165	GLN
49	m3	47	ALA
49	m3	50	PRO
49	m3	51	LEU
49	m3	58	VAL
49	m3	150	PRO
49	m3	152	THR
51	m5	183	THR
52	m6	16	VAL
52	m6	110	PRO
53	m7	67	ILE
54	m8	99	THR
55	m9	156	ASN
55	m9	183	ALA
56	n0	2	ALA
57	n1	122	GLN
60	n4	63	ILE
60	n4	71	ARG
60	n4	76	VAL
61	n5	25	LYS
61	n5	44	PRO
61	n5	45	LYS
61	n5	55	ASN
62	n6	83	ASP
63	n7	5	LEU
63	n7	56	LYS
63	n7	125	GLY
63	n7	129	TRP
65	n9	21	ILE
65	n9	23	LYS
65	n9	39	PHE
67	o1	7	VAL
67	o1	45	GLY
67	o1	86	LYS
68	o2	4	LEU
68	o2	5	PRO
68	o2	6	HIS
70	o4	79	SER
72	o6	33	ALA
72	o6	98	ARG
73	o7	84	SER

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Mol	Chain	Res	Type
74	o8	17	ARG
74	o8	18	ALA
74	o8	19	ASP
76	q0	78	ILE
84	p0	93	LEU
84	p0	198	PRO
2	S0	5	ALA
2	S0	49	ASN
2	S0	94	GLY
2	S0	205	ARG
3	S1	51	SER
3	S1	58	SER
3	S1	78	ASP
3	S1	81	PHE
3	S1	177	GLN
3	S1	221	PRO
4	S2	81	MET
4	S2	182	PRO
5	S3	38	GLU
5	S3	40	ARG
5	S3	90	ARG
5	S3	216	PRO
6	S4	12	LEU
6	S4	17	HIS
6	S4	96	ASN
6	S4	195	ILE
6	S4	222	LEU
6	S4	245	LYS
7	S5	51	VAL
7	S5	64	VAL
7	S5	101	GLY
7	S5	127	GLN
7	S5	150	GLY
8	S6	70	PRO
8	S6	154	ARG
9	S7	73	VAL
9	S7	98	ILE
9	S7	155	ASP
9	S7	159	VAL
10	S8	52	ASN
10	S8	81	VAL
10	S8	149	SER

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Mol	Chain	Res	Type
10	S8	186	GLY
11	S9	98	ALA
11	S9	100	LYS
12	C0	35	ILE
12	C0	64	TYR
12	C0	92	ILE
13	C1	29	LYS
13	C1	55	ASP
13	C1	145	ALA
13	C1	154	ALA
14	C2	22	VAL
14	C2	55	GLY
14	C2	66	VAL
14	C2	91	VAL
14	C2	101	ALA
14	C2	119	SER
15	C3	22	ALA
15	C3	68	GLY
16	C4	39	ILE
16	C4	51	ASP
16	C4	124	ASP
17	C5	80	MET
17	C5	101	ALA
18	C6	116	LEU
19	C7	113	LEU
19	C7	115	LEU
19	C7	124	VAL
20	C8	10	SER
20	C8	61	LEU
20	C8	104	ASN
20	C8	144	ARG
21	C9	90	PRO
23	D1	4	ASP
23	D1	7	GLN
23	D1	43	GLY
24	D2	127	GLY
25	D3	40	SER
25	D3	41	SER
25	D3	112	LYS
25	D3	138	GLU
26	D4	5	VAL
26	D4	34	ASN

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Mol	Chain	Res	Type
26	D4	35	VAL
27	D5	41	ILE
28	D6	47	ALA
28	D6	86	VAL
29	D7	63	LEU
30	D8	51	ASN
31	D9	6	VAL
33	E1	83	LYS
33	E1	84	VAL
33	E1	98	VAL
33	E1	127	GLY
35	SM	64	LYS
35	SM	139	GLU
35	SM	173	GLU
39	L2	13	GLY
39	L2	47	GLN
39	L2	246	LEU
40	L3	3	HIS
40	L3	139	GLN
40	L3	262	TRP
40	L3	351	LEU
40	L3	379	PHE
40	L3	385	LYS
40	L3	386	ASP
41	L4	4	PRO
41	L4	130	ALA
41	L4	146	PRO
41	L4	190	GLY
41	L4	232	SER
41	L4	313	LEU
41	L4	339	LEU
42	L5	7	ALA
42	L5	57	ASN
42	L5	85	ARG
42	L5	228	ALA
43	L6	81	ALA
44	L7	25	GLN
44	L7	51	TYR
44	L7	91	GLY
45	L8	94	PHE
45	L8	100	GLU
45	L8	196	ALA

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Mol	Chain	Res	Type
47	M0	16	PRO
47	M0	194	GLY
48	M1	94	ARG
48	M1	117	ASP
48	M1	151	SER
48	M1	167	TYR
49	M3	76	THR
50	M4	8	LYS
50	M4	10	SER
50	M4	28	SER
50	M4	36	VAL
51	M5	184	LYS
52	M6	16	VAL
52	M6	110	PRO
52	M6	182	ASN
53	M7	110	THR
53	M7	161	ALA
55	M9	53	LYS
57	N1	121	ALA
57	N1	159	PHE
58	N2	50	LEU
58	N2	59	ASP
58	N2	91	ASP
59	N3	82	ALA
60	N4	97	LYS
61	N5	45	LYS
62	N6	52	ARG
62	N6	53	ASP
62	N6	84	LYS
63	N7	16	GLY
63	N7	17	ARG
63	N7	35	SER
63	N7	128	GLN
64	N8	66	ALA
66	O0	71	GLN
66	O0	96	GLY
67	O1	6	ASP
67	O1	84	ASP
69	O3	59	VAL
72	O6	3	VAL
75	O9	44	TRP
79	Q3	58	SER

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Mol	Chain	Res	Type
2	s0	44	GLY
2	s0	66	ALA
2	s0	111	ILE
2	s0	139	VAL
2	s0	191	ARG
3	s1	93	GLY
3	s1	161	ILE
3	s1	179	SER
4	s2	92	ALA
4	s2	163	GLY
5	s3	61	GLU
5	s3	90	ARG
5	s3	203	PRO
6	s4	12	LEU
6	s4	93	ASP
6	s4	164	LEU
6	s4	195	ILE
6	s4	202	ASP
7	s5	36	ALA
7	s5	204	GLY
8	s6	68	LEU
9	s7	67	LEU
10	s8	199	LYS
11	s9	118	LEU
80	c0	23	ALA
13	c1	144	ALA
14	c2	26	ASP
14	c2	89	ILE
14	c2	90	LYS
14	c2	101	ALA
14	c2	103	LEU
14	c2	131	ASP
15	c3	12	SER
15	c3	139	TRP
15	c3	140	LYS
16	c4	35	GLY
16	c4	50	ALA
16	c4	90	ARG
16	c4	131	GLY
18	c6	40	GLU
18	c6	97	VAL
18	c6	113	ASP

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Mol	Chain	Res	Type
19	c7	50	ILE
19	c7	51	ALA
19	c7	98	GLY
19	c7	99	VAL
19	c7	113	LEU
20	c8	61	LEU
21	c9	33	TYR
22	d0	17	GLN
22	d0	49	ASN
22	d0	51	VAL
22	d0	52	LYS
22	d0	96	PRO
23	d1	44	ARG
24	d2	68	ARG
25	d3	66	SER
26	d4	49	LYS
27	d5	103	ARG
28	d6	8	ASN
28	d6	63	ALA
29	d7	62	ILE
30	d8	61	ARG
31	d9	5	ASN
31	d9	7	TRP
81	e0	45	VAL
81	e0	51	ASN
82	e1	83	LYS
82	e1	84	VAL
82	e1	100	LEU
34	sR	28	GLY
34	sR	160	GLU
34	sR	218	GLY
39	l2	30	ARG
39	l2	142	ASP
39	l2	212	GLY
39	l2	215	ASN
40	l3	247	ARG
41	l4	4	PRO
41	l4	15	ALA
41	l4	90	PHE
41	l4	143	GLU
41	l4	146	PRO
41	l4	272	VAL

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Mol	Chain	Res	Type
41	l4	311	HIS
42	l5	178	ASN
43	l6	32	ALA
44	l7	191	VAL
45	l8	26	LEU
45	l8	209	ALA
45	l8	239	GLY
46	l9	144	ILE
46	l9	189	GLU
47	m0	25	ALA
47	m0	176	LEU
47	m0	216	TYR
47	m0	218	ALA
48	m1	114	ILE
49	m3	76	THR
49	m3	121	SER
49	m3	134	GLU
49	m3	135	ALA
50	m4	135	LEU
51	m5	184	LYS
52	m6	13	GLY
52	m6	111	PRO
52	m6	186	ALA
53	m7	54	HIS
53	m7	66	SER
54	m8	41	ASP
55	m9	155	LEU
55	m9	182	ASP
58	n2	48	GLY
58	n2	50	LEU
60	n4	64	THR
62	n6	45	ILE
62	n6	84	LYS
62	n6	125	LYS
63	n7	17	ARG
63	n7	36	HIS
65	n9	24	PRO
67	o1	84	ASP
67	o1	91	SER
68	o2	27	ARG
68	o2	124	GLY
69	o3	33	GLU

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Mol	Chain	Res	Type
69	o3	60	ARG
69	o3	88	ASN
71	o5	82	ALA
71	o5	119	LYS
73	o7	85	LYS
78	q2	17	CYS
84	p0	33	VAL
84	p0	102	SER
2	S0	27	ARG
2	S0	95	ALA
2	S0	195	TRP
2	S0	196	SER
3	S1	62	LYS
3	S1	82	ARG
3	S1	131	ASP
3	S1	158	SER
3	S1	179	SER
3	S1	218	LEU
4	S2	39	THR
5	S3	72	LEU
5	S3	217	ILE
5	S3	218	LEU
6	S4	77	ARG
6	S4	201	HIS
6	S4	205	PHE
7	S5	35	GLN
7	S5	58	LEU
8	S6	146	GLY
8	S6	152	ASP
9	S7	5	GLN
9	S7	30	SER
9	S7	36	ALA
9	S7	112	ARG
9	S7	156	SER
9	S7	186	PRO
10	S8	40	ALA
10	S8	120	THR
11	S9	9	SER
11	S9	163	PRO
11	S9	164	PHE
12	C0	94	GLU
13	C1	4	GLU

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Mol	Chain	Res	Type
13	C1	30	ARG
13	C1	113	PRO
13	C1	139	VAL
13	C1	146	ALA
13	C1	147	ALA
14	C2	21	GLU
14	C2	87	PRO
14	C2	105	LYS
14	C2	112	ALA
16	C4	18	ARG
16	C4	40	ALA
16	C4	75	GLY
16	C4	125	SER
17	C5	22	LEU
17	C5	52	LYS
17	C5	130	ARG
20	C8	7	GLU
20	C8	100	THR
21	C9	69	LYS
23	D1	64	GLU
24	D2	57	ARG
25	D3	131	SER
26	D4	6	THR
26	D4	36	SER
26	D4	97	ALA
26	D4	104	SER
27	D5	38	HIS
27	D5	70	LYS
28	D6	11	ASN
30	D8	14	LYS
30	D8	16	LEU
33	E1	87	THR
33	E1	102	VAL
33	E1	118	ARG
34	SR	13	LEU
34	SR	22	SER
34	SR	50	ASP
34	SR	153	GLN
34	SR	194	GLY
34	SR	242	SER
35	SM	52	PRO
35	SM	87	THR

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Mol	Chain	Res	Type
35	SM	174	LEU
39	L2	127	ALA
39	L2	180	LEU
39	L2	251	LYS
40	L3	155	ALA
41	L4	230	VAL
41	L4	304	GLN
42	L5	58	LYS
42	L5	110	LEU
42	L5	124	GLU
42	L5	125	VAL
42	L5	188	GLU
42	L5	259	LYS
42	L5	269	SER
43	L6	97	ASN
43	L6	150	LYS
44	L7	163	LEU
45	L8	39	ALA
47	M0	220	GLN
48	M1	73	GLY
48	M1	95	ASN
48	M1	114	ILE
48	M1	140	ARG
49	M3	130	GLY
49	M3	136	GLU
49	M3	165	SER
51	M5	81	TYR
52	M6	90	HIS
53	M7	3	ARG
53	M7	109	ALA
53	M7	164	LYS
56	N0	2	ALA
56	N0	130	GLU
58	N2	11	ILE
58	N2	20	SER
58	N2	31	ALA
58	N2	52	ASN
62	N6	83	ASP
63	N7	28	PRO
63	N7	102	GLU
64	N8	47	LYS
64	N8	78	LEU

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Mol	Chain	Res	Type
65	N9	44	LYS
67	O1	60	TRP
69	O3	40	ASP
69	O3	88	ASN
70	O4	46	ASP
71	O5	14	LYS
71	O5	27	GLU
71	O5	75	TYR
71	O5	95	PHE
72	O6	64	SER
73	O7	68	LYS
74	O8	33	LYS
75	O9	32	ASN
78	Q2	33	ALA
78	Q2	34	SER
78	Q2	78	LYS
78	Q2	94	GLY
2	s0	103	THR
3	s1	82	ARG
4	s2	107	SER
5	s3	221	SER
6	s4	3	ARG
6	s4	94	ALA
6	s4	245	LYS
7	s5	29	ILE
7	s5	39	GLU
7	s5	55	ASP
9	s7	159	VAL
10	s8	108	PRO
11	s9	65	LYS
80	c0	3	MET
80	c0	30	ALA
80	c0	31	LYS
80	c0	92	ILE
13	c1	133	LYS
14	c2	106	ILE
14	c2	108	ARG
14	c2	119	SER
15	c3	48	SER
15	c3	133	ALA
17	c5	7	ALA
17	c5	9	LYS

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Mol	Chain	Res	Type
17	c5	71	GLU
17	c5	80	MET
18	c6	116	LEU
19	c7	67	ARG
19	c7	120	SER
20	c8	94	ASP
21	c9	40	SER
22	d0	19	ILE
22	d0	55	PRO
22	d0	97	VAL
25	d3	60	GLU
25	d3	70	LYS
26	d4	58	PHE
26	d4	132	ARG
27	d5	93	SER
28	d6	59	TYR
28	d6	82	ARG
29	d7	3	LEU
29	d7	20	LYS
30	d8	57	MET
81	e0	47	VAL
81	e0	54	ARG
82	e1	90	LYS
82	e1	112	GLY
82	e1	131	PHE
34	sR	161	LYS
34	sR	297	ASP
35	sM	66	ALA
35	sM	168	GLU
39	l2	80	GLU
39	l2	127	ALA
39	l2	194	ASN
39	l2	229	ALA
39	l2	249	SER
40	l3	378	ALA
41	l4	233	LEU
41	l4	338	LYS
41	l4	341	SER
43	l6	97	ASN
43	l6	98	VAL
43	l6	133	GLU
44	l7	228	SER

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Mol	Chain	Res	Type
45	l8	69	LEU
45	l8	121	SER
45	l8	133	LYS
45	l8	237	ILE
46	l9	109	ALA
46	l9	110	LYS
47	m0	3	ARG
47	m0	196	PHE
48	m1	94	ARG
49	m3	129	ASN
51	m5	81	TYR
52	m6	4	GLU
55	m9	36	ASN
57	n1	16	GLN
57	n1	121	ALA
60	n4	83	THR
60	n4	93	ARG
60	n4	132	GLY
61	n5	40	LEU
61	n5	47	ALA
61	n5	48	SER
63	n7	134	LEU
67	o1	40	ALA
67	o1	83	GLU
69	o3	59	VAL
71	o5	61	GLN
71	o5	83	LYS
72	o6	4	LYS
73	o7	87	SER
77	q1	4	LYS
79	q3	51	ALA
2	S0	103	THR
2	S0	126	PRO
2	S0	164	ASN
2	S0	188	LEU
2	S0	194	PRO
3	S1	21	VAL
3	S1	54	LEU
3	S1	55	LYS
3	S1	116	LYS
4	S2	150	GLN
5	S3	195	SER

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Mol	Chain	Res	Type
5	S3	204	ASP
6	S4	73	ASP
6	S4	194	THR
6	S4	200	ARG
7	S5	21	THR
7	S5	54	LYS
10	S8	10	LYS
10	S8	19	ALA
10	S8	152	ILE
10	S8	153	GLU
11	S9	162	SER
14	C2	69	ALA
14	C2	106	ILE
14	C2	115	VAL
14	C2	130	THR
15	C3	19	SER
16	C4	25	ASP
16	C4	79	VAL
16	C4	114	ARG
16	C4	123	SER
17	C5	11	VAL
17	C5	51	SER
18	C6	33	GLY
20	C8	8	GLN
21	C9	28	LEU
21	C9	130	ARG
22	D0	16	GLN
22	D0	49	ASN
23	D1	10	GLU
23	D1	12	TYR
23	D1	42	GLU
25	D3	109	ARG
26	D4	51	GLU
28	D6	8	ASN
28	D6	63	ALA
28	D6	64	LEU
29	D7	23	THR
29	D7	51	GLN
33	E1	94	LYS
33	E1	100	LEU
33	E1	111	GLU
34	SR	51	ASP

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Mol	Chain	Res	Type
34	SR	114	ASP
34	SR	217	ASP
34	SR	231	MET
34	SR	237	GLN
34	SR	244	ALA
35	SM	53	ARG
39	L2	70	ARG
39	L2	130	SER
40	L3	141	GLY
41	L4	90	PHE
41	L4	140	HIS
41	L4	270	SER
42	L5	178	ASN
42	L5	185	PHE
42	L5	215	ASP
42	L5	253	PHE
45	L8	136	LEU
45	L8	138	HIS
45	L8	157	VAL
46	L9	2	LYS
48	M1	111	ASP
49	M3	140	SER
49	M3	166	ALA
50	M4	6	ILE
51	M5	145	ASP
52	M6	178	VAL
53	M7	160	ALA
54	M8	21	SER
54	M8	162	ALA
57	N1	114	ALA
59	N3	46	LEU
60	N4	76	VAL
62	N6	25	SER
63	N7	32	GLY
63	N7	103	GLN
66	O0	46	ALA
67	O1	5	LYS
67	O1	7	VAL
67	O1	21	HIS
79	Q3	84	ARG
2	s0	5	ALA
2	s0	68	PRO

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Mol	Chain	Res	Type
3	s1	22	ASP
4	s2	150	GLN
4	s2	235	LEU
5	s3	4	LEU
5	s3	79	TYR
5	s3	196	ARG
5	s3	219	ALA
6	s4	90	ILE
6	s4	168	LYS
6	s4	260	GLY
8	s6	58	LYS
8	s6	70	PRO
9	s7	13	PRO
9	s7	155	ASP
9	s7	186	PRO
10	s8	62	THR
10	s8	100	ALA
10	s8	137	LYS
10	s8	149	SER
80	c0	9	ASN
13	c1	121	ASP
14	c2	21	GLU
14	c2	87	PRO
14	c2	91	VAL
14	c2	130	THR
16	c4	37	GLU
16	c4	114	ARG
17	c5	6	ASN
17	c5	54	ALA
17	c5	100	LYS
17	c5	136	SER
18	c6	142	TYR
19	c7	15	ALA
19	c7	116	LYS
20	c8	7	GLU
20	c8	60	GLU
22	d0	16	GLN
23	d1	10	GLU
25	d3	131	SER
27	d5	71	ILE
28	d6	93	LYS
31	d9	16	LYS

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Mol	Chain	Res	Type
82	e1	79	LYS
82	e1	85	TYR
34	sR	290	VAL
35	sM	43	ASP
35	sM	46	LYS
35	sM	84	LYS
35	sM	121	LYS
35	sM	164	ASN
39	l2	56	ALA
40	l3	3	HIS
40	l3	22	ALA
40	l3	348	ARG
41	l4	190	GLY
41	l4	231	ALA
41	l4	352	ALA
42	l5	119	TYR
43	l6	10	TYR
45	l8	79	GLN
45	l8	222	PHE
45	l8	240	ASN
46	l9	2	LYS
47	m0	101	LYS
48	m1	167	TYR
49	m3	60	ALA
51	m5	76	PRO
54	m8	112	ALA
56	n0	154	HIS
58	n2	60	GLY
60	n4	77	LYS
61	n5	24	LEU
63	n7	6	LYS
64	n8	24	LYS
64	n8	56	VAL
65	n9	26	THR
71	o5	40	SER
72	o6	34	SER
78	q2	33	ALA
84	p0	21	GLU
84	p0	203	ASP
2	S0	203	PHE
3	S1	207	LEU
3	S1	215	VAL

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Mol	Chain	Res	Type
4	S2	47	ALA
4	S2	79	GLU
4	S2	106	ASP
7	S5	65	ARG
8	S6	148	SER
9	S7	13	PRO
9	S7	110	GLN
10	S8	59	ARG
10	S8	105	ASP
12	C0	54	TYR
14	C2	113	ARG
14	C2	131	ASP
15	C3	12	SER
16	C4	24	ASN
17	C5	29	SER
18	C6	40	GLU
19	C7	23	LYS
19	C7	24	LEU
22	D0	17	GLN
22	D0	21	LYS
23	D1	21	ASN
27	D5	88	ILE
29	D7	57	GLU
29	D7	75	GLU
33	E1	99	LYS
33	E1	110	ALA
33	E1	137	ASP
34	SR	98	GLU
34	SR	163	ASP
35	SM	88	ARG
35	SM	153	ASP
39	L2	143	GLU
41	L4	14	GLU
41	L4	15	ALA
41	L4	223	PRO
41	L4	233	LEU
41	L4	269	SER
42	L5	260	PHE
42	L5	267	ALA
43	L6	6	ALA
43	L6	100	LYS
44	L7	159	GLN

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Mol	Chain	Res	Type
44	L7	164	SER
44	L7	217	PRO
45	L8	156	ASP
46	L9	110	LYS
47	M0	38	LYS
50	M4	29	ALA
51	M5	94	TYR
52	M6	89	SER
54	M8	176	ARG
57	N1	127	GLN
58	N2	107	PHE
66	O0	20	SER
72	O6	21	THR
72	O6	34	SER
74	O8	70	PRO
78	Q2	17	CYS
2	s0	10	THR
2	s0	194	PRO
3	s1	160	HIS
3	s1	224	ASP
4	s2	182	PRO
4	s2	234	PRO
5	s3	43	PRO
6	s4	22	LYS
6	s4	30	ARG
6	s4	38	LEU
7	s5	100	ASN
7	s5	171	ALA
9	s7	100	PRO
9	s7	133	THR
10	s8	78	ILE
10	s8	107	THR
10	s8	159	GLN
11	s9	162	SER
80	c0	35	ILE
80	c0	49	LEU
80	c0	95	ARG
13	c1	129	ARG
14	c2	25	GLU
14	c2	39	ASP
14	c2	64	SER
14	c2	82	PRO

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Mol	Chain	Res	Type
16	c4	124	ASP
17	c5	52	LYS
17	c5	130	ARG
20	c8	14	ILE
26	d4	51	GLU
26	d4	78	SER
28	d6	5	ARG
29	d7	75	GLU
81	e0	60	PRO
81	e0	61	SER
82	e1	128	ALA
34	sR	185	GLN
39	l2	247	ARG
39	l2	251	LYS
40	l3	386	ASP
41	l4	328	ASN
44	l7	196	LYS
45	l8	102	ALA
45	l8	196	ALA
46	l9	167	VAL
48	m1	115	LYS
49	m3	13	HIS
49	m3	93	ILE
63	n7	18	TYR
64	n8	76	ASP
64	n8	129	PHE
67	o1	47	ASP
68	o2	17	PHE
2	S0	7	PHE
2	S0	35	PRO
3	S1	23	PRO
3	S1	210	ILE
3	S1	226	GLY
4	S2	235	LEU
4	S2	236	PRO
5	S3	36	GLY
6	S4	164	LEU
11	S9	149	ARG
13	C1	95	PRO
15	C3	3	ARG
17	C5	127	ARG
25	D3	78	LYS

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Mol	Chain	Res	Type
25	D3	89	ASN
31	D9	8	PHE
33	E1	128	ALA
33	E1	144	CYS
34	SR	30	PRO
35	SM	12	VAL
35	SM	67	GLY
35	SM	111	GLY
35	SM	172	VAL
40	L3	188	ILE
41	L4	183	LYS
42	L5	137	ASP
42	L5	212	ALA
44	L7	178	ILE
47	M0	145	LYS
49	M3	127	PRO
49	M3	192	GLU
64	N8	56	VAL
64	N8	97	GLU
65	N9	45	HIS
70	O4	74	ARG
73	O7	86	ALA
74	O8	37	PRO
79	Q3	7	LYS
3	s1	207	LEU
7	s5	152	GLY
11	s9	134	ILE
14	c2	40	GLY
14	c2	45	LEU
30	d8	62	GLU
31	d9	11	PRO
81	e0	38	LEU
82	e1	148	TYR
35	sM	59	GLY
40	l3	239	PRO
42	l5	125	VAL
43	l6	93	VAL
47	m0	47	PRO
48	m1	153	LYS
54	m8	108	ALA
57	n1	136	ARG
60	n4	72	SER

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Mol	Chain	Res	Type
64	n8	68	PHE
67	o1	41	LYS
72	o6	22	PRO
73	o7	67	LEU
4	S2	36	VAL
8	S6	69	LEU
8	S6	162	VAL
8	S6	165	GLY
27	D5	71	ILE
34	SR	113	VAL
34	SR	146	GLY
34	SR	271	VAL
47	M0	149	VAL
53	M7	51	VAL
53	M7	143	PRO
65	N9	21	ILE
6	s4	150	PRO
80	c0	73	VAL
14	c2	63	VAL
14	c2	66	VAL
44	l7	178	ILE
48	m1	117	ASP
61	n5	62	VAL
63	n7	70	PRO
3	S1	176	VAL
5	S3	37	VAL
43	L6	98	VAL
8	s6	165	GLY
11	s9	168	ARG
16	c4	79	VAL
20	c8	29	VAL
31	d9	17	GLY
40	l3	141	GLY
63	n7	103	GLN
2	S0	139	VAL
10	S8	107	THR
14	C2	37	VAL
23	D1	46	ILE
33	E1	112	GLY
40	L3	317	ILE
53	M7	182	ILE
57	N1	123	GLY

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Mol	Chain	Res	Type
63	N7	36	HIS
8	s6	69	LEU
8	s6	157	VAL
18	c6	4	VAL
20	c8	135	GLY
21	c9	100	ILE
25	d3	119	GLY
28	d6	58	VAL
30	d8	20	GLY
54	m8	84	VAL
68	o2	122	PRO
72	o6	9	ILE
4	S2	145	GLY
9	S7	132	PRO
25	D3	143	PRO
28	D6	75	VAL
45	L8	190	VAL
62	N6	92	GLY
67	O1	67	VAL
5	s3	163	PRO
7	s5	101	GLY
9	s7	12	ALA
14	c2	115	VAL
27	d5	55	PRO
47	m0	5	PRO
47	m0	214	PRO
54	m8	97	PRO
56	n0	129	ILE
84	p0	77	LEU
14	C2	102	GLY
16	C4	122	PRO
20	C8	82	PRO
3	s1	35	PRO
4	s2	149	GLY
7	s5	153	GLY
16	c4	76	ILE
20	c8	28	ILE
30	d8	6	PRO
82	e1	124	PRO
34	sR	167	VAL
57	n1	148	PRO

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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%)	136 (83%)	28 (17%)	2	11
2	s0	165/209 (79%)	127 (77%)	38 (23%)	1	4
3	S1	191/223 (86%)	151 (79%)	40 (21%)	1	6
3	s1	192/223 (86%)	153 (80%)	39 (20%)	1	7
4	S2	176/204 (86%)	130 (74%)	46 (26%)	0	2
4	s2	176/204 (86%)	129 (73%)	47 (27%)	0	2
5	S3	182/194 (94%)	143 (79%)	39 (21%)	1	6
5	s3	182/194 (94%)	143 (79%)	39 (21%)	1	6
6	S4	221/221 (100%)	178 (80%)	43 (20%)	1	8
6	s4	221/221 (100%)	184 (83%)	37 (17%)	2	11
7	S5	173/190 (91%)	145 (84%)	28 (16%)	2	12
7	s5	173/190 (91%)	133 (77%)	40 (23%)	1	4
8	S6	188/201 (94%)	151 (80%)	37 (20%)	1	8
8	s6	187/201 (93%)	150 (80%)	37 (20%)	1	8
9	S7	165/169 (98%)	136 (82%)	29 (18%)	2	10
9	s7	165/169 (98%)	134 (81%)	31 (19%)	1	9
10	S8	150/161 (93%)	122 (81%)	28 (19%)	1	9
10	s8	150/161 (93%)	124 (83%)	26 (17%)	2	11
11	S9	158/165 (96%)	124 (78%)	34 (22%)	1	6
11	s9	158/165 (96%)	126 (80%)	32 (20%)	1	7
12	C0	77/98 (79%)	64 (83%)	13 (17%)	2	11
13	C1	129/136 (95%)	107 (83%)	22 (17%)	2	11
13	c1	129/136 (95%)	109 (84%)	20 (16%)	3	14
14	C2	88/118 (75%)	66 (75%)	22 (25%)	0	2
14	c2	88/118 (75%)	63 (72%)	25 (28%)	0	1
15	C3	127/127 (100%)	100 (79%)	27 (21%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
15	c3	127/127 (100%)	103 (81%)	24 (19%)	1	9
16	C4	81/104 (78%)	60 (74%)	21 (26%)	0	2
16	c4	97/104 (93%)	69 (71%)	28 (29%)	0	1
17	C5	101/117 (86%)	80 (79%)	21 (21%)	1	6
17	c5	103/117 (88%)	78 (76%)	25 (24%)	1	3
18	C6	117/118 (99%)	89 (76%)	28 (24%)	1	3
18	c6	118/118 (100%)	95 (80%)	23 (20%)	1	8
19	C7	94/124 (76%)	75 (80%)	19 (20%)	1	7
19	c7	92/124 (74%)	66 (72%)	26 (28%)	0	1
20	C8	128/128 (100%)	96 (75%)	32 (25%)	0	2
20	c8	128/128 (100%)	101 (79%)	27 (21%)	1	6
21	C9	115/115 (100%)	83 (72%)	32 (28%)	0	1
21	c9	115/115 (100%)	93 (81%)	22 (19%)	1	9
22	D0	100/113 (88%)	83 (83%)	17 (17%)	2	11
22	d0	103/113 (91%)	71 (69%)	32 (31%)	0	1
23	D1	74/74 (100%)	59 (80%)	15 (20%)	1	7
23	d1	74/74 (100%)	59 (80%)	15 (20%)	1	7
24	D2	110/110 (100%)	88 (80%)	22 (20%)	1	7
24	d2	110/110 (100%)	93 (84%)	17 (16%)	3	14
25	D3	119/119 (100%)	98 (82%)	21 (18%)	2	10
25	d3	119/119 (100%)	92 (77%)	27 (23%)	1	4
26	D4	112/112 (100%)	92 (82%)	20 (18%)	2	10
26	d4	112/112 (100%)	91 (81%)	21 (19%)	1	9
27	D5	61/88 (69%)	50 (82%)	11 (18%)	2	10
27	d5	61/88 (69%)	49 (80%)	12 (20%)	1	8
28	D6	83/83 (100%)	66 (80%)	17 (20%)	1	6
28	d6	83/83 (100%)	63 (76%)	20 (24%)	1	3
29	D7	70/70 (100%)	55 (79%)	15 (21%)	1	6
29	d7	70/70 (100%)	59 (84%)	11 (16%)	3	13
30	D8	56/59 (95%)	40 (71%)	16 (29%)	0	1
30	d8	56/59 (95%)	41 (73%)	15 (27%)	0	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
31	D9	47/48 (98%)	41 (87%)	6 (13%)	5	22
31	d9	47/48 (98%)	37 (79%)	10 (21%)	1	6
32	E0	51/51 (100%)	42 (82%)	9 (18%)	2	10
33	E1	62/66 (94%)	45 (73%)	17 (27%)	0	1
34	SR	260/261 (100%)	214 (82%)	46 (18%)	2	10
34	sR	260/261 (100%)	237 (91%)	23 (9%)	11	39
35	SM	97/228 (42%)	79 (81%)	18 (19%)	2	9
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%)	156 (81%)	36 (19%)	1	9
40	L3	320/322 (99%)	260 (81%)	60 (19%)	1	9
40	l3	319/322 (99%)	259 (81%)	60 (19%)	1	9
41	L4	288/288 (100%)	241 (84%)	47 (16%)	2	12
41	l4	288/288 (100%)	236 (82%)	52 (18%)	2	9
42	L5	244/244 (100%)	199 (82%)	45 (18%)	2	9
42	l5	243/244 (100%)	194 (80%)	49 (20%)	1	7
43	L6	134/152 (88%)	113 (84%)	21 (16%)	3	13
43	l6	135/152 (89%)	113 (84%)	22 (16%)	2	12
44	L7	186/204 (91%)	162 (87%)	24 (13%)	5	21
44	l7	187/204 (92%)	163 (87%)	24 (13%)	5	22
45	L8	187/207 (90%)	151 (81%)	36 (19%)	1	8
45	l8	177/207 (86%)	145 (82%)	32 (18%)	2	9
46	L9	171/171 (100%)	135 (79%)	36 (21%)	1	6
46	l9	171/171 (100%)	132 (77%)	39 (23%)	1	4
47	M0	177/186 (95%)	136 (77%)	41 (23%)	1	4
47	m0	179/186 (96%)	148 (83%)	31 (17%)	2	11
48	M1	147/150 (98%)	115 (78%)	32 (22%)	1	5
48	m1	147/150 (98%)	112 (76%)	35 (24%)	1	3
49	M3	154/158 (98%)	124 (80%)	30 (20%)	1	8
49	m3	154/158 (98%)	129 (84%)	25 (16%)	2	12
50	M4	107/108 (99%)	88 (82%)	19 (18%)	2	10

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
50	m4	108/108 (100%)	84 (78%)	24 (22%)	1	5
51	M5	175/175 (100%)	148 (85%)	27 (15%)	3	14
51	m5	175/175 (100%)	142 (81%)	33 (19%)	1	9
52	M6	160/161 (99%)	134 (84%)	26 (16%)	2	12
52	m6	160/161 (99%)	136 (85%)	24 (15%)	3	15
53	M7	140/145 (97%)	114 (81%)	26 (19%)	2	9
53	m7	125/145 (86%)	101 (81%)	24 (19%)	1	9
54	M8	150/150 (100%)	123 (82%)	27 (18%)	2	10
54	m8	150/150 (100%)	125 (83%)	25 (17%)	2	11
55	M9	153/153 (100%)	130 (85%)	23 (15%)	3	15
55	m9	153/153 (100%)	121 (79%)	32 (21%)	1	6
56	N0	156/156 (100%)	125 (80%)	31 (20%)	1	7
56	n0	156/156 (100%)	127 (81%)	29 (19%)	2	9
57	N1	136/136 (100%)	104 (76%)	32 (24%)	1	3
57	n1	136/136 (100%)	107 (79%)	29 (21%)	1	6
58	N2	87/106 (82%)	72 (83%)	15 (17%)	2	11
58	n2	85/106 (80%)	67 (79%)	18 (21%)	1	6
59	N3	104/104 (100%)	85 (82%)	19 (18%)	2	9
59	n3	104/104 (100%)	95 (91%)	9 (9%)	11	40
60	N4	57/129 (44%)	47 (82%)	10 (18%)	2	11
60	n4	100/129 (78%)	84 (84%)	16 (16%)	2	12
61	N5	104/117 (89%)	88 (85%)	16 (15%)	3	14
61	n5	104/117 (89%)	83 (80%)	21 (20%)	1	7
62	N6	109/109 (100%)	87 (80%)	22 (20%)	1	7
62	n6	109/109 (100%)	75 (69%)	34 (31%)	0	1
63	N7	115/115 (100%)	96 (84%)	19 (16%)	2	12
63	n7	115/115 (100%)	89 (77%)	26 (23%)	1	4
64	N8	118/118 (100%)	90 (76%)	28 (24%)	1	3
64	n8	118/118 (100%)	96 (81%)	22 (19%)	2	9
65	N9	46/46 (100%)	37 (80%)	9 (20%)	1	8
65	n9	46/46 (100%)	38 (83%)	8 (17%)	2	11

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
66	O0	81/87 (93%)	62 (76%)	19 (24%)	1	3
66	o0	84/87 (97%)	67 (80%)	17 (20%)	1	7
67	O1	92/96 (96%)	75 (82%)	17 (18%)	2	9
67	o1	94/96 (98%)	71 (76%)	23 (24%)	1	2
68	O2	109/110 (99%)	82 (75%)	27 (25%)	0	2
68	o2	109/110 (99%)	89 (82%)	20 (18%)	2	9
69	O3	90/90 (100%)	75 (83%)	15 (17%)	2	11
69	o3	90/90 (100%)	74 (82%)	16 (18%)	2	10
70	O4	95/101 (94%)	76 (80%)	19 (20%)	1	7
70	o4	95/101 (94%)	78 (82%)	17 (18%)	2	10
71	O5	104/104 (100%)	79 (76%)	25 (24%)	1	3
71	o5	103/104 (99%)	82 (80%)	21 (20%)	1	6
72	O6	81/81 (100%)	60 (74%)	21 (26%)	0	2
72	o6	80/81 (99%)	57 (71%)	23 (29%)	0	1
73	O7	70/70 (100%)	57 (81%)	13 (19%)	2	9
73	o7	70/70 (100%)	53 (76%)	17 (24%)	1	3
74	O8	68/68 (100%)	50 (74%)	18 (26%)	0	2
74	o8	67/68 (98%)	55 (82%)	12 (18%)	2	10
75	O9	45/45 (100%)	34 (76%)	11 (24%)	1	2
75	o9	45/45 (100%)	37 (82%)	8 (18%)	2	10
76	Q0	47/47 (100%)	35 (74%)	12 (26%)	0	2
76	q0	47/47 (100%)	36 (77%)	11 (23%)	1	3
77	Q1	23/23 (100%)	19 (83%)	4 (17%)	2	11
77	q1	23/23 (100%)	18 (78%)	5 (22%)	1	6
78	Q2	90/90 (100%)	68 (76%)	22 (24%)	1	2
78	q2	90/90 (100%)	65 (72%)	25 (28%)	0	1
79	Q3	71/71 (100%)	59 (83%)	12 (17%)	2	11
79	q3	71/71 (100%)	56 (79%)	15 (21%)	1	6
80	c0	73/98 (74%)	65 (89%)	8 (11%)	7	29
81	e0	53/53 (100%)	40 (76%)	13 (24%)	1	2
82	e1	66/66 (100%)	45 (68%)	21 (32%)	0	0

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
84	p0	105/253 (42%)	84 (80%)	21 (20%)	1	7
All	All	18727/20239 (92%)	15017 (80%)	3710 (20%)	1	8

All (3710) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	S0	7	PHE
2	S0	30	GLN
2	S0	32	HIS
2	S0	37	VAL
2	S0	41	ARG
2	S0	49	ASN
2	S0	50	VAL
2	S0	84	ARG
2	S0	87	LEU
2	S0	96	THR
2	S0	101	ARG
2	S0	106	SER
2	S0	108	THR
2	S0	110	TYR
2	S0	124	THR
2	S0	139	VAL
2	S0	140	ASN
2	S0	154	GLU
2	S0	157	ASP
2	S0	162	CYS
2	S0	168	HIS
2	S0	172	LEU
2	S0	185	ARG
2	S0	188	LEU
2	S0	196	SER
2	S0	198	MET
2	S0	200	ASP
2	S0	203	PHE
3	S1	21	VAL
3	S1	22	ASP
3	S1	25	THR
3	S1	29	TRP
3	S1	30	PHE
3	S1	42	ASN
3	S1	46	THR
3	S1	61	LEU

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Mol	Chain	Res	Type
3	S1	65	VAL
3	S1	70	LEU
3	S1	73	LEU
3	S1	74	GLN
3	S1	77	GLU
3	S1	81	PHE
3	S1	85	LYS
3	S1	89	ASP
3	S1	95	ASN
3	S1	97	LEU
3	S1	105	PHE
3	S1	108	ASP
3	S1	111	ARG
3	S1	115	ARG
3	S1	135	LEU
3	S1	136	ARG
3	S1	137	ILE
3	S1	149	GLN
3	S1	154	SER
3	S1	167	VAL
3	S1	170	GLU
3	S1	181	LEU
3	S1	193	ILE
3	S1	198	GLU
3	S1	202	LYS
3	S1	203	ASP
3	S1	214	LYS
3	S1	215	VAL
3	S1	218	LEU
3	S1	219	LYS
3	S1	223	PHE
3	S1	231	LEU
4	S2	41	LEU
4	S2	50	ILE
4	S2	53	ILE
4	S2	55	GLU
4	S2	58	LEU
4	S2	69	ILE
4	S2	72	LEU
4	S2	76	LEU
4	S2	77	GLN
4	S2	81	MET

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Mol	Chain	Res	Type
4	S2	87	GLN
4	S2	89	GLN
4	S2	90	THR
4	S2	91	ARG
4	S2	95	ARG
4	S2	96	THR
4	S2	97	ARG
4	S2	99	LYS
4	S2	111	VAL
4	S2	116	LYS
4	S2	117	THR
4	S2	119	LYS
4	S2	129	ILE
4	S2	134	LEU
4	S2	137	ILE
4	S2	139	ILE
4	S2	141	ARG
4	S2	146	THR
4	S2	148	LEU
4	S2	153	SER
4	S2	166	THR
4	S2	207	LEU
4	S2	208	GLU
4	S2	221	THR
4	S2	222	TYR
4	S2	224	PHE
4	S2	225	LEU
4	S2	226	THR
4	S2	229	LEU
4	S2	232	GLU
4	S2	235	LEU
4	S2	237	VAL
4	S2	238	SER
4	S2	240	LEU
4	S2	245	ASP
4	S2	246	GLU
5	S3	4	LEU
5	S3	6	SER
5	S3	9	ARG
5	S3	23	GLU
5	S3	27	ARG
5	S3	37	VAL

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Mol	Chain	Res	Type
5	S3	38	GLU
5	S3	40	ARG
5	S3	59	LEU
5	S3	61	GLU
5	S3	65	ARG
5	S3	66	ILE
5	S3	76	ARG
5	S3	84	ILE
5	S3	89	GLU
5	S3	92	GLN
5	S3	93	ASP
5	S3	113	LEU
5	S3	117	ARG
5	S3	120	TYR
5	S3	134	CYS
5	S3	142	LEU
5	S3	143	ARG
5	S3	146	ARG
5	S3	148	LYS
5	S3	151	LYS
5	S3	172	THR
5	S3	175	VAL
5	S3	176	LEU
5	S3	178	ARG
5	S3	179	GLN
5	S3	181	VAL
5	S3	182	LEU
5	S3	194	LYS
5	S3	202	LEU
5	S3	204	ASP
5	S3	207	THR
5	S3	217	ILE
5	S3	223	LYS
6	S4	9	LEU
6	S4	12	LEU
6	S4	37	LYS
6	S4	38	LEU
6	S4	42	LEU
6	S4	48	LEU
6	S4	72	VAL
6	S4	77	ARG
6	S4	78	THR

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Mol	Chain	Res	Type
6	S4	93	ASP
6	S4	113	ARG
6	S4	116	ASP
6	S4	117	GLU
6	S4	123	LEU
6	S4	126	VAL
6	S4	129	VAL
6	S4	131	LEU
6	S4	133	LYS
6	S4	148	ARG
6	S4	155	LYS
6	S4	156	VAL
6	S4	180	LEU
6	S4	181	VAL
6	S4	182	TYR
6	S4	187	ARG
6	S4	189	LEU
6	S4	192	ILE
6	S4	198	LYS
6	S4	206	ASP
6	S4	211	LYS
6	S4	213	SER
6	S4	214	LEU
6	S4	215	ASP
6	S4	220	THR
6	S4	221	ARG
6	S4	226	PHE
6	S4	227	VAL
6	S4	238	LEU
6	S4	240	LYS
6	S4	242	LYS
6	S4	246	LEU
6	S4	248	ILE
6	S4	259	GLN
7	S5	23	VAL
7	S5	25	LEU
7	S5	32	GLU
7	S5	38	THR
7	S5	41	LYS
7	S5	43	PHE
7	S5	45	LYS
7	S5	53	VAL

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Mol	Chain	Res	Type
7	S5	59	VAL
7	S5	65	ARG
7	S5	76	ARG
7	S5	79	ASN
7	S5	80	LYS
7	S5	83	ARG
7	S5	93	LEU
7	S5	94	THR
7	S5	122	ASN
7	S5	131	GLN
7	S5	146	THR
7	S5	147	THR
7	S5	156	ARG
7	S5	157	ARG
7	S5	161	ASP
7	S5	162	VAL
7	S5	166	ARG
7	S5	190	ILE
7	S5	194	LEU
7	S5	196	GLU
8	S6	5	ILE
8	S6	6	SER
8	S6	12	SER
8	S6	13	GLN
8	S6	19	ASP
8	S6	25	ARG
8	S6	31	ARG
8	S6	44	GLU
8	S6	45	PHE
8	S6	58	LYS
8	S6	65	GLN
8	S6	67	VAL
8	S6	69	LEU
8	S6	74	LYS
8	S6	76	LEU
8	S6	78	THR
8	S6	79	LYS
8	S6	81	VAL
8	S6	82	SER
8	S6	98	ARG
8	S6	109	LEU
8	S6	120	GLU

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Mol	Chain	Res	Type
8	S6	126	ASP
8	S6	127	THR
8	S6	129	VAL
8	S6	132	ARG
8	S6	133	LEU
8	S6	143	LYS
8	S6	154	ARG
8	S6	155	ASP
8	S6	169	TYR
8	S6	170	THR
8	S6	176	GLN
8	S6	177	ARG
8	S6	211	LEU
8	S6	216	LEU
8	S6	223	LYS
9	S7	16	LEU
9	S7	37	GLU
9	S7	38	LEU
9	S7	50	ASP
9	S7	51	VAL
9	S7	67	LEU
9	S7	77	LEU
9	S7	79	ARG
9	S7	85	PHE
9	S7	87	ASP
9	S7	91	ILE
9	S7	97	ARG
9	S7	99	LEU
9	S7	104	ARG
9	S7	105	THR
9	S7	107	ARG
9	S7	114	ARG
9	S7	116	ARG
9	S7	117	THR
9	S7	123	ASP
9	S7	126	LEU
9	S7	147	ASN
9	S7	156	SER
9	S7	161	GLN
9	S7	166	LEU
9	S7	174	ASN
9	S7	176	LEU

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Mol	Chain	Res	Type
9	S7	185	ILE
9	S7	187	SER
10	S8	4	SER
10	S8	5	ARG
10	S8	8	ARG
10	S8	20	GLN
10	S8	21	PHE
10	S8	22	ARG
10	S8	26	LYS
10	S8	29	LEU
10	S8	32	GLN
10	S8	36	THR
10	S8	37	LYS
10	S8	46	VAL
10	S8	58	LEU
10	S8	66	SER
10	S8	73	SER
10	S8	74	LYS
10	S8	75	LYS
10	S8	77	ARG
10	S8	88	ASN
10	S8	97	THR
10	S8	140	GLU
10	S8	151	LYS
10	S8	152	ILE
10	S8	164	ARG
10	S8	184	LEU
10	S8	189	LEU
10	S8	193	LEU
10	S8	196	LEU
11	S9	3	ARG
11	S9	6	ARG
11	S9	7	THR
11	S9	28	LEU
11	S9	30	LEU
11	S9	36	LEU
11	S9	39	LYS
11	S9	46	SER
11	S9	60	LEU
11	S9	61	THR
11	S9	78	ARG
11	S9	82	ARG

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Mol	Chain	Res	Type
11	S9	89	ASP
11	S9	92	LYS
11	S9	93	LEU
11	S9	99	LEU
11	S9	102	GLU
11	S9	103	ASP
11	S9	110	GLN
11	S9	113	VAL
11	S9	121	SER
11	S9	126	ARG
11	S9	130	THR
11	S9	132	ARG
11	S9	134	ILE
11	S9	138	LYS
11	S9	140	ILE
11	S9	149	ARG
11	S9	157	ASP
11	S9	171	ARG
11	S9	172	VAL
11	S9	174	ARG
11	S9	180	LYS
11	S9	182	GLU
12	C0	5	LYS
12	C0	8	ARG
12	C0	17	GLN
12	C0	20	VAL
12	C0	27	PHE
12	C0	32	HIS
12	C0	55	VAL
12	C0	56	LYS
12	C0	71	GLU
12	C0	76	LEU
12	C0	79	TYR
12	C0	81	ASN
12	C0	82	LEU
13	C1	8	GLN
13	C1	21	ASN
13	C1	29	LYS
13	C1	36	LYS
13	C1	40	LEU
13	C1	43	LYS
13	C1	44	THR

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Mol	Chain	Res	Type
13	C1	56	LYS
13	C1	67	ARG
13	C1	69	LYS
13	C1	70	ILE
13	C1	75	VAL
13	C1	76	VAL
13	C1	80	MET
13	C1	83	THR
13	C1	87	ARG
13	C1	99	ARG
13	C1	117	VAL
13	C1	118	GLN
13	C1	128	CYS
13	C1	136	ARG
13	C1	140	VAL
14	C2	28	LEU
14	C2	36	LEU
14	C2	37	VAL
14	C2	41	LEU
14	C2	43	ARG
14	C2	46	ARG
14	C2	50	LYS
14	C2	54	ARG
14	C2	61	VAL
14	C2	66	VAL
14	C2	71	ILE
14	C2	74	LEU
14	C2	86	VAL
14	C2	89	ILE
14	C2	103	LEU
14	C2	119	SER
14	C2	121	VAL
14	C2	126	TRP
14	C2	129	GLU
14	C2	132	GLU
14	C2	133	LEU
14	C2	139	HIS
15	C3	3	ARG
15	C3	9	LYS
15	C3	16	ILE
15	C3	27	LYS
15	C3	30	SER

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Mol	Chain	Res	Type
15	C3	34	ILE
15	C3	37	ILE
15	C3	39	LYS
15	C3	42	ARG
15	C3	45	LEU
15	C3	46	THR
15	C3	56	ASP
15	C3	64	ARG
15	C3	66	ILE
15	C3	76	LYS
15	C3	83	GLU
15	C3	86	GLU
15	C3	88	LEU
15	C3	102	LEU
15	C3	114	ARG
15	C3	115	LEU
15	C3	125	LEU
15	C3	127	ARG
15	C3	134	VAL
15	C3	140	LYS
15	C3	142	GLU
15	C3	143	SER
16	C4	13	VAL
16	C4	16	VAL
16	C4	20	TYR
16	C4	24	ASN
16	C4	26	THR
16	C4	29	HIS
16	C4	30	VAL
16	C4	39	ILE
16	C4	43	THR
16	C4	51	ASP
16	C4	76	ILE
16	C4	81	VAL
16	C4	92	LYS
16	C4	102	LEU
16	C4	103	ARG
16	C4	108	SER
16	C4	119	THR
16	C4	123	SER
16	C4	125	SER
16	C4	136	ARG

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Mol	Chain	Res	Type
16	C4	137	LEU
17	C5	20	VAL
17	C5	22	LEU
17	C5	23	GLU
17	C5	31	GLU
17	C5	34	VAL
17	C5	36	LEU
17	C5	43	ARG
17	C5	44	ARG
17	C5	47	ARG
17	C5	50	THR
17	C5	52	LYS
17	C5	60	LEU
17	C5	89	MET
17	C5	90	ILE
17	C5	92	SER
17	C5	106	GLU
17	C5	107	ILE
17	C5	110	GLU
17	C5	121	ILE
17	C5	124	THR
17	C5	125	PRO
18	C6	4	VAL
18	C6	6	SER
18	C6	8	GLN
18	C6	14	LYS
18	C6	32	ASN
18	C6	39	VAL
18	C6	40	GLU
18	C6	43	ILE
18	C6	44	LEU
18	C6	52	LEU
18	C6	54	LEU
18	C6	57	LEU
18	C6	58	ASP
18	C6	63	ILE
18	C6	66	ARG
18	C6	69	VAL
18	C6	70	THR
18	C6	98	ASP
18	C6	104	GLU
18	C6	106	LYS

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Mol	Chain	Res	Type
18	C6	114	ARG
18	C6	117	LEU
18	C6	118	ILE
18	C6	123	ARG
18	C6	128	LYS
18	C6	137	ARG
18	C6	138	PHE
18	C6	143	ARG
19	C7	3	ARG
19	C7	5	ARG
19	C7	25	THR
19	C7	30	THR
19	C7	38	ILE
19	C7	46	LEU
19	C7	48	ASN
19	C7	49	LYS
19	C7	62	GLN
19	C7	69	ILE
19	C7	72	LYS
19	C7	84	TYR
19	C7	87	GLU
19	C7	88	VAL
19	C7	105	GLN
19	C7	107	SER
19	C7	113	LEU
19	C7	115	LEU
19	C7	119	LEU
20	C8	3	LEU
20	C8	5	VAL
20	C8	7	GLU
20	C8	8	GLN
20	C8	11	PHE
20	C8	12	GLN
20	C8	13	HIS
20	C8	14	ILE
20	C8	15	LEU
20	C8	17	LEU
20	C8	20	THR
20	C8	25	ASN
20	C8	28	ILE
20	C8	40	ARG
20	C8	46	VAL

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Mol	Chain	Res	Type
20	C8	57	ARG
20	C8	60	GLU
20	C8	61	LEU
20	C8	77	THR
20	C8	80	LYS
20	C8	85	PHE
20	C8	86	LEU
20	C8	88	ARG
20	C8	92	ILE
20	C8	93	THR
20	C8	97	ASP
20	C8	104	ASN
20	C8	108	LYS
20	C8	132	ARG
20	C8	136	GLN
20	C8	140	THR
20	C8	143	ARG
21	C9	6	VAL
21	C9	8	ASP
21	C9	13	ASP
21	C9	18	TYR
21	C9	22	LEU
21	C9	27	LYS
21	C9	28	LEU
21	C9	33	TYR
21	C9	35	ASP
21	C9	36	ILE
21	C9	37	VAL
21	C9	39	THR
21	C9	41	SER
21	C9	51	GLU
21	C9	57	ARG
21	C9	60	SER
21	C9	63	ARG
21	C9	67	MET
21	C9	68	ARG
21	C9	71	VAL
21	C9	79	LEU
21	C9	89	ARG
21	C9	99	SER
21	C9	100	ILE
21	C9	116	ILE

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Mol	Chain	Res	Type
21	C9	122	ARG
21	C9	130	ARG
21	C9	131	ASP
21	C9	132	LEU
21	C9	133	ASP
21	C9	134	ARG
21	C9	144	GLU
22	D0	15	GLN
22	D0	18	GLN
22	D0	23	ARG
22	D0	27	THR
22	D0	31	VAL
22	D0	47	GLN
22	D0	51	VAL
22	D0	57	ARG
22	D0	58	LEU
22	D0	61	LYS
22	D0	62	VAL
22	D0	67	THR
22	D0	74	GLU
22	D0	89	ARG
22	D0	103	ILE
22	D0	105	GLN
22	D0	108	ILE
23	D1	7	GLN
23	D1	9	VAL
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	52	THR
23	D1	56	SER
23	D1	68	SER
23	D1	69	LEU
23	D1	78	LEU
23	D1	80	LYS
23	D1	82	VAL
24	D2	12	ASN
24	D2	15	ASN
24	D2	22	LYS

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Mol	Chain	Res	Type
24	D2	24	GLN
24	D2	25	VAL
24	D2	26	LEU
24	D2	27	ILE
24	D2	29	PRO
24	D2	53	ILE
24	D2	56	HIS
24	D2	65	LEU
24	D2	68	ARG
24	D2	78	ARG
24	D2	81	VAL
24	D2	97	ARG
24	D2	98	GLN
24	D2	103	ILE
24	D2	104	LEU
24	D2	105	THR
24	D2	121	VAL
24	D2	126	LEU
24	D2	129	VAL
25	D3	7	ARG
25	D3	9	LEU
25	D3	14	LYS
25	D3	19	ARG
25	D3	33	LEU
25	D3	41	SER
25	D3	47	SER
25	D3	59	ILE
25	D3	69	ARG
25	D3	72	VAL
25	D3	78	LYS
25	D3	82	LYS
25	D3	84	THR
25	D3	103	LEU
25	D3	107	PHE
25	D3	109	ARG
25	D3	110	LYS
25	D3	114	LYS
25	D3	117	ILE
25	D3	138	GLU
25	D3	144	ARG
26	D4	20	ARG
26	D4	21	LYS

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Mol	Chain	Res	Type
26	D4	27	VAL
26	D4	28	LEU
26	D4	29	HIS
26	D4	32	ARG
26	D4	34	ASN
26	D4	36	SER
26	D4	40	LEU
26	D4	41	ARG
26	D4	51	GLU
26	D4	57	VAL
26	D4	62	THR
26	D4	74	LEU
26	D4	84	LYS
26	D4	96	LEU
26	D4	99	LYS
26	D4	102	LYS
26	D4	124	ARG
26	D4	127	LYS
27	D5	37	GLN
27	D5	38	HIS
27	D5	58	ARG
27	D5	69	LEU
27	D5	71	ILE
27	D5	92	ILE
27	D5	93	SER
27	D5	95	HIS
27	D5	96	SER
27	D5	100	ILE
27	D5	105	THR
28	D6	4	LYS
28	D6	36	ILE
28	D6	41	ILE
28	D6	44	ILE
28	D6	58	VAL
28	D6	61	GLU
28	D6	64	LEU
28	D6	66	LYS
28	D6	70	LYS
28	D6	71	LEU
28	D6	82	ARG
28	D6	83	ILE
28	D6	84	VAL

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Mol	Chain	Res	Type
28	D6	85	ARG
28	D6	86	VAL
28	D6	88	SER
28	D6	90	GLU
29	D7	3	LEU
29	D7	4	VAL
29	D7	20	LYS
29	D7	29	ARG
29	D7	33	LEU
29	D7	36	LYS
29	D7	42	ASN
29	D7	55	THR
29	D7	56	CYS
29	D7	61	THR
29	D7	62	ILE
29	D7	63	LEU
29	D7	67	THR
29	D7	74	SER
29	D7	75	GLU
30	D8	13	ILE
30	D8	19	THR
30	D8	22	ARG
30	D8	32	PHE
30	D8	33	LEU
30	D8	34	GLU
30	D8	36	THR
30	D8	37	SER
30	D8	39	THR
30	D8	44	VAL
30	D8	49	ARG
30	D8	51	ASN
30	D8	52	ASP
30	D8	54	LEU
30	D8	57	MET
30	D8	58	GLU
31	D9	7	TRP
31	D9	19	ARG
31	D9	22	ARG
31	D9	30	LEU
31	D9	32	ARG
31	D9	36	LEU
32	E0	3	LYS

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Mol	Chain	Res	Type
32	E0	8	LEU
32	E0	20	LYS
32	E0	28	LYS
32	E0	41	THR
32	E0	42	ARG
32	E0	47	VAL
32	E0	48	THR
32	E0	50	VAL
33	E1	82	LYS
33	E1	83	LYS
33	E1	84	VAL
33	E1	89	LYS
33	E1	91	ILE
33	E1	93	HIS
33	E1	97	LYS
33	E1	103	LEU
33	E1	108	VAL
33	E1	109	ASP
33	E1	113	LYS
33	E1	115	THR
33	E1	119	ARG
33	E1	120	GLU
33	E1	126	CYS
33	E1	137	ASP
33	E1	146	SER
34	SR	6	VAL
34	SR	7	LEU
34	SR	9	LEU
34	SR	12	THR
34	SR	29	GLN
34	SR	48	THR
34	SR	50	ASP
34	SR	52	GLN
34	SR	60	SER
34	SR	69	GLN
34	SR	71	CYS
34	SR	72	THR
34	SR	76	ASP
34	SR	82	SER
34	SR	88	THR
34	SR	96	THR
34	SR	102	ARG

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Mol	Chain	Res	Type
34	SR	108	SER
34	SR	116	ASP
34	SR	117	LYS
34	SR	136	ILE
34	SR	144	LEU
34	SR	145	LEU
34	SR	153	GLN
34	SR	165	ASP
34	SR	188	ILE
34	SR	191	ASP
34	SR	200	ASN
34	SR	202	LEU
34	SR	213	SER
34	SR	221	MET
34	SR	222	LEU
34	SR	231	MET
34	SR	232	TYR
34	SR	238	ASP
34	SR	241	PHE
34	SR	248	ASN
34	SR	266	ASP
34	SR	268	GLN
34	SR	277	GLU
34	SR	300	THR
34	SR	310	ILE
34	SR	312	VAL
34	SR	314	GLN
34	SR	316	MET
34	SR	317	THR
35	SM	24	GLU
35	SM	45	SER
35	SM	48	ARG
35	SM	50	ASN
35	SM	51	ARG
35	SM	53	ARG
35	SM	64	LYS
35	SM	69	ARG
35	SM	72	ARG
35	SM	77	THR
35	SM	84	LYS
35	SM	89	ARG
35	SM	97	THR

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Mol	Chain	Res	Type
35	SM	100	THR
35	SM	101	ASP
35	SM	105	LYS
35	SM	121	LYS
35	SM	139	GLU
39	L2	14	SER
39	L2	20	THR
39	L2	31	THR
39	L2	32	LEU
39	L2	41	ILE
39	L2	44	ILE
39	L2	45	VAL
39	L2	46	LYS
39	L2	70	ARG
39	L2	74	GLU
39	L2	82	VAL
39	L2	84	THR
39	L2	96	LEU
39	L2	97	ASN
39	L2	101	VAL
39	L2	104	LEU
39	L2	107	VAL
39	L2	109	GLU
39	L2	116	VAL
39	L2	122	ASP
39	L2	137	ILE
39	L2	139	HIS
39	L2	142	ASP
39	L2	143	GLU
39	L2	148	VAL
39	L2	152	SER
39	L2	157	VAL
39	L2	160	SER
39	L2	165	VAL
39	L2	179	LEU
39	L2	180	LEU
39	L2	181	LYS
39	L2	198	LYS
39	L2	202	VAL
39	L2	204	MET
39	L2	207	VAL
39	L2	227	ARG

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Mol	Chain	Res	Type
39	L2	230	VAL
39	L2	241	ARG
39	L2	245	LEU
40	L3	2	SER
40	L3	7	GLU
40	L3	17	LEU
40	L3	19	ARG
40	L3	21	ARG
40	L3	24	SER
40	L3	25	ILE
40	L3	30	LYS
40	L3	37	ARG
40	L3	47	LEU
40	L3	67	PHE
40	L3	79	VAL
40	L3	81	THR
40	L3	84	VAL
40	L3	85	VAL
40	L3	100	ARG
40	L3	103	THR
40	L3	112	ASP
40	L3	114	VAL
40	L3	116	ARG
40	L3	134	SER
40	L3	139	GLN
40	L3	144	ILE
40	L3	146	ARG
40	L3	148	LEU
40	L3	150	ARG
40	L3	156	SER
40	L3	160	VAL
40	L3	164	THR
40	L3	169	THR
40	L3	187	SER
40	L3	188	ILE
40	L3	192	VAL
40	L3	196	ARG
40	L3	200	GLU
40	L3	205	VAL
40	L3	216	ASP
40	L3	229	VAL
40	L3	232	ARG

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Mol	Chain	Res	Type
40	L3	235	THR
40	L3	236	LYS
40	L3	237	LYS
40	L3	238	LEU
40	L3	252	ILE
40	L3	274	SER
40	L3	284	ARG
40	L3	296	THR
40	L3	300	ARG
40	L3	305	ILE
40	L3	312	VAL
40	L3	328	ILE
40	L3	332	ARG
40	L3	333	LYS
40	L3	338	LEU
40	L3	347	SER
40	L3	354	VAL
40	L3	355	SER
40	L3	367	LYS
40	L3	371	GLN
40	L3	382	THR
41	L4	37	THR
41	L4	41	SER
41	L4	44	LYS
41	L4	74	ILE
41	L4	93	MET
41	L4	112	LYS
41	L4	124	SER
41	L4	133	SER
41	L4	138	ARG
41	L4	144	LYS
41	L4	145	ILE
41	L4	148	ILE
41	L4	150	LEU
41	L4	156	LEU
41	L4	160	GLN
41	L4	170	LYS
41	L4	179	LEU
41	L4	182	LEU
41	L4	185	LYS
41	L4	187	LEU
41	L4	188	ARG

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Mol	Chain	Res	Type
41	L4	193	LYS
41	L4	194	TYR
41	L4	200	THR
41	L4	203	ARG
41	L4	206	LEU
41	L4	220	ARG
41	L4	222	VAL
41	L4	223	PRO
41	L4	230	VAL
41	L4	252	GLU
41	L4	255	PHE
41	L4	258	LEU
41	L4	270	SER
41	L4	284	SER
41	L4	287	THR
41	L4	289	ILE
41	L4	306	THR
41	L4	307	GLN
41	L4	311	HIS
41	L4	322	GLN
41	L4	323	VAL
41	L4	327	LEU
41	L4	332	LYS
41	L4	333	VAL
41	L4	349	THR
41	L4	354	VAL
42	L5	4	GLN
42	L5	5	LYS
42	L5	9	SER
42	L5	22	ARG
42	L5	23	ARG
42	L5	35	ARG
42	L5	36	LEU
42	L5	41	LYS
42	L5	66	SER
42	L5	69	ILE
42	L5	75	LEU
42	L5	85	ARG
42	L5	95	TRP
42	L5	105	ILE
42	L5	110	LEU
42	L5	112	LYS

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Mol	Chain	Res	Type
42	L5	115	LEU
42	L5	118	THR
42	L5	122	VAL
42	L5	131	LEU
42	L5	137	ASP
42	L5	140	ARG
42	L5	146	LEU
42	L5	148	ILE
42	L5	151	GLN
42	L5	152	ARG
42	L5	155	THR
42	L5	158	ARG
42	L5	163	LEU
42	L5	177	GLU
42	L5	185	PHE
42	L5	193	GLU
42	L5	205	SER
42	L5	231	ILE
42	L5	232	ASP
42	L5	236	LEU
42	L5	237	GLU
42	L5	254	LYS
42	L5	257	GLU
42	L5	259	LYS
42	L5	263	GLU
42	L5	273	ARG
42	L5	275	THR
42	L5	279	LYS
42	L5	293	LEU
43	L6	5	LYS
43	L6	21	THR
43	L6	29	LYS
43	L6	31	ARG
43	L6	35	VAL
43	L6	41	ILE
43	L6	46	ARG
43	L6	64	LEU
43	L6	65	ILE
43	L6	78	ARG
43	L6	84	VAL
43	L6	89	THR
43	L6	90	LYS

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Mol	Chain	Res	Type
43	L6	93	VAL
43	L6	109	GLU
43	L6	129	GLU
43	L6	146	ILE
43	L6	152	THR
43	L6	154	LEU
43	L6	155	LEU
43	L6	170	LYS
44	L7	24	GLU
44	L7	25	GLN
44	L7	26	VAL
44	L7	56	GLU
44	L7	59	GLU
44	L7	77	VAL
44	L7	82	LYS
44	L7	83	LEU
44	L7	89	ILE
44	L7	92	ILE
44	L7	93	ASN
44	L7	98	LYS
44	L7	101	LYS
44	L7	111	ILE
44	L7	113	SER
44	L7	118	LYS
44	L7	124	LEU
44	L7	164	SER
44	L7	179	LEU
44	L7	184	LEU
44	L7	211	SER
44	L7	228	SER
44	L7	229	PHE
44	L7	239	LEU
45	L8	26	LEU
45	L8	27	THR
45	L8	50	VAL
45	L8	57	ARG
45	L8	63	LYS
45	L8	66	SER
45	L8	71	VAL
45	L8	74	THR
45	L8	79	GLN
45	L8	81	THR

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Mol	Chain	Res	Type
45	L8	83	ASP
45	L8	84	ARG
45	L8	92	LYS
45	L8	98	ARG
45	L8	106	LYS
45	L8	118	GLU
45	L8	132	VAL
45	L8	136	LEU
45	L8	149	LYS
45	L8	156	ASP
45	L8	157	VAL
45	L8	160	ILE
45	L8	169	LEU
45	L8	172	LYS
45	L8	173	MET
45	L8	181	LYS
45	L8	185	ARG
45	L8	189	LEU
45	L8	202	GLU
45	L8	204	ARG
45	L8	206	GLU
45	L8	208	GLU
45	L8	221	ASN
45	L8	238	LEU
45	L8	247	ASP
45	L8	248	LYS
46	L9	1	MET
46	L9	5	GLN
46	L9	6	THR
46	L9	14	GLU
46	L9	18	VAL
46	L9	19	SER
46	L9	21	LYS
46	L9	33	THR
46	L9	34	LEU
46	L9	41	ILE
46	L9	44	THR
46	L9	48	VAL
46	L9	52	LEU
46	L9	62	ARG
46	L9	68	LEU
46	L9	69	ARG

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Mol	Chain	Res	Type
46	L9	70	THR
46	L9	72	LYS
46	L9	73	SER
46	L9	82	VAL
46	L9	110	LYS
46	L9	118	LEU
46	L9	124	ARG
46	L9	139	ASN
46	L9	147	SER
46	L9	152	GLU
46	L9	157	ASN
46	L9	161	LEU
46	L9	162	GLN
46	L9	163	GLN
46	L9	164	ILE
46	L9	166	ARG
46	L9	172	ILE
46	L9	173	ARG
46	L9	177	ASP
46	L9	189	GLU
47	M0	12	GLN
47	M0	24	ARG
47	M0	26	VAL
47	M0	28	ASP
47	M0	30	LYS
47	M0	31	ILE
47	M0	32	ARG
47	M0	33	ILE
47	M0	36	LEU
47	M0	40	LYS
47	M0	42	THR
47	M0	48	LEU
47	M0	52	LEU
47	M0	53	VAL
47	M0	63	GLU
47	M0	74	LYS
47	M0	87	LEU
47	M0	99	ILE
47	M0	102	MET
47	M0	128	ARG
47	M0	130	ASP
47	M0	131	ILE

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Mol	Chain	Res	Type
47	M0	133	GLN
47	M0	138	VAL
47	M0	139	ARG
47	M0	142	ASP
47	M0	143	SER
47	M0	154	ARG
47	M0	156	ARG
47	M0	163	GLN
47	M0	165	ILE
47	M0	167	LEU
47	M0	168	SER
47	M0	174	THR
47	M0	175	ASN
47	M0	177	ASP
47	M0	193	ASP
47	M0	200	LEU
47	M0	203	LYS
47	M0	207	GLU
47	M0	209	ASN
48	M1	10	ARG
48	M1	11	ASP
48	M1	12	LEU
48	M1	13	LYS
48	M1	28	ASP
48	M1	31	THR
48	M1	34	SER
48	M1	40	LEU
48	M1	44	THR
48	M1	46	VAL
48	M1	52	TYR
48	M1	64	LYS
48	M1	65	ILE
48	M1	71	VAL
48	M1	80	LEU
48	M1	92	ARG
48	M1	94	ARG
48	M1	106	ILE
48	M1	107	ASP
48	M1	110	ILE
48	M1	112	LEU
48	M1	115	LYS
48	M1	125	MET

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Mol	Chain	Res	Type
48	M1	127	PHE
48	M1	137	ARG
48	M1	138	VAL
48	M1	140	ARG
48	M1	142	LYS
48	M1	145	LYS
48	M1	155	THR
48	M1	166	LYS
48	M1	173	ASP
49	M3	23	LYS
49	M3	24	VAL
49	M3	34	SER
49	M3	46	ILE
49	M3	54	LEU
49	M3	55	ARG
49	M3	57	VAL
49	M3	59	ARG
49	M3	67	ARG
49	M3	69	VAL
49	M3	70	ARG
49	M3	104	ARG
49	M3	107	GLU
49	M3	108	ILE
49	M3	114	GLN
49	M3	121	SER
49	M3	124	ILE
49	M3	128	ARG
49	M3	131	LYS
49	M3	136	GLU
49	M3	138	VAL
49	M3	147	ILE
49	M3	164	GLU
49	M3	168	ARG
49	M3	171	ARG
49	M3	176	GLU
49	M3	182	ILE
49	M3	186	ARG
49	M3	190	LYS
49	M3	194	GLU
50	M4	5	SER
50	M4	15	VAL
50	M4	20	VAL

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Mol	Chain	Res	Type
50	M4	25	LYS
50	M4	27	GLN
50	M4	38	ILE
50	M4	53	VAL
50	M4	62	GLN
50	M4	63	VAL
50	M4	64	VAL
50	M4	69	THR
50	M4	72	LEU
50	M4	83	LYS
50	M4	90	VAL
50	M4	91	CYS
50	M4	102	LYS
50	M4	108	ARG
50	M4	126	GLN
50	M4	135	LEU
51	M5	7	LEU
51	M5	13	LYS
51	M5	18	VAL
51	M5	38	ARG
51	M5	62	TYR
51	M5	68	ARG
51	M5	71	ARG
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	113	LEU
51	M5	117	ASN
51	M5	133	ILE
51	M5	151	ILE
51	M5	153	ASP
51	M5	155	VAL
51	M5	159	ARG
51	M5	183	THR
51	M5	184	LYS
51	M5	197	LEU
51	M5	198	SER
51	M5	199	LEU

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Mol	Chain	Res	Type
51	M5	201	ARG
52	M6	22	VAL
52	M6	33	ILE
52	M6	41	LEU
52	M6	51	LYS
52	M6	58	LEU
52	M6	67	THR
52	M6	68	ARG
52	M6	74	ARG
52	M6	78	ARG
52	M6	85	ARG
52	M6	89	SER
52	M6	106	GLU
52	M6	110	PRO
52	M6	114	LYS
52	M6	116	LYS
52	M6	117	ARG
52	M6	122	GLN
52	M6	124	LEU
52	M6	128	ARG
52	M6	134	LYS
52	M6	143	THR
52	M6	160	ARG
52	M6	163	SER
52	M6	180	SER
52	M6	189	ASP
52	M6	190	VAL
53	M7	3	ARG
53	M7	7	THR
53	M7	9	THR
53	M7	24	VAL
53	M7	32	THR
53	M7	36	ILE
53	M7	49	GLU
53	M7	52	LEU
53	M7	53	ASP
53	M7	54	HIS
53	M7	56	ARG
53	M7	67	ILE
53	M7	78	VAL
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	129	THR
53	M7	142	SER
53	M7	144	SER
53	M7	146	ILE
53	M7	168	LEU
53	M7	171	ARG
53	M7	173	ARG
53	M7	180	LYS
53	M7	181	ARG
54	M8	3	ILE
54	M8	11	LYS
54	M8	17	THR
54	M8	22	ASP
54	M8	24	VAL
54	M8	26	LEU
54	M8	32	LEU
54	M8	41	ASP
54	M8	49	LEU
54	M8	50	LYS
54	M8	63	SER
54	M8	64	VAL
54	M8	67	ILE
54	M8	73	GLN
54	M8	81	VAL
54	M8	86	THR
54	M8	100	THR
54	M8	105	ARG
54	M8	127	LEU
54	M8	135	GLN
54	M8	138	LEU
54	M8	141	ARG
54	M8	146	SER
54	M8	147	ARG
54	M8	159	LYS
54	M8	179	ARG
54	M8	180	ARG
55	M9	10	LEU
55	M9	13	SER
55	M9	31	GLU
55	M9	41	ILE

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Mol	Chain	Res	Type
55	M9	49	THR
55	M9	55	VAL
55	M9	72	GLU
55	M9	74	ARG
55	M9	86	GLU
55	M9	91	SER
55	M9	98	ARG
55	M9	103	ARG
55	M9	104	ARG
55	M9	106	LEU
55	M9	110	ARG
55	M9	115	ILE
55	M9	134	HIS
55	M9	138	LEU
55	M9	155	LEU
55	M9	175	GLN
55	M9	177	VAL
55	M9	180	LYS
55	M9	182	ASP
56	N0	8	GLN
56	N0	12	ARG
56	N0	13	ARG
56	N0	40	ARG
56	N0	45	LEU
56	N0	47	LYS
56	N0	51	VAL
56	N0	58	ILE
56	N0	80	ARG
56	N0	81	TYR
56	N0	87	THR
56	N0	88	HIS
56	N0	92	LYS
56	N0	97	VAL
56	N0	104	GLU
56	N0	106	LEU
56	N0	115	ARG
56	N0	117	ARG
56	N0	123	ILE
56	N0	129	ILE
56	N0	131	LYS
56	N0	137	ARG
56	N0	138	GLN

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Mol	Chain	Res	Type
56	N0	145	THR
56	N0	149	LYS
56	N0	155	ARG
56	N0	156	VAL
56	N0	162	THR
56	N0	169	SER
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	43	LYS
57	N1	68	THR
57	N1	75	ILE
57	N1	78	LYS
57	N1	79	MET
57	N1	80	VAL
57	N1	83	ARG
57	N1	87	LYS
57	N1	88	ARG
57	N1	89	LEU
57	N1	96	ILE
57	N1	103	GLN
57	N1	104	GLU
57	N1	118	GLU
57	N1	120	LYS
57	N1	124	VAL
57	N1	126	VAL
57	N1	127	GLN
57	N1	128	LEU
57	N1	131	GLN
57	N1	136	ARG
57	N1	139	ARG
57	N1	143	THR
57	N1	146	ASN
57	N1	149	GLN
57	N1	158	THR
57	N1	160	ILE
58	N2	10	LYS
58	N2	14	THR

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Mol	Chain	Res	Type
58	N2	16	THR
58	N2	39	ASP
58	N2	43	VAL
58	N2	50	LEU
58	N2	52	ASN
58	N2	56	VAL
58	N2	66	VAL
58	N2	74	LYS
58	N2	82	LYS
58	N2	88	GLN
58	N2	93	ILE
58	N2	98	THR
58	N2	105	LEU
59	N3	12	ARG
59	N3	13	ILE
59	N3	32	ARG
59	N3	33	ASN
59	N3	40	LYS
59	N3	45	ARG
59	N3	48	ARG
59	N3	54	LEU
59	N3	64	LYS
59	N3	69	LEU
59	N3	72	LYS
59	N3	73	VAL
59	N3	74	MET
59	N3	83	LYS
59	N3	102	ILE
59	N3	120	LYS
59	N3	128	ARG
59	N3	135	VAL
59	N3	137	VAL
60	N4	4	GLU
60	N4	5	ILE
60	N4	19	THR
60	N4	30	ARG
60	N4	39	LEU
60	N4	42	GLN
60	N4	45	ASN
60	N4	47	ARG
60	N4	54	LEU
60	N4	64	THR

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Mol	Chain	Res	Type
61	N5	27	ARG
61	N5	37	THR
61	N5	38	LEU
61	N5	39	LYS
61	N5	48	SER
61	N5	63	ILE
61	N5	71	THR
61	N5	75	LYS
61	N5	92	LYS
61	N5	108	LEU
61	N5	111	ASN
61	N5	115	ARG
61	N5	125	ARG
61	N5	133	LEU
61	N5	135	ILE
61	N5	139	ILE
62	N6	3	LYS
62	N6	13	ARG
62	N6	37	LYS
62	N6	38	GLU
62	N6	45	ILE
62	N6	50	ILE
62	N6	51	ARG
62	N6	56	VAL
62	N6	57	LEU
62	N6	64	LYS
62	N6	66	GLN
62	N6	74	TYR
62	N6	76	LEU
62	N6	83	ASP
62	N6	88	GLU
62	N6	94	SER
62	N6	105	VAL
62	N6	111	LEU
62	N6	115	ARG
62	N6	122	LYS
62	N6	125	LYS
62	N6	126	LEU
63	N7	14	VAL
63	N7	24	VAL
63	N7	25	ILE
63	N7	26	VAL

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Mol	Chain	Res	Type
63	N7	30	ASP
63	N7	34	LYS
63	N7	46	ILE
63	N7	52	LYS
63	N7	53	VAL
63	N7	54	THR
63	N7	57	HIS
63	N7	64	LYS
63	N7	75	VAL
63	N7	83	THR
63	N7	86	THR
63	N7	87	LEU
63	N7	99	GLU
63	N7	107	ARG
63	N7	134	LEU
64	N8	3	SER
64	N8	4	ARG
64	N8	8	THR
64	N8	10	LYS
64	N8	16	SER
64	N8	19	LYS
64	N8	34	MET
64	N8	42	ARG
64	N8	43	ILE
64	N8	46	ASP
64	N8	47	LYS
64	N8	60	TYR
64	N8	65	GLN
64	N8	73	LEU
64	N8	76	ASP
64	N8	78	LEU
64	N8	85	ASP
64	N8	88	ASP
64	N8	91	LEU
64	N8	98	THR
64	N8	115	LYS
64	N8	117	ARG
64	N8	120	ASN
64	N8	130	VAL
64	N8	133	LEU
64	N8	135	GLU
64	N8	139	ARG

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Mol	Chain	Res	Type
64	N8	146	GLU
65	N9	13	THR
65	N9	14	ARG
65	N9	18	ARG
65	N9	22	LYS
65	N9	23	LYS
65	N9	25	LYS
65	N9	38	LYS
65	N9	50	THR
65	N9	59	LYS
66	O0	10	ILE
66	O0	12	GLN
66	O0	16	LEU
66	O0	18	ILE
66	O0	22	LYS
66	O0	36	GLN
66	O0	42	ILE
66	O0	50	VAL
66	O0	54	SER
66	O0	61	MET
66	O0	66	LYS
66	O0	71	GLN
66	O0	76	GLU
66	O0	83	LYS
66	O0	84	LEU
66	O0	93	LEU
66	O0	100	ILE
66	O0	101	LEU
66	O0	102	THR
67	O1	6	ASP
67	O1	16	LEU
67	O1	26	LYS
67	O1	31	ARG
67	O1	41	LYS
67	O1	46	THR
67	O1	55	LEU
67	O1	57	GLN
67	O1	64	VAL
67	O1	68	GLU
67	O1	79	ARG
67	O1	84	ASP
67	O1	86	LYS

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Mol	Chain	Res	Type
67	O1	89	LEU
67	O1	96	VAL
67	O1	102	LYS
67	O1	104	LEU
68	O2	3	SER
68	O2	12	LYS
68	O2	19	ARG
68	O2	27	ARG
68	O2	31	ASN
68	O2	33	ARG
68	O2	34	LYS
68	O2	35	GLN
68	O2	41	VAL
68	O2	44	ARG
68	O2	51	SER
68	O2	52	GLN
68	O2	54	LYS
68	O2	61	LYS
68	O2	66	LEU
68	O2	67	SER
68	O2	73	THR
68	O2	75	LEU
68	O2	82	LEU
68	O2	84	THR
68	O2	91	THR
68	O2	109	LEU
68	O2	111	ARG
68	O2	118	LYS
68	O2	125	ARG
68	O2	126	LEU
68	O2	128	LEU
69	O3	15	SER
69	O3	21	ARG
69	O3	28	SER
69	O3	31	LYS
69	O3	33	GLU
69	O3	37	THR
69	O3	49	ILE
69	O3	54	ARG
69	O3	59	VAL
69	O3	70	LYS
69	O3	80	VAL

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Mol	Chain	Res	Type
69	O3	81	VAL
69	O3	98	VAL
69	O3	105	SER
69	O3	106	ASN
70	O4	8	ARG
70	O4	16	ARG
70	O4	20	ILE
70	O4	21	LYS
70	O4	24	LYS
70	O4	29	ILE
70	O4	31	ARG
70	O4	49	SER
70	O4	58	ARG
70	O4	65	VAL
70	O4	71	THR
70	O4	72	VAL
70	O4	79	SER
70	O4	80	ARG
70	O4	81	CYS
70	O4	86	LYS
70	O4	101	VAL
70	O4	102	LYS
70	O4	104	VAL
71	O5	15	GLU
71	O5	21	LEU
71	O5	22	VAL
71	O5	27	GLU
71	O5	38	ARG
71	O5	47	VAL
71	O5	48	ARG
71	O5	49	LYS
71	O5	50	SER
71	O5	62	GLN
71	O5	64	GLU
71	O5	71	LYS
71	O5	73	LYS
71	O5	74	LYS
71	O5	76	GLN
71	O5	81	ARG
71	O5	89	ARG
71	O5	90	ARG
71	O5	93	THR

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Mol	Chain	Res	Type
71	O5	96	GLU
71	O5	102	GLU
71	O5	104	GLN
71	O5	105	ARG
71	O5	107	LYS
71	O5	119	LYS
72	O6	18	THR
72	O6	21	THR
72	O6	26	ILE
72	O6	36	ARG
72	O6	42	SER
72	O6	45	ARG
72	O6	52	PRO
72	O6	57	LEU
72	O6	58	ILE
72	O6	60	LEU
72	O6	64	SER
72	O6	67	LYS
72	O6	68	ARG
72	O6	70	ARG
72	O6	72	VAL
72	O6	76	ARG
72	O6	81	THR
72	O6	84	LYS
72	O6	88	GLU
72	O6	90	MET
72	O6	98	ARG
73	O7	5	THR
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	55	ARG
73	O7	59	THR
73	O7	65	ARG
73	O7	67	LEU
73	O7	79	GLN
73	O7	80	THR
74	O8	4	GLU
74	O8	5	ILE

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Mol	Chain	Res	Type
74	O8	6	THR
74	O8	8	ILE
74	O8	12	LEU
74	O8	13	GLU
74	O8	20	VAL
74	O8	22	THR
74	O8	31	LEU
74	O8	32	ASN
74	O8	45	VAL
74	O8	46	ARG
74	O8	53	THR
74	O8	64	LYS
74	O8	65	LEU
74	O8	68	SER
74	O8	77	ARG
74	O8	78	LEU
75	O9	4	GLN
75	O9	5	LYS
75	O9	21	ARG
75	O9	23	LEU
75	O9	28	ARG
75	O9	29	LEU
75	O9	30	ARG
75	O9	32	ASN
75	O9	42	ARG
75	O9	45	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	108	THR
76	Q0	110	CYS
76	Q0	112	LYS
76	Q0	113	ARG
76	Q0	114	LYS
76	Q0	117	HIS
76	Q0	127	LEU
77	Q1	2	ARG
77	Q1	10	THR
77	Q1	14	LYS

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Mol	Chain	Res	Type
77	Q1	15	ARG
78	Q2	7	THR
78	Q2	12	CYS
78	Q2	13	LYS
78	Q2	19	LYS
78	Q2	21	THR
78	Q2	26	THR
78	Q2	35	LEU
78	Q2	47	GLN
78	Q2	55	LYS
78	Q2	61	LYS
78	Q2	71	ARG
78	Q2	75	VAL
78	Q2	76	LYS
78	Q2	83	LEU
78	Q2	84	THR
78	Q2	85	LEU
78	Q2	88	CYS
78	Q2	92	GLU
78	Q2	93	LEU
78	Q2	97	LYS
78	Q2	100	LYS
78	Q2	104	LEU
79	Q3	11	THR
79	Q3	16	VAL
79	Q3	25	GLN
79	Q3	32	GLN
79	Q3	40	SER
79	Q3	45	LYS
79	Q3	49	ARG
79	Q3	56	THR
79	Q3	60	CYS
79	Q3	70	THR
79	Q3	84	ARG
79	Q3	91	GLU
2	s0	9	LEU
2	s0	12	GLU
2	s0	18	LEU
2	s0	22	THR
2	s0	29	VAL
2	s0	30	GLN
2	s0	31	VAL

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Mol	Chain	Res	Type
2	s0	34	GLU
2	s0	41	ARG
2	s0	43	ASP
2	s0	45	VAL
2	s0	47	VAL
2	s0	50	VAL
2	s0	59	LEU
2	s0	62	ARG
2	s0	83	GLN
2	s0	87	LEU
2	s0	96	THR
2	s0	101	ARG
2	s0	103	THR
2	s0	106	SER
2	s0	110	TYR
2	s0	112	THR
2	s0	119	ARG
2	s0	124	THR
2	s0	131	GLN
2	s0	141	ILE
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	185	ARG
2	s0	189	VAL
2	s0	198	MET
2	s0	202	TYR
3	s1	21	VAL
3	s1	25	THR
3	s1	26	ARG
3	s1	47	LEU
3	s1	51	SER
3	s1	55	LYS
3	s1	56	SER
3	s1	61	LEU
3	s1	62	LYS
3	s1	70	LEU
3	s1	76	SER

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Mol	Chain	Res	Type
3	s1	77	GLU
3	s1	94	LYS
3	s1	96	LEU
3	s1	97	LEU
3	s1	105	PHE
3	s1	106	THR
3	s1	125	VAL
3	s1	126	THR
3	s1	129	THR
3	s1	137	ILE
3	s1	169	SER
3	s1	173	THR
3	s1	175	GLU
3	s1	180	THR
3	s1	181	LEU
3	s1	184	LEU
3	s1	193	ILE
3	s1	195	LYS
3	s1	197	ILE
3	s1	203	ASP
3	s1	212	VAL
3	s1	214	LYS
3	s1	215	VAL
3	s1	222	LYS
3	s1	223	PHE
3	s1	228	LEU
3	s1	231	LEU
3	s1	234	GLU
4	s2	41	LEU
4	s2	46	LYS
4	s2	53	ILE
4	s2	54	GLU
4	s2	55	GLU
4	s2	58	LEU
4	s2	69	ILE
4	s2	73	LEU
4	s2	81	MET
4	s2	83	ILE
4	s2	87	GLN
4	s2	89	GLN
4	s2	90	THR
4	s2	91	ARG

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Mol	Chain	Res	Type
4	s2	94	GLN
4	s2	95	ARG
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	130	ILE
4	s2	137	ILE
4	s2	141	ARG
4	s2	146	THR
4	s2	148	LEU
4	s2	150	GLN
4	s2	159	THR
4	s2	161	LYS
4	s2	164	SER
4	s2	166	THR
4	s2	170	ILE
4	s2	181	SER
4	s2	182	PRO
4	s2	194	GLU
4	s2	205	ARG
4	s2	206	THR
4	s2	207	LEU
4	s2	222	TYR
4	s2	224	PHE
4	s2	225	LEU
4	s2	229	LEU
4	s2	237	VAL
4	s2	240	LEU
4	s2	245	ASP
4	s2	250	GLN
5	s3	4	LEU
5	s3	9	ARG
5	s3	21	LEU
5	s3	26	THR
5	s3	37	VAL
5	s3	39	VAL
5	s3	44	THR
5	s3	53	THR
5	s3	59	LEU

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Mol	Chain	Res	Type
5	s3	61	GLU
5	s3	83	THR
5	s3	89	GLU
5	s3	90	ARG
5	s3	93	ASP
5	s3	94	ARG
5	s3	103	GLU
5	s3	111	ASN
5	s3	115	ILE
5	s3	124	ARG
5	s3	127	MET
5	s3	128	GLU
5	s3	135	GLU
5	s3	142	LEU
5	s3	143	ARG
5	s3	146	ARG
5	s3	158	ILE
5	s3	162	GLN
5	s3	164	VAL
5	s3	168	ILE
5	s3	170	THR
5	s3	181	VAL
5	s3	189	MET
5	s3	196	ARG
5	s3	202	LEU
5	s3	210	GLU
5	s3	212	LYS
5	s3	213	GLU
5	s3	218	LEU
5	s3	223	LYS
6	s4	6	LYS
6	s4	7	LYS
6	s4	9	LEU
6	s4	11	ARG
6	s4	23	LEU
6	s4	24	SER
6	s4	38	LEU
6	s4	42	LEU
6	s4	48	LEU
6	s4	49	ARG
6	s4	51	ARG
6	s4	67	GLN

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Mol	Chain	Res	Type
6	s4	70	VAL
6	s4	78	THR
6	s4	102	VAL
6	s4	105	VAL
6	s4	108	ARG
6	s4	113	ARG
6	s4	123	LEU
6	s4	129	VAL
6	s4	131	LEU
6	s4	133	LYS
6	s4	148	ARG
6	s4	159	THR
6	s4	164	LEU
6	s4	176	ASP
6	s4	180	LEU
6	s4	182	TYR
6	s4	187	ARG
6	s4	194	THR
6	s4	219	VAL
6	s4	221	ARG
6	s4	223	ASN
6	s4	226	PHE
6	s4	236	ILE
6	s4	237	SER
6	s4	248	ILE
7	s5	23	VAL
7	s5	25	LEU
7	s5	34	GLN
7	s5	38	THR
7	s5	39	GLU
7	s5	41	LYS
7	s5	43	PHE
7	s5	47	SER
7	s5	63	GLN
7	s5	64	VAL
7	s5	65	ARG
7	s5	68	ILE
7	s5	76	ARG
7	s5	79	ASN
7	s5	83	ARG
7	s5	89	ILE
7	s5	92	ARG

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Mol	Chain	Res	Type
7	s5	93	LEU
7	s5	94	THR
7	s5	107	LYS
7	s5	112	ARG
7	s5	115	LYS
7	s5	119	ASP
7	s5	124	LEU
7	s5	125	THR
7	s5	128	ASN
7	s5	143	ARG
7	s5	146	THR
7	s5	156	ARG
7	s5	157	ARG
7	s5	167	ARG
7	s5	190	ILE
7	s5	194	LEU
7	s5	203	LYS
7	s5	206	SER
7	s5	212	LYS
7	s5	213	LYS
7	s5	216	GLU
7	s5	219	ARG
7	s5	224	ASN
8	s6	6	SER
8	s6	12	SER
8	s6	15	THR
8	s6	21	GLU
8	s6	25	ARG
8	s6	30	LYS
8	s6	31	ARG
8	s6	41	VAL
8	s6	59	GLN
8	s6	67	VAL
8	s6	71	THR
8	s6	76	LEU
8	s6	89	ASP
8	s6	93	LYS
8	s6	97	VAL
8	s6	108	VAL
8	s6	109	LEU
8	s6	111	LEU
8	s6	112	VAL

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Mol	Chain	Res	Type
8	s6	121	LEU
8	s6	122	GLU
8	s6	126	ASP
8	s6	128	THR
8	s6	129	VAL
8	s6	133	LEU
8	s6	143	LYS
8	s6	151	ASP
8	s6	155	ASP
8	s6	162	VAL
8	s6	166	GLU
8	s6	170	THR
8	s6	177	ARG
8	s6	180	THR
8	s6	191	ARG
8	s6	193	LEU
8	s6	212	LEU
8	s6	215	ARG
9	s7	10	SER
9	s7	11	GLN
9	s7	14	THR
9	s7	16	LEU
9	s7	25	VAL
9	s7	33	GLU
9	s7	42	GLN
9	s7	49	ILE
9	s7	50	ASP
9	s7	67	LEU
9	s7	77	LEU
9	s7	84	LYS
9	s7	86	GLN
9	s7	96	ARG
9	s7	97	ARG
9	s7	99	LEU
9	s7	107	ARG
9	s7	110	GLN
9	s7	114	ARG
9	s7	115	SER
9	s7	116	ARG
9	s7	117	THR
9	s7	118	LEU
9	s7	126	LEU

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Mol	Chain	Res	Type
9	s7	129	LEU
9	s7	144	VAL
9	s7	149	ILE
9	s7	161	GLN
9	s7	163	ASP
9	s7	166	LEU
9	s7	185	ILE
10	s8	7	SER
10	s8	18	ARG
10	s8	29	LEU
10	s8	36	THR
10	s8	45	SER
10	s8	46	VAL
10	s8	47	ARG
10	s8	58	LEU
10	s8	61	GLU
10	s8	62	THR
10	s8	74	LYS
10	s8	76	THR
10	s8	77	ARG
10	s8	82	VAL
10	s8	89	GLU
10	s8	93	THR
10	s8	119	GLN
10	s8	120	THR
10	s8	121	LEU
10	s8	138	ASN
10	s8	151	LYS
10	s8	152	ILE
10	s8	155	SER
10	s8	183	ILE
10	s8	184	LEU
10	s8	185	GLU
11	s9	3	ARG
11	s9	7	THR
11	s9	16	LYS
11	s9	28	LEU
11	s9	37	LYS
11	s9	45	ILE
11	s9	61	THR
11	s9	87	SER
11	s9	89	ASP

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Mol	Chain	Res	Type
11	s9	93	LEU
11	s9	96	VAL
11	s9	99	LEU
11	s9	101	VAL
11	s9	105	LEU
11	s9	109	LEU
11	s9	111	THR
11	s9	120	LYS
11	s9	122	VAL
11	s9	126	ARG
11	s9	130	THR
11	s9	133	HIS
11	s9	134	ILE
11	s9	145	SER
11	s9	151	ASP
11	s9	154	LYS
11	s9	161	THR
11	s9	162	SER
11	s9	172	VAL
11	s9	174	ARG
11	s9	180	LYS
11	s9	182	GLU
11	s9	186	GLU
80	c0	5	LYS
80	c0	15	LEU
80	c0	27	PHE
80	c0	55	VAL
80	c0	56	LYS
80	c0	57	THR
80	c0	71	GLU
80	c0	77	ARG
13	c1	5	LEU
13	c1	10	GLU
13	c1	21	ASN
13	c1	26	LYS
13	c1	32	LYS
13	c1	40	LEU
13	c1	44	THR
13	c1	56	LYS
13	c1	60	PHE
13	c1	67	ARG
13	c1	72	THR

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Mol	Chain	Res	Type
13	c1	74	THR
13	c1	77	SER
13	c1	79	LYS
13	c1	80	MET
13	c1	83	THR
13	c1	95	PRO
13	c1	116	ARG
13	c1	129	ARG
13	c1	131	ILE
14	c2	28	LEU
14	c2	30	VAL
14	c2	36	LEU
14	c2	38	HIS
14	c2	43	ARG
14	c2	52	LEU
14	c2	58	LEU
14	c2	59	LEU
14	c2	61	VAL
14	c2	62	LEU
14	c2	66	VAL
14	c2	71	ILE
14	c2	74	LEU
14	c2	83	GLU
14	c2	85	LYS
14	c2	86	VAL
14	c2	89	ILE
14	c2	97	LEU
14	c2	103	LEU
14	c2	120	VAL
14	c2	121	VAL
14	c2	126	TRP
14	c2	132	GLU
14	c2	140	PHE
14	c2	141	SER
15	c3	6	SER
15	c3	12	SER
15	c3	14	SER
15	c3	18	TYR
15	c3	20	ARG
15	c3	32	SER
15	c3	53	LEU
15	c3	58	HIS

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Mol	Chain	Res	Type
15	c3	61	THR
15	c3	66	ILE
15	c3	70	LYS
15	c3	74	ILE
15	c3	80	LEU
15	c3	84	ILE
15	c3	88	LEU
15	c3	102	LEU
15	c3	115	LEU
15	c3	125	LEU
15	c3	127	ARG
15	c3	134	VAL
15	c3	138	ASN
15	c3	143	SER
15	c3	150	VAL
15	c3	151	ASN
16	c4	18	ARG
16	c4	20	TYR
16	c4	24	ASN
16	c4	26	THR
16	c4	28	VAL
16	c4	33	LEU
16	c4	36	LYS
16	c4	38	THR
16	c4	51	ASP
16	c4	52	ARG
16	c4	61	MET
16	c4	65	GLN
16	c4	66	ASP
16	c4	72	LYS
16	c4	81	VAL
16	c4	84	ARG
16	c4	92	LYS
16	c4	102	LEU
16	c4	107	ARG
16	c4	114	ARG
16	c4	118	VAL
16	c4	119	THR
16	c4	123	SER
16	c4	129	LYS
16	c4	132	ARG
16	c4	133	ARG

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Mol	Chain	Res	Type
16	c4	136	ARG
16	c4	137	LEU
17	c5	12	PHE
17	c5	16	SER
17	c5	20	VAL
17	c5	21	ASP
17	c5	23	GLU
17	c5	24	LYS
17	c5	27	GLU
17	c5	30	THR
17	c5	31	GLU
17	c5	36	LEU
17	c5	40	ARG
17	c5	49	MET
17	c5	51	SER
17	c5	72	LYS
17	c5	77	ARG
17	c5	89	MET
17	c5	92	SER
17	c5	104	GLN
17	c5	107	ILE
17	c5	110	GLU
17	c5	112	LEU
17	c5	122	THR
17	c5	124	THR
17	c5	125	PRO
17	c5	127	ARG
18	c6	19	VAL
18	c6	23	LYS
18	c6	28	LEU
18	c6	37	THR
18	c6	43	ILE
18	c6	48	VAL
18	c6	53	LEU
18	c6	54	LEU
18	c6	55	VAL
18	c6	57	LEU
18	c6	66	ARG
18	c6	68	ARG
18	c6	69	VAL
18	c6	70	THR
18	c6	81	ILE

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Mol	Chain	Res	Type
18	c6	83	GLN
18	c6	100	GLN
18	c6	105	LEU
18	c6	110	THR
18	c6	115	THR
18	c6	117	LEU
18	c6	128	LYS
18	c6	137	ARG
19	c7	3	ARG
19	c7	5	ARG
19	c7	6	THR
19	c7	7	LYS
19	c7	8	THR
19	c7	11	ARG
19	c7	25	THR
19	c7	26	LEU
19	c7	27	ASP
19	c7	34	LEU
19	c7	45	ARG
19	c7	46	LEU
19	c7	47	ARG
19	c7	54	THR
19	c7	61	ILE
19	c7	63	LYS
19	c7	72	LYS
19	c7	73	LEU
19	c7	78	ARG
19	c7	79	GLU
19	c7	82	ASP
19	c7	85	VAL
19	c7	88	VAL
19	c7	104	ASN
19	c7	105	GLN
19	c7	113	LEU
20	c8	4	VAL
20	c8	5	VAL
20	c8	6	GLN
20	c8	8	GLN
20	c8	12	GLN
20	c8	13	HIS
20	c8	15	LEU
20	c8	25	ASN

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Mol	Chain	Res	Type
20	c8	26	ILE
20	c8	27	LYS
20	c8	28	ILE
20	c8	36	LYS
20	c8	57	ARG
20	c8	63	GLN
20	c8	69	ILE
20	c8	77	THR
20	c8	86	LEU
20	c8	94	ASP
20	c8	105	VAL
20	c8	110	ARG
20	c8	114	GLU
20	c8	116	LEU
20	c8	133	VAL
20	c8	136	GLN
20	c8	138	THR
20	c8	144	ARG
20	c8	145	ARG
21	c9	6	VAL
21	c9	25	GLN
21	c9	27	LYS
21	c9	28	LEU
21	c9	36	ILE
21	c9	41	SER
21	c9	57	ARG
21	c9	68	ARG
21	c9	71	VAL
21	c9	84	LYS
21	c9	86	ARG
21	c9	91	TYR
21	c9	110	LYS
21	c9	111	ILE
21	c9	116	ILE
21	c9	117	SER
21	c9	123	ARG
21	c9	126	GLU
21	c9	132	LEU
21	c9	140	LEU
21	c9	142	GLU
21	c9	144	GLU
22	d0	13	GLU

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Mol	Chain	Res	Type
22	d0	21	LYS
22	d0	23	ARG
22	d0	27	THR
22	d0	30	LYS
22	d0	31	VAL
22	d0	34	LEU
22	d0	36	ASN
22	d0	38	SER
22	d0	39	SER
22	d0	47	GLN
22	d0	51	VAL
22	d0	57	ARG
22	d0	60	THR
22	d0	62	VAL
22	d0	63	LEU
22	d0	67	THR
22	d0	70	THR
22	d0	72	ASN
22	d0	74	GLU
22	d0	76	SER
22	d0	77	LYS
22	d0	81	THR
22	d0	88	LYS
22	d0	89	ARG
22	d0	99	ILE
22	d0	103	ILE
22	d0	105	GLN
22	d0	107	THR
22	d0	108	ILE
22	d0	109	GLU
22	d0	113	ASP
23	d1	2	GLU
23	d1	5	LYS
23	d1	10	GLU
23	d1	11	LEU
23	d1	12	TYR
23	d1	25	LYS
23	d1	32	VAL
23	d1	34	ILE
23	d1	38	LYS
23	d1	52	THR
23	d1	68	SER

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Mol	Chain	Res	Type
23	d1	69	LEU
23	d1	78	LEU
23	d1	81	ASN
23	d1	86	SER
24	d2	6	VAL
24	d2	20	THR
24	d2	23	ARG
24	d2	24	GLN
24	d2	25	VAL
24	d2	26	LEU
24	d2	43	LYS
24	d2	56	HIS
24	d2	74	VAL
24	d2	93	LEU
24	d2	98	GLN
24	d2	103	ILE
24	d2	105	THR
24	d2	117	ARG
24	d2	121	VAL
24	d2	124	LYS
24	d2	129	VAL
25	d3	3	LYS
25	d3	9	LEU
25	d3	14	LYS
25	d3	16	ARG
25	d3	19	ARG
25	d3	23	ARG
25	d3	28	ASN
25	d3	33	LEU
25	d3	36	THR
25	d3	40	SER
25	d3	47	SER
25	d3	52	ILE
25	d3	66	SER
25	d3	73	ARG
25	d3	75	GLN
25	d3	78	LYS
25	d3	82	LYS
25	d3	84	THR
25	d3	96	VAL
25	d3	100	ASP
25	d3	103	LEU

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Mol	Chain	Res	Type
25	d3	107	PHE
25	d3	123	LYS
25	d3	131	SER
25	d3	133	LEU
25	d3	135	LEU
25	d3	139	LYS
26	d4	2	SER
26	d4	10	ARG
26	d4	13	ILE
26	d4	21	LYS
26	d4	26	ASP
26	d4	29	HIS
26	d4	43	LYS
26	d4	44	LEU
26	d4	46	GLU
26	d4	49	LYS
26	d4	55	VAL
26	d4	62	THR
26	d4	77	ASN
26	d4	88	THR
26	d4	91	LEU
26	d4	92	VAL
26	d4	98	GLU
26	d4	100	VAL
26	d4	114	ARG
26	d4	128	LYS
26	d4	133	ASN
27	d5	40	VAL
27	d5	43	ASP
27	d5	52	LYS
27	d5	53	GLU
27	d5	57	TYR
27	d5	58	ARG
27	d5	60	VAL
27	d5	68	ARG
27	d5	81	ARG
27	d5	86	GLU
27	d5	90	LYS
27	d5	92	ILE
28	d6	4	LYS
28	d6	8	ASN
28	d6	10	ARG

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Mol	Chain	Res	Type
28	d6	24	VAL
28	d6	26	CYS
28	d6	27	SER
28	d6	28	LYS
28	d6	30	ILE
28	d6	34	LYS
28	d6	39	MET
28	d6	41	ILE
28	d6	43	ASN
28	d6	53	LEU
28	d6	54	SER
28	d6	67	THR
28	d6	79	ILE
28	d6	82	ARG
28	d6	85	ARG
28	d6	89	ARG
28	d6	90	GLU
29	d7	3	LEU
29	d7	4	VAL
29	d7	11	THR
29	d7	14	SER
29	d7	34	ASP
29	d7	40	CYS
29	d7	43	ILE
29	d7	61	THR
29	d7	62	ILE
29	d7	65	THR
29	d7	72	LYS
30	d8	5	THR
30	d8	8	THR
30	d8	11	LYS
30	d8	16	LEU
30	d8	21	SER
30	d8	22	ARG
30	d8	32	PHE
30	d8	33	LEU
30	d8	36	THR
30	d8	40	ILE
30	d8	52	ASP
30	d8	54	LEU
30	d8	59	SER
30	d8	62	GLU

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Mol	Chain	Res	Type
30	d8	64	ARG
31	d9	4	GLU
31	d9	19	ARG
31	d9	20	GLN
31	d9	25	SER
31	d9	30	LEU
31	d9	36	LEU
31	d9	38	ILE
31	d9	53	ASN
31	d9	54	LYS
31	d9	56	ARG
81	e0	4	VAL
81	e0	14	VAL
81	e0	23	LYS
81	e0	24	THR
81	e0	26	LYS
81	e0	29	LYS
81	e0	36	LYS
81	e0	38	LEU
81	e0	41	THR
81	e0	42	ARG
81	e0	44	PHE
81	e0	49	LEU
81	e0	55	ARG
82	e1	80	ARG
82	e1	86	THR
82	e1	90	LYS
82	e1	97	LYS
82	e1	98	VAL
82	e1	100	LEU
82	e1	102	VAL
82	e1	106	TYR
82	e1	107	LYS
82	e1	109	ASP
82	e1	113	LYS
82	e1	115	THR
82	e1	116	LYS
82	e1	118	ARG
82	e1	119	ARG
82	e1	121	CYS
82	e1	135	HIS
82	e1	140	TYR

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Mol	Chain	Res	Type
82	e1	146	SER
82	e1	147	VAL
82	e1	150	VAL
34	sR	9	LEU
34	sR	21	THR
34	sR	23	LEU
34	sR	29	GLN
34	sR	42	LEU
34	sR	58	VAL
34	sR	66	HIS
34	sR	76	ASP
34	sR	98	GLU
34	sR	108	SER
34	sR	145	LEU
34	sR	159	ASN
34	sR	167	VAL
34	sR	184	ASN
34	sR	188	ILE
34	sR	222	LEU
34	sR	228	LYS
34	sR	232	TYR
34	sR	258	THR
34	sR	266	ASP
34	sR	275	ARG
34	sR	297	ASP
34	sR	310	ILE
35	sM	23	LYS
35	sM	27	LYS
35	sM	30	THR
35	sM	43	ASP
35	sM	48	ARG
35	sM	49	LYS
35	sM	50	ASN
35	sM	55	SER
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	23	ARG

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Mol	Chain	Res	Type
39	l2	32	LEU
39	l2	45	VAL
39	l2	47	GLN
39	l2	48	ILE
39	l2	61	VAL
39	l2	62	VAL
39	l2	64	ARG
39	l2	70	ARG
39	l2	74	GLU
39	l2	82	VAL
39	l2	96	LEU
39	l2	98	VAL
39	l2	101	VAL
39	l2	104	LEU
39	l2	112	ILE
39	l2	134	VAL
39	l2	137	ILE
39	l2	147	ARG
39	l2	148	VAL
39	l2	157	VAL
39	l2	165	VAL
39	l2	168	VAL
39	l2	188	LYS
39	l2	191	LEU
39	l2	193	ARG
39	l2	202	VAL
39	l2	204	MET
39	l2	227	ARG
39	l2	233	GLN
39	l2	238	ILE
39	l2	241	ARG
39	l2	243	THR
39	l2	246	LEU
39	l2	249	SER
40	l3	3	HIS
40	l3	4	ARG
40	l3	5	LYS
40	l3	7	GLU
40	l3	10	ARG
40	l3	17	LEU
40	l3	19	ARG
40	l3	20	LYS

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Mol	Chain	Res	Type
40	l3	26	ARG
40	l3	44	THR
40	l3	47	LEU
40	l3	50	LYS
40	l3	55	THR
40	l3	56	ILE
40	l3	70	ARG
40	l3	77	THR
40	l3	85	VAL
40	l3	103	THR
40	l3	111	SER
40	l3	114	VAL
40	l3	116	ARG
40	l3	128	LYS
40	l3	139	GLN
40	l3	140	ASP
40	l3	146	ARG
40	l3	150	ARG
40	l3	153	LYS
40	l3	160	VAL
40	l3	167	ARG
40	l3	169	THR
40	l3	175	LYS
40	l3	183	LEU
40	l3	188	ILE
40	l3	202	THR
40	l3	205	VAL
40	l3	208	VAL
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	247	ARG
40	l3	248	LYS
40	l3	252	ILE
40	l3	274	SER
40	l3	284	ARG
40	l3	303	LYS
40	l3	304	THR
40	l3	308	MET

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Mol	Chain	Res	Type
40	l3	322	ILE
40	l3	324	VAL
40	l3	332	ARG
40	l3	333	LYS
40	l3	341	SER
40	l3	346	THR
40	l3	359	ILE
40	l3	369	ARG
40	l3	380	MET
40	l3	386	ASP
41	l4	2	SER
41	l4	8	VAL
41	l4	47	ARG
41	l4	69	ARG
41	l4	92	ASN
41	l4	93	MET
41	l4	98	ARG
41	l4	112	LYS
41	l4	120	TYR
41	l4	122	THR
41	l4	136	LEU
41	l4	138	ARG
41	l4	144	LYS
41	l4	156	LEU
41	l4	160	GLN
41	l4	170	LYS
41	l4	179	LEU
41	l4	186	LYS
41	l4	187	LEU
41	l4	203	ARG
41	l4	206	LEU
41	l4	217	LYS
41	l4	220	ARG
41	l4	221	ASN
41	l4	230	VAL
41	l4	246	ARG
41	l4	252	GLU
41	l4	258	LEU
41	l4	265	GLU
41	l4	266	THR
41	l4	284	SER
41	l4	289	ILE

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Mol	Chain	Res	Type
41	l4	291	ASN
41	l4	293	SER
41	l4	299	ILE
41	l4	300	ARG
41	l4	301	PRO
41	l4	304	GLN
41	l4	306	THR
41	l4	307	GLN
41	l4	310	THR
41	l4	313	LEU
41	l4	319	LYS
41	l4	323	VAL
41	l4	327	LEU
41	l4	333	VAL
41	l4	345	GLU
41	l4	347	THR
41	l4	349	THR
41	l4	357	GLU
41	l4	358	THR
41	l4	359	LEU
42	l5	4	GLN
42	l5	9	SER
42	l5	17	GLN
42	l5	34	LYS
42	l5	35	ARG
42	l5	48	LYS
42	l5	51	LEU
42	l5	65	ILE
42	l5	68	THR
42	l5	70	THR
42	l5	74	VAL
42	l5	85	ARG
42	l5	89	THR
42	l5	93	THR
42	l5	110	LEU
42	l5	112	LYS
42	l5	118	THR
42	l5	132	THR
42	l5	135	VAL
42	l5	140	ARG
42	l5	146	LEU
42	l5	148	ILE

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Mol	Chain	Res	Type
42	15	151	GLN
42	15	152	ARG
42	15	154	THR
42	15	155	THR
42	15	164	LYS
42	15	177	GLU
42	15	185	PHE
42	15	187	THR
42	15	190	ILE
42	15	191	ASP
42	15	194	LEU
42	15	196	ARG
42	15	211	LEU
42	15	218	ARG
42	15	222	LEU
42	15	227	LEU
42	15	241	THR
42	15	247	ILE
42	15	254	LYS
42	15	258	LYS
42	15	259	LYS
42	15	262	LYS
42	15	268	GLU
42	15	269	SER
42	15	273	ARG
42	15	275	THR
42	15	277	LEU
43	16	8	LYS
43	16	12	SER
43	16	20	LYS
43	16	21	THR
43	16	31	ARG
43	16	35	VAL
43	16	46	ARG
43	16	50	LYS
43	16	52	VAL
43	16	64	LEU
43	16	65	ILE
43	16	79	VAL
43	16	88	SER
43	16	89	THR
43	16	91	VAL

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Mol	Chain	Res	Type
43	16	108	LYS
43	16	133	GLU
43	16	136	GLU
43	16	152	THR
43	16	155	LEU
43	16	162	SER
43	16	175	LYS
44	17	26	VAL
44	17	41	ARG
44	17	45	LEU
44	17	46	GLU
44	17	53	LYS
44	17	60	ARG
44	17	83	LEU
44	17	88	ARG
44	17	98	LYS
44	17	100	ARG
44	17	101	LYS
44	17	111	ILE
44	17	128	LYS
44	17	156	ILE
44	17	158	LYS
44	17	159	GLN
44	17	173	LEU
44	17	175	LYS
44	17	179	LEU
44	17	184	LEU
44	17	196	LYS
44	17	199	ASN
44	17	229	PHE
44	17	239	LEU
45	18	46	LEU
45	18	50	VAL
45	18	65	LEU
45	18	67	ILE
45	18	68	ARG
45	18	69	LEU
45	18	71	VAL
45	18	74	THR
45	18	81	THR
45	18	111	LYS
45	18	136	LEU

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Mol	Chain	Res	Type
45	18	149	LYS
45	18	150	LEU
45	18	153	ILE
45	18	156	ASP
45	18	160	ILE
45	18	163	VAL
45	18	164	VAL
45	18	169	LEU
45	18	172	LYS
45	18	181	LYS
45	18	183	LYS
45	18	203	VAL
45	18	208	GLU
45	18	213	LYS
45	18	214	LEU
45	18	219	ASP
45	18	230	LYS
45	18	231	LYS
45	18	241	LYS
45	18	245	LYS
45	18	248	LYS
46	19	4	ILE
46	19	5	GLN
46	19	6	THR
46	19	18	VAL
46	19	20	ILE
46	19	22	SER
46	19	31	ARG
46	19	33	THR
46	19	34	LEU
46	19	36	LYS
46	19	44	THR
46	19	48	VAL
46	19	52	LEU
46	19	55	VAL
46	19	68	LEU
46	19	70	THR
46	19	72	LYS
46	19	73	SER
46	19	80	THR
46	19	82	VAL
46	19	87	LYS

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Mol	Chain	Res	Type
46	l9	92	TYR
46	l9	105	GLU
46	l9	115	ARG
46	l9	120	ASP
46	l9	132	VAL
46	l9	133	THR
46	l9	144	ILE
46	l9	146	LEU
46	l9	151	VAL
46	l9	157	ASN
46	l9	161	LEU
46	l9	162	GLN
46	l9	167	VAL
46	l9	173	ARG
46	l9	174	LYS
46	l9	177	ASP
46	l9	179	ILE
46	l9	191	LEU
47	m0	3	ARG
47	m0	21	ARG
47	m0	24	ARG
47	m0	29	SER
47	m0	36	LEU
47	m0	39	LYS
47	m0	44	ASP
47	m0	48	LEU
47	m0	52	LEU
47	m0	54	SER
47	m0	58	GLU
47	m0	63	GLU
47	m0	74	LYS
47	m0	77	THR
47	m0	87	LEU
47	m0	91	VAL
47	m0	138	VAL
47	m0	139	ARG
47	m0	143	SER
47	m0	144	ASN
47	m0	145	LYS
47	m0	169	LYS
47	m0	170	LYS
47	m0	175	ASN

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Mol	Chain	Res	Type
47	m0	177	ASP
47	m0	182	LEU
47	m0	197	VAL
47	m0	200	LEU
47	m0	211	ARG
47	m0	215	GLU
47	m0	217	PHE
48	m1	10	ARG
48	m1	11	ASP
48	m1	12	LEU
48	m1	13	LYS
48	m1	29	ARG
48	m1	34	SER
48	m1	37	LEU
48	m1	40	LEU
48	m1	44	THR
48	m1	46	VAL
48	m1	51	ARG
48	m1	54	VAL
48	m1	56	THR
48	m1	59	ILE
48	m1	71	VAL
48	m1	80	LEU
48	m1	94	ARG
48	m1	97	SER
48	m1	106	ILE
48	m1	107	ASP
48	m1	108	GLU
48	m1	112	LEU
48	m1	129	VAL
48	m1	130	VAL
48	m1	137	ARG
48	m1	140	ARG
48	m1	142	LYS
48	m1	147	THR
48	m1	151	SER
48	m1	158	ASP
48	m1	159	THR
48	m1	161	SER
48	m1	166	LYS
48	m1	172	LEU
48	m1	174	LYS

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Mol	Chain	Res	Type
49	m3	19	GLN
49	m3	54	LEU
49	m3	55	ARG
49	m3	57	VAL
49	m3	58	VAL
49	m3	69	VAL
49	m3	73	ARG
49	m3	76	THR
49	m3	85	LEU
49	m3	103	ASN
49	m3	106	GLN
49	m3	123	ILE
49	m3	124	ILE
49	m3	131	LYS
49	m3	138	VAL
49	m3	149	GLN
49	m3	150	PRO
49	m3	152	THR
49	m3	164	GLU
49	m3	165	SER
49	m3	168	ARG
49	m3	176	GLU
49	m3	183	ARG
49	m3	184	GLU
49	m3	194	GLU
50	m4	3	THR
50	m4	4	ASP
50	m4	6	ILE
50	m4	16	GLU
50	m4	20	VAL
50	m4	27	GLN
50	m4	28	SER
50	m4	31	LYS
50	m4	35	ILE
50	m4	53	VAL
50	m4	58	ILE
50	m4	63	VAL
50	m4	66	THR
50	m4	72	LEU
50	m4	80	THR
50	m4	82	SER
50	m4	92	GLU

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Mol	Chain	Res	Type
50	m4	98	SER
50	m4	107	GLU
50	m4	113	THR
50	m4	116	GLU
50	m4	124	ARG
50	m4	130	THR
50	m4	135	LEU
51	m5	5	LYS
51	m5	7	LEU
51	m5	10	LEU
51	m5	14	LYS
51	m5	15	GLN
51	m5	18	VAL
51	m5	22	LEU
51	m5	27	VAL
51	m5	36	ILE
51	m5	49	ARG
51	m5	53	TYR
51	m5	54	LYS
51	m5	71	ARG
51	m5	76	PRO
51	m5	85	THR
51	m5	92	LEU
51	m5	96	ARG
51	m5	97	SER
51	m5	105	ARG
51	m5	106	VAL
51	m5	108	ARG
51	m5	138	GLN
51	m5	153	ASP
51	m5	159	ARG
51	m5	160	GLU
51	m5	165	THR
51	m5	171	SER
51	m5	179	LYS
51	m5	183	THR
51	m5	184	LYS
51	m5	190	THR
51	m5	194	GLN
51	m5	198	SER
52	m6	12	LYS
52	m6	46	GLU

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Mol	Chain	Res	Type
52	m6	60	LYS
52	m6	66	LYS
52	m6	67	THR
52	m6	74	ARG
52	m6	78	ARG
52	m6	79	ILE
52	m6	85	ARG
52	m6	100	GLU
52	m6	106	GLU
52	m6	108	ILE
52	m6	110	PRO
52	m6	117	ARG
52	m6	122	GLN
52	m6	124	LEU
52	m6	128	ARG
52	m6	141	LEU
52	m6	151	ASP
52	m6	152	VAL
52	m6	171	LYS
52	m6	182	ASN
52	m6	184	THR
52	m6	197	LEU
53	m7	7	THR
53	m7	8	SER
53	m7	9	THR
53	m7	18	ARG
53	m7	23	ARG
53	m7	24	VAL
53	m7	31	GLU
53	m7	32	THR
53	m7	41	LEU
53	m7	46	LYS
53	m7	52	LEU
53	m7	56	ARG
53	m7	69	ARG
53	m7	78	VAL
53	m7	79	THR
53	m7	89	LYS
53	m7	94	LEU
53	m7	112	LEU
53	m7	114	VAL
53	m7	119	VAL

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Mol	Chain	Res	Type
53	m7	120	ASN
53	m7	126	ARG
53	m7	144	SER
53	m7	148	LEU
54	m8	3	ILE
54	m8	7	SER
54	m8	17	THR
54	m8	22	ASP
54	m8	24	VAL
54	m8	26	LEU
54	m8	32	LEU
54	m8	34	THR
54	m8	49	LEU
54	m8	57	ILE
54	m8	63	SER
54	m8	69	ARG
54	m8	74	GLU
54	m8	80	THR
54	m8	81	VAL
54	m8	82	VAL
54	m8	86	THR
54	m8	93	ILE
54	m8	98	LYS
54	m8	135	GLN
54	m8	165	ILE
54	m8	166	LEU
54	m8	167	SER
54	m8	170	ARG
54	m8	178	ARG
55	m9	7	GLN
55	m9	10	LEU
55	m9	17	VAL
55	m9	27	ASN
55	m9	36	ASN
55	m9	37	SER
55	m9	43	LYS
55	m9	47	ASN
55	m9	49	THR
55	m9	56	THR
55	m9	63	THR
55	m9	74	ARG
55	m9	78	TYR

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Mol	Chain	Res	Type
55	m9	92	GLN
55	m9	98	ARG
55	m9	99	LEU
55	m9	104	ARG
55	m9	116	ASP
55	m9	117	LYS
55	m9	121	HIS
55	m9	126	GLU
55	m9	146	LYS
55	m9	148	ASP
55	m9	152	GLU
55	m9	153	LYS
55	m9	156	ASN
55	m9	158	GLU
55	m9	162	ARG
55	m9	164	LEU
55	m9	165	LYS
55	m9	167	ARG
55	m9	173	ARG
56	n0	5	LYS
56	n0	13	ARG
56	n0	17	GLU
56	n0	21	GLU
56	n0	23	LYS
56	n0	32	SER
56	n0	45	LEU
56	n0	70	THR
56	n0	71	LYS
56	n0	73	LYS
56	n0	87	THR
56	n0	97	VAL
56	n0	100	VAL
56	n0	104	GLU
56	n0	105	THR
56	n0	117	ARG
56	n0	119	ARG
56	n0	120	SER
56	n0	130	GLU
56	n0	136	LYS
56	n0	137	ARG
56	n0	145	THR
56	n0	148	LEU

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Mol	Chain	Res	Type
56	n0	149	LYS
56	n0	155	ARG
56	n0	157	GLN
56	n0	162	THR
56	n0	169	SER
56	n0	172	TYR
57	n1	9	SER
57	n1	12	ARG
57	n1	25	VAL
57	n1	26	HIS
57	n1	27	LEU
57	n1	35	LYS
57	n1	43	LYS
57	n1	55	LYS
57	n1	71	SER
57	n1	80	VAL
57	n1	83	ARG
57	n1	96	ILE
57	n1	97	LYS
57	n1	102	ARG
57	n1	104	GLU
57	n1	118	GLU
57	n1	124	VAL
57	n1	126	VAL
57	n1	127	GLN
57	n1	130	ARG
57	n1	131	GLN
57	n1	139	ARG
57	n1	141	VAL
57	n1	143	THR
57	n1	144	GLU
57	n1	149	GLN
57	n1	150	THR
57	n1	154	VAL
57	n1	158	THR
58	n2	14	THR
58	n2	16	THR
58	n2	21	SER
58	n2	27	VAL
58	n2	28	PHE
58	n2	37	LEU
58	n2	43	VAL

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Mol	Chain	Res	Type
58	n2	50	LEU
58	n2	55	THR
58	n2	57	THR
58	n2	62	VAL
58	n2	68	THR
58	n2	75	TYR
58	n2	90	ARG
58	n2	96	VAL
58	n2	98	THR
58	n2	100	THR
58	n2	104	ARG
59	n3	7	GLN
59	n3	13	ILE
59	n3	15	LEU
59	n3	45	ARG
59	n3	48	ARG
59	n3	57	MET
59	n3	88	ARG
59	n3	96	GLU
59	n3	115	THR
60	n4	1	MET
60	n4	19	THR
60	n4	34	SER
60	n4	39	LEU
60	n4	43	ARG
60	n4	54	LEU
60	n4	57	LYS
60	n4	58	HIS
60	n4	63	ILE
60	n4	82	ILE
60	n4	87	LEU
60	n4	89	LEU
60	n4	97	LYS
60	n4	112	ASN
60	n4	119	GLU
60	n4	127	LYS
61	n5	24	LEU
61	n5	27	ARG
61	n5	34	LEU
61	n5	37	THR
61	n5	45	LYS
61	n5	56	ARG

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Mol	Chain	Res	Type
61	n5	57	LEU
61	n5	63	ILE
61	n5	71	THR
61	n5	73	MET
61	n5	86	VAL
61	n5	87	SER
61	n5	105	VAL
61	n5	108	LEU
61	n5	109	LYS
61	n5	115	ARG
61	n5	117	ASN
61	n5	125	ARG
61	n5	131	ASP
61	n5	135	ILE
61	n5	142	ILE
62	n6	3	LYS
62	n6	4	GLN
62	n6	9	SER
62	n6	12	ARG
62	n6	13	ARG
62	n6	14	LYS
62	n6	25	SER
62	n6	32	SER
62	n6	35	LEU
62	n6	37	LYS
62	n6	39	LEU
62	n6	40	ARG
62	n6	45	ILE
62	n6	46	LYS
62	n6	50	ILE
62	n6	51	ARG
62	n6	55	GLU
62	n6	56	VAL
62	n6	57	LEU
62	n6	63	LYS
62	n6	64	LYS
62	n6	66	GLN
62	n6	74	TYR
62	n6	83	ASP
62	n6	86	THR
62	n6	88	GLU
62	n6	89	LYS

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Mol	Chain	Res	Type
62	n6	94	SER
62	n6	95	VAL
62	n6	99	LEU
62	n6	105	VAL
62	n6	115	ARG
62	n6	122	LYS
62	n6	127	GLU
63	n7	3	LYS
63	n7	5	LEU
63	n7	14	VAL
63	n7	21	LYS
63	n7	24	VAL
63	n7	25	ILE
63	n7	34	LYS
63	n7	36	HIS
63	n7	46	ILE
63	n7	52	LYS
63	n7	65	ARG
63	n7	72	ILE
63	n7	81	LEU
63	n7	93	LYS
63	n7	95	VAL
63	n7	98	THR
63	n7	99	GLU
63	n7	102	GLU
63	n7	103	GLN
63	n7	105	SER
63	n7	106	GLN
63	n7	126	LYS
63	n7	127	ASN
63	n7	128	GLN
63	n7	134	LEU
63	n7	135	ARG
64	n8	4	ARG
64	n8	6	THR
64	n8	8	THR
64	n8	10	LYS
64	n8	14	HIS
64	n8	15	VAL
64	n8	19	LYS
64	n8	42	ARG
64	n8	47	LYS

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Mol	Chain	Res	Type
64	n8	60	TYR
64	n8	73	LEU
64	n8	76	ASP
64	n8	78	LEU
64	n8	80	THR
64	n8	82	ILE
64	n8	85	ASP
64	n8	91	LEU
64	n8	97	GLU
64	n8	98	THR
64	n8	123	VAL
64	n8	128	ARG
64	n8	133	LEU
65	n9	12	GLN
65	n9	19	ASN
65	n9	21	ILE
65	n9	42	ASN
65	n9	47	LEU
65	n9	50	THR
65	n9	58	LYS
65	n9	59	LYS
66	o0	9	SER
66	o0	10	ILE
66	o0	28	LYS
66	o0	30	THR
66	o0	32	LYS
66	o0	33	SER
66	o0	34	LEU
66	o0	41	LEU
66	o0	61	MET
66	o0	71	GLN
66	o0	81	VAL
66	o0	83	LYS
66	o0	84	LEU
66	o0	86	ARG
66	o0	87	VAL
66	o0	97	ASP
66	o0	101	LEU
67	o1	6	ASP
67	o1	8	VAL
67	o1	16	LEU
67	o1	23	VAL

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Mol	Chain	Res	Type
67	o1	26	LYS
67	o1	28	ARG
67	o1	31	ARG
67	o1	34	LYS
67	o1	44	MET
67	o1	46	THR
67	o1	48	ASP
67	o1	53	PRO
67	o1	68	GLU
67	o1	76	SER
67	o1	90	PHE
67	o1	93	VAL
67	o1	94	GLU
67	o1	97	LEU
67	o1	102	LYS
67	o1	104	LEU
67	o1	105	GLN
67	o1	106	THR
67	o1	110	GLU
68	o2	14	THR
68	o2	17	PHE
68	o2	19	ARG
68	o2	21	HIS
68	o2	24	ARG
68	o2	31	ASN
68	o2	33	ARG
68	o2	40	SER
68	o2	49	ASN
68	o2	51	SER
68	o2	61	LYS
68	o2	73	THR
68	o2	75	LEU
68	o2	82	LEU
68	o2	84	THR
68	o2	87	MET
68	o2	89	THR
68	o2	115	LEU
68	o2	123	LYS
68	o2	125	ARG
69	o3	4	SER
69	o3	10	LYS
69	o3	31	LYS

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Mol	Chain	Res	Type
69	o3	33	GLU
69	o3	37	THR
69	o3	42	GLN
69	o3	54	ARG
69	o3	57	LYS
69	o3	59	VAL
69	o3	62	SER
69	o3	74	THR
69	o3	78	SER
69	o3	81	VAL
69	o3	86	ARG
69	o3	98	VAL
69	o3	105	SER
70	o4	5	VAL
70	o4	10	ARG
70	o4	16	ARG
70	o4	20	ILE
70	o4	24	LYS
70	o4	29	ILE
70	o4	33	GLN
70	o4	40	THR
70	o4	46	ASP
70	o4	47	CYS
70	o4	58	ARG
70	o4	61	GLN
70	o4	85	VAL
70	o4	88	ARG
70	o4	98	GLN
70	o4	101	VAL
70	o4	104	VAL
71	o5	11	THR
71	o5	20	GLN
71	o5	21	LEU
71	o5	31	LEU
71	o5	38	ARG
71	o5	40	SER
71	o5	45	LYS
71	o5	47	VAL
71	o5	48	ARG
71	o5	53	CYS
71	o5	62	GLN
71	o5	68	GLN

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Mol	Chain	Res	Type
71	o5	69	LEU
71	o5	81	ARG
71	o5	85	THR
71	o5	89	ARG
71	o5	100	VAL
71	o5	101	THR
71	o5	107	LYS
71	o5	108	GLN
71	o5	113	GLN
72	o6	3	VAL
72	o6	7	ILE
72	o6	9	ILE
72	o6	12	ASN
72	o6	18	THR
72	o6	26	ILE
72	o6	29	LYS
72	o6	34	SER
72	o6	36	ARG
72	o6	37	THR
72	o6	42	SER
72	o6	43	LEU
72	o6	45	ARG
72	o6	57	LEU
72	o6	58	ILE
72	o6	60	LEU
72	o6	68	ARG
72	o6	72	VAL
72	o6	74	LYS
72	o6	76	ARG
72	o6	81	THR
72	o6	94	ILE
72	o6	98	ARG
73	o7	5	THR
73	o7	7	SER
73	o7	15	SER
73	o7	17	THR
73	o7	25	ARG
73	o7	28	HIS
73	o7	33	THR
73	o7	36	SER
73	o7	44	THR
73	o7	46	SER

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Mol	Chain	Res	Type
73	o7	55	ARG
73	o7	59	THR
73	o7	65	ARG
73	o7	67	LEU
73	o7	71	SER
73	o7	74	PHE
73	o7	82	SER
74	o8	5	ILE
74	o8	13	GLU
74	o8	20	VAL
74	o8	22	THR
74	o8	24	THR
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	72	THR
75	o9	4	GLN
75	o9	5	LYS
75	o9	21	ARG
75	o9	23	LEU
75	o9	28	ARG
75	o9	29	LEU
75	o9	45	ARG
75	o9	47	THR
76	q0	85	LEU
76	q0	87	SER
76	q0	88	LYS
76	q0	91	CYS
76	q0	97	ARG
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	13	LEU

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Mol	Chain	Res	Type
77	q1	21	ARG
78	q2	6	LYS
78	q2	7	THR
78	q2	8	ARG
78	q2	15	LYS
78	q2	16	THR
78	q2	17	CYS
78	q2	22	GLN
78	q2	38	GLN
78	q2	45	ARG
78	q2	47	GLN
78	q2	48	SER
78	q2	61	LYS
78	q2	66	LYS
78	q2	71	ARG
78	q2	73	GLU
78	q2	75	VAL
78	q2	78	LYS
78	q2	79	THR
78	q2	83	LEU
78	q2	84	THR
78	q2	85	LEU
78	q2	89	LYS
78	q2	91	PHE
78	q2	93	LEU
78	q2	100	LYS
79	q3	10	ILE
79	q3	20	SER
79	q3	24	ARG
79	q3	40	SER
79	q3	42	CYS
79	q3	49	ARG
79	q3	54	ILE
79	q3	56	THR
79	q3	57	CYS
79	q3	59	CYS
79	q3	60	CYS
79	q3	70	THR
79	q3	73	THR
79	q3	79	VAL
79	q3	84	ARG
84	p0	4	ILE

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Mol	Chain	Res	Type
84	p0	5	ARG
84	p0	25	LEU
84	p0	30	VAL
84	p0	35	SER
84	p0	43	LYS
84	p0	48	ARG
84	p0	50	VAL
84	p0	51	VAL
84	p0	52	LEU
84	p0	55	LYS
84	p0	57	THR
84	p0	66	PHE
84	p0	70	LEU
84	p0	72	ASP
84	p0	74	GLU
84	p0	76	LEU
84	p0	80	VAL
84	p0	89	THR
84	p0	93	LEU
84	p0	97	LYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (46) such sidechains are listed below:

Mol	Chain	Res	Type
2	S0	163	ASN
5	S3	179	GLN
7	S5	103	ASN
10	S8	138	ASN
12	C0	12	HIS
18	C6	83	GLN
20	C8	99	HIS
23	D1	75	ASN
24	D2	56	HIS
27	D5	95	HIS
35	SM	86	ASN
39	L2	83	HIS
39	L2	209	HIS
42	L5	40	HIS
44	L7	25	GLN
44	L7	81	HIS
44	L7	225	GLN
44	L7	244	ASN

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Mol	Chain	Res	Type
46	L9	156	GLN
47	M0	55	ASN
47	M0	162	GLN
54	M8	152	HIS
57	N1	26	HIS
59	N3	33	ASN
59	N3	98	ASN
3	s1	149	GLN
4	s2	147	ASN
11	s9	124	HIS
80	c0	29	GLN
80	c0	32	HIS
18	c6	83	GLN
20	c8	25	ASN
20	c8	90	ASN
24	d2	24	GLN
27	d5	37	GLN
29	d7	19	HIS
82	e1	93	HIS
34	sR	184	ASN
44	l7	112	ASN
47	m0	59	GLN
47	m0	144	ASN
49	m3	25	HIS
53	m7	34	GLN
63	n7	57	HIS
64	n8	49	HIS
70	o4	18	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2	1747/1800 (97%)	488 (27%)	56 (3%)
1	6	1792/1800 (99%)	474 (26%)	57 (3%)
36	1	3145/3396 (92%)	688 (21%)	83 (2%)
36	5	3145/3396 (92%)	687 (21%)	76 (2%)
37	3	120/121 (99%)	14 (11%)	0
37	7	120/121 (99%)	24 (20%)	1 (0%)
38	4	157/158 (99%)	38 (24%)	2 (1%)
38	8	157/158 (99%)	37 (23%)	2 (1%)
All	All	10383/10950 (94%)	2450 (23%)	277 (2%)

All (2450) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	2	2	A
1	2	4	C
1	2	17	C
1	2	25	C
1	2	26	A
1	2	27	U
1	2	34	G
1	2	40	A
1	2	45	U
1	2	46	A
1	2	47	A
1	2	50	C
1	2	57	G
1	2	60	U
1	2	61	A
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	103	A
1	2	104	A
1	2	114	C
1	2	127	G
1	2	131	C
1	2	132	U
1	2	133	U
1	2	134	U
1	2	135	A
1	2	136	C
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	158	U
1	2	159	U
1	2	161	U

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Mol	Chain	Res	Type
1	2	169	A
1	2	178	U
1	2	179	A
1	2	185	U
1	2	186	C
1	2	187	G
1	2	188	A
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	199	G
1	2	200	A
1	2	215	A
1	2	218	A
1	2	219	A
1	2	226	A
1	2	227	U
1	2	228	G
1	2	231	U
1	2	233	C
1	2	234	G
1	2	235	G
1	2	236	A
1	2	238	U
1	2	239	C
1	2	240	U
1	2	241	U
1	2	242	U
1	2	250	C
1	2	260	U
1	2	261	U
1	2	262	U
1	2	265	A
1	2	266	A
1	2	271	A
1	2	272	U

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Mol	Chain	Res	Type
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	290	G
1	2	299	A
1	2	303	U
1	2	304	U
1	2	308	C
1	2	314	C
1	2	316	A
1	2	319	U
1	2	321	C
1	2	323	A
1	2	333	A
1	2	337	G
1	2	338	C
1	2	341	A
1	2	348	U
1	2	352	A
1	2	359	A
1	2	360	A
1	2	361	C
1	2	387	A
1	2	391	A
1	2	400	A
1	2	402	C
1	2	404	G
1	2	416	A
1	2	418	G
1	2	423	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

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Mol	Chain	Res	Type
1	2	446	A
1	2	448	C
1	2	454	U
1	2	477	A
1	2	480	G
1	2	484	C
1	2	485	A
1	2	486	G
1	2	488	G
1	2	489	C
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	504	U
1	2	505	A
1	2	506	A
1	2	507	U
1	2	508	U
1	2	510	G
1	2	511	A
1	2	512	A
1	2	513	U
1	2	515	A
1	2	516	G
1	2	519	C
1	2	520	A
1	2	525	A
1	2	527	A
1	2	528	U
1	2	531	C
1	2	532	U
1	2	536	C
1	2	537	G
1	2	538	A
1	2	539	G
1	2	540	G

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Mol	Chain	Res	Type
1	2	541	A
1	2	542	A
1	2	543	C
1	2	544	A
1	2	548	G
1	2	551	G
1	2	557	G
1	2	558	U
1	2	559	C
1	2	565	C
1	2	566	C
1	2	576	G
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	605	A
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	650	U
1	2	653	C
1	2	655	G
1	2	656	G
1	2	657	U
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	694	U
1	2	696	C

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Mol	Chain	Res	Type
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	709	C
1	2	710	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
1	2	721	U
1	2	722	G
1	2	723	G
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	751	G
1	2	754	A
1	2	755	A
1	2	756	A
1	2	765	G
1	2	766	U
1	2	768	C
1	2	774	A

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Mol	Chain	Res	Type
1	2	775	G
1	2	778	G
1	2	781	U
1	2	783	G
1	2	784	C
1	2	785	U
1	2	789	A
1	2	790	U
1	2	793	A
1	2	794	U
1	2	795	U
1	2	796	A
1	2	806	A
1	2	812	A
1	2	813	U
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	834	G
1	2	835	U
1	2	840	U
1	2	846	G
1	2	854	U
1	2	858	G
1	2	862	A
1	2	863	A
1	2	864	U
1	2	873	U
1	2	876	G
1	2	892	A
1	2	896	U

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Mol	Chain	Res	Type
1	2	898	A
1	2	911	U
1	2	912	U
1	2	914	G
1	2	915	A
1	2	916	U
1	2	933	A
1	2	935	U
1	2	942	G
1	2	944	A
1	2	951	A
1	2	960	U
1	2	961	U
1	2	966	A
1	2	970	A
1	2	971	A
1	2	982	U
1	2	984	G
1	2	988	A
1	2	992	A
1	2	993	A
1	2	995	A
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	1029	U
1	2	1031	U
1	2	1039	A
1	2	1040	G
1	2	1052	U
1	2	1053	G
1	2	1058	U
1	2	1059	U
1	2	1060	U
1	2	1061	A
1	2	1064	G
1	2	1066	C
1	2	1067	C

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Mol	Chain	Res	Type
1	2	1070	C
1	2	1081	A
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	1104	U
1	2	1111	G
1	2	1117	U
1	2	1138	A
1	2	1139	A
1	2	1146	G
1	2	1149	G
1	2	1150	G
1	2	1151	A
1	2	1152	A
1	2	1155	G
1	2	1158	C
1	2	1160	A
1	2	1163	A
1	2	1167	G
1	2	1176	G
1	2	1185	U
1	2	1188	G
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	1206	U
1	2	1207	C
1	2	1217	A
1	2	1218	G
1	2	1226	A
1	2	1227	A
1	2	1228	G
1	2	1235	C
1	2	1241	G

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Mol	Chain	Res	Type
1	2	1243	G
1	2	1244	A
1	2	1245	G
1	2	1250	U
1	2	1251	U
1	2	1257	U
1	2	1258	U
1	2	1260	U
1	2	1286	U
1	2	1287	A
1	2	1302	U
1	2	1310	U
1	2	1314	U
1	2	1315	U
1	2	1321	A
1	2	1339	C
1	2	1340	U
1	2	1341	A
1	2	1344	A
1	2	1345	A
1	2	1354	G
1	2	1355	C
1	2	1361	U
1	2	1363	U
1	2	1370	U
1	2	1371	A
1	2	1372	U
1	2	1379	C
1	2	1388	A
1	2	1390	U
1	2	1398	U
1	2	1399	C
1	2	1400	A
1	2	1401	A
1	2	1412	G
1	2	1413	U
1	2	1415	U
1	2	1427	A
1	2	1428	G
1	2	1431	C
1	2	1433	G
1	2	1445	G

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Mol	Chain	Res	Type
1	2	1446	A
1	2	1457	C
1	2	1458	G
1	2	1459	C
1	2	1461	C
1	2	1462	G
1	2	1469	A
1	2	1471	A
1	2	1473	U
1	2	1474	G
1	2	1478	G
1	2	1482	C
1	2	1486	G
1	2	1487	A
1	2	1489	U
1	2	1490	C
1	2	1491	U
1	2	1492	A
1	2	1493	A
1	2	1506	G
1	2	1514	U
1	2	1516	A
1	2	1517	U
1	2	1521	G
1	2	1523	G
1	2	1524	A
1	2	1535	U
1	2	1536	G
1	2	1537	C
1	2	1538	U
1	2	1540	G
1	2	1557	U
1	2	1559	A
1	2	1574	G
1	2	1584	G
1	2	1590	G
1	2	1600	A
1	2	1601	G
1	2	1614	A
1	2	1616	G
1	2	1631	A
1	2	1635	A

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Mol	Chain	Res	Type
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
1	2	1750	A
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	1792	G
1	2	1793	G
1	2	1794	A
1	2	1795	U
1	2	1796	C
36	1	13	A
36	1	14	U
36	1	15	C
36	1	16	A
36	1	26	A
36	1	33	G
36	1	40	A
36	1	42	C
36	1	43	A
36	1	49	A
36	1	59	G
36	1	60	A
36	1	65	A
36	1	66	A
36	1	68	C
36	1	76	G

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Mol	Chain	Res	Type
36	1	83	U
36	1	92	G
36	1	93	C
36	1	94	G
36	1	99	A
36	1	102	C
36	1	105	C
36	1	109	A
36	1	110	G
36	1	111	C
36	1	117	U
36	1	121	A
36	1	122	A
36	1	133	U
36	1	135	C
36	1	136	G
36	1	147	U
36	1	150	A
36	1	156	G
36	1	157	A
36	1	160	G
36	1	166	C
36	1	170	G
36	1	173	G
36	1	187	A
36	1	190	U
36	1	191	U
36	1	192	C
36	1	210	U
36	1	211	A
36	1	213	A
36	1	218	G
36	1	219	A
36	1	224	C
36	1	240	U
36	1	241	G
36	1	243	G
36	1	245	U
36	1	248	U
36	1	249	U
36	1	250	U
36	1	251	G

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Mol	Chain	Res	Type
36	1	252	U
36	1	256	G
36	1	269	G
36	1	270	U
36	1	272	G
36	1	277	G
36	1	282	G
36	1	283	G
36	1	286	U
36	1	295	A
36	1	298	U
36	1	299	G
36	1	311	C
36	1	315	C
36	1	318	A
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	352	A
36	1	375	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	412	G
36	1	420	G
36	1	421	G
36	1	422	A
36	1	438	A
36	1	440	A
36	1	498	A
36	1	520	U
36	1	521	A
36	1	531	G
36	1	535	G
36	1	541	U
36	1	543	C

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Mol	Chain	Res	Type
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	555	U
36	1	557	A
36	1	559	A
36	1	568	G
36	1	578	A
36	1	579	G
36	1	592	A
36	1	594	U
36	1	604	G
36	1	609	G
36	1	611	A
36	1	619	A
36	1	620	U
36	1	621	A
36	1	624	G
36	1	636	C
36	1	642	U
36	1	643	U
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	699	A
36	1	705	A
36	1	712	G
36	1	715	A
36	1	716	A
36	1	725	G
36	1	764	U
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	784	A
36	1	785	G
36	1	791	A
36	1	792	G
36	1	806	A
36	1	816	A
36	1	817	A
36	1	830	A
36	1	849	C
36	1	861	C
36	1	874	U
36	1	879	U
36	1	880	G
36	1	887	G
36	1	890	C
36	1	896	A
36	1	907	G
36	1	908	G
36	1	910	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	937	G
36	1	944	C
36	1	953	G
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
36	1	1006	A

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Mol	Chain	Res	Type
36	1	1010	G
36	1	1013	G
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	1042	U
36	1	1045	C
36	1	1047	A
36	1	1049	C
36	1	1064	A
36	1	1065	A
36	1	1068	C
36	1	1071	U
36	1	1072	G
36	1	1079	A
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	1153	A
36	1	1159	A
36	1	1161	G
36	1	1179	A
36	1	1180	A
36	1	1181	U
36	1	1182	A

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Mol	Chain	Res	Type
36	1	1191	U
36	1	1192	C
36	1	1201	C
36	1	1202	A
36	1	1203	A
36	1	1209	G
36	1	1213	G
36	1	1216	C
36	1	1218	U
36	1	1222	G
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	1245	A
36	1	1246	G
36	1	1248	C
36	1	1249	G
36	1	1251	A
36	1	1258	U
36	1	1259	A
36	1	1262	G
36	1	1263	A
36	1	1264	G
36	1	1266	G
36	1	1267	U
36	1	1269	U
36	1	1270	A
36	1	1271	A
36	1	1274	A
36	1	1278	A
36	1	1279	C
36	1	1280	C
36	1	1285	G
36	1	1286	A
36	1	1287	A
36	1	1292	C
36	1	1293	U
36	1	1307	G
36	1	1308	A

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Mol	Chain	Res	Type
36	1	1309	U
36	1	1313	G
36	1	1319	G
36	1	1320	C
36	1	1330	A
36	1	1331	U
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	1399	A
36	1	1400	G
36	1	1419	A
36	1	1431	G
36	1	1433	A
36	1	1434	G
36	1	1437	C
36	1	1445	U
36	1	1446	A
36	1	1450	G
36	1	1455	U
36	1	1481	A
36	1	1482	A
36	1	1503	A
36	1	1506	A
36	1	1507	G
36	1	1508	C
36	1	1526	U
36	1	1527	C
36	1	1528	G
36	1	1534	A
36	1	1553	U
36	1	1556	C
36	1	1560	G
36	1	1562	C

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Mol	Chain	Res	Type
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	1571	A
36	1	1572	U
36	1	1576	G
36	1	1579	C
36	1	1580	A
36	1	1582	C
36	1	1583	A
36	1	1587	A
36	1	1589	A
36	1	1593	A
36	1	1598	G
36	1	1599	G
36	1	1605	A
36	1	1607	U
36	1	1619	A
36	1	1620	U
36	1	1621	A
36	1	1629	U
36	1	1633	C
36	1	1639	C
36	1	1643	A
36	1	1644	C
36	1	1645	U
36	1	1646	G
36	1	1657	C
36	1	1664	G
36	1	1677	G
36	1	1679	A
36	1	1683	A
36	1	1688	U
36	1	1714	A
36	1	1716	U
36	1	1717	U
36	1	1724	U

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Mol	Chain	Res	Type
36	1	1725	C
36	1	1736	G
36	1	1741	A
36	1	1742	U
36	1	1749	A
36	1	1750	A
36	1	1751	G
36	1	1757	A
36	1	1761	C
36	1	1762	C
36	1	1765	U
36	1	1766	G
36	1	1767	C
36	1	1769	G
36	1	1770	G
36	1	1775	G
36	1	1779	C
36	1	1780	G
36	1	1797	A
36	1	1809	A
36	1	1810	A
36	1	1814	A
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	1841	A
36	1	1842	A
36	1	1846	C
36	1	1849	C
36	1	1850	A
36	1	1855	U
36	1	1871	U
36	1	1879	A
36	1	1880	U
36	1	1883	A
36	1	1884	A
36	1	1886	A
36	1	1893	A

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Mol	Chain	Res	Type
36	1	1906	G
36	1	1948	G
36	1	1951	C
36	1	1952	G
36	1	1953	G
36	1	1954	G
36	1	2094	C
36	1	2101	C
36	1	2102	U
36	1	2110	G
36	1	2111	G
36	1	2112	U
36	1	2113	A
36	1	2114	C
36	1	2121	G
36	1	2122	G
36	1	2131	A
36	1	2134	G
36	1	2140	U
36	1	2144	A
36	1	2158	A
36	1	2169	G
36	1	2170	U
36	1	2179	C
36	1	2187	G
36	1	2188	A
36	1	2195	C
36	1	2205	U
36	1	2208	A
36	1	2209	U
36	1	2210	G
36	1	2223	A
36	1	2225	U
36	1	2228	A
36	1	2244	A
36	1	2245	C
36	1	2249	G
36	1	2254	U
36	1	2255	A
36	1	2256	A
36	1	2272	G
36	1	2273	G

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Mol	Chain	Res	Type
36	1	2281	A
36	1	2282	U
36	1	2284	C
36	1	2301	U
36	1	2303	A
36	1	2304	C
36	1	2307	G
36	1	2310	U
36	1	2313	A
36	1	2314	U
36	1	2315	G
36	1	2317	A
36	1	2319	U
36	1	2324	A
36	1	2330	C
36	1	2334	U
36	1	2335	G
36	1	2336	U
36	1	2361	A
36	1	2366	C
36	1	2374	C
36	1	2375	G
36	1	2385	G
36	1	2388	U
36	1	2393	G
36	1	2395	G
36	1	2397	A
36	1	2401	A
36	1	2402	A
36	1	2403	G
36	1	2404	A
36	1	2405	C
36	1	2406	C
36	1	2411	U
36	1	2417	U
36	1	2418	G
36	1	2419	A
36	1	2423	U
36	1	2428	U
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	2513	U
36	1	2514	U
36	1	2515	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	2547	A
36	1	2549	G
36	1	2552	C
36	1	2554	A
36	1	2555	G
36	1	2560	C
36	1	2561	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	2585	G
36	1	2586	G
36	1	2588	U
36	1	2593	A
36	1	2594	C
36	1	2595	A
36	1	2606	G
36	1	2607	G
36	1	2614	G
36	1	2622	C

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Mol	Chain	Res	Type
36	1	2623	G
36	1	2637	A
36	1	2638	C
36	1	2652	U
36	1	2656	A
36	1	2674	A
36	1	2675	C
36	1	2677	G
36	1	2681	U
36	1	2687	G
36	1	2689	A
36	1	2691	A
36	1	2694	A
36	1	2696	A
36	1	2705	A
36	1	2714	G
36	1	2728	G
36	1	2729	U
36	1	2749	G
36	1	2753	G
36	1	2755	C
36	1	2762	A
36	1	2772	C
36	1	2773	C
36	1	2777	G
36	1	2778	G
36	1	2780	A
36	1	2796	G
36	1	2797	C
36	1	2799	A
36	1	2800	G
36	1	2801	A
36	1	2803	A
36	1	2810	C
36	1	2817	A
36	1	2818	U
36	1	2819	A
36	1	2829	U
36	1	2830	G
36	1	2833	A
36	1	2834	G
36	1	2837	A

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Mol	Chain	Res	Type
36	1	2842	U
36	1	2843	U
36	1	2845	A
36	1	2847	A
36	1	2860	U
36	1	2871	G
36	1	2872	A
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	2927	C
36	1	2935	U
36	1	2936	A
36	1	2939	G
36	1	2942	C
36	1	2945	G
36	1	2947	G
36	1	2954	U
36	1	2971	A
36	1	2980	U
36	1	2983	C
36	1	2990	G
36	1	2992	U
36	1	2997	G
36	1	3006	A
36	1	3012	A
36	1	3030	G
36	1	3034	C
36	1	3037	U
36	1	3056	U
36	1	3057	U
36	1	3058	U
36	1	3059	G
36	1	3069	G
36	1	3078	U
36	1	3079	U
36	1	3086	A
36	1	3087	A
36	1	3091	A

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Mol	Chain	Res	Type
36	1	3092	C
36	1	3113	A
36	1	3119	U
36	1	3122	A
36	1	3130	A
36	1	3131	U
36	1	3142	A
36	1	3143	C
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	3169	U
36	1	3170	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	3186	A
36	1	3187	A
36	1	3195	U
36	1	3196	U
36	1	3198	U
36	1	3207	U
36	1	3210	A
36	1	3217	C
36	1	3218	A
36	1	3219	G
36	1	3229	G
36	1	3243	A
36	1	3244	A
36	1	3245	A
36	1	3246	G
36	1	3247	G
36	1	3259	U
36	1	3269	U

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Mol	Chain	Res	Type
36	1	3270	U
36	1	3272	C
36	1	3273	A
36	1	3276	G
36	1	3277	U
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	3309	G
36	1	3310	A
36	1	3313	U
36	1	3314	A
36	1	3316	A
36	1	3317	U
36	1	3318	G
36	1	3319	U
36	1	3320	A
36	1	3330	A
36	1	3341	U
36	1	3342	A
36	1	3345	G
36	1	3347	A
36	1	3350	C
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	3369	G
36	1	3375	A
36	1	3376	A
36	1	3378	C
36	1	3382	U
36	1	3383	G
36	1	3389	U
36	1	3396	U

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Mol	Chain	Res	Type
37	3	11	A
37	3	13	A
37	3	22	A
37	3	41	G
37	3	42	A
37	3	54	U
37	3	65	G
37	3	74	C
37	3	76	A
37	3	91	G
37	3	102	A
37	3	106	U
37	3	112	G
37	3	121	U
38	4	2	A
38	4	26	U
38	4	34	U
38	4	35	C
38	4	48	A
38	4	50	C
38	4	51	G
38	4	52	A
38	4	53	A
38	4	57	C
38	4	59	A
38	4	62	C
38	4	63	G
38	4	70	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
38	4	85	G
38	4	86	U
38	4	87	G
38	4	89	A
38	4	90	U
38	4	95	G
38	4	105	A
38	4	106	C

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Mol	Chain	Res	Type
38	4	111	A
38	4	113	U
38	4	125	U
38	4	126	A
38	4	128	U
38	4	133	G
38	4	138	A
38	4	148	G
38	4	152	G
38	4	158	U
1	6	2	A
1	6	4	C
1	6	25	C
1	6	26	A
1	6	27	U
1	6	34	G
1	6	42	G
1	6	47	A
1	6	50	C
1	6	57	G
1	6	60	U
1	6	66	U
1	6	67	A
1	6	68	A
1	6	69	G
1	6	71	A
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	100	A
1	6	103	A
1	6	104	A
1	6	111	U
1	6	114	C
1	6	115	G
1	6	127	G
1	6	130	C
1	6	132	U
1	6	137	U

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Mol	Chain	Res	Type
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	146	U
1	6	153	G
1	6	159	U
1	6	178	U
1	6	179	A
1	6	181	A
1	6	182	A
1	6	185	U
1	6	187	G
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	197	A
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	235	G
1	6	240	U
1	6	241	U
1	6	243	G
1	6	249	U

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Mol	Chain	Res	Type
1	6	250	C
1	6	261	U
1	6	262	U
1	6	265	A
1	6	270	C
1	6	271	A
1	6	272	U
1	6	273	G
1	6	275	C
1	6	277	U
1	6	278	U
1	6	280	U
1	6	287	G
1	6	290	G
1	6	299	A
1	6	301	A
1	6	308	C
1	6	313	U
1	6	314	C
1	6	316	A
1	6	319	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	393	C
1	6	400	A
1	6	401	A
1	6	402	C
1	6	404	G
1	6	416	A
1	6	417	A
1	6	418	G
1	6	421	A
1	6	424	C
1	6	425	A
1	6	426	G

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Mol	Chain	Res	Type
1	6	428	A
1	6	434	G
1	6	439	U
1	6	444	C
1	6	445	A
1	6	448	C
1	6	460	A
1	6	464	A
1	6	468	A
1	6	470	A
1	6	477	A
1	6	482	U
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	508	U
1	6	510	G
1	6	511	A
1	6	512	A
1	6	513	U
1	6	514	G
1	6	515	A
1	6	519	C
1	6	527	A
1	6	528	U
1	6	534	A
1	6	536	C
1	6	538	A
1	6	539	G

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Mol	Chain	Res	Type
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	568	G
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	617	U
1	6	619	A
1	6	620	A
1	6	623	A
1	6	624	G
1	6	639	U
1	6	640	U
1	6	648	G
1	6	649	U
1	6	652	G
1	6	653	C
1	6	658	C
1	6	661	A
1	6	662	U
1	6	665	U
1	6	667	U
1	6	668	C
1	6	669	G
1	6	670	U

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Mol	Chain	Res	Type
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	705	U
1	6	710	U
1	6	711	U
1	6	714	G
1	6	717	C
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	733	A
1	6	734	A
1	6	742	U
1	6	744	U
1	6	751	G
1	6	753	A
1	6	754	A
1	6	755	A
1	6	756	A
1	6	765	G
1	6	766	U
1	6	774	A
1	6	775	G
1	6	777	C
1	6	780	A
1	6	781	U
1	6	782	U

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Mol	Chain	Res	Type
1	6	783	G
1	6	789	A
1	6	792	U
1	6	793	A
1	6	794	U
1	6	806	A
1	6	811	A
1	6	812	A
1	6	815	G
1	6	816	G
1	6	823	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	848	C
1	6	856	A
1	6	861	U
1	6	863	A
1	6	879	G
1	6	898	A
1	6	906	A
1	6	913	G
1	6	914	G
1	6	916	U
1	6	933	A
1	6	935	U
1	6	940	A
1	6	942	G
1	6	959	U
1	6	960	U
1	6	966	A
1	6	969	C
1	6	970	A
1	6	971	A
1	6	983	A

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Mol	Chain	Res	Type
1	6	992	A
1	6	993	A
1	6	1003	A
1	6	1004	U
1	6	1005	A
1	6	1021	C
1	6	1026	A
1	6	1028	C
1	6	1029	U
1	6	1039	A
1	6	1040	G
1	6	1052	U
1	6	1053	G
1	6	1057	U
1	6	1058	U
1	6	1059	U
1	6	1060	U
1	6	1067	C
1	6	1070	C
1	6	1071	U
1	6	1075	C
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	1104	U
1	6	1109	G
1	6	1111	G
1	6	1138	A
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	1191	U
1	6	1194	A
1	6	1196	A

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Mol	Chain	Res	Type
1	6	1199	G
1	6	1200	G
1	6	1202	A
1	6	1206	U
1	6	1212	G
1	6	1216	C
1	6	1217	A
1	6	1218	G
1	6	1220	C
1	6	1226	A
1	6	1228	G
1	6	1229	G
1	6	1230	A
1	6	1231	U
1	6	1238	A
1	6	1239	U
1	6	1240	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	1261	G
1	6	1262	U
1	6	1270	G
1	6	1284	C
1	6	1286	U
1	6	1288	G
1	6	1290	U
1	6	1314	U
1	6	1315	U
1	6	1316	G
1	6	1321	A
1	6	1338	C
1	6	1344	A
1	6	1345	A
1	6	1346	A

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Mol	Chain	Res	Type
1	6	1347	U
1	6	1354	G
1	6	1355	C
1	6	1361	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	1383	G
1	6	1385	G
1	6	1388	A
1	6	1390	U
1	6	1398	U
1	6	1399	C
1	6	1400	A
1	6	1402	G
1	6	1413	U
1	6	1414	U
1	6	1415	U
1	6	1427	A
1	6	1428	G
1	6	1433	G
1	6	1445	G
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	1481	C
1	6	1482	C
1	6	1489	U
1	6	1490	C
1	6	1491	U
1	6	1492	A
1	6	1493	A
1	6	1497	U
1	6	1500	C
1	6	1506	G
1	6	1514	U

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Mol	Chain	Res	Type
1	6	1515	A
1	6	1516	A
1	6	1523	G
1	6	1524	A
1	6	1535	U
1	6	1536	G
1	6	1537	C
1	6	1538	U
1	6	1539	G
1	6	1540	G
1	6	1554	U
1	6	1557	U
1	6	1559	A
1	6	1568	C
1	6	1569	A
1	6	1572	G
1	6	1573	A
1	6	1574	G
1	6	1575	G
1	6	1582	U
1	6	1584	G
1	6	1590	G
1	6	1601	G
1	6	1616	G
1	6	1621	U
1	6	1631	A
1	6	1634	C
1	6	1637	C
1	6	1638	G
1	6	1656	U
1	6	1657	U
1	6	1658	G
1	6	1678	A
1	6	1683	C
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	1712	A
1	6	1715	G

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Mol	Chain	Res	Type
1	6	1716	C
1	6	1717	G
1	6	1723	U
1	6	1727	G
1	6	1731	A
1	6	1736	G
1	6	1745	G
1	6	1756	A
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	1792	G
1	6	1793	G
1	6	1794	A
1	6	1795	U
1	6	1796	C
1	6	1799	U
1	6	1800	A
36	5	15	C
36	5	24	G
36	5	26	A
36	5	40	A
36	5	43	A
36	5	49	A
36	5	60	A
36	5	65	A
36	5	66	A
36	5	68	C
36	5	73	C
36	5	74	G
36	5	76	G
36	5	85	A
36	5	89	A
36	5	92	G
36	5	96	G
36	5	99	A
36	5	109	A
36	5	110	G

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Mol	Chain	Res	Type
36	5	113	C
36	5	116	A
36	5	117	U
36	5	120	G
36	5	121	A
36	5	122	A
36	5	126	U
36	5	133	U
36	5	134	U
36	5	135	C
36	5	136	G
36	5	155	G
36	5	156	G
36	5	157	A
36	5	165	A
36	5	170	G
36	5	171	G
36	5	172	G
36	5	173	G
36	5	174	C
36	5	180	C
36	5	182	U
36	5	187	A
36	5	190	U
36	5	191	U
36	5	209	A
36	5	210	U
36	5	211	A
36	5	218	G
36	5	219	A
36	5	221	A
36	5	227	G
36	5	236	G
36	5	238	A
36	5	239	G
36	5	240	U
36	5	244	G
36	5	248	U
36	5	249	U
36	5	250	U
36	5	251	G
36	5	252	U

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Mol	Chain	Res	Type
36	5	253	A
36	5	254	A
36	5	258	G
36	5	259	C
36	5	264	G
36	5	269	G
36	5	284	A
36	5	286	U
36	5	295	A
36	5	323	A
36	5	329	U
36	5	334	A
36	5	338	A
36	5	339	C
36	5	349	A
36	5	350	C
36	5	359	U
36	5	370	U
36	5	372	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
36	5	404	G
36	5	419	G
36	5	421	G
36	5	422	A
36	5	438	A
36	5	439	C
36	5	440	A
36	5	442	G
36	5	443	G
36	5	492	U
36	5	495	G
36	5	507	U
36	5	515	C
36	5	521	A
36	5	535	G
36	5	542	G

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Mol	Chain	Res	Type
36	5	546	C
36	5	547	G
36	5	548	G
36	5	553	U
36	5	555	U
36	5	557	A
36	5	559	A
36	5	578	A
36	5	579	G
36	5	581	U
36	5	592	A
36	5	594	U
36	5	595	G
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	653	A
36	5	660	A
36	5	677	A
36	5	681	U
36	5	691	A
36	5	705	A
36	5	712	G
36	5	715	A
36	5	716	A
36	5	719	U
36	5	725	G
36	5	727	G
36	5	736	A
36	5	747	A
36	5	766	U
36	5	767	U
36	5	768	C

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Mol	Chain	Res	Type
36	5	775	A
36	5	776	U
36	5	777	U
36	5	780	A
36	5	781	G
36	5	785	G
36	5	786	A
36	5	806	A
36	5	817	A
36	5	823	C
36	5	830	A
36	5	851	C
36	5	861	C
36	5	865	U
36	5	874	U
36	5	879	U
36	5	883	A
36	5	889	U
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
36	5	921	A
36	5	924	G
36	5	937	G
36	5	944	C
36	5	948	C
36	5	959	C
36	5	960	U
36	5	961	C
36	5	963	G
36	5	979	U
36	5	981	U
36	5	983	A
36	5	993	G
36	5	994	G

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Mol	Chain	Res	Type
36	5	1001	G
36	5	1002	A
36	5	1003	A
36	5	1006	A
36	5	1010	G
36	5	1015	U
36	5	1016	C
36	5	1017	C
36	5	1018	G
36	5	1019	G
36	5	1021	G
36	5	1024	G
36	5	1025	A
36	5	1026	A
36	5	1027	A
36	5	1028	U
36	5	1029	G
36	5	1035	G
36	5	1041	U
36	5	1047	A
36	5	1049	C
36	5	1064	A
36	5	1065	A
36	5	1072	G
36	5	1081	U
36	5	1082	U
36	5	1083	G
36	5	1085	A
36	5	1087	G
36	5	1093	A
36	5	1094	U
36	5	1095	U
36	5	1096	U
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

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Mol	Chain	Res	Type
36	5	1160	C
36	5	1172	G
36	5	1179	A
36	5	1180	A
36	5	1181	U
36	5	1182	A
36	5	1191	U
36	5	1192	C
36	5	1196	C
36	5	1201	C
36	5	1203	A
36	5	1209	G
36	5	1217	A
36	5	1218	U
36	5	1222	G
36	5	1225	A
36	5	1232	C
36	5	1236	G
36	5	1237	G
36	5	1238	C
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	1258	U
36	5	1262	G
36	5	1263	A
36	5	1264	G
36	5	1265	U
36	5	1266	G
36	5	1284	C
36	5	1285	G
36	5	1292	C
36	5	1307	G
36	5	1308	A
36	5	1309	U
36	5	1313	G
36	5	1330	A
36	5	1331	U
36	5	1348	U

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Mol	Chain	Res	Type
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	1386	A
36	5	1399	A
36	5	1400	G
36	5	1405	U
36	5	1418	A
36	5	1419	A
36	5	1422	G
36	5	1428	A
36	5	1431	G
36	5	1433	A
36	5	1434	G
36	5	1437	C
36	5	1446	A
36	5	1450	G
36	5	1460	A
36	5	1465	A
36	5	1468	A
36	5	1480	G
36	5	1481	A
36	5	1482	A
36	5	1490	A
36	5	1503	A
36	5	1508	C
36	5	1528	G
36	5	1533	U
36	5	1536	G
36	5	1554	U
36	5	1555	U
36	5	1556	C
36	5	1560	G
36	5	1561	G
36	5	1562	C
36	5	1563	C
36	5	1564	U

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Mol	Chain	Res	Type
36	5	1565	G
36	5	1566	A
36	5	1567	U
36	5	1570	U
36	5	1571	A
36	5	1572	U
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	1582	C
36	5	1583	A
36	5	1587	A
36	5	1589	A
36	5	1593	A
36	5	1620	U
36	5	1629	U
36	5	1635	G
36	5	1639	C
36	5	1641	U
36	5	1643	A
36	5	1644	C
36	5	1645	U
36	5	1655	G
36	5	1658	G
36	5	1677	G
36	5	1682	U
36	5	1713	G
36	5	1716	U
36	5	1717	U
36	5	1724	U
36	5	1725	C
36	5	1741	A
36	5	1746	U
36	5	1750	A
36	5	1751	G
36	5	1756	C
36	5	1762	C
36	5	1764	U

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Mol	Chain	Res	Type
36	5	1765	U
36	5	1766	G
36	5	1769	G
36	5	1770	G
36	5	1780	G
36	5	1795	U
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	1822	C
36	5	1829	G
36	5	1841	A
36	5	1842	A
36	5	1846	C
36	5	1847	A
36	5	1849	C
36	5	1850	A
36	5	1851	G
36	5	1864	A
36	5	1878	G
36	5	1879	A
36	5	1880	U
36	5	1891	A
36	5	1893	A
36	5	1895	A
36	5	1901	A
36	5	1906	G
36	5	1920	U
36	5	1935	G
36	5	2100	A
36	5	2101	C
36	5	2102	U
36	5	2111	G
36	5	2112	U
36	5	2113	A
36	5	2117	A
36	5	2121	G

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Mol	Chain	Res	Type
36	5	2122	G
36	5	2131	A
36	5	2140	U
36	5	2144	A
36	5	2158	A
36	5	2169	G
36	5	2192	C
36	5	2198	A
36	5	2205	U
36	5	2206	G
36	5	2207	A
36	5	2210	G
36	5	2215	A
36	5	2222	A
36	5	2223	A
36	5	2228	A
36	5	2234	G
36	5	2237	C
36	5	2244	A
36	5	2246	G
36	5	2249	G
36	5	2250	G
36	5	2252	A
36	5	2253	G
36	5	2255	A
36	5	2256	A
36	5	2267	C
36	5	2273	G
36	5	2278	C
36	5	2279	A
36	5	2280	A
36	5	2287	C
36	5	2288	G
36	5	2303	A
36	5	2307	G
36	5	2310	U
36	5	2313	A
36	5	2315	G
36	5	2318	U
36	5	2327	U
36	5	2334	U
36	5	2336	U

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Mol	Chain	Res	Type
36	5	2366	C
36	5	2367	A
36	5	2373	A
36	5	2374	C
36	5	2375	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	2411	U
36	5	2418	G
36	5	2420	C
36	5	2422	C
36	5	2423	U
36	5	2437	G
36	5	2439	A
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	2510	U
36	5	2511	A
36	5	2514	U
36	5	2515	A
36	5	2517	U
36	5	2518	C
36	5	2523	A
36	5	2524	A
36	5	2526	C
36	5	2530	G
36	5	2531	C
36	5	2532	U
36	5	2534	G
36	5	2536	A
36	5	2537	U

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Mol	Chain	Res	Type
36	5	2538	U
36	5	2539	C
36	5	2540	A
36	5	2541	U
36	5	2543	U
36	5	2552	C
36	5	2555	G
36	5	2562	A
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	2573	G
36	5	2574	G
36	5	2584	G
36	5	2585	G
36	5	2587	U
36	5	2588	U
36	5	2589	G
36	5	2593	A
36	5	2606	G
36	5	2607	G
36	5	2614	G
36	5	2615	G
36	5	2626	A
36	5	2637	A
36	5	2639	G
36	5	2652	U
36	5	2656	A
36	5	2674	A
36	5	2677	G
36	5	2683	U
36	5	2689	A
36	5	2690	G
36	5	2691	A
36	5	2694	A
36	5	2696	A
36	5	2705	A
36	5	2714	G

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Mol	Chain	Res	Type
36	5	2720	G
36	5	2727	A
36	5	2728	G
36	5	2729	U
36	5	2737	C
36	5	2742	C
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	2779	A
36	5	2780	A
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	2802	A
36	5	2810	C
36	5	2814	G
36	5	2817	A
36	5	2818	U
36	5	2819	A
36	5	2829	U
36	5	2842	U
36	5	2843	U
36	5	2844	C
36	5	2845	A
36	5	2847	A
36	5	2853	A
36	5	2871	G
36	5	2872	A
36	5	2880	U
36	5	2882	U
36	5	2886	U
36	5	2887	A
36	5	2889	C

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Mol	Chain	Res	Type
36	5	2896	A
36	5	2897	A
36	5	2899	C
36	5	2900	A
36	5	2901	G
36	5	2912	G
36	5	2921	U
36	5	2922	G
36	5	2923	U
36	5	2935	U
36	5	2936	A
36	5	2937	G
36	5	2942	C
36	5	2945	G
36	5	2947	G
36	5	2957	G
36	5	2971	A
36	5	2972	G
36	5	2979	U
36	5	2983	C
36	5	2990	G
36	5	2996	U
36	5	2997	G
36	5	3012	A
36	5	3018	C
36	5	3029	A
36	5	3030	G
36	5	3049	A
36	5	3056	U
36	5	3059	G
36	5	3078	U
36	5	3079	U
36	5	3086	A
36	5	3092	C
36	5	3102	G
36	5	3104	U
36	5	3122	A
36	5	3123	A
36	5	3127	A
36	5	3130	A
36	5	3131	U
36	5	3142	A

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Mol	Chain	Res	Type
36	5	3143	C
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	3159	C
36	5	3164	C
36	5	3165	A
36	5	3168	A
36	5	3171	U
36	5	3172	A
36	5	3173	G
36	5	3174	A
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	3196	U
36	5	3198	U
36	5	3207	U
36	5	3208	G
36	5	3217	C
36	5	3218	A
36	5	3219	G
36	5	3223	A
36	5	3224	G
36	5	3227	A
36	5	3228	C
36	5	3229	G
36	5	3238	G
36	5	3239	G
36	5	3244	A
36	5	3245	A
36	5	3246	G
36	5	3247	G
36	5	3253	G
36	5	3259	U
36	5	3263	G

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Mol	Chain	Res	Type
36	5	3270	U
36	5	3275	U
36	5	3276	G
36	5	3277	U
36	5	3279	A
36	5	3281	U
36	5	3282	U
36	5	3284	G
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	3304	U
36	5	3307	A
36	5	3310	A
36	5	3313	U
36	5	3316	A
36	5	3317	U
36	5	3319	U
36	5	3320	A
36	5	3341	U
36	5	3342	A
36	5	3345	G
36	5	3351	U
36	5	3352	U
36	5	3354	U
36	5	3355	U
36	5	3358	U
36	5	3369	G
36	5	3378	C
36	5	3389	U
36	5	3390	G
36	5	3393	U
36	5	3394	U
36	5	3396	U
37	7	7	G
37	7	22	A
37	7	23	A
37	7	25	G
37	7	27	A

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Mol	Chain	Res	Type
37	7	38	U
37	7	41	G
37	7	45	A
37	7	49	G
37	7	52	G
37	7	53	U
37	7	54	U
37	7	55	A
37	7	60	G
37	7	65	G
37	7	73	C
37	7	74	C
37	7	75	G
37	7	76	A
37	7	91	G
37	7	101	G
37	7	102	A
37	7	112	G
37	7	121	U
38	8	21	C
38	8	34	U
38	8	35	C
38	8	43	A
38	8	48	A
38	8	53	A
38	8	59	A
38	8	62	C
38	8	63	G
38	8	76	C
38	8	79	A
38	8	80	A
38	8	81	U
38	8	82	U
38	8	83	C
38	8	84	C
38	8	86	U
38	8	87	G
38	8	90	U
38	8	95	G
38	8	97	A
38	8	102	U
38	8	104	A

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Mol	Chain	Res	Type
38	8	105	A
38	8	106	C
38	8	108	C
38	8	111	A
38	8	113	U
38	8	115	C
38	8	122	U
38	8	124	G
38	8	125	U
38	8	126	A
38	8	152	G
38	8	156	U
38	8	157	U
38	8	158	U

All (277) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	2	25	C
1	2	45	U
1	2	68	A
1	2	73	U
1	2	74	U
1	2	103	A
1	2	114	C
1	2	126	A
1	2	130	C
1	2	131	C
1	2	136	C
1	2	139	C
1	2	144	U
1	2	158	U
1	2	187	G
1	2	192	U
1	2	218	A
1	2	240	U
1	2	278	U
1	2	280	U
1	2	322	G
1	2	417	A
1	2	497	G
1	2	499	U

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Mol	Chain	Res	Type
1	2	501	U
1	2	503	G
1	2	512	A
1	2	558	U
1	2	582	U
1	2	685	A
1	2	704	C
1	2	720	G
1	2	721	U
1	2	734	A
1	2	755	A
1	2	794	U
1	2	811	A
1	2	823	G
1	2	829	A
1	2	1058	U
1	2	1137	A
1	2	1157	A
1	2	1196	A
1	2	1226	A
1	2	1234	A
1	2	1244	A
1	2	1250	U
1	2	1344	A
1	2	1370	U
1	2	1481	C
1	2	1489	U
1	2	1573	A
1	2	1600	A
1	2	1615	C
1	2	1657	U
1	2	1761	U
36	1	43	A
36	1	65	A
36	1	169	U
36	1	210	U
36	1	217	U
36	1	223	U
36	1	239	G
36	1	282	G
36	1	285	A
36	1	397	A

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Mol	Chain	Res	Type
36	1	547	G
36	1	588	G
36	1	594	U
36	1	715	A
36	1	719	U
36	1	763	G
36	1	816	A
36	1	896	A
36	1	916	G
36	1	981	U
36	1	993	G
36	1	1064	A
36	1	1094	U
36	1	1097	G
36	1	1103	A
36	1	1181	U
36	1	1273	A
36	1	1291	A
36	1	1307	G
36	1	1317	A
36	1	1329	U
36	1	1352	A
36	1	1355	A
36	1	1467	A
36	1	1562	C
36	1	1568	U
36	1	1716	U
36	1	1724	U
36	1	1751	G
36	1	1815	U
36	1	1816	A
36	1	1820	U
36	1	1841	A
36	1	1846	C
36	1	1849	C
36	1	2101	C
36	1	2109	U
36	1	2112	U
36	1	2209	U
36	1	2227	C
36	1	2281	A
36	1	2360	C

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Mol	Chain	Res	Type
36	1	2372	A
36	1	2374	C
36	1	2403	G
36	1	2418	G
36	1	2513	U
36	1	2537	U
36	1	2541	U
36	1	2585	G
36	1	2704	A
36	1	2728	G
36	1	2772	C
36	1	2818	U
36	1	2842	U
36	1	2996	U
36	1	3056	U
36	1	3078	U
36	1	3121	U
36	1	3169	U
36	1	3195	U
36	1	3218	A
36	1	3228	C
36	1	3242	G
36	1	3269	U
36	1	3275	U
36	1	3319	U
36	1	3350	C
36	1	3351	U
36	1	3353	G
36	1	3375	A
36	1	3377	G
36	1	3382	U
38	4	85	G
38	4	125	U
1	6	25	C
1	6	66	U
1	6	76	A
1	6	103	A
1	6	114	C
1	6	139	C
1	6	145	A
1	6	158	U
1	6	187	G

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Mol	Chain	Res	Type
1	6	192	U
1	6	217	A
1	6	218	A
1	6	240	U
1	6	400	A
1	6	417	A
1	6	468	A
1	6	488	G
1	6	512	A
1	6	542	A
1	6	543	C
1	6	557	G
1	6	558	U
1	6	606	A
1	6	651	G
1	6	664	U
1	6	695	U
1	6	697	C
1	6	717	C
1	6	755	A
1	6	828	U
1	6	829	A
1	6	834	G
1	6	944	A
1	6	1004	U
1	6	1051	G
1	6	1058	U
1	6	1097	U
1	6	1238	A
1	6	1244	A
1	6	1255	G
1	6	1269	U
1	6	1314	U
1	6	1344	A
1	6	1346	A
1	6	1481	C
1	6	1489	U
1	6	1491	U
1	6	1535	U
1	6	1568	C
1	6	1572	G
1	6	1573	A

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Mol	Chain	Res	Type
1	6	1615	C
1	6	1620	C
1	6	1657	U
1	6	1696	G
1	6	1698	G
1	6	1700	C
36	5	43	A
36	5	210	U
36	5	217	U
36	5	238	A
36	5	397	A
36	5	588	G
36	5	647	A
36	5	715	A
36	5	765	C
36	5	816	A
36	5	873	C
36	5	896	A
36	5	916	G
36	5	960	U
36	5	993	G
36	5	1027	A
36	5	1064	A
36	5	1081	U
36	5	1152	G
36	5	1236	G
36	5	1238	C
36	5	1241	U
36	5	1284	C
36	5	1307	G
36	5	1329	U
36	5	1331	U
36	5	1352	A
36	5	1355	A
36	5	1481	A
36	5	1514	G
36	5	1554	U
36	5	1560	G
36	5	1580	A
36	5	1716	U
36	5	1815	U
36	5	1816	A

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Mol	Chain	Res	Type
36	5	1841	A
36	5	1846	C
36	5	1878	G
36	5	2101	C
36	5	2112	U
36	5	2204	C
36	5	2209	U
36	5	2255	A
36	5	2372	A
36	5	2440	G
36	5	2507	C
36	5	2513	U
36	5	2531	C
36	5	2539	C
36	5	2586	G
36	5	2682	C
36	5	2728	G
36	5	2772	C
36	5	2801	A
36	5	2817	A
36	5	2818	U
36	5	2887	A
36	5	2896	A
36	5	2971	A
36	5	2979	U
36	5	3055	U
36	5	3078	U
36	5	3121	U
36	5	3167	A
36	5	3195	U
36	5	3218	A
36	5	3228	C
36	5	3269	U
36	5	3271	G
36	5	3275	U
36	5	3289	G
36	5	3340	G
36	5	3341	U
36	5	3354	U
36	5	3357	U
37	7	49	G
38	8	86	U

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Mol	Chain	Res	Type
38	8	156	U

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 2563 ligands modelled in this entry, 1424 are monoatomic - leaving 1139 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	$\# Z > 2$
90	A	1	3401	-	18,24,25	0.89	1 (5%)	16,35,38	1.03	2 (12%)
88	OHX	1	3873	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3874	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3875	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3876	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3877	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3878	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3879	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3880	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3881	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3882	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3883	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3884	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3885	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3886	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3887	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3888	-	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
88	OHX	1	3889	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3890	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3891	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3892	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3893	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3894	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3895	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3896	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3897	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3898	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3899	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3900	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3931	-	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
88	OHX	1	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3974	-	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
88	OHX	1	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3983	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4017	-	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
88	OHX	1	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4026	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4060	-	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
88	OHX	1	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4069	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4103	-	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
88	OHX	1	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4112	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4146	-	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
88	OHX	1	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4155	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4189	-	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
88	OHX	1	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4198	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4212	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4213	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4214	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4215	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4216	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4217	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4218	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4219	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4220	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4221	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4222	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4223	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4224	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4225	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	1	4226	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2023	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2024	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2025	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2026	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2027	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2028	-	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
88	OHX	2	2029	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2030	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2031	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2032	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2033	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2034	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2035	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2036	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2037	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2038	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2039	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2040	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2041	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2042	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2043	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2044	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2045	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2046	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2071	-	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	$\# Z > 2$
88	OHX	2	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2083	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2114	-	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
88	OHX	2	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2126	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2140	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2157	-	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
88	OHX	2	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	2	2180	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	3	215	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	3	216	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	3	217	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	3	218	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	3	219	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	3	220	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	3	221	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	3	222	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	3	223	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	3	224	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	3	225	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	4	220	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	4	221	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	4	222	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	4	223	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	4	224	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	4	225	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	4	226	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	4	227	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	4	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
88	OHX	4	229	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	4	230	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	4	231	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	4	232	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	4	233	-	0,6,6	0.00	-	0,15,15	0.00	-
90	A	5	3401	-	18,24,25	0.69	0	16,35,38	0.92	0
88	OHX	5	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3937	-	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
88	OHX	5	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3980	-	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
88	OHX	5	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3983	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4023	-	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
88	OHX	5	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4026	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4066	-	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
88	OHX	5	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4069	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4109	-	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	$\# Z > 2$
88	OHX	5	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4112	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4152	-	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
88	OHX	5	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4155	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4195	-	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
88	OHX	5	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4198	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4212	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4213	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4214	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4215	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4216	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4217	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4218	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4219	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4220	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4221	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4222	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4223	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4224	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4225	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4226	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4227	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4228	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4229	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4230	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4231	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4232	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4233	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4234	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4235	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4236	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4237	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4238	-	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
88	OHX	5	4239	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4240	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4241	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4242	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4243	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4244	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4245	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4246	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4247	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4248	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4249	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4250	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4251	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4252	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4253	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4254	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4255	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4256	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4257	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	5	4258	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2044	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2045	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2046	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2066	-	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
88	OHX	6	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2083	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2105	1	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2109	-	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	$\# Z > 2$
88	OHX	6	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2126	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2140	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2152	-	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
88	OHX	6	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2180	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2181	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2182	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2183	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2184	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2185	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2186	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2187	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2188	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2189	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2190	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2191	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2192	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2193	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2194	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2195	-	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
88	OHX	6	2196	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2197	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2198	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2199	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2200	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2201	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	6	2202	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	7	215	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	7	216	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	7	217	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	7	218	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	7	219	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	7	220	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	7	221	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	7	222	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	7	223	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	7	224	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	7	225	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	7	226	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	8	217	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	8	218	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	8	219	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	8	220	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	8	221	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	8	222	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	8	223	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	8	224	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	8	225	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	8	226	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	8	227	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	8	228	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	8	229	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	8	230	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	C3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	C5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	C8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	D3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	D9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	L3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	L3	405	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	L3	406	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	L4	402	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	M0	303	-	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
88	OHX	M5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	M7	205	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	M7	206	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	M8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	M9	202	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	N9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	O3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	O7	103	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	O7	104	-	0,6,6	0.00	-	0,15,15	0.00	-
91	C	Q2	502	-	14,21,22	0.94	0	15,30,33	0.83	0
91	C	Q2	503	-	14,21,22	0.91	0	15,30,33	1.07	2 (13%)
88	OHX	S8	302	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	SR	401	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	c1	202	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	c3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	c5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	c8	202	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	d4	202	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	d9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	l3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	l3	405	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	l3	406	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	l4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	l4	404	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	l5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	l5	304	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	l5	305	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	l5	306	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	l9	600	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	m0	301	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	m0	302	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	m1	203	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	m4	201	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	m5	306	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	m6	203	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	n3	203	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	n3	204	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	n9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	o3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	o7	502	-	0,6,6	0.00	-	0,15,15	0.00	-
91	C	q2	502	-	14,21,22	0.79	0	15,30,33	0.73	0
91	C	q2	503	-	14,21,22	0.96	1 (7%)	15,30,33	0.91	1 (6%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
88	OHX	q2	504	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	s1	302	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	s1	303	-	0,6,6	0.00	-	0,15,15	0.00	-
88	OHX	s8	304	-	0,6,6	0.00	-	0,15,15	0.00	-
88	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
90	A	1	3401	-	-	0/3/25/26	0/3/3/3
88	OHX	1	3873	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3874	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3875	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3876	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3877	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3878	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3879	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3880	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3881	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3882	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3883	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3884	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3885	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3886	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3887	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3888	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3889	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3890	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3891	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3892	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3893	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3894	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3895	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3896	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3897	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3898	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3899	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3900	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3901	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3902	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	1	3903	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3904	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3905	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3906	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3907	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3908	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3909	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3910	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3911	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3912	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3913	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3914	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3915	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3916	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3917	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3918	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3919	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3920	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3921	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3922	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3923	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3924	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3925	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3926	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3927	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3928	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3929	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3930	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3931	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3932	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3933	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3934	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3935	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3936	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3937	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3938	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3939	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3940	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3941	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3942	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3943	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3944	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	1	3945	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3946	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3947	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3948	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3949	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3950	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3951	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3952	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3953	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3954	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3955	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3956	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3957	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3958	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3959	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3960	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3961	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3962	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3963	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3964	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3965	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3966	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3967	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3968	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3969	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3970	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3971	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3972	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3973	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3974	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3975	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3976	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3977	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3978	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3979	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3980	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3981	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3982	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3983	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3984	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3985	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3986	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	1	3987	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3988	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3989	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3990	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3991	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3992	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3993	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3994	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3995	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3996	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3997	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3998	-	-	0/0/0/0	0/0/0/0
88	OHX	1	3999	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4000	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4001	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4002	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4003	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4004	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4005	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4006	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4007	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4008	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4009	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4010	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4011	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4012	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4013	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4014	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4015	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4016	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4017	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4018	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4019	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4020	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4021	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4022	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4023	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4024	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4025	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4026	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4027	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4028	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	1	4029	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4030	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4031	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4032	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4033	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4034	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4035	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4036	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4037	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4038	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4039	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4040	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4041	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4042	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4043	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4044	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4045	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4046	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4047	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4048	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4049	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4050	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4051	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4052	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4053	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4054	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4055	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4056	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4057	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4058	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4059	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4060	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4061	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4062	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4063	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4064	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4065	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4066	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4067	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4068	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4069	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4070	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	1	4071	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4072	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4073	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4074	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4075	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4076	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4077	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4078	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4079	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4080	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4081	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4082	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4083	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4084	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4085	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4086	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4087	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4088	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4089	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4090	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4091	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4092	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4093	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4094	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4095	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4096	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4097	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4098	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4099	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4100	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4101	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4102	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4103	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4104	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4105	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4106	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4107	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4108	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4109	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4110	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4111	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4112	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	1	4113	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4114	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4115	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4116	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4117	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4118	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4119	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4120	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4121	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4122	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4123	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4124	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4125	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4126	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4127	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4128	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4129	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4130	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4131	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4132	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4133	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4134	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4135	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4136	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4137	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4138	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4139	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4140	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4141	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4142	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4143	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4144	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4145	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4146	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4147	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4148	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4149	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4150	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4151	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4152	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4153	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4154	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	1	4155	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4156	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4157	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4158	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4159	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4160	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4161	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4162	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4163	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4164	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4165	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4166	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4167	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4168	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4169	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4170	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4171	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4172	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4173	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4174	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4175	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4176	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4177	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4178	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4179	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4180	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4181	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4182	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4183	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4184	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4185	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4186	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4187	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4188	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4189	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4190	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4191	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4192	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4193	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4194	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4195	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4196	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	1	4197	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4198	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4199	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4200	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4201	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4202	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4203	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4204	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4205	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4206	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4207	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4208	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4209	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4210	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4211	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4212	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4213	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4214	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4215	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4216	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4217	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4218	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4219	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4220	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4221	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4222	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4223	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4224	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4225	-	-	0/0/0/0	0/0/0/0
88	OHX	1	4226	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2023	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2024	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2025	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2026	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2027	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2028	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2029	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2030	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2031	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2032	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2033	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2034	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	2	2035	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2036	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2037	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2038	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2039	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2040	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2041	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2042	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2043	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2044	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2045	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2046	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2047	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2048	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2049	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2050	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2051	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2052	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2053	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2054	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2055	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2056	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2057	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2058	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2059	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2060	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2061	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2062	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2063	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2064	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2065	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2066	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2067	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2068	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2069	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2070	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2071	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2072	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2073	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2074	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2075	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2076	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	2	2077	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2078	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2079	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2080	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2081	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2082	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2083	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2084	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2085	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2086	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2087	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2088	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2089	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2090	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2091	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2092	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2093	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2094	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2095	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2096	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2097	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2098	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2099	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2100	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2101	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2102	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2103	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2104	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2105	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2106	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2107	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2108	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2109	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2110	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2111	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2112	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2113	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2114	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2115	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2116	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2117	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2118	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	2	2119	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2120	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2121	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2122	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2123	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2124	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2125	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2126	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2127	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2128	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2129	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2130	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2131	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2132	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2133	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2134	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2135	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2136	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2137	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2138	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2139	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2140	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2141	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2142	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2143	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2144	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2145	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2146	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2147	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2148	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2149	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2150	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2151	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2152	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2153	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2154	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2155	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2156	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2157	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2158	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2159	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2160	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	2	2161	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2162	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2163	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2164	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2165	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2166	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2167	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2168	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2169	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2170	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2171	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2172	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2173	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2174	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2175	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2176	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2177	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2178	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2179	-	-	0/0/0/0	0/0/0/0
88	OHX	2	2180	-	-	0/0/0/0	0/0/0/0
88	OHX	3	215	-	-	0/0/0/0	0/0/0/0
88	OHX	3	216	-	-	0/0/0/0	0/0/0/0
88	OHX	3	217	-	-	0/0/0/0	0/0/0/0
88	OHX	3	218	-	-	0/0/0/0	0/0/0/0
88	OHX	3	219	-	-	0/0/0/0	0/0/0/0
88	OHX	3	220	-	-	0/0/0/0	0/0/0/0
88	OHX	3	221	-	-	0/0/0/0	0/0/0/0
88	OHX	3	222	-	-	0/0/0/0	0/0/0/0
88	OHX	3	223	-	-	0/0/0/0	0/0/0/0
88	OHX	3	224	-	-	0/0/0/0	0/0/0/0
88	OHX	3	225	-	-	0/0/0/0	0/0/0/0
88	OHX	4	220	-	-	0/0/0/0	0/0/0/0
88	OHX	4	221	-	-	0/0/0/0	0/0/0/0
88	OHX	4	222	-	-	0/0/0/0	0/0/0/0
88	OHX	4	223	-	-	0/0/0/0	0/0/0/0
88	OHX	4	224	-	-	0/0/0/0	0/0/0/0
88	OHX	4	225	-	-	0/0/0/0	0/0/0/0
88	OHX	4	226	-	-	0/0/0/0	0/0/0/0
88	OHX	4	227	-	-	0/0/0/0	0/0/0/0
88	OHX	4	228	-	-	0/0/0/0	0/0/0/0
88	OHX	4	229	-	-	0/0/0/0	0/0/0/0
88	OHX	4	230	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	4	231	-	-	0/0/0/0	0/0/0/0
88	OHX	4	232	-	-	0/0/0/0	0/0/0/0
88	OHX	4	233	-	-	0/0/0/0	0/0/0/0
90	A	5	3401	-	-	0/3/25/26	0/3/3/3
88	OHX	5	3901	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3902	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3903	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3904	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3905	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3906	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3907	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3908	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3909	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3910	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3911	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3912	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3913	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3914	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3915	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3916	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3917	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3918	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3919	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3920	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3921	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3922	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3923	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3924	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3925	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3926	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3927	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3928	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3929	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3930	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3931	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3932	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3933	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3934	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3935	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3936	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3937	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3938	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	5	3939	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3940	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3941	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3942	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3943	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3944	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3945	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3946	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3947	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3948	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3949	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3950	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3951	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3952	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3953	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3954	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3955	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3956	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3957	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3958	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3959	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3960	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3961	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3962	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3963	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3964	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3965	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3966	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3967	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3968	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3969	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3970	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3971	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3972	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3973	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3974	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3975	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3976	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3977	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3978	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3979	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3980	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	5	3981	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3982	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3983	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3984	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3985	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3986	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3987	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3988	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3989	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3990	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3991	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3992	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3993	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3994	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3995	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3996	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3997	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3998	-	-	0/0/0/0	0/0/0/0
88	OHX	5	3999	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4000	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4001	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4002	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4003	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4004	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4005	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4006	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4007	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4008	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4009	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4010	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4011	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4012	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4013	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4014	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4015	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4016	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4017	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4018	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4019	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4020	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4021	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4022	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	5	4023	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4024	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4025	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4026	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4027	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4028	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4029	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4030	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4031	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4032	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4033	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4034	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4035	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4036	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4037	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4038	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4039	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4040	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4041	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4042	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4043	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4044	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4045	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4046	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4047	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4048	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4049	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4050	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4051	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4052	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4053	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4054	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4055	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4056	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4057	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4058	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4059	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4060	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4061	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4062	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4063	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4064	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	5	4065	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4066	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4067	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4068	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4069	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4070	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4071	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4072	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4073	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4074	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4075	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4076	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4077	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4078	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4079	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4080	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4081	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4082	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4083	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4084	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4085	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4086	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4087	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4088	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4089	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4090	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4091	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4092	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4093	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4094	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4095	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4096	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4097	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4098	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4099	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4100	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4101	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4102	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4103	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4104	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4105	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4106	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	5	4107	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4108	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4109	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4110	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4111	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4112	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4113	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4114	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4115	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4116	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4117	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4118	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4119	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4120	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4121	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4122	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4123	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4124	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4125	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4126	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4127	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4128	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4129	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4130	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4131	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4132	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4133	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4134	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4135	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4136	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4137	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4138	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4139	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4140	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4141	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4142	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4143	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4144	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4145	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4146	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4147	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4148	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	5	4149	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4150	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4151	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4152	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4153	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4154	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4155	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4156	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4157	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4158	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4159	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4160	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4161	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4162	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4163	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4164	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4165	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4166	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4167	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4168	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4169	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4170	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4171	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4172	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4173	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4174	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4175	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4176	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4177	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4178	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4179	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4180	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4181	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4182	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4183	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4184	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4185	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4186	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4187	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4188	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4189	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4190	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	5	4191	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4192	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4193	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4194	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4195	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4196	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4197	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4198	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4199	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4200	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4201	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4202	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4203	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4204	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4205	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4206	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4207	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4208	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4209	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4210	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4211	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4212	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4213	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4214	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4215	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4216	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4217	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4218	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4219	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4220	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4221	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4222	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4223	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4224	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4225	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4226	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4227	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4228	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4229	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4230	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4231	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4232	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	5	4233	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4234	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4235	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4236	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4237	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4238	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4239	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4240	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4241	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4242	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4243	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4244	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4245	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4246	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4247	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4248	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4249	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4250	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4251	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4252	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4253	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4254	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4255	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4256	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4257	-	-	0/0/0/0	0/0/0/0
88	OHX	5	4258	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2044	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2045	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2046	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2047	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2048	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2049	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2050	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2051	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2052	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2053	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2054	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2055	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2056	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2057	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2058	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2059	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	6	2060	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2061	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2062	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2063	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2064	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2065	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2066	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2067	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2068	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2069	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2070	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2071	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2072	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2073	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2074	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2075	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2076	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2077	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2078	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2079	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2080	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2081	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2082	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2083	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2084	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2085	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2086	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2087	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2088	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2089	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2090	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2091	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2092	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2093	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2094	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2095	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2096	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2097	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2098	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2099	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2100	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2101	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	6	2102	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2103	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2104	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2105	1	-	0/0/0/0	0/0/0/0
88	OHX	6	2106	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2107	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2108	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2109	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2110	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2111	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2112	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2113	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2114	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2115	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2116	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2117	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2118	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2119	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2120	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2121	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2122	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2123	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2124	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2125	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2126	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2127	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2128	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2129	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2130	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2131	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2132	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2133	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2134	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2135	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2136	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2137	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2138	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2139	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2140	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2141	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2142	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2143	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	6	2144	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2145	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2146	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2147	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2148	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2149	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2150	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2151	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2152	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2153	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2154	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2155	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2156	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2157	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2158	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2159	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2160	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2161	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2162	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2163	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2164	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2165	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2166	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2167	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2168	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2169	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2170	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2171	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2172	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2173	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2174	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2175	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2176	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2177	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2178	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2179	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2180	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2181	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2182	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2183	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2184	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2185	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	6	2186	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2187	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2188	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2189	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2190	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2191	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2192	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2193	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2194	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2195	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2196	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2197	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2198	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2199	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2200	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2201	-	-	0/0/0/0	0/0/0/0
88	OHX	6	2202	-	-	0/0/0/0	0/0/0/0
88	OHX	7	215	-	-	0/0/0/0	0/0/0/0
88	OHX	7	216	-	-	0/0/0/0	0/0/0/0
88	OHX	7	217	-	-	0/0/0/0	0/0/0/0
88	OHX	7	218	-	-	0/0/0/0	0/0/0/0
88	OHX	7	219	-	-	0/0/0/0	0/0/0/0
88	OHX	7	220	-	-	0/0/0/0	0/0/0/0
88	OHX	7	221	-	-	0/0/0/0	0/0/0/0
88	OHX	7	222	-	-	0/0/0/0	0/0/0/0
88	OHX	7	223	-	-	0/0/0/0	0/0/0/0
88	OHX	7	224	-	-	0/0/0/0	0/0/0/0
88	OHX	7	225	-	-	0/0/0/0	0/0/0/0
88	OHX	7	226	-	-	0/0/0/0	0/0/0/0
88	OHX	8	217	-	-	0/0/0/0	0/0/0/0
88	OHX	8	218	-	-	0/0/0/0	0/0/0/0
88	OHX	8	219	-	-	0/0/0/0	0/0/0/0
88	OHX	8	220	-	-	0/0/0/0	0/0/0/0
88	OHX	8	221	-	-	0/0/0/0	0/0/0/0
88	OHX	8	222	-	-	0/0/0/0	0/0/0/0
88	OHX	8	223	-	-	0/0/0/0	0/0/0/0
88	OHX	8	224	-	-	0/0/0/0	0/0/0/0
88	OHX	8	225	-	-	0/0/0/0	0/0/0/0
88	OHX	8	226	-	-	0/0/0/0	0/0/0/0
88	OHX	8	227	-	-	0/0/0/0	0/0/0/0
88	OHX	8	228	-	-	0/0/0/0	0/0/0/0
88	OHX	8	229	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	8	230	-	-	0/0/0/0	0/0/0/0
88	OHX	C3	201	-	-	0/0/0/0	0/0/0/0
88	OHX	C5	201	-	-	0/0/0/0	0/0/0/0
88	OHX	C8	201	-	-	0/0/0/0	0/0/0/0
88	OHX	D3	202	-	-	0/0/0/0	0/0/0/0
88	OHX	D9	102	-	-	0/0/0/0	0/0/0/0
88	OHX	L3	404	-	-	0/0/0/0	0/0/0/0
88	OHX	L3	405	-	-	0/0/0/0	0/0/0/0
88	OHX	L3	406	-	-	0/0/0/0	0/0/0/0
88	OHX	L4	402	-	-	0/0/0/0	0/0/0/0
88	OHX	M0	303	-	-	0/0/0/0	0/0/0/0
88	OHX	M5	303	-	-	0/0/0/0	0/0/0/0
88	OHX	M7	205	-	-	0/0/0/0	0/0/0/0
88	OHX	M7	206	-	-	0/0/0/0	0/0/0/0
88	OHX	M8	201	-	-	0/0/0/0	0/0/0/0
88	OHX	M9	202	-	-	0/0/0/0	0/0/0/0
88	OHX	N9	101	-	-	0/0/0/0	0/0/0/0
88	OHX	O3	201	-	-	0/0/0/0	0/0/0/0
88	OHX	O7	103	-	-	0/0/0/0	0/0/0/0
88	OHX	O7	104	-	-	0/0/0/0	0/0/0/0
91	C	Q2	502	-	-	0/3/25/26	0/2/2/2
91	C	Q2	503	-	-	0/3/25/26	0/2/2/2
88	OHX	S8	302	-	-	0/0/0/0	0/0/0/0
88	OHX	SR	401	-	-	0/0/0/0	0/0/0/0
88	OHX	c1	202	-	-	0/0/0/0	0/0/0/0
88	OHX	c3	201	-	-	0/0/0/0	0/0/0/0
88	OHX	c5	201	-	-	0/0/0/0	0/0/0/0
88	OHX	c8	202	-	-	0/0/0/0	0/0/0/0
88	OHX	d4	202	-	-	0/0/0/0	0/0/0/0
88	OHX	d9	102	-	-	0/0/0/0	0/0/0/0
88	OHX	l3	404	-	-	0/0/0/0	0/0/0/0
88	OHX	l3	405	-	-	0/0/0/0	0/0/0/0
88	OHX	l3	406	-	-	0/0/0/0	0/0/0/0
88	OHX	l4	403	-	-	0/0/0/0	0/0/0/0
88	OHX	l4	404	-	-	0/0/0/0	0/0/0/0
88	OHX	l5	303	-	-	0/0/0/0	0/0/0/0
88	OHX	l5	304	-	-	0/0/0/0	0/0/0/0
88	OHX	l5	305	-	-	0/0/0/0	0/0/0/0
88	OHX	l5	306	-	-	0/0/0/0	0/0/0/0
88	OHX	l9	600	-	-	0/0/0/0	0/0/0/0
88	OHX	m0	301	-	-	0/0/0/0	0/0/0/0
88	OHX	m0	302	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
88	OHX	m1	203	-	-	0/0/0/0	0/0/0/0
88	OHX	m4	201	-	-	0/0/0/0	0/0/0/0
88	OHX	m5	306	-	-	0/0/0/0	0/0/0/0
88	OHX	m6	203	-	-	0/0/0/0	0/0/0/0
88	OHX	n3	203	-	-	0/0/0/0	0/0/0/0
88	OHX	n3	204	-	-	0/0/0/0	0/0/0/0
88	OHX	n9	101	-	-	0/0/0/0	0/0/0/0
88	OHX	o3	202	-	-	0/0/0/0	0/0/0/0
88	OHX	o7	502	-	-	0/0/0/0	0/0/0/0
91	C	q2	502	-	-	0/3/25/26	0/2/2/2
91	C	q2	503	-	-	0/3/25/26	0/2/2/2
88	OHX	q2	504	-	-	0/0/0/0	0/0/0/0
88	OHX	s1	302	-	-	0/0/0/0	0/0/0/0
88	OHX	s1	303	-	-	0/0/0/0	0/0/0/0
88	OHX	s8	304	-	-	0/0/0/0	0/0/0/0
88	OHX	sR	401	-	-	0/0/0/0	0/0/0/0

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
90	1	3401	A	O5'-C5'	-2.45	1.41	1.44
91	q2	503	C	O5'-C5'	-2.35	1.41	1.44

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
91	Q2	503	C	C6-N1-C2	-2.64	116.95	121.22
91	q2	503	C	C5-C4-N4	-2.30	117.08	121.17
91	Q2	503	C	N4-C4-N3	2.18	120.12	116.56
90	1	3401	A	C1'-N9-C4	2.23	130.49	126.64
90	1	3401	A	C4-C5-N7	2.29	111.63	109.41

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

367 monomers are involved in 490 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
88	1	3873	OHX	1	0
88	1	3877	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
88	1	3878	OHX	1	0
88	1	3880	OHX	1	0
88	1	3881	OHX	2	0
88	1	3883	OHX	1	0
88	1	3887	OHX	2	0
88	1	3888	OHX	1	0
88	1	3890	OHX	2	0
88	1	3891	OHX	2	0
88	1	3892	OHX	2	0
88	1	3893	OHX	1	0
88	1	3894	OHX	1	0
88	1	3895	OHX	1	0
88	1	3898	OHX	1	0
88	1	3900	OHX	1	0
88	1	3901	OHX	1	0
88	1	3909	OHX	1	0
88	1	3910	OHX	1	0
88	1	3915	OHX	1	0
88	1	3916	OHX	1	0
88	1	3921	OHX	1	0
88	1	3924	OHX	1	0
88	1	3934	OHX	1	0
88	1	3936	OHX	1	0
88	1	3940	OHX	2	0
88	1	3942	OHX	3	0
88	1	3943	OHX	1	0
88	1	3950	OHX	1	0
88	1	3951	OHX	1	0
88	1	3956	OHX	1	0
88	1	3957	OHX	1	0
88	1	3967	OHX	1	0
88	1	3968	OHX	3	0
88	1	3969	OHX	1	0
88	1	3970	OHX	1	0
88	1	3972	OHX	1	0
88	1	3976	OHX	1	0
88	1	3979	OHX	1	0
88	1	3982	OHX	6	0
88	1	3983	OHX	1	0
88	1	3985	OHX	2	0
88	1	3988	OHX	1	0
88	1	3992	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
88	1	3993	OHX	1	0
88	1	3995	OHX	1	0
88	1	3997	OHX	2	0
88	1	4005	OHX	1	0
88	1	4009	OHX	1	0
88	1	4013	OHX	1	0
88	1	4015	OHX	4	0
88	1	4020	OHX	1	0
88	1	4022	OHX	1	0
88	1	4025	OHX	1	0
88	1	4027	OHX	1	0
88	1	4031	OHX	2	0
88	1	4044	OHX	2	0
88	1	4046	OHX	1	0
88	1	4048	OHX	2	0
88	1	4051	OHX	2	0
88	1	4053	OHX	1	0
88	1	4056	OHX	3	0
88	1	4057	OHX	3	0
88	1	4060	OHX	2	0
88	1	4061	OHX	1	0
88	1	4069	OHX	2	0
88	1	4071	OHX	1	0
88	1	4073	OHX	1	0
88	1	4079	OHX	1	0
88	1	4087	OHX	1	0
88	1	4088	OHX	1	0
88	1	4093	OHX	1	0
88	1	4095	OHX	1	0
88	1	4097	OHX	1	0
88	1	4098	OHX	2	0
88	1	4100	OHX	1	0
88	1	4101	OHX	1	0
88	1	4108	OHX	1	0
88	1	4109	OHX	1	0
88	1	4111	OHX	1	0
88	1	4112	OHX	1	0
88	1	4122	OHX	1	0
88	1	4131	OHX	1	0
88	1	4133	OHX	1	0
88	1	4138	OHX	1	0
88	1	4141	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
88	1	4145	OHX	1	0
88	1	4146	OHX	1	0
88	1	4148	OHX	1	0
88	1	4152	OHX	3	0
88	1	4155	OHX	1	0
88	1	4157	OHX	2	0
88	1	4158	OHX	1	0
88	1	4160	OHX	1	0
88	1	4161	OHX	1	0
88	1	4164	OHX	1	0
88	1	4170	OHX	6	0
88	1	4174	OHX	1	0
88	1	4178	OHX	3	0
88	1	4179	OHX	1	0
88	1	4182	OHX	1	0
88	1	4183	OHX	1	0
88	1	4186	OHX	4	0
88	1	4194	OHX	1	0
88	1	4195	OHX	3	0
88	1	4210	OHX	1	0
88	1	4212	OHX	1	0
88	1	4213	OHX	1	0
88	1	4217	OHX	1	0
88	1	4220	OHX	1	0
88	1	4221	OHX	1	0
88	2	2026	OHX	1	0
88	2	2027	OHX	1	0
88	2	2031	OHX	1	0
88	2	2032	OHX	1	0
88	2	2034	OHX	1	0
88	2	2036	OHX	3	0
88	2	2038	OHX	1	0
88	2	2039	OHX	1	0
88	2	2041	OHX	1	0
88	2	2042	OHX	1	0
88	2	2044	OHX	6	0
88	2	2045	OHX	1	0
88	2	2047	OHX	1	0
88	2	2048	OHX	1	0
88	2	2051	OHX	1	0
88	2	2053	OHX	1	0
88	2	2057	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
88	2	2064	OHX	1	0
88	2	2066	OHX	1	0
88	2	2067	OHX	1	0
88	2	2073	OHX	1	0
88	2	2074	OHX	2	0
88	2	2076	OHX	1	0
88	2	2078	OHX	1	0
88	2	2082	OHX	1	0
88	2	2084	OHX	2	0
88	2	2086	OHX	1	0
88	2	2089	OHX	1	0
88	2	2092	OHX	1	0
88	2	2095	OHX	1	0
88	2	2097	OHX	2	0
88	2	2099	OHX	7	0
88	2	2102	OHX	1	0
88	2	2104	OHX	1	0
88	2	2105	OHX	1	0
88	2	2106	OHX	1	0
88	2	2110	OHX	1	0
88	2	2111	OHX	2	0
88	2	2115	OHX	1	0
88	2	2121	OHX	2	0
88	2	2123	OHX	1	0
88	2	2129	OHX	1	0
88	2	2130	OHX	1	0
88	2	2131	OHX	2	0
88	2	2132	OHX	1	0
88	2	2141	OHX	1	0
88	2	2144	OHX	1	0
88	2	2145	OHX	2	0
88	2	2148	OHX	1	0
88	2	2149	OHX	1	0
88	2	2154	OHX	2	0
88	2	2155	OHX	1	0
88	2	2156	OHX	1	0
88	2	2157	OHX	2	0
88	2	2159	OHX	1	0
88	2	2165	OHX	1	0
88	2	2166	OHX	1	0
88	3	220	OHX	1	0
88	4	222	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
88	4	223	OHX	1	0
88	4	225	OHX	1	0
88	4	229	OHX	2	0
88	4	231	OHX	1	0
88	5	3901	OHX	1	0
88	5	3903	OHX	1	0
88	5	3906	OHX	1	0
88	5	3907	OHX	2	0
88	5	3909	OHX	2	0
88	5	3915	OHX	2	0
88	5	3918	OHX	1	0
88	5	3919	OHX	2	0
88	5	3922	OHX	1	0
88	5	3924	OHX	1	0
88	5	3925	OHX	2	0
88	5	3927	OHX	3	0
88	5	3941	OHX	1	0
88	5	3942	OHX	1	0
88	5	3944	OHX	1	0
88	5	3945	OHX	2	0
88	5	3948	OHX	1	0
88	5	3956	OHX	1	0
88	5	3957	OHX	1	0
88	5	3959	OHX	1	0
88	5	3960	OHX	2	0
88	5	3961	OHX	1	0
88	5	3962	OHX	1	0
88	5	3963	OHX	1	0
88	5	3965	OHX	3	0
88	5	3972	OHX	1	0
88	5	3975	OHX	1	0
88	5	3976	OHX	3	0
88	5	3981	OHX	6	0
88	5	3982	OHX	1	0
88	5	3985	OHX	1	0
88	5	3986	OHX	2	0
88	5	3990	OHX	1	0
88	5	3991	OHX	1	0
88	5	3992	OHX	1	0
88	5	3994	OHX	2	0
88	5	3998	OHX	1	0
88	5	3999	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
88	5	4004	OHX	1	0
88	5	4005	OHX	3	0
88	5	4006	OHX	1	0
88	5	4010	OHX	1	0
88	5	4014	OHX	6	0
88	5	4016	OHX	2	0
88	5	4020	OHX	1	0
88	5	4021	OHX	1	0
88	5	4023	OHX	6	0
88	5	4025	OHX	1	0
88	5	4026	OHX	1	0
88	5	4027	OHX	2	0
88	5	4034	OHX	1	0
88	5	4044	OHX	2	0
88	5	4052	OHX	1	0
88	5	4053	OHX	1	0
88	5	4054	OHX	1	0
88	5	4055	OHX	1	0
88	5	4069	OHX	3	0
88	5	4071	OHX	1	0
88	5	4075	OHX	1	0
88	5	4077	OHX	1	0
88	5	4082	OHX	1	0
88	5	4091	OHX	1	0
88	5	4094	OHX	1	0
88	5	4097	OHX	1	0
88	5	4100	OHX	1	0
88	5	4103	OHX	1	0
88	5	4106	OHX	2	0
88	5	4109	OHX	1	0
88	5	4111	OHX	1	0
88	5	4114	OHX	1	0
88	5	4115	OHX	1	0
88	5	4118	OHX	1	0
88	5	4123	OHX	1	0
88	5	4133	OHX	1	0
88	5	4134	OHX	1	0
88	5	4135	OHX	1	0
88	5	4142	OHX	2	0
88	5	4145	OHX	1	0
88	5	4147	OHX	2	0
88	5	4151	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
88	5	4156	OHX	1	0
88	5	4163	OHX	1	0
88	5	4164	OHX	1	0
88	5	4166	OHX	1	0
88	5	4172	OHX	1	0
88	5	4186	OHX	1	0
88	5	4187	OHX	1	0
88	5	4189	OHX	1	0
88	5	4190	OHX	1	0
88	5	4194	OHX	2	0
88	5	4196	OHX	2	0
88	5	4197	OHX	1	0
88	5	4198	OHX	1	0
88	5	4199	OHX	1	0
88	5	4200	OHX	2	0
88	5	4202	OHX	1	0
88	5	4203	OHX	9	0
88	5	4205	OHX	7	0
88	5	4209	OHX	1	0
88	5	4214	OHX	1	0
88	5	4219	OHX	1	0
88	5	4222	OHX	6	0
88	5	4231	OHX	3	0
88	5	4232	OHX	1	0
88	5	4233	OHX	1	0
88	5	4234	OHX	1	0
88	5	4239	OHX	3	0
88	5	4242	OHX	1	0
88	5	4243	OHX	1	0
88	5	4248	OHX	4	0
88	5	4249	OHX	1	0
88	5	4254	OHX	1	0
88	6	2047	OHX	2	0
88	6	2052	OHX	1	0
88	6	2055	OHX	1	0
88	6	2057	OHX	3	0
88	6	2059	OHX	1	0
88	6	2060	OHX	1	0
88	6	2063	OHX	1	0
88	6	2064	OHX	1	0
88	6	2066	OHX	1	0
88	6	2068	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
88	6	2071	OHX	2	0
88	6	2072	OHX	1	0
88	6	2073	OHX	1	0
88	6	2077	OHX	1	0
88	6	2081	OHX	1	0
88	6	2084	OHX	1	0
88	6	2091	OHX	1	0
88	6	2094	OHX	1	0
88	6	2096	OHX	1	0
88	6	2098	OHX	3	0
88	6	2100	OHX	1	0
88	6	2101	OHX	1	0
88	6	2105	OHX	4	0
88	6	2106	OHX	1	0
88	6	2107	OHX	1	0
88	6	2109	OHX	1	0
88	6	2110	OHX	1	0
88	6	2112	OHX	1	0
88	6	2116	OHX	2	0
88	6	2117	OHX	1	0
88	6	2118	OHX	1	0
88	6	2120	OHX	1	0
88	6	2122	OHX	1	0
88	6	2124	OHX	1	0
88	6	2126	OHX	2	0
88	6	2132	OHX	1	0
88	6	2133	OHX	1	0
88	6	2134	OHX	1	0
88	6	2140	OHX	1	0
88	6	2142	OHX	1	0
88	6	2143	OHX	4	0
88	6	2145	OHX	1	0
88	6	2146	OHX	1	0
88	6	2147	OHX	1	0
88	6	2150	OHX	2	0
88	6	2152	OHX	1	0
88	6	2155	OHX	1	0
88	6	2168	OHX	2	0
88	6	2172	OHX	1	0
88	6	2175	OHX	1	0
88	6	2177	OHX	1	0
88	6	2180	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
88	6	2184	OHX	1	0
88	6	2186	OHX	1	0
88	6	2187	OHX	2	0
88	6	2193	OHX	1	0
88	6	2194	OHX	1	0
88	6	2200	OHX	1	0
88	6	2202	OHX	1	0
88	7	216	OHX	1	0
88	7	218	OHX	2	0
88	7	220	OHX	1	0
88	7	225	OHX	1	0
88	8	217	OHX	1	0
88	8	218	OHX	5	0
88	8	219	OHX	1	0
88	8	221	OHX	1	0
88	8	225	OHX	6	0
88	8	226	OHX	1	0
88	8	227	OHX	1	0
88	C3	201	OHX	1	0
88	C5	201	OHX	5	0
88	L3	404	OHX	1	0
88	L3	405	OHX	1	0
88	L4	402	OHX	3	0
88	M5	303	OHX	1	0
88	M7	206	OHX	1	0
88	O7	103	OHX	2	0
91	Q2	502	C	1	0
91	Q2	503	C	3	0
88	S8	302	OHX	1	0

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

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.