



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 16, 2017 – 10:30 am GMT

PDB ID : 4U4N
Title : Crystal structure of Edeine bound to the yeast 80S ribosome
Authors : Garreau de Loubresse, N.; Prokhorova, I.; Yusupova, G.; Yusupov, M.
Deposited on : 2014-07-24
Resolution : 3.10 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

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

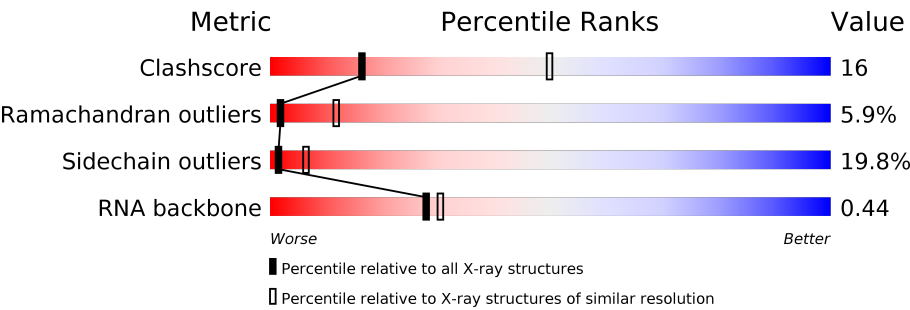
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.10 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	112137	1099 (3.12-3.08)
Ramachandran outliers	110173	1057 (3.12-3.08)
Sidechain outliers	110143	1057 (3.12-3.08)
RNA backbone	2435	1112 (3.50-2.70)

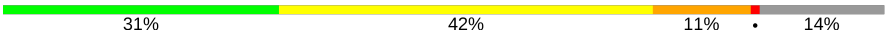



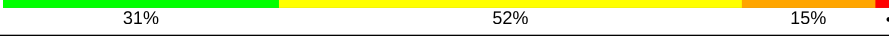

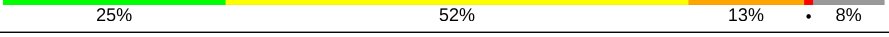

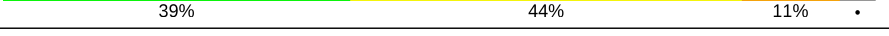

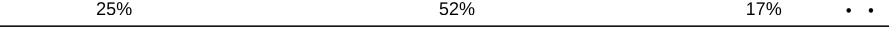
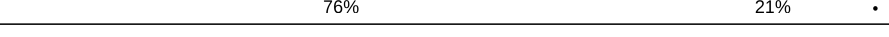

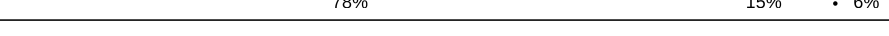


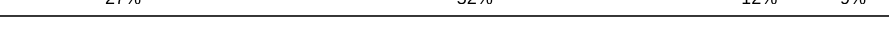

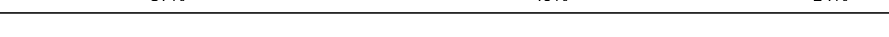
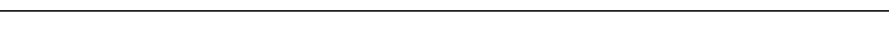

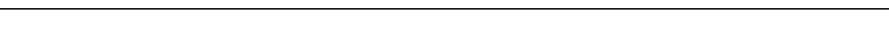
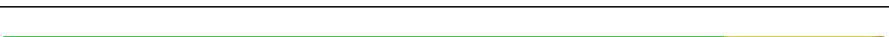
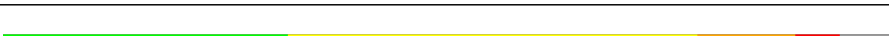

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A grey 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	<div><div></div><div><div>33%</div><div>41%</div><div>20%</div><div>• •</div></div></div>
1	6	1800	<div><div></div><div><div>35%</div><div>42%</div><div>20%</div><div>•</div></div></div>
2	S0	251	<div><div></div><div><div>21%</div><div>44%</div><div>15%</div><div>•</div><div>18%</div></div></div>
2	s0	251	<div><div></div><div><div>63%</div><div>17%</div><div>•</div><div>18%</div></div></div>
3	S1	254	<div><div></div><div><div>22%</div><div>43%</div><div>17%</div><div>•</div><div>16%</div></div></div>
3	s1	254	<div><div></div><div><div>67%</div><div>17%</div><div>•</div><div>15%</div></div></div>




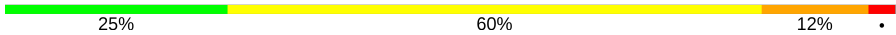

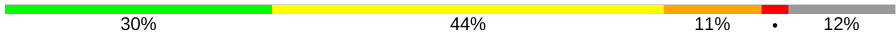

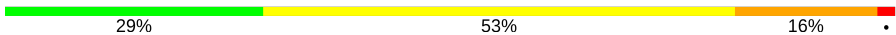

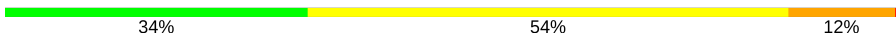

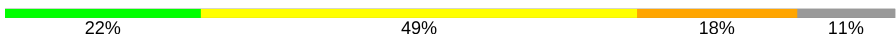











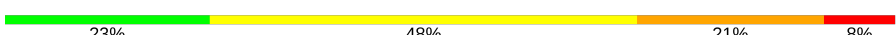

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Mol	Chain	Length	Quality of chain
4	S2	253	
4	s2	253	
5	S3	239	
5	s3	239	
6	S4	260	
6	s4	260	
7	S5	224	
7	s5	224	
8	S6	236	
8	s6	236	
9	S7	189	
9	s7	189	
10	S8	200	
10	s8	200	
11	S9	196	
11	s9	196	
12	C0	105	
12	c0	105	
13	C1	155	
13	c1	155	
14	C2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



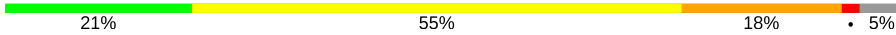

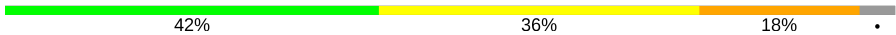

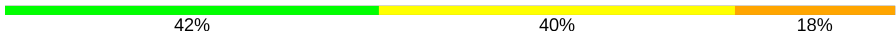
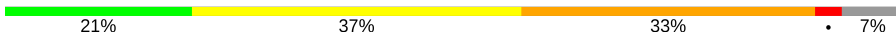

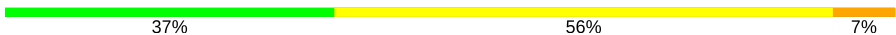



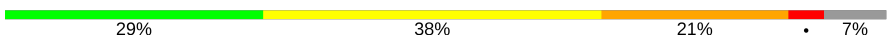
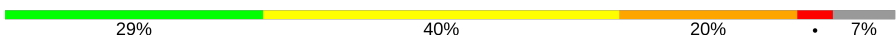


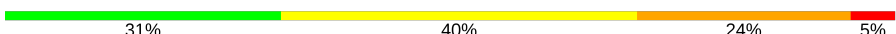







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Mol	Chain	Length	Quality of chain
16	c4	136	
17	C5	141	
17	c5	141	
18	C6	142	
18	c6	142	
19	C7	136	
19	c7	136	
20	C8	145	
20	c8	145	
21	C9	143	
21	c9	143	
22	D0	120	
22	d0	120	
23	D1	87	
23	d1	87	
24	D2	129	
24	d2	129	
25	D3	144	
25	d3	144	
26	D4	134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



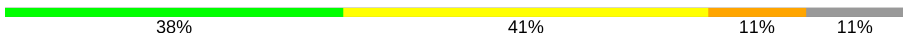



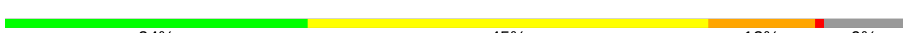







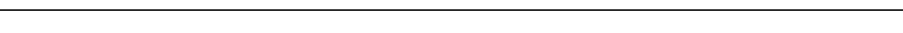




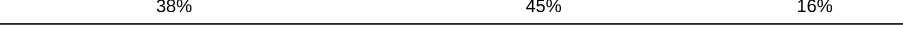

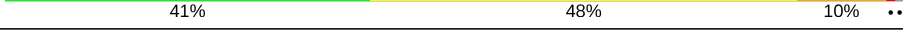



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Mol	Chain	Length	Quality of chain
29	D7	81	
29	d7	81	
30	D8	66	
30	d8	66	
31	D9	55	
31	d9	55	
32	E0	60	
33	E1	76	
33	e1	76	
34	SR	318	
34	sR	318	
35	SM	273	
35	sM	273	
36	1	3396	
36	5	3396	
37	3	121	
37	7	121	
38	4	158	
38	8	158	
39	L2	253	
39	l2	253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


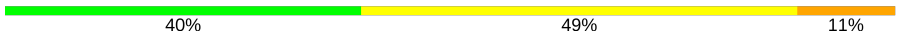



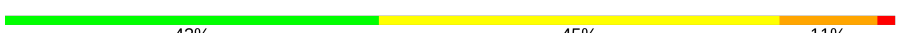





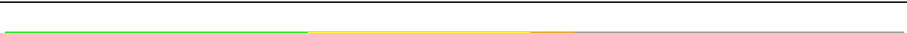


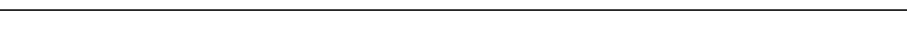



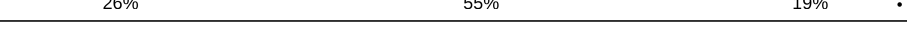
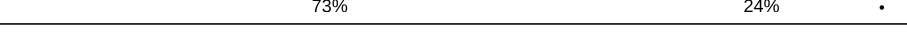





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Mol	Chain	Length	Quality of chain
42	L5	296	
42	l5	296	
43	L6	175	
43	l6	175	
44	L7	243	
44	l7	243	
45	L8	255	
45	l8	255	
46	L9	191	
46	l9	191	
47	M0	220	
47	m0	220	
48	M1	173	
48	m1	173	
49	M3	198	
49	m3	198	
50	M4	137	
50	m4	137	
51	M5	203	
51	m5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



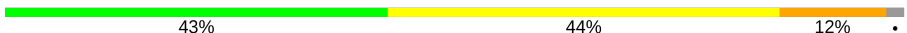



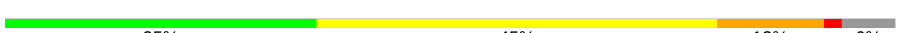







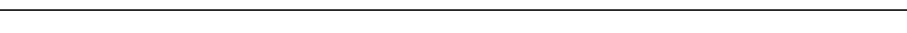




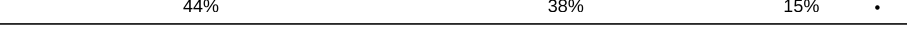

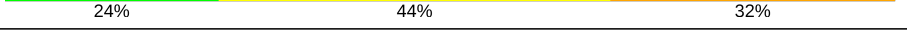



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Mol	Chain	Length	Quality of chain
54	m8	185	
55	M9	188	
55	m9	188	
56	N0	172	
56	n0	172	
57	N1	159	
57	n1	159	
58	N2	120	
58	n2	120	
59	N3	136	
59	n3	136	
60	N4	155	
60	n4	155	
61	N5	141	
61	n5	141	
62	N6	126	
62	n6	126	
63	N7	135	
63	n7	135	
64	N8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


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Mol	Chain	Length	Quality of chain
67	O1	112	
67	o1	112	
68	O2	129	
68	o2	129	
69	O3	106	
69	o3	106	
70	O4	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	

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

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
86	OHX	1	3940	-	-	X	-
86	OHX	1	3960	-	-	X	-
86	OHX	1	3962	-	-	X	-
86	OHX	1	3973	-	-	X	-
86	OHX	1	4005	-	-	X	-
86	OHX	1	4021	-	-	X	-
86	OHX	1	4034	-	-	X	-
86	OHX	1	4047	-	-	X	-
86	OHX	1	4057	-	-	X	-
86	OHX	1	4059	-	-	X	-
86	OHX	1	4063	-	-	X	-
86	OHX	1	4086	-	-	X	-
86	OHX	1	4142	-	-	X	-
86	OHX	1	4157	-	-	X	-
86	OHX	1	4159	-	-	X	-
86	OHX	1	4166	-	-	X	-
86	OHX	1	4175	-	-	X	-
86	OHX	1	4201	-	-	X	-
86	OHX	2	2030	-	-	X	-
86	OHX	2	2043	-	-	X	-
86	OHX	2	2074	-	-	X	-
86	OHX	2	2082	-	-	X	-
86	OHX	2	2084	-	-	X	-
86	OHX	2	2088	-	-	X	-
86	OHX	2	2089	-	-	X	-
86	OHX	2	2098	-	-	X	-
86	OHX	2	2131	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
86	OHX	2	2145	-	-	X	-
86	OHX	2	2161	-	-	X	-
86	OHX	5	3944	-	-	X	-
86	OHX	5	3964	-	-	X	-
86	OHX	5	3975	-	-	X	-
86	OHX	5	3980	-	-	X	-
86	OHX	5	4003	-	-	X	-
86	OHX	5	4004	-	-	X	-
86	OHX	5	4013	-	-	X	-
86	OHX	5	4022	-	-	X	-
86	OHX	5	4057	-	-	X	-
86	OHX	5	4068	-	-	X	-
86	OHX	5	4091	-	-	X	-
86	OHX	5	4144	-	-	X	-
86	OHX	5	4200	-	-	X	-
86	OHX	5	4201	-	-	X	-
86	OHX	5	4202	-	-	X	-
86	OHX	5	4218	-	-	X	-
86	OHX	5	4235	-	-	X	-
86	OHX	5	4237	-	-	X	-
86	OHX	5	4245	-	-	X	-
86	OHX	6	2058	-	-	X	-
86	OHX	6	2118	-	-	X	-
86	OHX	6	2123	-	-	X	-
86	OHX	6	2144	-	-	X	-
86	OHX	6	2147	-	-	X	-
86	OHX	6	2168	-	-	X	-
86	OHX	7	218	-	-	X	-
86	OHX	7	226	-	-	X	-
86	OHX	8	216	-	-	X	-
86	OHX	8	224	-	-	X	-
86	OHX	C5	201	-	-	X	-
86	OHX	O7	103	-	-	X	-

2 Entry composition

There are 88 unique types of molecules in this entry. The entry contains 411258 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called 18S ribosomal RNA.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

There are 2 discrepancies between the modelled and reference sequences:

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

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

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

There are 2 discrepancies between the modelled and reference sequences:

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

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

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

There are 4 discrepancies between the modelled and reference sequences:

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

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

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

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

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

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

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

- 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				

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

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

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

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

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

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

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

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

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

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

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

- Molecule 35 is a protein called Suppressor protein STM1.

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

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

- 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			
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		0	0	0
			796	516	131	149				
58	n2	98	Total	C	N	O		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			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 81 is a protein called Unknown protein m2.

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

- Molecule 82 is a protein called 60S acidic ribosomal protein P0.

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

- Molecule 83 is a protein called Unknown protein p1.

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

- Molecule 84 is a protein called Unknown protein p2.

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

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	L7	4	Total	Mg	0	0
			4	4		
85	m6	1	Total	Mg	0	0
			1	1		
85	n8	4	Total	Mg	0	0
			4	4		
85	o1	1	Total	Mg	0	0
			1	1		
85	N5	2	Total	Mg	0	0
			2	2		
85	6	146	Total	Mg	0	0
			146	146		
85	sM	2	Total	Mg	0	0
			2	2		
85	m5	2	Total	Mg	0	0
			2	2		
85	l3	2	Total	Mg	0	0
			2	2		
85	M1	1	Total	Mg	0	0
			1	1		
85	d6	1	Total	Mg	0	0
			1	1		
85	2	122	Total	Mg	0	0
			122	122		
85	n0	2	Total	Mg	0	0
			2	2		
85	L4	2	Total	Mg	0	0
			2	2		
85	l7	2	Total	Mg	0	0
			2	2		
85	M5	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	l4	1	Total 1	Mg 1	0	0
85	o0	1	Total 1	Mg 1	0	0
85	L8	1	Total 1	Mg 1	0	0
85	D3	1	Total 1	Mg 1	0	0
85	c8	1	Total 1	Mg 1	0	0
85	q0	1	Total 1	Mg 1	0	0
85	SM	1	Total 1	Mg 1	0	0
85	M0	2	Total 2	Mg 2	0	0
85	c1	1	Total 1	Mg 1	0	0
85	n6	1	Total 1	Mg 1	0	0
85	5	508	Total 508	Mg 508	0	0
85	L5	1	Total 1	Mg 1	0	0
85	O7	1	Total 1	Mg 1	0	0
85	Q2	1	Total 1	Mg 1	0	0
85	n9	2	Total 2	Mg 2	0	0
85	1	475	Total 475	Mg 475	0	0
85	D0	1	Total 1	Mg 1	0	0
85	S8	1	Total 1	Mg 1	0	0
85	m1	1	Total 1	Mg 1	0	0
85	d3	2	Total 2	Mg 2	0	0
85	q3	1	Total 1	Mg 1	0	0

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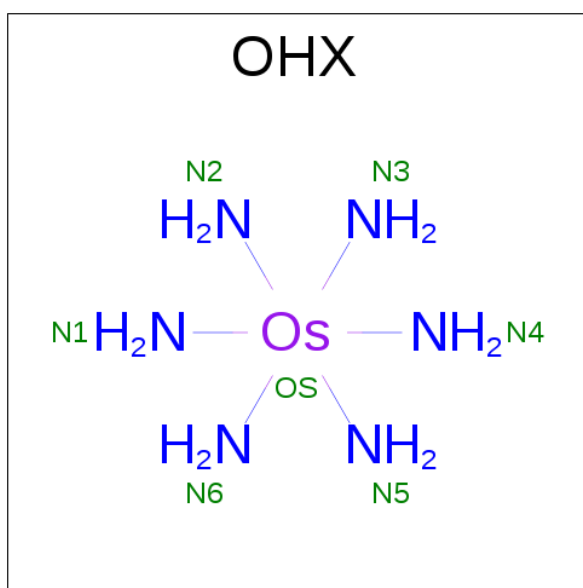
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	o3	1	Total 1	Mg 1	0	0
85	M3	3	Total 3	Mg 3	0	0
85	N3	2	Total 2	Mg 2	0	0
85	4	23	Total 23	Mg 23	0	0
85	D4	1	Total 1	Mg 1	0	0
85	S4	1	Total 1	Mg 1	0	0
85	L2	1	Total 1	Mg 1	0	0
85	l5	2	Total 2	Mg 2	0	0
85	m7	5	Total 5	Mg 5	0	0
85	M7	4	Total 4	Mg 4	0	0
85	N8	5	Total 5	Mg 5	0	0
85	s1	1	Total 1	Mg 1	0	0
85	l9	1	Total 1	Mg 1	0	0
85	O1	1	Total 1	Mg 1	0	0
85	s8	2	Total 2	Mg 2	0	0
85	c7	1	Total 1	Mg 1	0	0
85	7	15	Total 15	Mg 15	0	0
85	n3	2	Total 2	Mg 2	0	0
85	q1	1	Total 1	Mg 1	0	0
85	L3	2	Total 2	Mg 2	0	0
85	d4	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
85	l2	2	Total	Mg	0	0
			2	2		
85	8	13	Total	Mg	0	0
			13	13		
85	M6	1	Total	Mg	0	0
			1	1		
85	N0	1	Total	Mg	0	0
			1	1		
85	3	14	Total	Mg	0	0
			14	14		

- Molecule 86 is osmium (III) hexammine (three-letter code: OHX) (formula: $\text{H}_{12}\text{N}_6\text{Os}$).



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

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

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

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

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

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

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

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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	2	1	Total	N	Os	0	0
			7	6	1		
86	S8	1	Total	N	Os	0	0
			7	6	1		
86	C3	1	Total	N	Os	0	0
			7	6	1		
86	C5	1	Total	N	Os	0	0
			7	6	1		
86	C8	1	Total	N	Os	0	0
			7	6	1		
86	D9	1	Total	N	Os	0	0
			7	6	1		
86	SR	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		

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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
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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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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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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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86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total	N	Os	0	0
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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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86	1	1	Total	N	Os	0	0
			7	6	1		
86	1	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	1	1	Total 7	N 6	Os 1	0	0
86	1	1	Total 7	N 6	Os 1	0	0
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86	3	1	Total 7	N 6	Os 1	0	0
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86	4	1	Total 7	N 6	Os 1	0	0
86	4	1	Total 7	N 6	Os 1	0	0
86	4	1	Total 7	N 6	Os 1	0	0
86	4	1	Total 7	N 6	Os 1	0	0
86	4	1	Total 7	N 6	Os 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	L3	1	Total	N	Os	0	0
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86	M0	1	Total	N	Os	0	0
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86	M5	1	Total	N	Os	0	0
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86	M7	1	Total	N	Os	0	0
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86	M7	1	Total	N	Os	0	0
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86	M8	1	Total	N	Os	0	0
			7	6	1		
86	M9	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	N9	1	Total	N	Os	0	0
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86	O3	1	Total	N	Os	0	0
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86	O7	1	Total	N	Os	0	0
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86	Q2	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
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86	6	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
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86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	6	1	Total 7	N 6	Os 1	0	0
86	s1	1	Total 7	N 6	Os 1	0	0
86	s1	1	Total 7	N 6	Os 1	0	0
86	s4	1	Total 7	N 6	Os 1	0	0
86	s8	1	Total 7	N 6	Os 1	0	0
86	s9	1	Total 7	N 6	Os 1	0	0
86	c3	1	Total 7	N 6	Os 1	0	0

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

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

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

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

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

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

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

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
86	8	1	Total	N	Os	0	0
			7	6	1		
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86	15	1	Total	N	Os	0	0
			7	6	1		
86	15	1	Total	N	Os	0	0
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86	15	1	Total	N	Os	0	0
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86	19	1	Total	N	Os	0	0
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86	m0	1	Total	N	Os	0	0
			7	6	1		
86	m0	1	Total	N	Os	0	0
			7	6	1		
86	m1	1	Total	N	Os	0	0
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86	m4	1	Total	N	Os	0	0
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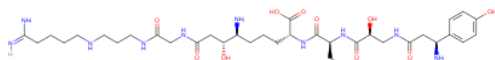
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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86	m6	1	Total	N	Os	0	0
			7	6	1		
86	m7	1	Total	N	Os	0	0
			7	6	1		
86	n1	1	Total	N	Os	0	0
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86	n3	1	Total	N	Os	0	0
			7	6	1		
86	n3	1	Total	N	Os	0	0
			7	6	1		
86	n9	1	Total	N	Os	0	0
			7	6	1		
86	o2	1	Total	N	Os	0	0
			7	6	1		
86	o3	1	Total	N	Os	0	0
			7	6	1		
86	o7	1	Total	N	Os	0	0
			7	6	1		
86	o7	1	Total	N	Os	0	0
			7	6	1		
86	q2	1	Total	N	Os	0	0
			7	6	1		

- Molecule 87 is EDEINE B (three-letter code: EDE) (formula: $C_{34}H_{59}N_{11}O_{10}$).

EDE



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
87	2	1	Total	C	N	O	0	0
			55	34	11	10		
87	6	1	Total	C	N	O	0	0
			55	34	11	10		

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

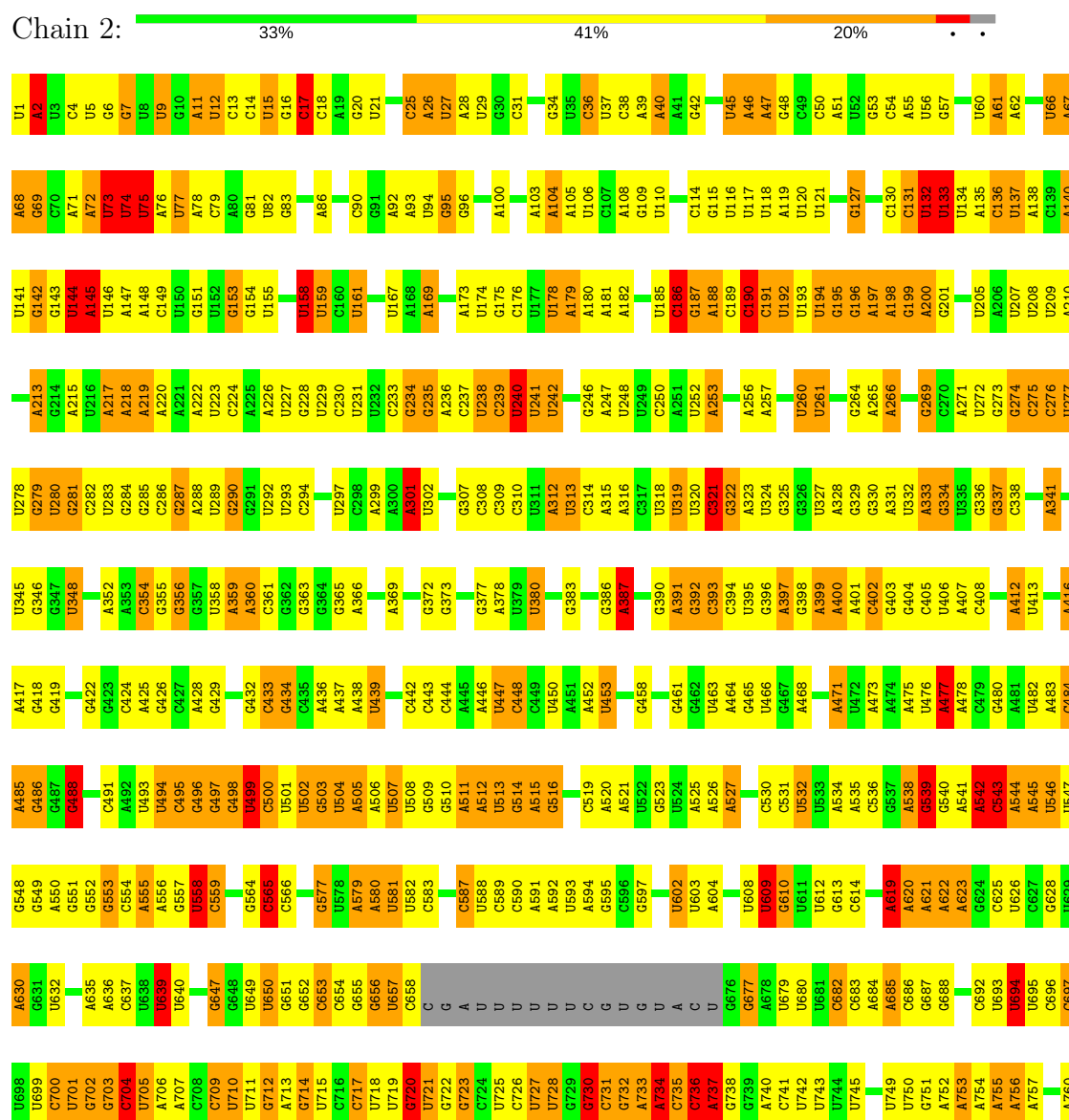
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
88	q0	1	Total	Zn	0	0
			1	1		
88	D6	1	Total	Zn	0	0
			1	1		
88	Q2	1	Total	Zn	0	0
			1	1		
88	e1	1	Total	Zn	0	0
			1	1		
88	Q3	1	Total	Zn	0	0
			1	1		
88	D9	1	Total	Zn	0	0
			1	1		
88	E1	1	Total	Zn	0	0
			1	1		
88	Q0	1	Total	Zn	0	0
			1	1		
88	d7	1	Total	Zn	0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

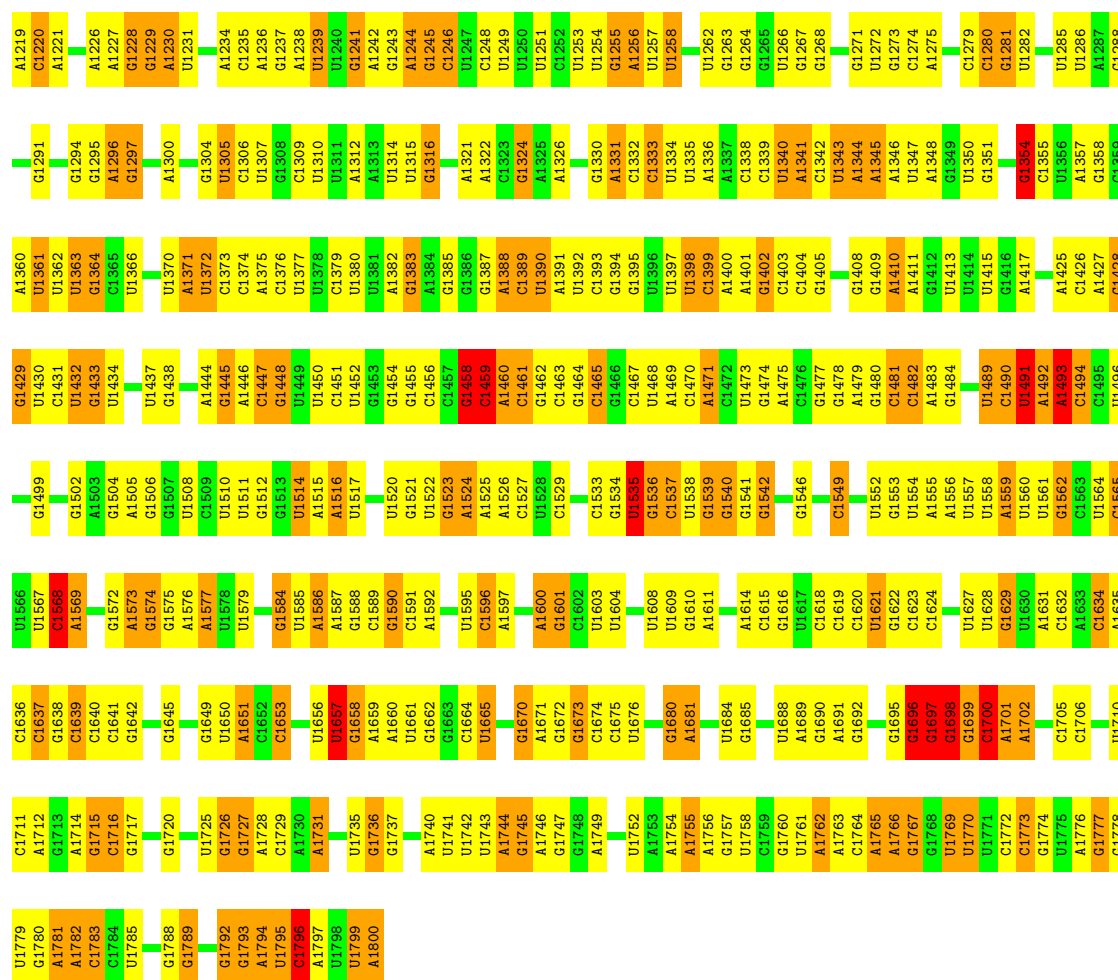
Note EDS failed to run properly.

• Molecule 1: 18S ribosomal RNA



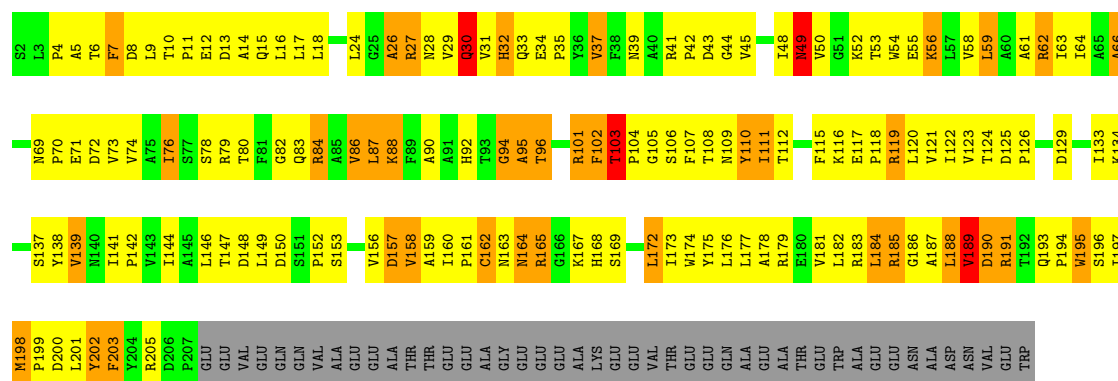


A1143	G1073	A1001	U857	A788	G714	G651	U578	A512	U447	G373	C308	U227	G153	U82	U1
U1144	G1074	G1002	G858	A789	C717	G652	A579	U513	C447	U380	C309	G228	G154	G83	A2
U1145	A1075	A1003	A862	U792	U718	G653	A580	G514	C448	C381	C310	U229	A157	A84	U3
G1146	A1076	U1004	A863	U793	U719	G654	U581	A515	U449	C382	A312	U231	U159	A85	C4
C1147	C1077	A1005	U864	U794	G720	G655	U582	U516	U450	C383	U313	U232	U159	A86	U5
G1149	A1078	U1009	A865	U795	U721	C658	C584	A518	A451	C384	C314	C233	C160	C87	U6
G1150	U1080	C1010	G866	U799	G722	C659	A585	C519	A452	A385	A315	C234	U161	U88	U8
A1151	A1081	G1011	G867	U800	G723	G660	G586	C520	U453	A386	A316	G235	U162	G89	U9
A1152	C1082	U1011	G868	G801	C724	A661	A587	U522	U454	A387	A316	G236	G163	C90	U9
G1155	A1084	G1014	G869	G802	U725	U662	U588	U523	A455	G388	U319	U240	U167	A93	C14
C1158	A1087	U1015	G871	G803	U728	U663	C589	U524	G457	C389	U320	U241	U168	U94	U15
C1159	U1017	C1016	U872	A804	G729	U664	C590	U525	G458	C390	C321	U242	A169	G95	C17
A1160	U1018	U1018	U873	U805	G730	U665	A594	A526	U463	A391	G322	U243	U170	G96	C20
C1161	A1019	A1019	G875	A806	G731	U666	A595	A527	U464	C392	U324	U244	U171	G97	G20
C1162	A1020	C1021	G876	A807	U732	U667	C596	A528	U465	C393	G325	U245	C176	U98	G23
A1166	G1094	U1029	G877	U808	A734	G669	G597	C530	U466	G396	U327	U246	U177	G99	U24
G1167	U1095	A1025	C880	G810	G738	U670	U600	C531	A470	A397	A328	U247	U178	A100	U25
C1167	C1096	A1026	A881	A811	U741	U	A604	U532	A471	C398	G329	U248	U179	U101	C25
A1171	U1097	A1027	U882	A812	U742	A673	A605	U533	U472	A400	G330	U249	A180	U102	A26
G1172	U1098	C1028	C883	U813	U743	C674	A606	C536	U473	A401	A331	U250	A181	A103	U27
C1173	U1099	U1029	A884	A814	U744	U675	A607	C537	A474	C402	A332	U251	U185	A104	A28
G1174	G1100	A1030	G885	C815	U745	G676	G607	C538	A475	G403	U333	U252	C186	A105	U29
U1104	U1104	U1031	U886	G816	U746	G677	U608	C539	U476	G404	G334	U253	G187	U106	G30
U1175	C1105	C1032	A887	A817	U749	U678	U609	C540	A477	C405	U335	U254	A188	U111	G34
U1176	C1177	G1033	U888	C818	U750	U679	G610	A541	U478	U406	G336	U255	C190	G115	U44
C1177	U1106	C1034	A889	U819	U751	U680	U611	A542	U479	A407	C337	U256	C191	U116	U45
G1178	G1107	G1035	A891	U820	A752	U681	U612	C543	U480	C408	C338	U257	U192	U117	U46
G1179	G1108	U821	C882	U821	A753	C682	U617	A544	U482	A412	C339	U270	U193	A47	A46
C1180	G1109	A1039	U884	U822	A754	C683	U618	A545	A483	U413	U340	U271	U194	A19	A47
U1185	G1110	G1040	G895	G823	A755	A684	A619	U546	C484	U414	A341	U272	G195	A126	U52
C1192	G1111	G1041	A898	G824	A756	A685	A620	U547	G486	C415	A344	U273	G196	G127	G53
A1193	U1112	G1042	U899	U825	U757	C686	A621	C548	G487	A416	U345	U274	A197	C54	C54
A1194	G1113	A1043	U901	U826	A761	C687	A622	C549	G488	A417	G346	U275	A198	U128	A55
C1195	G1114	C1045	G902	U827	A762	G688	G624	C551	C489	C418	G347	U276	G199	U129	U56
G1199	G1119	G1046	A906	A829	G763	C691	C625	C552	C490	C419	U349	U277	A200	G57	G57
C1200	G1122	G1051	A907	U830	U764	U694	G626	C553	C491	A420	U350	U278	G201	U58	U58
G1201	C1123	U1052	U908	U831	U766	U695	C627	C554	A492	A421	C351	U279	A202	C59	C59
A1202	G1126	G1053	U909	U832	C768	C696	U628	A555	U493	C422	C352	U280	U206	U60	U60
C1203	G1127	U1054	C910	C834	U769	C697	A630	C557	U494	G423	A353	U281	U207	A61	A61
G1207	U1129	U1055	G913	U835	A770	U698	G631	U558	G495	A425	C354	U282	U207	A62	A62
A1208	C1128	U1056	G914	U836	A771	U699	A636	C559	G497	G426	G355	U283	G136	G63	G63
C1209	G1130	U1057	A915	G837	C772	C700	A637	U563	G498	C427	G356	U284	U137	U64	U64
A1211	A1131	U1059	U916	U838	A773	U701	U638	C564	C500	A428	G357	U285	G214	A138	A65
G1212	A1132	U1060	U917	G703	G775	G702	U639	C565	U501	G432	U358	U286	A215	A140	A67
C1213	C1134	A1061	U918	C842	U778	G704	U640	C566	U502	C433	A359	U287	U216	A141	A68
U1214	U1135	U1063	A919	U843	U779	U705	G841	C567	G503	G434	A360	U288	A217	G142	G69
G1215	G1136	U1064	U921	C845	U780	A706	U641	C568	U504	U639	A361	U289	A218	G143	U72
C1216	A1137	C1066	G922	C846	U781	A707	U642	C569	U505	A437	G362	U290	A219	U144	U73
U1217	U1138	C1067	U923	A847	U782	C708	C846	A570	A506	U438	G364	U291	A221	U145	U74
G1218	A1139	C1070	A926	C848	U783	U709	C847	G571	U507	U439	A369	U292	A222	U146	U75
	G1140	U1071	U999	C849	U784	U710	G847	G574	U508	U440	A370	U293	U223	C149	A76
	A1142	C1072	A930	A856	U785	U711	G848	G577	G509	C443	G372	U294	C224	U150	U77
						A713	U650		A511	C444		U295	A225	G151	A78



• Molecule 2: 40S ribosomal protein S0-A

Chain S0: 21% 44% 15% 18%

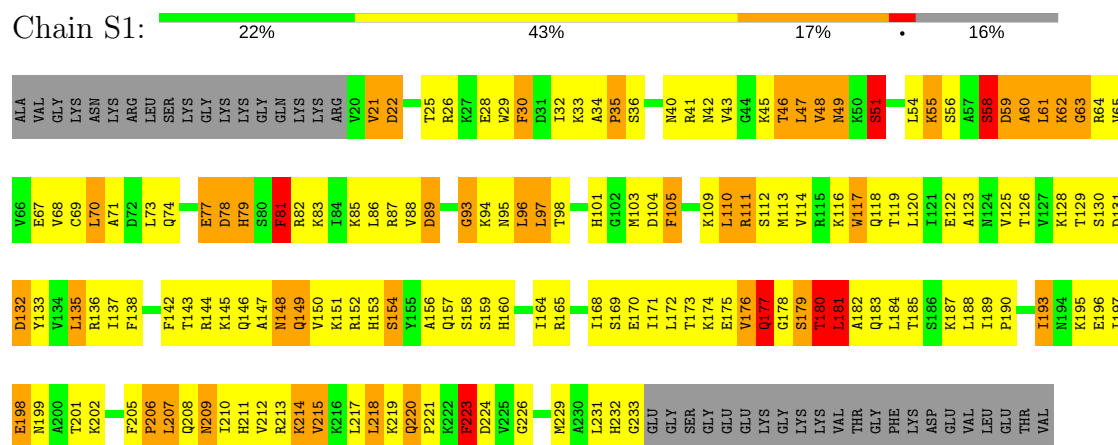


• Molecule 2: 40S ribosomal protein S0-A

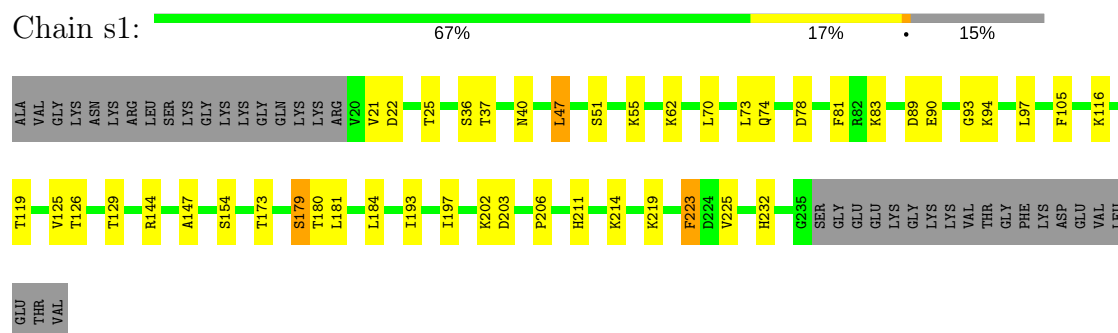
Chain s0: 63% 17% 18%



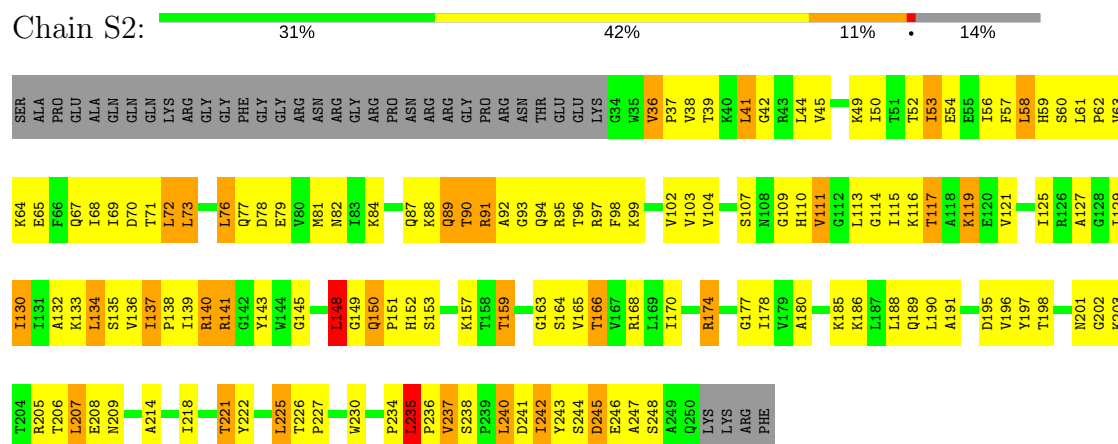
- Molecule 3: 40S ribosomal protein S1-A



- Molecule 3: 40S ribosomal protein S1-A

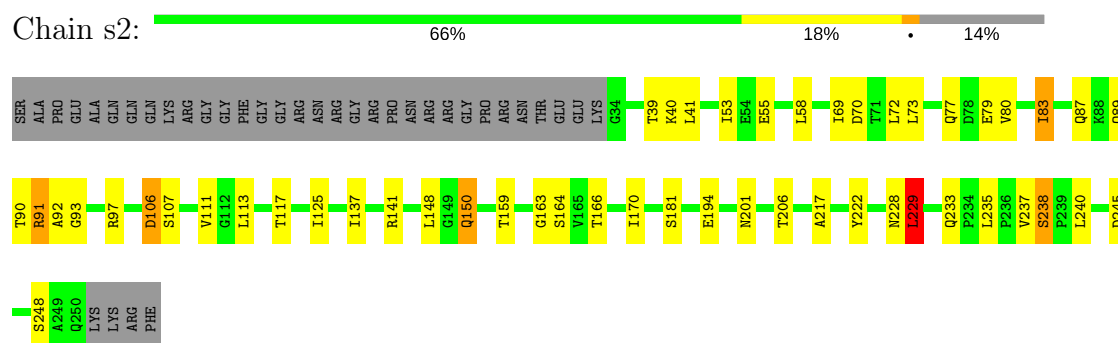


- Molecule 4: 40S ribosomal protein S2



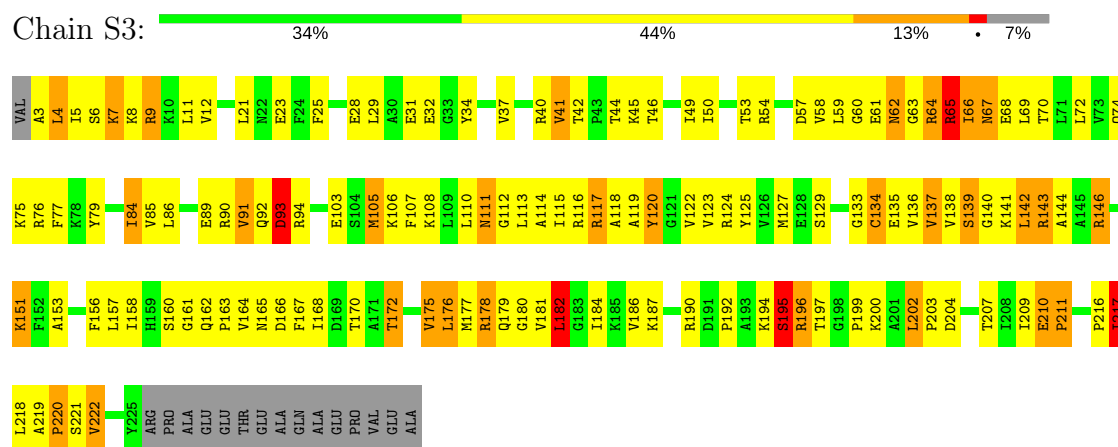
- Molecule 4: 40S ribosomal protein S2

Chain s2:



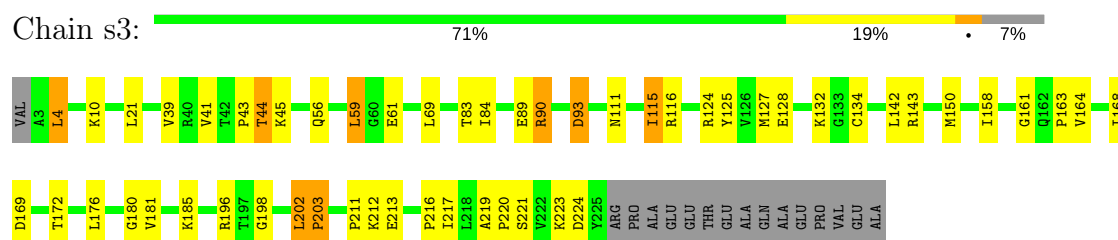
• Molecule 5: 40S ribosomal protein S3

Chain S3:



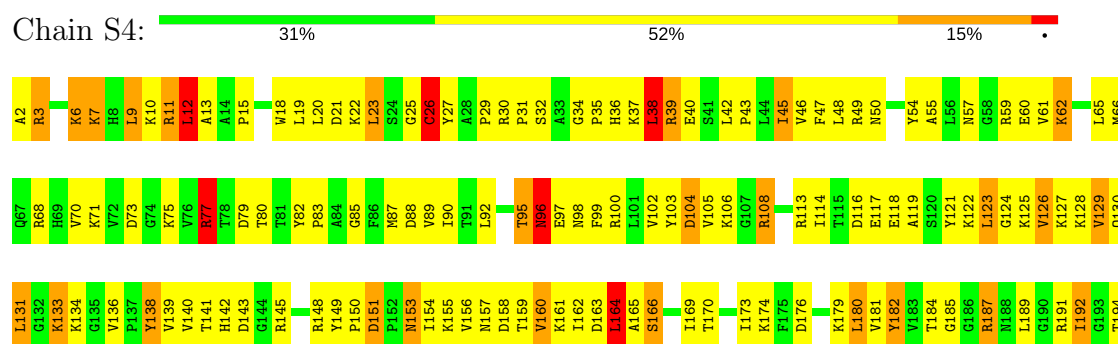
• Molecule 5: 40S ribosomal protein S3

Chain s3:



• Molecule 6: 40S ribosomal protein S4-A

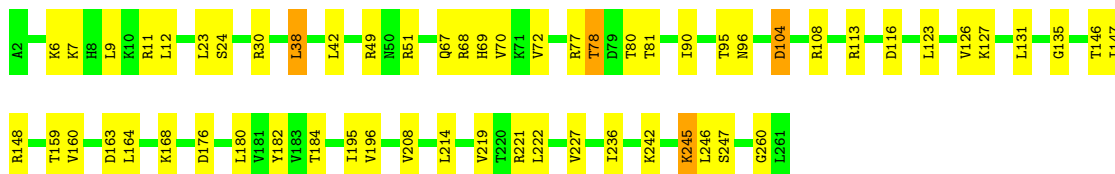
Chain S4:





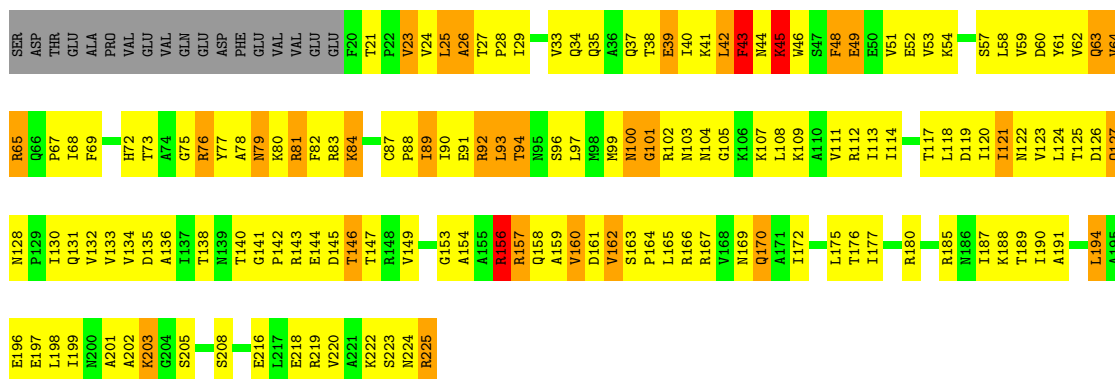
• Molecule 6: 40S ribosomal protein S4-A

Chain s4: 77% 21%



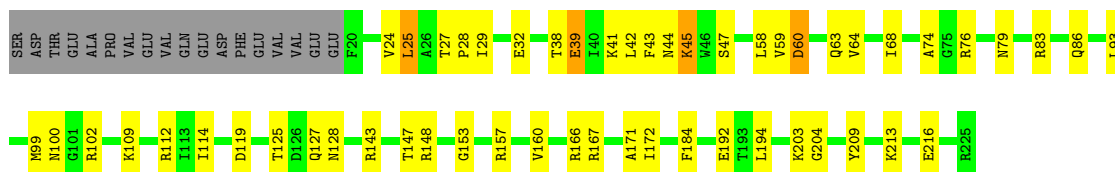
• Molecule 7: 40S ribosomal protein S5

Chain S5: 25% 52% 13% 8%



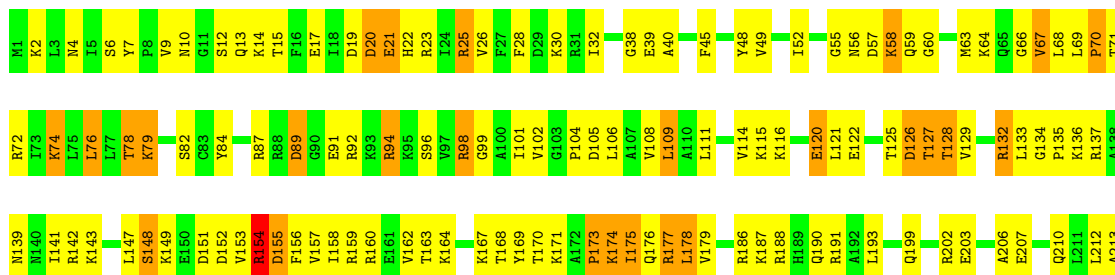
• Molecule 7: 40S ribosomal protein S5

Chain s5: 68% 22% 8%



• Molecule 8: 40S ribosomal protein S6-A

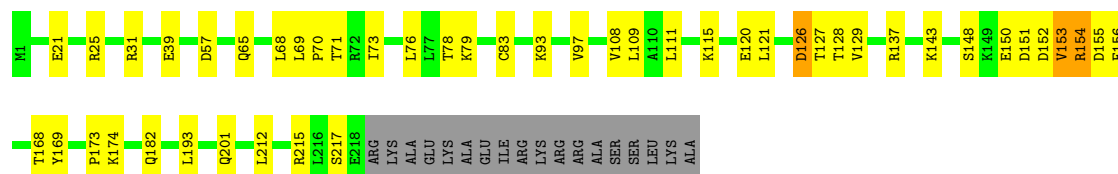
Chain S6: 39% 44% 11%





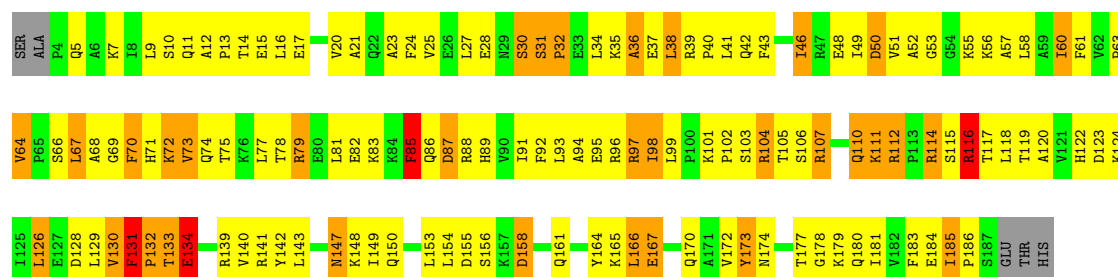
• Molecule 8: 40S ribosomal protein S6-A

Chain s6: 72% 19% 8%



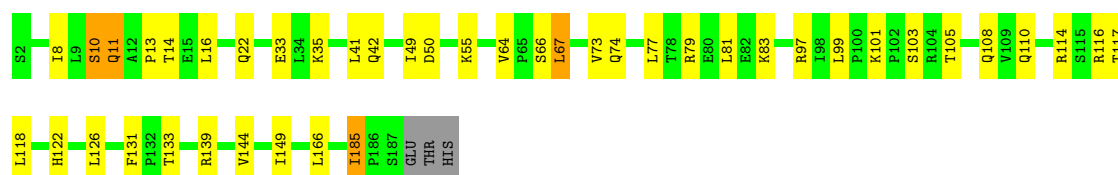
• Molecule 9: 40S ribosomal protein S7-A

Chain S7: 25% 52% 17%



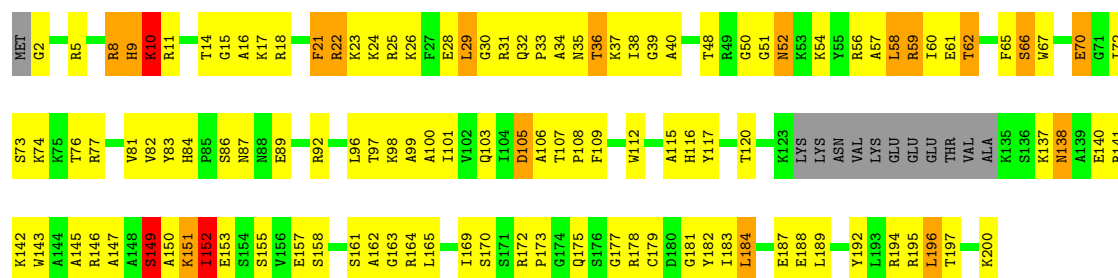
• Molecule 9: 40S ribosomal protein S7-A

Chain s7: 76% 21%



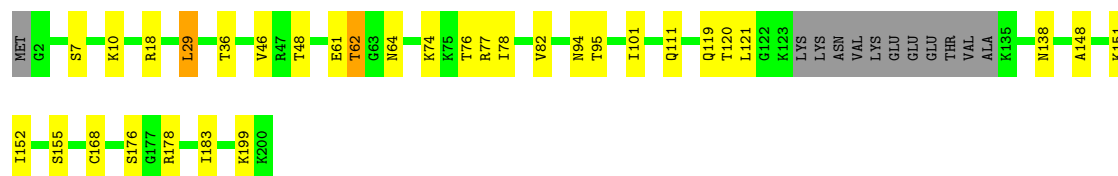
• Molecule 10: 40S ribosomal protein S8-A

Chain S8: 35% 50% 9% 6%



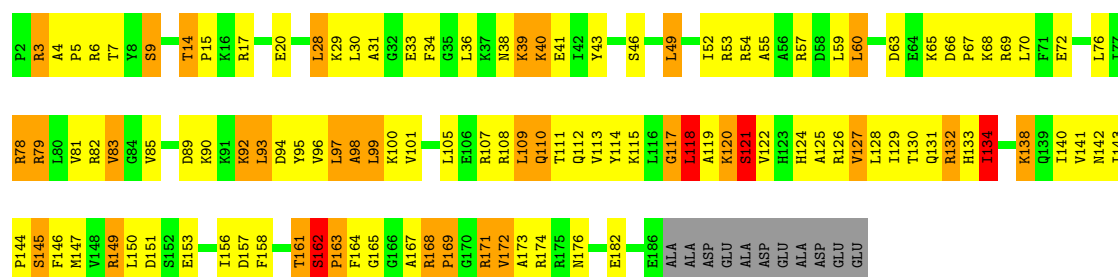
• Molecule 10: 40S ribosomal protein S8-A

Chain s8:



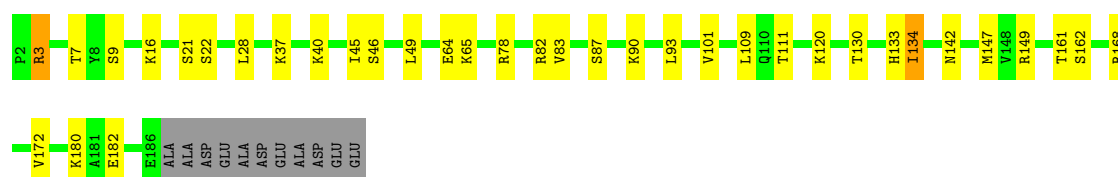
- Molecule 11: 40S ribosomal protein S9-A

Chain S9:



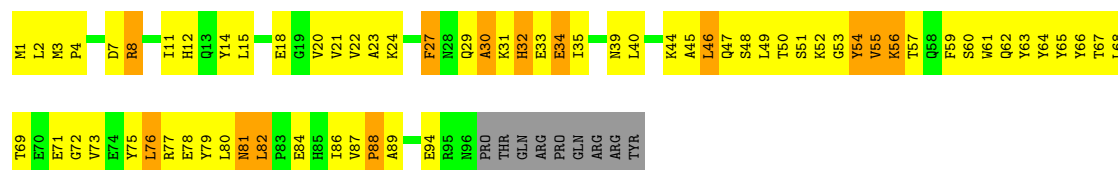
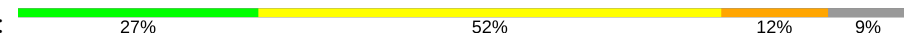
- Molecule 11: 40S ribosomal protein S9-A

Chain s9:



- Molecule 12: 40S ribosomal protein S10-A

Chain C0:



- Molecule 12: 40S ribosomal protein S10-A

Chain c0:



- Molecule 13: 40S ribosomal protein S11-A

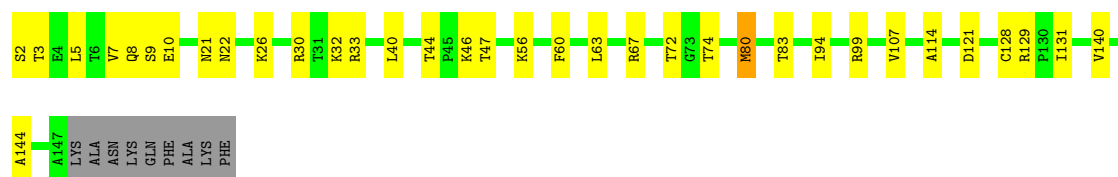
Chain C1:





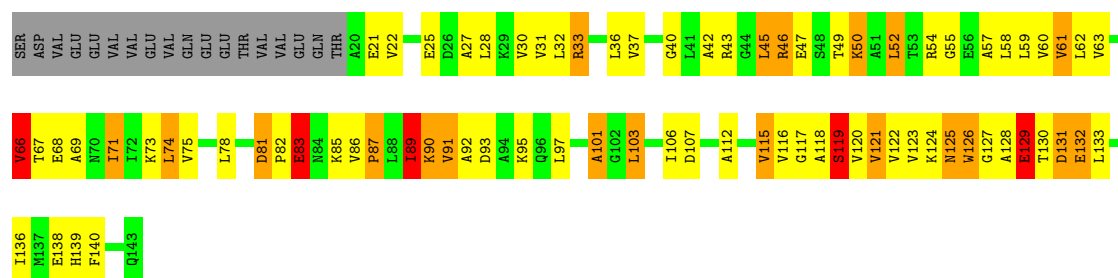
• Molecule 13: 40S ribosomal protein S11-A

Chain c1: 72% 22% 6%



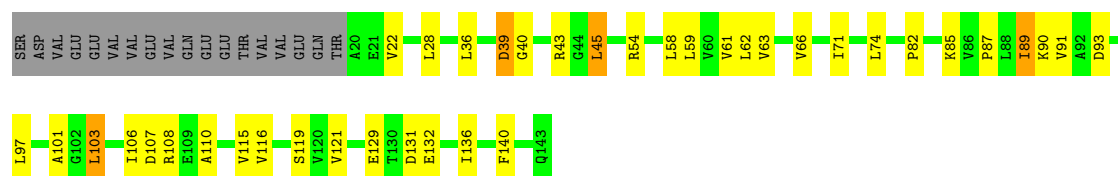
• Molecule 14: 40S ribosomal protein S12

Chain C2: 32% 38% 14% 13%



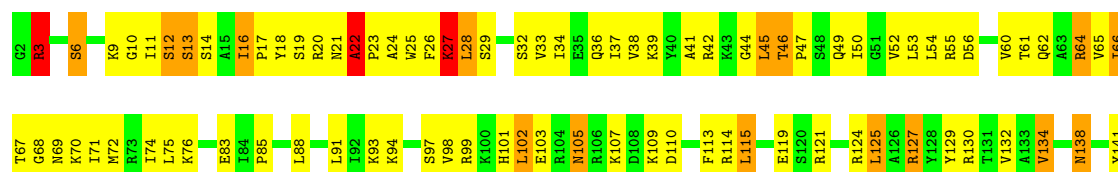
• Molecule 14: 40S ribosomal protein S12

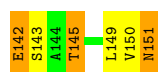
Chain c2: 60% 25% 13%



• Molecule 15: 40S ribosomal protein S13

Chain C3: 38% 47% 13%





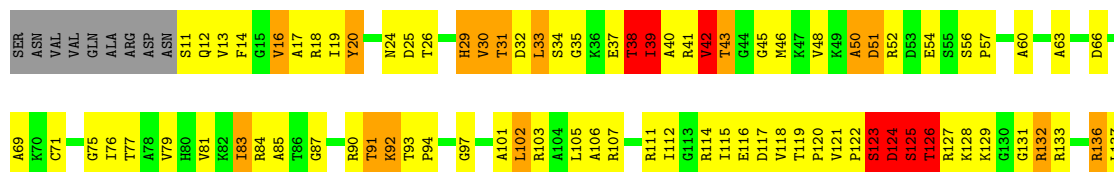
- Molecule 15: 40S ribosomal protein S13

Chain c3: 81% 17%



- Molecule 16: 40S ribosomal protein S14-A

Chain C4: 32% 46% 11% 5% 7%



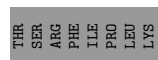
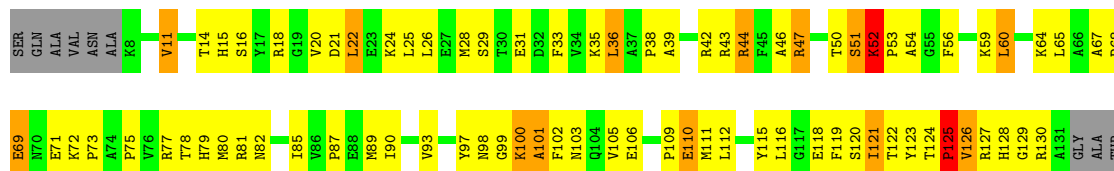
- Molecule 16: 40S ribosomal protein S14-A

Chain c4: 73% 20% 6%



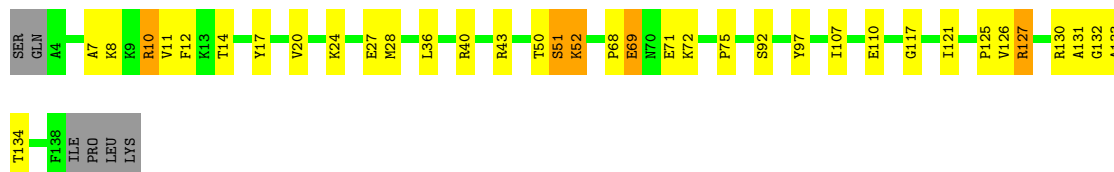
- Molecule 17: 40S ribosomal protein S15

Chain C5: 31% 46% 9% 12%

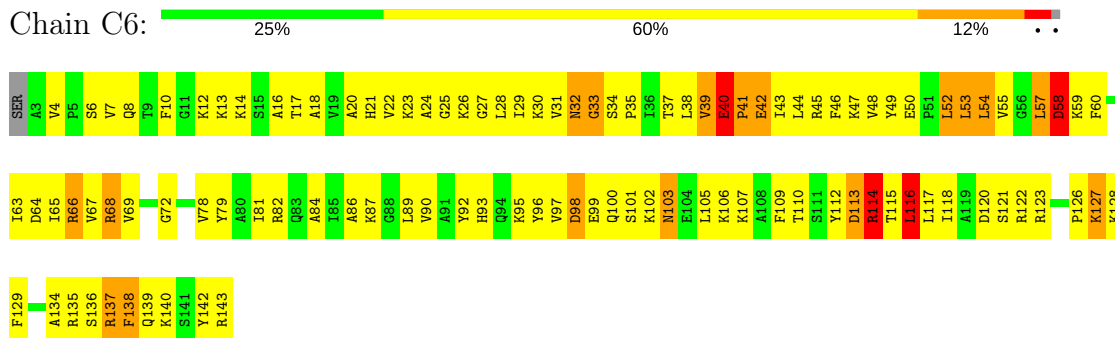


- Molecule 17: 40S ribosomal protein S15

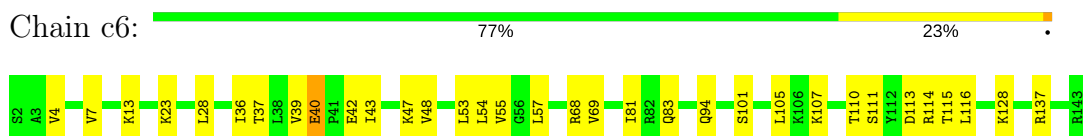
Chain c5: 70% 22%



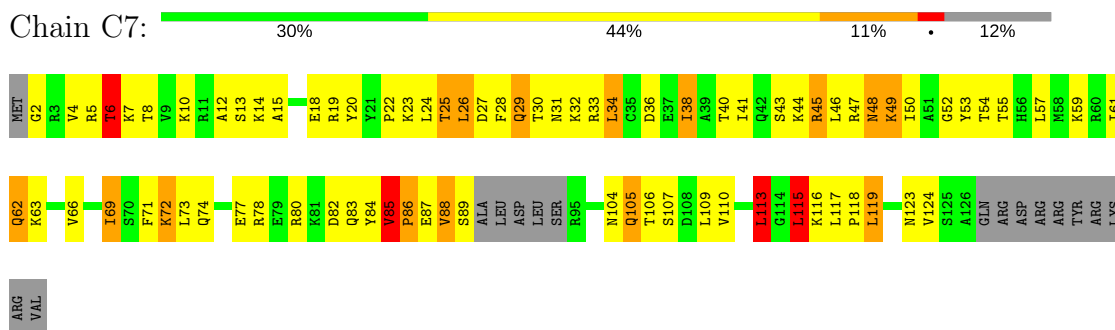
- Molecule 18: 40S ribosomal protein S16-A



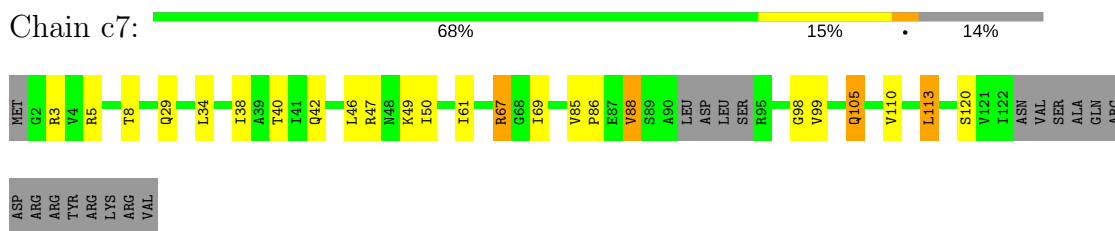
- Molecule 18: 40S ribosomal protein S16-A



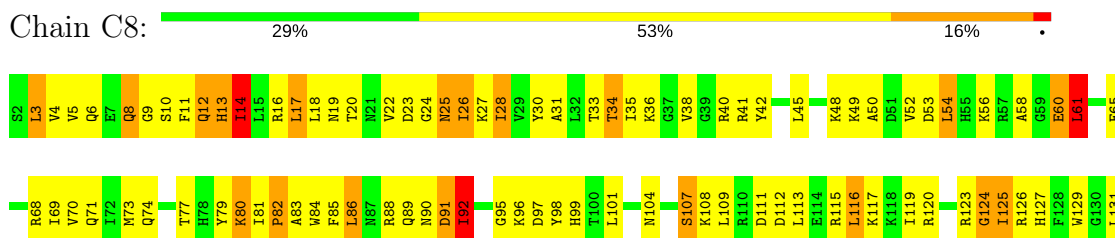
- Molecule 19: 40S ribosomal protein S17-A

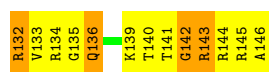


- Molecule 19: 40S ribosomal protein S17-A



- Molecule 20: 40S ribosomal protein S18-A





- Molecule 20: 40S ribosomal protein S18-A

Chain c8: 80% 17%



- Molecule 21: 40S ribosomal protein S19-A

Chain C9: 34% 54% 12%



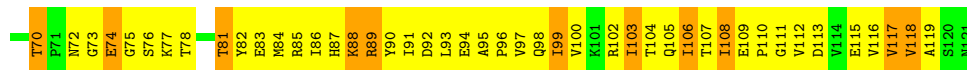
- Molecule 21: 40S ribosomal protein S19-A

Chain c9: 81% 17%



- Molecule 22: 40S ribosomal protein S20

Chain D0: 22% 49% 18% 11%

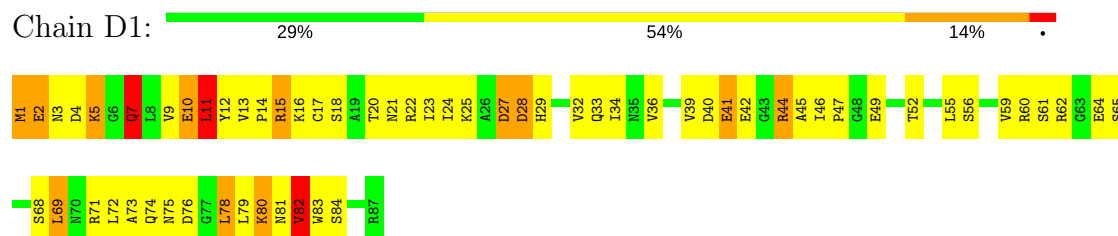


- Molecule 22: 40S ribosomal protein S20

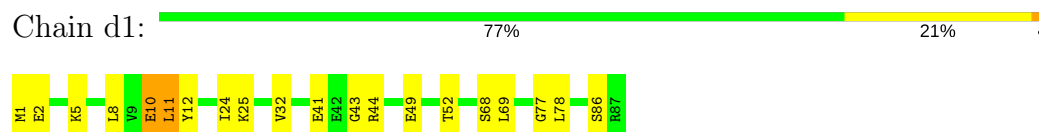
Chain d0: 63% 26% 8%



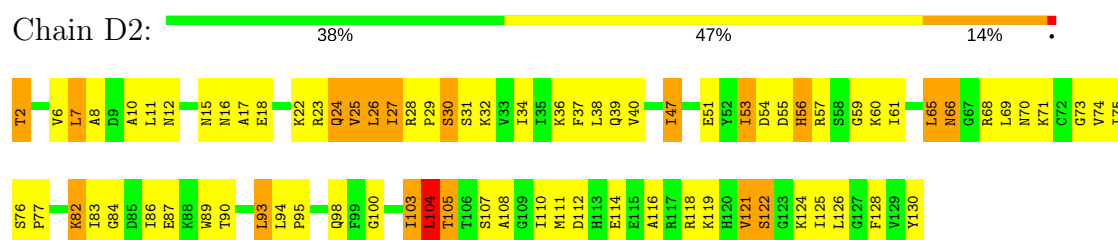
- Molecule 23: 40S ribosomal protein S21-A



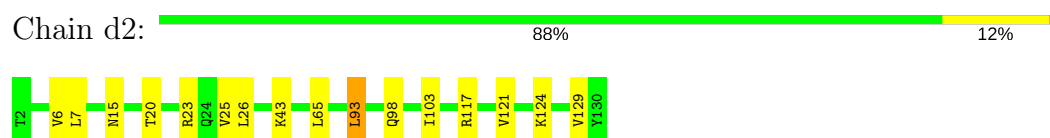
- Molecule 23: 40S ribosomal protein S21-A



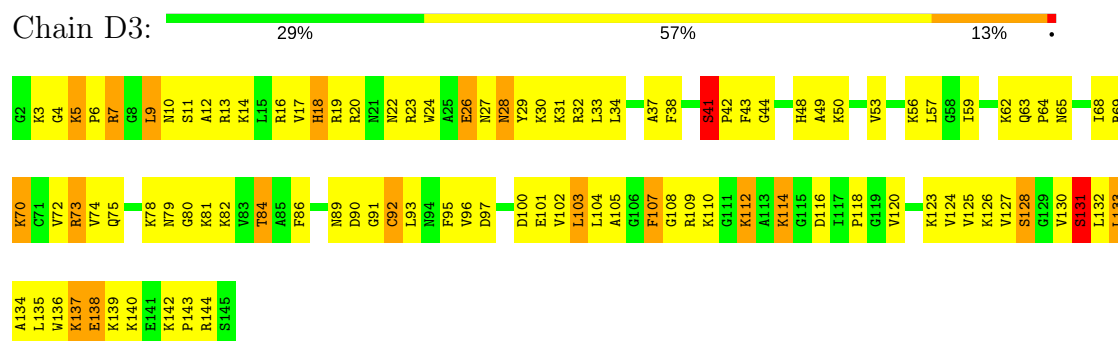
- Molecule 24: 40S ribosomal protein S22-A



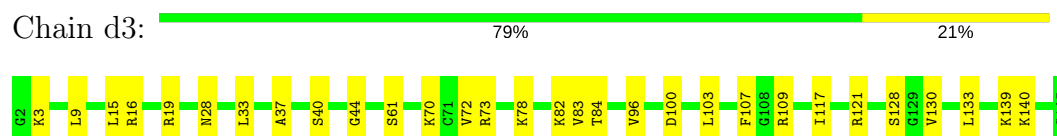
- Molecule 24: 40S ribosomal protein S22-A



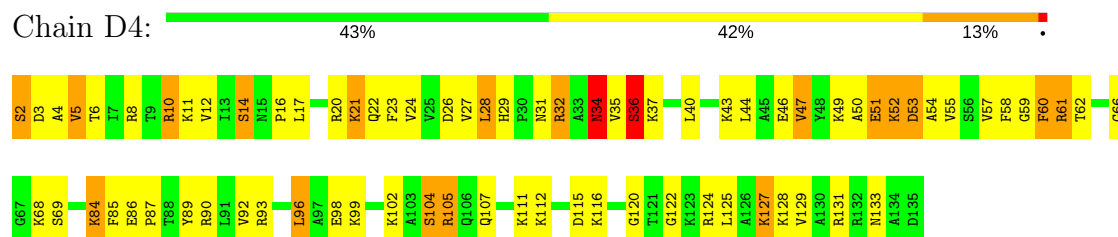
- Molecule 25: 40S ribosomal protein S23-A



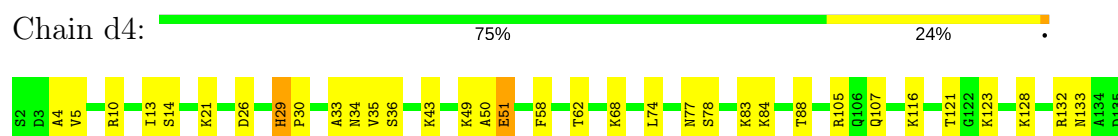
- Molecule 25: 40S ribosomal protein S23-A



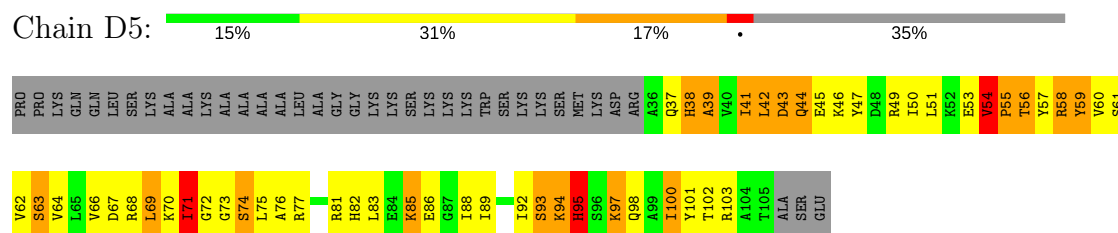
- Molecule 26: 40S ribosomal protein S24-A



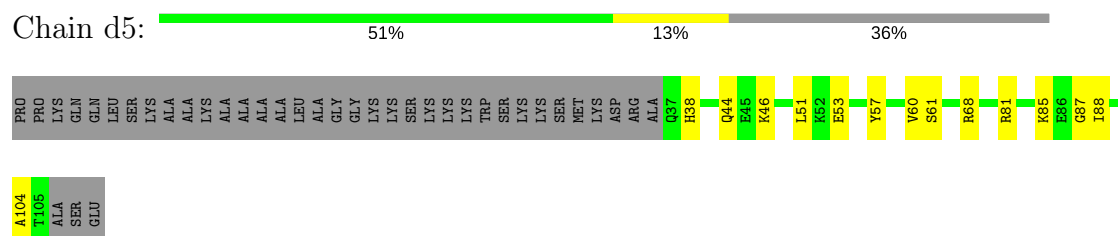
- Molecule 26: 40S ribosomal protein S24-A



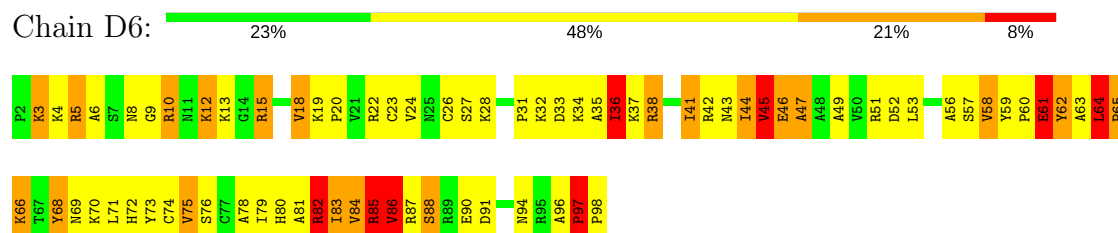
- Molecule 27: 40S ribosomal protein S25-A



- Molecule 27: 40S ribosomal protein S25-A

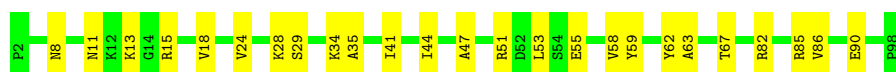


- Molecule 28: 40S ribosomal protein S26-B



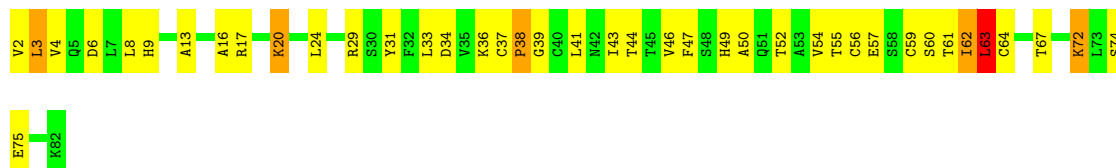
- Molecule 28: 40S ribosomal protein S26-B





- Molecule 29: 40S ribosomal protein S27-A

Chain D7: 49% 43% 6% •



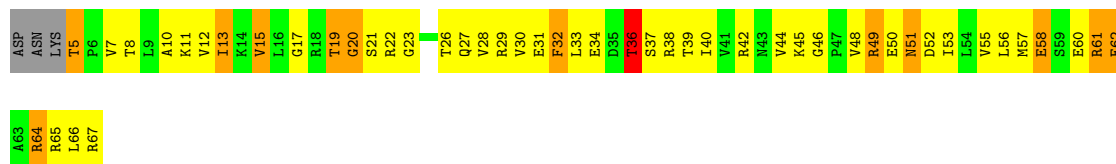
- Molecule 29: 40S ribosomal protein S27-A

Chain d7: 75% 25%



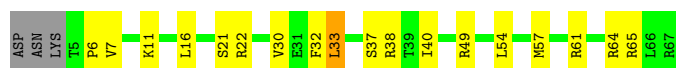
- Molecule 30: 40S ribosomal protein S28-A

Chain D8: 21% 55% 18% 5% •



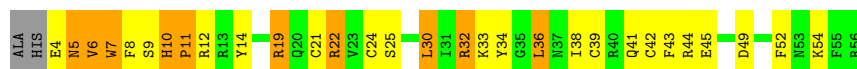
- Molecule 30: 40S ribosomal protein S28-A

Chain d8: 68% 26% 5% •



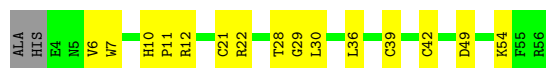
- Molecule 31: 40S ribosomal protein S29-A

Chain D9: 42% 36% 18%

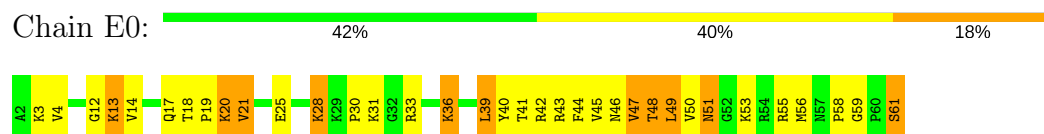


- Molecule 31: 40S ribosomal protein S29-A

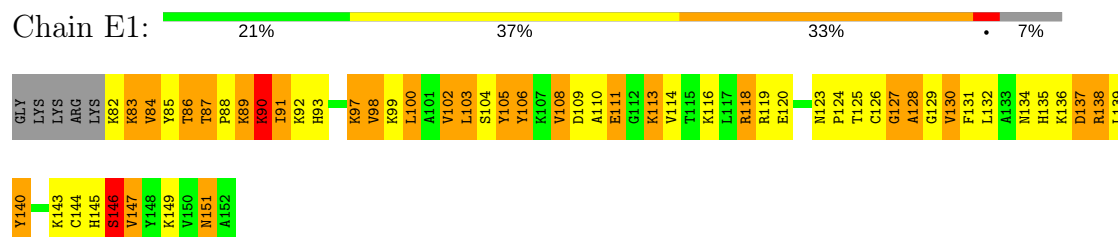
Chain d9: 69% 27%



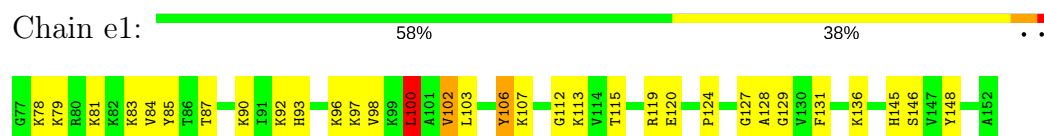
- Molecule 32: 40S ribosomal protein S30-A



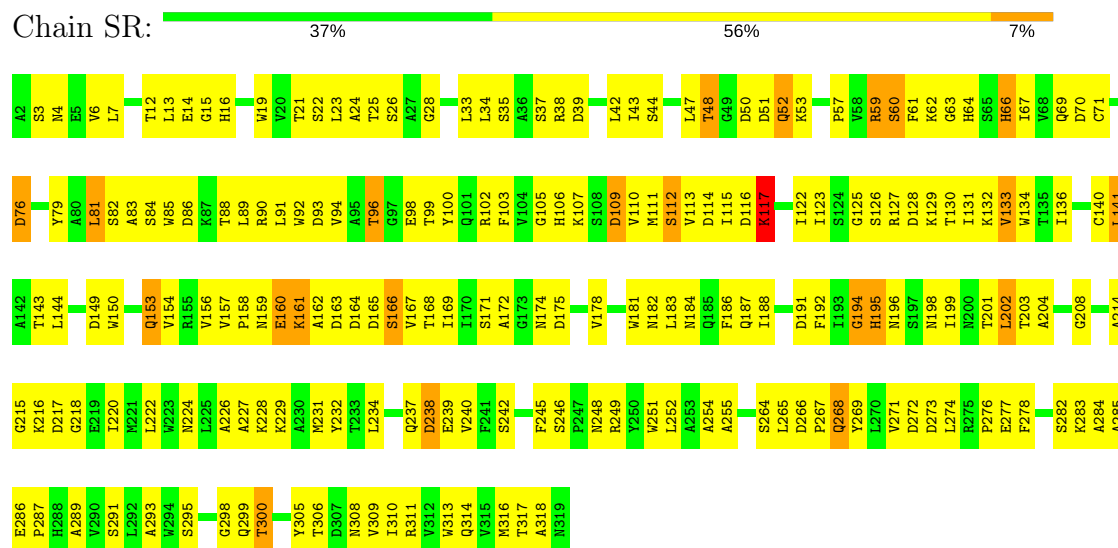
- Molecule 33: Ubiquitin-40S ribosomal protein S31



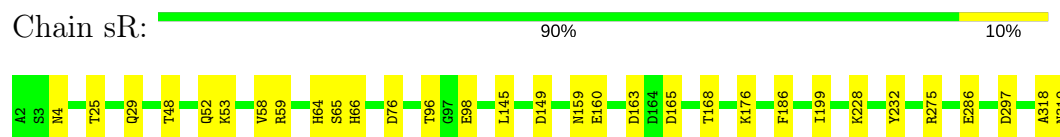
- Molecule 33: Ubiquitin-40S ribosomal protein S31



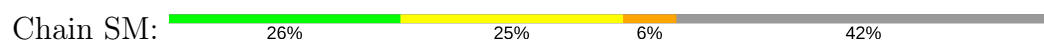
- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

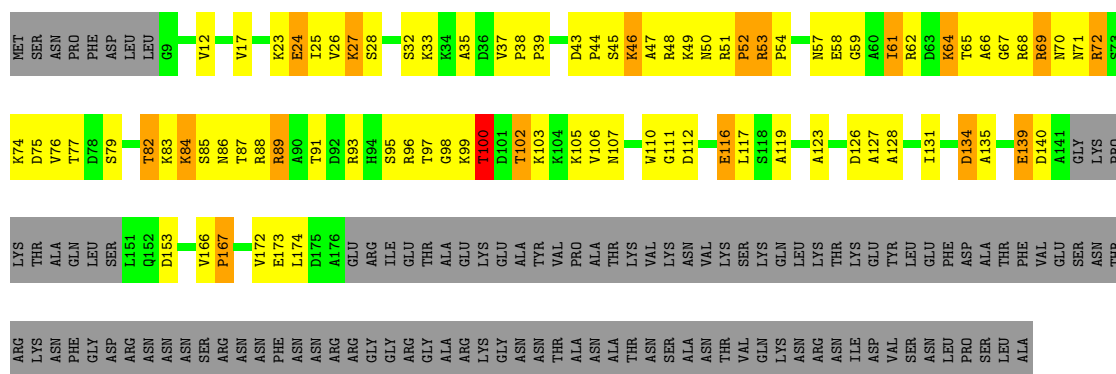


- Molecule 34: Guanine nucleotide-binding protein subunit beta-like protein

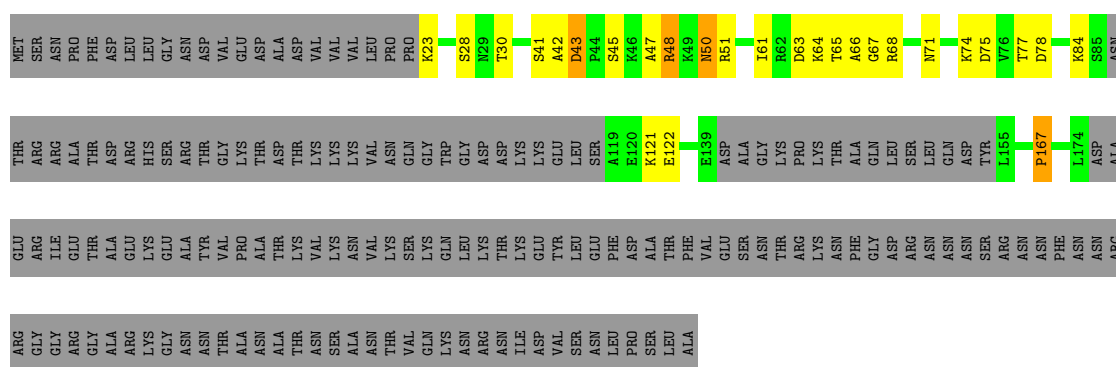


- Molecule 35: Suppressor protein STM1

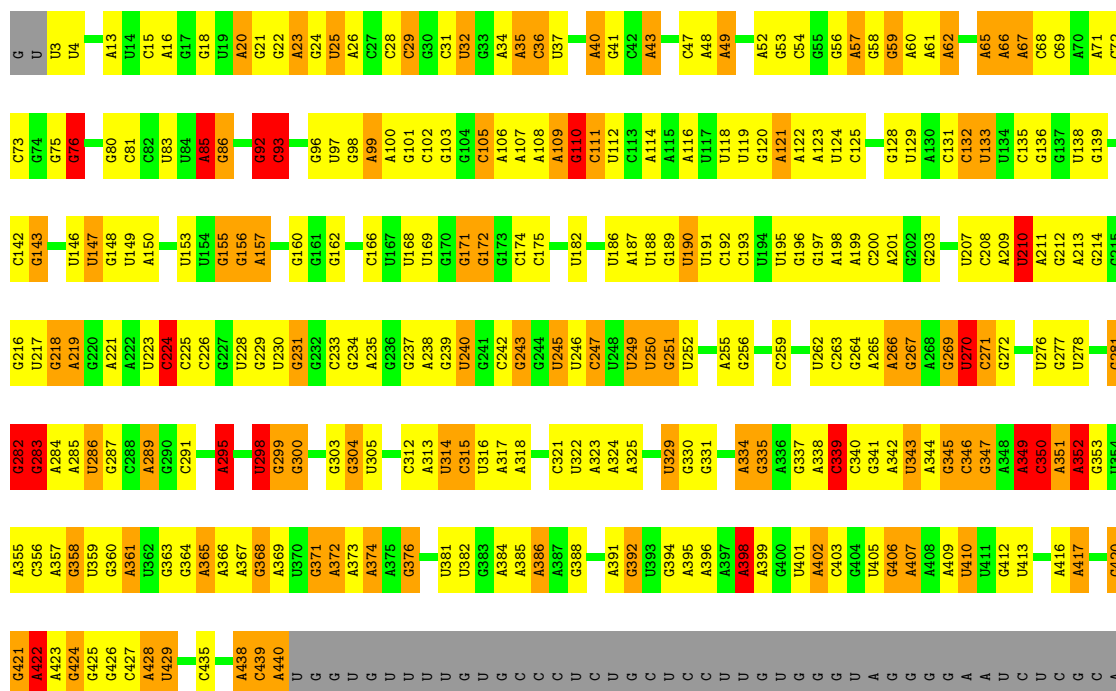




• Molecule 35: Suppressor protein STM1

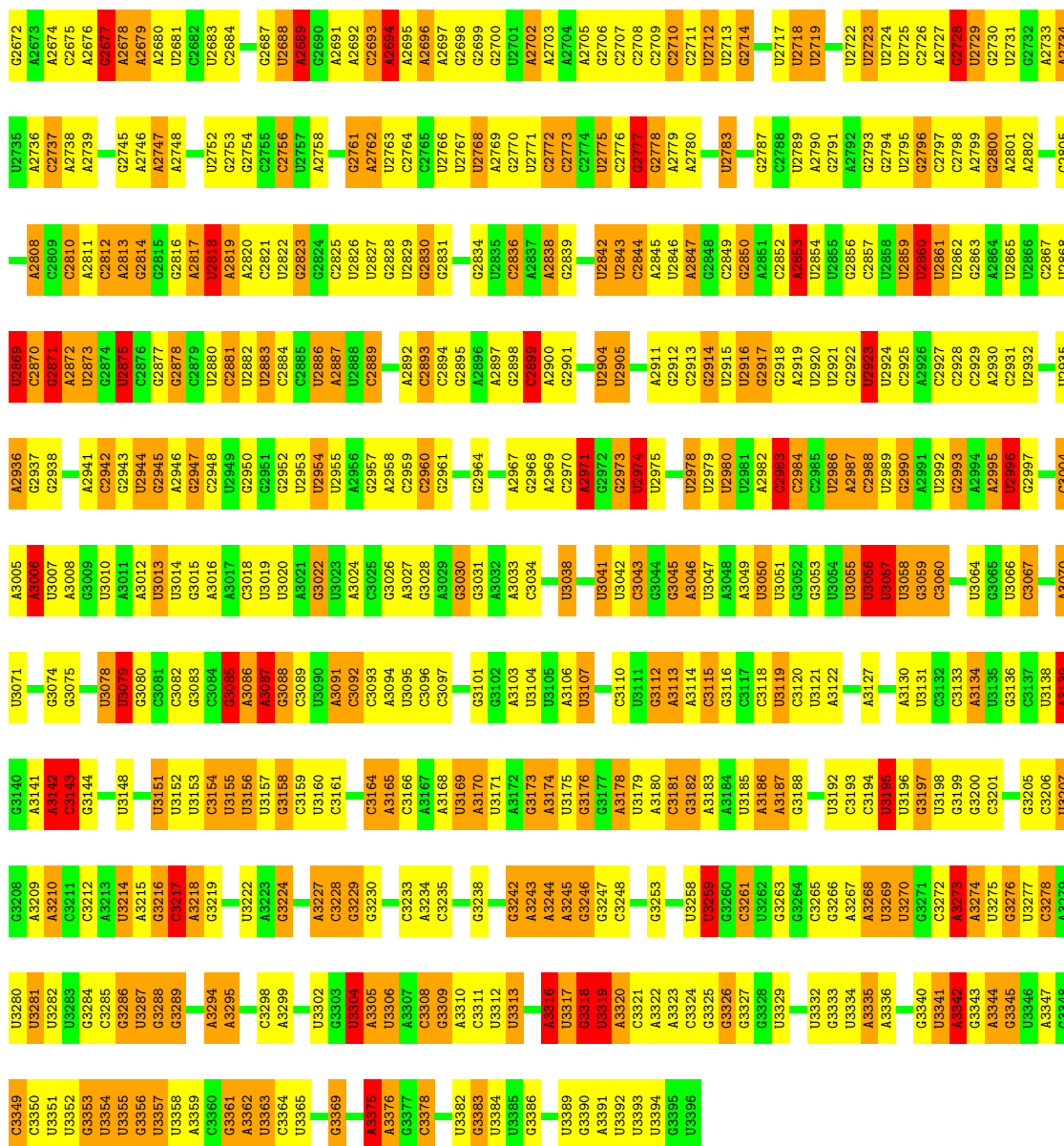


• Molecule 36: 25S ribosomal RNA



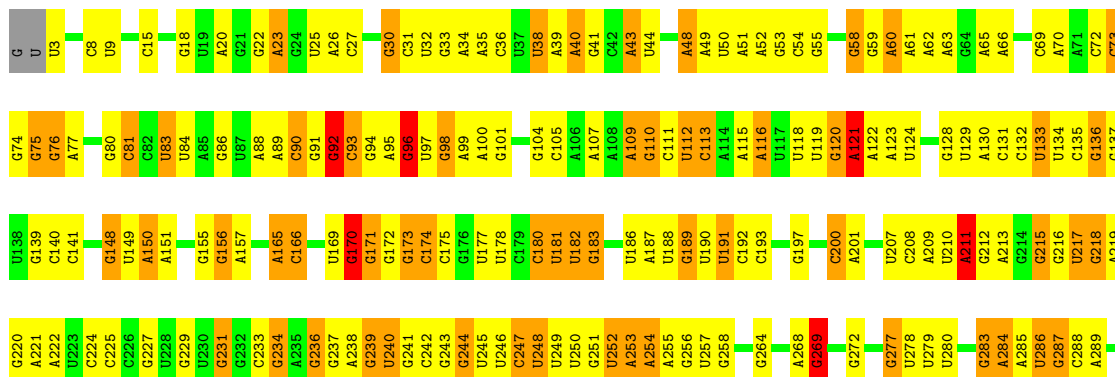
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G1517	G1383	G1319	G1319	A1252	U1052	U1122	U1052	C978	A914	A847	A780	U629	U558	C
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A1524	A1452	A1390	A1326	A1259	U1191	G1127	U1057	C983	C919	U852	G785	C636	U563	G494
G1525	A1453	C1391	U1329	A1260	A1193	U1128	U1058	A984	A920	U853	A786	C637	G564	G495
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G1478	G1408	U1347	U1347	C1277	A1212	C1146	U1078	U1007	U939	U871	G718	C655		G515
U1479	G1409	U1348	U1348	U1278	A1212	G1146		A1008	G940	U872	A719	A656	A516	A516
A1546	A1481	G1349	G1349	C1279	G1213	G1149	U1081	G1010	G941	U873	A807	A657	G590	G517
G1547	U1410	U1350	A1350	G1280	U1218	U1151	U1082	U1014	U942	C873	A808	G658	A592	G518
C1548	G1411	U1351	U1351	G1281	A1217	U1152	G1083	U1015	U943	U874	G721	G659	G593	A519
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A1489	G1416	U1356	U1356	G1223	G1223	G1156	U1094	G1019	G950	A885	C729	U664	C599	A529
A1490	A1417	G1357	G1357	U1293	G1226	G1157	U1095	G1020	A953	U886	A735	A666	G600	A532
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C1502	G1431	A1369	C1238	U1305	G1172	U1172	U1109	C1037	G964	G900	U829	G680	C614	
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A1506	G1434	C1372	A1308	U1308	U1175	G1175	A1112	U1043	G969	U899	U825	U683	A619	G547
G1574	A1435	A1373	U1241	U1241	G1176	G1176	U1113	G961	G970	U905	G826	U684	U620	G548
A1575	G1507	G1374	G1243	G1243	G1177	G1177	U1114	U1044	A970	A906	C749	U677	U620	U549
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G1579	U1511	U1378	U1247	G1247	A1180	G1180	G1117	A1048	A974	G910	U776	U689	G625	U553
A1580	C1512	U1378	U1247	G1247	U1181	U1181	C1118	A1048	G974					A554
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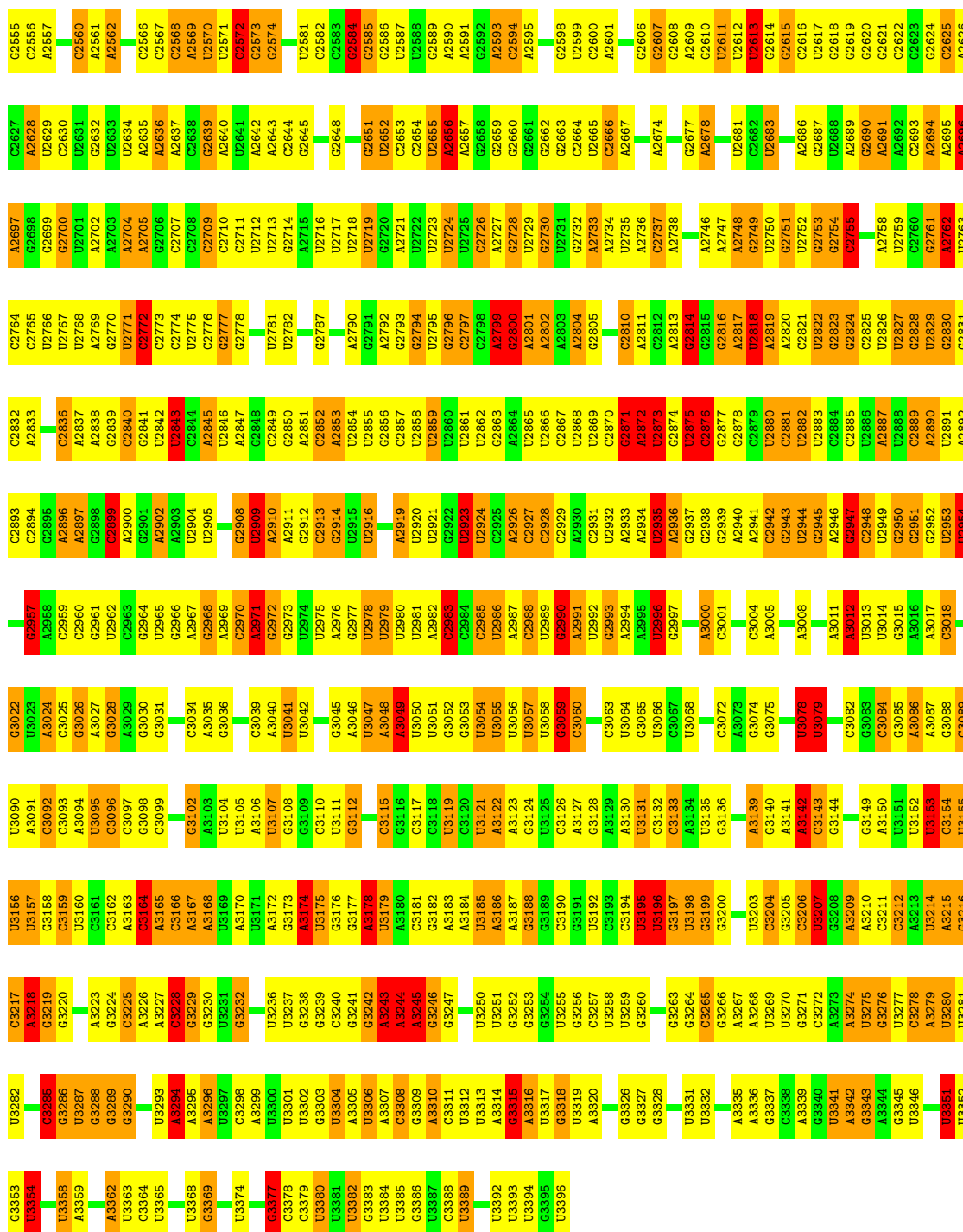
• Molecule 36: 25S ribosomal RNA

Chain 5: 29% 40% 20% 7%

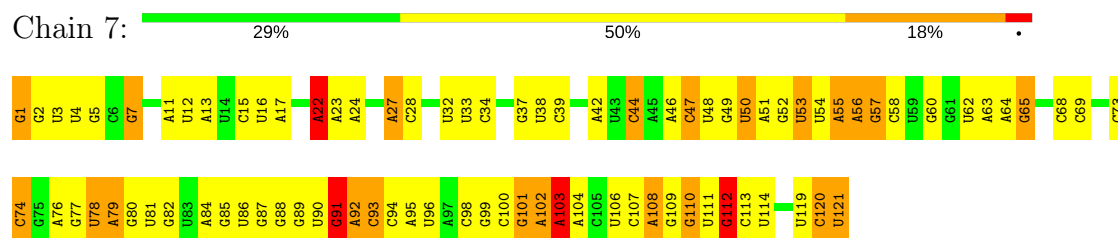


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G1379	G1310	C1239	A1170	G1104	A1036	G971	G908	A936	U772	U698	G652	A560	G494	U431	U370	A295
G1380	G1311	A1240	G1171	U1108	C1037	A972	G909	A837	G773	U699	G636	A569	G495	A436	A372	A296
A1381	C1312	U1241	G1172	U1109	C1038	A973	G910	G838	G774	A699	G635	C562	C496	A437	A373	U298
U1384	G1313	G1242	U1173	U1110	U1039	G974	G911	A841	A775	C700	G637	C566	C497	A438	A374	C299
C1385	C1314	G1243	U1174	U1111	A1040	C975	G912	G842	U777	G701	C638	C566	A498	A439	A375	G300
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G1408	C1338	A1263	C1192	A1130	G1064	U995	A934	C863	U797	G722	A657	C590	U520	U	A395	U329
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C1411	U1341	G1266	C1195	A1133	G1066	A998	A936	G869	G800	G725	A660	C593	A523	U	A398	G335
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C1413	U1271	A1271	C1197	A1136	U1070	C1000	C938	U871	C802	G728	U662	C595	C526	C	C400	C337
G1414	C1272	C1272	A1200	C1137	U1071	G1001	C928	U872	C803	G732	C663	C596	C527	U	U401	A338
U1415	C1201	A1273	C1201	U1138	U1072	A1003	A942	C873	C804	U731	G668	C597	A527	U	A402	C339
C1416	A1202	A1274	A1202	G1139	U1073	U943	U943	U874	G805	G732	U669	C598	U528	G	C403	C340
G1417	A1203	C1275	A1203	G1140	U1074	A1006	C944	G875	A806	G733	U670	C599	A529	U	G404	G341
A1418	A1204	U1276	A1204	G1141	U1075	U1007	C945	A876	A807	G734	C670	C600	G530	U	U405	A342
C1419	C1205	C1277	A1205	A1143	C1076	U1008	U946	C877	A808	A735	U671	U601	G531	G	G406	U343
U1420	G1354	G1280	G1206	U1144	U1077	A1009	U947	C878	G809	A736	A672	A602	A533	U	A407	C346
A1428	A1355	C1281	U1207	G1145	U1078	G1010	C948	U879	A810	A737	U673	A603	U534	A	A408	G347
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C1431	C1358	A1286	A1212	G1148	U1081	G1013	A951	A882	G815	G740	G676	A607	U537	G	U411	C350
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C1433	A1362	C1292	C1219	U1151	A1085	U1015	G953	A884	A817	G742	G678	G609	U541	A	U413	A351
G1434	C1363	G1295	U1220	G1152	C1086	C1016	U954	U885	C818	C743	U679	G610	U542	A	U414	A352
A1437	A1364	G1295	A1221	A1153	G1087	G1017	U955	C886	U819	A744	U681	U612	G542	U	A415	C353
U1438	G1365	G1295	G1222	C1155	G1090	G1018	C957	A888	U821	G754	U682	G613	G542	C	A416	A357
G1439	A1366	C1298	G1226	G1157	A1093	G1020	C958	U889	G822	A755	U683	C614	C546	U	A417	C356
U1440	U1367	U1299	C1227	U1158	U1094	G1021	U960	C824	C823	C758	G686	G617	G547	C	U418	G358
C1443	A1368	G1300	C1227	A1159	U1095	G1024	C961	A895	U825	U759	U687	C618	U549	G	G419	U359
G1444	G1370	A1301	C1227	A1159	U1095	A1025	A962	A896	G826	G760	G688	A619	A550	C	G421	G360
U1445	C1371	A1302	G1230	C1160	U1096	A1026	G963	U897	A827	U620	U689	U620	A551	A	A422	A361
C1446	C1372	A1303	A1231	G1161	G1097	A1027	G964	U898	A828	C765	A690	A621	G552	U	U423	U362
U1447	A1373	A1304	C1332	U1162	A1098	U1028	A965	U899	U829	U766	A691	A622	U553	U	G424	G363
G1447	G1374	U1305	U1235	G1163	A1099	G1029	U966	G900	A830	U767	A692	U623	A554	C	G425	G364
U1448	G1376	G1307	G1236	A1165	U1100	U1029	A967	U905	G831	C768	A693	U623	U555	A	G426	A365
					G1101	C1032	G968			G769	C694	U629	U556		A428	A367

C	G2429	A2363	U2297	A2224	C2146	C	A	U1890	A1816	G1734	G1658	A1589	G1519	A1449
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C	U2436	C2366		C2227	G	C	C	A1893	U1819		G1661	G1592	U1522	C1452
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U	A2438	G2368	G2305	A2229		A	A	A1896	U1822		U1626	U1595	U1526	A1454
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A	G2442	A2373	A2309	G2234	G2160	U	C	G1902	U1831			G1599	U1530	A1460
G2503	A2443	A2374	G2311	C2235	G2161	U	C	U1903	G1832	A1757	U1600	U1601	A1461	
U2504	C2444	G2375	A2312	G2236	U2162	A	U	C1904	U1833	U1758	U1602	U1603	A1462	
U2505	A	G2376	A		C2163	A2093	G	G1905	U1834		A1602	A1604	U1533	
U2506	U	G2377	U	A2244	A2164	C2094	C	U1906			A1603	G1535	A1534	
C2507	A	C2378	G	C2245	G2165		C	C1907	A1839	C1762	G1680	G1604	U1536	
U2508	G	U2379	A	G2246	A2166		C	A1908	U1840	U1763	U1681	A1605	A1465	
U2509	A	U2380	U	G2247	A2167	G2101	U	A1909	U1841	U1764	U1682	U1606	G1466	
U2510	G		G	C2248	A2168	U2102	C	A1910	A1842	U1765	A1683	U1607	A1467	
A2511	G	C2383	U	G2249	G2169	U2103	C	G1911	C1843	G1770	U1686	C1608	G1543	
G	G	A2384	G	G2250	G2174	A2104	U	A1912	A1844		U1687	C1609		
U	U	G2385	U	G2251	U2175	A2107	G	A1913	G1845	C1771	U1688	G1610	A1546	
U2513	G	A2386	C	A2252	U2176	G2108	U	G1914	C1846	U1772	G1547	G1611	U1471	
U2514	A		U	G2253	U2177	U2109	U	A1915	A1847	C1773	U1689	A1612	U1472	
A2515	U	C2389	A	U2254	G2177	G2110	C	G1916	G1848		C1690	A1613	C1548	
U2516	A	A2390	G	A2255	A2178	G2111	G	C1917	C1849	G1778	U1691	C1614	U1549	
U2517	G	C2391	U	C2256	C2179	U2112	U	A1918	A1850	C1779	U1692	C1615		
A2518	A	C2392	A	C2257	G2180	G2113	A	G1919	G1851	U1787	C1693	U1616	U1553	
A2520	U	G2393	U	U2258	C2181	A2114	C		G1852	G1788	U1694	G1617	U1555	
U2521	A	G2394	A			G2115	A	G1927	U1853	C1789	U1695	U1618	C1556	
G2522	G	C2395	C	G2261	U2184	G2116	C	G1928	C1854	U1783	A1696	A1619	U1557	
A2523	C	U2396	U	A2262	C2185	G2117	U	G1929	U1855	U1784	A1697	U1620		
A2524	U	G2397	U	C2263	U2186	A2117	G	A1930	C1856	U1785	C1698		G1560	
G2525	G	A2398	G	U2264	C2187	G2118	C	U1931	A1857	C1786	C1701	C1627	G1561	
C2526	G	U2399	U	C2265	U2188	A2119	A		A1858	G1788	U1702	C1628	G1488	
G2527	G	G2400	U	U2266	U2189	G2120	U	G1934		U1789	U1706	U1629	A1489	
A2401	A	C2337	C		U2190	G2121	U	G1935	G1861	C1789		U1630	A1490	
A2402	A	C2338	A	A2270	U2191	G2122	C	A1936	U1862	G1790	G1706	U1631	G1493	
G2403	C	U2340	C	A2271	C2192	G2123	G	U1937	G1863		U1707	A1632	U1494	
A2404	U	A2341	U	G2272		G2124	U	G1938	A1864		C1708	C1633	U1567	
G2405	U	U2342	C	G2273	A2198	A2125	A	G1939	U1865	U1795	C1709	G1634	U1495	
C2406	C	C2343	U		G2199	A2126	G	G1940	C1866	G1796	U1568	G1635	C1496	
G2407	G	U2344	C	C2278	U2200	U2127	U	C1941	A1867	A1797	U1570	U1636	C1497	
U2408	G	A2345	U	A2279	C2201	C2128	C	U1942	G1868	U1798	A1571	A1637	C1499	
G2409	C	C2346	C	A2280	C2202		U	C1943	C1869	A1799	U1572	A1638	G1500	
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G2411	G	U2349	C	U2282	C2204	C2132	C	A1945		U1717	C1573	C1640	U1502	
G2412	C	C2350	C	G2283	U2205	U2133	U	G1946	A1874	G1718	U1574	U1641	A1503	
C2415	A	U2351	U	C2284	G2206	G2134	U	U1947	U1875	G1719	A1575	G1642	G1576	
U2416	U	A2352	G	C2285	A2207	U2135	G	G1948	U1876	U1720	G1577	A1643	C1505	
U2417	G	G2353	U	U2286	A2208	C2136	U	U1949	U1877	U1721	C1578	C1644	A1506	
U2418	G	C2354	U	C2287	U2209	U2137	A		G1878	U1722	U1579	U1645	U1507	
A2419	A	G2355	U	G2288	G2210	A2138	G	G1952	A1879	U1723	A1580	G1650	C1508	
A2420	A	A2356	U	U2289	U2211	A2139	A	G1953	A1880	U1724	C1581	U1651	U1513	
U2421	U	A2357	U	C2290	C2212	U2140	C	U	A1881	C1725	G1582	C1652	G1514	
U2422	U	A2358	U	A2291	A2213	U2141	C	G	U1885	G1728	G1583		A1515	
G2425	A	C2359	U	U2292	A2214	A2142	G	A	A1886	A1729	G1586		C1516	
U2426	C	U2360	C	C2293	A2215	A2143	U	U	A1887	G1730	A1587		U1517	
U2427	C	A2361	C	U2294			C	G					A1588	
A2554	A		A	A2223		A2145	G							



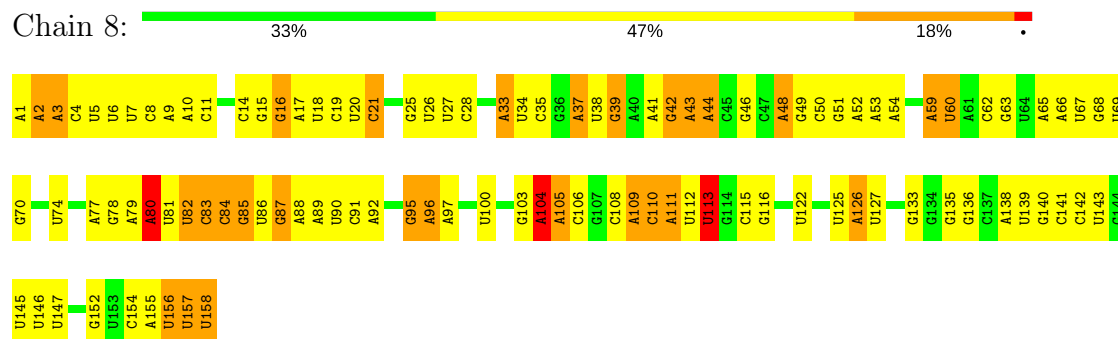
- Molecule 37: 5S ribosomal RNA



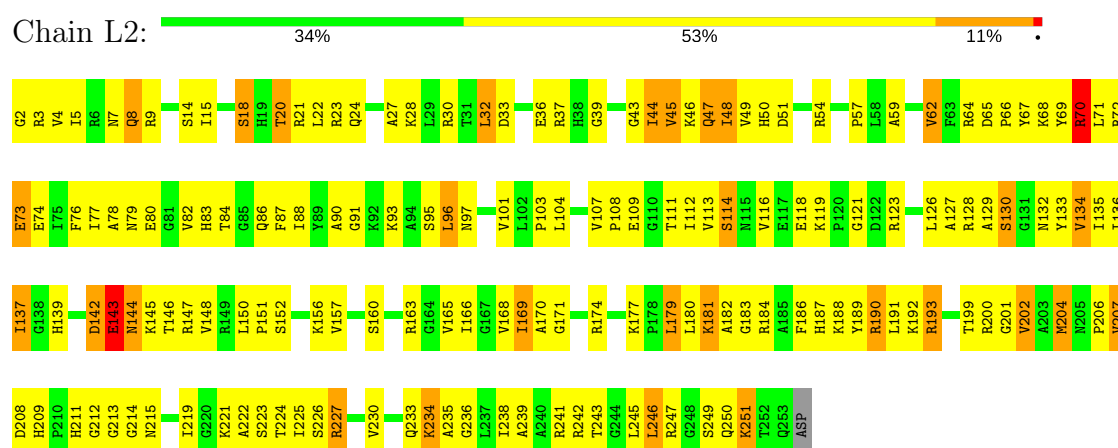
- Molecule 38: 5.8S ribosomal RNA



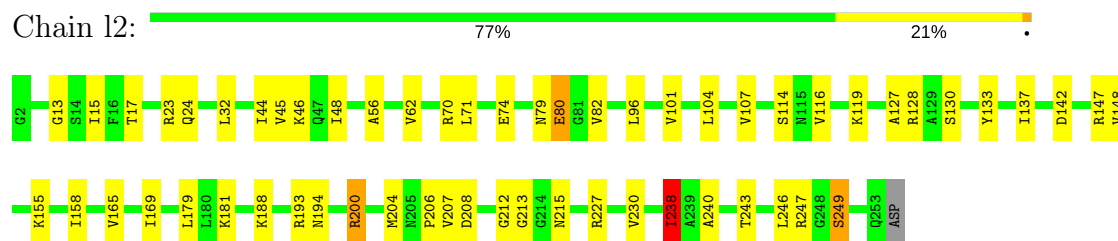
- Molecule 38: 5.8S ribosomal RNA



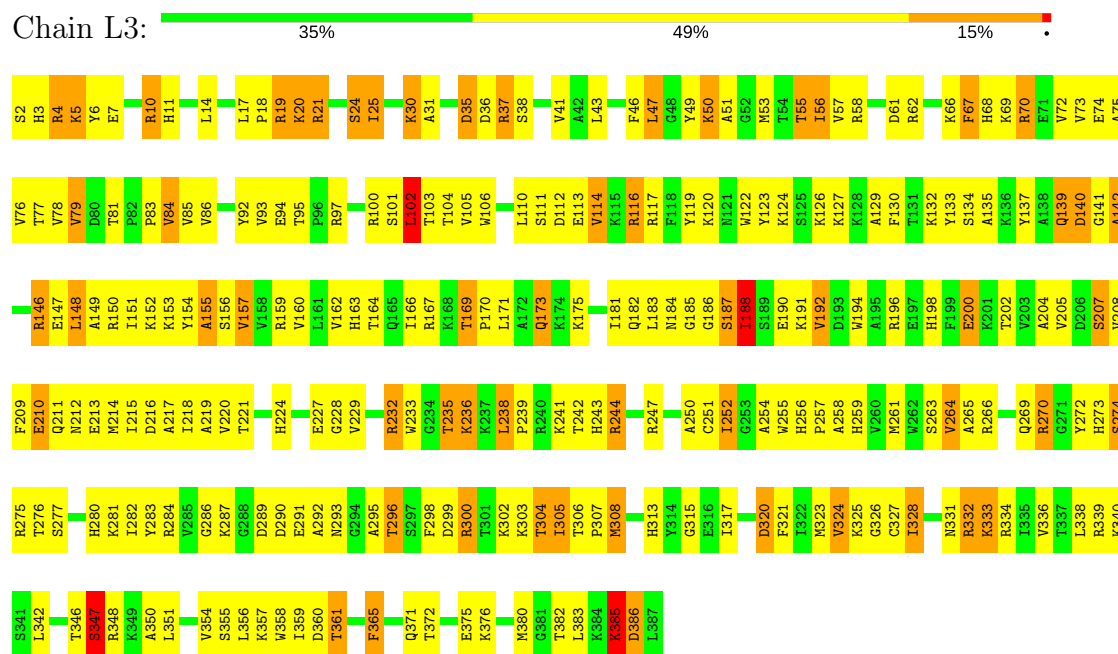
- Molecule 39: 60S ribosomal protein L2-A



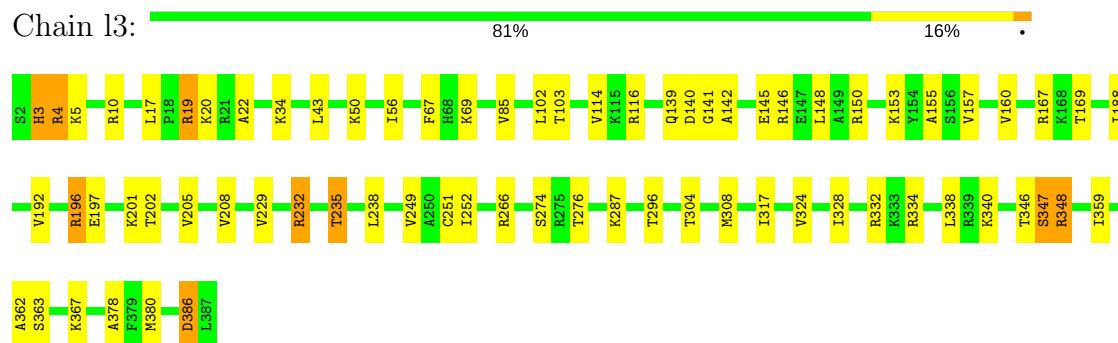
- Molecule 39: 60S ribosomal protein L2-A



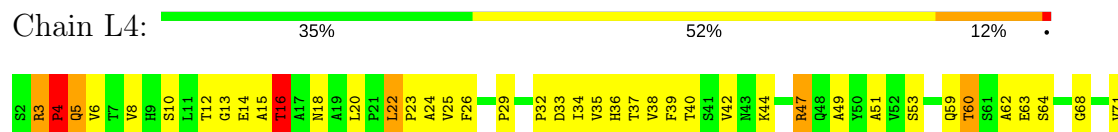
- Molecule 40: 60S ribosomal protein L3

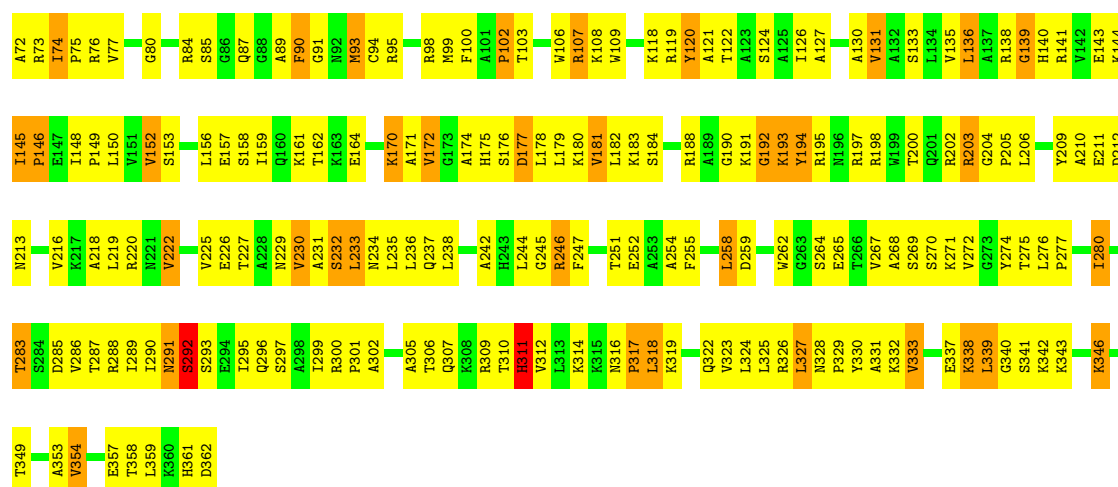


- Molecule 40: 60S ribosomal protein L3

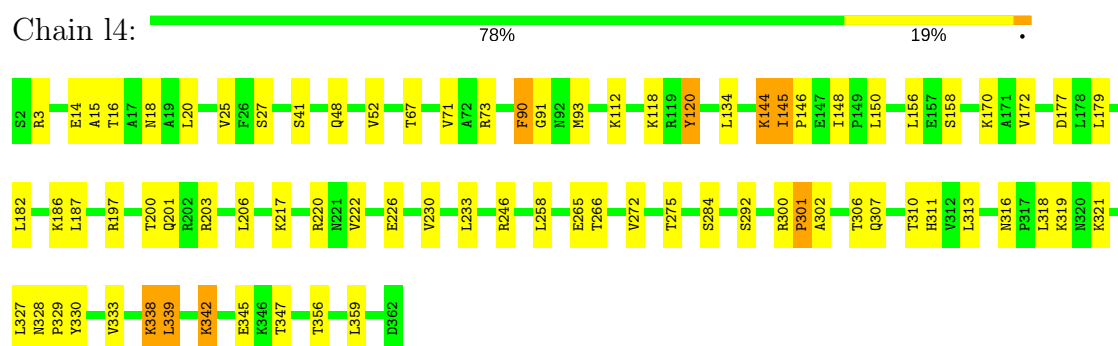


- Molecule 41: 60S ribosomal protein L4-A

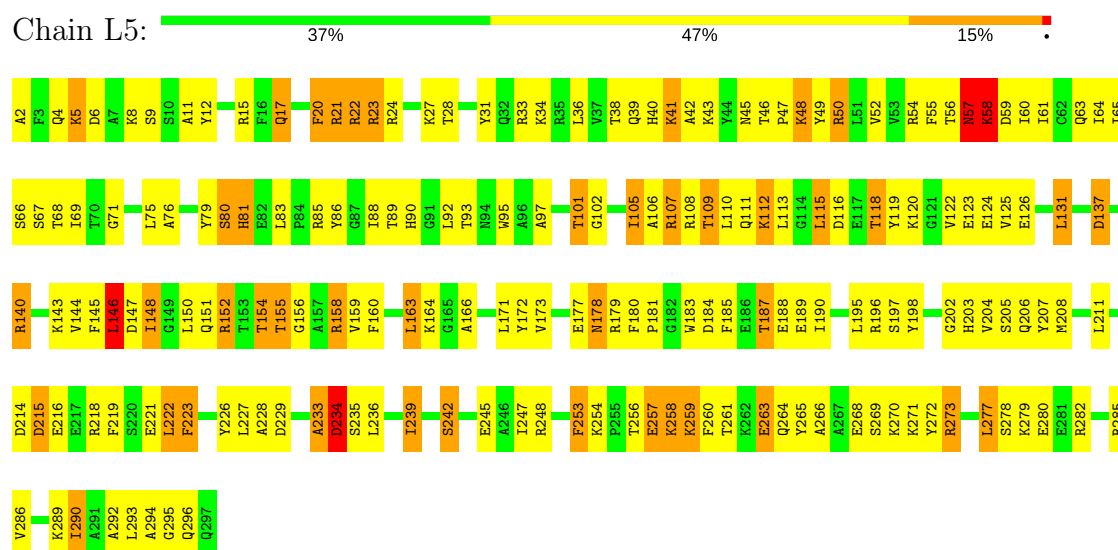




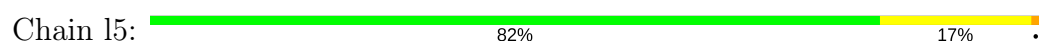
• Molecule 41: 60S ribosomal protein L4-A

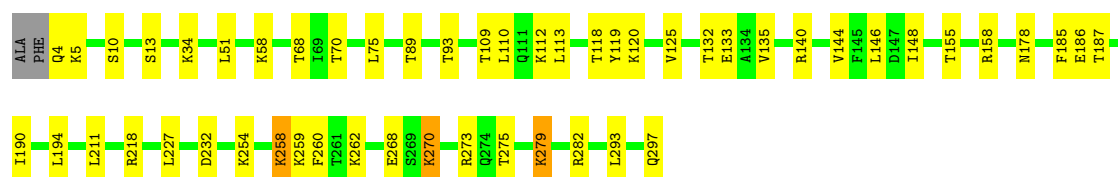


• Molecule 42: 60S ribosomal protein L5



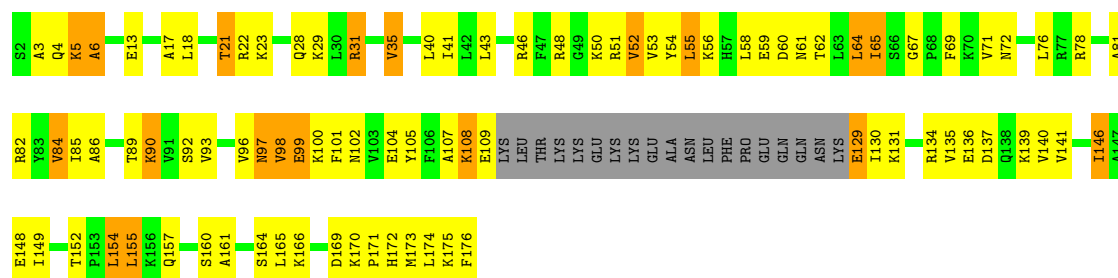
• Molecule 42: 60S ribosomal protein L5





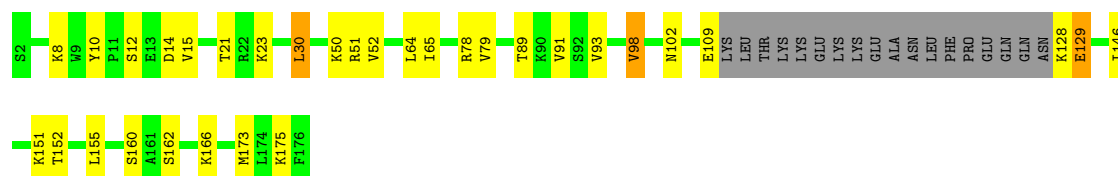
• Molecule 43: 60S ribosomal protein L6-A

Chain L6: 38% 41% 11% 11%



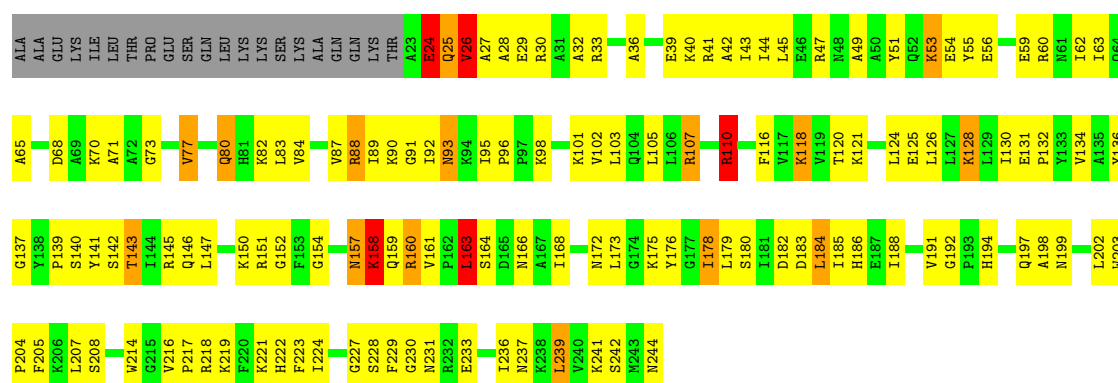
• Molecule 43: 60S ribosomal protein L6-A

Chain l6: 71% 17% 10%



• Molecule 44: 60S ribosomal protein L7-A

Chain L7: 36% 47% 6% 9%



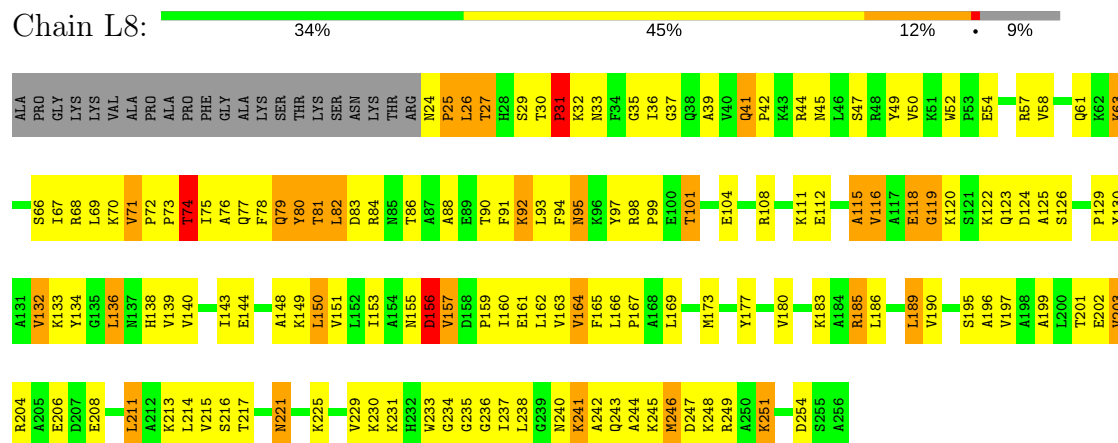
• Molecule 44: 60S ribosomal protein L7-A

Chain l7: 77% 13% 8%

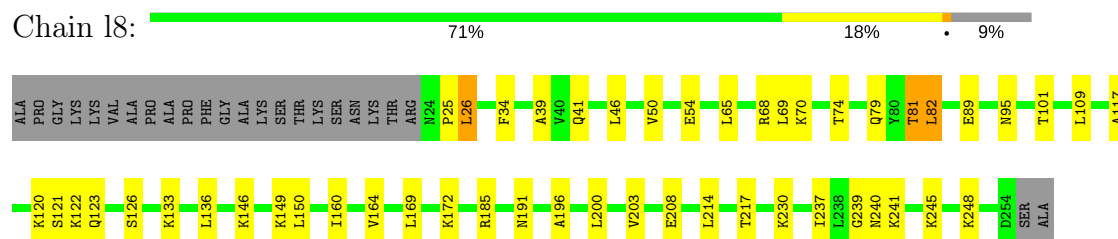




• Molecule 45: 60S ribosomal protein L8-A



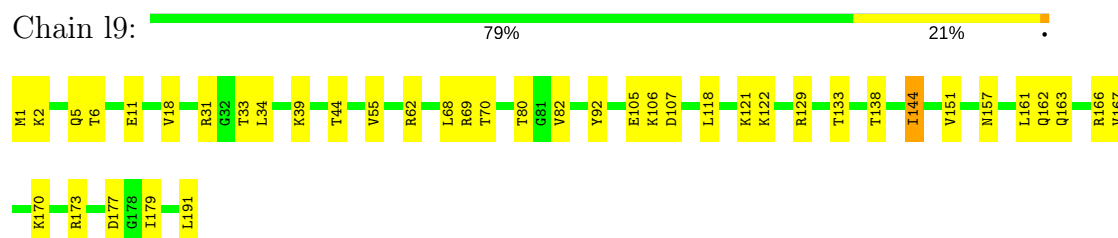
• Molecule 45: 60S ribosomal protein L8-A



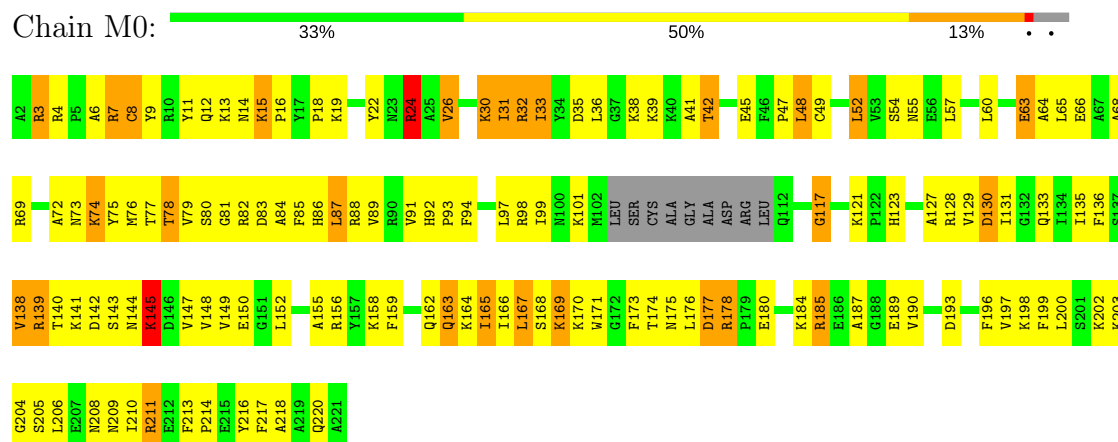
• Molecule 46: 60S ribosomal protein L9-A



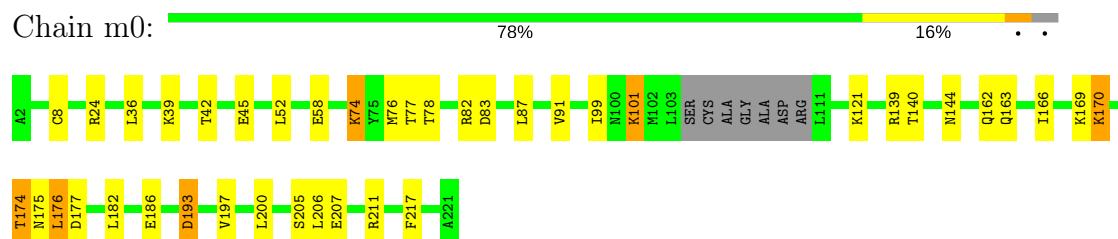
• Molecule 46: 60S ribosomal protein L9-A



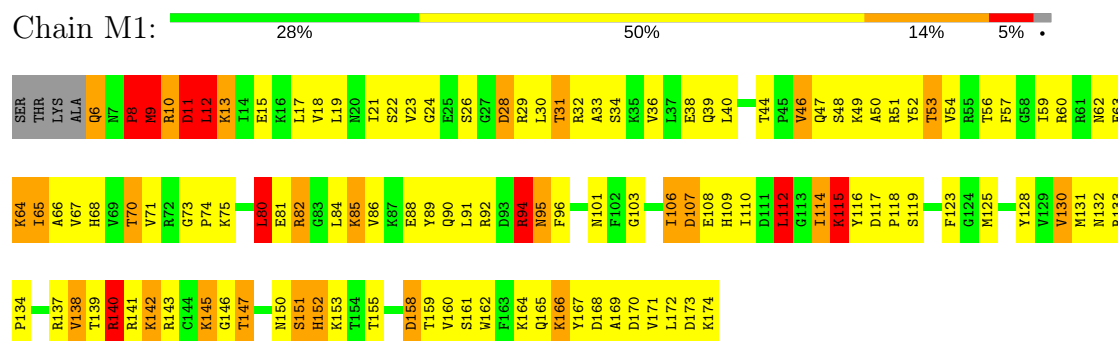
- Molecule 47: 60S ribosomal protein L10



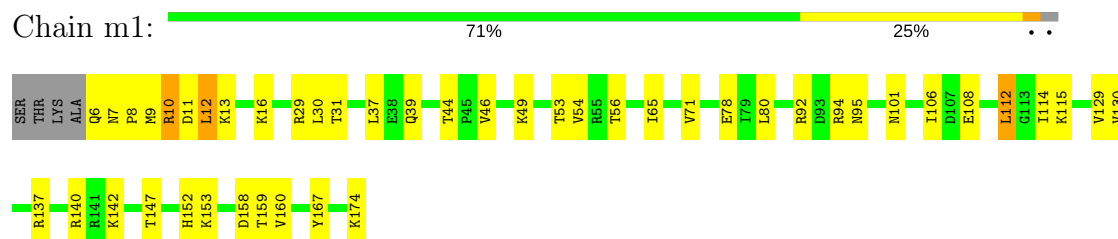
- Molecule 47: 60S ribosomal protein L10



- Molecule 48: 60S ribosomal protein L11-B

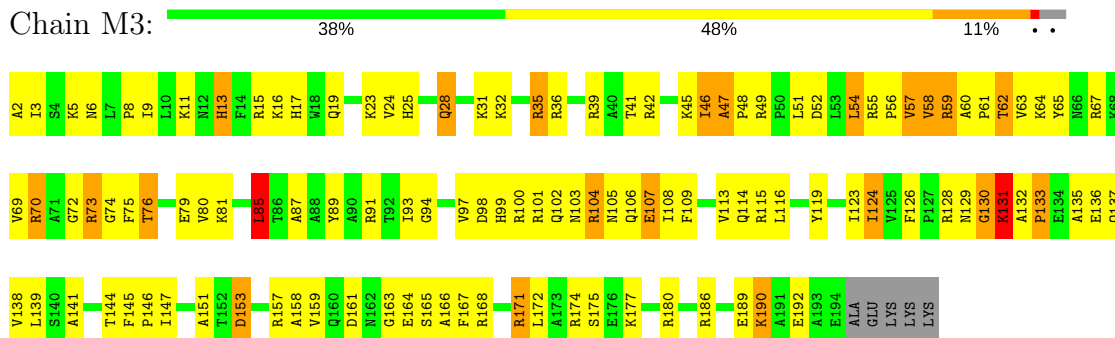


- Molecule 48: 60S ribosomal protein L11-B



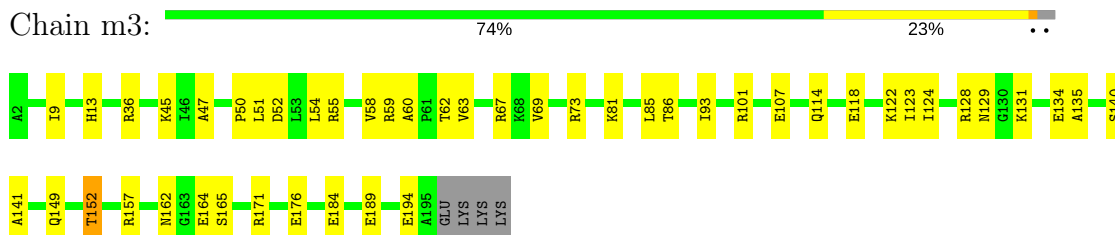
- Molecule 49: 60S ribosomal protein L13-A

Chain M3:



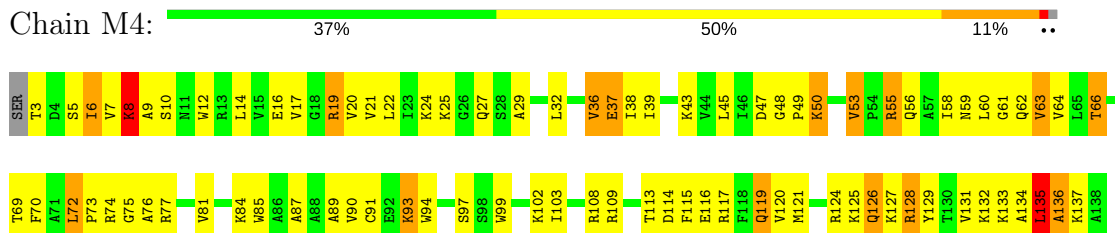
- Molecule 49: 60S ribosomal protein L13-A

Chain m3:



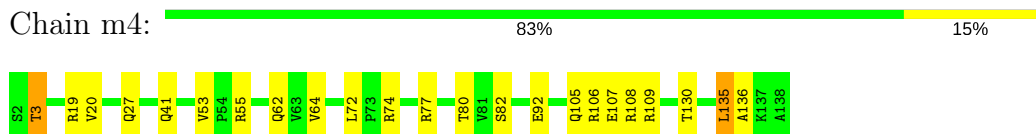
- Molecule 50: 60S ribosomal protein L14-A

Chain M4:



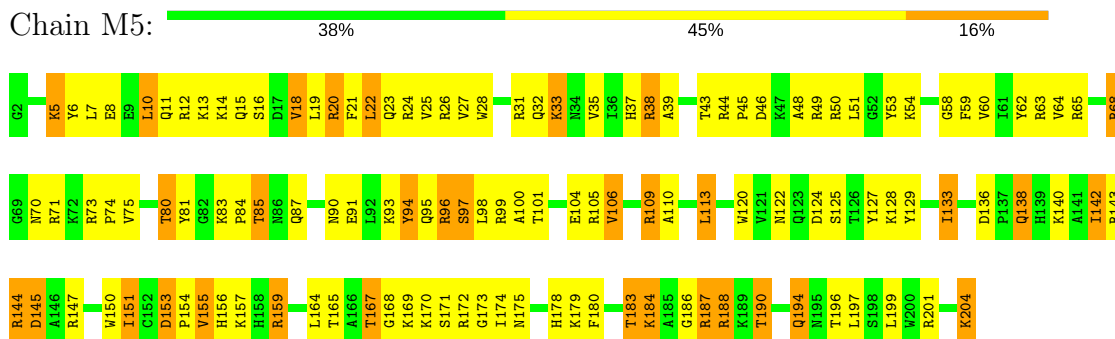
- Molecule 50: 60S ribosomal protein L14-A

Chain m4:

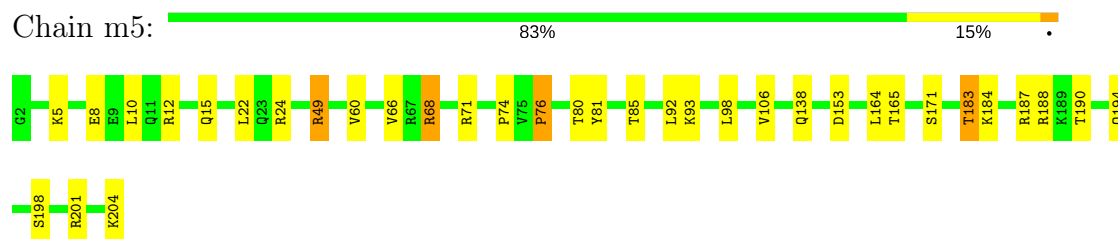


- Molecule 51: 60S ribosomal protein L15-A

Chain M5:



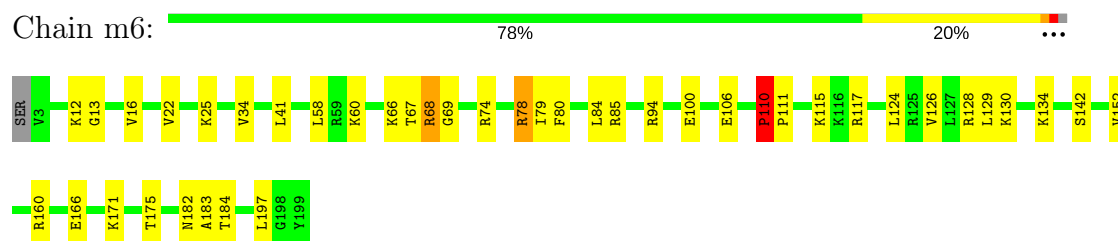
- Molecule 51: 60S ribosomal protein L15-A



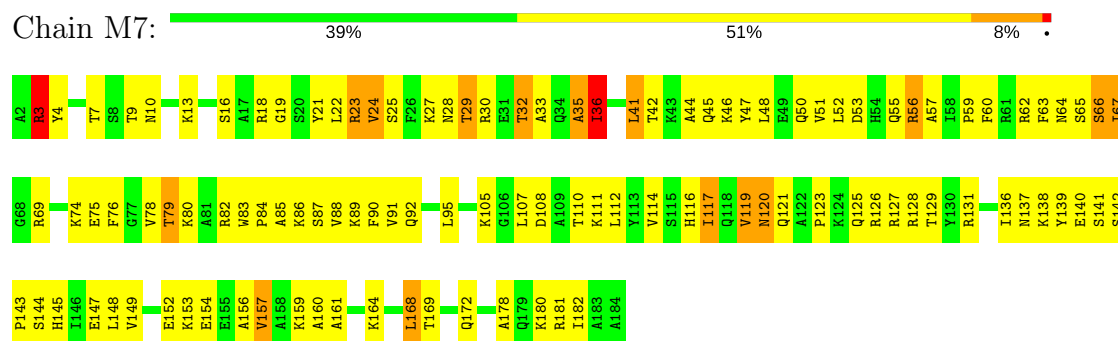
- Molecule 52: 60S ribosomal protein L16-A



- Molecule 52: 60S ribosomal protein L16-A

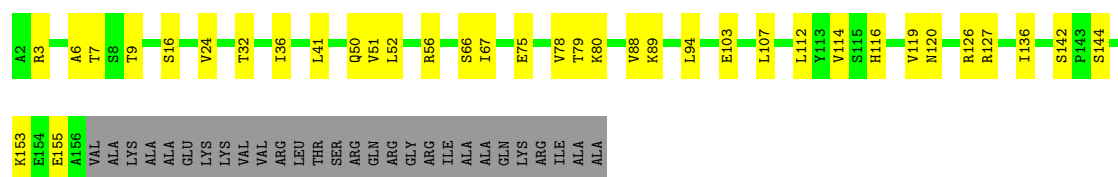


- Molecule 53: 60S ribosomal protein L17-A



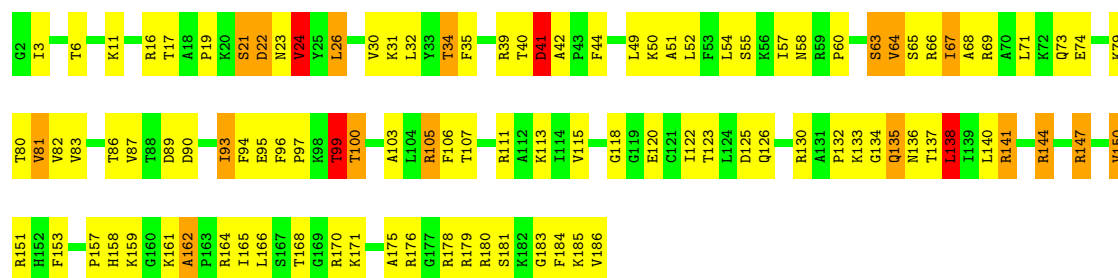
- Molecule 53: 60S ribosomal protein L17-A





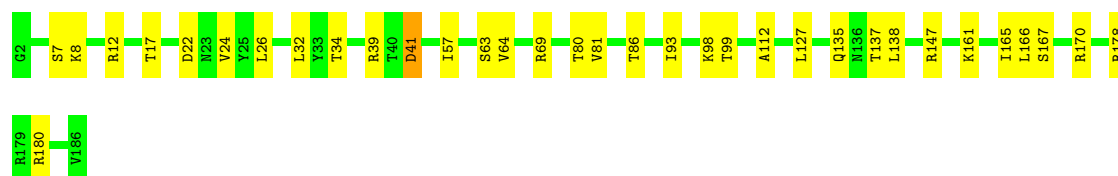
• Molecule 54: 60S ribosomal protein L18-A

Chain M8: 43% 45% 9%



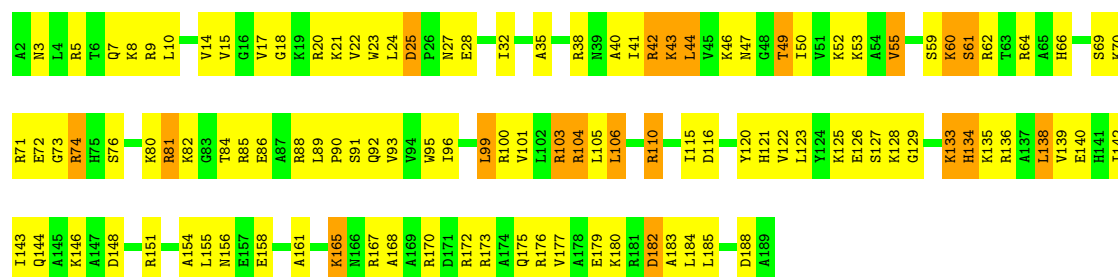
• Molecule 54: 60S ribosomal protein L18-A

Chain m8: 82% 18%



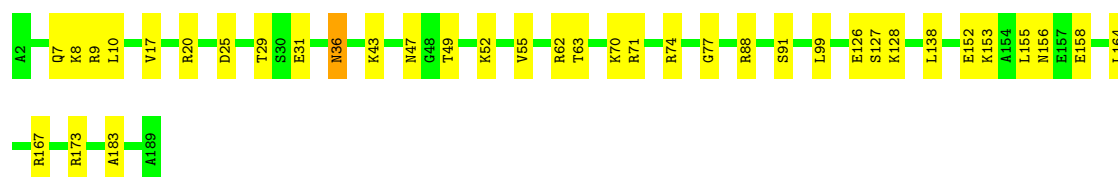
• Molecule 55: 60S ribosomal protein L19-A

Chain M9: 40% 49% 11%

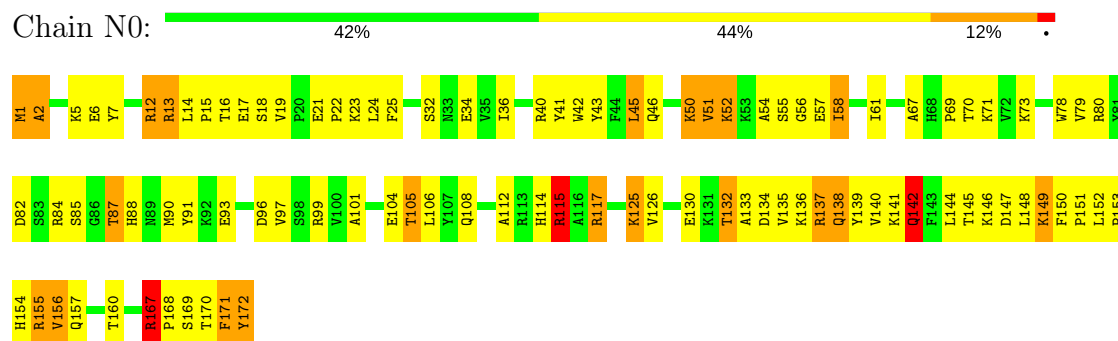


• Molecule 55: 60S ribosomal protein L19-A

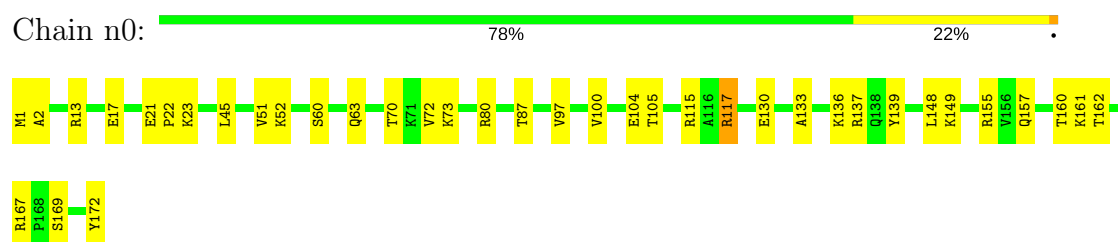
Chain m9: 80% 19%



- Molecule 56: 60S ribosomal protein L20-A



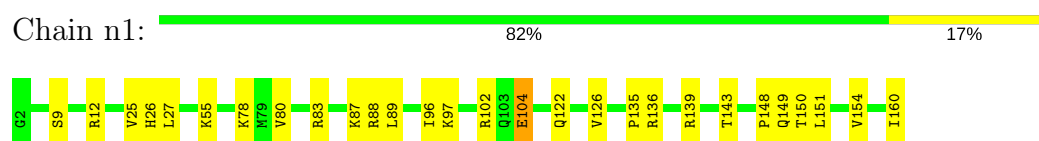
- Molecule 56: 60S ribosomal protein L20-A



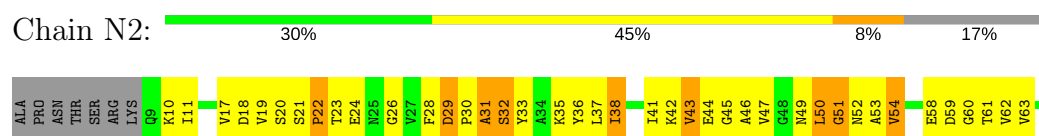
- Molecule 57: 60S ribosomal protein L21-A



- Molecule 57: 60S ribosomal protein L21-A

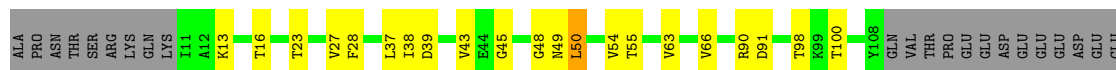


- Molecule 58: 60S ribosomal protein L22-A

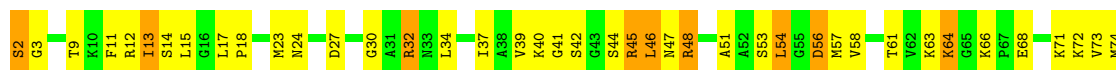




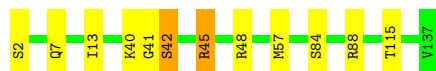
- Molecule 58: 60S ribosomal protein L22-A



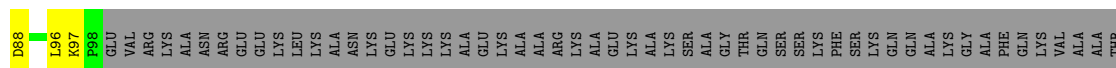
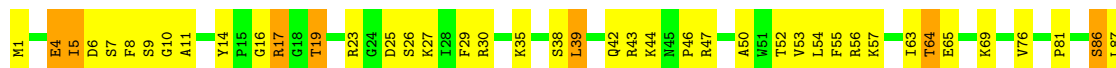
- Molecule 59: 60S ribosomal protein L23-A



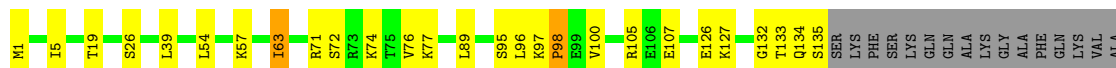
- Molecule 59: 60S ribosomal protein L23-A



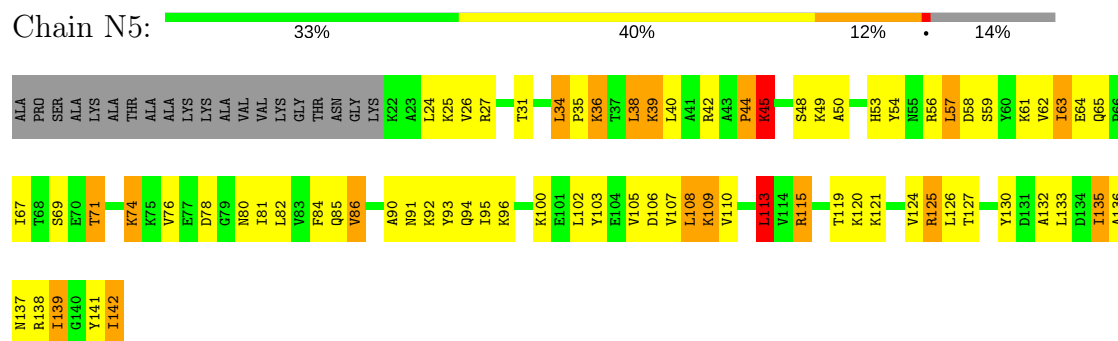
- Molecule 60: 60S ribosomal protein L24-A



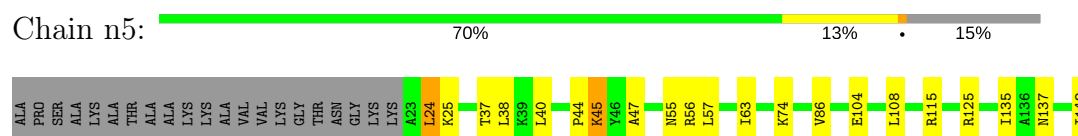
- Molecule 60: 60S ribosomal protein L24-A



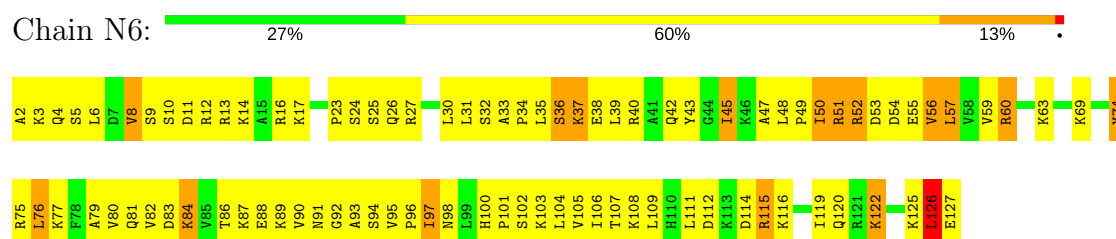
- Molecule 61: 60S ribosomal protein L25



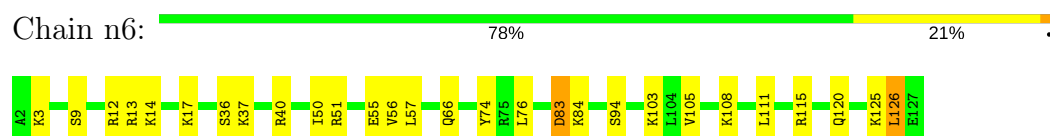
- Molecule 61: 60S ribosomal protein L25



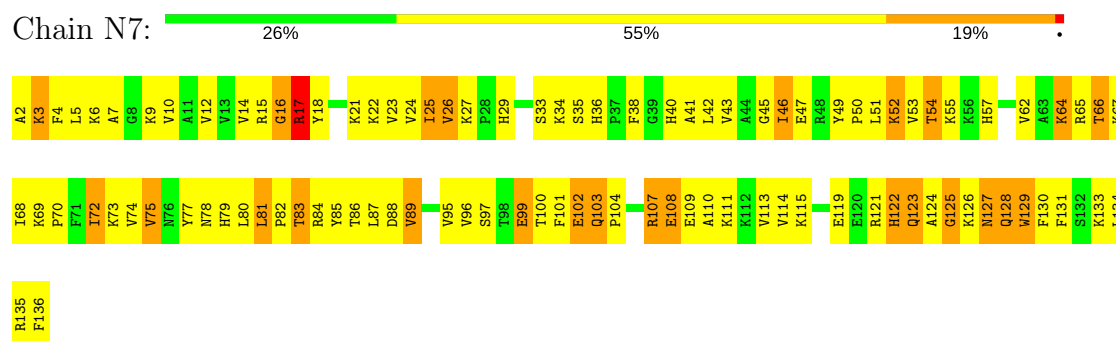
- Molecule 62: 60S ribosomal protein L26-A



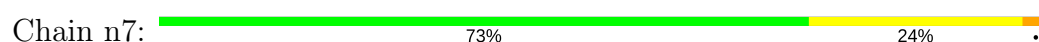
- Molecule 62: 60S ribosomal protein L26-A

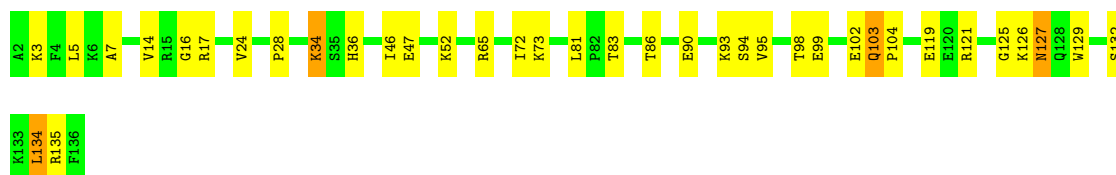


- Molecule 63: 60S ribosomal protein L27-A



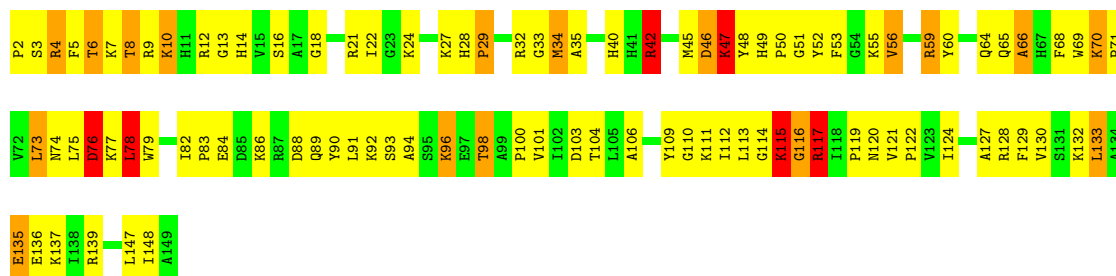
- Molecule 63: 60S ribosomal protein L27-A





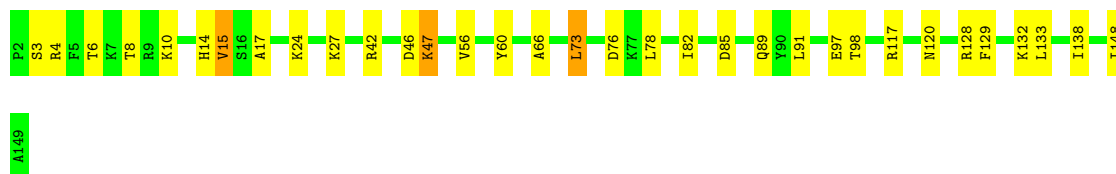
- Molecule 64: 60S ribosomal protein L28

Chain N8: 34% 50% 11%



- Molecule 64: 60S ribosomal protein L28

Chain n8: 78% 20%



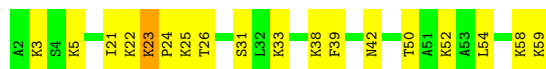
- Molecule 65: 60S ribosomal protein L29

Chain N9: 33% 53% 10%



- Molecule 65: 60S ribosomal protein L29

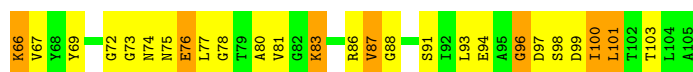
Chain n9: 69% 29%



- Molecule 66: 60S ribosomal protein L30

Chain O0: 31% 46% 16% 7%





- Molecule 66: 60S ribosomal protein L30

Chain o0: 77% 19%



- Molecule 67: 60S ribosomal protein L31-A

Chain O1: 35% 49% 10%



- Molecule 67: 60S ribosomal protein L31-A

Chain o1: 77% 20%



- Molecule 68: 60S ribosomal protein L32

Chain O2: 43% 44% 12%



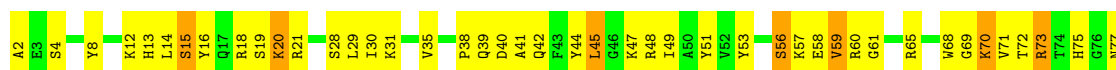
- Molecule 68: 60S ribosomal protein L32

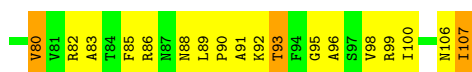
Chain o2: 76% 21%



- Molecule 69: 60S ribosomal protein L33-A

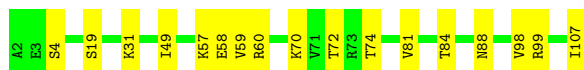
Chain O3: 42% 49% 9%





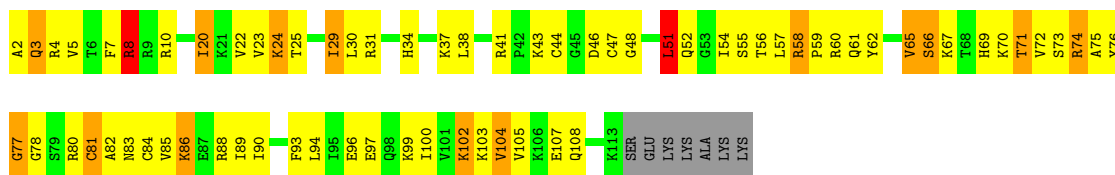
- Molecule 69: 60S ribosomal protein L33-A

Chain o3:



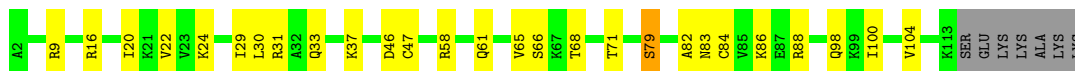
- Molecule 70: 60S ribosomal protein L34-A

Chain O4:



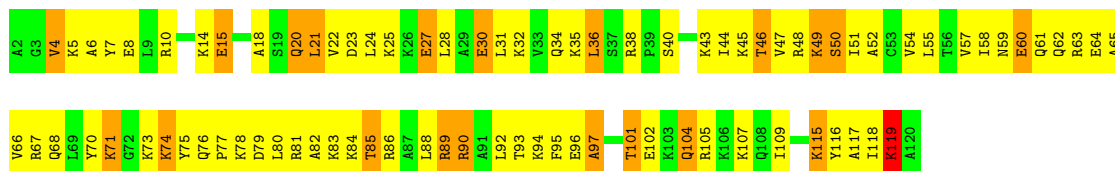
- Molecule 70: 60S ribosomal protein L34-A

Chain o4:



- Molecule 71: 60S ribosomal protein L35-A

Chain O5:



- Molecule 71: 60S ribosomal protein L35-A

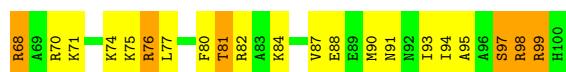
Chain o5:



- Molecule 72: 60S ribosomal protein L36-A

Chain O6:





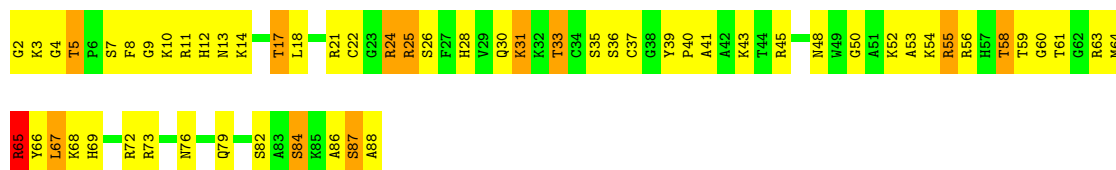
- Molecule 72: 60S ribosomal protein L36-A

Chain o6: 75% 23%



- Molecule 73: 60S ribosomal protein L37-A

Chain O7: 33% 53% 13%



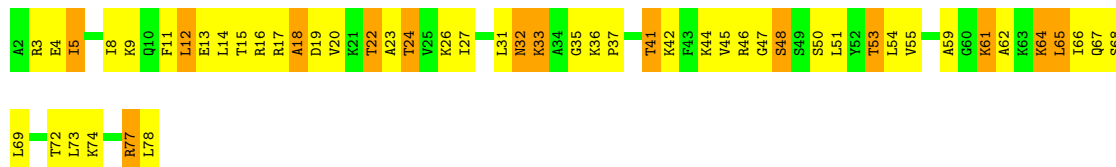
- Molecule 73: 60S ribosomal protein L37-A

Chain o7: 78% 20%



- Molecule 74: 60S ribosomal protein L38

Chain O8: 32% 49% 18%



- Molecule 74: 60S ribosomal protein L38

Chain o8: 79% 21%




- Molecule 75: 60S ribosomal protein L39

Chain O9: 44% 46% 10%



- Molecule 75: 60S ribosomal protein L39

Chain o9:  78% 22%




- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain Q0:  44% 38% 15%



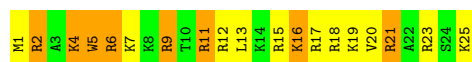
- Molecule 76: Ubiquitin-60S ribosomal protein L40

Chain q0:  79% 21%




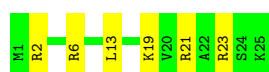
- Molecule 77: 60S ribosomal protein L41-A

Chain Q1:  24% 44% 32%



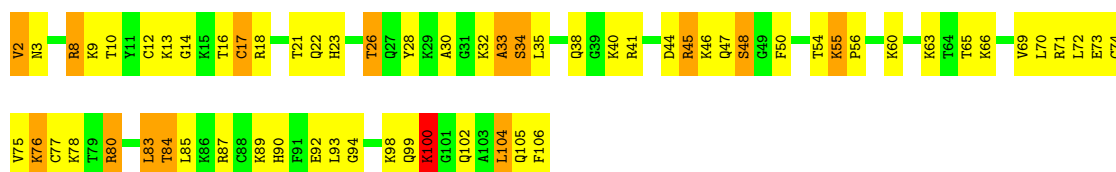
- Molecule 77: 60S ribosomal protein L41-A

Chain q1:  76% 24%




- Molecule 78: 60S ribosomal protein L42-A

Chain Q2:  39% 47% 13%

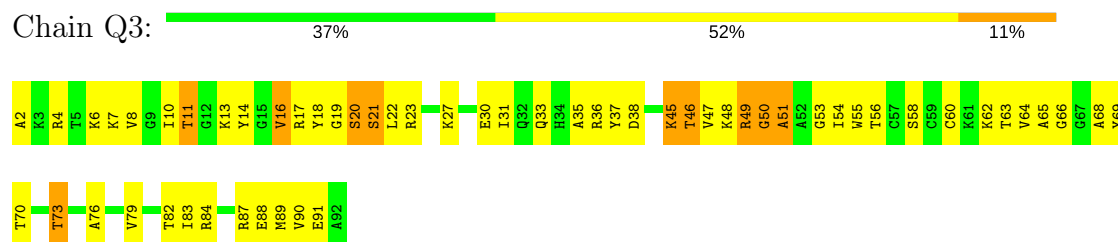


- Molecule 78: 60S ribosomal protein L42-A

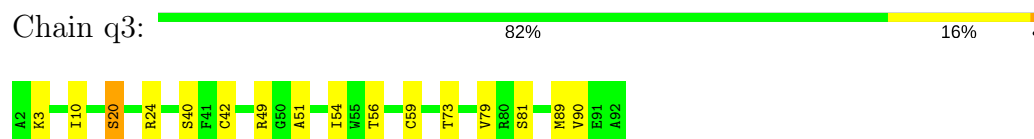
Chain q2:  79% 21%



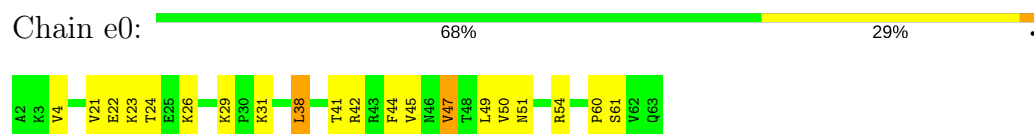
- Molecule 79: 60S ribosomal protein L43-A



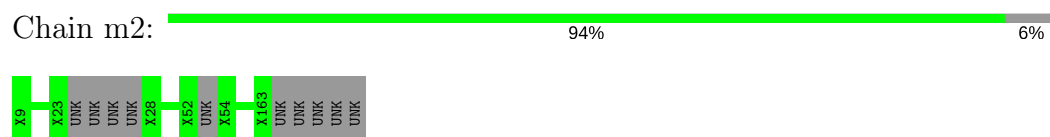
- Molecule 79: 60S ribosomal protein L43-A



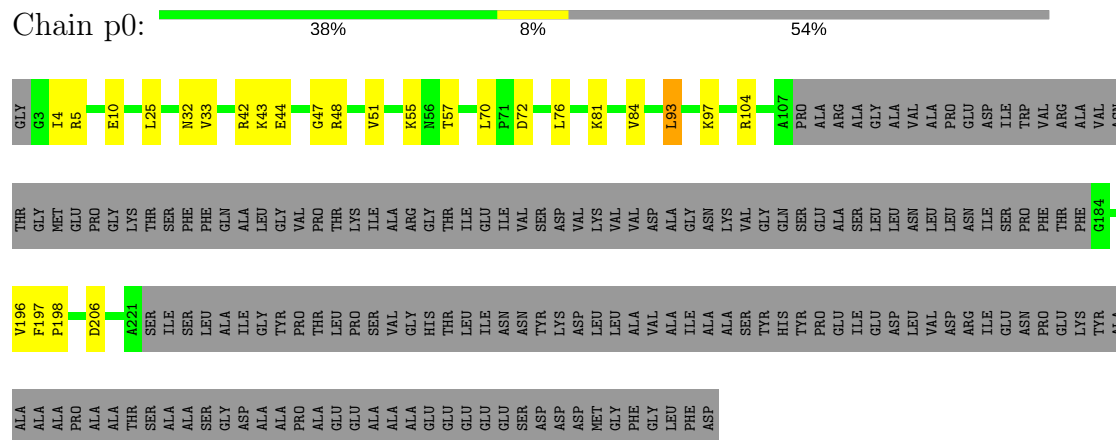
- Molecule 80: 40S ribosomal protein S30-A



- Molecule 81: Unknown protein m2



- Molecule 82: 60S acidic ribosomal protein P0



- Molecule 83: Unknown protein p1



There are no outlier residues recorded for this chain.

- Molecule 84: Unknown protein p2

Chain p2:



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	434.77Å 287.66Å 303.84Å 90.00° 98.99° 90.00°	Depositor
Resolution (Å)	73.94 – 3.10	Depositor
% Data completeness (in resolution range)	100.0 (73.94-3.10)	Depositor
R_{merge}	0.41	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.25 (at 3.13Å)	Xtriage
Refinement program	PHENIX (phenix.refine: dev_1702)	Depositor
R, R_{free}	0.203 , 0.252	Depositor
Wilson B-factor (Å ²)	74.7	Xtriage
Anisotropy	0.164	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	411258	wwPDB-VP
Average B, all atoms (Å ²)	71.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.48% 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, EDE

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	0.78	3/41698 (0.0%)	1.36	372/64972 (0.6%)
1	6	0.89	23/42765 (0.1%)	1.41	502/66634 (0.8%)
2	S0	0.49	0/1617	0.70	0/2215
2	s0	0.49	0/1623	0.72	0/2222
3	S1	0.42	0/1735	0.67	2/2335 (0.1%)
3	s1	0.52	0/1748	0.68	1/2352 (0.0%)
4	S2	0.54	0/1665	0.69	0/2263
4	s2	0.61	0/1665	0.77	1/2263 (0.0%)
5	S3	0.52	0/1759	0.67	1/2368 (0.0%)
5	s3	0.45	0/1759	0.64	2/2368 (0.1%)
6	S4	0.50	0/2109	0.73	0/2839
6	s4	0.56	0/2109	0.79	2/2839 (0.1%)
7	S5	0.40	0/1629	0.61	0/2202
7	s5	0.48	0/1629	0.69	1/2202 (0.0%)
8	S6	0.51	0/1823	0.69	0/2439
8	s6	0.58	0/1779	0.74	0/2379
9	S7	0.46	0/1506	0.66	0/2028
9	s7	0.49	0/1516	0.72	0/2043
10	S8	0.57	0/1514	0.75	1/2021 (0.0%)
10	s8	0.66	0/1514	0.77	1/2021 (0.0%)
11	S9	0.52	0/1519	0.72	0/2035
11	s9	0.60	0/1519	0.79	1/2035 (0.0%)
12	C0	0.44	0/790	0.68	1/1069 (0.1%)
12	c0	0.38	0/777	0.65	3/1049 (0.3%)
13	C1	0.62	0/1240	0.69	0/1675
13	c1	0.67	1/1194 (0.1%)	0.80	0/1610
14	C2	0.38	0/900	0.63	0/1224
14	c2	0.30	0/900	0.57	0/1224
15	C3	0.54	0/1215	0.71	2/1638 (0.1%)
15	c3	0.59	0/1215	0.73	0/1638
16	C4	0.43	0/901	0.72	0/1217
16	c4	0.53	0/960	0.75	0/1290

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	C5	0.48	0/998	0.68	0/1341
17	c5	0.49	0/1060	0.69	0/1426
18	C6	0.46	0/1125	0.72	2/1510 (0.1%)
18	c6	0.49	0/1131	0.71	0/1518
19	C7	0.49	0/935	0.69	0/1254
19	c7	0.48	0/914	0.73	0/1224
20	C8	0.46	0/1211	0.65	0/1628
20	c8	0.53	0/1211	0.74	2/1628 (0.1%)
21	C9	0.45	0/1130	0.69	0/1517
21	c9	0.50	0/1130	0.67	0/1517
22	D0	0.48	0/865	0.67	0/1169
22	d0	0.50	0/892	0.67	0/1205
23	D1	0.50	0/693	0.67	0/935
23	d1	0.53	0/693	0.76	1/935 (0.1%)
24	D2	0.55	0/1038	0.76	1/1395 (0.1%)
24	d2	0.65	0/1038	0.79	1/1395 (0.1%)
25	D3	0.65	0/1139	0.81	1/1518 (0.1%)
25	d3	0.72	0/1139	0.80	2/1518 (0.1%)
26	D4	0.48	0/1087	0.64	0/1449
26	d4	0.56	0/1087	0.78	0/1449
27	D5	0.44	0/571	0.72	1/768 (0.1%)
27	d5	0.44	0/566	0.68	0/761
28	D6	0.48	0/782	0.70	0/1047
28	d6	0.53	0/782	0.73	0/1047
29	D7	0.50	0/620	0.70	0/838
29	d7	0.50	0/620	0.69	0/838
30	D8	0.40	0/499	0.59	0/670
30	d8	0.44	0/499	0.65	0/670
31	D9	0.55	0/452	0.82	1/600 (0.2%)
31	d9	0.55	0/452	0.69	0/600
32	E0	0.50	0/483	0.65	0/643
33	E1	0.48	0/577	0.77	0/770
33	e1	0.41	0/619	0.73	1/822 (0.1%)
34	SR	0.40	0/2494	0.59	0/3393
34	sR	0.41	0/2495	0.58	0/3395
35	SM	0.56	0/1113	0.78	3/1502 (0.2%)
35	sM	0.51	0/683	0.68	1/923 (0.1%)
36	1	1.22	216/75394 (0.3%)	1.71	2044/117545 (1.7%)
36	5	1.22	222/75414 (0.3%)	1.69	1963/117575 (1.7%)
37	3	0.99	2/2883 (0.1%)	1.42	30/4491 (0.7%)
37	7	1.19	6/2883 (0.2%)	1.73	81/4491 (1.8%)
38	4	1.16	5/3746 (0.1%)	1.70	103/5832 (1.8%)
38	8	0.99	1/3746 (0.0%)	1.51	47/5832 (0.8%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
39	L2	0.75	0/1948	0.86	0/2617
39	l2	0.71	0/1946	0.88	3/2614 (0.1%)
40	L3	0.77	1/3146 (0.0%)	0.85	2/4228 (0.0%)
40	l3	0.87	1/3146 (0.0%)	0.93	7/4228 (0.2%)
41	L4	0.84	0/2800	0.95	4/3790 (0.1%)
41	l4	0.74	0/2800	0.87	2/3790 (0.1%)
42	L5	0.62	0/2425	0.73	1/3271 (0.0%)
42	l5	0.72	0/2408	0.81	0/3248
43	L6	0.84	0/1260	0.87	2/1694 (0.1%)
43	l6	0.80	0/1269	0.84	2/1705 (0.1%)
44	L7	0.84	0/1821	0.91	4/2451 (0.2%)
44	l7	0.85	0/1828	0.93	3/2461 (0.1%)
45	L8	0.60	0/1836	0.72	1/2481 (0.0%)
45	l8	0.54	0/1795	0.69	1/2429 (0.0%)
46	L9	0.70	0/1539	0.79	2/2073 (0.1%)
46	l9	0.81	1/1539 (0.1%)	0.82	0/2073
47	M0	0.81	1/1741 (0.1%)	0.87	2/2335 (0.1%)
47	m0	0.78	0/1758	0.84	0/2358
48	M1	0.55	0/1374	0.74	1/1842 (0.1%)
48	m1	0.66	0/1374	0.79	3/1842 (0.2%)
49	M3	0.80	0/1568	0.85	2/2106 (0.1%)
49	m3	0.68	0/1573	0.82	0/2113
50	M4	0.78	0/1068	0.86	1/1438 (0.1%)
50	m4	0.83	0/1074	0.90	2/1446 (0.1%)
51	M5	0.78	0/1757	0.86	0/2354
51	m5	0.69	0/1757	0.80	1/2354 (0.0%)
52	M6	0.93	0/1585	0.92	4/2128 (0.2%)
52	m6	1.05	2/1585 (0.1%)	1.00	8/2128 (0.4%)
53	M7	0.85	0/1443	0.91	3/1944 (0.2%)
53	m7	0.92	0/1250	0.87	0/1683
54	M8	0.82	0/1465	0.91	2/1965 (0.1%)
54	m8	0.73	0/1465	0.94	1/1965 (0.1%)
55	M9	0.59	0/1538	0.71	0/2050
55	m9	0.66	0/1538	0.72	0/2050
56	N0	0.82	0/1481	0.90	2/1990 (0.1%)
56	n0	0.90	0/1481	0.90	1/1990 (0.1%)
57	N1	0.82	0/1300	0.85	1/1743 (0.1%)
57	n1	0.85	1/1300 (0.1%)	0.82	0/1743
58	N2	0.47	0/812	0.62	0/1099
58	n2	0.55	0/794	0.68	0/1076
59	N3	0.74	0/1018	0.84	1/1369 (0.1%)
59	n3	0.89	0/1018	0.92	1/1369 (0.1%)
60	N4	0.56	0/712	0.69	0/958

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
60	n4	0.73	0/1052	0.77	0/1398
61	N5	0.64	0/979	0.83	1/1321 (0.1%)
61	n5	0.65	0/974	0.77	0/1314
62	N6	0.72	0/1004	0.88	1/1341 (0.1%)
62	n6	0.65	0/1004	0.84	1/1341 (0.1%)
63	N7	0.56	0/1118	0.71	0/1497
63	n7	0.52	0/1118	0.65	0/1497
64	N8	0.82	0/1204	0.98	4/1612 (0.2%)
64	n8	0.78	0/1204	0.85	1/1612 (0.1%)
65	N9	0.72	0/473	0.82	0/629
65	n9	0.81	0/473	0.97	0/629
66	O0	0.52	0/751	0.72	0/1008
66	o0	0.51	0/775	0.69	0/1040
67	O1	0.65	0/890	0.73	0/1196
67	o1	0.79	0/897	0.88	0/1205
68	O2	0.89	0/1041	0.92	0/1394
68	o2	0.85	0/1041	0.93	3/1394 (0.2%)
69	O3	0.91	0/868	0.87	1/1168 (0.1%)
69	o3	0.92	0/868	0.94	1/1168 (0.1%)
70	O4	0.62	0/890	0.82	2/1189 (0.2%)
70	o4	0.59	0/890	0.78	0/1189
71	O5	0.76	0/978	0.82	1/1301 (0.1%)
71	o5	0.61	0/974	0.73	0/1297
72	O6	0.69	0/778	0.82	0/1034
72	o6	0.57	0/777	0.69	0/1033
73	O7	0.79	0/696	1.00	3/923 (0.3%)
73	o7	0.75	0/696	0.88	2/923 (0.2%)
74	O8	0.54	0/618	0.68	0/826
74	o8	0.48	0/614	0.64	0/822
75	O9	0.87	1/443 (0.2%)	0.93	0/588
75	o9	0.69	0/443	0.81	0/588
76	Q0	0.67	0/423	0.81	0/562
76	q0	0.93	0/423	0.87	0/562
77	Q1	0.63	0/234	0.96	0/300
77	q1	0.77	0/234	0.83	0/300
78	Q2	0.94	1/860 (0.1%)	0.83	0/1136
78	q2	0.84	1/860 (0.1%)	0.79	0/1136
79	Q3	0.78	0/701	0.85	0/934
79	q3	0.74	0/701	0.81	0/934
80	e0	0.59	0/499	0.75	0/665
82	p0	0.48	0/1092	0.62	0/1474
All	All	0.94	489/430074 (0.1%)	1.34	5269/631364 (0.8%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	s0	0	1
5	s3	0	1
6	S4	0	1
7	s5	0	2
9	S7	0	1
16	C4	0	3
17	c5	0	2
18	c6	0	1
19	C7	0	2
22	d0	0	1
24	D2	0	1
25	d3	0	1
27	D5	0	2
28	D6	0	1
33	E1	0	1
36	1	0	1
39	L2	0	1
39	l2	0	1
41	l4	0	1
42	L5	0	1
42	l5	0	1
43	l6	0	2
44	l7	0	2
45	L8	0	2
48	M1	0	1
52	M6	0	1
52	m6	0	1
53	M7	0	1
56	n0	0	1
57	N1	0	1
64	n8	0	1
65	N9	0	1
67	O1	0	1
67	o1	0	1
72	O6	0	1
All	All	0	44

All (489) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	Q2	17	CYS	CB-SG	16.17	2.09	1.82
36	5	1152	G	N9-C4	-12.64	1.27	1.38
78	q2	17	CYS	CB-SG	12.30	2.03	1.82
36	5	2401	A	N3-C4	10.74	1.41	1.34
36	1	2404	A	N3-C4	10.30	1.41	1.34
36	5	2358	A	N9-C4	-9.40	1.32	1.37
36	1	3181	C	N3-C4	-9.01	1.27	1.33
36	1	804	C	N1-C6	-8.97	1.31	1.37
36	5	970	A	N9-C4	-8.77	1.32	1.37
36	5	2971	A	N9-C4	8.63	1.43	1.37
36	5	953	G	N7-C5	-8.54	1.34	1.39
36	5	3008	A	N9-C4	-8.46	1.32	1.37
36	1	1326	A	N9-C4	-8.43	1.32	1.37
36	5	970	A	N3-C4	-8.41	1.29	1.34
36	5	1152	G	C5-C6	-8.38	1.33	1.42
36	1	699	A	N9-C4	-8.32	1.32	1.37
36	1	2147	A	N9-C4	-8.30	1.32	1.37
36	1	584	G	N7-C5	-8.00	1.34	1.39
36	5	2147	A	C5-C6	-7.97	1.33	1.41
36	1	343	U	C2-N3	-7.90	1.32	1.37
36	5	2636	A	C6-N1	-7.84	1.30	1.35
36	1	716	A	N9-C4	-7.78	1.33	1.37
36	5	1304	A	N3-C4	7.71	1.39	1.34
36	1	2714	G	N9-C4	-7.68	1.31	1.38
36	1	1395	G	C5-C4	-7.61	1.33	1.38
36	1	1369	A	N7-C5	-7.58	1.34	1.39
36	5	2817	A	N3-C4	-7.52	1.30	1.34
36	1	1116	G	N7-C5	-7.50	1.34	1.39
36	5	367	A	N9-C4	-7.43	1.33	1.37
36	1	1399	A	N9-C4	-7.42	1.33	1.37
36	1	1154	A	N7-C5	-7.38	1.34	1.39
36	1	338	A	N7-C5	-7.37	1.34	1.39
36	5	2804	A	N9-C4	-7.36	1.33	1.37
52	m6	80	PHE	CB-CG	-7.35	1.38	1.51
36	1	2147	A	C5-C4	-7.29	1.33	1.38
36	1	2404	A	N9-C4	7.28	1.42	1.37
36	5	2943	G	N7-C5	-7.26	1.34	1.39
36	1	1392	G	C5-C4	-7.22	1.33	1.38
36	5	2401	A	N9-C4	7.21	1.42	1.37
36	1	2356	A	N9-C4	-7.21	1.33	1.37
1	6	163	G	N9-C4	-7.17	1.32	1.38
36	5	1143	A	N3-C4	-7.11	1.30	1.34
36	5	2625	C	N1-C6	-7.06	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	1002	A	N9-C4	-7.05	1.33	1.37
36	1	2726	C	N3-C4	-7.05	1.29	1.33
36	5	3245	A	C5-C6	-7.04	1.34	1.41
36	5	1303	A	N9-C4	-7.04	1.33	1.37
36	1	2147	A	N3-C4	-6.99	1.30	1.34
36	5	3040	A	N9-C4	-6.97	1.33	1.37
36	5	934	G	C5-C4	-6.91	1.33	1.38
36	5	2726	C	N3-C4	-6.89	1.29	1.33
36	1	2762	A	N3-C4	-6.88	1.30	1.34
1	6	623	A	N9-C4	-6.87	1.33	1.37
36	1	884	A	N9-C4	-6.85	1.33	1.37
36	5	649	A	C5-C6	-6.82	1.34	1.41
36	5	934	G	C5-C6	-6.82	1.35	1.42
36	5	1152	G	N3-C4	-6.81	1.30	1.35
36	1	699	A	N3-C4	-6.81	1.30	1.34
36	5	420	G	N9-C8	-6.80	1.33	1.37
36	5	962	A	N7-C5	-6.77	1.35	1.39
36	5	1143	A	N9-C4	-6.77	1.33	1.37
36	5	934	G	N7-C5	-6.74	1.35	1.39
36	1	2406	C	N1-C6	-6.73	1.33	1.37
36	1	919	U	C4-O4	-6.71	1.18	1.23
36	1	2333	C	N3-C4	-6.71	1.29	1.33
36	5	822	G	C2-N3	-6.70	1.27	1.32
36	5	1307	G	N7-C5	-6.70	1.35	1.39
36	5	971	G	N7-C5	-6.70	1.35	1.39
36	1	1133	A	N9-C4	-6.67	1.33	1.37
36	5	2640	A	N9-C4	-6.67	1.33	1.37
36	1	1313	G	C5-C6	-6.66	1.35	1.42
36	5	3240	C	N3-C4	-6.66	1.29	1.33
36	5	2937	G	N7-C5	-6.63	1.35	1.39
36	1	2875	U	C2-N3	6.63	1.42	1.37
36	1	668	G	C6-N1	-6.62	1.34	1.39
36	5	1301	A	C5-C6	-6.61	1.35	1.41
36	1	636	C	N3-C4	-6.60	1.29	1.33
36	5	2364	G	N3-C4	-6.60	1.30	1.35
36	1	925	A	N3-C4	-6.59	1.30	1.34
36	5	3047	U	C2-N3	-6.57	1.33	1.37
36	1	189	G	N7-C5	-6.56	1.35	1.39
36	1	952	A	N7-C5	-6.55	1.35	1.39
36	1	939	U	N1-C2	-6.55	1.32	1.38
36	1	361	A	N9-C4	-6.52	1.33	1.37
36	1	1137	C	N1-C6	-6.51	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2762	A	C6-N1	-6.50	1.30	1.35
36	5	1203	A	C5-C6	-6.50	1.35	1.41
36	5	2401	A	C6-N1	6.50	1.40	1.35
36	1	1445	U	N1-C2	-6.50	1.32	1.38
36	1	2188	A	N9-C4	-6.49	1.33	1.37
36	1	816	A	N9-C4	6.49	1.41	1.37
36	1	1099	A	N7-C5	-6.48	1.35	1.39
36	5	1145	G	N3-C4	-6.47	1.30	1.35
36	1	423	A	N7-C5	-6.47	1.35	1.39
36	5	1332	A	N7-C5	-6.45	1.35	1.39
37	3	82	G	C6-N1	-6.44	1.35	1.39
36	5	2943	G	C5-C6	-6.44	1.35	1.42
36	5	1159	A	N9-C4	-6.43	1.33	1.37
38	4	111	A	C5-C6	-6.42	1.35	1.41
36	5	1462	A	N9-C4	-6.42	1.33	1.37
36	5	2933	A	N3-C4	-6.40	1.31	1.34
47	M0	8	CYS	CB-SG	-6.40	1.71	1.82
36	5	1874	A	N9-C4	-6.39	1.34	1.37
36	5	2138	A	N7-C5	-6.39	1.35	1.39
36	5	437	G	N9-C4	6.38	1.43	1.38
36	5	3052	G	C2-N3	-6.38	1.27	1.32
36	5	2811	A	N9-C4	-6.37	1.34	1.37
36	5	826	G	C2-N3	-6.33	1.27	1.32
38	4	15	G	C5-C4	-6.32	1.33	1.38
36	1	1373	A	N3-C4	-6.32	1.31	1.34
36	5	1159	A	N3-C4	-6.31	1.31	1.34
36	5	2145	A	C6-N1	-6.31	1.31	1.35
36	5	2954	U	N1-C2	6.29	1.44	1.38
36	1	2983	C	N3-C4	-6.28	1.29	1.33
36	1	2887	A	N7-C5	-6.27	1.35	1.39
36	1	695	C	N3-C4	-6.26	1.29	1.33
36	1	3142	A	N3-C4	-6.25	1.31	1.34
36	1	638	C	N1-C6	-6.23	1.33	1.37
36	5	2360	C	C4-C5	-6.22	1.38	1.43
36	1	426	G	N1-C2	-6.21	1.32	1.37
36	5	810	A	N3-C4	6.21	1.38	1.34
36	5	2937	G	C5-C6	-6.21	1.36	1.42
36	5	1304	A	N7-C5	-6.20	1.35	1.39
36	1	2409	G	C5-C4	-6.20	1.34	1.38
40	l3	251	CYS	CB-SG	-6.19	1.71	1.82
36	1	2341	A	N9-C4	-6.17	1.34	1.37
36	5	2375	G	C6-N1	-6.16	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2823	G	N7-C5	-6.15	1.35	1.39
36	1	48	A	N7-C5	-6.15	1.35	1.39
36	1	29	C	N1-C6	-6.15	1.33	1.37
36	1	2356	A	N3-C4	-6.15	1.31	1.34
36	5	2291	A	N9-C4	-6.14	1.34	1.37
36	5	2937	G	C5-C4	-6.14	1.34	1.38
36	5	962	A	C5-C6	-6.13	1.35	1.41
36	1	654	C	N1-C6	-6.13	1.33	1.37
36	5	1338	C	N1-C6	-6.13	1.33	1.37
36	5	2639	G	N7-C5	-6.12	1.35	1.39
36	1	2971	A	N9-C4	6.10	1.41	1.37
36	5	1311	G	C5-C4	-6.09	1.34	1.38
36	5	1456	A	N9-C4	-6.09	1.34	1.37
36	5	1329	U	N1-C6	-6.08	1.32	1.38
36	5	3314	A	N9-C4	-6.07	1.34	1.37
36	1	970	A	C6-N1	-6.07	1.31	1.35
36	5	437	G	C5-C4	6.07	1.42	1.38
36	1	1373	A	C6-N1	-6.06	1.31	1.35
36	1	2598	G	C5-C4	-6.06	1.34	1.38
36	5	416	A	N7-C5	-6.05	1.35	1.39
36	5	2799	A	C6-N1	-6.05	1.31	1.35
36	5	2626	A	N9-C4	-6.03	1.34	1.37
36	5	3382	U	N1-C2	6.02	1.44	1.38
36	1	1103	A	N7-C5	6.02	1.42	1.39
36	5	2872	A	N9-C4	-6.01	1.34	1.37
36	1	2271	A	C5-C6	-6.00	1.35	1.41
36	1	2404	A	C6-N1	6.00	1.39	1.35
36	1	2761	G	N7-C5	-6.00	1.35	1.39
37	7	94	C	C4-C5	-5.98	1.38	1.43
36	1	790	U	C2-N3	-5.98	1.33	1.37
36	5	1103	A	N3-C4	5.98	1.38	1.34
36	5	3095	U	C2-N3	-5.97	1.33	1.37
36	1	337	G	C5-C4	-5.96	1.34	1.38
36	5	1113	G	N3-C4	-5.95	1.31	1.35
36	1	424	G	C5-C4	-5.94	1.34	1.38
36	1	706	A	N9-C4	-5.94	1.34	1.37
1	6	1659	A	N9-C4	-5.93	1.34	1.37
36	5	2139	A	N3-C4	-5.92	1.31	1.34
36	1	34	A	N9-C4	-5.92	1.34	1.37
36	1	343	U	N3-C4	-5.92	1.33	1.38
36	5	2996	U	N1-C2	5.91	1.43	1.38
36	1	2984	C	N3-C4	-5.91	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2885	C	N1-C6	-5.91	1.33	1.37
36	1	3142	A	N9-C4	-5.90	1.34	1.37
1	6	1653	C	N1-C6	-5.90	1.33	1.37
36	5	924	G	N3-C4	-5.90	1.31	1.35
36	1	651	G	N1-C2	-5.89	1.33	1.37
36	1	1667	A	N9-C4	-5.89	1.34	1.37
1	6	44	U	N1-C2	-5.89	1.33	1.38
36	5	1865	A	N9-C4	-5.88	1.34	1.37
36	1	2326	A	N9-C4	-5.88	1.34	1.37
36	5	3209	A	C5-C4	5.87	1.42	1.38
36	1	423	A	N3-C4	-5.87	1.31	1.34
36	1	650	C	N1-C6	-5.87	1.33	1.37
36	1	653	A	C5-C6	-5.87	1.35	1.41
36	5	2395	G	N7-C5	5.85	1.42	1.39
36	1	1377	G	C5-C6	-5.85	1.36	1.42
36	1	1492	G	N7-C5	-5.83	1.35	1.39
36	1	2396	G	N9-C8	-5.83	1.33	1.37
36	5	2404	A	N3-C4	5.82	1.38	1.34
36	1	343	U	N1-C2	-5.81	1.33	1.38
37	3	83	U	C2-N3	-5.81	1.33	1.37
36	5	2892	A	N3-C4	-5.81	1.31	1.34
36	1	1547	G	C5-C4	-5.80	1.34	1.38
36	1	2714	G	N9-C8	5.80	1.42	1.37
40	L3	200	GLU	CG-CD	5.80	1.60	1.51
36	1	919	U	C2-N3	-5.79	1.33	1.37
36	5	1103	A	N9-C4	5.79	1.41	1.37
36	5	1445	U	N1-C2	-5.79	1.33	1.38
36	1	968	G	C6-N1	-5.78	1.35	1.39
37	7	112	G	N7-C5	-5.78	1.35	1.39
36	5	1451	C	N1-C6	-5.77	1.33	1.37
36	5	1902	G	N7-C5	-5.77	1.35	1.39
36	1	100	A	N3-C4	-5.75	1.31	1.34
36	1	2893	C	N3-C4	-5.75	1.29	1.33
36	1	1308	A	C6-N1	-5.75	1.31	1.35
36	1	2761	G	N9-C8	-5.75	1.33	1.37
36	1	2187	G	N7-C5	-5.75	1.35	1.39
36	1	66	A	N9-C4	-5.75	1.34	1.37
36	5	924	G	N9-C4	-5.74	1.33	1.38
36	5	1152	G	N1-C2	5.74	1.42	1.37
57	n1	104	GLU	CB-CG	5.74	1.63	1.52
36	1	1107	C	N1-C6	-5.74	1.33	1.37
36	1	2409	G	N3-C4	-5.74	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2856	G	N7-C5	-5.74	1.35	1.39
36	1	1144	U	C2-N3	-5.73	1.33	1.37
36	5	3362	A	N9-C4	-5.72	1.34	1.37
36	1	895	A	C5-C6	-5.72	1.35	1.41
52	m6	78	ARG	CZ-NH1	5.72	1.40	1.33
1	6	1131	A	N3-C4	-5.71	1.31	1.34
36	1	3273	A	N3-C4	-5.71	1.31	1.34
36	1	1377	G	C5-C4	-5.70	1.34	1.38
36	1	2276	G	N7-C5	-5.70	1.35	1.39
36	5	40	A	N7-C5	-5.69	1.35	1.39
36	5	420	G	C5-C4	-5.69	1.34	1.38
36	5	367	A	N3-C4	-5.67	1.31	1.34
36	5	2931	C	N1-C6	-5.67	1.33	1.37
36	5	883	A	N3-C4	-5.67	1.31	1.34
36	1	1505	C	N3-C4	-5.67	1.29	1.33
1	2	1657	U	N1-C2	5.66	1.43	1.38
36	5	1432	C	C2-N3	-5.66	1.31	1.35
36	5	1116	G	N9-C8	-5.66	1.33	1.37
46	19	11	GLU	CG-CD	5.66	1.60	1.51
36	5	945	C	N1-C6	-5.65	1.33	1.37
36	1	2919	A	N3-C4	-5.65	1.31	1.34
36	1	1305	U	N3-C4	-5.65	1.33	1.38
36	1	658	G	C8-N7	-5.64	1.27	1.30
36	1	2409	G	N9-C8	-5.64	1.33	1.37
37	7	91	G	N7-C5	-5.63	1.35	1.39
36	1	2368	A	N3-C4	-5.63	1.31	1.34
36	5	1891	A	N7-C5	-5.63	1.35	1.39
36	5	2385	G	N9-C4	-5.62	1.33	1.38
36	1	962	A	N7-C5	-5.62	1.35	1.39
1	6	754	A	N9-C4	5.62	1.41	1.37
36	1	870	G	N7-C5	-5.62	1.35	1.39
1	6	426	G	C6-N1	-5.61	1.35	1.39
36	1	1351	U	N1-C2	5.61	1.43	1.38
36	1	49	A	N9-C4	-5.61	1.34	1.37
36	5	1301	A	N7-C5	-5.61	1.35	1.39
36	1	636	C	C4-N4	-5.61	1.28	1.33
36	5	953	G	C5-C4	-5.60	1.34	1.38
36	1	407	A	N7-C5	-5.60	1.35	1.39
36	5	924	G	C2-N3	-5.58	1.28	1.32
36	5	523	A	N9-C4	-5.58	1.34	1.37
36	1	1865	A	N9-C4	-5.58	1.34	1.37
1	6	1000	C	N3-C4	-5.58	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	2298	U	N3-C4	-5.57	1.33	1.38
36	1	2954	U	N3-C4	5.57	1.43	1.38
36	1	716	A	C5-C6	-5.57	1.36	1.41
36	5	2976	A	N3-C4	-5.57	1.31	1.34
36	1	828	A	N7-C5	-5.57	1.35	1.39
36	1	1178	G	C6-N1	-5.56	1.35	1.39
36	5	1847	A	N9-C4	-5.56	1.34	1.37
37	7	11	A	N3-C4	-5.56	1.31	1.34
36	1	1401	A	N7-C5	-5.56	1.35	1.39
36	5	424	G	C5-C6	-5.55	1.36	1.42
36	5	818	C	N1-C2	-5.55	1.34	1.40
36	5	2875	U	C2-N3	5.55	1.41	1.37
36	5	2954	U	C4-O4	5.55	1.28	1.23
36	1	1308	A	N3-C4	-5.54	1.31	1.34
36	1	2620	G	N7-C5	5.53	1.42	1.39
36	5	2966	G	N7-C5	-5.53	1.35	1.39
1	6	1537	C	C2-N3	5.53	1.40	1.35
36	5	3095	U	N3-C4	-5.53	1.33	1.38
36	1	2954	U	C2-N3	5.53	1.41	1.37
36	5	938	C	N1-C6	-5.52	1.33	1.37
36	5	981	U	N1-C2	5.51	1.43	1.38
36	5	1332	A	N9-C8	-5.51	1.33	1.37
36	1	2984	C	C2-O2	-5.51	1.19	1.24
36	1	3091	A	N7-C5	-5.51	1.35	1.39
1	6	157	A	N9-C4	-5.51	1.34	1.37
36	1	1103	A	N3-C4	5.50	1.38	1.34
1	6	321	C	N1-C2	5.50	1.45	1.40
36	5	1307	G	C5-C4	-5.50	1.34	1.38
36	1	1507	G	N9-C8	-5.49	1.34	1.37
36	1	610	G	C6-N1	-5.49	1.35	1.39
36	1	1507	G	N7-C5	-5.48	1.35	1.39
36	1	2640	A	C6-N1	-5.48	1.31	1.35
36	5	2280	A	N9-C4	-5.48	1.34	1.37
36	5	2113	A	N9-C4	-5.47	1.34	1.37
36	5	2971	A	N3-C4	5.47	1.38	1.34
1	6	1746	A	N7-C5	-5.47	1.35	1.39
36	5	971	G	N9-C8	-5.47	1.34	1.37
37	7	102	A	N9-C4	-5.47	1.34	1.37
36	1	1369	A	C5-C6	-5.47	1.36	1.41
36	5	647	A	C6-N1	-5.47	1.31	1.35
36	5	1371	G	C5-C4	-5.47	1.34	1.38
36	1	2996	U	N1-C2	5.46	1.43	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	790	U	N3-C4	-5.45	1.33	1.38
36	1	1159	A	N3-C4	-5.45	1.31	1.34
36	1	2793	G	C2-N3	-5.45	1.28	1.32
36	5	1175	C	C4-N4	-5.45	1.29	1.33
36	5	2373	A	N7-C5	-5.45	1.35	1.39
36	1	1429	G	C5-C4	-5.45	1.34	1.38
36	5	1912	U	N1-C2	-5.45	1.33	1.38
36	5	3274	A	N9-C4	-5.44	1.34	1.37
36	5	1307	G	P-O5'	-5.43	1.54	1.59
1	6	1736	G	N3-C4	-5.42	1.31	1.35
36	5	2400	G	N9-C4	-5.42	1.33	1.38
36	5	980	A	N7-C5	5.42	1.42	1.39
36	1	900	G	N9-C8	-5.42	1.34	1.37
36	5	1315	U	N1-C6	-5.41	1.33	1.38
36	1	2093	A	N9-C4	5.41	1.41	1.37
36	5	2934	A	C6-N1	-5.41	1.31	1.35
36	5	63	A	N7-C5	-5.41	1.36	1.39
36	5	980	A	N9-C4	5.41	1.41	1.37
36	1	2396	G	C5-C4	-5.41	1.34	1.38
36	5	706	A	N9-C4	-5.41	1.34	1.37
36	5	367	A	C5-C4	-5.40	1.34	1.38
36	5	2942	C	N1-C6	-5.40	1.33	1.37
1	6	352	A	C6-N1	-5.40	1.31	1.35
36	5	2954	U	N3-C4	5.40	1.43	1.38
36	5	1432	C	N3-C4	-5.39	1.30	1.33
36	1	2138	A	N7-C5	-5.39	1.36	1.39
36	5	397	A	N3-C4	-5.39	1.31	1.34
36	5	2825	C	N1-C6	-5.39	1.33	1.37
36	1	693	A	N7-C5	-5.38	1.36	1.39
36	1	909	G	C5-C4	-5.38	1.34	1.38
36	1	1134	G	N9-C8	-5.38	1.34	1.37
36	1	3209	A	N7-C5	5.38	1.42	1.39
36	5	3139	A	N9-C4	-5.38	1.34	1.37
36	1	1192	C	N1-C2	5.37	1.45	1.40
36	1	2418	G	O3'-P	5.37	1.67	1.61
36	5	1851	G	N7-C5	-5.37	1.36	1.39
36	1	282	G	C6-N1	-5.36	1.35	1.39
36	5	1332	A	C5-C4	-5.36	1.34	1.38
36	5	2823	G	N9-C8	-5.36	1.34	1.37
1	6	1746	A	C5-C6	-5.36	1.36	1.41
36	5	3206	C	N1-C6	-5.35	1.33	1.37
36	5	3274	A	N3-C4	-5.35	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	2360	C	N3-C4	-5.35	1.30	1.33
36	1	92	G	C6-N1	-5.35	1.35	1.39
36	5	2987	A	N7-C5	-5.35	1.36	1.39
38	4	15	G	C5-C6	-5.34	1.37	1.42
36	1	92	G	N1-C2	-5.34	1.33	1.37
36	1	1305	U	C2-N3	-5.34	1.34	1.37
36	5	2733	A	N9-C4	-5.33	1.34	1.37
36	5	1331	U	C4-C5	-5.33	1.38	1.43
1	6	337	G	C2-N2	5.32	1.39	1.34
36	1	639	G	N9-C8	-5.32	1.34	1.37
36	1	2409	G	N7-C5	-5.32	1.36	1.39
36	1	1452	A	N9-C4	-5.32	1.34	1.37
36	1	407	A	C5-C6	-5.31	1.36	1.41
36	1	1366	A	C5-C6	-5.31	1.36	1.41
36	1	912	G	C5-C4	-5.31	1.34	1.38
36	1	1318	A	N9-C4	-5.31	1.34	1.37
36	5	1192	C	N1-C2	5.31	1.45	1.40
36	1	895	A	N7-C5	-5.31	1.36	1.39
36	5	2910	A	N9-C4	-5.31	1.34	1.37
36	1	2944	U	C4-O4	-5.30	1.19	1.23
36	5	2138	A	N9-C4	-5.30	1.34	1.37
36	1	653	A	C6-N1	-5.30	1.31	1.35
1	2	992	A	N9-C4	-5.29	1.34	1.37
36	5	417	A	N3-C4	-5.29	1.31	1.34
36	1	1415	U	C2-N3	-5.29	1.34	1.37
36	1	2702	A	N7-C5	-5.29	1.36	1.39
36	1	282	G	N1-C2	-5.29	1.33	1.37
36	1	2887	A	C5-C6	-5.28	1.36	1.41
36	5	424	G	N7-C5	-5.28	1.36	1.39
36	5	1151	U	N1-C2	-5.28	1.33	1.38
38	8	80	A	N9-C4	5.28	1.41	1.37
36	1	2811	A	C6-N6	-5.27	1.29	1.33
36	1	923	C	N1-C6	-5.27	1.33	1.37
36	5	2818	U	C2-N3	-5.27	1.34	1.37
36	5	2645	G	C6-N1	-5.27	1.35	1.39
36	5	1195	A	N3-C4	-5.27	1.31	1.34
36	5	3245	A	N7-C5	-5.27	1.36	1.39
36	5	3092	C	N1-C6	-5.27	1.33	1.37
36	1	2145	A	N7-C5	-5.26	1.36	1.39
36	1	3087	A	N3-C4	-5.26	1.31	1.34
36	1	369	A	N3-C4	-5.25	1.31	1.34
1	6	1133	A	N7-C5	-5.25	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	106	A	N9-C4	-5.25	1.34	1.37
36	5	2394	G	N7-C5	-5.25	1.36	1.39
36	5	2814	G	N3-C4	-5.25	1.31	1.35
36	1	343	U	N1-C6	-5.24	1.33	1.38
36	5	1886	A	C5-C6	-5.24	1.36	1.41
36	1	343	U	C2-O2	-5.24	1.17	1.22
36	5	2128	C	N1-C6	-5.23	1.34	1.37
36	5	2911	A	N7-C5	-5.23	1.36	1.39
36	1	2948	C	N3-C4	-5.23	1.30	1.33
13	c1	128	CYS	CB-SG	-5.23	1.73	1.81
36	5	2617	U	N1-C2	-5.22	1.33	1.38
36	1	2958	A	N9-C4	-5.21	1.34	1.37
36	5	1318	A	N3-C4	-5.21	1.31	1.34
36	5	361	A	N7-C5	5.21	1.42	1.39
1	6	1137	A	C5-C4	-5.20	1.35	1.38
36	5	1892	G	C5-C4	-5.20	1.34	1.38
36	5	343	U	N1-C2	-5.20	1.33	1.38
36	1	3216	G	C5-C4	-5.20	1.34	1.38
36	1	1417	G	N3-C4	-5.20	1.31	1.35
36	1	2162	U	C4-O4	-5.20	1.19	1.23
36	1	1364	C	N1-C6	-5.19	1.34	1.37
36	1	342	A	N9-C4	-5.19	1.34	1.37
36	5	3107	U	C2-N3	-5.19	1.34	1.37
36	5	2615	G	C8-N7	-5.19	1.27	1.30
1	2	555	A	N9-C4	5.18	1.41	1.37
36	5	995	U	C2-N3	-5.18	1.34	1.37
36	1	1313	G	N7-C5	-5.17	1.36	1.39
36	1	2986	U	N1-C2	-5.17	1.33	1.38
36	5	981	U	C2-N3	5.17	1.41	1.37
36	5	2338	C	N1-C6	-5.17	1.34	1.37
36	5	2986	U	N1-C6	-5.16	1.33	1.38
36	5	2728	G	C2-N3	-5.16	1.28	1.32
36	5	2825	C	N1-C2	-5.16	1.34	1.40
36	1	2931	C	N1-C6	-5.16	1.34	1.37
36	1	691	A	N9-C4	-5.16	1.34	1.37
36	5	936	A	N7-C5	-5.16	1.36	1.39
36	5	2400	G	C5-C6	-5.16	1.37	1.42
36	1	656	A	N7-C5	-5.15	1.36	1.39
36	5	2404	A	N7-C5	5.15	1.42	1.39
36	5	2862	U	C2-N3	-5.15	1.34	1.37
36	1	100	A	C6-N1	-5.15	1.31	1.35
36	5	2824	G	N7-C5	-5.15	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	1	908	G	C5-C4	-5.15	1.34	1.38
36	1	361	A	N3-C4	-5.14	1.31	1.34
36	1	358	G	N9-C8	-5.14	1.34	1.37
36	5	1331	U	C5-C6	-5.14	1.29	1.34
36	1	1368	U	N1-C2	-5.14	1.33	1.38
36	5	1173	U	C2-N3	-5.14	1.34	1.37
36	5	960	U	N1-C2	5.13	1.43	1.38
36	5	895	A	N9-C4	-5.13	1.34	1.37
36	1	806	A	N9-C4	-5.13	1.34	1.37
36	5	3084	C	N1-C6	-5.13	1.34	1.37
36	1	1394	A	N9-C4	-5.12	1.34	1.37
36	5	2373	A	C5-C6	-5.12	1.36	1.41
36	1	2919	A	N7-C5	-5.11	1.36	1.39
36	1	1115	G	N3-C4	-5.11	1.31	1.35
36	5	3047	U	N3-C4	-5.11	1.33	1.38
36	1	52	A	N3-C4	-5.11	1.31	1.34
36	1	1416	C	N3-C4	-5.10	1.30	1.33
36	1	2398	A	N3-C4	5.10	1.38	1.34
36	5	2690	G	N3-C4	-5.10	1.31	1.35
36	1	651	G	C8-N7	-5.09	1.27	1.30
1	6	46	A	N7-C5	-5.09	1.36	1.39
36	5	2419	A	P-O5'	5.09	1.64	1.59
36	5	3216	G	N7-C5	-5.09	1.36	1.39
75	O9	2	ALA	CA-CB	-5.09	1.41	1.52
36	5	2913	C	N1-C2	-5.08	1.35	1.40
36	5	3207	U	C2-N3	5.08	1.41	1.37
36	5	3008	A	N3-C4	-5.08	1.31	1.34
36	5	1914	G	N1-C2	-5.08	1.33	1.37
36	5	914	A	N9-C4	-5.07	1.34	1.37
36	1	2363	A	N3-C4	-5.07	1.31	1.34
36	1	2165	G	N7-C5	-5.06	1.36	1.39
36	1	984	G	N7-C5	-5.06	1.36	1.39
36	1	2207	A	N9-C4	5.06	1.40	1.37
37	7	96	U	C4-O4	-5.05	1.19	1.23
36	1	910	G	N7-C5	-5.05	1.36	1.39
36	1	2368	A	N9-C4	-5.05	1.34	1.37
36	1	2394	G	N1-C2	-5.05	1.33	1.37
36	5	2434	U	N3-C4	-5.04	1.33	1.38
38	4	28	C	N1-C6	-5.04	1.34	1.37
36	5	1164	G	N3-C4	-5.04	1.31	1.35
36	5	1432	C	C2-O2	-5.04	1.20	1.24
36	5	969	C	N3-C4	-5.04	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	5	1189	C	N1-C6	-5.04	1.34	1.37
36	1	2406	C	N1-C2	-5.04	1.35	1.40
36	5	1844	C	C2-O2	-5.04	1.20	1.24
36	5	2404	A	C8-N7	5.04	1.35	1.31
36	5	3314	A	N3-C4	-5.03	1.31	1.34
1	6	312	A	N7-C5	-5.03	1.36	1.39
36	1	1795	U	C2-N3	-5.03	1.34	1.37
36	5	2345	A	C5-C6	-5.03	1.36	1.41
36	1	1390	A	N3-C4	-5.02	1.31	1.34
36	5	848	A	N3-C4	-5.02	1.31	1.34
36	1	984	G	C2-N3	5.02	1.36	1.32
1	6	421	A	C6-N1	5.02	1.39	1.35
36	5	2837	A	C5-C4	-5.02	1.35	1.38
36	1	216	G	N7-C5	-5.02	1.36	1.39
36	1	1116	G	C5-C4	-5.02	1.34	1.38
36	1	2881	C	C2-O2	5.02	1.28	1.24
38	4	24	G	N7-C5	-5.01	1.36	1.39
36	1	342	A	N3-C4	-5.01	1.31	1.34
36	5	2762	A	N3-C4	-5.01	1.31	1.34
36	1	826	G	C5-C4	-5.00	1.34	1.38
36	1	2350	C	N1-C6	-5.00	1.34	1.37
1	6	1537	C	C5-C6	5.00	1.38	1.34
36	5	984	G	N7-C5	-5.00	1.36	1.39
36	1	2326	A	N3-C4	-5.00	1.31	1.34
36	5	947	G	N3-C4	-5.00	1.31	1.35
36	5	2910	A	N7-C5	-5.00	1.36	1.39

All (5269) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1152	G	N3-C4-C5	25.71	141.45	128.60
36	5	1152	G	N3-C4-N9	-21.48	113.11	126.00
36	5	1152	G	C2-N3-C4	-20.82	101.49	111.90
36	1	2714	G	N3-C4-C5	16.25	136.73	128.60
36	1	2714	G	N3-C4-N9	-14.32	117.41	126.00
36	5	424	G	C5-C6-O6	-14.11	120.14	128.60
36	1	86	G	O5'-P-OP2	-14.10	93.02	105.70
1	6	163	G	N3-C4-N9	-14.05	117.57	126.00
36	5	1152	G	C5-N7-C8	-13.71	97.44	104.30
36	5	1902	G	N1-C6-O6	13.70	128.12	119.90
36	5	806	A	O5'-P-OP1	-13.69	93.38	105.70
36	1	794	U	O5'-P-OP2	-13.53	93.52	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	9	A	O5'-P-OP2	-13.34	93.70	105.70
36	5	1152	G	N1-C6-O6	13.26	127.86	119.90
36	1	406	G	O4'-C1'-N9	13.10	118.68	108.20
1	2	553	G	N1-C6-O6	13.05	127.73	119.90
36	5	2364	G	N9-C4-C5	12.98	110.59	105.40
36	1	1495	U	C5-C6-N1	-12.74	116.33	122.70
36	5	2385	G	O5'-P-OP1	-12.73	94.25	105.70
36	1	960	U	C2-N1-C1'	-12.69	102.47	117.70
36	1	2726	C	C6-N1-C2	-12.66	115.23	120.30
36	5	3245	A	N1-C6-N6	12.50	126.10	118.60
36	1	2298	U	N3-C4-O4	-12.34	110.77	119.40
36	1	2617	U	N1-C2-N3	12.33	122.30	114.90
36	1	1308	A	O5'-P-OP2	-12.28	94.65	105.70
36	5	3245	A	C5-N7-C8	-12.17	97.81	103.90
36	5	1513	G	C8-N9-C4	-12.15	101.54	106.40
36	1	2371	G	O5'-P-OP2	-12.10	94.81	105.70
36	1	1838	G	N1-C6-O6	12.09	127.16	119.90
36	1	1377	G	C5-C6-O6	-12.09	121.35	128.60
36	1	2726	C	C5-C4-N4	11.91	128.54	120.20
36	1	672	A	N1-C6-N6	11.83	125.70	118.60
36	5	1301	A	N1-C6-N6	11.80	125.68	118.60
38	8	80	A	C8-N9-C4	-11.74	101.11	105.80
36	1	2846	U	N3-C2-O2	-11.72	114.00	122.20
36	1	2884	C	N3-C4-C5	11.69	126.58	121.90
1	2	1039	A	O4'-C1'-N9	11.69	117.55	108.20
36	1	1157	G	O5'-P-OP2	-11.68	95.19	105.70
36	5	1897	G	N1-C6-O6	11.63	126.88	119.90
36	5	2354	C	N3-C4-C5	-11.56	117.28	121.90
36	1	2694	A	O5'-P-OP2	-11.52	95.33	105.70
36	1	636	C	N3-C4-C5	11.50	126.50	121.90
36	5	437	G	C8-N9-C4	-11.47	101.81	106.40
36	1	2808	A	N1-C6-N6	11.46	125.47	118.60
36	5	2726	C	C6-N1-C2	-11.44	115.72	120.30
36	5	1152	G	C4-C5-N7	11.43	115.37	110.80
36	1	2643	A	C8-N9-C4	11.43	110.37	105.80
36	1	1313	G	C5-C6-O6	-11.36	121.78	128.60
36	1	2726	C	N3-C4-N4	-11.30	110.09	118.00
36	5	877	C	N3-C4-C5	11.25	126.40	121.90
36	5	2726	C	C5-C4-N4	11.18	128.02	120.20
36	5	2400	G	N1-C6-O6	11.16	126.60	119.90
36	5	3245	A	C4-C5-N7	11.09	116.25	110.70
36	5	3245	A	C6-C5-N7	-11.07	124.55	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1152	G	C8-N9-C1'	11.01	141.31	127.00
36	1	2617	U	C4-C5-C6	10.97	126.28	119.70
36	1	2726	C	N3-C2-O2	-10.95	114.23	121.90
36	5	1339	C	C6-N1-C2	-10.94	115.93	120.30
36	5	1902	G	C5-C6-O6	-10.93	122.04	128.60
36	5	1110	U	N1-C2-O2	10.90	130.43	122.80
36	1	2714	G	C2-N3-C4	-10.89	106.45	111.90
36	5	2923	U	O5'-P-OP1	-10.89	95.90	105.70
36	5	644	G	C4-C5-N7	-10.87	106.45	110.80
36	5	2954	U	C2-N1-C1'	10.87	130.75	117.70
36	1	716	A	N9-C4-C5	-10.86	101.46	105.80
73	O7	65	ARG	NE-CZ-NH1	10.85	125.72	120.30
36	1	2283	G	N1-C6-O6	10.79	126.37	119.90
36	1	369	A	C8-N9-C4	-10.77	101.49	105.80
36	1	661	G	C8-N9-C4	-10.74	102.10	106.40
36	5	2117	A	N1-C6-N6	-10.72	112.17	118.60
36	1	2617	U	C5-C6-N1	-10.72	117.34	122.70
36	1	1365	G	C8-N9-C4	-10.71	102.11	106.40
36	1	1365	G	N3-C4-C5	-10.70	123.25	128.60
36	1	3278	C	N1-C2-O2	10.69	125.32	118.90
36	5	2943	G	C6-C5-N7	-10.67	124.00	130.40
36	5	1152	G	C4-N9-C1'	-10.66	112.64	126.50
36	5	934	G	C5-C6-O6	-10.65	122.21	128.60
36	1	3306	U	N3-C4-O4	-10.65	111.95	119.40
36	1	1495	U	C4-C5-C6	10.64	126.08	119.70
36	1	2286	U	O5'-P-OP2	-10.64	96.13	105.70
36	5	1203	A	N1-C6-N6	10.61	124.96	118.60
36	1	2617	U	C5-C4-O4	10.56	132.24	125.90
36	5	1902	G	O5'-P-OP1	-10.54	96.22	105.70
36	5	1419	A	O5'-P-OP2	-10.53	96.22	105.70
36	5	424	G	C4-C5-N7	10.52	115.01	110.80
36	5	437	G	N7-C8-N9	10.51	118.35	113.10
1	2	73	U	O4'-C1'-N1	10.50	116.60	108.20
36	5	966	U	N3-C2-O2	-10.49	114.86	122.20
36	5	63	A	N1-C6-N6	10.48	124.89	118.60
36	1	2936	A	O5'-P-OP1	-10.46	96.29	105.70
1	6	815	G	N1-C6-O6	10.45	126.17	119.90
36	1	1495	U	N1-C2-N3	10.43	121.16	114.90
36	5	2354	C	N1-C2-O2	-10.40	112.66	118.90
38	8	80	A	N7-C8-N9	10.39	119.00	113.80
36	5	2928	C	C6-N1-C2	-10.39	116.14	120.30
36	1	1495	U	N1-C2-O2	-10.36	115.55	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2355	G	N1-C6-O6	10.34	126.10	119.90
36	5	2400	G	C5-C6-O6	-10.34	122.40	128.60
36	1	1192	C	N1-C2-O2	10.33	125.10	118.90
36	5	874	U	O5'-P-OP1	-10.33	96.40	105.70
36	1	2831	G	N1-C6-O6	10.31	126.09	119.90
36	5	640	U	N1-C2-O2	-10.28	115.61	122.80
37	7	101	G	N1-C6-O6	10.25	126.05	119.90
36	1	1308	A	C8-N9-C4	-10.22	101.71	105.80
36	1	695	C	C6-N1-C2	10.22	124.39	120.30
36	1	2374	C	N3-C2-O2	-10.22	114.75	121.90
36	5	1481	A	C8-N9-C4	-10.20	101.72	105.80
36	5	2700	G	C5-C6-O6	-10.20	122.48	128.60
36	1	968	G	N1-C6-O6	-10.19	113.79	119.90
36	1	1166	G	N1-C6-O6	10.17	126.00	119.90
36	5	2392	C	C6-N1-C2	10.16	124.36	120.30
36	1	776	U	C4-C5-C6	10.15	125.79	119.70
36	1	3181	C	C5-C4-N4	10.14	127.30	120.20
1	2	1280	C	N3-C4-C5	-10.14	117.84	121.90
1	2	1773	C	C6-N1-C2	-10.13	116.25	120.30
36	1	3181	C	N3-C4-N4	-10.08	110.94	118.00
1	2	639	U	N3-C2-O2	-10.07	115.15	122.20
36	5	2403	G	O5'-P-OP2	-10.04	96.66	105.70
1	6	756	A	N7-C8-N9	10.02	118.81	113.80
1	6	756	A	C8-N9-C4	-10.00	101.80	105.80
38	4	103	G	N3-C4-C5	-9.99	123.61	128.60
1	6	1634	C	C2-N1-C1'	9.98	129.78	118.80
36	5	2364	G	C5-C6-O6	9.97	134.58	128.60
36	5	1307	G	P-O3'-C3'	9.96	131.66	119.70
36	5	776	U	C5-C6-N1	-9.96	117.72	122.70
36	1	716	A	N1-C6-N6	9.96	124.57	118.60
36	1	2959	C	N1-C2-O2	-9.94	112.93	118.90
1	6	1537	C	C6-N1-C2	-9.90	116.34	120.30
36	5	2943	G	C4-C5-N7	9.89	114.76	110.80
36	1	895	A	O5'-P-OP1	-9.85	96.83	105.70
36	5	1321	G	N1-C6-O6	9.83	125.80	119.90
36	1	1303	A	C8-N9-C4	9.83	109.73	105.80
36	5	1119	C	N3-C4-C5	9.82	125.83	121.90
36	1	1313	G	C4-C5-N7	9.81	114.72	110.80
36	1	2617	U	N3-C2-O2	-9.80	115.34	122.20
36	1	2344	U	O5'-P-OP2	-9.80	96.88	105.70
36	5	2761	G	O5'-P-OP1	-9.79	96.89	105.70
36	5	406	G	O4'-C1'-N9	9.78	116.02	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3245	A	N7-C8-N9	9.78	118.69	113.80
36	1	1381	A	O5'-P-OP2	9.76	122.42	110.70
36	1	86	G	O5'-P-OP1	9.76	122.41	110.70
36	5	1902	G	C6-C5-N7	-9.73	124.56	130.40
36	5	2392	C	N3-C4-C5	9.73	125.79	121.90
36	1	3181	C	N3-C2-O2	-9.72	115.09	121.90
36	1	1838	G	C6-C5-N7	-9.72	124.57	130.40
36	5	424	G	N1-C6-O6	9.71	125.72	119.90
36	5	2189	U	O5'-P-OP1	-9.69	96.97	105.70
36	1	2283	G	C4-C5-N7	9.69	114.68	110.80
1	6	102	U	O5'-P-OP1	-9.69	96.98	105.70
1	6	163	G	N3-C4-C5	9.68	133.44	128.60
36	1	958	C	N3-C4-C5	9.68	125.77	121.90
36	5	2308	C	N1-C2-O2	-9.66	113.10	118.90
36	1	2619	G	O5'-P-OP1	-9.66	97.01	105.70
36	5	3244	A	O5'-P-OP1	-9.65	97.01	105.70
1	2	1762	A	O5'-P-OP1	-9.65	97.02	105.70
36	1	66	A	O5'-P-OP1	-9.63	97.03	105.70
36	1	1445	U	N1-C2-O2	-9.60	116.08	122.80
36	1	680	G	O5'-P-OP2	-9.58	97.08	105.70
36	5	1124	U	N3-C4-O4	-9.58	112.69	119.40
36	5	2364	G	C4-C5-N7	-9.56	106.98	110.80
36	5	2899	C	C6-N1-C2	-9.53	116.49	120.30
36	5	1366	A	C8-N9-C4	-9.53	101.99	105.80
36	1	2197	C	C6-N1-C2	9.50	124.10	120.30
36	5	1152	G	N3-C2-N2	-9.50	113.25	119.90
1	2	1773	C	N3-C4-C5	-9.48	118.11	121.90
36	1	1556	C	C2-N1-C1'	9.47	129.22	118.80
36	5	2937	G	C5-C6-O6	-9.47	122.92	128.60
1	2	639	U	N1-C2-O2	9.46	129.43	122.80
36	1	958	C	N3-C4-N4	-9.46	111.38	118.00
36	1	1377	G	N1-C6-O6	9.45	125.57	119.90
36	5	1055	A	O5'-P-OP2	-9.44	97.20	105.70
1	2	453	U	C2-N1-C1'	9.44	129.02	117.70
36	5	2837	A	O5'-P-OP1	-9.43	97.21	105.70
36	1	1197	A	N1-C6-N6	9.43	124.26	118.60
36	5	2389	C	O5'-P-OP1	-9.43	97.22	105.70
36	1	1422	G	O5'-P-OP1	-9.42	97.22	105.70
1	2	1745	G	C5-C6-O6	-9.41	122.95	128.60
36	5	962	A	C5-C6-N6	-9.41	116.17	123.70
36	5	1113	G	C2-N3-C4	-9.41	107.19	111.90
36	5	1390	A	N9-C4-C5	9.41	109.56	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	111	A	N1-C6-N6	9.39	124.23	118.60
36	1	3306	U	C5-C4-O4	9.38	131.53	125.90
36	1	1115	G	C8-N9-C4	-9.37	102.65	106.40
36	1	1127	G	C5-C6-O6	-9.36	122.99	128.60
36	5	1150	A	O5'-P-OP2	-9.36	97.28	105.70
36	1	2572	C	N1-C2-O2	9.35	124.51	118.90
36	1	2624	G	N1-C6-O6	9.35	125.51	119.90
36	1	344	A	N1-C6-N6	-9.34	113.00	118.60
36	1	395	A	O5'-P-OP2	-9.33	97.30	105.70
36	5	2727	A	C2-N3-C4	9.32	115.26	110.60
36	1	282	G	C8-N9-C4	-9.31	102.67	106.40
36	5	1513	G	N7-C8-N9	9.31	117.76	113.10
36	1	716	A	C8-N9-C4	9.31	109.52	105.80
36	1	1127	G	N1-C6-O6	9.29	125.48	119.90
36	5	3050	U	C5-C4-O4	9.29	131.47	125.90
36	5	2634	U	C5-C4-O4	-9.29	120.33	125.90
36	5	2572	C	N1-C2-O2	9.28	124.47	118.90
1	6	144	U	N3-C2-O2	-9.28	115.71	122.20
36	5	1158	A	N1-C6-N6	9.28	124.17	118.60
36	5	3218	A	N1-C6-N6	9.27	124.16	118.60
36	1	1316	C	N3-C4-N4	9.26	124.48	118.00
36	1	2946	A	N1-C6-N6	9.26	124.16	118.60
36	1	2409	G	N3-C4-C5	-9.25	123.97	128.60
36	5	1473	G	C8-N9-C4	9.24	110.10	106.40
36	1	805	G	C8-N9-C4	9.24	110.10	106.40
1	6	421	A	N1-C6-N6	9.23	124.14	118.60
36	1	2550	U	N3-C2-O2	-9.23	115.74	122.20
36	1	1118	C	C6-N1-C2	-9.22	116.61	120.30
36	1	2987	A	O5'-P-OP2	-9.22	97.40	105.70
36	5	2981	U	N3-C2-O2	-9.21	115.75	122.20
37	7	49	G	N1-C6-O6	9.21	125.42	119.90
36	5	962	A	N1-C6-N6	9.19	124.11	118.60
36	5	2726	C	N3-C2-O2	-9.16	115.49	121.90
36	5	2393	G	O5'-P-OP2	-9.15	97.46	105.70
36	1	1389	G	C4-C5-N7	9.15	114.46	110.80
36	5	1390	A	C8-N9-C4	-9.15	102.14	105.80
36	1	573	C	C6-N1-C2	9.14	123.96	120.30
36	1	2827	U	N1-C2-N3	9.14	120.38	114.90
36	1	1132	C	O5'-P-OP1	-9.13	97.48	105.70
36	1	1377	G	N9-C4-C5	-9.12	101.75	105.40
36	1	776	U	C5-C6-N1	-9.12	118.14	122.70
36	1	1377	G	C4-C5-N7	9.11	114.44	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	829	U	N3-C2-O2	-9.10	115.83	122.20
1	6	815	G	C6-C5-N7	-9.09	124.94	130.40
36	5	2849	C	N3-C2-O2	9.09	128.26	121.90
36	1	3183	A	N1-C6-N6	9.08	124.05	118.60
36	1	343	U	N1-C2-N3	9.04	120.33	114.90
1	6	1773	C	N3-C4-C5	-9.03	118.29	121.90
36	5	1115	G	C8-N9-C4	-9.02	102.79	106.40
36	5	1306	G	C5-C6-O6	-9.02	123.19	128.60
36	5	2372	A	P-O3'-C3'	8.97	130.47	119.70
1	6	163	G	N9-C4-C5	8.97	108.99	105.40
36	5	1316	C	N1-C2-O2	-8.96	113.52	118.90
36	1	2169	G	N1-C6-O6	-8.96	114.53	119.90
36	1	3022	G	O4'-C1'-N9	8.95	115.36	108.20
1	2	553	G	C6-C5-N7	-8.94	125.04	130.40
36	1	2294	U	N1-C2-N3	8.93	120.26	114.90
36	5	642	U	O5'-P-OP2	-8.93	97.66	105.70
36	1	1133	A	N1-C6-N6	8.92	123.95	118.60
36	5	938	C	C5-C4-N4	-8.91	113.96	120.20
1	6	114	C	N1-C2-O2	8.90	124.24	118.90
36	5	1060	U	N3-C4-O4	-8.90	113.17	119.40
1	6	815	G	C4-C5-N7	8.90	114.36	110.80
36	1	1351	U	N3-C2-O2	-8.89	115.97	122.20
36	1	2417	U	C2-N3-C4	-8.89	121.67	127.00
1	6	321	C	N1-C2-O2	8.89	124.23	118.90
36	1	439	C	C2-N1-C1'	8.88	128.57	118.80
36	1	2247	G	N1-C6-O6	8.88	125.23	119.90
37	7	101	G	C6-C5-N7	-8.88	125.07	130.40
36	1	1307	G	N1-C6-O6	-8.86	114.58	119.90
36	5	2971	A	C2-N3-C4	8.86	115.03	110.60
36	1	2417	U	C5-C6-N1	-8.85	118.28	122.70
36	5	2406	C	N1-C2-O2	-8.85	113.59	118.90
36	1	1343	A	O5'-P-OP2	-8.85	97.74	105.70
36	1	2621	G	N3-C2-N2	-8.83	113.72	119.90
36	1	1303	A	O5'-P-OP1	-8.83	97.75	105.70
36	1	2818	U	O5'-P-OP2	-8.83	97.75	105.70
36	1	1399	A	C2-N3-C4	-8.82	106.19	110.60
1	6	1700	C	N1-C2-O2	8.82	124.19	118.90
36	1	2177	G	N3-C4-C5	-8.81	124.19	128.60
1	2	448	C	C6-N1-C2	-8.80	116.78	120.30
36	1	1389	G	C5-C6-O6	-8.79	123.33	128.60
36	1	2699	G	C5-C6-O6	-8.79	123.33	128.60
1	6	1700	C	C2-N1-C1'	8.79	128.47	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	877	C	C4-C5-C6	-8.79	113.01	117.40
1	2	1761	U	C6-N1-C2	-8.78	115.73	121.00
36	1	3278	C	N3-C2-O2	-8.78	115.75	121.90
36	1	226	C	N3-C4-N4	8.78	124.14	118.00
36	1	2622	C	C6-N1-C2	-8.78	116.79	120.30
36	1	2797	C	O5'-P-OP1	-8.77	97.80	105.70
52	M6	110	PRO	C-N-CD	-8.77	101.32	120.60
36	5	1204	A	N1-C6-N6	-8.77	113.34	118.60
36	5	2385	G	N3-C4-C5	8.75	132.98	128.60
36	1	2923	U	O5'-P-OP1	-8.75	97.83	105.70
36	5	2937	G	N1-C6-O6	8.74	125.15	119.90
36	1	2283	G	C5-C6-O6	-8.72	123.37	128.60
36	1	1367	G	N1-C6-O6	8.71	125.13	119.90
36	5	2996	U	N1-C2-O2	8.70	128.89	122.80
36	5	2117	A	N9-C4-C5	8.70	109.28	105.80
36	1	2610	G	N1-C6-O6	8.69	125.11	119.90
1	6	1745	G	C5-C6-O6	-8.69	123.39	128.60
36	1	1316	C	C5-C4-N4	-8.67	114.13	120.20
36	5	2872	A	O5'-P-OP1	-8.67	97.90	105.70
36	1	776	U	N1-C2-N3	8.66	120.10	114.90
36	5	414	U	N1-C2-O2	-8.66	116.73	122.80
36	5	3377	G	C5-C6-O6	-8.66	123.40	128.60
36	1	53	G	O5'-P-OP2	-8.66	97.91	105.70
36	5	2278	C	C4-C5-C6	-8.66	113.07	117.40
36	5	3245	A	C2-N3-C4	-8.66	106.27	110.60
36	5	2616	C	C6-N1-C2	8.64	123.76	120.30
36	5	1124	U	N3-C4-C5	8.63	119.78	114.60
36	1	93	C	C6-N1-C2	-8.62	116.85	120.30
36	5	1301	A	C5-C6-N6	-8.62	116.81	123.70
37	7	98	C	O5'-P-OP2	-8.62	97.94	105.70
36	1	716	A	C4-C5-N7	8.61	115.01	110.70
1	2	966	A	N1-C6-N6	8.60	123.76	118.60
36	1	65	A	P-O3'-C3'	8.60	130.02	119.70
36	5	2364	G	N3-C4-N9	-8.60	120.84	126.00
36	1	2953	U	N1-C2-O2	-8.59	116.78	122.80
36	5	1429	G	C6-C5-N7	-8.59	125.25	130.40
36	5	2985	C	C6-N1-C2	-8.59	116.86	120.30
36	5	641	C	N1-C2-O2	-8.59	113.75	118.90
36	5	1432	C	N3-C4-C5	8.59	125.33	121.90
1	2	75	U	N1-C2-O2	8.58	128.81	122.80
36	5	1481	A	N7-C8-N9	8.55	118.07	113.80
36	1	339	C	OP1-P-OP2	-8.55	106.78	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	200	C	N3-C4-N4	8.54	123.98	118.00
36	1	3306	U	N3-C2-O2	-8.54	116.22	122.20
36	1	608	A	N1-C6-N6	8.54	123.72	118.60
36	5	2524	A	O4'-C1'-N9	8.53	115.03	108.20
36	1	1450	G	O5'-P-OP1	-8.53	98.02	105.70
1	2	1082	C	N1-C2-O2	8.53	124.02	118.90
36	5	3026	G	C5-C6-O6	-8.53	123.48	128.60
36	1	3214	U	C5-C4-O4	8.52	131.01	125.90
1	2	433	C	O5'-P-OP1	-8.52	98.04	105.70
36	5	2351	U	C6-N1-C2	-8.51	115.89	121.00
36	1	374	A	N1-C6-N6	-8.50	113.50	118.60
36	5	404	G	O5'-P-OP2	-8.50	98.05	105.70
36	5	1908	A	C8-N9-C4	-8.50	102.40	105.80
36	1	304	G	N9-C4-C5	8.50	108.80	105.40
36	1	2811	A	C5-C6-N1	8.50	121.95	117.70
36	1	2827	U	C5-C4-O4	8.49	130.99	125.90
36	5	437	G	N3-C4-C5	-8.47	124.36	128.60
36	1	344	A	O5'-P-OP2	-8.47	98.08	105.70
36	1	639	G	N1-C6-O6	8.47	124.98	119.90
1	2	402	C	C6-N1-C2	8.47	123.69	120.30
36	1	2699	G	N1-C6-O6	8.46	124.98	119.90
36	1	2298	U	C5-C4-O4	8.46	130.98	125.90
36	5	1897	G	C4-C5-N7	8.43	114.17	110.80
36	5	578	A	N1-C6-N6	8.43	123.66	118.60
36	5	661	G	O5'-P-OP1	-8.43	98.11	105.70
1	2	580	A	C8-N9-C4	-8.43	102.43	105.80
36	5	2953	U	N3-C4-O4	8.43	125.30	119.40
36	5	644	G	C5-N7-C8	8.42	108.51	104.30
36	5	1313	G	O5'-P-OP2	-8.42	98.12	105.70
36	5	927	C	N1-C2-O2	-8.42	113.85	118.90
36	1	1433	A	O5'-P-OP1	-8.41	98.13	105.70
36	5	2726	C	N1-C2-N3	8.41	125.09	119.20
36	5	2628	A	O5'-P-OP1	8.41	120.79	110.70
36	5	2954	U	O4'-C1'-N1	8.41	114.92	108.20
36	5	3136	G	C2-N3-C4	-8.41	107.70	111.90
1	6	402	C	O5'-P-OP2	-8.40	98.14	105.70
36	5	2937	G	C6-C5-N7	-8.40	125.36	130.40
36	5	2117	A	C5-C6-N6	8.40	130.42	123.70
36	1	1492	G	C5-N7-C8	8.40	108.50	104.30
36	5	1300	G	N1-C6-O6	8.39	124.93	119.90
1	6	1141	G	O5'-P-OP1	-8.38	98.16	105.70
1	6	448	C	C6-N1-C2	-8.37	116.95	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1484	U	P-O3'-C3'	8.37	129.74	119.70
36	5	1145	G	N9-C4-C5	8.37	108.75	105.40
1	2	1745	G	N3-C4-N9	8.36	131.02	126.00
1	2	1096	C	N1-C2-O2	8.36	123.92	118.90
1	6	321	C	C2-N1-C1'	8.36	127.99	118.80
36	1	2314	U	N1-C2-N3	-8.35	109.89	114.90
36	5	1394	A	N1-C6-N6	-8.35	113.59	118.60
36	5	3188	G	N1-C6-O6	-8.34	114.89	119.90
36	5	881	C	C5-C6-N1	8.34	125.17	121.00
36	5	693	A	O5'-P-OP1	-8.34	98.20	105.70
36	5	3362	A	C5-N7-C8	-8.33	99.73	103.90
36	1	2313	A	O5'-P-OP1	-8.33	98.20	105.70
1	6	638	U	N3-C2-O2	-8.33	116.37	122.20
36	5	3211	C	C6-N1-C2	8.33	123.63	120.30
36	5	2942	C	N3-C4-N4	8.33	123.83	118.00
36	1	651	G	N3-C4-N9	8.32	131.00	126.00
36	5	2909	U	N1-C2-O2	-8.32	116.97	122.80
36	5	2145	A	N1-C6-N6	-8.32	113.61	118.60
36	1	1320	C	O5'-P-OP2	-8.32	98.21	105.70
36	5	2345	A	N1-C6-N6	8.32	123.59	118.60
36	5	2395	G	O5'-P-OP2	-8.31	98.22	105.70
1	6	163	G	N3-C2-N2	-8.31	114.08	119.90
36	1	1428	A	O5'-P-OP2	-8.31	98.22	105.70
1	2	1280	C	C6-N1-C2	-8.30	116.98	120.30
36	1	2621	G	N1-C2-N2	8.30	123.67	116.20
1	6	1522	U	O5'-P-OP2	-8.30	98.23	105.70
1	2	453	U	N3-C2-O2	-8.30	116.39	122.20
1	2	1560	U	N3-C2-O2	-8.29	116.40	122.20
36	1	1450	G	C5-C6-O6	-8.29	123.63	128.60
36	1	1495	U	C2-N1-C1'	-8.29	107.76	117.70
36	5	3209	A	O4'-C1'-N9	8.29	114.83	108.20
36	5	1301	A	C6-C5-N7	-8.28	126.50	132.30
36	1	1390	A	C8-N9-C4	-8.28	102.49	105.80
37	3	75	G	O5'-P-OP1	-8.27	98.25	105.70
38	4	109	A	N1-C6-N6	8.27	123.56	118.60
36	5	2755	C	O5'-P-OP1	-8.27	98.26	105.70
36	1	1308	A	N7-C8-N9	8.26	117.93	113.80
36	5	3154	C	N1-C2-O2	8.25	123.85	118.90
36	1	2812	C	C5-C6-N1	-8.25	116.88	121.00
36	5	3105	U	C5-C4-O4	8.25	130.85	125.90
36	1	895	A	C2-N3-C4	-8.25	106.48	110.60
36	1	897	U	O5'-P-OP1	-8.24	98.28	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1869	C	O5'-P-OP2	-8.24	98.28	105.70
36	1	2695	A	C8-N9-C4	-8.24	102.51	105.80
36	1	3214	U	N3-C2-O2	-8.24	116.44	122.20
36	5	1437	C	C6-N1-C2	-8.23	117.01	120.30
36	5	2278	C	C5-C6-N1	8.23	125.11	121.00
36	5	3098	G	O5'-P-OP2	-8.23	98.30	105.70
1	6	321	C	N3-C2-O2	-8.22	116.15	121.90
37	7	101	G	C5-C6-O6	-8.21	123.68	128.60
36	5	2639	G	C6-C5-N7	-8.20	125.48	130.40
1	6	421	A	N9-C4-C5	-8.20	102.52	105.80
36	1	1133	A	C5-C6-N6	-8.20	117.14	123.70
36	1	887	G	O5'-P-OP2	-8.19	98.33	105.70
36	5	2385	G	C8-N9-C4	8.19	109.68	106.40
36	1	972	A	C8-N9-C4	8.19	109.08	105.80
36	5	2117	A	C4-C5-N7	-8.19	106.61	110.70
36	5	2663	G	O5'-P-OP2	-8.19	98.33	105.70
36	5	2245	C	C6-N1-C2	-8.18	117.03	120.30
38	4	103	G	C8-N9-C4	-8.18	103.13	106.40
36	1	2310	U	O5'-P-OP1	-8.18	98.34	105.70
36	5	2913	C	N1-C2-O2	-8.18	113.99	118.90
40	l3	19	ARG	NE-CZ-NH2	-8.17	116.21	120.30
36	1	295	A	C8-N9-C4	-8.17	102.53	105.80
36	5	1392	G	C8-N9-C4	8.16	109.67	106.40
37	7	77	G	C5-C6-O6	-8.16	123.70	128.60
1	2	542	A	O4'-C1'-N9	8.16	114.72	108.20
1	6	371	G	C4-N9-C1'	8.16	137.10	126.50
36	5	922	U	C5-C6-N1	-8.16	118.62	122.70
38	4	94	C	C6-N1-C2	8.15	123.56	120.30
36	1	2942	C	N3-C4-C5	8.15	125.16	121.90
36	1	2349	U	O5'-P-OP2	-8.14	98.37	105.70
1	2	1129	U	N3-C4-O4	-8.14	113.70	119.40
36	5	2364	G	C8-N9-C4	-8.14	103.14	106.40
36	5	3099	C	C4-C5-C6	8.14	121.47	117.40
1	6	1634	C	C6-N1-C2	-8.13	117.05	120.30
36	5	2881	C	C6-N1-C2	8.13	123.55	120.30
36	1	1164	G	N1-C6-O6	-8.13	115.02	119.90
36	1	2823	G	N9-C4-C5	8.13	108.65	105.40
36	1	1351	U	N1-C2-O2	8.12	128.49	122.80
36	1	1390	A	N9-C4-C5	8.12	109.05	105.80
36	1	2873	U	N3-C2-O2	-8.11	116.52	122.20
36	5	2394	G	C2-N3-C4	-8.11	107.84	111.90
36	1	1371	G	C8-N9-C4	8.11	109.64	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	922	U	N1-C2-O2	8.11	128.47	122.80
36	5	1419	A	O5'-P-OP1	8.10	120.42	110.70
36	1	2404	A	C2-N3-C4	8.10	114.65	110.60
36	5	1339	C	C5-C6-N1	8.10	125.05	121.00
1	6	371	G	N3-C4-C5	-8.10	124.55	128.60
36	1	2283	G	C5-N7-C8	-8.10	100.25	104.30
36	5	3214	U	N3-C2-O2	-8.10	116.53	122.20
37	7	98	C	N3-C4-C5	8.10	125.14	121.90
36	1	979	U	N3-C2-O2	-8.09	116.54	122.20
36	1	1901	A	N1-C6-N6	-8.09	113.75	118.60
36	5	2942	C	C5-C4-N4	-8.09	114.54	120.20
36	5	3303	G	N1-C6-O6	-8.09	115.05	119.90
36	5	2234	G	C5-C6-O6	-8.08	123.75	128.60
36	5	2831	G	C5-C6-N1	8.08	115.54	111.50
36	5	2816	G	C8-N9-C4	8.07	109.63	106.40
36	1	2124	G	N1-C6-O6	8.07	124.74	119.90
36	5	385	A	N1-C6-N6	8.06	123.44	118.60
36	1	614	C	C6-N1-C2	8.06	123.52	120.30
36	1	1124	U	N3-C4-C5	8.06	119.43	114.60
36	5	2345	A	C5-C6-N6	-8.05	117.26	123.70
36	5	2354	C	C4-C5-C6	8.05	121.43	117.40
36	1	818	C	N3-C4-C5	-8.04	118.68	121.90
36	5	1116	G	C4-C5-N7	-8.04	107.58	110.80
36	1	439	C	N1-C2-O2	8.04	123.72	118.90
36	1	2374	C	C6-N1-C2	-8.03	117.09	120.30
1	6	453	U	C2-N1-C1'	8.03	127.33	117.70
36	5	2928	C	C2-N1-C1'	8.02	127.62	118.80
1	6	163	G	C8-N9-C1'	8.02	137.42	127.00
36	5	424	G	N9-C4-C5	-8.02	102.19	105.40
36	1	2636	A	C8-N9-C4	-8.01	102.59	105.80
36	5	1110	U	N3-C2-O2	-8.01	116.59	122.20
36	1	1166	G	C5-C6-O6	-8.01	123.79	128.60
36	1	2984	C	C6-N1-C2	-8.01	117.10	120.30
36	5	1380	G	C8-N9-C4	8.01	109.60	106.40
1	6	100	A	N1-C6-N6	8.01	123.40	118.60
1	2	553	G	C5-C6-O6	-8.00	123.80	128.60
1	2	1200	G	N1-C6-O6	7.99	124.70	119.90
36	1	2231	C	C6-N1-C2	7.99	123.50	120.30
36	1	2968	G	C2-N3-C4	-7.99	107.90	111.90
36	5	1844	C	C6-N1-C2	-7.99	117.10	120.30
36	1	1373	A	O5'-P-OP2	-7.99	98.51	105.70
36	1	984	G	C6-C5-N7	-7.98	125.61	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3114	A	O5'-P-OP2	-7.98	98.52	105.70
36	5	2211	U	C4-C5-C6	7.98	124.49	119.70
36	5	915	A	C5-C6-N1	7.98	121.69	117.70
36	1	2777	G	N1-C6-O6	-7.98	115.11	119.90
36	1	3217	C	C2-N1-C1'	7.98	127.58	118.80
1	6	14	C	C6-N1-C2	-7.97	117.11	120.30
52	m6	68	ARG	NE-CZ-NH2	7.97	124.29	120.30
36	1	637	C	P-O3'-C3'	7.97	129.26	119.70
36	5	1429	G	C4-C5-N7	7.97	113.99	110.80
36	5	1308	A	O5'-P-OP2	7.97	120.26	110.70
36	5	2816	G	N9-C4-C5	-7.97	102.21	105.40
36	5	2572	C	N3-C2-O2	-7.96	116.33	121.90
38	4	53	A	N1-C6-N6	-7.96	113.82	118.60
36	5	1006	A	O5'-P-OP2	-7.96	98.54	105.70
36	1	2811	A	C6-N1-C2	-7.96	113.83	118.60
36	1	1449	A	C6-N1-C2	-7.96	113.83	118.60
36	1	2823	G	N3-C2-N2	-7.96	114.33	119.90
36	1	1303	A	N1-C6-N6	7.95	123.37	118.60
36	5	1506	A	C8-N9-C4	-7.95	102.62	105.80
36	1	807	A	C2-N3-C4	-7.95	106.62	110.60
36	1	948	C	N1-C2-O2	-7.95	114.13	118.90
36	5	63	A	C6-C5-N7	-7.95	126.73	132.30
36	5	3105	U	N3-C4-O4	-7.95	113.83	119.40
36	1	942	U	C5-C4-O4	-7.95	121.13	125.90
37	7	98	C	C6-N1-C2	7.95	123.48	120.30
36	1	957	C	N1-C2-O2	-7.95	114.13	118.90
36	1	857	G	N1-C6-O6	7.94	124.67	119.90
36	1	645	A	C6-N1-C2	-7.94	113.83	118.60
1	2	75	U	N3-C2-O2	-7.94	116.64	122.20
36	1	2978	U	O4'-C1'-N1	7.93	114.55	108.20
56	N0	58	ILE	CG1-CB-CG2	-7.93	93.95	111.40
1	6	1137	A	C8-N9-C4	7.93	108.97	105.80
36	5	1176	C	N1-C2-O2	-7.93	114.14	118.90
36	1	2617	U	C2-N3-C4	-7.93	122.24	127.00
36	5	2272	G	O4'-C1'-N9	7.93	114.54	108.20
36	5	3105	U	N1-C2-N3	7.93	119.66	114.90
36	1	1313	G	N1-C6-O6	7.92	124.65	119.90
1	2	1733	C	N3-C4-N4	7.92	123.54	118.00
36	1	1389	G	N1-C6-O6	7.92	124.65	119.90
36	5	922	U	N3-C2-O2	-7.92	116.66	122.20
36	1	399	A	O5'-P-OP1	-7.91	98.58	105.70
36	1	1164	G	C5-C6-O6	7.91	133.35	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2808	A	N9-C4-C5	-7.91	102.64	105.80
1	6	1150	G	C8-N9-C4	7.91	109.56	106.40
36	5	339	C	N1-C2-O2	-7.90	114.16	118.90
36	1	2640	A	N1-C2-N3	7.90	133.25	129.30
36	1	639	G	N3-C2-N2	-7.90	114.37	119.90
48	m1	112	LEU	CA-CB-CG	7.90	133.46	115.30
36	1	3362	A	O4'-C1'-N9	7.89	114.52	108.20
1	6	338	C	C5-C6-N1	7.89	124.95	121.00
36	5	776	U	N1-C2-N3	7.89	119.64	114.90
20	c8	15	LEU	CA-CB-CG	7.89	133.45	115.30
36	1	960	U	C6-N1-C2	7.89	125.73	121.00
36	1	2572	C	C2-N1-C1'	7.88	127.47	118.80
36	5	2372	A	C8-N9-C4	-7.88	102.65	105.80
36	5	2700	G	N1-C6-O6	7.88	124.63	119.90
37	7	94	C	C4-C5-C6	-7.88	113.46	117.40
36	5	861	C	C6-N1-C2	7.88	123.45	120.30
36	5	3075	G	N1-C6-O6	7.88	124.63	119.90
36	1	3362	A	N7-C8-N9	7.87	117.74	113.80
36	5	1152	G	C5-C6-O6	-7.87	123.88	128.60
36	1	1392	G	C2-N3-C4	7.87	115.83	111.90
36	1	2819	A	O5'-P-OP2	-7.86	98.62	105.70
1	2	1600	A	C2-N3-C4	-7.86	106.67	110.60
36	1	636	C	C2-N3-C4	-7.86	115.97	119.90
36	1	1414	G	N1-C6-O6	7.86	124.62	119.90
1	6	453	U	N3-C2-O2	-7.86	116.70	122.20
36	1	1365	G	N7-C8-N9	7.86	117.03	113.10
36	1	979	U	C6-N1-C2	-7.86	116.29	121.00
36	5	3216	G	O5'-P-OP2	-7.86	98.63	105.70
36	5	881	C	N1-C2-O2	7.85	123.61	118.90
1	6	1634	C	N1-C2-O2	7.85	123.61	118.90
36	5	2985	C	C5-C6-N1	7.85	124.92	121.00
36	1	802	C	O5'-P-OP1	-7.85	98.64	105.70
1	6	1670	G	O5'-P-OP2	-7.85	98.64	105.70
36	5	2140	U	C6-N1-C2	-7.84	116.30	121.00
36	1	689	U	N3-C2-O2	-7.84	116.71	122.20
36	1	2870	C	C2-N1-C1'	-7.84	110.18	118.80
36	1	3097	C	O5'-P-OP2	-7.83	98.65	105.70
36	1	439	C	C6-N1-C1'	-7.83	111.40	120.80
36	1	1592	G	C5-C6-O6	7.83	133.30	128.60
36	5	2245	C	O5'-P-OP2	-7.83	98.66	105.70
36	5	2353	G	C5-C6-O6	-7.83	123.90	128.60
36	5	370	U	N3-C2-O2	-7.82	116.73	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1317	A	C5-C6-N6	-7.82	117.45	123.70
36	1	2726	C	N1-C2-N3	7.82	124.67	119.20
1	6	1075	C	N1-C2-O2	-7.81	114.21	118.90
36	5	1329	U	N3-C4-O4	7.81	124.87	119.40
36	1	2606	G	C6-C5-N7	-7.81	125.72	130.40
36	5	1239	C	C5-C6-N1	7.81	124.90	121.00
1	6	982	U	O5'-P-OP1	-7.80	98.68	105.70
36	1	29	C	N3-C4-N4	7.80	123.46	118.00
36	5	2867	C	C6-N1-C2	-7.80	117.18	120.30
41	14	339	LEU	CA-CB-CG	7.80	133.24	115.30
36	5	911	C	C5-C6-N1	-7.80	117.10	121.00
36	1	2378	C	C5-C4-N4	-7.79	114.74	120.20
36	1	2808	A	C6-C5-N7	-7.79	126.84	132.30
36	5	361	A	N1-C6-N6	-7.79	113.92	118.60
36	5	2954	U	C6-N1-C1'	-7.79	110.30	121.20
1	2	1733	C	N3-C2-O2	7.78	127.35	121.90
36	1	939	U	N1-C2-O2	-7.78	117.35	122.80
36	5	38	U	O5'-P-OP2	-7.78	98.70	105.70
36	1	893	C	C6-N1-C2	-7.78	117.19	120.30
36	1	770	G	O4'-C1'-N9	7.78	114.42	108.20
36	1	2884	C	C4-C5-C6	-7.77	113.51	117.40
36	1	2996	U	C2-N1-C1'	7.77	127.03	117.70
36	5	1556	C	C6-N1-C2	-7.77	117.19	120.30
36	5	1851	G	N1-C6-O6	7.77	124.56	119.90
36	1	271	C	N1-C2-O2	7.77	123.56	118.90
36	1	960	U	N3-C4-O4	-7.76	113.97	119.40
36	1	1586	G	O5'-P-OP2	-7.76	98.72	105.70
36	5	2293	C	N1-C2-O2	7.76	123.56	118.90
36	5	3128	G	C8-N9-C4	7.75	109.50	106.40
36	1	1172	G	O5'-P-OP1	-7.75	98.73	105.70
36	1	930	U	C5-C6-N1	-7.75	118.83	122.70
1	2	1568	C	P-O3'-C3'	7.74	128.99	119.70
36	1	221	A	O5'-P-OP2	-7.74	98.74	105.70
36	5	1368	U	N1-C2-O2	-7.74	117.38	122.80
36	1	1520	G	C5-N7-C8	7.74	108.17	104.30
36	5	2331	C	N3-C4-C5	-7.73	118.81	121.90
36	1	2827	U	N3-C2-O2	-7.73	116.79	122.20
36	1	3016	A	N1-C6-N6	7.73	123.24	118.60
1	2	830	U	N3-C2-O2	-7.73	116.79	122.20
36	1	2606	G	N3-C4-N9	7.73	130.64	126.00
36	1	285	A	N1-C6-N6	7.72	123.23	118.60
36	5	2147	A	N1-C6-N6	7.72	123.23	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	125	U	N1-C2-O2	7.72	128.20	122.80
36	1	372	A	O5'-P-OP2	-7.71	98.76	105.70
36	1	2647	A	C6-N1-C2	-7.71	113.97	118.60
36	1	1838	G	C5-C6-O6	-7.71	123.97	128.60
36	5	3107	U	C5-C4-O4	-7.71	121.27	125.90
36	5	2878	G	N1-C6-O6	-7.71	115.28	119.90
36	1	1192	C	C2-N1-C1'	7.71	127.28	118.80
1	6	65	A	C2-N3-C4	-7.71	106.75	110.60
38	8	26	U	N3-C2-O2	-7.71	116.81	122.20
1	2	1339	C	P-O3'-C3'	7.70	128.94	119.70
36	1	1495	U	C2-N3-C4	-7.70	122.38	127.00
36	1	2857	C	C5-C4-N4	-7.70	114.81	120.20
36	5	3218	A	C4-C5-N7	7.70	114.55	110.70
36	1	633	C	N1-C2-O2	-7.70	114.28	118.90
36	5	2572	C	C2-N1-C1'	7.69	127.26	118.80
36	1	695	C	N3-C4-C5	7.69	124.97	121.90
36	5	1306	G	C8-N9-C4	7.69	109.47	106.40
36	5	927	C	C5-C4-N4	-7.68	114.82	120.20
1	6	1596	C	N3-C2-O2	-7.68	116.53	121.90
36	1	2846	U	C5-C4-O4	7.67	130.50	125.90
1	6	782	U	N3-C2-O2	-7.67	116.83	122.20
36	1	2938	G	OP1-P-OP2	7.67	131.11	119.60
36	5	414	U	C5-C4-O4	-7.67	121.30	125.90
36	5	2648	G	C5-C6-N1	7.67	115.33	111.50
36	1	810	A	N1-C6-N6	-7.67	114.00	118.60
36	1	2836	C	C5-C4-N4	7.67	125.57	120.20
36	5	83	U	N3-C2-O2	-7.67	116.83	122.20
1	2	1596	C	N3-C2-O2	-7.67	116.53	121.90
36	1	2624	G	C5-C6-N1	-7.66	107.67	111.50
1	6	815	G	C5-C6-O6	-7.66	124.00	128.60
36	5	966	U	N1-C2-O2	7.66	128.16	122.80
36	5	1449	A	N1-C6-N6	7.66	123.19	118.60
36	1	917	A	N1-C6-N6	-7.66	114.01	118.60
36	5	3143	C	N1-C2-O2	-7.66	114.31	118.90
36	1	1604	G	C4-N9-C1'	7.65	136.45	126.50
36	1	1205	A	O5'-P-OP2	-7.65	98.81	105.70
36	5	2616	C	C5-C4-N4	-7.65	114.84	120.20
36	1	2434	U	C5-C4-O4	7.65	130.49	125.90
38	4	113	U	C5-C6-N1	-7.65	118.88	122.70
36	5	816	A	N9-C4-C5	7.65	108.86	105.80
36	1	2610	G	C6-C5-N7	-7.64	125.81	130.40
36	5	3078	U	N3-C2-O2	-7.64	116.85	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1306	G	N9-C4-C5	-7.64	102.34	105.40
36	1	2305	G	C5-C6-O6	-7.64	124.02	128.60
1	6	337	G	C6-C5-N7	-7.63	125.82	130.40
36	1	2279	A	N1-C6-N6	7.63	123.18	118.60
36	1	2306	C	C6-N1-C2	-7.63	117.25	120.30
36	1	284	A	C8-N9-C4	-7.63	102.75	105.80
36	5	1445	U	N1-C2-O2	-7.62	117.46	122.80
36	5	2726	C	N3-C4-N4	-7.62	112.66	118.00
1	6	371	G	N3-C4-N9	7.62	130.57	126.00
36	1	1052	U	O5'-P-OP2	-7.62	98.84	105.70
36	1	1904	C	C5-C6-N1	7.62	124.81	121.00
36	1	2773	C	O5'-P-OP2	-7.61	98.85	105.70
36	5	2379	U	C5-C6-N1	-7.61	118.89	122.70
36	5	1161	G	N3-C4-N9	7.61	130.57	126.00
36	1	950	G	C4-C5-N7	7.61	113.84	110.80
36	1	422	A	N1-C6-N6	-7.61	114.04	118.60
36	1	2130	G	C5-C6-O6	7.60	133.16	128.60
36	1	2237	C	C6-N1-C2	7.60	123.34	120.30
36	1	2884	C	C6-N1-C2	7.60	123.34	120.30
36	5	1329	U	C5-C4-O4	-7.60	121.34	125.90
36	1	939	U	N3-C2-O2	7.60	127.52	122.20
36	5	2908	G	C8-N9-C4	-7.59	103.36	106.40
1	6	687	G	N3-C2-N2	-7.59	114.58	119.90
36	5	1115	G	C4-N9-C1'	7.59	136.37	126.50
36	1	2308	C	C2-N3-C4	-7.59	116.10	119.90
36	1	2733	A	O5'-P-OP2	-7.59	98.87	105.70
36	5	1148	G	C5-C6-O6	-7.59	124.05	128.60
36	5	2817	A	C8-N9-C4	-7.59	102.76	105.80
36	1	1838	G	N9-C4-C5	-7.59	102.37	105.40
36	5	889	U	N3-C4-C5	7.58	119.15	114.60
36	5	705	A	O5'-P-OP2	-7.58	98.88	105.70
36	5	2727	A	O5'-P-OP2	-7.58	98.88	105.70
36	1	2177	G	N3-C4-N9	7.57	130.54	126.00
36	5	222	A	O5'-P-OP2	-7.57	98.88	105.70
36	5	1520	G	C5-C6-O6	-7.57	124.06	128.60
36	1	701	G	N1-C6-O6	7.57	124.44	119.90
36	1	2812	C	C4-C5-C6	7.57	121.19	117.40
36	1	25	U	N3-C4-O4	7.57	124.70	119.40
36	5	2621	G	N1-C6-O6	7.57	124.44	119.90
36	5	2838	A	O5'-P-OP1	7.57	119.78	110.70
36	1	1377	G	C8-N9-C4	7.56	109.42	106.40
37	3	84	A	N1-C6-N6	7.56	123.14	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2370	G	C8-N9-C4	-7.56	103.38	106.40
36	5	414	U	N3-C2-O2	7.56	127.49	122.20
36	1	896	A	C8-N9-C4	-7.56	102.78	105.80
1	6	390	G	O5'-P-OP2	-7.56	98.90	105.70
36	5	1931	U	C2-N1-C1'	-7.55	108.63	117.70
36	5	1099	A	N1-C6-N6	7.55	123.13	118.60
36	5	2957	G	O5'-P-OP1	-7.55	98.91	105.70
36	5	1116	G	O5'-P-OP1	-7.55	98.91	105.70
36	5	3374	U	N3-C4-C5	7.55	119.13	114.60
36	1	1192	C	C6-N1-C1'	-7.54	111.75	120.80
36	1	1849	C	C5-C4-N4	-7.54	114.92	120.20
36	1	636	C	O5'-P-OP1	-7.54	98.92	105.70
36	1	1846	C	N1-C2-O2	-7.54	114.38	118.90
36	1	2643	A	N9-C4-C5	-7.54	102.78	105.80
36	5	822	G	N3-C4-N9	-7.54	121.48	126.00
36	5	942	U	C4-C5-C6	7.54	124.22	119.70
36	5	1116	G	C5-C6-N1	-7.54	107.73	111.50
36	5	2996	U	O5'-P-OP2	-7.54	98.92	105.70
36	5	3008	A	C2-N3-C4	-7.54	106.83	110.60
36	1	651	G	N3-C4-C5	-7.54	124.83	128.60
36	1	229	G	C5-C6-O6	-7.54	124.08	128.60
36	1	421	G	N9-C4-C5	-7.53	102.39	105.40
36	1	2279	A	C5-C6-N6	-7.53	117.67	123.70
38	4	32	C	C2-N1-C1'	-7.53	110.51	118.80
1	6	308	C	C5-C6-N1	-7.53	117.23	121.00
37	7	77	G	N1-C6-O6	7.53	124.42	119.90
36	5	426	G	C8-N9-C4	7.53	109.41	106.40
36	5	2800	G	N3-C2-N2	-7.53	114.63	119.90
36	1	2679	A	C2-N3-C4	-7.53	106.84	110.60
36	5	2351	U	N3-C2-O2	-7.52	116.93	122.20
36	5	2400	G	C8-N9-C4	7.52	109.41	106.40
36	5	3362	A	N7-C8-N9	7.52	117.56	113.80
37	7	12	U	C5-C4-O4	-7.52	121.39	125.90
36	1	1334	U	N3-C4-C5	-7.52	110.09	114.60
36	1	2622	C	N3-C4-C5	-7.52	118.89	121.90
1	6	1	U	C2-N1-C1'	7.52	126.72	117.70
1	6	87	C	C6-N1-C2	-7.52	117.29	120.30
36	5	2648	G	C5-C6-O6	-7.52	124.09	128.60
36	5	1897	G	N3-C4-C5	7.51	132.36	128.60
36	5	531	G	O5'-P-OP1	-7.51	98.94	105.70
1	2	61	A	N7-C8-N9	7.51	117.56	113.80
36	5	1516	C	N3-C4-C5	7.51	124.91	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	343	U	C6-N1-C2	-7.51	116.50	121.00
36	1	2273	G	C8-N9-C4	7.51	109.40	106.40
36	1	1114	U	N3-C4-O4	-7.51	114.15	119.40
36	5	3136	G	N1-C2-N2	-7.50	109.45	116.20
36	1	984	G	N1-C2-N2	-7.50	109.45	116.20
36	5	1306	G	N1-C6-O6	7.50	124.40	119.90
36	1	1197	A	C5-C6-N6	-7.49	117.70	123.70
36	1	1007	U	C5-C4-O4	-7.49	121.41	125.90
36	1	3362	A	C5-N7-C8	-7.49	100.16	103.90
36	1	2836	C	N3-C4-N4	-7.49	112.76	118.00
1	2	75	U	C2-N1-C1'	7.48	126.68	117.70
1	2	17	C	C6-N1-C2	-7.48	117.31	120.30
36	1	573	C	C5-C6-N1	-7.48	117.26	121.00
36	5	1462	A	C2-N3-C4	-7.48	106.86	110.60
36	1	2714	G	C5-N7-C8	-7.48	100.56	104.30
36	1	2915	U	C5-C4-O4	-7.48	121.41	125.90
36	5	2943	G	N1-C6-O6	7.48	124.39	119.90
36	1	803	C	O5'-P-OP1	7.48	119.67	110.70
36	5	2401	A	C2-N3-C4	7.48	114.34	110.60
36	1	829	U	N1-C2-O2	7.47	128.03	122.80
1	6	956	C	C6-N1-C2	7.47	123.29	120.30
36	1	672	A	N9-C4-C5	-7.47	102.81	105.80
36	1	2371	G	C4-C5-N7	7.47	113.79	110.80
36	5	2759	U	N1-C2-N3	7.46	119.38	114.90
36	5	915	A	C6-N1-C2	-7.46	114.12	118.60
36	1	894	G	C5-C6-O6	-7.46	124.13	128.60
36	5	2943	G	C5-C6-O6	-7.46	124.13	128.60
36	1	2808	A	O4'-C1'-N9	-7.45	102.24	108.20
36	1	214	G	N1-C6-O6	7.45	124.37	119.90
36	5	3206	C	N3-C2-O2	-7.45	116.69	121.90
36	1	304	G	N3-C2-N2	-7.44	114.69	119.90
36	5	2643	A	N9-C4-C5	-7.44	102.82	105.80
1	2	1761	U	P-O3'-C3'	7.44	128.63	119.70
1	2	1324	G	N3-C4-N9	-7.44	121.54	126.00
36	1	2870	C	N3-C4-N4	-7.44	112.79	118.00
36	5	1885	U	C6-N1-C2	7.44	125.46	121.00
37	7	37	G	N9-C4-C5	-7.44	102.42	105.40
1	2	1274	C	C2-N1-C1'	7.44	126.98	118.80
36	5	1300	G	C5-C6-O6	-7.43	124.14	128.60
36	5	2872	A	N3-C4-C5	7.43	132.00	126.80
1	2	1175	U	O5'-P-OP1	-7.43	99.01	105.70
36	1	267	G	O5'-P-OP1	-7.43	99.01	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3049	A	C5-C6-N1	-7.43	113.98	117.70
36	1	3107	U	C5-C6-N1	-7.43	118.99	122.70
1	6	338	C	C6-N1-C2	-7.43	117.33	120.30
36	1	435	C	C6-N1-C2	7.42	123.27	120.30
36	5	207	U	N1-C2-O2	-7.42	117.60	122.80
36	5	2950	G	O4'-C1'-N9	7.42	114.14	108.20
1	2	992	A	C2-N3-C4	-7.42	106.89	110.60
36	5	2899	C	N3-C4-C5	-7.42	118.93	121.90
36	1	1303	A	N9-C4-C5	-7.42	102.83	105.80
36	5	1375	G	C8-N9-C4	-7.42	103.43	106.40
1	2	831	U	C6-N1-C2	-7.42	116.55	121.00
38	4	25	G	C5-C6-O6	7.42	133.05	128.60
36	1	2153	U	C6-N1-C2	-7.42	116.55	121.00
36	5	2727	A	C8-N9-C4	-7.42	102.83	105.80
36	5	2904	U	C5-C6-N1	-7.42	118.99	122.70
36	1	1449	A	C5-C6-N1	7.41	121.41	117.70
36	5	3133	C	C6-N1-C2	-7.41	117.33	120.30
36	1	361	A	N1-C6-N6	-7.40	114.16	118.60
1	6	782	U	N1-C2-O2	7.40	127.98	122.80
36	5	1366	A	N9-C4-C5	7.40	108.76	105.80
36	5	2147	A	C5-C6-N6	-7.40	117.78	123.70
36	1	2945	G	O5'-P-OP2	-7.40	99.04	105.70
36	5	315	C	N3-C4-C5	7.40	124.86	121.90
36	1	2945	G	O5'-P-OP1	7.39	119.57	110.70
36	5	2404	A	O4'-C1'-N9	7.39	114.11	108.20
36	1	1515	A	N1-C6-N6	7.39	123.03	118.60
36	1	611	A	O5'-P-OP1	7.39	119.57	110.70
36	5	2404	A	C4-N9-C1'	-7.39	113.00	126.30
36	1	949	C	C6-N1-C2	-7.39	117.34	120.30
36	5	822	G	N3-C4-C5	7.38	132.29	128.60
36	5	1490	A	C8-N9-C4	-7.38	102.85	105.80
1	2	831	U	C2-N1-C1'	7.38	126.56	117.70
36	5	914	A	O5'-P-OP1	-7.38	99.06	105.70
36	5	2392	C	C2-N1-C1'	-7.38	110.68	118.80
36	1	802	C	O5'-P-OP2	7.38	119.56	110.70
36	1	2308	C	N1-C2-O2	-7.38	114.47	118.90
1	6	272	U	N3-C2-O2	-7.38	117.04	122.20
36	1	2403	G	N3-C4-N9	7.37	130.42	126.00
1	6	421	A	C8-N9-C4	7.37	108.75	105.80
1	6	1659	A	O5'-P-OP1	-7.37	99.06	105.70
36	1	2639	G	C4-C5-N7	7.37	113.75	110.80
36	5	1867	A	N1-C6-N6	7.37	123.02	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1556	C	C6-N1-C2	-7.37	117.35	120.30
36	1	1578	C	C2-N1-C1'	7.37	126.91	118.80
36	5	2868	U	C5-C6-N1	7.37	126.38	122.70
1	6	1634	C	C5-C6-N1	7.37	124.68	121.00
36	1	110	G	O5'-P-OP1	-7.37	99.07	105.70
1	6	1100	G	N3-C4-C5	-7.37	124.92	128.60
36	1	984	G	N3-C2-N2	7.36	125.05	119.90
1	6	194	U	C2-N1-C1'	7.36	126.53	117.70
1	2	453	U	N1-C2-O2	7.36	127.95	122.80
36	1	2367	A	N1-C6-N6	7.36	123.01	118.60
36	5	1834	U	N3-C4-C5	-7.35	110.19	114.60
1	2	310	C	N3-C4-C5	-7.35	118.96	121.90
10	s8	29	LEU	CA-CB-CG	7.35	132.20	115.30
36	1	2871	G	O5'-P-OP2	-7.34	99.09	105.70
37	7	44	C	C6-N1-C2	7.34	123.24	120.30
38	4	80	A	O5'-P-OP2	-7.34	99.09	105.70
36	5	41	G	O5'-P-OP2	-7.34	99.09	105.70
36	5	2400	G	N3-C4-C5	7.34	132.27	128.60
36	5	3382	U	N3-C2-O2	-7.34	117.06	122.20
1	6	453	U	N1-C2-O2	7.34	127.94	122.80
36	1	794	U	O5'-P-OP1	7.34	119.50	110.70
36	5	2870	C	C2-N1-C1'	-7.33	110.73	118.80
36	1	2640	A	C6-N1-C2	-7.33	114.20	118.60
15	C3	22	ALA	C-N-CD	-7.33	104.48	120.60
36	1	808	A	C6-N1-C2	-7.33	114.20	118.60
36	1	886	C	C6-N1-C2	-7.33	117.37	120.30
38	4	43	A	O5'-P-OP1	-7.33	99.11	105.70
36	5	636	C	O5'-P-OP2	-7.33	99.11	105.70
36	5	1660	C	C6-N1-C2	-7.33	117.37	120.30
36	1	1385	C	C6-N1-C2	7.32	123.23	120.30
36	1	2646	C	N3-C4-C5	7.32	124.83	121.90
36	1	1112	A	N9-C4-C5	-7.32	102.87	105.80
36	5	2211	U	N3-C2-O2	-7.32	117.08	122.20
36	5	2982	A	C2-N3-C4	7.32	114.26	110.60
36	1	2373	A	O5'-P-OP1	-7.31	99.12	105.70
36	1	517	G	N7-C8-N9	7.31	116.76	113.10
36	1	1121	U	N1-C2-N3	7.31	119.29	114.90
36	5	2176	U	N3-C2-O2	-7.31	117.08	122.20
36	5	2893	C	N3-C4-C5	-7.31	118.98	121.90
36	1	229	G	N3-C2-N2	-7.30	114.79	119.90
36	1	1556	C	N3-C2-O2	-7.30	116.79	121.90
36	1	2831	G	C5-C6-O6	-7.30	124.22	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	960	U	C2-N3-C4	-7.30	122.62	127.00
36	1	650	C	OP2-P-O3'	7.29	121.25	105.20
36	1	1903	U	C5-C6-N1	7.29	126.35	122.70
36	1	2700	G	C5-C6-O6	-7.29	124.22	128.60
36	1	2777	G	C5-C6-O6	7.29	132.98	128.60
1	2	694	U	C2-N1-C1'	7.29	126.45	117.70
36	1	517	G	C8-N9-C4	-7.29	103.48	106.40
1	6	387	A	O5'-P-OP2	-7.29	99.14	105.70
36	1	2281	A	C8-N9-C4	7.29	108.72	105.80
37	7	104	A	O5'-P-OP2	-7.29	99.14	105.70
36	5	2858	U	C5-C6-N1	7.29	126.34	122.70
36	5	3197	G	N3-C2-N2	-7.29	114.80	119.90
36	5	3388	C	C6-N1-C2	7.29	123.22	120.30
1	2	1560	U	C5-C4-O4	7.28	130.27	125.90
36	5	2908	G	N9-C4-C5	7.28	108.31	105.40
45	18	69	LEU	CA-CB-CG	7.28	132.04	115.30
36	1	2212	C	C6-N1-C2	7.28	123.21	120.30
36	1	54	C	C6-N1-C2	7.28	123.21	120.30
36	1	2937	G	C8-N9-C4	7.28	109.31	106.40
36	5	1208	U	O5'-P-OP1	-7.27	99.15	105.70
36	1	3181	C	C6-N1-C2	-7.27	117.39	120.30
36	5	645	A	N1-C2-N3	7.27	132.93	129.30
36	5	649	A	C5-C6-N6	-7.26	117.89	123.70
36	1	960	U	C5-C6-N1	-7.26	119.07	122.70
36	5	1161	G	C5-C6-O6	-7.26	124.24	128.60
36	5	2821	C	N1-C2-O2	-7.26	114.54	118.90
36	1	3045	G	C2-N3-C4	7.26	115.53	111.90
38	4	40	A	N1-C6-N6	7.25	122.95	118.60
1	6	609	U	C5-C4-O4	7.25	130.25	125.90
36	5	1874	A	C8-N9-C4	7.25	108.70	105.80
36	1	798	G	C8-N9-C4	-7.25	103.50	106.40
36	5	3309	G	N3-C4-C5	-7.25	124.97	128.60
36	5	1124	U	C4-C5-C6	-7.25	115.35	119.70
36	5	2850	G	C5-C6-O6	-7.25	124.25	128.60
36	5	1132	C	O5'-P-OP1	-7.25	99.18	105.70
36	1	1838	G	C4-C5-N7	7.25	113.70	110.80
1	2	581	U	C2-N1-C1'	7.24	126.39	117.70
36	1	939	U	O5'-P-OP2	-7.24	99.18	105.70
36	1	1002	A	C8-N9-C4	7.24	108.70	105.80
36	1	1103	A	O5'-P-OP1	-7.24	99.18	105.70
36	1	2293	C	C5-C4-N4	-7.24	115.13	120.20
36	1	2636	A	N7-C8-N9	7.24	117.42	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	542	A	N7-C8-N9	7.24	117.42	113.80
36	1	2671	A	O5'-P-OP2	-7.24	99.19	105.70
36	1	358	G	C8-N9-C4	7.24	109.29	106.40
36	1	2414	G	O5'-P-OP2	-7.23	99.19	105.70
1	2	145	A	C8-N9-C4	-7.23	102.91	105.80
1	2	1274	C	N3-C2-O2	-7.23	116.84	121.90
36	1	2996	U	N1-C2-O2	7.23	127.86	122.80
36	1	347	G	C5-C6-O6	-7.23	124.26	128.60
36	5	1187	C	N1-C2-O2	7.23	123.24	118.90
36	1	2700	G	C6-C5-N7	-7.23	126.06	130.40
36	5	3188	G	N3-C4-C5	-7.23	124.99	128.60
36	1	2371	G	C5-C6-O6	-7.22	124.27	128.60
36	5	1284	C	C6-N1-C2	-7.22	117.41	120.30
36	5	871	U	C5-C4-O4	7.22	130.23	125.90
36	1	2572	C	N3-C2-O2	-7.22	116.84	121.90
36	5	2699	G	C5-C6-O6	-7.22	124.27	128.60
36	5	1377	G	C5-C6-O6	-7.22	124.27	128.60
36	5	897	U	O5'-P-OP1	-7.22	99.20	105.70
36	1	2878	G	O5'-P-OP1	7.21	119.36	110.70
1	6	696	C	O4'-C1'-N1	7.21	113.97	108.20
36	5	2147	A	C4-C5-N7	7.21	114.30	110.70
36	1	102	C	N1-C2-O2	-7.21	114.58	118.90
36	5	395	A	C5-C6-N6	-7.21	117.94	123.70
36	5	1846	C	C6-N1-C2	7.21	123.18	120.30
36	5	2334	U	O5'-P-OP2	-7.21	99.22	105.70
36	1	54	C	N3-C4-C5	7.21	124.78	121.90
36	1	1741	A	N1-C6-N6	7.20	122.92	118.60
36	5	776	U	C4-C5-C6	7.20	124.02	119.70
36	1	1429	G	C2-N3-C4	7.20	115.50	111.90
36	1	3013	U	O5'-P-OP2	-7.20	99.22	105.70
1	6	1280	C	N3-C4-C5	-7.20	119.02	121.90
36	5	1317	A	N1-C2-N3	-7.20	125.70	129.30
36	1	1310	G	N1-C2-N2	-7.20	109.72	116.20
36	1	2818	U	C5-C6-N1	7.20	126.30	122.70
36	1	410	U	C6-N1-C2	-7.19	116.68	121.00
1	6	1764	C	C6-N1-C2	7.19	123.18	120.30
36	1	2875	U	N3-C4-O4	7.19	124.43	119.40
36	5	1481	A	P-O3'-C3'	7.19	128.33	119.70
35	SM	135	ALA	N-CA-CB	7.19	120.16	110.10
36	5	2249	G	C8-N9-C4	-7.19	103.53	106.40
52	m6	78	ARG	NE-CZ-NH2	-7.19	116.71	120.30
1	2	61	A	C5-N7-C8	-7.18	100.31	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1506	A	N1-C6-N6	-7.18	114.29	118.60
36	1	893	C	C5-C6-N1	7.18	124.59	121.00
36	5	2234	G	C8-N9-C4	7.18	109.27	106.40
1	2	602	U	O5'-P-OP1	-7.18	99.24	105.70
36	1	2725	U	C5-C4-O4	7.18	130.21	125.90
36	1	2730	G	N3-C2-N2	-7.18	114.87	119.90
1	6	67	A	N1-C6-N6	7.18	122.91	118.60
36	5	200	C	C5-C4-N4	-7.18	115.17	120.20
36	1	806	A	O5'-P-OP1	-7.18	99.24	105.70
36	5	211	A	O5'-P-OP1	-7.17	99.24	105.70
36	5	1429	G	N3-C4-N9	7.17	130.30	126.00
36	5	225	C	O5'-P-OP1	-7.17	99.25	105.70
36	5	816	A	C8-N9-C4	-7.17	102.93	105.80
38	4	120	C	N1-C2-O2	-7.17	114.60	118.90
36	5	53	G	O5'-P-OP2	-7.17	99.25	105.70
36	5	3060	C	N1-C2-O2	-7.17	114.60	118.90
38	8	26	U	O5'-P-OP2	-7.16	99.25	105.70
36	5	934	G	N1-C6-O6	7.16	124.20	119.90
36	5	2827	U	O4'-C1'-N1	7.16	113.92	108.20
1	2	1749	A	N1-C6-N6	7.15	122.89	118.60
1	6	337	G	C4-N9-C1'	7.15	135.80	126.50
36	5	3105	U	C6-N1-C1'	7.15	131.22	121.20
36	5	1158	A	N9-C4-C5	-7.15	102.94	105.80
36	5	1445	U	N3-C2-O2	7.15	127.20	122.20
36	1	645	A	C5-C6-N1	7.15	121.27	117.70
36	1	637	C	O5'-P-OP2	-7.14	99.27	105.70
36	1	2121	G	N3-C4-C5	-7.14	125.03	128.60
36	5	1140	G	OP1-P-O3'	7.14	120.91	105.20
1	2	1761	U	C5-C4-O4	7.14	130.19	125.90
36	1	2758	A	N7-C8-N9	-7.14	110.23	113.80
36	5	607	A	N1-C6-N6	-7.14	114.32	118.60
36	5	2644	C	N1-C2-O2	-7.14	114.62	118.90
36	1	1180	A	N1-C6-N6	-7.14	114.32	118.60
36	1	2187	G	C6-C5-N7	-7.14	126.12	130.40
36	1	3201	C	C6-N1-C2	-7.14	117.45	120.30
36	5	1911	A	C2-N3-C4	-7.14	107.03	110.60
36	1	2850	G	C4-C5-N7	7.13	113.65	110.80
36	5	63	A	C5-C6-N6	-7.13	118.00	123.70
36	5	960	U	N3-C4-C5	7.13	118.88	114.60
36	5	2366	C	C6-N1-C2	-7.13	117.45	120.30
36	1	1489	A	N1-C6-N6	7.13	122.88	118.60
36	1	1902	G	C4-C5-N7	7.13	113.65	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3154	C	C2-N1-C1'	7.13	126.64	118.80
36	5	2616	C	N3-C4-C5	7.13	124.75	121.90
36	1	1329	U	C2-N1-C1'	7.12	126.25	117.70
1	6	639	U	N3-C2-O2	-7.12	117.21	122.20
36	5	1181	U	C5-C6-N1	-7.12	119.14	122.70
36	1	808	A	N1-C2-N3	7.12	132.86	129.30
37	3	84	A	C5-C6-N6	-7.12	118.00	123.70
36	5	116	A	O4'-C1'-N9	7.12	113.90	108.20
1	6	1641	C	N1-C2-O2	-7.12	114.63	118.90
36	5	2271	A	C8-N9-C4	7.12	108.65	105.80
37	7	77	G	N9-C4-C5	-7.12	102.55	105.40
36	1	2371	G	OP2-P-O3'	7.11	120.85	105.20
36	5	2849	C	N1-C2-O2	-7.11	114.63	118.90
36	1	96	G	C2-N3-C4	-7.11	108.35	111.90
36	5	1367	G	C5-C6-N1	-7.11	107.95	111.50
36	1	3139	A	O5'-P-OP1	-7.11	99.31	105.70
38	4	24	G	N1-C6-O6	7.11	124.16	119.90
36	1	1381	A	O5'-P-OP1	-7.10	99.31	105.70
36	1	960	U	C6-N1-C1'	7.10	131.14	121.20
36	1	1370	G	C4-C5-N7	7.10	113.64	110.80
36	1	2314	U	N3-C2-O2	7.10	127.17	122.20
38	4	113	U	C4-C5-C6	7.10	123.96	119.70
1	6	438	A	O5'-P-OP1	-7.10	99.31	105.70
1	2	1012	U	C2-N3-C4	7.09	131.26	127.00
36	1	2860	U	N3-C2-O2	7.09	127.17	122.20
36	1	2812	C	O5'-P-OP2	7.09	119.21	110.70
36	5	1311	G	C2-N3-C4	7.09	115.45	111.90
36	1	2137	U	O5'-P-OP2	-7.09	99.32	105.70
36	1	2836	C	N3-C2-O2	-7.09	116.94	121.90
36	5	945	C	C6-N1-C2	7.09	123.13	120.30
36	5	1368	U	C5-C4-O4	-7.09	121.65	125.90
36	1	939	U	C5-C4-O4	-7.08	121.65	125.90
36	1	1116	G	OP2-P-O3'	7.08	120.78	105.20
36	1	2372	A	C2-N3-C4	7.08	114.14	110.60
36	5	3078	U	N1-C2-O2	7.08	127.75	122.80
1	6	1568	C	C2-N1-C1'	7.07	126.58	118.80
36	1	1949	G	O5'-P-OP1	-7.07	99.34	105.70
1	2	1129	U	C2-N1-C1'	-7.07	109.22	117.70
10	S8	29	LEU	CA-CB-CG	7.07	131.56	115.30
36	1	341	G	C5-C6-O6	-7.07	124.36	128.60
1	6	610	G	C8-N9-C1'	-7.07	117.81	127.00
1	2	1473	U	N3-C2-O2	-7.06	117.26	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	979	U	O4'-C1'-N1	7.06	113.85	108.20
36	1	2983	C	C4-C5-C6	7.06	120.93	117.40
36	5	1317	A	C2-N3-C4	7.06	114.13	110.60
36	1	1103	A	O5'-P-OP2	7.06	119.17	110.70
36	1	785	G	C2-N3-C4	7.06	115.43	111.90
36	1	2397	A	O5'-P-OP2	-7.05	99.35	105.70
36	1	2964	G	O5'-P-OP2	-7.05	99.35	105.70
36	5	1116	G	C4-C5-C6	7.05	123.03	118.80
36	1	2982	A	C6-N1-C2	-7.05	114.37	118.60
36	5	2831	G	C5-C6-O6	-7.05	124.37	128.60
1	2	831	U	C5-C6-N1	7.05	126.23	122.70
36	1	2366	C	C2-N1-C1'	7.05	126.55	118.80
1	6	337	G	C8-N9-C1'	-7.05	117.84	127.00
36	5	2816	G	C5-C6-O6	-7.05	124.37	128.60
36	1	614	C	N3-C4-C5	7.05	124.72	121.90
36	5	2644	C	O5'-P-OP1	-7.04	99.36	105.70
38	4	32	C	N3-C2-O2	7.04	126.83	121.90
1	2	934	C	C2-N1-C1'	7.04	126.55	118.80
36	5	784	A	N1-C6-N6	7.04	122.83	118.60
36	1	895	A	C4-C5-N7	7.04	114.22	110.70
36	1	2409	G	C2-N3-C4	7.04	115.42	111.90
52	M6	128	ARG	NE-CZ-NH1	-7.04	116.78	120.30
36	5	2112	U	C6-N1-C2	-7.04	116.78	121.00
36	5	2887	A	N1-C6-N6	7.04	122.82	118.60
36	5	645	A	C6-N1-C2	-7.03	114.38	118.60
36	5	2419	A	C8-N9-C4	-7.03	102.99	105.80
37	7	112	G	C8-N9-C4	-7.03	103.59	106.40
36	1	908	G	O4'-C1'-N9	-7.03	102.58	108.20
36	5	1321	G	C5-C6-O6	-7.03	124.38	128.60
36	5	2372	A	OP2-P-O3'	7.03	120.67	105.20
36	1	2700	G	N1-C6-O6	7.03	124.12	119.90
36	5	3082	C	N3-C2-O2	-7.02	116.99	121.90
1	2	310	C	C6-N1-C2	-7.02	117.49	120.30
36	1	693	A	N1-C6-N6	7.02	122.81	118.60
36	1	835	G	O4'-C1'-N9	7.02	113.81	108.20
36	1	810	A	C5-C6-N1	7.01	121.21	117.70
36	5	3055	U	C5-C4-O4	-7.01	121.69	125.90
38	4	125	U	C2-N1-C1'	7.01	126.11	117.70
36	5	410	U	N3-C4-C5	-7.01	110.40	114.60
36	5	2621	G	N3-C2-N2	-7.01	115.00	119.90
36	1	3316	A	C2-N3-C4	-7.00	107.10	110.60
36	1	2385	G	N3-C4-C5	7.00	132.10	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2610	G	C5-C6-O6	-7.00	124.40	128.60
36	5	962	A	N9-C4-C5	-7.00	103.00	105.80
36	5	1101	G	N3-C2-N2	7.00	124.80	119.90
36	5	2400	G	C4-C5-N7	7.00	113.60	110.80
36	1	1279	C	C6-N1-C2	-7.00	117.50	120.30
38	8	84	C	C6-N1-C2	-7.00	117.50	120.30
38	4	19	C	C6-N1-C2	-7.00	117.50	120.30
36	5	3089	C	C5-C6-N1	7.00	124.50	121.00
36	1	2412	G	C5-C6-O6	-6.99	124.40	128.60
1	6	1778	G	C8-N9-C4	-6.99	103.60	106.40
38	4	109	A	C5-C6-N6	-6.99	118.11	123.70
1	6	812	A	N1-C6-N6	6.99	122.79	118.60
36	1	346	C	C5-C6-N1	-6.99	117.51	121.00
36	1	968	G	C8-N9-C4	-6.98	103.61	106.40
37	7	94	C	C5-C6-N1	6.98	124.49	121.00
36	1	699	A	C2-N3-C4	-6.98	107.11	110.60
36	1	1303	A	N7-C8-N9	-6.98	110.31	113.80
36	5	2174	G	N1-C6-O6	6.98	124.09	119.90
36	1	2369	G	N1-C6-O6	6.98	124.09	119.90
36	1	2996	U	C6-N1-C1'	-6.98	111.43	121.20
36	5	2851	A	C2-N3-C4	-6.97	107.11	110.60
36	5	3013	U	O5'-P-OP2	-6.97	99.42	105.70
36	1	793	C	N1-C2-O2	-6.97	114.72	118.90
36	5	2749	G	O5'-P-OP1	-6.97	99.42	105.70
36	1	1741	A	C2-N3-C4	-6.97	107.11	110.60
1	6	1004	U	N1-C2-N3	6.97	119.08	114.90
36	5	952	A	O5'-P-OP2	-6.97	99.43	105.70
36	5	2666	C	O5'-P-OP2	-6.97	99.43	105.70
36	1	1177	G	N3-C4-N9	6.96	130.18	126.00
36	1	2870	C	C6-N1-C1'	6.96	129.16	120.80
36	1	1304	A	O5'-P-OP1	-6.96	99.44	105.70
36	1	217	U	OP1-P-O3'	6.96	120.51	105.20
12	C0	88	PRO	N-CA-CB	6.96	111.65	103.30
36	1	1440	G	O5'-P-OP1	-6.96	99.44	105.70
36	1	1556	C	N1-C2-O2	6.96	123.07	118.90
36	1	2983	C	C5-C4-N4	6.96	125.07	120.20
36	5	1496	C	C2-N1-C1'	6.96	126.45	118.80
36	5	2191	U	N3-C4-O4	-6.96	114.53	119.40
36	1	994	G	N1-C6-O6	-6.95	115.73	119.90
36	5	1513	G	N3-C4-C5	-6.95	125.12	128.60
36	5	3218	A	C5-N7-C8	-6.95	100.42	103.90
36	1	680	G	C8-N9-C4	6.95	109.18	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2146	C	N3-C4-C5	6.95	124.68	121.90
36	1	386	A	N1-C6-N6	6.95	122.77	118.60
36	1	3055	U	C5-C4-O4	-6.95	121.73	125.90
38	4	82	U	N1-C2-O2	-6.95	117.94	122.80
36	1	3120	C	O5'-P-OP2	-6.95	99.45	105.70
36	1	940	G	O5'-P-OP1	-6.94	99.45	105.70
36	1	2620	G	C8-N9-C4	6.94	109.18	106.40
36	1	3210	A	N1-C6-N6	-6.94	114.44	118.60
1	6	609	U	N3-C4-O4	-6.94	114.54	119.40
36	5	1847	A	O5'-P-OP2	-6.94	99.45	105.70
36	5	2287	C	C6-N1-C2	-6.94	117.52	120.30
36	1	1300	G	C5-C6-O6	-6.94	124.44	128.60
36	5	924	G	N1-C6-O6	6.94	124.06	119.90
36	1	116	A	O4'-C1'-N9	6.94	113.75	108.20
36	1	2356	A	C5-N7-C8	-6.94	100.43	103.90
36	5	1450	G	C5-C6-O6	-6.94	124.44	128.60
36	5	1184	A	N1-C6-N6	-6.93	114.44	118.60
36	5	3186	A	N1-C6-N6	-6.93	114.44	118.60
36	1	1902	G	C5-N7-C8	-6.93	100.83	104.30
36	1	2827	U	C5-C6-N1	-6.93	119.23	122.70
36	1	972	A	N7-C8-N9	-6.93	110.33	113.80
36	5	987	U	O5'-P-OP1	-6.93	99.46	105.70
36	1	2827	U	N3-C4-O4	-6.93	114.55	119.40
36	1	1643	A	C8-N9-C4	6.92	108.57	105.80
36	1	286	U	N1-C2-N3	6.92	119.05	114.90
36	1	1904	C	C6-N1-C2	-6.92	117.53	120.30
36	5	530	G	N9-C4-C5	6.92	108.17	105.40
36	5	1149	G	N1-C6-O6	6.92	124.05	119.90
36	1	689	U	N1-C2-O2	6.92	127.64	122.80
36	1	2283	G	C6-C5-N7	-6.92	126.25	130.40
36	5	3245	A	C5-C6-N6	-6.92	118.17	123.70
36	1	802	C	C6-N1-C2	-6.91	117.53	120.30
36	1	2639	G	N9-C4-C5	-6.91	102.64	105.40
36	5	109	A	O5'-P-OP2	-6.91	99.48	105.70
36	5	2601	A	N1-C6-N6	-6.91	114.45	118.60
36	5	2830	G	N1-C2-N3	6.91	128.05	123.90
36	1	3201	C	N3-C4-C5	-6.91	119.14	121.90
38	4	24	G	C5-C6-O6	-6.91	124.46	128.60
1	6	981	U	N1-C2-N3	6.91	119.04	114.90
36	1	919	U	N3-C4-C5	6.90	118.74	114.60
36	1	1849	C	N3-C2-O2	6.90	126.73	121.90
36	5	3115	C	N1-C2-O2	-6.90	114.76	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	15	U	C6-N1-C2	-6.90	116.86	121.00
36	1	2114	C	O5'-P-OP2	-6.90	99.49	105.70
37	7	68	C	N1-C2-O2	6.90	123.04	118.90
36	1	85	A	C2-N3-C4	-6.90	107.15	110.60
36	1	890	C	C6-N1-C2	-6.90	117.54	120.30
36	1	1520	G	N7-C8-N9	-6.90	109.65	113.10
1	2	581	U	C5-C6-N1	6.89	126.15	122.70
36	1	2944	U	N1-C2-O2	6.89	127.63	122.80
1	6	158	U	P-O3'-C3'	6.89	127.97	119.70
37	7	101	G	C4-C5-N7	6.89	113.56	110.80
36	1	2144	A	C5-C6-N1	6.89	121.15	117.70
36	5	682	U	C2-N1-C1'	-6.89	109.43	117.70
1	2	1431	C	C6-N1-C2	6.89	123.06	120.30
36	5	640	U	N3-C2-O2	6.89	127.02	122.20
36	5	962	A	C4-C5-N7	6.89	114.14	110.70
36	5	2881	C	N3-C2-O2	6.89	126.72	121.90
44	17	232	ARG	NE-CZ-NH1	-6.89	116.86	120.30
36	1	1495	U	C6-N1-C1'	6.89	130.84	121.20
36	1	2314	U	C5-C4-O4	-6.89	121.77	125.90
1	2	42	G	N1-C6-O6	-6.88	115.77	119.90
36	1	3144	G	O5'-P-OP1	-6.88	99.50	105.70
37	3	45	A	O5'-P-OP2	-6.88	99.50	105.70
1	6	383	G	C8-N9-C4	-6.88	103.65	106.40
36	5	614	C	N3-C4-C5	6.88	124.65	121.90
36	5	1305	U	N3-C4-O4	6.88	124.22	119.40
36	5	640	U	N3-C4-O4	6.88	124.21	119.40
36	5	2897	A	C6-N1-C2	-6.88	114.47	118.60
36	1	672	A	C8-N9-C4	6.88	108.55	105.80
36	5	857	G	N1-C6-O6	6.88	124.03	119.90
36	5	2377	G	C5-C6-O6	6.88	132.72	128.60
36	1	366	A	O5'-P-OP2	-6.87	99.51	105.70
36	5	96	G	N1-C6-O6	6.87	124.02	119.90
36	1	2249	G	N3-C4-C5	-6.87	125.16	128.60
36	5	1115	G	N7-C8-N9	6.87	116.54	113.10
36	1	49	A	N1-C6-N6	6.87	122.72	118.60
38	4	111	A	N9-C4-C5	-6.87	103.05	105.80
38	4	95	G	C4-N9-C1'	-6.87	117.57	126.50
36	5	1371	G	C2-N3-C4	6.87	115.33	111.90
36	5	1858	A	O4'-C1'-N9	6.87	113.69	108.20
36	1	374	A	N9-C4-C5	6.87	108.55	105.80
36	5	2354	C	N3-C4-N4	6.87	122.81	118.00
36	1	798	G	N3-C2-N2	-6.86	115.09	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2853	A	C8-N9-C4	-6.86	103.06	105.80
36	5	358	G	N1-C6-O6	6.86	124.02	119.90
36	1	609	G	O5'-P-OP2	-6.86	99.52	105.70
36	1	2392	C	C5-C4-N4	-6.86	115.40	120.20
36	5	942	U	N3-C4-O4	6.86	124.20	119.40
36	5	1014	U	C2-N1-C1'	6.86	125.93	117.70
36	1	612	U	C5-C6-N1	-6.85	119.27	122.70
38	4	15	G	N9-C4-C5	-6.85	102.66	105.40
36	1	790	U	N3-C2-O2	-6.85	117.41	122.20
36	1	2550	U	N1-C2-N3	6.85	119.01	114.90
36	1	590	G	N1-C6-O6	6.85	124.01	119.90
36	1	1050	U	N1-C2-O2	6.85	127.59	122.80
36	5	2832	C	N3-C4-N4	-6.85	113.21	118.00
1	2	577	G	C5-N7-C8	-6.84	100.88	104.30
36	1	1392	G	N3-C4-C5	-6.84	125.18	128.60
36	5	2354	C	N3-C2-O2	6.84	126.69	121.90
36	5	3185	U	O5'-P-OP2	-6.84	99.54	105.70
36	5	1134	G	O5'-P-OP2	-6.84	99.54	105.70
1	6	749	U	C6-N1-C2	-6.84	116.89	121.00
36	5	651	G	N3-C4-N9	6.84	130.10	126.00
36	5	1437	C	C2-N1-C1'	6.84	126.33	118.80
36	5	2634	U	N3-C4-O4	6.84	124.19	119.40
38	8	3	A	N1-C2-N3	-6.84	125.88	129.30
36	1	890	C	O5'-P-OP2	-6.84	99.55	105.70
1	6	371	G	C8-N9-C1'	-6.84	118.11	127.00
1	6	392	G	O5'-P-OP2	-6.84	99.55	105.70
36	5	1429	G	N9-C4-C5	-6.84	102.66	105.40
36	5	639	G	N1-C6-O6	6.84	124.00	119.90
36	5	741	U	O5'-P-OP1	-6.84	99.55	105.70
36	1	72	C	C2-N1-C1'	-6.84	111.28	118.80
36	1	2623	G	N1-C2-N2	-6.84	110.05	116.20
36	5	2327	U	C5-C6-N1	-6.84	119.28	122.70
36	5	3049	A	C6-N1-C2	6.84	122.70	118.60
36	1	2729	U	O5'-P-OP1	-6.83	99.55	105.70
36	5	2411	U	N3-C4-C5	6.83	118.70	114.60
36	5	2796	G	N3-C2-N2	6.83	124.68	119.90
36	1	648	C	O5'-P-OP1	-6.83	99.55	105.70
36	1	1661	G	N9-C4-C5	-6.83	102.67	105.40
36	5	2927	C	C6-N1-C2	-6.83	117.57	120.30
1	2	1611	A	N1-C2-N3	6.83	132.72	129.30
36	1	867	G	N3-C2-N2	-6.83	115.12	119.90
1	6	1777	G	C5-C6-O6	-6.83	124.50	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	l3	4	ARG	NE-CZ-NH1	6.83	123.71	120.30
36	5	2945	G	O5'-P-OP1	6.83	118.89	110.70
36	1	820	A	C8-N9-C4	-6.82	103.07	105.80
36	1	3248	C	C6-N1-C2	-6.82	117.57	120.30
1	6	542	A	C8-N9-C4	-6.82	103.07	105.80
36	5	2858	U	C6-N1-C2	-6.82	116.91	121.00
36	5	2813	A	C8-N9-C4	-6.82	103.07	105.80
36	5	227	G	N1-C6-O6	6.82	123.99	119.90
36	5	1897	G	C5-C6-O6	-6.82	124.51	128.60
36	5	2383	C	N1-C2-O2	-6.82	114.81	118.90
38	8	111	A	N1-C6-N6	6.82	122.69	118.60
36	1	979	U	N1-C2-N3	6.81	118.99	114.90
36	5	48	A	C8-N9-C4	-6.81	103.07	105.80
36	5	957	C	C6-N1-C2	-6.81	117.57	120.30
36	5	1335	C	N1-C2-O2	-6.81	114.81	118.90
36	5	2751	G	C4-C5-N7	6.81	113.53	110.80
36	5	1113	G	C5-C6-N1	-6.81	108.09	111.50
1	6	359	A	N1-C2-N3	-6.81	125.90	129.30
36	5	2865	U	C5-C6-N1	6.80	126.10	122.70
36	1	1837	U	N1-C2-O2	-6.80	118.04	122.80
36	1	2699	G	C6-C5-N7	-6.80	126.32	130.40
36	5	1304	A	N1-C6-N6	6.80	122.68	118.60
36	5	1851	G	C6-C5-N7	-6.80	126.32	130.40
36	5	869	G	N1-C6-O6	-6.80	115.82	119.90
36	5	3309	G	C4-N9-C1'	6.80	135.34	126.50
1	6	308	C	N3-C4-N4	-6.80	113.24	118.00
36	5	1886	A	O5'-P-OP2	-6.80	99.58	105.70
36	1	1157	G	C4-C5-N7	-6.79	108.08	110.80
36	5	2727	A	N3-C4-C5	-6.79	122.04	126.80
36	5	2818	U	O5'-P-OP1	-6.79	99.58	105.70
1	2	1773	C	N3-C4-N4	6.79	122.75	118.00
36	1	1157	G	OP2-P-O3'	6.79	120.14	105.20
36	5	3004	C	C6-N1-C2	6.79	123.02	120.30
36	1	226	C	N3-C4-C5	-6.79	119.19	121.90
36	1	2873	U	C5-C4-O4	6.79	129.97	125.90
36	5	43	A	O4'-C1'-N9	6.79	113.63	108.20
36	5	414	U	N3-C4-O4	6.79	124.15	119.40
36	5	3278	C	C2-N1-C1'	-6.79	111.33	118.80
35	SM	167	PRO	N-CA-CB	6.79	111.44	103.30
36	1	2197	C	N1-C2-N3	-6.79	114.45	119.20
36	1	2944	U	N3-C4-C5	6.79	118.67	114.60
36	1	870	G	O5'-P-OP2	-6.78	99.59	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	29	U	C5-C4-O4	6.78	129.97	125.90
36	5	3215	A	N1-C6-N6	6.78	122.67	118.60
36	1	500	C	C4-C5-C6	6.78	120.79	117.40
36	1	1154	A	C8-N9-C4	-6.78	103.09	105.80
36	1	1431	G	C8-N9-C4	6.78	109.11	106.40
36	5	1628	C	C6-N1-C2	-6.78	117.59	120.30
1	6	1640	C	C2-N1-C1'	6.78	126.26	118.80
44	L7	163	LEU	CA-CB-CG	-6.78	99.71	115.30
36	5	710	A	N1-C6-N6	-6.78	114.53	118.60
36	1	3362	A	C6-C5-N7	-6.78	127.56	132.30
1	6	359	A	C4-C5-C6	-6.78	113.61	117.00
36	1	1400	G	O5'-P-OP2	-6.78	99.60	105.70
36	1	2142	A	N1-C6-N6	-6.78	114.53	118.60
36	1	2756	C	C6-N1-C2	-6.78	117.59	120.30
36	5	1302	A	C8-N9-C4	-6.78	103.09	105.80
36	1	1314	C	C6-N1-C2	-6.77	117.59	120.30
36	5	2304	C	O5'-P-OP1	-6.77	99.60	105.70
36	5	1054	A	O5'-P-OP2	-6.77	99.61	105.70
36	5	2873	U	C5-C6-N1	-6.77	119.31	122.70
36	1	1165	A	N7-C8-N9	-6.77	110.42	113.80
36	5	2411	U	C5-C6-N1	-6.77	119.31	122.70
36	5	3343	G	N3-C4-N9	6.77	130.06	126.00
36	1	2846	U	N1-C2-O2	6.77	127.54	122.80
36	1	788	C	C2-N1-C1'	-6.77	111.36	118.80
36	1	2823	G	C8-N9-C4	-6.77	103.69	106.40
36	1	2354	C	N1-C2-O2	-6.76	114.84	118.90
36	5	2404	A	N7-C8-N9	-6.76	110.42	113.80
36	5	2820	A	O5'-P-OP1	6.76	118.81	110.70
36	5	3040	A	C8-N9-C4	6.76	108.50	105.80
36	1	422	A	N9-C4-C5	6.76	108.50	105.80
37	7	104	A	N1-C6-N6	6.76	122.66	118.60
36	1	960	U	N3-C4-C5	6.76	118.65	114.60
1	6	352	A	N1-C6-N6	-6.76	114.55	118.60
36	1	347	G	C4-C5-N7	6.75	113.50	110.80
1	2	577	G	C4-C5-N7	6.75	113.50	110.80
36	1	1481	A	N1-C6-N6	6.75	122.65	118.60
36	5	2351	U	N1-C2-N3	6.75	118.95	114.90
36	5	3217	C	C2-N1-C1'	-6.75	111.37	118.80
36	5	2817	A	C2-N3-C4	6.75	113.97	110.60
1	2	647	G	N3-C4-N9	-6.74	121.95	126.00
36	5	189	G	N1-C6-O6	-6.74	115.85	119.90
36	5	584	G	N9-C4-C5	6.74	108.10	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1175	C	C6-N1-C2	6.74	123.00	120.30
1	6	815	G	C5-N7-C8	-6.74	100.93	104.30
36	5	1429	G	C5-N7-C8	-6.74	100.93	104.30
37	7	87	G	N1-C6-O6	6.74	123.94	119.90
36	5	676	G	N1-C6-O6	-6.74	115.86	119.90
36	5	1131	G	C8-N9-C4	-6.73	103.71	106.40
1	2	1432	U	C5-C4-O4	-6.73	121.86	125.90
36	1	1445	U	N3-C2-O2	6.73	126.91	122.20
38	4	40	A	C5-C6-N6	-6.73	118.31	123.70
70	O4	51	LEU	CA-CB-CG	6.73	130.78	115.30
36	5	1868	G	N9-C4-C5	-6.73	102.71	105.40
36	1	2279	A	N9-C4-C5	-6.73	103.11	105.80
1	2	321	C	N3-C2-O2	-6.73	117.19	121.90
1	2	1596	C	C6-N1-C2	-6.73	117.61	120.30
36	5	218	G	C5-N7-C8	6.73	107.66	104.30
36	5	3306	U	O5'-P-OP2	-6.73	99.65	105.70
1	2	779	U	O4'-C1'-N1	6.72	113.58	108.20
36	1	2372	A	N3-C4-C5	-6.72	122.09	126.80
36	5	1495	U	N3-C4-C5	-6.72	110.57	114.60
36	1	905	U	N1-C2-O2	-6.72	118.09	122.80
38	4	30	C	O5'-P-OP1	-6.72	99.65	105.70
36	1	1520	G	C4-C5-N7	-6.72	108.11	110.80
36	1	2422	C	N1-C2-O2	6.72	122.93	118.90
36	1	3183	A	C5-C6-N6	-6.72	118.33	123.70
1	6	1782	A	C8-N9-C4	-6.72	103.11	105.80
36	5	1301	A	C4-C5-N7	6.72	114.06	110.70
36	1	908	G	C8-N9-C1'	-6.72	118.27	127.00
36	1	3110	C	C6-N1-C2	-6.72	117.61	120.30
36	5	1879	A	C6-C5-N7	-6.72	127.60	132.30
1	2	1033	C	N1-C2-O2	6.71	122.93	118.90
36	1	3182	G	N3-C4-N9	-6.71	121.97	126.00
36	5	2849	C	N3-C4-N4	6.71	122.70	118.00
36	5	1856	C	C6-N1-C2	-6.71	117.61	120.30
36	5	2365	C	C6-N1-C2	6.71	122.98	120.30
36	5	3377	G	N1-C6-O6	6.71	123.93	119.90
36	5	960	U	C5-C6-N1	-6.71	119.34	122.70
36	5	2636	A	N1-C6-N6	-6.71	114.57	118.60
36	1	3305	A	N1-C6-N6	-6.71	114.57	118.60
36	1	2293	C	N3-C4-N4	6.71	122.69	118.00
36	5	3285	C	C2-N1-C1'	6.71	126.18	118.80
37	7	103	A	N1-C6-N6	6.71	122.62	118.60
36	5	3218	A	N9-C4-C5	-6.71	103.12	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2664	C	C6-N1-C2	-6.70	117.62	120.30
18	C6	40	GLU	C-N-CD	-6.70	105.86	120.60
36	1	67	A	N1-C6-N6	6.70	122.62	118.60
36	1	2372	A	C5-C6-N6	-6.70	118.34	123.70
36	1	2889	C	N3-C2-O2	-6.70	117.21	121.90
36	5	360	G	C5-C6-N1	-6.70	108.15	111.50
36	5	640	U	C5-C4-O4	-6.70	121.88	125.90
36	5	2728	G	N9-C4-C5	6.70	108.08	105.40
36	1	2699	G	C4-C5-N7	6.69	113.48	110.80
1	6	272	U	P-O3'-C3'	6.69	127.73	119.70
1	2	1302	U	N1-C2-O2	-6.69	118.12	122.80
36	5	966	U	C6-N1-C2	-6.69	116.98	121.00
36	5	2792	A	C8-N9-C4	-6.69	103.12	105.80
36	5	1390	A	N1-C6-N6	-6.69	114.59	118.60
36	1	2889	C	C6-N1-C2	-6.69	117.62	120.30
1	6	1764	C	N3-C4-C5	6.69	124.58	121.90
36	1	1425	U	N3-C2-O2	-6.69	117.52	122.20
36	5	1329	U	OP1-P-O3'	6.69	119.91	105.20
36	1	797	U	OP2-P-O3'	6.69	119.91	105.20
36	1	820	A	N7-C8-N9	6.69	117.14	113.80
1	6	339	C	N1-C2-O2	-6.69	114.89	118.90
36	5	933	A	N1-C2-N3	6.69	132.64	129.30
36	1	2130	G	N1-C6-O6	-6.68	115.89	119.90
36	1	1180	A	C4-C5-N7	-6.68	107.36	110.70
36	5	592	A	C8-N9-C4	6.68	108.47	105.80
36	5	2377	G	N1-C6-O6	-6.68	115.89	119.90
36	5	3212	C	N1-C2-O2	-6.68	114.89	118.90
36	5	1205	A	O5'-P-OP2	-6.68	99.69	105.70
36	1	2376	G	C8-N9-C4	-6.68	103.73	106.40
1	6	44	U	N1-C2-O2	-6.68	118.13	122.80
1	6	371	G	C6-C5-N7	-6.68	126.39	130.40
36	5	2851	A	N1-C2-N3	6.68	132.64	129.30
73	o7	11	ARG	NE-CZ-NH1	-6.68	116.96	120.30
1	2	1600	A	C5-C6-N1	-6.67	114.36	117.70
36	5	2954	U	N1-C2-O2	6.67	127.47	122.80
36	1	894	G	N1-C6-O6	6.67	123.90	119.90
36	1	314	U	N1-C2-O2	6.67	127.47	122.80
36	1	608	A	C6-C5-N7	-6.67	127.63	132.30
36	5	1375	G	C2-N3-C4	6.66	115.23	111.90
36	5	2255	A	O5'-P-OP1	-6.66	99.70	105.70
36	1	2418	G	C2-N3-C4	6.66	115.23	111.90
36	5	2828	G	C4-C5-N7	6.66	113.46	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	969	C	N1-C2-O2	-6.66	114.90	118.90
36	5	63	A	C4-C5-C6	6.66	120.33	117.00
36	5	1454	A	O5'-P-OP2	-6.66	99.71	105.70
36	1	1365	G	N3-C4-N9	6.66	129.99	126.00
36	1	2121	G	N1-C6-O6	-6.65	115.91	119.90
36	1	2373	A	C8-N9-C4	-6.65	103.14	105.80
36	1	2993	G	N9-C4-C5	-6.65	102.74	105.40
1	6	1781	A	C8-N9-C4	-6.65	103.14	105.80
36	5	3335	A	N1-C6-N6	6.65	122.59	118.60
36	1	3361	G	N3-C4-N9	6.65	129.99	126.00
36	1	1124	U	C4-C5-C6	-6.65	115.71	119.70
36	5	691	A	O5'-P-OP1	-6.65	99.72	105.70
36	5	2772	C	P-O3'-C3'	6.65	127.68	119.70
1	2	1324	G	N3-C2-N2	-6.64	115.25	119.90
1	2	1339	C	C5-C6-N1	6.64	124.32	121.00
36	1	2142	A	C6-N1-C2	-6.64	114.61	118.60
36	5	1192	C	N3-C4-C5	6.64	124.56	121.90
36	5	3050	U	N3-C2-O2	-6.64	117.55	122.20
1	6	1773	C	N1-C2-O2	-6.64	114.92	118.90
38	8	43	A	C8-N9-C4	-6.64	103.14	105.80
36	1	2647	A	C8-N9-C4	-6.64	103.14	105.80
36	5	927	C	O5'-P-OP1	-6.64	99.72	105.70
36	5	2365	C	C5-C6-N1	-6.64	117.68	121.00
36	5	1180	A	N9-C4-C5	6.64	108.45	105.80
36	5	2630	C	N1-C2-O2	-6.64	114.92	118.90
36	1	229	G	N1-C6-O6	6.63	123.88	119.90
36	5	1308	A	OP1-P-OP2	-6.63	109.65	119.60
36	1	999	G	C5-C6-N1	6.63	114.82	111.50
36	1	1332	A	N7-C8-N9	6.63	117.12	113.80
36	5	826	G	N3-C4-N9	-6.63	122.02	126.00
1	2	593	U	O5'-P-OP1	-6.63	99.73	105.70
36	1	1339	C	N1-C2-O2	-6.63	114.92	118.90
1	2	507	U	N1-C2-O2	6.63	127.44	122.80
36	1	2389	C	O5'-P-OP1	-6.63	99.74	105.70
53	M7	131	ARG	NE-CZ-NH1	-6.62	116.99	120.30
1	2	507	U	N3-C2-O2	-6.62	117.56	122.20
37	7	92	A	N1-C6-N6	6.62	122.57	118.60
36	1	1196	C	C6-N1-C2	6.62	122.95	120.30
36	1	2850	G	C5-C6-O6	-6.62	124.63	128.60
36	1	1300	G	N1-C6-O6	6.62	123.87	119.90
1	2	1198	G	C8-N9-C4	-6.61	103.75	106.40
36	5	3123	A	C8-N9-C4	6.61	108.45	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	971	G	N1-C6-O6	6.61	123.87	119.90
36	1	2419	A	OP1-P-OP2	-6.61	109.69	119.60
36	5	2364	G	N1-C6-O6	-6.61	115.94	119.90
36	1	2373	A	N9-C4-C5	6.61	108.44	105.80
36	1	2968	G	N1-C2-N3	6.61	127.86	123.90
36	5	2700	G	C4-C5-N7	6.61	113.44	110.80
36	5	3212	C	C6-N1-C2	6.61	122.94	120.30
36	1	2700	G	C4-C5-N7	6.61	113.44	110.80
36	5	3339	A	N1-C6-N6	6.61	122.56	118.60
1	6	1747	G	C8-N9-C4	6.60	109.04	106.40
36	1	1403	C	C6-N1-C2	6.60	122.94	120.30
36	1	2371	G	N1-C6-O6	6.60	123.86	119.90
36	5	1152	G	C5-C6-N1	-6.60	108.20	111.50
36	1	1156	C	N3-C2-O2	-6.60	117.28	121.90
38	4	25	G	N1-C6-O6	-6.60	115.94	119.90
36	5	824	C	C6-N1-C2	-6.60	117.66	120.30
36	5	2338	C	N3-C4-N4	6.60	122.62	118.00
36	5	2890	A	C5-C6-N1	-6.60	114.40	117.70
36	1	934	G	C4-N9-C1'	6.60	135.07	126.50
36	1	2839	G	O5'-P-OP2	-6.59	99.76	105.70
52	m6	68	ARG	NE-CZ-NH1	-6.59	117.00	120.30
52	M6	78	ARG	NE-CZ-NH1	6.59	123.60	120.30
1	2	287	G	O4'-C1'-N9	6.59	113.47	108.20
36	5	804	C	N3-C4-C5	-6.59	119.26	121.90
36	5	1370	G	N3-C4-N9	6.59	129.95	126.00
36	1	1507	G	C5-C6-O6	-6.59	124.65	128.60
36	1	2233	A	N1-C6-N6	-6.59	114.65	118.60
36	5	413	U	N3-C4-O4	6.59	124.01	119.40
36	5	3005	A	O5'-P-OP2	-6.59	99.77	105.70
36	5	2643	A	N1-C2-N3	-6.58	126.01	129.30
36	1	808	A	N9-C4-C5	6.58	108.43	105.80
1	6	1700	C	C6-N1-C1'	-6.58	112.90	120.80
36	5	3209	A	N7-C8-N9	6.58	117.09	113.80
36	5	740	G	N1-C6-O6	-6.58	115.95	119.90
1	2	694	U	N1-C2-O2	6.58	127.41	122.80
36	1	76	G	N9-C4-C5	6.58	108.03	105.40
36	1	994	G	N3-C4-C5	-6.58	125.31	128.60
1	6	639	U	C2-N1-C1'	6.58	125.59	117.70
1	6	1537	C	N3-C4-C5	-6.58	119.27	121.90
36	5	2892	A	C6-C5-N7	-6.58	127.70	132.30
36	5	2981	U	N1-C2-O2	6.58	127.40	122.80
37	7	37	G	N3-C4-N9	6.58	129.95	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1014	U	C6-N1-C1'	-6.57	112.00	121.20
36	5	384	A	C8-N9-C4	6.57	108.43	105.80
36	1	49	A	C8-N9-C4	6.57	108.43	105.80
36	1	1173	U	C5-C6-N1	-6.57	119.42	122.70
36	5	417	A	O5'-P-OP2	-6.57	99.79	105.70
36	5	2978	U	N3-C2-O2	-6.57	117.60	122.20
36	5	3204	C	O5'-P-OP2	-6.57	99.79	105.70
36	1	661	G	N9-C4-C5	6.57	108.03	105.40
36	5	83	U	C2-N1-C1'	6.57	125.58	117.70
36	5	1496	C	C6-N1-C1'	-6.57	112.92	120.80
36	5	3142	A	N1-C6-N6	6.56	122.54	118.60
36	1	343	U	OP2-P-O3'	6.56	119.64	105.20
36	1	374	A	C5-C6-N6	6.56	128.95	123.70
36	1	716	A	N3-C4-C5	6.56	131.39	126.80
45	L8	189	LEU	CA-CB-CG	6.56	130.39	115.30
36	5	578	A	O5'-P-OP2	6.56	118.58	110.70
36	1	388	G	N3-C2-N2	-6.56	115.31	119.90
36	1	959	C	C6-N1-C2	6.56	122.92	120.30
36	5	2971	A	N3-C4-N9	6.56	132.65	127.40
36	1	790	U	C6-N1-C2	-6.56	117.06	121.00
36	1	939	U	O5'-P-OP1	6.56	118.57	110.70
36	1	3344	A	N7-C8-N9	6.56	117.08	113.80
36	5	2843	U	N3-C2-O2	-6.56	117.61	122.20
1	6	1641	C	N3-C2-O2	6.56	126.49	121.90
36	5	639	G	C5-C6-N1	-6.56	108.22	111.50
36	5	2142	A	N1-C6-N6	-6.56	114.67	118.60
36	5	2338	C	N3-C4-C5	-6.56	119.28	121.90
36	1	3217	C	N3-C2-O2	-6.55	117.31	121.90
1	6	1514	U	N3-C4-O4	-6.55	114.81	119.40
1	2	399	A	N1-C6-N6	-6.55	114.67	118.60
36	1	1307	G	P-O3'-C3'	6.55	127.56	119.70
36	1	2403	G	O5'-P-OP2	-6.55	99.80	105.70
36	5	2928	C	N3-C4-N4	6.55	122.59	118.00
36	1	2861	U	N3-C4-O4	-6.55	114.81	119.40
36	5	984	G	C6-C5-N7	-6.55	126.47	130.40
37	7	102	A	C2-N3-C4	-6.55	107.33	110.60
36	1	421	G	C5-C6-O6	-6.55	124.67	128.60
36	5	1149	G	C5-C6-O6	-6.55	124.67	128.60
36	5	2407	C	O5'-P-OP2	-6.55	99.81	105.70
36	1	2304	C	C6-N1-C2	-6.55	117.68	120.30
36	1	670	C	C4-C5-C6	6.54	120.67	117.40
1	6	1773	C	N3-C4-N4	6.54	122.58	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	131	C	C6-N1-C2	-6.54	117.68	120.30
36	1	2986	U	N1-C2-O2	-6.54	118.22	122.80
36	5	831	G	C2-N3-C4	6.54	115.17	111.90
36	1	2093	A	C2-N3-C4	6.54	113.87	110.60
36	1	2901	G	N1-C6-O6	6.54	123.82	119.90
36	1	3101	G	C8-N9-C4	6.54	109.02	106.40
38	4	25	G	C4-C5-N7	-6.54	108.18	110.80
36	5	1878	G	C4-N9-C1'	6.54	135.00	126.50
36	5	862	U	O5'-P-OP1	-6.54	99.82	105.70
36	1	24	G	C2-N3-C4	-6.54	108.63	111.90
36	1	922	U	N3-C2-O2	-6.54	117.62	122.20
56	N0	115	ARG	NE-CZ-NH2	-6.53	117.03	120.30
25	d3	16	ARG	NE-CZ-NH2	-6.53	117.03	120.30
48	m1	12	LEU	CA-CB-CG	6.53	130.33	115.30
36	1	793	C	OP2-P-O3'	6.53	119.57	105.20
36	5	944	C	OP2-P-O3'	6.53	119.57	105.20
36	1	963	G	O5'-P-OP1	6.53	118.54	110.70
36	5	395	A	N1-C6-N6	6.53	122.52	118.60
36	5	885	U	O5'-P-OP2	-6.53	99.82	105.70
1	2	1280	C	N3-C4-N4	6.53	122.57	118.00
11	s9	3	ARG	NE-CZ-NH2	6.53	123.56	120.30
36	5	1607	U	C5-C6-N1	-6.53	119.44	122.70
36	5	2323	G	O5'-P-OP1	6.53	118.53	110.70
36	1	2632	G	N1-C6-O6	-6.53	115.98	119.90
36	5	2361	A	OP2-P-O3'	6.53	119.56	105.20
1	2	408	C	O5'-P-OP2	-6.52	99.83	105.70
36	1	646	A	C8-N9-C4	-6.52	103.19	105.80
36	1	743	C	C6-N1-C2	6.52	122.91	120.30
38	4	15	G	C8-N9-C4	6.52	109.01	106.40
36	5	217	U	OP1-P-O3'	6.52	119.55	105.20
36	5	1239	C	C6-N1-C2	-6.52	117.69	120.30
1	2	555	A	P-O3'-C3'	6.52	127.53	119.70
36	1	2245	C	C6-N1-C2	-6.52	117.69	120.30
36	5	3112	G	O5'-P-OP2	-6.52	99.83	105.70
36	5	2625	C	C6-N1-C2	6.52	122.91	120.30
36	1	611	A	O5'-P-OP2	-6.52	99.83	105.70
36	1	962	A	C6-N1-C2	-6.52	114.69	118.60
36	1	2860	U	O5'-P-OP2	-6.52	99.83	105.70
36	1	282	G	N1-C6-O6	-6.52	115.99	119.90
47	M0	57	LEU	CA-CB-CG	6.52	130.29	115.30
36	5	3088	G	N1-C6-O6	6.52	123.81	119.90
1	6	858	G	O4'-C1'-N9	6.51	113.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2148	U	N3-C2-O2	6.51	126.76	122.20
36	5	3107	U	C2-N3-C4	-6.51	123.09	127.00
1	2	864	U	N3-C2-O2	-6.51	117.64	122.20
36	1	410	U	C5-C6-N1	6.51	125.96	122.70
36	1	363	G	O5'-P-OP1	-6.51	99.84	105.70
36	5	681	U	OP2-P-O3'	6.51	119.52	105.20
36	5	2637	A	C5-C6-N6	-6.51	118.49	123.70
36	1	695	C	C5-C6-N1	-6.50	117.75	121.00
1	6	337	G	N3-C4-N9	6.50	129.90	126.00
36	5	3154	C	C6-N1-C2	-6.50	117.70	120.30
1	6	1537	C	C6-N1-C1'	6.50	128.60	120.80
36	1	2811	A	N1-C6-N6	-6.50	114.70	118.60
1	2	312	A	C8-N9-C4	-6.50	103.20	105.80
36	1	3362	A	C2-N3-C4	-6.50	107.35	110.60
36	5	2407	C	N3-C4-N4	6.50	122.55	118.00
36	1	124	U	N3-C4-O4	-6.50	114.85	119.40
36	5	915	A	N3-C4-C5	-6.50	122.25	126.80
36	5	2630	C	C2-N3-C4	-6.50	116.65	119.90
36	5	2874	G	C4-C5-N7	-6.50	108.20	110.80
36	5	1316	C	N3-C4-N4	6.49	122.55	118.00
36	5	1370	G	N3-C4-C5	-6.49	125.35	128.60
36	5	1445	U	C5-C4-O4	-6.49	122.00	125.90
36	5	2726	C	N3-C4-C5	-6.49	119.30	121.90
36	5	3382	U	N1-C2-O2	6.49	127.35	122.80
1	6	987	G	C5-C6-O6	-6.49	124.71	128.60
1	2	1324	G	N9-C4-C5	6.49	108.00	105.40
38	4	44	A	N1-C6-N6	6.49	122.49	118.60
36	1	2857	C	N3-C4-C5	6.49	124.50	121.90
1	2	1196	A	P-O3'-C3'	6.49	127.48	119.70
36	5	2407	C	N1-C2-O2	-6.49	115.01	118.90
36	1	2550	U	C6-N1-C2	-6.48	117.11	121.00
36	5	1879	A	C4-C5-N7	6.48	113.94	110.70
36	5	927	C	N3-C4-N4	6.48	122.54	118.00
36	5	2733	A	O5'-P-OP2	-6.48	99.87	105.70
38	8	18	U	O5'-P-OP2	-6.48	99.87	105.70
36	1	984	G	N3-C4-C5	-6.48	125.36	128.60
36	1	1332	A	C8-N9-C4	-6.48	103.21	105.80
36	5	40	A	N1-C6-N6	6.48	122.49	118.60
37	7	108	A	N1-C6-N6	6.48	122.48	118.60
36	1	417	A	N1-C6-N6	6.47	122.48	118.60
36	1	609	G	C5-C6-O6	-6.47	124.72	128.60
36	1	3344	A	O4'-C1'-N9	6.47	113.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3099	C	C5-C6-N1	-6.47	117.76	121.00
36	1	47	C	N3-C4-C5	-6.47	119.31	121.90
36	5	699	A	C2-N3-C4	-6.47	107.36	110.60
36	5	2867	C	C2-N3-C4	6.47	123.13	119.90
36	1	2174	G	N1-C6-O6	6.47	123.78	119.90
36	5	2162	U	O5'-P-OP2	-6.47	99.88	105.70
37	7	47	C	N1-C2-O2	-6.47	115.02	118.90
36	1	2171	G	C2-N3-C4	6.46	115.13	111.90
36	5	3107	U	N3-C4-C5	6.46	118.48	114.60
36	1	1144	U	N3-C4-O4	-6.46	114.88	119.40
36	5	2625	C	N3-C4-C5	6.46	124.48	121.90
36	5	3026	G	N1-C6-O6	6.46	123.78	119.90
36	1	2305	G	N1-C6-O6	6.46	123.78	119.90
36	5	519	A	N1-C6-N6	6.46	122.48	118.60
36	5	1161	G	C5-C6-N1	6.46	114.73	111.50
36	5	1615	C	O5'-P-OP1	-6.46	99.89	105.70
36	5	2392	C	C2-N3-C4	-6.46	116.67	119.90
36	5	2696	A	C6-N1-C2	6.46	122.47	118.60
36	5	2856	G	C6-C5-N7	-6.46	126.53	130.40
36	1	1128	U	N3-C4-O4	-6.46	114.88	119.40
36	5	1146	C	N3-C4-N4	6.46	122.52	118.00
36	1	661	G	C5-C6-O6	6.45	132.47	128.60
36	1	2554	A	C8-N9-C4	6.45	108.38	105.80
36	1	2865	U	N3-C4-C5	6.45	118.47	114.60
36	5	586	C	N3-C4-C5	6.45	124.48	121.90
36	5	1146	C	N3-C4-C5	-6.45	119.32	121.90
36	1	2395	G	C5-C6-O6	-6.45	124.73	128.60
36	5	2748	A	N1-C2-N3	-6.45	126.08	129.30
36	1	2618	G	C5-C6-N1	6.45	114.72	111.50
36	5	1310	G	N1-C6-O6	-6.45	116.03	119.90
36	1	1425	U	N1-C2-N3	6.45	118.77	114.90
36	1	1509	A	C2-N3-C4	-6.45	107.38	110.60
40	l3	232	ARG	NE-CZ-NH2	-6.44	117.08	120.30
36	1	2298	U	O5'-P-OP2	-6.44	99.90	105.70
36	5	2133	U	OP2-P-O3'	6.44	119.37	105.20
36	1	3270	U	N3-C4-O4	-6.44	114.89	119.40
36	1	2886	U	C5-C4-O4	-6.44	122.04	125.90
1	6	1535	U	N3-C2-O2	-6.44	117.69	122.20
36	1	2314	U	C6-N1-C2	6.44	124.86	121.00
1	6	1082	C	N3-C4-C5	-6.44	119.33	121.90
36	5	2726	C	C4-C5-C6	6.44	120.62	117.40
36	5	913	A	N1-C2-N3	-6.44	126.08	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1161	G	N9-C4-C5	-6.44	102.83	105.40
36	5	1817	G	O4'-C1'-N9	6.44	113.35	108.20
1	2	136	C	C6-N1-C2	-6.43	117.73	120.30
36	5	33	G	N9-C4-C5	6.43	107.97	105.40
36	5	2362	C	O5'-P-OP2	-6.43	99.91	105.70
40	l3	102	LEU	CA-CB-CG	6.43	130.10	115.30
1	2	393	C	C6-N1-C2	6.43	122.87	120.30
36	1	86	G	N9-C4-C5	6.43	107.97	105.40
36	1	1445	U	C5-C4-O4	-6.43	122.04	125.90
36	5	48	A	N9-C4-C5	6.43	108.37	105.80
36	5	1118	C	O5'-P-OP1	-6.43	99.91	105.70
36	5	1203	A	C4-C5-N7	6.43	113.92	110.70
36	5	1473	G	N7-C8-N9	-6.43	109.88	113.10
36	5	2856	G	C5-N7-C8	-6.43	101.08	104.30
36	5	2954	U	N3-C2-O2	-6.43	117.70	122.20
1	2	728	U	C2-N1-C1'	6.43	125.42	117.70
36	1	697	A	C8-N9-C4	6.43	108.37	105.80
1	6	999	U	N3-C4-O4	-6.43	114.90	119.40
1	6	1514	U	C5-C4-O4	6.43	129.76	125.90
36	5	3105	U	C2-N1-C1'	-6.43	109.99	117.70
1	2	1749	A	C2-N3-C4	-6.43	107.39	110.60
36	1	2631	U	N3-C4-C5	6.43	118.45	114.60
36	1	1001	G	C6-C5-N7	-6.42	126.55	130.40
36	1	2946	A	N9-C4-C5	-6.42	103.23	105.80
38	4	32	C	N3-C4-C5	6.42	124.47	121.90
51	m5	164	LEU	CA-CB-CG	-6.42	100.52	115.30
36	5	2358	A	C8-N9-C4	6.42	108.37	105.80
36	1	3133	C	C6-N1-C2	-6.42	117.73	120.30
36	5	1173	U	O5'-P-OP2	-6.42	99.92	105.70
31	D9	36	LEU	CA-CB-CG	6.42	130.06	115.30
36	1	1389	G	C6-C5-N7	-6.42	126.55	130.40
36	5	2639	G	N7-C8-N9	6.42	116.31	113.10
36	5	784	A	C5-C6-N6	-6.42	118.57	123.70
36	5	1495	U	C5-C6-N1	6.42	125.91	122.70
36	1	2658	G	C8-N9-C4	6.41	108.97	106.40
1	6	1634	C	C6-N1-C1'	-6.41	113.11	120.80
1	6	1700	C	N3-C2-O2	-6.41	117.41	121.90
36	5	2761	G	C5-C6-O6	-6.41	124.75	128.60
36	1	2723	U	N1-C2-O2	-6.41	118.31	122.80
1	6	17	C	C6-N1-C2	-6.41	117.74	120.30
36	5	514	G	N1-C6-O6	6.41	123.74	119.90
36	1	3205	G	C2-N3-C4	-6.40	108.70	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1000	C	C4-C5-C6	6.40	120.60	117.40
36	1	898	U	N1-C2-O2	6.40	127.28	122.80
36	5	2376	G	C5-C6-O6	-6.40	124.76	128.60
36	5	2887	A	C5-C6-N6	-6.40	118.58	123.70
1	2	507	U	C2-N1-C1'	6.40	125.38	117.70
36	1	864	G	O5'-P-OP1	-6.40	99.94	105.70
36	1	1437	C	C6-N1-C2	-6.40	117.74	120.30
36	1	2916	U	N1-C2-N3	-6.40	111.06	114.90
36	5	3050	U	C6-N1-C2	-6.40	117.16	121.00
36	1	1891	A	C8-N9-C4	6.40	108.36	105.80
38	4	56	G	C8-N9-C4	6.39	108.96	106.40
36	5	1116	G	N9-C4-C5	6.39	107.96	105.40
36	1	285	A	C5-C6-N6	-6.39	118.59	123.70
36	5	2751	G	C5-N7-C8	-6.39	101.10	104.30
36	5	1504	A	C2-N3-C4	-6.39	107.40	110.60
36	5	2980	U	O5'-P-OP1	6.39	118.37	110.70
36	5	2615	G	N9-C4-C5	-6.39	102.84	105.40
36	5	3154	C	C5-C6-N1	6.39	124.19	121.00
36	5	3200	G	N1-C6-O6	6.39	123.73	119.90
38	8	37	A	O5'-P-OP2	-6.39	99.95	105.70
36	1	2870	C	N3-C4-C5	6.39	124.45	121.90
36	1	3057	U	N3-C2-O2	-6.39	117.73	122.20
36	1	228	U	N3-C2-O2	-6.38	117.73	122.20
36	1	2714	G	C4-C5-C6	-6.38	114.97	118.80
36	1	2814	G	C5-C6-O6	-6.38	124.77	128.60
36	5	2943	G	C5-N7-C8	-6.38	101.11	104.30
37	7	84	A	C2-N3-C4	6.38	113.79	110.60
36	5	340	C	C5-C6-N1	-6.38	117.81	121.00
36	1	911	C	C2-N3-C4	-6.38	116.71	119.90
36	1	2298	U	O4'-C1'-N1	6.38	113.31	108.20
36	1	2372	A	O5'-P-OP2	-6.38	99.96	105.70
36	5	1060	U	C5-C4-O4	6.38	129.73	125.90
36	1	1741	A	C6-C5-N7	-6.38	127.83	132.30
36	1	2209	U	C5-C6-N1	6.38	125.89	122.70
36	1	2294	U	C6-N1-C2	-6.38	117.17	121.00
36	1	2403	G	OP1-P-O3'	6.38	119.23	105.20
36	5	1931	U	C5-C6-N1	-6.38	119.51	122.70
36	5	2113	A	C8-N9-C4	6.38	108.35	105.80
1	2	704	C	N1-C2-O2	6.38	122.73	118.90
36	1	1367	G	O5'-P-OP1	-6.38	99.96	105.70
35	sM	167	PRO	N-CA-CB	6.38	110.95	103.30
36	5	1480	G	N3-C4-C5	6.38	131.79	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	776	U	C5-C4-O4	6.38	129.72	125.90
1	2	1200	G	N3-C2-N2	-6.37	115.44	119.90
36	1	365	A	N1-C6-N6	6.37	122.42	118.60
36	1	2303	A	C2-N3-C4	-6.37	107.41	110.60
38	4	38	U	N3-C2-O2	-6.37	117.74	122.20
36	1	915	A	N1-C6-N6	-6.37	114.78	118.60
36	5	2342	U	N3-C4-C5	6.37	118.42	114.60
36	5	1506	A	N9-C4-C5	6.37	108.35	105.80
36	1	369	A	C2-N3-C4	6.37	113.78	110.60
36	1	1177	G	C6-C5-N7	-6.37	126.58	130.40
36	5	796	U	N1-C2-N3	6.37	118.72	114.90
36	1	1177	G	C8-N9-C1'	-6.37	118.72	127.00
36	1	808	A	N1-C6-N6	-6.37	114.78	118.60
36	5	1284	C	C5-C6-N1	6.37	124.18	121.00
36	5	1855	U	N1-C2-N3	6.37	118.72	114.90
36	1	410	U	N1-C2-O2	-6.36	118.34	122.80
36	5	2920	U	N1-C2-O2	-6.36	118.35	122.80
36	1	2693	C	N3-C4-C5	6.36	124.44	121.90
36	1	2714	G	C8-N9-C1'	6.36	135.27	127.00
36	5	2990	G	N1-C6-O6	6.36	123.72	119.90
36	5	2411	U	C6-N1-C2	6.36	124.82	121.00
36	5	3153	U	N1-C2-O2	6.36	127.25	122.80
38	8	14	C	O5'-P-OP2	-6.36	99.98	105.70
36	1	2625	C	N1-C2-O2	-6.36	115.09	118.90
36	5	651	G	C8-N9-C1'	-6.36	118.74	127.00
36	5	1480	G	O4'-C1'-N9	6.36	113.28	108.20
36	1	963	G	O5'-P-OP2	-6.35	99.98	105.70
36	1	41	G	OP2-P-O3'	6.35	119.17	105.20
36	1	421	G	N3-C4-N9	6.35	129.81	126.00
36	5	1151	U	N3-C4-O4	6.35	123.85	119.40
36	1	1365	G	N1-C2-N2	-6.35	110.49	116.20
36	1	1506	A	N9-C4-C5	6.35	108.34	105.80
36	1	1515	A	C6-C5-N7	-6.35	127.86	132.30
1	6	90	C	N3-C2-O2	-6.34	117.46	121.90
12	c0	83	PRO	N-CA-CB	6.34	110.91	103.30
36	5	437	G	C6-C5-N7	-6.34	126.59	130.40
36	5	1495	U	C6-N1-C2	-6.34	117.19	121.00
36	5	1879	A	N1-C6-N6	6.34	122.41	118.60
38	8	8	C	C6-N1-C2	-6.34	117.76	120.30
1	2	158	U	P-O3'-C3'	6.34	127.31	119.70
36	1	1837	U	N3-C2-O2	6.34	126.64	122.20
36	5	3293	U	C6-N1-C2	6.34	124.81	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1368	U	N1-C2-N3	6.34	118.70	114.90
36	1	2374	C	N1-C2-O2	6.33	122.70	118.90
36	1	61	A	OP2-P-O3'	6.33	119.13	105.20
36	1	312	C	N3-C4-C5	6.33	124.43	121.90
36	1	958	C	C2-N3-C4	-6.33	116.73	119.90
1	6	57	G	O5'-P-OP2	-6.33	100.00	105.70
36	5	1317	A	N9-C4-C5	-6.33	103.27	105.80
36	5	1384	U	C5-C6-N1	6.33	125.87	122.70
36	5	1724	U	P-O3'-C3'	6.33	127.30	119.70
36	5	2939	G	N7-C8-N9	-6.33	109.93	113.10
36	1	32	U	O5'-P-OP1	6.33	118.30	110.70
36	5	1833	G	N1-C6-O6	-6.33	116.10	119.90
36	5	1204	A	C5-C6-N6	6.33	128.76	123.70
36	5	2285	C	C6-N1-C2	-6.33	117.77	120.30
36	1	954	U	C5-C6-N1	6.33	125.86	122.70
36	1	339	C	N1-C2-N3	6.33	123.63	119.20
1	6	1295	G	C5-C6-O6	-6.33	124.80	128.60
36	5	2626	A	O4'-C1'-N9	-6.33	103.14	108.20
36	1	424	G	C8-N9-C4	6.32	108.93	106.40
36	5	942	U	N3-C4-C5	-6.32	110.81	114.60
36	5	1113	G	N3-C4-C5	6.32	131.76	128.60
36	1	970	A	O5'-P-OP1	-6.32	100.01	105.70
36	1	2138	A	C8-N9-C4	-6.32	103.27	105.80
36	5	1500	G	C8-N9-C4	6.32	108.93	106.40
37	7	79	A	N1-C6-N6	6.32	122.39	118.60
36	1	54	C	N3-C4-N4	-6.32	113.58	118.00
36	1	324	A	C6-N1-C2	-6.32	114.81	118.60
36	1	1849	C	N1-C2-O2	-6.32	115.11	118.90
38	4	74	U	O5'-P-OP1	-6.32	100.01	105.70
36	1	1661	G	C5-C6-O6	-6.32	124.81	128.60
1	2	543	C	N3-C2-O2	-6.32	117.48	121.90
36	1	218	G	C5-C6-O6	-6.32	124.81	128.60
36	1	1545	A	N7-C8-N9	6.32	116.96	113.80
36	5	776	U	C2-N3-C4	-6.32	123.21	127.00
36	1	1547	G	N7-C8-N9	-6.32	109.94	113.10
36	5	2887	A	N3-C4-N9	6.31	132.45	127.40
36	5	2959	C	C2-N3-C4	-6.31	116.74	119.90
38	4	14	C	C6-N1-C2	-6.31	117.78	120.30
38	4	96	A	N1-C6-N6	6.31	122.39	118.60
1	6	347	G	N1-C6-O6	6.31	123.69	119.90
36	5	2892	A	C5-N7-C8	-6.31	100.75	103.90
36	5	3096	C	N3-C2-O2	6.31	126.32	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	453	U	C6-N1-C1'	-6.31	112.37	121.20
36	1	29	C	C5-C4-N4	-6.31	115.78	120.20
1	6	1744	A	C8-N9-C4	6.31	108.32	105.80
36	1	681	U	N3-C4-O4	6.31	123.81	119.40
36	5	2142	A	C6-N1-C2	-6.31	114.81	118.60
36	5	1433	A	O4'-C1'-N9	-6.31	103.16	108.20
36	5	2870	C	C2-N3-C4	-6.30	116.75	119.90
1	6	1493	A	N7-C8-N9	6.30	116.95	113.80
36	5	1496	C	N1-C2-O2	6.30	122.68	118.90
36	1	2887	A	C6-C5-N7	-6.30	127.89	132.30
36	5	2617	U	N1-C2-O2	-6.30	118.39	122.80
1	6	1657	U	O5'-P-OP2	-6.30	100.03	105.70
36	5	767	U	O4'-C1'-N1	6.30	113.24	108.20
36	5	809	G	C5-C6-O6	-6.30	124.82	128.60
1	6	353	A	N1-C6-N6	-6.30	114.82	118.60
1	2	1636	C	C6-N1-C2	-6.29	117.78	120.30
36	1	1377	G	N3-C4-N9	6.29	129.78	126.00
36	1	2162	U	C4-C5-C6	-6.29	115.92	119.70
36	1	3107	U	C2-N3-C4	-6.29	123.22	127.00
38	4	111	A	C5-C6-N6	-6.29	118.66	123.70
36	5	2874	G	C5-C6-O6	6.29	132.38	128.60
36	1	1604	G	C8-N9-C1'	-6.29	118.82	127.00
1	6	17	C	O5'-P-OP2	-6.29	100.03	105.70
36	5	1330	A	OP1-P-OP2	-6.29	110.16	119.60
36	1	1845	G	OP2-P-O3'	6.29	119.04	105.20
36	1	2639	G	C6-C5-N7	-6.29	126.62	130.40
1	6	606	A	C8-N9-C4	6.29	108.32	105.80
44	17	229	PHE	CB-CG-CD1	6.29	125.20	120.80
36	1	2283	G	C2-N3-C4	-6.29	108.75	111.90
36	5	886	C	N3-C4-C5	6.29	124.42	121.90
36	1	2900	A	C8-N9-C4	6.29	108.31	105.80
1	6	638	U	N1-C2-O2	6.29	127.20	122.80
36	5	1113	G	N1-C6-O6	6.29	123.67	119.90
36	1	2881	C	C6-N1-C2	6.29	122.81	120.30
1	6	622	A	O5'-P-OP1	-6.29	100.04	105.70
1	2	1389	C	N1-C2-O2	6.28	122.67	118.90
36	1	2355	G	N3-C2-N2	-6.28	115.50	119.90
1	6	309	C	O5'-P-OP1	-6.28	100.04	105.70
1	6	1123	C	C5-C4-N4	-6.28	115.80	120.20
36	1	3302	U	C6-N1-C2	6.28	124.77	121.00
53	M7	19	GLY	N-CA-C	-6.28	97.39	113.10
36	1	659	G	OP2-P-O3'	6.28	119.02	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2768	U	O5'-P-OP2	-6.28	100.05	105.70
1	2	1733	C	C5-C4-N4	-6.28	115.81	120.20
36	5	2979	U	C2-N1-C1'	-6.28	110.17	117.70
36	1	2187	G	N1-C6-O6	6.28	123.67	119.90
38	4	15	G	C4-C5-N7	6.28	113.31	110.80
36	1	895	A	C6-C5-N7	-6.28	127.91	132.30
36	5	90	C	N3-C4-N4	6.28	122.39	118.00
36	5	215	G	C8-N9-C4	-6.28	103.89	106.40
36	5	3174	A	C2-N3-C4	-6.28	107.46	110.60
1	6	455	C	N3-C4-N4	6.27	122.39	118.00
36	5	1367	G	N1-C6-O6	6.27	123.66	119.90
36	5	2824	G	C8-N9-C4	-6.27	103.89	106.40
36	5	2709	C	C6-N1-C2	6.27	122.81	120.30
1	2	132	U	P-O3'-C3'	6.27	127.22	119.70
40	l3	19	ARG	NE-CZ-NH1	6.27	123.44	120.30
36	1	1133	A	N9-C4-C5	-6.27	103.29	105.80
36	1	2406	C	C6-N1-C2	6.27	122.81	120.30
1	6	767	U	C5-C4-O4	6.27	129.66	125.90
1	6	1340	U	N3-C2-O2	-6.27	117.81	122.20
36	5	2245	C	N3-C4-C5	-6.27	119.39	121.90
36	1	1322	U	O5'-P-OP2	-6.26	100.06	105.70
1	6	163	G	C8-N9-C4	-6.26	103.89	106.40
38	8	26	U	N1-C2-O2	6.26	127.18	122.80
36	1	1138	U	N3-C2-O2	-6.26	117.82	122.20
36	1	132	C	N1-C2-O2	-6.26	115.14	118.90
36	1	610	G	O5'-P-OP2	-6.26	100.07	105.70
36	1	697	A	C5-C6-N1	6.26	120.83	117.70
36	1	2372	A	N3-C4-N9	6.26	132.41	127.40
36	1	2383	C	N3-C4-C5	6.26	124.40	121.90
36	5	1496	C	O5'-P-OP1	6.26	118.21	110.70
36	5	2142	A	C5-C6-N1	6.26	120.83	117.70
36	5	2572	C	C6-N1-C2	-6.26	117.80	120.30
36	5	1662	G	C5-C6-N1	-6.26	108.37	111.50
36	5	984	G	C4-C5-C6	6.26	122.55	118.80
36	5	1300	G	C6-C5-N7	-6.26	126.65	130.40
36	5	1897	G	C6-C5-N7	-6.26	126.65	130.40
36	5	2994	A	C6-N1-C2	-6.26	114.85	118.60
36	5	3164	C	O4'-C1'-N1	6.26	113.21	108.20
36	1	1197	A	C4-C5-N7	6.25	113.83	110.70
36	1	1507	G	C6-N1-C2	-6.25	121.35	125.10
36	1	1822	C	C6-N1-C2	-6.25	117.80	120.30
73	O7	65	ARG	NE-CZ-NH2	-6.25	117.17	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	610	G	C4-N9-C1'	6.25	134.63	126.50
36	5	955	U	N1-C2-O2	-6.25	118.42	122.80
36	5	2937	G	C4-C5-N7	6.25	113.30	110.80
36	1	2901	G	C5-C6-O6	-6.25	124.85	128.60
36	5	2331	C	N1-C2-O2	-6.25	115.15	118.90
1	2	694	U	C5-C6-N1	6.25	125.82	122.70
36	1	801	A	O4'-C1'-N9	-6.25	103.20	108.20
36	1	1846	C	C6-N1-C2	-6.25	117.80	120.30
1	6	1634	C	N3-C2-O2	-6.25	117.53	121.90
36	5	2112	U	C5-C6-N1	6.25	125.83	122.70
36	1	3361	G	N3-C2-N2	6.25	124.27	119.90
36	5	88	A	C8-N9-C4	6.25	108.30	105.80
36	5	2639	G	C4-C5-C6	6.25	122.55	118.80
36	1	295	A	N7-C8-N9	6.24	116.92	113.80
36	1	1168	U	N3-C2-O2	-6.24	117.83	122.20
1	6	1428	G	C8-N9-C4	-6.24	103.90	106.40
36	5	2735	U	C5-C6-N1	6.24	125.82	122.70
36	5	2796	G	O5'-P-OP2	-6.24	100.08	105.70
36	1	48	A	O4'-C1'-N9	6.24	113.19	108.20
1	2	553	G	C4-C5-C6	6.24	122.55	118.80
36	1	1082	U	C6-N1-C2	-6.24	117.26	121.00
36	1	3207	U	C5-C4-O4	6.24	129.64	125.90
36	1	3224	G	N3-C2-N2	-6.24	115.53	119.90
38	4	94	C	N3-C4-C5	6.24	124.40	121.90
1	6	458	G	C8-N9-C4	-6.24	103.90	106.40
36	5	957	C	N3-C2-O2	-6.24	117.53	121.90
36	1	2302	G	OP2-P-O3'	6.24	118.92	105.20
1	6	999	U	N3-C4-C5	6.24	118.34	114.60
36	5	2404	A	C8-N9-C1'	6.24	138.93	127.70
36	5	2821	C	C2-N1-C1'	-6.24	111.94	118.80
38	8	96	A	C8-N9-C4	6.24	108.30	105.80
59	n3	45	ARG	NE-CZ-NH1	-6.24	117.18	120.30
1	6	144	U	N1-C2-O2	6.24	127.17	122.80
38	8	9	A	O5'-P-OP2	-6.23	100.09	105.70
1	2	1761	U	N3-C4-C5	-6.23	110.86	114.60
1	6	103	A	P-O3'-C3'	6.23	127.18	119.70
36	5	346	C	O5'-P-OP2	-6.23	100.09	105.70
36	1	24	G	N1-C2-N3	6.23	127.64	123.90
36	1	1590	G	N1-C6-O6	-6.23	116.16	119.90
52	M6	128	ARG	NE-CZ-NH2	6.23	123.41	120.30
36	5	89	A	N1-C6-N6	6.23	122.34	118.60
36	1	590	G	C4-C5-N7	6.23	113.29	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2407	C	C4-C5-C6	6.23	120.51	117.40
36	1	2737	C	N1-C2-O2	-6.23	115.16	118.90
44	17	83	LEU	CA-CB-CG	6.23	129.62	115.30
36	1	398	A	O5'-P-OP2	-6.22	100.10	105.70
36	1	1056	U	C5-C6-N1	6.22	125.81	122.70
36	5	962	A	C6-C5-N7	-6.22	127.94	132.30
36	5	1316	C	N3-C4-C5	-6.22	119.41	121.90
1	2	192	U	C2-N1-C1'	6.22	125.17	117.70
36	1	2687	G	N1-C6-O6	-6.22	116.17	119.90
36	5	366	A	C2-N3-C4	-6.22	107.49	110.60
36	1	3154	C	C2-N1-C1'	6.22	125.64	118.80
1	6	1058	U	OP1-P-O3'	6.22	118.89	105.20
36	5	3218	A	C2-N3-C4	-6.22	107.49	110.60
1	6	542	A	O4'-C1'-N9	6.22	113.17	108.20
36	5	880	G	O5'-P-OP2	-6.22	100.10	105.70
36	5	2113	A	O4'-C1'-N9	-6.22	103.22	108.20
36	5	2639	G	C8-N9-C4	-6.22	103.91	106.40
36	1	968	G	N3-C4-C5	-6.22	125.49	128.60
36	1	350	C	N3-C4-C5	-6.22	119.41	121.90
52	m6	94	ARG	NE-CZ-NH1	-6.22	117.19	120.30
36	1	283	G	O4'-C1'-N9	-6.21	103.23	108.20
36	1	2355	G	C5-C6-O6	-6.21	124.87	128.60
36	1	2758	A	C8-N9-C4	6.21	108.28	105.80
36	1	2942	C	N1-C2-O2	-6.21	115.17	118.90
36	5	950	G	C5-C6-N1	6.21	114.61	111.50
36	5	1329	U	C2-N3-C4	-6.21	123.27	127.00
36	5	1460	A	N1-C6-N6	6.21	122.33	118.60
36	1	1531	C	C6-N1-C2	-6.21	117.82	120.30
36	5	776	U	N3-C2-O2	-6.21	117.85	122.20
1	2	736	C	C2-N1-C1'	6.21	125.63	118.80
36	1	2621	G	OP1-P-OP2	-6.21	110.29	119.60
36	5	1844	C	N1-C2-N3	6.21	123.55	119.20
36	5	2395	G	OP2-P-O3'	6.21	118.86	105.20
36	5	264	G	N1-C6-O6	6.21	123.62	119.90
36	5	635	G	C4-C5-N7	6.21	113.28	110.80
36	5	647	A	C8-N9-C4	6.21	108.28	105.80
1	2	942	G	N1-C6-O6	-6.20	116.18	119.90
36	1	421	G	C4-C5-N7	6.20	113.28	110.80
36	1	920	A	N1-C2-N3	6.20	132.40	129.30
36	1	3304	U	N1-C2-O2	-6.20	118.46	122.80
1	6	139	C	N3-C2-O2	-6.20	117.56	121.90
36	5	216	G	N1-C6-O6	6.20	123.62	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1176	G	N1-C6-O6	6.20	123.62	119.90
36	5	2394	G	N1-C2-N2	-6.20	110.62	116.20
36	1	645	A	N1-C6-N6	-6.20	114.88	118.60
36	1	895	A	C5-N7-C8	-6.20	100.80	103.90
1	6	1493	A	C8-N9-C4	-6.20	103.32	105.80
36	5	1410	U	O5'-P-OP2	-6.20	100.12	105.70
36	5	2843	U	C2-N1-C1'	6.20	125.14	117.70
36	1	2899	C	C2-N1-C1'	6.20	125.62	118.80
1	2	1324	G	N1-C2-N2	6.20	121.78	116.20
36	5	1429	G	N1-C2-N2	-6.20	110.62	116.20
36	5	2877	G	N3-C4-C5	-6.19	125.50	128.60
1	2	1432	U	C6-N1-C2	6.19	124.72	121.00
36	1	1307	G	OP1-P-O3'	6.19	118.83	105.20
36	1	1434	G	O5'-P-OP1	-6.19	100.13	105.70
36	1	3362	A	N1-C2-N3	6.19	132.40	129.30
36	1	638	C	O5'-P-OP2	-6.19	100.13	105.70
36	1	1515	A	C2-N3-C4	-6.19	107.50	110.60
36	5	2797	C	C6-N1-C2	-6.19	117.82	120.30
36	5	641	C	C2-N1-C1'	-6.19	111.99	118.80
36	1	2273	G	N7-C8-N9	-6.19	110.01	113.10
69	O3	73	ARG	NE-CZ-NH2	-6.19	117.21	120.30
36	5	141	C	C5-C6-N1	6.19	124.09	121.00
36	5	1855	U	O5'-P-OP2	-6.19	100.13	105.70
36	5	2678	A	N1-C6-N6	-6.19	114.89	118.60
36	1	358	G	N9-C4-C5	-6.18	102.93	105.40
36	1	1445	U	C2-N3-C4	-6.18	123.29	127.00
1	6	1361	U	C2-N1-C1'	6.18	125.12	117.70
36	5	1075	A	C8-N9-C4	6.18	108.27	105.80
1	2	31	C	C6-N1-C2	-6.18	117.83	120.30
1	2	341	A	C8-N9-C4	-6.18	103.33	105.80
36	1	1849	C	O5'-P-OP1	-6.18	100.14	105.70
36	5	1452	A	N1-C6-N6	6.18	122.31	118.60
36	5	2343	C	N3-C4-C5	6.18	124.37	121.90
36	1	1114	U	C4-C5-C6	-6.18	115.99	119.70
36	1	3205	G	N1-C6-O6	6.18	123.61	119.90
1	6	988	A	C8-N9-C4	-6.18	103.33	105.80
36	5	1897	G	C5-N7-C8	-6.18	101.21	104.30
36	1	28	C	C6-N1-C2	6.18	122.77	120.30
1	6	1629	G	N3-C4-C5	-6.18	125.51	128.60
36	1	640	U	N1-C2-O2	-6.17	118.48	122.80
36	1	2142	A	N1-C2-N3	6.17	132.39	129.30
36	1	2695	A	N9-C4-C5	6.17	108.27	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3108	G	N1-C6-O6	6.17	123.61	119.90
37	7	56	A	N1-C6-N6	6.17	122.30	118.60
1	2	1174	C	N1-C2-O2	6.17	122.60	118.90
36	5	1180	A	C8-N9-C4	-6.17	103.33	105.80
1	2	992	A	N3-C4-C5	6.17	131.12	126.80
36	1	1741	A	N1-C2-N3	6.17	132.38	129.30
36	5	1392	G	N3-C4-N9	6.17	129.70	126.00
36	1	2249	G	N3-C4-N9	6.17	129.70	126.00
36	5	2859	U	O5'-P-OP1	-6.17	100.15	105.70
36	1	96	G	C4-C5-N7	6.17	113.27	110.80
1	6	1106	U	C6-N1-C2	-6.17	117.30	121.00
36	5	385	A	C5-C6-N6	-6.17	118.77	123.70
36	5	1155	C	N3-C4-C5	6.17	124.37	121.90
36	1	1522	U	C2-N3-C4	-6.17	123.30	127.00
36	1	2194	G	C6-C5-N7	-6.17	126.70	130.40
36	1	816	A	C2-N3-C4	6.16	113.68	110.60
36	1	969	C	N3-C4-N4	6.16	122.31	118.00
36	1	646	A	N9-C4-C5	6.16	108.27	105.80
36	1	857	G	C5-C6-N1	-6.16	108.42	111.50
36	1	917	A	C5-C6-N6	6.16	128.63	123.70
1	6	371	G	C4-C5-C6	6.16	122.50	118.80
36	5	1460	A	C5-C6-N6	-6.16	118.77	123.70
36	5	1513	G	C5-N7-C8	-6.16	101.22	104.30
36	1	406	G	C5-C6-N1	6.16	114.58	111.50
36	1	1369	A	N1-C6-N6	6.16	122.30	118.60
64	N8	42	ARG	NE-CZ-NH2	-6.16	117.22	120.30
1	6	1031	U	C2-N1-C1'	-6.16	110.31	117.70
36	5	2899	C	N1-C2-N3	6.16	123.51	119.20
1	2	1210	C	N3-C4-C5	-6.16	119.44	121.90
36	5	83	U	N1-C2-O2	6.16	127.11	122.80
36	5	1010	G	O5'-P-OP2	-6.16	100.16	105.70
36	1	2954	U	OP1-P-O3'	6.16	118.75	105.20
36	5	2400	G	N9-C4-C5	-6.16	102.94	105.40
36	1	1481	A	C6-C5-N7	-6.16	127.99	132.30
36	1	3270	U	C2-N1-C1'	-6.15	110.32	117.70
36	5	2648	G	C4-C5-N7	6.15	113.26	110.80
36	1	989	A	C8-N9-C4	6.15	108.26	105.80
36	1	2351	U	N1-C2-N3	6.15	118.59	114.90
36	1	2714	G	C4-N9-C1'	-6.15	118.50	126.50
36	5	366	A	N1-C6-N6	6.15	122.29	118.60
36	5	1305	U	C5-C4-O4	-6.15	122.21	125.90
36	5	2719	U	C2-N1-C1'	-6.15	110.32	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3326	G	N9-C4-C5	-6.15	102.94	105.40
36	1	2427	U	C5-C4-O4	6.15	129.59	125.90
38	4	113	U	C5-C4-O4	6.15	129.59	125.90
36	5	75	G	O5'-P-OP1	6.15	118.08	110.70
36	1	679	U	O5'-P-OP2	-6.15	100.17	105.70
36	1	2812	C	C6-N1-C2	6.15	122.76	120.30
1	2	110	U	C6-N1-C2	-6.14	117.31	121.00
36	1	406	G	O5'-P-OP2	-6.14	100.17	105.70
36	1	517	G	C6-C5-N7	-6.14	126.71	130.40
36	1	1127	G	C6-C5-N7	-6.14	126.71	130.40
36	5	1869	C	C6-N1-C2	6.14	122.76	120.30
36	5	2905	U	C5-C6-N1	-6.14	119.63	122.70
36	1	1556	C	C6-N1-C1'	-6.14	113.43	120.80
1	2	1027	A	C4-C5-N7	6.14	113.77	110.70
36	5	817	A	C8-N9-C4	-6.14	103.34	105.80
1	6	795	U	N1-C2-O2	6.14	127.10	122.80
36	5	3209	A	C8-N9-C4	-6.14	103.34	105.80
36	1	1131	G	C6-C5-N7	-6.14	126.72	130.40
36	5	659	G	O5'-P-OP1	-6.14	100.18	105.70
36	5	410	U	OP2-P-O3'	6.14	118.70	105.20
36	1	2337	C	C6-N1-C2	-6.13	117.85	120.30
36	5	422	A	C8-N9-C4	-6.13	103.35	105.80
36	1	1376	C	N3-C4-C5	-6.13	119.45	121.90
36	5	1175	C	C2-N1-C1'	-6.13	112.06	118.80
1	6	1028	C	C5-C6-N1	-6.13	117.94	121.00
36	5	1110	U	C2-N1-C1'	6.13	125.06	117.70
36	1	1112	A	C8-N9-C4	6.13	108.25	105.80
36	5	218	G	C4-C5-N7	-6.13	108.35	110.80
36	1	388	G	N9-C4-C5	6.13	107.85	105.40
36	1	2357	A	C5-C6-N6	-6.13	118.80	123.70
36	1	1114	U	C5-C4-O4	6.12	129.57	125.90
36	5	1869	C	C2-N1-C1'	-6.12	112.06	118.80
1	2	12	U	N3-C2-O2	-6.12	117.91	122.20
36	1	776	U	C2-N3-C4	-6.12	123.33	127.00
36	1	2817	A	C5-C6-N1	6.12	120.76	117.70
36	5	2700	G	C6-C5-N7	-6.12	126.73	130.40
36	1	1168	U	O5'-P-OP1	6.12	118.05	110.70
36	1	2383	C	C5-C4-N4	-6.12	115.92	120.20
36	1	3275	U	C5-C6-N1	6.12	125.76	122.70
1	6	1777	G	N1-C6-O6	6.12	123.57	119.90
37	7	85	G	C8-N9-C4	-6.12	103.95	106.40
36	1	634	C	C6-N1-C2	6.12	122.75	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2764	C	C2-N3-C4	6.12	122.96	119.90
36	5	1151	U	N1-C2-O2	-6.12	118.52	122.80
36	5	1561	G	O4'-C1'-N9	6.12	113.09	108.20
36	1	2938	G	C5-C6-O6	-6.12	124.93	128.60
36	5	1878	G	C8-N9-C4	-6.12	103.95	106.40
36	1	1136	A	C6-N1-C2	-6.12	114.93	118.60
36	1	2642	A	C5-C6-N1	-6.12	114.64	117.70
1	6	1146	G	C4-N9-C1'	6.12	134.45	126.50
1	2	765	G	O4'-C1'-N9	-6.11	103.31	108.20
36	1	2300	G	C8-N9-C4	-6.11	103.95	106.40
36	5	2630	C	C2-N1-C1'	-6.11	112.08	118.80
36	5	3197	G	N3-C4-N9	-6.11	122.33	126.00
36	1	410	U	OP2-P-O3'	6.11	118.64	105.20
36	1	1371	G	N7-C8-N9	-6.11	110.05	113.10
36	1	2747	A	N1-C6-N6	-6.11	114.93	118.60
38	8	96	A	N1-C6-N6	6.11	122.27	118.60
36	1	2859	U	N1-C2-O2	-6.11	118.53	122.80
37	7	49	G	C6-C5-N7	-6.11	126.73	130.40
38	8	111	A	O5'-P-OP2	-6.11	100.20	105.70
36	1	984	G	N7-C8-N9	6.11	116.15	113.10
1	6	1651	A	N1-C6-N6	6.11	122.26	118.60
36	5	567	G	C6-C5-N7	-6.11	126.74	130.40
36	5	955	U	C2-N3-C4	-6.10	123.34	127.00
36	1	96	G	N3-C4-C5	6.10	131.65	128.60
36	1	210	U	N1-C2-N3	6.10	118.56	114.90
36	5	793	C	C2-N1-C1'	6.10	125.51	118.80
36	5	2393	G	N1-C6-O6	6.10	123.56	119.90
36	1	1399	A	N3-C4-C5	6.10	131.07	126.80
36	5	1620	U	N3-C2-O2	-6.10	117.93	122.20
36	1	663	C	N1-C2-O2	-6.10	115.24	118.90
36	1	970	A	N1-C6-N6	-6.10	114.94	118.60
1	6	163	G	C2-N3-C4	-6.10	108.85	111.90
36	5	834	U	C6-N1-C2	6.10	124.66	121.00
36	1	918	C	O5'-P-OP2	-6.10	100.21	105.70
36	1	2162	U	N3-C4-C5	6.10	118.26	114.60
36	1	2144	A	C5-C6-N6	-6.10	118.82	123.70
36	1	2571	U	N1-C2-O2	6.10	127.07	122.80
1	6	163	G	C4-N9-C1'	-6.10	118.58	126.50
36	1	500	C	N3-C4-C5	-6.09	119.46	121.90
36	1	1913	A	N1-C6-N6	6.09	122.26	118.60
36	1	2298	U	N3-C4-C5	6.09	118.26	114.60
36	1	2929	C	C6-N1-C2	-6.09	117.86	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3176	G	N3-C2-N2	-6.09	115.63	119.90
36	5	2857	C	C5-C4-N4	-6.09	115.94	120.20
1	2	542	A	N7-C8-N9	6.09	116.84	113.80
36	1	1180	A	C5-C6-N6	6.09	128.57	123.70
36	1	2136	C	N1-C2-O2	-6.09	115.25	118.90
36	1	2571	U	N3-C2-O2	-6.09	117.94	122.20
36	5	1321	G	C6-C5-N7	-6.09	126.75	130.40
36	1	93	C	O5'-P-OP1	-6.09	100.22	105.70
36	5	696	C	N3-C4-N4	6.09	122.26	118.00
36	5	1420	C	OP2-P-O3'	6.09	118.60	105.20
36	1	1724	U	O4'-C1'-N1	6.09	113.07	108.20
36	5	218	G	N3-C4-C5	-6.09	125.56	128.60
36	1	337	G	C2-N3-C4	6.09	114.94	111.90
36	1	665	A	C6-N1-C2	-6.09	114.95	118.60
36	1	1197	A	C6-C5-N7	-6.09	128.04	132.30
36	1	1296	C	C6-N1-C2	-6.09	117.86	120.30
36	1	1475	A	N7-C8-N9	-6.09	110.76	113.80
36	1	3263	G	N1-C6-O6	6.08	123.55	119.90
36	5	1151	U	N3-C4-C5	-6.08	110.95	114.60
36	1	683	U	C5-C4-O4	-6.08	122.25	125.90
36	1	1154	A	C4-C5-C6	6.08	120.04	117.00
73	o7	65	ARG	NE-CZ-NH1	6.08	123.34	120.30
36	1	1310	G	N3-C2-N2	6.08	124.16	119.90
36	1	2331	C	O5'-P-OP1	-6.08	100.23	105.70
1	6	795	U	N3-C2-O2	-6.08	117.94	122.20
36	5	217	U	C5-C6-N1	-6.08	119.66	122.70
1	2	73	U	OP1-P-O3'	6.08	118.57	105.20
1	6	1614	A	C5-N7-C8	-6.08	100.86	103.90
36	5	1931	U	N1-C2-O2	-6.08	118.55	122.80
36	5	2763	U	N3-C2-O2	6.08	126.45	122.20
36	1	282	G	C5-C6-O6	6.08	132.25	128.60
36	5	2410	U	N3-C2-O2	6.08	126.45	122.20
36	1	368	G	N1-C2-N2	-6.08	110.73	116.20
36	1	614	C	C5-C4-N4	-6.08	115.95	120.20
1	6	647	G	N3-C2-N2	-6.08	115.65	119.90
36	5	2406	C	N3-C2-O2	6.08	126.15	121.90
1	2	1565	C	C6-N1-C2	-6.07	117.87	120.30
36	1	360	G	N3-C4-N9	6.07	129.64	126.00
36	5	1175	C	N3-C2-O2	6.07	126.15	121.90
36	5	1311	G	N1-C2-N3	-6.07	120.26	123.90
36	5	1902	G	C4-C5-C6	6.07	122.44	118.80
36	5	2245	C	N3-C2-O2	-6.07	117.65	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2271	A	N7-C8-N9	-6.07	110.76	113.80
36	5	938	C	N3-C4-N4	6.07	122.25	118.00
36	1	15	C	C6-N1-C2	-6.07	117.87	120.30
36	1	1620	U	C2-N1-C1'	6.07	124.98	117.70
36	5	1432	C	N3-C2-O2	-6.07	117.65	121.90
36	5	1879	A	C5-N7-C8	-6.07	100.86	103.90
36	1	76	G	C8-N9-C4	-6.07	103.97	106.40
36	1	2522	G	C4-N9-C1'	6.07	134.39	126.50
36	1	2643	A	N7-C8-N9	-6.07	110.77	113.80
36	5	437	G	C4-N9-C1'	6.07	134.39	126.50
36	5	998	A	N1-C6-N6	-6.07	114.96	118.60
1	2	553	G	C5-C6-N1	-6.07	108.47	111.50
36	1	1820	U	P-O3'-C3'	6.07	126.98	119.70
1	6	999	U	C4-C5-C6	-6.07	116.06	119.70
36	5	2845	A	N7-C8-N9	6.06	116.83	113.80
36	1	406	G	C2-N3-C4	6.06	114.93	111.90
36	1	2808	A	C4-C5-N7	6.06	113.73	110.70
1	2	1668	G	N3-C4-N9	-6.06	122.36	126.00
1	2	1536	G	N3-C4-N9	6.06	129.64	126.00
36	1	1069	C	C6-N1-C2	-6.06	117.88	120.30
36	1	1351	U	C2-N1-C1'	6.06	124.97	117.70
1	2	387	A	O5'-P-OP2	-6.06	100.25	105.70
36	1	1131	G	N3-C4-N9	6.06	129.63	126.00
36	1	1370	G	C6-C5-N7	-6.06	126.77	130.40
36	5	587	U	C6-N1-C2	6.06	124.64	121.00
36	5	1336	U	C5-C4-O4	-6.06	122.27	125.90
36	5	2148	U	C2-N1-C1'	-6.06	110.43	117.70
37	3	91	G	C2-N3-C4	-6.06	108.87	111.90
36	5	1101	G	N1-C2-N2	-6.06	110.75	116.20
36	1	2182	A	C8-N9-C4	-6.05	103.38	105.80
36	1	3041	U	O5'-P-OP1	6.05	117.97	110.70
36	5	2145	A	C8-N9-C4	-6.05	103.38	105.80
36	5	2959	C	C5-C6-N1	-6.05	117.97	121.00
1	2	74	U	O5'-P-OP1	-6.05	100.25	105.70
1	6	359	A	C4-N9-C1'	-6.05	115.40	126.30
36	5	2857	C	N3-C4-C5	6.05	124.32	121.90
36	1	726	G	N7-C8-N9	6.05	116.13	113.10
36	5	2306	C	C6-N1-C2	6.05	122.72	120.30
36	1	188	U	C4-C5-C6	6.05	123.33	119.70
36	1	776	U	C5-C4-O4	6.05	129.53	125.90
36	5	3362	A	C8-N9-C4	-6.05	103.38	105.80
36	5	1724	U	OP1-P-O3'	6.05	118.51	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	304	G	N1-C2-N2	6.05	121.64	116.20
36	5	2816	G	O5'-P-OP2	-6.05	100.26	105.70
37	7	69	C	C5-C4-N4	-6.05	115.97	120.20
1	6	767	U	N3-C2-O2	-6.04	117.97	122.20
36	5	1154	A	N9-C4-C5	6.04	108.22	105.80
36	1	1313	G	C5-N7-C8	-6.04	101.28	104.30
36	1	1604	G	N3-C4-C5	-6.04	125.58	128.60
36	1	2514	U	C5-C6-N1	-6.04	119.68	122.70
36	1	57	A	N1-C2-N3	6.04	132.32	129.30
36	1	217	U	N1-C2-O2	-6.04	118.57	122.80
36	1	2826	U	C5-C4-O4	-6.04	122.28	125.90
36	5	955	U	C5-C4-O4	-6.04	122.28	125.90
36	5	2234	G	N9-C4-C5	-6.04	102.98	105.40
1	6	153	G	C4-C5-N7	6.04	113.22	110.80
1	6	1002	G	C8-N9-C4	-6.04	103.98	106.40
36	1	3344	A	C5-N7-C8	-6.04	100.88	103.90
1	6	1600	A	N9-C1'-C2'	6.04	121.85	114.00
36	5	1301	A	C5-N7-C8	-6.04	100.88	103.90
36	5	1309	U	N1-C2-O2	-6.04	118.58	122.80
36	5	2148	U	N1-C2-O2	-6.04	118.58	122.80
36	5	3278	C	C6-N1-C2	6.04	122.71	120.30
1	2	1162	C	C6-N1-C2	-6.03	117.89	120.30
1	6	114	C	N3-C2-O2	-6.03	117.68	121.90
36	5	1878	G	N7-C8-N9	6.03	116.12	113.10
36	5	2904	U	N1-C2-N3	6.03	118.52	114.90
36	1	988	U	C6-N1-C2	6.03	124.62	121.00
36	5	2991	A	N1-C6-N6	-6.03	114.98	118.60
1	2	48	G	OP2-P-O3'	6.03	118.47	105.20
36	1	2973	G	N1-C6-O6	6.03	123.52	119.90
36	5	1308	A	O5'-P-OP1	-6.03	100.27	105.70
1	2	307	G	N3-C4-N9	6.03	129.62	126.00
36	5	3128	G	N7-C8-N9	-6.03	110.08	113.10
36	5	526	C	N3-C4-C5	6.03	124.31	121.90
36	1	24	G	C8-N9-C4	6.03	108.81	106.40
36	1	153	U	C6-N1-C2	-6.03	117.39	121.00
36	1	2413	A	C4-C5-C6	-6.03	113.99	117.00
36	5	2881	C	N3-C4-C5	6.03	124.31	121.90
1	2	1033	C	N3-C2-O2	-6.02	117.68	121.90
1	2	144	U	N3-C2-O2	-6.02	117.98	122.20
36	1	507	U	O5'-P-OP1	6.02	117.93	110.70
36	5	1368	U	N3-C4-O4	6.02	123.61	119.40
36	5	2870	C	N3-C4-C5	6.02	124.31	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	321	C	C6-N1-C1'	-6.02	113.58	120.80
1	6	1137	A	N7-C8-N9	-6.02	110.79	113.80
1	2	1274	C	C6-N1-C2	-6.02	117.89	120.30
36	1	2764	C	C5-C6-N1	6.02	124.01	121.00
36	1	1346	G	C5-C6-N1	-6.02	108.49	111.50
36	5	1011	A	OP2-P-O3'	6.02	118.44	105.20
36	5	1160	C	C6-N1-C1'	6.02	128.02	120.80
36	5	1187	C	N3-C2-O2	-6.02	117.69	121.90
36	5	1239	C	C2-N1-C1'	6.02	125.42	118.80
36	5	2849	C	C5-C6-N1	6.02	124.01	121.00
36	5	3041	U	C4-C5-C6	-6.02	116.09	119.70
1	2	1489	U	N3-C2-O2	-6.02	117.99	122.20
36	5	1317	A	N1-C6-N6	6.02	122.21	118.60
36	5	1392	G	N9-C4-C5	-6.02	102.99	105.40
46	L9	31	ARG	NE-CZ-NH1	-6.01	117.29	120.30
1	6	755	A	C8-N9-C4	-6.01	103.39	105.80
36	5	2637	A	N1-C6-N6	6.01	122.21	118.60
69	o3	99	ARG	NE-CZ-NH1	-6.01	117.29	120.30
36	1	346	C	C2-N1-C1'	-6.01	112.19	118.80
36	1	807	A	N1-C2-N3	6.01	132.31	129.30
36	1	2142	A	N9-C4-C5	6.01	108.20	105.80
36	1	2647	A	N1-C2-N3	6.01	132.31	129.30
1	6	1025	A	C8-N9-C4	6.01	108.20	105.80
36	5	1337	A	C2-N3-C4	6.01	113.61	110.60
36	5	2107	A	O5'-P-OP1	-6.01	100.29	105.70
1	6	558	U	N1-C2-O2	6.01	127.01	122.80
36	5	2289	U	N1-C2-O2	6.01	127.01	122.80
37	7	77	G	C4-C5-N7	6.01	113.20	110.80
36	1	2917	G	O5'-P-OP2	-6.01	100.29	105.70
1	2	1241	G	O4'-C1'-N9	6.01	113.00	108.20
36	1	281	G	C6-N1-C2	-6.01	121.50	125.10
36	1	439	C	C5-C6-N1	6.01	124.00	121.00
36	1	2942	C	C4-C5-C6	-6.01	114.40	117.40
36	5	952	A	C5-C6-N6	-6.01	118.89	123.70
37	7	1	G	N3-C4-N9	6.01	129.60	126.00
36	5	2891	U	N3-C4-C5	6.00	118.20	114.60
1	2	1339	C	OP1-P-O3'	6.00	118.41	105.20
36	1	895	A	N1-C6-N6	6.00	122.20	118.60
36	5	1461	A	O5'-P-OP2	-6.00	100.30	105.70
1	2	186	C	C5-C6-N1	6.00	124.00	121.00
1	2	734	A	P-O3'-C3'	6.00	126.90	119.70
36	5	1909	A	C8-N9-C4	6.00	108.20	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	90	C	C6-N1-C2	-6.00	117.90	120.30
36	1	388	G	C8-N9-C4	-6.00	104.00	106.40
36	5	966	U	C2-N1-C1'	6.00	124.90	117.70
36	5	2944	U	N1-C2-O2	6.00	127.00	122.80
36	1	386	A	C6-C5-N7	-6.00	128.10	132.30
36	1	2324	A	C8-N9-C4	-6.00	103.40	105.80
36	1	2409	G	C8-N9-C4	-6.00	104.00	106.40
36	5	2856	G	C4-C5-N7	6.00	113.20	110.80
36	5	636	C	N3-C4-C5	5.99	124.30	121.90
36	5	2323	G	OP1-P-OP2	-5.99	110.61	119.60
36	1	2293	C	C2-N1-C1'	5.99	125.39	118.80
1	2	830	U	N1-C2-O2	5.99	126.99	122.80
24	D2	104	LEU	CA-CB-CG	5.99	129.08	115.30
36	1	369	A	N9-C4-C5	5.99	108.20	105.80
36	1	1489	A	N9-C4-C5	-5.99	103.40	105.80
36	1	2376	G	N7-C8-N9	5.99	116.09	113.10
36	5	338	A	OP2-P-O3'	5.99	118.38	105.20
36	5	1852	G	N7-C8-N9	5.99	116.09	113.10
36	5	2405	C	C6-N1-C2	-5.99	117.90	120.30
36	5	3304	U	OP1-P-OP2	5.99	128.59	119.60
36	1	1269	U	C2-N1-C1'	5.99	124.89	117.70
1	6	542	A	C4-N9-C1'	5.99	137.08	126.30
36	1	716	A	C2-N3-C4	-5.99	107.61	110.60
36	1	3212	C	C6-N1-C2	5.99	122.69	120.30
1	6	1673	G	O5'-P-OP2	-5.99	100.31	105.70
36	5	2290	C	C6-N1-C2	5.99	122.69	120.30
1	2	1456	C	N3-C2-O2	-5.98	117.71	121.90
36	5	2899	C	C2-N1-C1'	5.98	125.38	118.80
1	6	536	C	C6-N1-C2	-5.98	117.91	120.30
1	6	1098	U	O5'-P-OP1	-5.98	100.32	105.70
36	5	1203	A	C6-C5-N7	-5.98	128.11	132.30
36	1	618	C	N1-C2-O2	-5.98	115.31	118.90
36	1	1001	G	C5-C6-O6	-5.98	125.01	128.60
36	1	2508	U	C5-C6-N1	5.98	125.69	122.70
1	2	334	G	N3-C4-C5	5.98	131.59	128.60
1	2	354	C	N3-C4-C5	-5.98	119.51	121.90
36	1	2249	G	C5-C6-N1	5.98	114.49	111.50
36	5	1852	G	C8-N9-C4	-5.98	104.01	106.40
36	5	2990	G	C5-C6-O6	-5.98	125.01	128.60
37	7	12	U	C4-C5-C6	-5.98	116.11	119.70
36	1	54	C	C2-N1-C1'	-5.98	112.23	118.80
36	1	132	C	N3-C2-O2	5.98	126.08	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2414	G	N9-C4-C5	5.98	107.79	105.40
36	1	3006	A	N1-C2-N3	5.98	132.29	129.30
36	5	2936	A	C2-N3-C4	5.98	113.59	110.60
36	1	2868	U	N1-C2-O2	5.97	126.98	122.80
36	5	1112	A	C5-C6-N6	-5.97	118.92	123.70
36	5	1300	G	N9-C4-C5	-5.97	103.01	105.40
36	5	2353	G	N1-C6-O6	5.97	123.48	119.90
1	6	1640	C	C6-N1-C1'	-5.97	113.63	120.80
36	5	1592	G	C6-C5-N7	-5.97	126.82	130.40
36	5	425	G	C8-N9-C4	5.97	108.79	106.40
36	1	56	G	C5-C6-N1	5.97	114.48	111.50
36	1	1507	G	N1-C6-O6	5.97	123.48	119.90
1	6	543	C	N3-C2-O2	-5.97	117.72	121.90
36	5	1894	U	C5-C6-N1	-5.97	119.72	122.70
36	5	2728	G	N3-C4-N9	-5.97	122.42	126.00
36	1	984	G	N3-C4-N9	5.97	129.58	126.00
36	1	2550	U	C5-C4-O4	5.97	129.48	125.90
36	1	1876	U	C2-N1-C1'	5.97	124.86	117.70
1	6	864	U	N3-C2-O2	-5.97	118.02	122.20
36	5	936	A	O5'-P-OP2	-5.97	100.33	105.70
36	5	3018	C	C6-N1-C2	-5.97	117.91	120.30
36	1	120	G	C8-N9-C4	5.96	108.79	106.40
36	1	2931	C	N3-C4-N4	5.96	122.17	118.00
36	1	2958	A	C4-C5-C6	-5.96	114.02	117.00
36	5	838	G	C5-C6-O6	5.96	132.18	128.60
36	5	2644	C	N3-C2-O2	5.96	126.07	121.90
36	1	716	A	C5-C6-N6	-5.96	118.93	123.70
36	1	904	A	C2-N3-C4	-5.96	107.62	110.60
36	1	2651	G	C8-N9-C4	5.96	108.78	106.40
1	6	310	C	N3-C4-C5	-5.96	119.52	121.90
36	5	1846	C	C6-N1-C1'	-5.96	113.65	120.80
36	1	350	C	C6-N1-C2	-5.96	117.92	120.30
36	1	590	G	C6-C5-N7	-5.96	126.82	130.40
36	1	3326	G	C5-N7-C8	5.96	107.28	104.30
1	6	323	A	C8-N9-C4	-5.96	103.42	105.80
52	m6	84	LEU	CB-CG-CD1	-5.96	100.87	111.00
38	4	51	G	C5-C6-O6	-5.96	125.03	128.60
36	5	2231	C	C6-N1-C2	-5.96	117.92	120.30
1	2	1765	A	O5'-P-OP1	-5.96	100.34	105.70
36	1	282	G	O5'-P-OP1	-5.96	100.34	105.70
36	1	2413	A	C8-N9-C4	5.96	108.18	105.80
36	5	3004	C	C5-C4-N4	-5.96	116.03	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3036	G	N1-C2-N3	5.96	127.47	123.90
36	1	2374	C	C2-N1-C1'	5.96	125.35	118.80
1	2	597	G	N3-C4-C5	-5.95	125.62	128.60
36	1	1419	A	C5'-C4'-O4'	5.95	116.25	109.10
36	1	1481	A	N9-C4-C5	-5.95	103.42	105.80
36	1	1841	A	O5'-P-OP2	-5.95	100.34	105.70
36	1	3275	U	OP1-P-O3'	5.95	118.30	105.20
36	5	437	G	N3-C4-N9	5.95	129.57	126.00
36	5	2944	U	N3-C4-O4	-5.95	115.23	119.40
36	1	2308	C	N3-C4-C5	5.95	124.28	121.90
1	2	555	A	C8-N9-C4	-5.95	103.42	105.80
36	1	1164	G	N9-C4-C5	5.95	107.78	105.40
36	1	1227	C	C5-C6-N1	5.95	123.97	121.00
38	4	74	U	N1-C2-O2	-5.95	118.64	122.80
36	1	672	A	C5-C6-N1	-5.95	114.73	117.70
36	1	1392	G	C5-C6-N1	5.95	114.47	111.50
36	5	1175	C	C6-N1-C1'	5.95	127.94	120.80
36	5	1483	G	O4'-C1'-N9	5.95	112.96	108.20
36	5	3142	A	O5'-P-OP1	-5.95	100.35	105.70
36	5	2419	A	O5'-P-OP2	5.95	117.84	110.70
36	5	3212	C	N3-C2-O2	5.95	126.06	121.90
36	1	2148	U	N3-C2-O2	5.95	126.36	122.20
36	1	2417	U	N1-C2-N3	5.95	118.47	114.90
36	1	2883	U	O5'-P-OP2	-5.95	100.35	105.70
36	1	2959	C	N3-C2-O2	5.95	126.06	121.90
36	5	2324	A	O5'-P-OP1	-5.95	100.35	105.70
36	1	911	C	N1-C2-O2	-5.94	115.33	118.90
36	1	1507	G	O4'-C1'-N9	-5.94	103.44	108.20
1	2	1190	C	C6-N1-C2	5.94	122.68	120.30
1	2	1202	A	C8-N9-C4	-5.94	103.42	105.80
36	1	2249	G	P-O3'-C3'	5.94	126.83	119.70
36	1	2378	C	C6-N1-C2	5.94	122.68	120.30
36	1	2980	U	N1-C2-N3	5.94	118.47	114.90
1	6	314	C	C6-N1-C2	-5.94	117.92	120.30
1	6	354	C	C5-C6-N1	5.94	123.97	121.00
64	n8	73	LEU	CA-CB-CG	5.94	128.97	115.30
1	2	1486	G	C5-N7-C8	-5.94	101.33	104.30
36	1	1409	G	N3-C4-N9	-5.94	122.44	126.00
36	5	2385	G	C2-N3-C4	-5.94	108.93	111.90
36	5	2611	U	C4-C5-C6	5.94	123.27	119.70
36	5	2639	G	C4-N9-C1'	5.94	134.22	126.50
38	8	48	A	C8-N9-C4	-5.94	103.42	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	S3	182	LEU	CA-CB-CG	5.94	128.96	115.30
36	1	314	U	N3-C2-O2	-5.94	118.04	122.20
36	1	726	G	C8-N9-C4	-5.94	104.03	106.40
36	1	2692	A	C8-N9-C4	-5.94	103.42	105.80
36	5	688	G	N1-C6-O6	5.94	123.46	119.90
36	5	1434	G	N9-C4-C5	5.94	107.78	105.40
36	1	2846	U	N1-C2-N3	5.94	118.46	114.90
36	5	2709	C	C5-C4-N4	-5.94	116.05	120.20
1	2	635	A	N1-C6-N6	5.93	122.16	118.60
1	2	1768	G	C4-C5-N7	-5.93	108.43	110.80
36	1	3318	G	C8-N9-C4	-5.93	104.03	106.40
38	4	21	C	C4-C5-C6	-5.93	114.43	117.40
1	6	30	G	N9-C4-C5	5.93	107.77	105.40
1	6	407	A	N1-C2-N3	-5.93	126.33	129.30
36	5	687	U	C6-N1-C2	5.93	124.56	121.00
36	1	92	G	C5-C6-N1	5.93	114.47	111.50
36	1	3112	G	OP1-P-O3'	5.93	118.25	105.20
36	5	913	A	C4-C5-N7	5.93	113.67	110.70
36	5	1517	G	N1-C6-O6	5.93	123.46	119.90
1	6	1614	A	O4'-C1'-N9	5.93	112.94	108.20
36	5	2339	C	O4'-C1'-N1	-5.93	103.45	108.20
36	1	1069	C	C5-C6-N1	5.93	123.97	121.00
36	1	2984	C	N1-C2-N3	5.93	123.35	119.20
36	5	1757	A	C8-N9-C4	-5.93	103.43	105.80
36	1	2915	U	N1-C2-O2	-5.93	118.65	122.80
1	6	275	C	C2-N1-C1'	5.93	125.32	118.80
36	5	2531	C	C2-N1-C1'	5.93	125.32	118.80
37	7	77	G	C8-N9-C4	5.93	108.77	106.40
1	2	2	A	O4'-C1'-N9	-5.93	103.46	108.20
36	5	1905	G	N1-C2-N3	-5.93	120.34	123.90
1	2	877	G	O5'-P-OP2	-5.92	100.37	105.70
36	1	1112	A	N1-C6-N6	5.92	122.15	118.60
1	6	337	G	N3-C2-N2	5.92	124.05	119.90
38	8	2	A	C5-N7-C8	-5.92	100.94	103.90
36	1	271	C	N3-C2-O2	-5.92	117.75	121.90
36	5	2657	A	N1-C6-N6	-5.92	115.05	118.60
38	8	4	C	C2-N3-C4	-5.92	116.94	119.90
36	1	143	G	C5-C6-N1	5.92	114.46	111.50
36	1	334	A	C8-N9-C4	-5.92	103.43	105.80
36	1	1617	G	C8-N9-C4	5.92	108.77	106.40
36	1	1857	C	N1-C2-O2	-5.92	115.35	118.90
36	1	2827	U	C6-N1-C1'	5.92	129.49	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3316	A	OP2-P-O3'	5.92	118.22	105.20
36	1	3092	C	C6-N1-C2	5.92	122.67	120.30
1	6	1	U	C5-C6-N1	5.92	125.66	122.70
37	3	88	G	N1-C6-O6	-5.92	116.35	119.90
36	1	796	U	C5-C6-N1	5.92	125.66	122.70
36	1	2405	C	N3-C4-C5	-5.92	119.53	121.90
1	6	96	G	N9-C4-C5	5.92	107.77	105.40
36	5	398	A	N1-C6-N6	5.92	122.15	118.60
36	5	934	G	N3-C4-N9	5.92	129.55	126.00
36	5	2358	A	N3-C4-C5	5.92	130.94	126.80
36	5	2845	A	C8-N9-C4	-5.92	103.43	105.80
36	1	1159	A	N1-C6-N6	-5.91	115.05	118.60
38	4	15	G	N7-C8-N9	-5.91	110.14	113.10
1	6	543	C	C6-N1-C2	-5.91	117.94	120.30
36	5	2375	G	C5-C6-O6	5.91	132.15	128.60
36	5	3328	G	O5'-P-OP2	-5.91	100.38	105.70
36	5	1867	A	C5-C6-N6	-5.91	118.97	123.70
36	1	1115	G	N7-C8-N9	5.91	116.06	113.10
1	6	470	A	N7-C8-N9	5.91	116.75	113.80
36	5	2273	G	N1-C6-O6	-5.91	116.35	119.90
36	5	3195	U	P-O3'-C3'	5.91	126.79	119.70
36	1	2783	U	OP1-P-O3'	5.91	118.20	105.20
36	1	3268	A	N1-C6-N6	5.91	122.14	118.60
1	6	1097	U	P-O3'-C3'	5.91	126.79	119.70
36	5	1591	G	N3-C2-N2	-5.91	115.76	119.90
36	5	2850	G	C8-N9-C4	5.91	108.76	106.40
1	6	1778	G	N7-C8-N9	5.91	116.05	113.10
36	5	921	A	O5'-P-OP2	-5.91	100.38	105.70
1	2	1150	G	C8-N9-C4	5.91	108.76	106.40
1	2	1611	A	C2-N3-C4	-5.91	107.65	110.60
1	6	297	U	N3-C4-O4	5.91	123.53	119.40
36	5	1157	G	N1-C6-O6	-5.91	116.36	119.90
36	5	2341	A	N1-C6-N6	-5.91	115.06	118.60
36	5	3351	U	N3-C2-O2	-5.91	118.07	122.20
37	7	47	C	C2-N3-C4	-5.91	116.95	119.90
36	5	1367	G	C8-N9-C1'	-5.90	119.33	127.00
36	5	796	U	C4-C5-C6	5.90	123.24	119.70
36	5	1188	U	N1-C2-N3	5.90	118.44	114.90
36	1	908	G	C4-N9-C1'	5.90	134.17	126.50
36	1	1116	G	C8-N9-C4	-5.90	104.04	106.40
36	5	2376	G	N1-C6-O6	5.90	123.44	119.90
36	5	3257	C	O5'-P-OP1	-5.90	100.39	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1113	G	N3-C2-N2	-5.90	115.77	119.90
36	1	1428	A	C5-N7-C8	-5.90	100.95	103.90
36	5	2398	A	N1-C6-N6	-5.90	115.06	118.60
36	1	2629	U	O5'-P-OP2	-5.90	100.39	105.70
37	7	121	U	C2-N1-C1'	5.90	124.78	117.70
1	2	1082	C	N3-C2-O2	-5.89	117.77	121.90
36	1	658	G	C4-N9-C1'	5.89	134.16	126.50
36	1	730	C	C6-N1-C2	5.89	122.66	120.30
36	1	948	C	C5-C6-N1	-5.89	118.05	121.00
36	1	1151	U	N1-C2-O2	-5.89	118.67	122.80
36	5	983	A	C6-N1-C2	-5.89	115.06	118.60
36	5	1371	G	C5-N7-C8	5.89	107.25	104.30
36	5	2751	G	C6-C5-N7	-5.89	126.86	130.40
43	l6	30	LEU	CA-CB-CG	5.89	128.86	115.30
36	1	81	C	C2-N3-C4	-5.89	116.95	119.90
36	1	1359	C	C5-C4-N4	-5.89	116.08	120.20
36	5	651	G	C4-N9-C1'	5.89	134.16	126.50
36	5	716	A	O4'-C1'-N9	-5.89	103.49	108.20
36	5	3214	U	C5-C4-O4	5.89	129.44	125.90
36	1	2380	U	N3-C4-C5	5.89	118.13	114.60
71	O5	36	LEU	CA-CB-CG	5.89	128.85	115.30
1	6	866	G	O5'-P-OP2	-5.89	100.40	105.70
1	6	923	A	N1-C6-N6	-5.89	115.07	118.60
1	6	1560	U	N3-C2-O2	-5.89	118.08	122.20
36	5	394	G	C5-C6-O6	5.89	132.13	128.60
36	5	3362	A	O4'-C1'-N9	5.89	112.91	108.20
36	1	23	A	C8-N9-C4	-5.89	103.44	105.80
36	1	2177	G	C2-N3-C4	5.89	114.84	111.90
36	1	2987	A	N1-C6-N6	5.89	122.13	118.60
1	6	1267	G	C8-N9-C4	5.89	108.75	106.40
1	2	1324	G	C8-N9-C1'	5.89	134.65	127.00
36	1	638	C	O5'-P-OP1	5.89	117.77	110.70
36	1	651	G	C8-N9-C1'	-5.89	119.35	127.00
36	1	1342	C	N3-C4-C5	5.89	124.25	121.90
36	1	2606	G	N1-C2-N2	-5.89	110.90	116.20
36	1	3268	A	C6-C5-N7	-5.89	128.18	132.30
1	6	1549	C	N3-C4-C5	-5.89	119.55	121.90
36	1	1001	G	N3-C4-N9	5.88	129.53	126.00
1	6	1515	A	C8-N9-C4	-5.88	103.45	105.80
36	5	2307	G	N3-C2-N2	5.88	124.02	119.90
36	5	2434	U	C5-C6-N1	-5.88	119.76	122.70
40	l3	232	ARG	NE-CZ-NH1	5.88	123.24	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	932	U	N1-C2-O2	-5.88	118.68	122.80
36	1	1406	A	N1-C6-N6	5.88	122.13	118.60
36	1	2418	G	N3-C4-C5	-5.88	125.66	128.60
36	5	1476	G	C5-C6-O6	5.88	132.13	128.60
36	5	2728	G	N3-C2-N2	-5.88	115.78	119.90
1	2	1291	G	N1-C2-N3	5.88	127.43	123.90
36	1	1450	G	N1-C6-O6	5.88	123.43	119.90
36	1	1530	U	C6-N1-C2	5.88	124.53	121.00
36	1	2145	A	C6-C5-N7	-5.88	128.18	132.30
36	1	2379	U	C5-C4-O4	-5.88	122.37	125.90
36	5	1192	C	N1-C2-O2	5.88	122.43	118.90
36	5	2402	A	N9-C4-C5	5.88	108.15	105.80
1	2	1600	A	N1-C6-N6	5.88	122.13	118.60
36	1	2206	G	C5-C6-O6	-5.88	125.07	128.60
36	1	2920	U	OP2-P-O3'	5.88	118.13	105.20
1	6	400	A	N1-C6-N6	5.88	122.12	118.60
1	6	448	C	N3-C4-C5	-5.88	119.55	121.90
6	s4	38	LEU	CA-CB-CG	5.88	128.81	115.30
36	1	1210	U	C5-C6-N1	-5.87	119.76	122.70
36	1	2889	C	N1-C2-O2	5.87	122.42	118.90
37	7	69	C	C6-N1-C2	5.87	122.65	120.30
36	1	1116	G	O5'-P-OP1	-5.87	100.42	105.70
36	1	3209	A	N1-C6-N6	5.87	122.12	118.60
1	6	639	U	N1-C2-O2	5.87	126.91	122.80
36	5	693	A	O5'-P-OP2	5.87	117.75	110.70
36	5	2149	A	N1-C6-N6	5.87	122.12	118.60
36	5	2948	C	OP1-P-OP2	-5.87	110.79	119.60
36	1	1669	C	C6-N1-C2	5.87	122.65	120.30
1	6	1763	A	C8-N9-C4	5.87	108.15	105.80
36	5	1143	A	N9-C4-C5	5.87	108.15	105.80
38	8	80	A	C4-C5-C6	5.87	119.94	117.00
36	1	577	C	N1-C2-O2	-5.87	115.38	118.90
36	1	661	G	N7-C8-N9	5.87	116.03	113.10
1	6	1035	G	N1-C6-O6	-5.87	116.38	119.90
36	5	2375	G	N1-C6-O6	-5.87	116.38	119.90
36	1	1377	G	C6-C5-N7	-5.86	126.88	130.40
36	1	2241	U	O5'-P-OP1	-5.86	100.42	105.70
36	1	2692	A	N1-C6-N6	5.86	122.12	118.60
36	1	3308	C	C6-N1-C2	5.86	122.64	120.30
38	4	24	G	C6-C5-N7	-5.86	126.88	130.40
36	5	529	A	N1-C6-N6	5.86	122.12	118.60
36	5	2916	U	C4-C5-C6	5.86	123.22	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	864	U	C6-N1-C2	-5.86	117.48	121.00
1	2	1291	G	C8-N9-C4	-5.86	104.06	106.40
1	2	1657	U	O4'-C1'-N1	5.86	112.89	108.20
36	1	512	U	C5-C6-N1	-5.86	119.77	122.70
36	1	765	C	N1-C2-O2	5.86	122.42	118.90
36	1	802	C	N3-C2-O2	-5.86	117.80	121.90
36	1	805	G	N7-C8-N9	-5.86	110.17	113.10
36	1	1481	A	C8-N9-C1'	-5.86	117.15	127.70
36	1	2409	G	C6-N1-C2	-5.86	121.58	125.10
36	1	2601	A	C8-N9-C4	5.86	108.14	105.80
37	7	121	U	N1-C2-O2	5.86	126.90	122.80
36	1	1112	A	C5-C6-N6	-5.86	119.02	123.70
36	5	2158	A	N1-C6-N6	-5.86	115.09	118.60
36	5	2754	G	N1-C6-O6	-5.86	116.39	119.90
36	5	3099	C	N1-C2-O2	-5.86	115.39	118.90
36	5	3245	A	C8-N9-C4	-5.86	103.46	105.80
36	1	2124	G	C5-C6-O6	-5.85	125.09	128.60
1	2	284	G	C8-N9-C4	5.85	108.74	106.40
36	1	2805	G	N9-C4-C5	-5.85	103.06	105.40
36	1	2953	U	N3-C2-O2	5.85	126.30	122.20
36	5	2941	A	O4'-C1'-N9	-5.85	103.52	108.20
36	1	1113	G	C5-C6-N1	-5.85	108.58	111.50
36	1	1431	G	N7-C8-N9	-5.85	110.17	113.10
36	1	1906	G	N1-C6-O6	5.85	123.41	119.90
36	1	2388	U	OP2-P-O3'	5.85	118.07	105.20
1	6	884	A	C8-N9-C4	5.85	108.14	105.80
1	6	1004	U	N1-C2-O2	-5.85	118.71	122.80
1	6	1127	G	C8-N9-C4	-5.85	104.06	106.40
36	5	819	U	N1-C2-O2	-5.85	118.70	122.80
36	5	2730	G	C5-C6-O6	-5.85	125.09	128.60
37	7	82	G	OP2-P-O3'	5.85	118.07	105.20
36	1	1144	U	N3-C4-C5	5.85	118.11	114.60
36	1	1338	C	N1-C2-O2	-5.85	115.39	118.90
36	1	1370	G	C5-N7-C8	-5.85	101.38	104.30
36	1	1867	A	C8-N9-C4	5.85	108.14	105.80
1	6	75	U	O4'-C1'-N1	5.85	112.88	108.20
1	6	160	C	N3-C2-O2	-5.85	117.81	121.90
36	1	81	C	C5-C4-N4	-5.84	116.11	120.20
36	1	810	A	C2-N3-C4	5.84	113.52	110.60
36	1	1157	G	N9-C4-C5	5.84	107.74	105.40
36	5	1400	G	O5'-P-OP2	5.84	117.71	110.70
36	5	2358	A	N3-C4-N9	-5.84	122.72	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1848	G	O5'-P-OP1	-5.84	100.44	105.70
36	1	2937	G	N3-C2-N2	-5.84	115.81	119.90
1	2	1473	U	C5-C4-O4	5.84	129.40	125.90
36	1	648	C	C2-N1-C1'	5.84	125.22	118.80
36	1	689	U	C2-N1-C1'	5.84	124.71	117.70
1	6	778	G	N9-C4-C5	-5.84	103.06	105.40
36	5	1112	A	N1-C6-N6	5.84	122.10	118.60
36	5	1609	C	N3-C4-N4	5.84	122.09	118.00
36	5	2843	U	N1-C2-O2	5.84	126.89	122.80
36	5	2927	C	N3-C4-N4	5.84	122.09	118.00
36	1	640	U	N3-C4-O4	5.84	123.49	119.40
36	1	2377	G	C2-N3-C4	-5.84	108.98	111.90
1	2	1745	G	O5'-P-OP2	-5.84	100.45	105.70
36	1	650	C	N1-C2-O2	-5.84	115.40	118.90
36	1	2395	G	O5'-P-OP2	-5.84	100.45	105.70
36	5	369	A	C8-N9-C4	-5.84	103.47	105.80
36	5	1449	A	N9-C4-C5	-5.84	103.47	105.80
36	5	1908	A	N9-C4-C5	5.84	108.14	105.80
36	5	2142	A	C2-N3-C4	5.84	113.52	110.60
36	5	2892	A	N1-C2-N3	5.84	132.22	129.30
37	7	94	C	N1-C2-O2	5.84	122.40	118.90
1	2	297	U	N3-C2-O2	-5.83	118.12	122.20
36	1	2777	G	C4-C5-N7	-5.83	108.47	110.80
1	6	596	C	C6-N1-C2	5.83	122.63	120.30
36	5	41	G	OP2-P-O3'	5.83	118.03	105.20
36	5	2656	A	C8-N9-C4	-5.83	103.47	105.80
36	5	668	G	N3-C4-C5	-5.83	125.68	128.60
36	5	942	U	N1-C2-O2	-5.83	118.72	122.80
36	5	969	C	C5-C6-N1	-5.83	118.08	121.00
36	5	1419	A	N1-C6-N6	-5.83	115.10	118.60
36	5	2761	G	C5-C6-N1	5.83	114.42	111.50
36	1	3197	G	C2-N3-C4	-5.83	108.98	111.90
36	5	2187	G	N3-C4-N9	5.83	129.50	126.00
36	1	2419	A	C5-N7-C8	-5.83	100.99	103.90
36	1	2679	A	N1-C6-N6	5.83	122.10	118.60
1	6	1736	G	C5-C6-N1	-5.83	108.59	111.50
36	5	2953	U	C5-C4-O4	-5.83	122.40	125.90
36	5	3308	C	C2-N3-C4	-5.83	116.98	119.90
36	1	580	C	N1-C2-O2	-5.83	115.40	118.90
36	5	1546	A	O5'-P-OP1	-5.83	100.46	105.70
36	1	1301	A	O5'-P-OP1	-5.83	100.46	105.70
36	1	1365	G	C6-N1-C2	-5.82	121.61	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	336	G	O5'-P-OP2	-5.82	100.46	105.70
1	6	1000	C	C5-C6-N1	-5.82	118.09	121.00
36	5	1730	G	C8-N9-C4	5.82	108.73	106.40
36	1	1054	A	O5'-P-OP2	-5.82	100.46	105.70
1	6	360	A	O5'-P-OP2	-5.82	100.46	105.70
36	5	207	U	N3-C2-O2	5.82	126.28	122.20
36	1	1054	A	O5'-P-OP1	5.82	117.68	110.70
54	M8	138	LEU	CA-CB-CG	5.82	128.69	115.30
36	5	805	G	C8-N9-C4	5.82	108.73	106.40
1	2	554	C	N1-C2-O2	5.82	122.39	118.90
36	1	930	U	C2-N3-C4	-5.82	123.51	127.00
36	1	1349	G	N3-C4-C5	-5.82	125.69	128.60
36	1	2281	A	O5'-P-OP2	-5.82	100.46	105.70
36	1	1094	U	C5-C6-N1	5.82	125.61	122.70
1	6	14	C	C5-C6-N1	5.82	123.91	121.00
1	6	622	A	O5'-P-OP2	5.82	117.68	110.70
36	5	121	A	C8-N9-C4	5.82	108.13	105.80
36	5	1800	A	C8-N9-C4	5.82	108.13	105.80
36	5	2891	U	N3-C4-O4	-5.82	115.33	119.40
36	5	2920	U	C5-C4-O4	-5.82	122.41	125.90
36	1	369	A	N7-C8-N9	5.82	116.71	113.80
36	1	1180	A	C5-N7-C8	5.82	106.81	103.90
36	5	75	G	C5-C6-O6	-5.82	125.11	128.60
36	5	90	C	C6-N1-C2	-5.82	117.97	120.30
36	5	2601	A	OP2-P-O3'	5.82	118.00	105.20
36	5	2920	U	OP1-P-OP2	5.82	128.32	119.60
36	1	2226	U	O5'-P-OP1	-5.81	100.47	105.70
1	2	1777	G	N1-C6-O6	5.81	123.39	119.90
36	1	2805	G	C5-C6-O6	-5.81	125.11	128.60
36	1	2875	U	C6-N1-C2	-5.81	117.51	121.00
37	3	39	C	N3-C4-N4	-5.81	113.93	118.00
36	5	2978	U	C5-C6-N1	-5.81	119.79	122.70
36	5	1665	C	N3-C4-N4	-5.81	113.93	118.00
1	2	934	C	C6-N1-C1'	-5.81	113.83	120.80
36	1	2811	A	C8-N9-C4	-5.81	103.48	105.80
36	1	3043	C	OP2-P-O3'	5.81	117.98	105.20
36	5	922	U	N3-C4-O4	-5.81	115.33	119.40
39	l2	238	ILE	CG1-CB-CG2	-5.81	98.62	111.40
50	m4	19	ARG	NE-CZ-NH1	-5.81	117.40	120.30
1	2	794	U	P-O3'-C3'	5.81	126.67	119.70
1	2	1658	G	C4-C5-N7	5.81	113.12	110.80
36	5	934	G	C2-N3-C4	5.81	114.80	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	931	C	N3-C4-C5	5.81	124.22	121.90
36	1	1365	G	C4-N9-C1'	5.81	134.05	126.50
36	5	216	G	C4-C5-N7	5.81	113.12	110.80
25	D3	133	LEU	CA-CB-CG	5.80	128.65	115.30
36	1	974	G	N3-C4-C5	-5.80	125.70	128.60
36	1	2787	G	C8-N9-C4	-5.80	104.08	106.40
1	6	1480	G	C8-N9-C4	-5.80	104.08	106.40
36	5	1188	U	C2-N3-C4	-5.80	123.52	127.00
36	5	1911	A	O5'-P-OP2	-5.80	100.48	105.70
36	5	2866	U	OP1-P-O3'	5.80	117.97	105.20
1	2	1274	C	N1-C2-O2	5.80	122.38	118.90
1	2	321	C	N1-C2-O2	5.80	122.38	118.90
36	1	1368	U	N1-C2-O2	-5.80	118.74	122.80
36	1	2420	C	O5'-P-OP1	-5.80	100.48	105.70
38	4	9	A	N1-C6-N6	-5.80	115.12	118.60
1	6	29	U	N3-C2-O2	-5.80	118.14	122.20
1	6	749	U	N3-C2-O2	-5.80	118.14	122.20
36	5	2980	U	N1-C2-N3	5.80	118.38	114.90
36	1	125	C	N3-C4-C5	5.80	124.22	121.90
36	1	3067	C	O5'-P-OP2	-5.80	100.48	105.70
36	5	1897	G	C5-C6-N1	-5.80	108.60	111.50
36	1	1131	G	N9-C4-C5	-5.80	103.08	105.40
36	1	2937	G	N3-C4-C5	5.80	131.50	128.60
1	6	1535	U	O5'-P-OP1	5.80	117.66	110.70
1	2	794	U	N3-C2-O2	-5.79	118.14	122.20
36	1	2808	A	C5-C6-N6	-5.79	119.07	123.70
1	6	647	G	N3-C4-N9	-5.79	122.52	126.00
36	5	3374	U	N3-C4-O4	-5.79	115.34	119.40
36	1	2993	G	C5-C6-O6	-5.79	125.13	128.60
36	5	424	G	N1-C2-N3	-5.79	120.42	123.90
36	5	581	U	C5-C6-N1	5.79	125.60	122.70
36	5	2549	G	C4-N9-C1'	5.79	134.03	126.50
36	5	2904	U	C2-N3-C4	-5.79	123.53	127.00
36	5	3049	A	C8-N9-C4	5.79	108.12	105.80
37	7	110	G	O5'-P-OP2	-5.79	100.49	105.70
36	5	580	C	N1-C2-O2	-5.79	115.43	118.90
36	5	3184	A	C8-N9-C4	5.79	108.12	105.80
36	5	1851	G	C5-C6-N1	-5.79	108.61	111.50
36	5	3380	U	C5-C4-O4	5.79	129.37	125.90
1	2	307	G	C8-N9-C1'	-5.79	119.48	127.00
36	1	511	G	N1-C2-N3	5.79	127.37	123.90
36	1	1417	G	N3-C4-N9	-5.79	122.53	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2944	U	O5'-P-OP1	-5.79	100.49	105.70
37	3	93	C	N3-C4-C5	5.79	124.21	121.90
38	4	9	A	N9-C4-C5	5.79	108.11	105.80
1	6	678	A	P-O3'-C3'	5.79	126.64	119.70
1	6	1333	C	C6-N1-C2	5.79	122.61	120.30
36	5	2393	G	C5-C6-O6	-5.79	125.13	128.60
36	5	2831	G	C2-N3-C4	5.79	114.79	111.90
36	5	2892	A	C4-C5-C6	5.79	119.89	117.00
36	5	2913	C	C6-N1-C1'	5.79	127.74	120.80
36	1	37	U	N3-C4-C5	-5.78	111.13	114.60
1	6	420	A	N1-C6-N6	5.78	122.07	118.60
36	5	972	A	N1-C6-N6	-5.78	115.13	118.60
36	5	975	C	N3-C4-C5	-5.78	119.59	121.90
36	5	2549	G	C6-C5-N7	-5.78	126.93	130.40
36	1	716	A	C5-N7-C8	-5.78	101.01	103.90
36	1	3038	U	N1-C2-O2	-5.78	118.75	122.80
36	5	2683	U	N1-C2-O2	5.78	126.85	122.80
38	8	110	C	OP2-P-O3'	5.78	117.92	105.20
1	2	532	U	O5'-P-OP1	-5.78	100.50	105.70
1	2	794	U	N1-C2-O2	5.78	126.85	122.80
36	1	1097	G	P-O3'-C3'	5.78	126.64	119.70
1	6	255	U	N3-C2-O2	5.78	126.25	122.20
1	2	1291	G	N7-C8-N9	5.78	115.99	113.10
36	1	347	G	C6-C5-N7	-5.78	126.93	130.40
36	1	1405	U	C6-N1-C2	5.78	124.47	121.00
36	5	1126	G	C8-N9-C4	-5.78	104.09	106.40
36	5	1520	G	N1-C6-O6	5.78	123.37	119.90
36	1	3326	G	N7-C8-N9	-5.78	110.21	113.10
1	6	1027	A	C5-N7-C8	-5.78	101.01	103.90
36	5	2892	A	C8-N9-C4	-5.78	103.49	105.80
36	5	2953	U	N3-C2-O2	5.78	126.24	122.20
38	8	96	A	N9-C4-C5	-5.78	103.49	105.80
36	1	3217	C	C6-N1-C1'	-5.77	113.87	120.80
36	5	1130	A	C2-N3-C4	5.77	113.49	110.60
36	1	672	A	C6-C5-N7	-5.77	128.26	132.30
38	4	142	C	C6-N1-C2	-5.77	117.99	120.30
36	5	1151	U	N3-C2-O2	5.77	126.24	122.20
36	5	2833	A	C8-N9-C4	5.77	108.11	105.80
36	1	1007	U	C6-N1-C2	5.77	124.46	121.00
36	1	3218	A	C8-N9-C4	-5.77	103.49	105.80
36	5	1208	U	N3-C2-O2	-5.77	118.16	122.20
36	5	2142	A	O5'-P-OP1	5.77	117.62	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3095	U	N3-C2-O2	-5.77	118.16	122.20
36	1	422	A	C5-C6-N6	5.77	128.32	123.70
36	1	1474	A	C2-N3-C4	-5.77	107.72	110.60
36	1	3375	A	C8-N9-C4	-5.77	103.49	105.80
1	6	553	G	C5-C6-O6	-5.77	125.14	128.60
1	6	1031	U	C5-C6-N1	-5.77	119.81	122.70
36	5	911	C	C4-C5-C6	5.77	120.28	117.40
36	5	2246	G	C2-N3-C4	5.77	114.78	111.90
36	5	3136	G	N1-C2-N3	5.77	127.36	123.90
36	1	1902	G	C6-C5-N7	-5.77	126.94	130.40
1	6	119	A	C2-N3-C4	-5.77	107.72	110.60
36	5	2202	C	C6-N1-C2	-5.77	117.99	120.30
36	1	420	G	O4'-C1'-N9	5.77	112.81	108.20
36	5	2514	U	C5-C6-N1	5.77	125.58	122.70
36	1	2406	C	N3-C2-O2	5.76	125.94	121.90
36	1	3269	U	C5-C4-O4	5.76	129.36	125.90
36	5	3335	A	C6-C5-N7	-5.76	128.26	132.30
36	1	843	A	C2-N3-C4	-5.76	107.72	110.60
36	5	2121	G	C5-C6-O6	-5.76	125.14	128.60
36	5	2899	C	N3-C4-N4	5.76	122.03	118.00
36	5	2948	C	N3-C4-N4	-5.76	113.97	118.00
1	2	1462	G	N9-C4-C5	-5.76	103.09	105.40
36	1	699	A	N3-C4-N9	-5.76	122.79	127.40
1	6	1632	C	N1-C2-O2	5.76	122.36	118.90
36	5	2392	C	C5-C6-N1	-5.76	118.12	121.00
36	1	1613	A	N1-C6-N6	5.76	122.06	118.60
36	5	661	G	C5-C6-O6	-5.76	125.14	128.60
36	5	2830	G	OP2-P-O3'	5.76	117.87	105.20
36	1	911	C	O5'-P-OP2	5.76	117.61	110.70
36	1	2904	U	O5'-P-OP2	-5.76	100.52	105.70
36	5	2825	C	C6-N1-C2	5.76	122.60	120.30
1	2	380	U	N3-C2-O2	-5.76	118.17	122.20
1	6	361	C	OP1-P-OP2	-5.76	110.97	119.60
36	5	2892	A	N7-C8-N9	5.76	116.68	113.80
36	1	20	A	C8-N9-C4	-5.75	103.50	105.80
1	2	992	A	C5-N7-C8	-5.75	101.02	103.90
36	1	2619	G	OP1-P-OP2	5.75	128.23	119.60
36	1	2624	G	C6-C5-N7	-5.75	126.95	130.40
36	5	981	U	C5-C6-N1	5.75	125.58	122.70
36	5	2351	U	C5-C6-N1	5.75	125.58	122.70
36	5	3392	U	C5-C4-O4	5.75	129.35	125.90
36	1	880	G	C8-N9-C4	5.75	108.70	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2905	U	N3-C2-O2	5.75	126.22	122.20
36	5	2700	G	N9-C4-C5	-5.75	103.10	105.40
36	5	2847	A	C8-N9-C4	5.75	108.10	105.80
36	1	349	A	OP2-P-O3'	5.75	117.84	105.20
36	1	969	C	C4-C5-C6	5.75	120.27	117.40
36	1	2585	G	N3-C4-C5	-5.75	125.73	128.60
1	6	769	A	C8-N9-C4	-5.75	103.50	105.80
1	6	1479	A	N1-C6-N6	5.75	122.05	118.60
36	5	2352	A	C4-C5-C6	5.75	119.87	117.00
36	5	3217	C	C6-N1-C1'	5.75	127.70	120.80
1	6	111	U	C6-N1-C2	-5.75	117.55	121.00
1	6	1765	A	C8-N9-C4	5.75	108.10	105.80
36	1	3217	C	N1-C2-O2	5.74	122.35	118.90
1	6	1670	G	C5-C6-N1	5.74	114.37	111.50
36	5	1902	G	N3-C4-N9	5.74	129.45	126.00
38	8	115	C	N3-C2-O2	5.74	125.92	121.90
1	6	163	G	N1-C2-N2	5.74	121.37	116.20
36	1	49	A	C2-N3-C4	-5.74	107.73	110.60
36	1	1206	G	C5-C6-N1	-5.74	108.63	111.50
37	3	110	G	O5'-P-OP2	-5.74	100.53	105.70
1	6	631	G	C5-C6-O6	-5.74	125.16	128.60
6	s4	222	LEU	CA-CB-CG	5.74	128.50	115.30
36	5	1885	U	C5-C6-N1	-5.74	119.83	122.70
1	2	1597	A	N1-C6-N6	5.74	122.04	118.60
36	1	2617	U	N3-C4-O4	-5.74	115.38	119.40
36	1	3207	U	C2-N1-C1'	-5.74	110.81	117.70
37	7	103	A	C5-C6-N6	-5.74	119.11	123.70
1	2	1258	U	N3-C2-O2	-5.74	118.18	122.20
36	5	2709	C	N3-C4-C5	5.74	124.19	121.90
62	N6	126	LEU	CA-CB-CG	5.74	128.49	115.30
1	6	749	U	N1-C2-N3	5.74	118.34	114.90
36	5	1116	G	C5-C6-O6	5.74	132.04	128.60
36	5	1367	G	C4-C5-C6	5.74	122.24	118.80
36	1	2916	U	C5-C4-O4	-5.73	122.46	125.90
36	5	2994	A	C5-C6-N6	-5.73	119.11	123.70
43	L6	55	LEU	CA-CB-CG	-5.73	102.11	115.30
1	6	543	C	N1-C2-O2	5.73	122.34	118.90
5	s3	202	LEU	CA-CB-CG	5.73	128.48	115.30
36	1	2168	A	C2-N3-C4	5.73	113.47	110.60
36	1	2950	G	O4'-C1'-N9	5.73	112.78	108.20
36	5	1788	C	O5'-P-OP2	-5.73	100.54	105.70
36	5	1931	U	C2-N3-C4	-5.73	123.56	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	646	A	N1-C2-N3	5.73	132.16	129.30
36	1	808	A	C4-C5-N7	-5.73	107.83	110.70
36	1	1414	G	OP1-P-O3'	5.73	117.80	105.20
36	1	2244	A	C8-N9-C4	5.73	108.09	105.80
38	4	79	A	C8-N9-C4	-5.73	103.51	105.80
36	1	829	U	C2-N1-C1'	5.73	124.57	117.70
36	5	2862	U	N3-C2-O2	-5.73	118.19	122.20
36	1	501	A	C5-C6-N6	-5.73	119.12	123.70
36	1	2734	A	N1-C6-N6	5.73	122.04	118.60
44	L7	110	ARG	NE-CZ-NH2	-5.73	117.44	120.30
25	d3	33	LEU	CB-CG-CD1	-5.73	101.27	111.00
36	5	2950	G	C4-C5-N7	5.73	113.09	110.80
36	5	218	G	C2-N3-C4	5.72	114.76	111.90
36	5	1008	U	C2-N1-C1'	-5.72	110.83	117.70
36	5	1380	G	N9-C4-C5	-5.72	103.11	105.40
36	5	2245	C	C2-N1-C1'	5.72	125.10	118.80
1	2	720	G	OP1-P-O3'	5.72	117.79	105.20
36	1	1789	G	N1-C6-O6	-5.72	116.47	119.90
36	5	2892	A	N1-C6-N6	5.72	122.03	118.60
36	5	2164	A	C8-N9-C4	-5.72	103.51	105.80
1	2	11	A	O5'-P-OP1	-5.72	100.55	105.70
1	2	1052	U	C2-N1-C1'	5.72	124.56	117.70
36	1	870	G	N9-C4-C5	5.72	107.69	105.40
36	5	914	A	N1-C6-N6	5.72	122.03	118.60
36	5	399	A	C5-C6-N6	-5.72	119.13	123.70
36	1	49	A	C5-C6-N1	-5.72	114.84	117.70
36	1	544	C	C6-N1-C2	-5.72	118.01	120.30
36	1	2222	A	O4'-C1'-N9	-5.72	103.63	108.20
1	6	1127	G	N7-C8-N9	5.72	115.96	113.10
1	6	1773	C	C4-C5-C6	5.72	120.26	117.40
37	7	92	A	N9-C4-C5	-5.72	103.51	105.80
36	1	934	G	C8-N9-C1'	-5.71	119.57	127.00
36	1	2812	C	C2-N3-C4	-5.71	117.04	119.90
36	1	2820	A	OP1-P-O3'	-5.71	92.63	105.20
1	6	308	C	C2-N1-C1'	-5.71	112.51	118.80
36	5	416	A	C8-N9-C4	-5.71	103.52	105.80
36	5	984	G	N3-C4-C5	-5.71	125.74	128.60
36	5	2187	G	C6-C5-N7	-5.71	126.97	130.40
36	5	3154	C	N3-C2-O2	-5.71	117.90	121.90
1	2	852	C	C5-C6-N1	5.71	123.86	121.00
36	1	410	U	N3-C4-C5	-5.71	111.17	114.60
36	1	2607	G	N1-C2-N2	-5.71	111.06	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1540	G	N1-C6-O6	-5.71	116.47	119.90
36	5	2110	G	N1-C6-O6	5.71	123.33	119.90
37	7	34	C	C6-N1-C2	-5.71	118.02	120.30
1	2	186	C	C6-N1-C2	-5.71	118.02	120.30
36	1	2357	A	N1-C6-N6	5.71	122.03	118.60
36	1	1492	G	N7-C8-N9	-5.71	110.25	113.10
36	1	3079	U	C2-N1-C1'	-5.71	110.85	117.70
36	1	1402	C	N3-C2-O2	-5.71	117.91	121.90
36	1	3362	A	N1-C6-N6	5.71	122.02	118.60
1	6	154	G	C6-C5-N7	-5.71	126.98	130.40
36	5	110	G	N7-C8-N9	-5.71	110.25	113.10
36	5	518	G	O4'-C1'-N9	5.71	112.77	108.20
36	1	910	G	C8-N9-C4	-5.71	104.12	106.40
36	5	835	G	C8-N9-C4	5.71	108.68	106.40
36	5	1400	G	N3-C4-C5	-5.71	125.75	128.60
36	5	2144	A	N1-C6-N6	5.71	122.02	118.60
36	1	1307	G	C5-C6-N1	5.70	114.35	111.50
36	1	1389	G	C5-N7-C8	-5.70	101.45	104.30
36	1	1481	A	O5'-P-OP1	5.70	117.54	110.70
36	1	1902	G	N7-C8-N9	5.70	115.95	113.10
36	5	1307	G	C2'-C3'-O3'	5.70	122.83	113.70
36	5	2983	C	O5'-P-OP1	-5.70	100.57	105.70
38	4	151	C	N3-C4-C5	-5.70	119.62	121.90
36	5	1060	U	N1-C2-O2	5.70	126.79	122.80
36	1	1110	U	C4-C5-C6	-5.70	116.28	119.70
36	1	1838	G	C8-N9-C1'	-5.70	119.59	127.00
36	1	2404	A	C5-C6-N1	5.70	120.55	117.70
1	6	607	G	C4-C5-C6	5.70	122.22	118.80
36	5	568	G	C5-C6-N1	5.70	114.35	111.50
36	5	1180	A	O4'-C1'-N9	-5.70	103.64	108.20
36	5	426	G	O5'-P-OP2	-5.70	100.57	105.70
36	5	708	G	C8-N9-C4	-5.70	104.12	106.40
36	5	2836	C	OP2-P-O3'	5.70	117.74	105.20
36	1	820	A	C5-N7-C8	-5.70	101.05	103.90
36	1	2124	G	C6-C5-N7	-5.70	126.98	130.40
1	6	610	G	N3-C4-N9	5.70	129.42	126.00
1	6	1562	G	N1-C6-O6	5.70	123.32	119.90
20	c8	116	LEU	CA-CB-CG	5.70	128.40	115.30
36	5	3315	G	C5-C6-O6	5.70	132.02	128.60
1	2	137	U	N3-C2-O2	-5.69	118.21	122.20
1	2	1096	C	C2-N1-C1'	5.69	125.06	118.80
36	1	805	G	N9-C4-C5	-5.69	103.12	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	104	A	N1-C6-N6	-5.69	115.18	118.60
36	1	72	C	C6-N1-C1'	5.69	127.63	120.80
36	1	994	G	C5-C6-N1	5.69	114.35	111.50
1	6	1614	A	C4-C5-N7	5.69	113.55	110.70
36	5	2380	U	N1-C2-N3	5.69	118.31	114.90
1	2	901	G	C5-C6-O6	-5.69	125.19	128.60
36	1	2623	G	N1-C2-N3	5.69	127.31	123.90
1	6	1782	A	N7-C8-N9	5.69	116.64	113.80
36	5	810	A	C2-N3-C4	5.69	113.44	110.60
36	5	981	U	C6-N1-C2	-5.69	117.59	121.00
36	1	2702	A	C8-N9-C4	-5.69	103.53	105.80
36	1	2893	C	N3-C4-C5	5.69	124.17	121.90
36	5	23	A	N1-C6-N6	5.69	122.01	118.60
36	1	968	G	C5-C6-N1	5.68	114.34	111.50
36	1	2144	A	C2-N3-C4	5.68	113.44	110.60
36	5	2642	A	N1-C6-N6	-5.68	115.19	118.60
36	5	2651	G	OP2-P-O3'	5.68	117.70	105.20
37	7	91	G	C6-C5-N7	-5.68	126.99	130.40
36	5	3008	A	N3-C4-N9	-5.68	122.86	127.40
36	1	303	G	C8-N9-C4	5.68	108.67	106.40
36	1	635	G	C5-C6-O6	-5.68	125.19	128.60
36	1	885	U	C5-C6-N1	-5.68	119.86	122.70
36	1	2367	A	C6-C5-N7	-5.68	128.32	132.30
36	1	2936	A	O5'-P-OP2	5.68	117.52	110.70
47	M0	24	ARG	NE-CZ-NH1	5.68	123.14	120.30
36	5	2970	C	O5'-P-OP1	-5.68	100.59	105.70
36	1	2850	G	N9-C4-C5	-5.68	103.13	105.40
38	4	113	U	N3-C2-O2	-5.68	118.22	122.20
36	5	2870	C	C6-N1-C1'	5.68	127.61	120.80
36	1	1103	A	P-O3'-C3'	5.68	126.51	119.70
36	1	2283	G	N9-C4-C5	-5.68	103.13	105.40
1	6	1697	G	N3-C4-C5	-5.68	125.76	128.60
37	7	121	U	N3-C2-O2	-5.68	118.23	122.20
36	1	1661	G	N3-C4-N9	5.67	129.40	126.00
36	1	2177	G	N3-C2-N2	5.67	123.87	119.90
38	4	53	A	N9-C4-C5	5.67	108.07	105.80
36	5	3143	C	N3-C2-O2	5.67	125.87	121.90
36	1	2130	G	N3-C2-N2	5.67	123.87	119.90
1	6	1152	A	N1-C6-N6	-5.67	115.20	118.60
1	6	1653	C	N3-C2-O2	-5.67	117.93	121.90
36	5	1184	A	N9-C4-C5	5.67	108.07	105.80
1	2	1490	C	C2-N1-C1'	5.67	125.04	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	1746	A	O5'-P-OP1	-5.67	100.60	105.70
36	1	2166	A	O5'-P-OP2	5.67	117.51	110.70
36	1	2677	G	N1-C6-O6	-5.67	116.50	119.90
36	5	758	C	C2-N1-C1'	-5.67	112.56	118.80
1	2	966	A	C6-C5-N7	-5.67	128.33	132.30
36	5	1133	A	C8-N9-C4	-5.67	103.53	105.80
36	1	2369	G	N3-C2-N2	-5.67	115.93	119.90
36	1	3171	U	C6-N1-C2	5.67	124.40	121.00
36	5	559	A	C8-N9-C4	-5.67	103.53	105.80
36	5	1499	C	N1-C2-O2	-5.67	115.50	118.90
36	5	2416	U	C6-N1-C2	-5.67	117.60	121.00
36	5	1003	A	C8-N9-C4	5.67	108.07	105.80
36	5	1190	A	N1-C6-N6	-5.67	115.20	118.60
36	5	1452	A	N9-C4-C5	-5.67	103.53	105.80
54	m8	39	ARG	NE-CZ-NH1	-5.67	117.47	120.30
36	1	1269	U	N1-C2-O2	5.67	126.77	122.80
1	6	1296	A	N1-C6-N6	5.67	122.00	118.60
1	6	1781	A	C4-C5-C6	5.67	119.83	117.00
1	6	426	G	C4-N9-C1'	5.66	133.86	126.50
1	6	1549	C	C6-N1-C2	-5.66	118.03	120.30
36	5	27	C	N1-C2-O2	-5.66	115.50	118.90
1	2	1420	C	N3-C4-N4	5.66	121.96	118.00
36	1	2622	C	N3-C4-N4	5.66	121.96	118.00
36	5	358	G	O5'-P-OP2	-5.66	100.60	105.70
36	1	610	G	N1-C6-O6	-5.66	116.50	119.90
36	5	2817	A	N9-C4-C5	5.66	108.06	105.80
1	2	1018	U	O5'-P-OP1	-5.66	100.61	105.70
36	1	919	U	N3-C4-O4	-5.66	115.44	119.40
38	4	53	A	C2-N3-C4	5.66	113.43	110.60
36	5	2697	A	N1-C6-N6	5.66	122.00	118.60
1	6	523	G	C8-N9-C4	5.66	108.66	106.40
36	5	81	C	N3-C4-C5	5.66	124.16	121.90
1	6	1596	C	N1-C2-O2	5.65	122.29	118.90
36	5	1187	C	O5'-P-OP2	-5.65	100.61	105.70
36	1	1513	G	N3-C4-C5	-5.65	125.77	128.60
38	4	111	A	C6-C5-N7	-5.65	128.34	132.30
38	4	111	A	C4-C5-N7	5.65	113.53	110.70
54	M8	99	THR	N-CA-C	5.65	126.26	111.00
38	8	84	C	N3-C2-O2	-5.65	117.94	121.90
1	2	1027	A	C5-N7-C8	-5.65	101.07	103.90
36	1	1331	U	O4'-C1'-N1	-5.65	103.68	108.20
36	1	2995	A	C8-N9-C4	5.65	108.06	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1158	A	C5-C6-N6	-5.65	119.18	123.70
36	5	2643	A	C5-C6-N6	-5.65	119.18	123.70
36	5	2887	A	O4'-C1'-N9	-5.65	103.68	108.20
36	5	1116	G	OP2-P-O3'	5.65	117.62	105.20
36	5	2728	G	O5'-P-OP2	-5.65	100.62	105.70
36	1	97	U	N1-C2-O2	-5.64	118.85	122.80
36	1	2355	G	C4-C5-C6	5.64	122.19	118.80
37	3	101	G	N9-C4-C5	-5.64	103.14	105.40
1	6	1119	G	O5'-P-OP2	-5.64	100.62	105.70
36	5	180	C	N3-C2-O2	-5.64	117.95	121.90
36	5	942	U	N1-C2-N3	5.64	118.29	114.90
36	5	2292	U	N3-C2-O2	-5.64	118.25	122.20
36	5	2897	A	C5-C6-N6	-5.64	119.19	123.70
36	5	3218	A	P-O3'-C3'	5.64	126.47	119.70
36	5	360	G	C5-C6-O6	5.64	131.99	128.60
36	5	1429	G	N3-C2-N2	5.64	123.85	119.90
36	5	2916	U	OP1-P-O3'	5.64	117.61	105.20
36	5	2950	G	N1-C2-N3	-5.64	120.51	123.90
36	5	3093	C	O4'-C1'-N1	-5.64	103.69	108.20
1	2	20	G	C2-N3-C4	-5.64	109.08	111.90
1	2	393	C	N3-C4-C5	5.64	124.16	121.90
1	6	472	U	N1-C2-N3	5.64	118.28	114.90
36	5	86	G	C5-C6-O6	-5.64	125.22	128.60
36	5	1399	A	N1-C6-N6	5.64	121.98	118.60
36	1	1376	C	C4-C5-C6	5.64	120.22	117.40
1	6	6	G	N1-C6-O6	5.64	123.28	119.90
36	5	287	G	N3-C4-C5	-5.64	125.78	128.60
36	1	344	A	C6-C5-N7	5.64	136.25	132.30
36	5	646	A	N7-C8-N9	5.64	116.62	113.80
36	5	1789	G	N3-C4-N9	-5.64	122.62	126.00
36	1	3305	A	N9-C4-C5	5.64	108.06	105.80
38	4	9	A	O5'-P-OP1	5.64	117.47	110.70
1	6	1781	A	OP2-P-O3'	5.64	117.60	105.20
36	5	952	A	N1-C6-N6	5.64	121.98	118.60
1	2	187	G	P-O3'-C3'	5.63	126.46	119.70
1	2	380	U	N1-C2-O2	5.63	126.74	122.80
36	1	2404	A	N1-C2-N3	-5.63	126.48	129.30
1	6	66	U	P-O3'-C3'	5.63	126.46	119.70
36	1	1049	C	C5-C4-N4	-5.63	116.26	120.20
37	3	91	G	N1-C2-N3	5.63	127.28	123.90
36	5	1868	G	N3-C2-N2	5.63	123.84	119.90
37	7	120	C	C6-N1-C2	5.63	122.55	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2719	U	N1-C2-N3	5.63	118.28	114.90
36	5	1158	A	C6-C5-N7	-5.63	128.36	132.30
36	5	2524	A	N9-C1'-C2'	5.63	121.32	114.00
36	5	2700	G	N3-C4-N9	5.63	129.38	126.00
1	2	966	A	C5-C6-N6	-5.63	119.20	123.70
36	1	653	A	O5'-P-OP2	-5.63	100.64	105.70
36	1	793	C	N3-C4-N4	5.63	121.94	118.00
36	1	1307	G	C2'-C3'-O3'	5.63	122.71	113.70
36	1	3183	A	C5-N7-C8	-5.63	101.09	103.90
38	4	73	U	C4-C5-C6	-5.63	116.32	119.70
36	5	1907	C	N3-C4-C5	-5.63	119.65	121.90
1	2	294	C	C6-N1-C2	5.63	122.55	120.30
36	1	1555	U	C2-N1-C1'	-5.63	110.95	117.70
36	1	3050	U	N1-C2-O2	5.63	126.74	122.80
37	3	10	C	N3-C2-O2	-5.63	117.96	121.90
1	6	617	U	C2-N1-C1'	5.63	124.45	117.70
36	5	2856	G	N7-C8-N9	5.63	115.91	113.10
36	5	3331	U	C5-C6-N1	-5.63	119.89	122.70
36	1	658	G	C8-N9-C1'	-5.62	119.69	127.00
36	1	2886	U	N1-C2-O2	-5.62	118.86	122.80
36	1	611	A	N1-C6-N6	5.62	121.97	118.60
36	1	954	U	N1-C2-O2	-5.62	118.86	122.80
36	1	1507	G	C4-C5-C6	5.62	122.17	118.80
36	5	388	G	N1-C6-O6	5.62	123.27	119.90
1	2	913	G	C4-N9-C1'	5.62	133.81	126.50
36	1	709	A	N7-C8-N9	-5.62	110.99	113.80
36	1	3110	C	C2-N1-C1'	5.62	124.98	118.80
1	6	272	U	C2-N1-C1'	5.62	124.45	117.70
1	6	1589	C	C6-N1-C2	-5.62	118.05	120.30
36	5	3140	G	C5-C6-O6	-5.62	125.23	128.60
36	1	685	G	N1-C6-O6	5.62	123.27	119.90
1	2	1324	G	C6-C5-N7	5.62	133.77	130.40
36	1	125	C	C2-N3-C4	-5.62	117.09	119.90
36	1	1835	A	C6-N1-C2	5.62	121.97	118.60
36	1	2332	A	C2-N3-C4	-5.62	107.79	110.60
38	4	97	A	C8-N9-C4	-5.62	103.55	105.80
36	5	1473	G	C5-N7-C8	5.62	107.11	104.30
36	1	688	G	N3-C4-N9	5.62	129.37	126.00
36	5	2837	A	O5'-P-OP2	5.62	117.44	110.70
36	1	1590	G	C5-C6-O6	5.62	131.97	128.60
53	M7	3	ARG	NE-CZ-NH2	-5.62	117.49	120.30
36	5	2730	G	N1-C6-O6	5.62	123.27	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2953	U	N1-C2-O2	-5.62	118.87	122.80
1	2	736	C	C5-C6-N1	5.61	123.81	121.00
36	1	352	A	C2-N3-C4	-5.61	107.79	110.60
36	1	1399	A	N3-C4-N9	-5.61	122.91	127.40
37	3	88	G	C4-C5-N7	-5.61	108.56	110.80
50	M4	135	LEU	CA-CB-CG	5.61	128.21	115.30
36	5	2372	A	N7-C8-N9	5.61	116.61	113.80
37	7	49	G	C4-C5-C6	5.61	122.17	118.80
1	2	1745	G	N3-C4-C5	-5.61	125.79	128.60
36	1	968	G	N3-C2-N2	5.61	123.83	119.90
36	1	2383	C	C2-N3-C4	-5.61	117.09	119.90
36	5	340	C	C6-N1-C2	5.61	122.55	120.30
36	5	644	G	N9-C4-C5	5.61	107.64	105.40
1	2	186	C	C2-N1-C1'	5.61	124.97	118.80
1	2	1560	U	C6-N1-C2	-5.61	117.63	121.00
36	1	1165	A	C8-N9-C4	5.61	108.04	105.80
36	1	1848	G	C5-C6-O6	-5.61	125.23	128.60
36	1	2612	U	C5-C6-N1	-5.61	119.89	122.70
36	1	2918	G	N3-C4-C5	-5.61	125.80	128.60
36	5	2110	G	C6-C5-N7	-5.61	127.03	130.40
36	5	2926	A	N1-C6-N6	5.61	121.97	118.60
36	5	845	G	OP1-P-O3'	5.61	117.54	105.20
36	1	428	A	C5-C6-N1	5.61	120.50	117.70
36	1	2153	U	N1-C2-N3	5.61	118.26	114.90
36	1	2775	U	C5-C6-N1	-5.61	119.90	122.70
1	6	1765	A	N1-C6-N6	-5.61	115.23	118.60
36	5	385	A	N9-C4-C5	-5.61	103.56	105.80
36	5	1813	A	C8-N9-C4	-5.61	103.56	105.80
36	1	2734	A	C8-N9-C4	5.61	108.04	105.80
36	5	2144	A	O4'-C1'-N9	5.61	112.69	108.20
38	8	54	A	N1-C6-N6	5.61	121.96	118.60
1	6	455	C	N1-C2-O2	-5.60	115.54	118.90
1	6	1772	C	C4-C5-C6	5.60	120.20	117.40
36	1	217	U	N3-C4-O4	5.60	123.32	119.40
36	1	614	C	C2-N3-C4	-5.60	117.10	119.90
36	5	283	G	O4'-C1'-N9	-5.60	103.72	108.20
36	5	1160	C	C2-N1-C1'	-5.60	112.64	118.80
36	5	2721	A	O5'-P-OP1	-5.60	100.66	105.70
36	5	2758	A	C5-C6-N1	5.60	120.50	117.70
37	7	50	U	C5-C6-N1	5.60	125.50	122.70
38	8	100	U	C2-N1-C1'	5.60	124.42	117.70
38	8	109	A	OP2-P-O3'	5.60	117.52	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	391	A	C8-N9-C4	5.60	108.04	105.80
36	1	284	A	C4-C5-C6	5.60	119.80	117.00
36	1	2308	C	C5-C6-N1	-5.60	118.20	121.00
36	1	3342	A	N1-C6-N6	5.60	121.96	118.60
41	L4	139	GLY	N-CA-C	-5.60	99.10	113.10
36	1	345	G	C4-C5-C6	5.60	122.16	118.80
36	1	1507	G	N3-C2-N2	-5.60	115.98	119.90
36	1	2414	G	N3-C2-N2	-5.60	115.98	119.90
36	1	2967	A	N1-C6-N6	5.60	121.96	118.60
36	1	3188	G	C8-N9-C4	5.60	108.64	106.40
36	1	3214	U	N1-C2-O2	5.60	126.72	122.80
1	6	1568	C	P-O3'-C3'	5.60	126.42	119.70
36	5	1507	G	N3-C2-N2	-5.60	115.98	119.90
36	5	2179	C	C6-N1-C2	5.60	122.54	120.30
36	5	3102	G	N3-C4-C5	-5.60	125.80	128.60
1	2	21	U	C5-C4-O4	-5.60	122.54	125.90
36	5	3362	A	C2-N3-C4	-5.60	107.80	110.60
36	1	842	G	O5'-P-OP2	-5.59	100.66	105.70
36	1	1316	C	N1-C2-O2	-5.59	115.54	118.90
36	1	2987	A	C6-C5-N7	-5.59	128.38	132.30
42	L5	146	LEU	CA-CB-CG	5.59	128.17	115.30
36	5	1101	G	O5'-P-OP1	5.59	117.41	110.70
36	5	1175	C	N3-C4-C5	5.59	124.14	121.90
36	5	2420	C	N3-C2-O2	5.59	125.82	121.90
36	5	2900	A	OP2-P-O3'	5.59	117.51	105.20
36	1	612	U	N3-C4-O4	-5.59	115.49	119.40
36	1	866	A	N1-C6-N6	5.59	121.95	118.60
36	1	1434	G	C8-N9-C4	-5.59	104.16	106.40
36	1	1520	G	C2-N3-C4	5.59	114.69	111.90
36	5	669	U	C5-C6-N1	-5.59	119.90	122.70
36	5	1929	G	C2-N3-C4	-5.59	109.10	111.90
1	6	364	G	C8-N9-C4	5.59	108.64	106.40
36	5	1420	C	N1-C2-O2	-5.59	115.55	118.90
36	5	2121	G	C4-C5-N7	5.59	113.04	110.80
36	5	3058	U	O4'-C1'-N1	5.59	112.67	108.20
38	8	80	A	N3-C4-C5	-5.59	122.89	126.80
1	2	448	C	N3-C2-O2	-5.59	117.99	121.90
36	1	347	G	N1-C6-O6	5.59	123.25	119.90
36	1	942	U	C2-N3-C4	-5.59	123.65	127.00
36	1	954	U	C6-N1-C2	-5.59	117.65	121.00
36	1	984	G	C4-C5-C6	5.59	122.15	118.80
36	1	2343	C	N3-C4-C5	5.59	124.13	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	542	A	P-O3'-C3'	5.59	126.40	119.70
12	c0	88	PRO	N-CA-CB	5.59	110.00	103.30
36	5	352	A	O5'-P-OP1	-5.59	100.67	105.70
36	5	2400	G	C2-N3-C4	-5.59	109.11	111.90
36	5	2945	G	OP1-P-OP2	-5.59	111.22	119.60
36	5	3326	G	C8-N9-C4	5.59	108.63	106.40
36	1	1419	A	O5'-P-OP1	5.58	117.40	110.70
36	1	2416	U	C6-N1-C2	-5.58	117.65	121.00
68	o2	105	ARG	NE-CZ-NH2	-5.58	117.51	120.30
36	1	1207	G	C5-C6-O6	-5.58	125.25	128.60
36	1	1303	A	C5-C6-N6	-5.58	119.23	123.70
36	1	1507	G	N3-C4-C5	-5.58	125.81	128.60
36	1	2606	G	C8-N9-C1'	-5.58	119.74	127.00
1	6	1796	C	C5-C6-N1	-5.58	118.21	121.00
12	c0	97	PRO	N-CA-CB	5.58	110.00	103.30
52	m6	69	GLY	N-CA-C	-5.58	99.14	113.10
36	1	2968	G	N1-C2-N2	-5.58	111.18	116.20
38	4	125	U	C6-N1-C1'	-5.58	113.39	121.20
49	M3	85	LEU	CA-CB-CG	5.58	128.13	115.30
36	5	1701	C	N3-C4-C5	-5.58	119.67	121.90
36	1	667	C	N3-C4-C5	5.58	124.13	121.90
36	1	936	A	C5-N7-C8	-5.58	101.11	103.90
36	1	1727	G	C2-N3-C4	5.58	114.69	111.90
1	6	858	G	C4-C5-N7	5.58	113.03	110.80
36	5	1359	C	C5-C4-N4	-5.58	116.30	120.20
36	5	3075	G	C6-C5-N7	-5.58	127.05	130.40
68	o2	4	LEU	C-N-CA	-5.58	98.57	122.00
64	N8	116	GLY	N-CA-C	5.58	127.04	113.10
1	6	160	C	N1-C2-O2	5.58	122.25	118.90
36	5	1335	C	N3-C2-O2	5.58	125.80	121.90
36	1	41	G	N1-C2-N3	-5.58	120.56	123.90
36	1	2385	G	C8-N9-C4	5.58	108.63	106.40
36	1	2572	C	C6-N1-C1'	-5.58	114.11	120.80
36	1	2679	A	O4'-C1'-N9	5.58	112.66	108.20
1	6	1680	G	C4-C5-N7	5.58	113.03	110.80
36	1	1177	G	C5-C6-O6	-5.57	125.26	128.60
36	1	1382	G	N1-C6-O6	5.57	123.24	119.90
37	7	88	G	N1-C6-O6	-5.57	116.56	119.90
38	8	39	G	N3-C4-C5	-5.57	125.81	128.60
36	1	58	G	C5-N7-C8	-5.57	101.51	104.30
41	14	134	LEU	CA-CB-CG	5.57	128.12	115.30
36	1	1116	G	C6-C5-N7	-5.57	127.06	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	140	G	C8-N9-C4	-5.57	104.17	106.40
1	6	1266	U	C5-C6-N1	5.57	125.48	122.70
36	1	1017	C	C5-C6-N1	5.57	123.78	121.00
36	1	1049	C	C5-C6-N1	5.57	123.78	121.00
36	1	2688	U	N1-C2-N3	-5.57	111.56	114.90
1	6	581	U	N1-C2-O2	-5.57	118.90	122.80
1	2	1458	G	N9-C4-C5	-5.57	103.17	105.40
36	1	2197	C	C5-C4-N4	-5.57	116.30	120.20
36	1	2712	U	N3-C2-O2	-5.57	118.30	122.20
1	6	1150	G	O5'-P-OP2	-5.57	100.69	105.70
1	6	1680	G	C5-C6-O6	-5.57	125.26	128.60
36	5	1126	G	C5-C6-N1	-5.57	108.72	111.50
36	5	1149	G	C6-C5-N7	-5.57	127.06	130.40
1	2	213	A	C8-N9-C4	5.57	108.03	105.80
36	1	727	G	C5-C6-O6	-5.57	125.26	128.60
36	1	1857	C	C2-N1-C1'	-5.57	112.68	118.80
36	1	2401	A	C2-N3-C4	-5.57	107.82	110.60
36	5	408	A	C6-N1-C2	-5.57	115.26	118.60
36	5	1409	G	N1-C6-O6	-5.57	116.56	119.90
36	5	3121	U	N3-C2-O2	5.57	126.10	122.20
36	1	57	A	C2-N3-C4	-5.56	107.82	110.60
1	6	635	A	OP2-P-O3'	5.56	117.44	105.20
36	1	2617	U	OP2-P-O3'	5.56	117.44	105.20
36	5	824	C	N3-C2-O2	-5.56	118.01	121.90
36	5	1338	C	N3-C4-N4	5.56	121.89	118.00
36	1	282	G	C2'-C3'-O3'	5.56	122.60	113.70
36	5	3217	C	C5-C6-N1	-5.56	118.22	121.00
36	1	520	U	N3-C4-O4	5.56	123.29	119.40
36	1	2639	G	N3-C2-N2	5.56	123.79	119.90
36	1	2710	C	N1-C2-O2	-5.56	115.56	118.90
36	5	398	A	O5'-P-OP2	-5.56	100.70	105.70
36	5	651	G	N3-C4-C5	-5.56	125.82	128.60
36	5	2626	A	C2-N3-C4	-5.56	107.82	110.60
36	5	2704	A	OP2-P-O3'	5.56	117.43	105.20
36	1	1059	G	N1-C6-O6	-5.56	116.57	119.90
36	1	1360	C	C5-C4-N4	-5.56	116.31	120.20
36	1	2756	C	N3-C4-N4	5.56	121.89	118.00
38	4	103	G	C4-N9-C1'	5.56	133.72	126.50
36	1	1743	G	C8-N9-C4	5.56	108.62	106.40
36	1	360	G	C5-C6-O6	-5.55	125.27	128.60
36	1	1901	A	C2-N3-C4	5.55	113.38	110.60
36	1	2600	C	N1-C2-O2	5.55	122.23	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2816	G	O4'-C1'-N9	5.55	112.64	108.20
1	2	1361	U	N1-C2-O2	5.55	126.69	122.80
36	1	1952	G	C8-N9-C4	-5.55	104.18	106.40
1	6	542	A	C6-C5-N7	-5.55	128.41	132.30
7	s5	25	LEU	CA-CB-CG	5.55	128.07	115.30
36	5	924	G	N3-C4-C5	5.55	131.38	128.60
36	5	1662	G	C8-N9-C4	5.55	108.62	106.40
36	5	2625	C	C5-C4-N4	-5.55	116.31	120.20
36	1	870	G	C8-N9-C4	-5.55	104.18	106.40
36	5	932	U	N3-C4-O4	5.55	123.29	119.40
36	5	2553	U	N3-C2-O2	-5.55	118.31	122.20
36	5	2913	C	C2-N1-C1'	-5.55	112.69	118.80
36	1	351	A	OP1-P-OP2	5.55	127.92	119.60
36	1	1165	A	O5'-P-OP2	-5.55	100.71	105.70
36	1	1442	U	N3-C2-O2	5.55	126.08	122.20
38	4	95	G	C8-N9-C1'	5.55	134.21	127.00
1	6	1614	A	N1-C6-N6	5.55	121.93	118.60
36	5	1412	G	C8-N9-C4	-5.55	104.18	106.40
36	1	352	A	O4'-C1'-N9	5.55	112.64	108.20
36	1	2719	U	C6-N1-C1'	5.55	128.97	121.20
38	4	15	G	C5-C6-O6	-5.55	125.27	128.60
36	1	1166	G	C5-N7-C8	-5.54	101.53	104.30
36	1	2968	G	C6-C5-N7	-5.54	127.07	130.40
36	1	3222	U	N3-C2-O2	-5.54	118.32	122.20
36	1	2400	G	C6-C5-N7	-5.54	127.07	130.40
1	6	337	G	C4-C5-N7	5.54	113.02	110.80
36	5	311	C	N3-C4-C5	5.54	124.12	121.90
36	5	2186	U	N3-C2-O2	-5.54	118.32	122.20
36	5	2199	G	C4-C5-N7	5.54	113.02	110.80
1	2	1745	G	N9-C4-C5	-5.54	103.18	105.40
36	1	993	G	C5-C6-N1	5.54	114.27	111.50
36	1	1139	G	C2-N3-C4	-5.54	109.13	111.90
1	6	334	G	C8-N9-C4	5.54	108.62	106.40
36	5	718	G	O4'-C1'-N9	5.54	112.63	108.20
36	5	1416	C	N1-C2-O2	5.54	122.22	118.90
36	1	1159	A	N9-C4-C5	5.54	108.02	105.80
36	1	1417	G	N3-C4-C5	5.54	131.37	128.60
36	1	2370	G	OP2-P-O3'	5.54	117.39	105.20
36	1	1382	G	C5-C6-O6	-5.54	125.28	128.60
36	1	2639	G	N3-C4-N9	5.54	129.32	126.00
36	1	2983	C	C5-C6-N1	-5.54	118.23	121.00
38	4	32	C	C4-C5-C6	-5.54	114.63	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2893	C	N3-C4-N4	5.54	121.88	118.00
36	5	3093	C	C6-N1-C2	5.54	122.52	120.30
36	1	517	G	C4-N9-C1'	5.54	133.70	126.50
36	1	1390	A	N1-C6-N6	-5.54	115.28	118.60
36	5	3228	C	N1-C2-O2	5.54	122.22	118.90
36	1	1545	A	C8-N9-C4	-5.54	103.59	105.80
36	5	337	G	N3-C4-C5	-5.54	125.83	128.60
36	5	1123	U	C4-C5-C6	5.54	123.02	119.70
36	5	1848	G	OP2-P-O3'	5.54	117.38	105.20
36	5	2407	C	C5-C4-N4	-5.54	116.33	120.20
1	2	685	A	P-O3'-C3'	5.53	126.34	119.70
36	1	1000	C	C6-N1-C1'	-5.53	114.16	120.80
36	1	1112	A	C4-C5-N7	5.53	113.47	110.70
36	1	2148	U	N1-C2-O2	-5.53	118.93	122.80
36	1	2983	C	N1-C2-N3	5.53	123.07	119.20
36	1	2993	G	C4-C5-N7	5.53	113.01	110.80
36	1	3178	A	N1-C6-N6	5.53	121.92	118.60
36	5	922	U	N1-C2-O2	5.53	126.67	122.80
36	1	229	G	N1-C2-N2	5.53	121.18	116.20
36	1	498	A	N9-C4-C5	5.53	108.01	105.80
36	1	658	G	C4-C5-C6	5.53	122.12	118.80
36	1	1434	G	N7-C8-N9	5.53	115.87	113.10
64	N8	115	LYS	C-N-CA	-5.53	110.68	122.30
36	5	936	A	O4'-C1'-N9	5.53	112.62	108.20
36	5	3188	G	C5-C6-O6	5.53	131.92	128.60
36	1	3361	G	N3-C4-C5	-5.53	125.83	128.60
36	5	3386	G	N9-C4-C5	5.53	107.61	105.40
1	2	55	A	N1-C6-N6	-5.53	115.28	118.60
1	2	1175	U	OP1-P-O3'	5.53	117.36	105.20
36	5	293	C	O5'-P-OP1	-5.53	100.72	105.70
36	5	895	A	N1-C2-N3	5.53	132.06	129.30
36	5	3178	A	O5'-P-OP1	-5.53	100.72	105.70
1	2	1560	U	N1-C2-N3	5.53	118.22	114.90
36	1	99	A	O4'-C1'-N9	5.53	112.62	108.20
36	1	1481	A	C4-N9-C1'	5.53	136.25	126.30
36	1	2126	A	C8-N9-C4	5.53	108.01	105.80
36	1	2775	U	N3-C2-O2	-5.53	118.33	122.20
36	1	2930	A	O4'-C1'-N9	5.53	112.62	108.20
36	5	416	A	C4-C5-C6	5.53	119.76	117.00
36	5	1054	A	C8-N9-C4	5.53	108.01	105.80
36	5	1163	A	C6-N1-C2	-5.53	115.28	118.60
36	5	1432	C	C2-N3-C4	-5.53	117.14	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	7	101	G	N9-C4-C5	-5.53	103.19	105.40
36	1	699	A	C5-N7-C8	-5.53	101.14	103.90
36	1	2142	A	C4-C5-N7	-5.53	107.94	110.70
1	6	96	G	C4-C5-N7	-5.53	108.59	110.80
36	5	770	G	O4'-C1'-N9	5.53	112.62	108.20
36	5	845	G	N9-C4-C5	-5.53	103.19	105.40
36	1	359	U	N3-C4-C5	-5.52	111.29	114.60
36	1	2830	G	C5-C6-N1	-5.52	108.74	111.50
36	5	917	A	C2-N3-C4	5.52	113.36	110.60
36	5	1635	G	N3-C4-N9	-5.52	122.69	126.00
36	5	1905	G	C8-N9-C4	5.52	108.61	106.40
62	n6	126	LEU	CA-CB-CG	5.52	128.00	115.30
36	1	349	A	C8-N9-C4	-5.52	103.59	105.80
36	1	394	G	N9-C4-C5	5.52	107.61	105.40
36	1	1152	G	O4'-C1'-N9	5.52	112.62	108.20
36	1	1617	G	N1-C6-O6	5.52	123.21	119.90
1	6	937	C	C6-N1-C2	-5.52	118.09	120.30
36	5	987	U	C5-C4-O4	5.52	129.21	125.90
36	5	1311	G	O5'-P-OP2	-5.52	100.73	105.70
36	1	651	G	C4-N9-C1'	5.52	133.68	126.50
36	1	2762	A	N1-C6-N6	-5.52	115.29	118.60
36	5	2929	C	C6-N1-C2	-5.52	118.09	120.30
36	1	2144	A	C6-N1-C2	-5.52	115.29	118.60
36	1	2298	U	C5-C6-N1	-5.52	119.94	122.70
1	6	308	C	C5-C4-N4	5.52	124.06	120.20
36	5	101	G	O4'-C1'-N9	5.52	112.62	108.20
36	5	338	A	C2-N3-C4	5.52	113.36	110.60
36	5	2919	A	N1-C2-N3	5.52	132.06	129.30
36	1	3227	A	O5'-P-OP2	-5.52	100.73	105.70
1	6	1747	G	N3-C2-N2	5.52	123.76	119.90
1	2	132	U	OP2-P-O3'	5.52	117.33	105.20
1	2	1663	G	O5'-P-OP2	-5.52	100.74	105.70
36	1	583	G	N3-C4-N9	-5.52	122.69	126.00
36	5	1438	U	N1-C2-O2	5.52	126.66	122.80
36	5	2643	A	N1-C6-N6	5.52	121.91	118.60
1	2	829	A	P-O3'-C3'	5.51	126.32	119.70
36	1	983	A	C8-N9-C4	5.51	108.01	105.80
36	1	1351	U	C6-N1-C2	-5.51	117.69	121.00
36	1	2984	C	C5-C4-N4	5.51	124.06	120.20
38	4	95	G	N3-C4-C5	5.51	131.36	128.60
36	5	27	C	N3-C2-O2	5.51	125.76	121.90
36	5	1789	G	N3-C4-C5	5.51	131.36	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1133	A	C6-C5-N7	-5.51	128.44	132.30
36	1	790	U	N1-C2-N3	5.51	118.21	114.90
36	1	2145	A	N1-C6-N6	5.51	121.91	118.60
36	1	2187	G	C4-C5-C6	5.51	122.11	118.80
1	2	720	G	P-O3'-C3'	5.51	126.31	119.70
1	6	942	G	O5'-P-OP1	-5.51	100.74	105.70
36	5	30	G	OP1-P-O3'	5.51	117.32	105.20
36	5	668	G	N1-C6-O6	-5.51	116.59	119.90
36	5	805	G	C5-C6-O6	-5.51	125.29	128.60
36	5	2121	G	N1-C6-O6	5.51	123.21	119.90
38	8	48	A	N9-C4-C5	5.51	108.00	105.80
36	1	672	A	C4-C5-N7	5.51	113.45	110.70
36	1	2513	U	C5-C4-O4	-5.51	122.60	125.90
36	1	2993	G	OP1-P-OP2	5.51	127.86	119.60
1	6	426	G	O5'-P-OP2	-5.51	100.74	105.70
1	6	914	G	C4-C5-N7	5.51	113.00	110.80
36	5	1380	G	O5'-P-OP2	-5.51	100.74	105.70
36	5	2751	G	C8-N9-C4	-5.51	104.20	106.40
36	5	2800	G	N1-C2-N3	5.51	127.20	123.90
1	2	1670	G	O5'-P-OP2	-5.50	100.75	105.70
36	1	1074	U	C5-C4-O4	-5.50	122.60	125.90
36	1	2621	G	N9-C4-C5	5.50	107.60	105.40
36	1	2719	U	N1-C2-O2	-5.50	118.95	122.80
36	1	2983	C	N3-C4-N4	-5.50	114.15	118.00
36	1	3269	U	N3-C2-O2	-5.50	118.35	122.20
1	6	1727	G	O5'-P-OP2	-5.50	100.75	105.70
36	5	931	C	N3-C4-C5	5.50	124.10	121.90
36	5	2144	A	C5-C6-N6	-5.50	119.30	123.70
1	2	1777	G	C6-C5-N7	-5.50	127.10	130.40
36	5	1302	A	N9-C4-C5	5.50	108.00	105.80
36	5	2636	A	C5-C6-N6	5.50	128.10	123.70
36	1	894	G	OP1-P-O3'	5.50	117.31	105.20
36	5	687	U	C5-C6-N1	-5.50	119.95	122.70
36	5	1097	G	C8-N9-C4	5.50	108.60	106.40
36	5	1866	C	O4'-C1'-N1	-5.50	103.80	108.20
36	1	100	A	N1-C2-N3	5.50	132.05	129.30
36	1	1362	G	C5-C6-O6	-5.50	125.30	128.60
1	2	1537	C	C5-C4-N4	-5.50	116.35	120.20
1	2	1745	G	C6-C5-N7	-5.50	127.10	130.40
36	1	231	G	N9-C4-C5	5.50	107.60	105.40
36	1	2817	A	C5-C6-N6	-5.50	119.30	123.70
48	M1	112	LEU	CA-CB-CG	5.50	127.95	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	137	U	C2-N1-C1'	5.50	124.30	117.70
1	6	194	U	N3-C2-O2	-5.50	118.35	122.20
36	5	3214	U	C5-C6-N1	-5.50	119.95	122.70
36	1	653	A	C2-N3-C4	-5.50	107.85	110.60
38	4	58	G	N3-C4-N9	5.50	129.30	126.00
36	5	1149	G	C4-C5-C6	5.50	122.10	118.80
1	2	1761	U	N3-C2-O2	-5.50	118.35	122.20
36	1	75	G	N1-C6-O6	5.50	123.20	119.90
36	5	2887	A	O5'-P-OP1	-5.50	100.75	105.70
36	1	1409	G	N9-C4-C5	5.49	107.60	105.40
36	1	2734	A	N9-C4-C5	-5.49	103.60	105.80
46	L9	166	ARG	NE-CZ-NH2	5.49	123.05	120.30
1	6	1119	G	C8-N9-C4	-5.49	104.20	106.40
36	5	394	G	C4-C5-N7	-5.49	108.60	110.80
36	1	663	C	N3-C4-N4	5.49	121.84	118.00
36	1	1115	G	N9-C4-C5	5.49	107.60	105.40
36	5	672	A	C5-C6-N6	-5.49	119.31	123.70
36	5	1662	G	N9-C4-C5	-5.49	103.20	105.40
1	2	1596	C	N1-C2-O2	5.49	122.19	118.90
36	5	1304	A	C5-C6-N6	-5.49	119.31	123.70
36	5	2988	C	C5-C6-N1	-5.49	118.25	121.00
36	5	3206	C	OP1-P-OP2	5.49	127.83	119.60
1	2	315	A	N1-C6-N6	5.49	121.89	118.60
36	1	1156	C	C2-N3-C4	-5.49	117.16	119.90
36	1	1428	A	N7-C8-N9	5.49	116.54	113.80
36	1	1547	G	C2-N3-C4	5.49	114.64	111.90
36	5	660	A	C5-N7-C8	5.49	106.64	103.90
36	5	1309	U	N1-C2-N3	5.49	118.19	114.90
36	5	3072	C	N3-C4-C5	-5.49	119.70	121.90
37	7	84	A	N3-C4-C5	-5.49	122.96	126.80
36	1	2379	U	O5'-P-OP1	5.49	117.28	110.70
38	4	151	C	C4-C5-C6	5.49	120.14	117.40
1	2	1302	U	N3-C4-O4	5.49	123.24	119.40
36	1	360	G	N9-C4-C5	-5.49	103.21	105.40
36	1	697	A	C5-C6-N6	-5.49	119.31	123.70
36	1	702	C	N3-C2-O2	-5.49	118.06	121.90
1	6	1535	U	N1-C2-O2	5.49	126.64	122.80
36	5	646	A	C8-N9-C4	-5.49	103.61	105.80
36	5	960	U	C6-N1-C2	5.49	124.29	121.00
36	5	1902	G	C4-C5-N7	5.49	112.99	110.80
36	5	2876	C	OP1-P-OP2	5.49	127.83	119.60
36	1	1001	G	C4-N9-C1'	5.48	133.63	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	216	G	C5-C6-O6	-5.48	125.31	128.60
36	5	885	U	N1-C2-O2	-5.48	118.96	122.80
36	5	2367	A	O5'-P-OP2	-5.48	100.77	105.70
1	2	1657	U	C4-C5-C6	5.48	122.99	119.70
36	5	3310	A	N1-C2-N3	5.48	132.04	129.30
1	2	448	C	C5-C6-N1	5.48	123.74	121.00
36	1	286	U	N3-C2-O2	-5.48	118.36	122.20
36	1	984	G	C8-N9-C4	-5.48	104.21	106.40
36	1	2811	A	N9-C4-C5	5.48	107.99	105.80
41	L4	327	LEU	CA-CB-CG	5.48	127.91	115.30
1	6	463	U	N3-C4-O4	5.48	123.24	119.40
36	5	38	U	C6-N1-C2	5.48	124.29	121.00
36	5	329	U	C5-C6-N1	-5.48	119.96	122.70
36	5	590	G	C5-C6-O6	-5.48	125.31	128.60
36	5	2655	U	N1-C2-O2	-5.48	118.96	122.80
1	6	1698	G	P-O3'-C3'	5.48	126.28	119.70
36	5	2920	U	O5'-P-OP1	-5.48	100.77	105.70
1	2	1117	U	N3-C4-O4	5.48	123.23	119.40
1	2	1600	A	N9-C4-C5	-5.48	103.61	105.80
36	1	2820	A	OP2-P-O3'	5.48	117.25	105.20
36	1	2847	A	N1-C6-N6	5.48	121.89	118.60
36	1	3209	A	C5-N7-C8	-5.48	101.16	103.90
1	6	1027	A	N7-C8-N9	5.48	116.54	113.80
36	5	269	G	C5-C6-O6	-5.48	125.31	128.60
36	5	2763	U	C5-C4-O4	-5.48	122.61	125.90
36	5	2832	C	C5-C4-N4	5.48	124.03	120.20
36	1	2275	A	O5'-P-OP1	-5.48	100.77	105.70
1	6	555	A	P-O3'-C3'	5.48	126.27	119.70
36	5	83	U	C6-N1-C2	-5.48	117.72	121.00
36	5	2158	A	C5-C6-N1	5.48	120.44	117.70
36	1	1191	U	N1-C2-O2	-5.47	118.97	122.80
36	1	1396	C	N3-C2-O2	5.47	125.73	121.90
38	4	39	G	N3-C2-N2	5.47	123.73	119.90
1	6	901	G	C4-C5-N7	5.47	112.99	110.80
36	5	2805	G	C8-N9-C4	5.47	108.59	106.40
36	1	47	C	N3-C4-N4	5.47	121.83	118.00
36	1	693	A	C6-C5-N7	-5.47	128.47	132.30
36	1	919	U	N1-C2-O2	5.47	126.63	122.80
36	1	1136	A	C5-C6-N1	5.47	120.44	117.70
36	5	366	A	C6-C5-N7	-5.47	128.47	132.30
36	5	1789	G	C4-N9-C1'	-5.47	119.39	126.50
36	5	2412	G	N3-C4-N9	5.47	129.28	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2541	U	C2-N1-C1'	5.47	124.27	117.70
36	5	2211	U	N1-C2-N3	5.47	118.18	114.90
36	1	1053	A	C8-N9-C4	5.47	107.99	105.80
36	1	1133	A	C4-C5-N7	5.47	113.43	110.70
36	1	1464	G	O5'-P-OP2	-5.47	100.78	105.70
38	4	32	C	C6-N1-C1'	5.47	127.36	120.80
1	6	98	U	C5-C4-O4	5.47	129.18	125.90
36	1	421	G	C8-N9-C4	5.47	108.59	106.40
36	1	612	U	C2-N1-C1'	-5.47	111.14	117.70
36	1	976	U	O5'-P-OP2	-5.47	100.78	105.70
36	1	1326	A	O5'-P-OP1	5.47	117.26	110.70
36	5	104	G	N1-C6-O6	5.47	123.18	119.90
36	5	3014	U	C5-C4-O4	-5.47	122.62	125.90
1	2	610	G	C4-N9-C1'	5.47	133.61	126.50
36	1	343	U	N3-C4-C5	-5.47	111.32	114.60
36	1	1102	A	OP1-P-O3'	5.47	117.23	105.20
36	1	1502	C	C6-N1-C2	5.47	122.49	120.30
36	1	2585	G	C2-N3-C4	5.47	114.63	111.90
1	6	44	U	N3-C2-O2	5.47	126.03	122.20
1	6	1058	U	P-O3'-C3'	5.47	126.26	119.70
36	5	410	U	C5-C6-N1	5.47	125.43	122.70
36	5	1902	G	N3-C2-N2	-5.47	116.07	119.90
36	5	2294	U	C2-N3-C4	-5.47	123.72	127.00
37	7	22	A	N1-C6-N6	5.47	121.88	118.60
36	1	974	G	N3-C4-N9	5.46	129.28	126.00
36	1	1166	G	C4-C5-N7	5.46	112.99	110.80
36	1	1441	G	C5-C6-O6	5.46	131.88	128.60
36	5	1937	U	C5-C6-N1	-5.46	119.97	122.70
36	5	2828	G	C5-N7-C8	-5.46	101.57	104.30
36	5	2951	G	OP1-P-O3'	5.46	117.22	105.20
36	5	3030	G	C4-C5-N7	-5.46	108.61	110.80
1	2	542	A	C4-N9-C1'	5.46	136.13	126.30
36	1	142	C	C6-N1-C2	-5.46	118.11	120.30
36	5	1003	A	N7-C8-N9	-5.46	111.07	113.80
36	5	2971	A	N9-C4-C5	-5.46	103.61	105.80
36	5	3036	G	N1-C2-N2	-5.46	111.28	116.20
36	5	3190	C	C6-N1-C2	-5.46	118.11	120.30
1	2	334	G	C4-N9-C1'	-5.46	119.40	126.50
1	2	782	U	OP2-P-O3'	5.46	117.22	105.20
36	1	668	G	N1-C6-O6	-5.46	116.62	119.90
36	1	2179	C	OP2-P-O3'	5.46	117.22	105.20
36	1	2214	A	O5'-P-OP2	-5.46	100.78	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2719	U	C2-N1-C1'	-5.46	111.15	117.70
38	8	42	G	C8-N9-C4	5.46	108.58	106.40
36	1	628	A	N1-C6-N6	5.46	121.88	118.60
1	6	1744	A	N1-C2-N3	5.46	132.03	129.30
38	8	44	A	N1-C6-N6	5.46	121.88	118.60
1	2	1768	G	N9-C4-C5	5.46	107.58	105.40
36	1	821	U	N1-C2-O2	5.46	126.62	122.80
36	1	2964	G	C8-N9-C4	5.46	108.58	106.40
1	6	981	U	C6-N1-C2	-5.46	117.72	121.00
36	5	967	A	OP2-P-O3'	5.46	117.21	105.20
36	5	1495	U	C2-N1-C1'	5.46	124.25	117.70
36	1	718	G	C5-N7-C8	-5.46	101.57	104.30
36	1	1361	U	C5-C4-O4	-5.46	122.63	125.90
36	1	2169	G	C6-C5-N7	5.46	133.67	130.40
1	6	539	G	N7-C8-N9	5.46	115.83	113.10
1	6	1028	C	C6-N1-C2	5.46	122.48	120.30
1	6	1731	A	C8-N9-C4	-5.46	103.62	105.80
36	5	793	C	C6-N1-C2	-5.46	118.12	120.30
36	5	2310	U	O5'-P-OP2	-5.46	100.79	105.70
36	5	3343	G	N9-C4-C5	-5.46	103.22	105.40
36	1	1177	G	C4-N9-C1'	5.46	133.59	126.50
36	5	359	U	N1-C2-O2	-5.45	118.98	122.80
36	5	2777	G	C4-C5-N7	-5.45	108.62	110.80
36	5	2882	U	C5-C6-N1	5.45	125.43	122.70
36	5	2938	G	OP1-P-O3'	5.45	117.20	105.20
36	5	3012	A	C8-N9-C4	5.45	107.98	105.80
38	8	115	C	N1-C2-O2	-5.45	115.63	118.90
38	8	126	A	OP1-P-O3'	5.45	117.20	105.20
36	1	105	C	C5-C4-N4	-5.45	116.38	120.20
36	1	3143	C	N3-C2-O2	5.45	125.72	121.90
44	L7	107	ARG	NE-CZ-NH1	-5.45	117.57	120.30
1	6	194	U	N1-C2-O2	5.45	126.62	122.80
36	5	1449	A	C6-C5-N7	-5.45	128.48	132.30
36	5	1469	C	C6-N1-C2	-5.45	118.12	120.30
36	5	2965	U	N1-C2-O2	-5.45	118.98	122.80
36	5	3186	A	N9-C4-C5	5.45	107.98	105.80
36	1	968	G	C5-C6-O6	5.45	131.87	128.60
36	1	2355	G	C6-C5-N7	-5.45	127.13	130.40
36	1	2869	U	O5'-P-OP2	5.45	117.24	110.70
3	s1	47	LEU	CA-CB-CG	5.45	127.84	115.30
36	5	337	G	C8-N9-C4	-5.45	104.22	106.40
36	5	1392	G	N7-C8-N9	-5.45	110.37	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2646	C	C6-N1-C2	5.45	122.48	120.30
36	5	1185	C	OP2-P-O3'	5.45	117.19	105.20
36	5	1791	C	N3-C2-O2	-5.45	118.09	121.90
36	1	66	A	O5'-P-OP2	5.45	117.24	110.70
1	2	321	C	C6-N1-C2	-5.45	118.12	120.30
1	2	553	G	N3-C2-N2	-5.45	116.09	119.90
36	1	1329	U	C6-N1-C1'	-5.45	113.58	121.20
36	5	1301	A	N9-C4-C5	-5.45	103.62	105.80
36	5	1367	G	C4-N9-C1'	5.45	133.58	126.50
36	5	2926	A	C5-C6-N6	-5.45	119.34	123.70
36	5	2968	G	C5-C6-N1	5.45	114.22	111.50
36	5	3382	U	C2-N1-C1'	5.45	124.23	117.70
36	1	231	G	N3-C4-N9	-5.44	122.73	126.00
36	1	649	A	N7-C8-N9	-5.44	111.08	113.80
36	1	2271	A	C5-C6-N6	-5.44	119.34	123.70
36	1	155	G	C5-C6-N1	5.44	114.22	111.50
36	1	171	G	N3-C4-C5	5.44	131.32	128.60
36	1	693	A	C4-C5-C6	5.44	119.72	117.00
36	1	2610	G	N9-C4-C5	-5.44	103.22	105.40
36	1	3361	G	N1-C2-N2	-5.44	111.30	116.20
37	3	67	G	OP2-P-O3'	5.44	117.17	105.20
1	6	976	G	C4-C5-N7	5.44	112.98	110.80
36	5	342	A	C5-C6-N6	-5.44	119.35	123.70
36	5	2411	U	C2-N3-C4	-5.44	123.73	127.00
36	5	2880	U	C6-N1-C2	-5.44	117.73	121.00
15	C3	22	ALA	C-N-CA	5.44	144.85	122.00
36	1	2964	G	C2-N3-C4	-5.44	109.18	111.90
36	5	1433	A	O5'-P-OP1	-5.44	100.80	105.70
36	5	2366	C	C2-N1-C1'	5.44	124.78	118.80
36	5	2996	U	O5'-P-OP1	5.44	117.23	110.70
36	5	3296	A	OP2-P-O3'	5.44	117.17	105.20
36	5	3388	C	C5-C6-N1	-5.44	118.28	121.00
36	1	938	C	C5-C4-N4	-5.44	116.39	120.20
36	1	1180	A	N9-C4-C5	5.44	107.97	105.80
37	3	84	A	N9-C4-C5	-5.44	103.62	105.80
36	5	1204	A	N9-C4-C5	5.44	107.97	105.80
36	1	335	G	OP1-P-O3'	5.44	117.16	105.20
38	4	155	A	C8-N9-C4	5.44	107.97	105.80
36	1	71	A	N9-C4-C5	5.43	107.97	105.80
36	1	498	A	C8-N9-C4	-5.43	103.63	105.80
36	1	2399	A	C5-C6-N1	5.43	120.42	117.70
36	1	2797	C	N1-C2-O2	-5.43	115.64	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	938	C	C6-N1-C2	5.43	122.47	120.30
36	5	1879	A	O5'-P-OP2	-5.43	100.81	105.70
36	5	2310	U	N1-C2-O2	5.43	126.60	122.80
36	5	2639	G	N3-C4-C5	-5.43	125.88	128.60
36	5	3099	C	N3-C4-C5	-5.43	119.73	121.90
36	5	3232	G	N1-C2-N2	-5.43	111.31	116.20
1	6	751	G	O5'-P-OP1	-5.43	100.81	105.70
37	7	32	U	C5-C6-N1	-5.43	119.98	122.70
36	1	406	G	N1-C6-O6	-5.43	116.64	119.90
36	1	416	A	OP2-P-O3'	5.43	117.14	105.20
36	1	1113	G	N1-C6-O6	5.43	123.16	119.90
36	1	1373	A	OP2-P-O3'	5.43	117.14	105.20
36	1	2603	G	C5-C6-N1	5.43	114.22	111.50
1	6	939	A	O5'-P-OP2	-5.43	100.81	105.70
36	5	98	G	C8-N9-C4	5.43	108.57	106.40
36	5	881	C	C4-C5-C6	-5.43	114.69	117.40
36	5	2355	G	C4-C5-N7	5.43	112.97	110.80
36	5	2816	G	N3-C4-N9	5.43	129.26	126.00
36	5	2868	U	N1-C2-O2	5.43	126.60	122.80
36	5	3115	C	N1-C2-N3	5.43	123.00	119.20
36	1	2823	G	C4-C5-N7	-5.43	108.63	110.80
36	5	2283	G	O5'-P-OP2	-5.43	100.81	105.70
36	5	2737	C	O5'-P-OP2	-5.43	100.81	105.70
36	5	2943	G	O5'-P-OP2	-5.43	100.81	105.70
38	8	66	A	N1-C6-N6	5.43	121.86	118.60
36	1	2846	U	N3-C4-O4	-5.43	115.60	119.40
36	1	2915	U	N3-C2-O2	5.43	126.00	122.20
36	1	3212	C	C2-N1-C1'	-5.43	112.83	118.80
36	5	2904	U	C4-C5-C6	5.43	122.96	119.70
36	5	3126	C	C6-N1-C2	-5.43	118.13	120.30
36	5	3309	G	N3-C4-N9	5.43	129.26	126.00
38	8	33	A	C8-N9-C4	5.43	107.97	105.80
1	2	610	G	C8-N9-C1'	-5.42	119.95	127.00
36	1	810	A	C8-N9-C4	-5.42	103.63	105.80
36	5	2981	U	C2-N1-C1'	5.42	124.21	117.70
36	1	824	C	N3-C4-C5	5.42	124.07	121.90
1	6	1091	A	C2-N3-C4	-5.42	107.89	110.60
36	5	638	C	C2-N3-C4	-5.42	117.19	119.90
1	2	1748	G	O5'-P-OP2	-5.42	100.82	105.70
36	1	1136	A	C5-C6-N6	-5.42	119.36	123.70
36	5	1495	U	OP1-P-O3'	5.42	117.13	105.20
1	2	133	U	O5'-P-OP2	-5.42	100.82	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2222	A	C8-N9-C4	-5.42	103.63	105.80
36	1	2402	A	N1-C6-N6	5.42	121.85	118.60
36	5	96	G	C5-C6-O6	-5.42	125.35	128.60
39	12	208	ASP	CB-CG-OD2	-5.42	113.42	118.30
1	2	1573	A	P-O3'-C3'	5.42	126.20	119.70
36	1	304	G	C4-C5-N7	-5.42	108.63	110.80
36	1	498	A	N1-C6-N6	-5.42	115.35	118.60
36	1	1144	U	C2-N3-C4	-5.42	123.75	127.00
36	1	1483	G	O4'-C1'-N9	5.42	112.53	108.20
36	1	1536	G	O5'-P-OP2	-5.42	100.82	105.70
36	5	96	G	C6-C5-N7	-5.42	127.15	130.40
36	5	2118	C	O5'-P-OP1	-5.42	100.82	105.70
36	5	2872	A	C4-C5-C6	-5.42	114.29	117.00
36	1	2653	C	N3-C2-O2	-5.42	118.11	121.90
36	1	2823	G	N1-C2-N2	5.42	121.07	116.20
36	5	111	C	C6-N1-C2	5.42	122.47	120.30
36	5	329	U	N3-C4-O4	-5.42	115.61	119.40
36	5	971	G	C4-C5-C6	5.42	122.05	118.80
36	1	2366	C	C6-N1-C1'	-5.42	114.30	120.80
36	1	2813	A	C5-C6-N1	-5.42	114.99	117.70
36	5	2870	C	N3-C4-N4	-5.42	114.21	118.00
36	1	101	G	O4'-C1'-N9	5.41	112.53	108.20
36	1	697	A	N9-C4-C5	-5.41	103.64	105.80
36	1	2154	U	C5-C6-N1	5.41	125.41	122.70
1	6	100	A	C6-C5-N7	-5.41	128.51	132.30
1	6	687	G	N3-C4-N9	-5.41	122.75	126.00
36	5	718	G	C4-N9-C1'	5.41	133.54	126.50
36	5	924	G	O5'-P-OP2	5.41	117.20	110.70
36	5	1365	G	C6-C5-N7	-5.41	127.15	130.40
36	5	2794	G	N9-C4-C5	-5.41	103.23	105.40
36	1	1375	G	N1-C6-O6	5.41	123.15	119.90
1	6	463	U	N1-C2-O2	-5.41	119.01	122.80
36	5	2175	U	C2-N3-C4	-5.41	123.75	127.00
1	2	1282	U	N3-C2-O2	-5.41	118.41	122.20
36	1	691	A	C5-N7-C8	-5.41	101.19	103.90
36	1	1406	A	O5'-P-OP2	-5.41	100.83	105.70
36	1	2642	A	C6-N1-C2	5.41	121.85	118.60
36	1	3261	C	N1-C2-O2	-5.41	115.65	118.90
36	5	881	C	C2-N1-C1'	5.41	124.75	118.80
36	1	394	G	C8-N9-C4	-5.41	104.24	106.40
36	1	1180	A	O4'-C1'-N9	-5.41	103.87	108.20
36	1	1658	G	N9-C4-C5	5.41	107.56	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1458	G	C4-N9-C1'	5.41	133.53	126.50
36	5	592	A	N9-C4-C5	-5.41	103.64	105.80
36	5	1373	A	O5'-P-OP2	-5.41	100.83	105.70
36	5	2882	U	O5'-P-OP2	-5.41	100.83	105.70
36	1	2401	A	N3-C4-C5	5.41	130.59	126.80
36	1	693	A	N7-C8-N9	5.41	116.50	113.80
36	1	1197	A	C5-N7-C8	-5.41	101.20	103.90
36	1	1374	G	C5-N7-C8	-5.41	101.60	104.30
36	1	3056	U	O5'-P-OP2	-5.41	100.83	105.70
36	1	75	G	C6-C5-N7	-5.40	127.16	130.40
36	1	410	U	N3-C4-O4	5.40	123.18	119.40
36	1	834	U	O5'-P-OP2	-5.40	100.84	105.70
1	6	470	A	C8-N9-C4	-5.40	103.64	105.80
1	6	1426	C	C6-N1-C2	-5.40	118.14	120.30
36	5	2187	G	N1-C6-O6	5.40	123.14	119.90
1	2	334	G	C2-N3-C4	-5.40	109.20	111.90
36	1	429	U	O5'-P-OP1	-5.40	100.84	105.70
36	1	1374	G	C4-C5-N7	5.40	112.96	110.80
38	4	10	A	OP1-P-O3'	5.40	117.08	105.20
1	6	358	U	O5'-P-OP1	-5.40	100.84	105.70
1	6	467	G	N3-C4-N9	5.40	129.24	126.00
36	1	2627	C	C6-N1-C2	5.40	122.46	120.30
36	5	1100	U	C5-C4-O4	-5.40	122.66	125.90
36	5	2877	G	N1-C6-O6	-5.40	116.66	119.90
36	1	1149	G	O4'-C1'-N9	5.40	112.52	108.20
36	1	1367	G	C5-C6-O6	-5.40	125.36	128.60
36	5	3022	G	O4'-C1'-N9	5.40	112.52	108.20
36	1	214	G	C6-C5-N7	-5.39	127.16	130.40
36	1	2391	G	C4-C5-N7	-5.39	108.64	110.80
37	3	82	G	N1-C2-N3	5.39	127.14	123.90
36	5	329	U	C5-C4-O4	5.39	129.14	125.90
36	5	374	A	N9-C4-C5	5.39	107.96	105.80
36	5	3115	C	C2-N3-C4	-5.39	117.20	119.90
36	5	3141	A	C4-C5-C6	5.39	119.70	117.00
1	2	913	G	C8-N9-C1'	-5.39	119.99	127.00
36	1	608	A	C5-C6-N6	-5.39	119.39	123.70
36	1	1152	G	OP1-P-OP2	5.39	127.69	119.60
36	1	3060	C	C5-C4-N4	-5.39	116.42	120.20
36	5	922	U	C2-N3-C4	-5.39	123.77	127.00
36	5	1468	A	N1-C6-N6	5.39	121.83	118.60
36	1	932	U	C5-C6-N1	5.39	125.39	122.70
36	1	933	A	N1-C2-N3	5.39	132.00	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1406	A	C5-C6-N6	-5.39	119.39	123.70
36	1	2417	U	N1-C2-O2	-5.39	119.03	122.80
36	1	25	U	N3-C4-C5	-5.39	111.37	114.60
36	1	2946	A	C4-C5-N7	5.39	113.39	110.70
36	5	1857	C	N3-C4-C5	5.39	124.06	121.90
36	5	3133	C	N3-C4-C5	-5.39	119.75	121.90
36	5	2166	A	O5'-P-OP1	-5.39	100.85	105.70
36	5	2284	C	C5-C4-N4	-5.39	116.43	120.20
36	1	1181	U	O5'-P-OP2	-5.39	100.85	105.70
36	1	1924	U	N3-C2-O2	5.39	125.97	122.20
1	6	7	G	N3-C4-N9	5.39	129.23	126.00
36	5	879	U	N1-C2-N3	5.39	118.13	114.90
36	5	2340	U	C5-C4-O4	-5.39	122.67	125.90
36	5	2398	A	C6-N1-C2	-5.39	115.37	118.60
36	5	2550	U	N3-C2-O2	-5.39	118.43	122.20
36	5	2759	U	OP1-P-O3'	5.39	117.05	105.20
36	5	2759	U	N1-C2-O2	-5.39	119.03	122.80
1	2	1185	U	N1-C2-O2	5.38	126.57	122.80
1	2	1536	G	C8-N9-C1'	-5.38	120.00	127.00
36	1	637	C	OP2-P-O3'	-5.38	93.35	105.20
36	1	1110	U	N3-C4-C5	5.38	117.83	114.60
36	1	1139	G	C5-C6-O6	5.38	131.83	128.60
1	6	957	G	N3-C2-N2	-5.38	116.13	119.90
1	6	1567	U	C5-C4-O4	-5.38	122.67	125.90
1	2	406	U	O5'-P-OP2	-5.38	100.86	105.70
36	1	349	A	P-O3'-C3'	5.38	126.16	119.70
1	6	1522	U	O4'-C1'-N1	5.38	112.51	108.20
36	5	651	G	C6-C5-N7	-5.38	127.17	130.40
36	1	907	G	O4'-C1'-N9	5.38	112.50	108.20
36	1	1375	G	C5-C6-O6	-5.38	125.37	128.60
44	L7	202	LEU	CB-CG-CD2	-5.38	101.85	111.00
1	6	389	G	N1-C6-O6	-5.38	116.67	119.90
36	5	1170	A	N1-C6-N6	5.38	121.83	118.60
36	5	3354	U	N3-C2-O2	-5.38	118.43	122.20
36	1	960	U	C2-N3-C4	-5.38	123.77	127.00
1	2	1280	C	C4-C5-C6	5.38	120.09	117.40
36	1	3060	C	N3-C4-N4	5.38	121.77	118.00
36	5	1299	U	C5-C4-O4	-5.38	122.67	125.90
1	2	914	G	C4-N9-C1'	5.38	133.49	126.50
36	1	790	U	C5-C4-O4	5.38	129.13	125.90
36	1	3309	G	C6-C5-N7	-5.38	127.17	130.40
1	6	1280	C	C6-N1-C2	-5.38	118.15	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1488	G	O5'-P-OP2	5.38	117.15	110.70
36	5	617	G	C4-C5-N7	5.38	112.95	110.80
36	5	776	U	N3-C4-O4	-5.38	115.64	119.40
36	5	2887	A	C4-C5-C6	5.38	119.69	117.00
36	1	2160	G	C6-C5-N7	-5.37	127.18	130.40
36	5	410	U	C2-N3-C4	5.37	130.22	127.00
36	5	822	G	O5'-P-OP1	-5.37	100.86	105.70
36	5	835	G	O4'-C1'-N9	5.37	112.50	108.20
36	5	2996	U	N3-C2-O2	-5.37	118.44	122.20
36	1	1131	G	N1-C6-O6	5.37	123.12	119.90
36	5	92	G	C5-C6-N1	5.37	114.19	111.50
36	5	639	G	C4-C5-C6	5.37	122.02	118.80
36	5	2395	G	C4-C5-C6	-5.37	115.58	118.80
36	1	650	C	C4-C5-C6	5.37	120.08	117.40
1	6	23	G	O5'-P-OP2	-5.37	100.87	105.70
36	5	1314	C	C6-N1-C1'	-5.37	114.36	120.80
1	2	1185	U	C2-N1-C1'	5.37	124.14	117.70
36	1	1177	G	N9-C4-C5	-5.37	103.25	105.40
36	1	2618	G	N1-C6-O6	-5.37	116.68	119.90
36	1	2789	U	N1-C2-O2	-5.37	119.04	122.80
36	5	2666	C	N3-C4-N4	5.37	121.76	118.00
1	2	1129	U	N3-C4-C5	5.37	117.82	114.60
36	1	2699	G	C5-N7-C8	-5.37	101.62	104.30
36	1	2731	U	N1-C2-O2	-5.37	119.04	122.80
36	5	3082	C	N1-C2-O2	5.37	122.12	118.90
36	5	3309	G	C8-N9-C1'	-5.37	120.02	127.00
1	2	1131	A	C8-N9-C4	5.36	107.95	105.80
36	1	2706	G	N1-C6-O6	5.36	123.12	119.90
36	5	948	C	N1-C2-O2	-5.36	115.68	118.90
36	1	515	C	N3-C4-C5	-5.36	119.75	121.90
36	1	2182	A	N7-C8-N9	5.36	116.48	113.80
37	3	44	C	N3-C4-C5	-5.36	119.75	121.90
36	5	530	G	O4'-C1'-N9	5.36	112.49	108.20
36	5	2310	U	N3-C2-O2	-5.36	118.45	122.20
36	5	3079	U	C5-C4-O4	5.36	129.12	125.90
1	2	1176	G	C6-C5-N7	-5.36	127.18	130.40
1	2	1733	C	N1-C2-O2	-5.36	115.68	118.90
36	1	1696	A	C8-N9-C4	-5.36	103.66	105.80
1	6	664	U	C2-N1-C1'	5.36	124.13	117.70
36	5	635	G	C5-C6-O6	-5.36	125.38	128.60
36	5	1429	G	C5-C6-O6	-5.36	125.38	128.60
1	6	387	A	C2-N3-C4	5.36	113.28	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	608	U	N1-C2-N3	5.36	118.11	114.90
1	2	864	U	N1-C2-N3	5.36	118.11	114.90
36	1	683	U	N3-C4-O4	5.36	123.15	119.40
36	1	1634	G	C8-N9-C4	-5.36	104.26	106.40
36	1	2141	U	C5-C6-N1	5.36	125.38	122.70
36	1	3181	C	N1-C2-O2	5.36	122.11	118.90
36	5	2116	G	N1-C6-O6	5.36	123.11	119.90
36	1	3134	A	C2-N3-C4	-5.36	107.92	110.60
73	O7	67	LEU	CA-CB-CG	5.36	127.62	115.30
1	6	1752	U	O5'-P-OP1	5.36	117.13	110.70
36	5	838	G	N1-C2-N2	-5.36	111.38	116.20
36	5	1161	G	C4-C5-N7	5.36	112.94	110.80
36	5	2358	A	N1-C6-N6	-5.36	115.39	118.60
36	1	62	A	C5-C6-N6	-5.35	119.42	123.70
36	1	2537	U	P-O3'-C3'	5.35	126.12	119.70
36	1	2396	G	N9-C4-C5	5.35	107.54	105.40
1	6	914	G	C5-C6-O6	-5.35	125.39	128.60
36	5	851	C	P-O3'-C3'	-5.35	113.28	119.70
36	5	2345	A	C4-C5-N7	5.35	113.38	110.70
36	5	2931	C	C5-C4-N4	-5.35	116.45	120.20
36	1	1119	C	C6-N1-C2	5.35	122.44	120.30
36	1	2351	U	C6-N1-C2	-5.35	117.79	121.00
1	6	538	A	O4'-C1'-N9	5.35	112.48	108.20
36	5	1476	G	C8-N9-C4	5.35	108.54	106.40
36	5	2971	A	N1-C2-N3	-5.35	126.62	129.30
36	1	1400	G	C8-N9-C1'	-5.35	120.05	127.00
1	6	696	C	C2-N1-C1'	-5.35	112.92	118.80
1	6	1432	U	O4'-C1'-N1	5.35	112.48	108.20
36	5	2968	G	N1-C6-O6	-5.35	116.69	119.90
1	2	1215	C	C6-N1-C2	-5.35	118.16	120.30
1	2	1458	G	N3-C4-N9	5.35	129.21	126.00
36	1	262	U	N3-C2-O2	5.35	125.94	122.20
36	1	1180	A	N7-C8-N9	-5.35	111.13	113.80
36	5	1885	U	N3-C2-O2	5.35	125.94	122.20
36	5	2211	U	C5-C6-N1	-5.35	120.03	122.70
36	1	501	A	N1-C6-N6	5.34	121.81	118.60
36	5	1321	G	C2-N3-C4	-5.34	109.23	111.90
36	5	1359	C	N3-C4-N4	5.34	121.74	118.00
36	5	2135	U	C6-N1-C2	5.34	124.21	121.00
36	5	512	U	C5-C4-O4	5.34	129.11	125.90
36	5	880	G	C8-N9-C4	5.34	108.54	106.40
36	5	933	A	C6-N1-C2	-5.34	115.39	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1099	A	C5-C6-N6	-5.34	119.43	123.70
1	2	307	G	C4-N9-C1'	5.34	133.44	126.50
36	1	142	C	C5-C6-N1	5.34	123.67	121.00
1	6	1354	G	C4-N9-C1'	5.34	133.44	126.50
36	5	336	A	C8-N9-C4	5.34	107.94	105.80
36	5	3136	G	C5-C6-N1	-5.34	108.83	111.50
36	1	2892	A	N1-C6-N6	-5.34	115.40	118.60
36	5	1154	A	C2-N3-C4	5.34	113.27	110.60
36	5	2190	U	N1-C2-N3	5.34	118.10	114.90
36	5	2991	A	C5-C6-N1	5.34	120.37	117.70
1	2	345	U	N1-C2-N3	5.34	118.10	114.90
1	2	580	A	N9-C4-C5	5.34	107.94	105.80
36	1	1320	C	N3-C4-C5	-5.34	119.77	121.90
36	1	3304	U	N3-C2-O2	5.34	125.94	122.20
1	6	151	G	N3-C2-N2	-5.34	116.17	119.90
36	5	845	G	C5-C6-O6	-5.34	125.40	128.60
36	5	2820	A	N7-C8-N9	5.34	116.47	113.80
36	5	3054	U	N3-C4-C5	-5.34	111.40	114.60
36	1	785	G	N1-C2-N3	-5.33	120.70	123.90
1	2	587	C	C6-N1-C2	-5.33	118.17	120.30
36	1	427	C	C6-N1-C2	-5.33	118.17	120.30
36	1	1901	A	C5-C6-N1	5.33	120.37	117.70
36	1	2375	G	O5'-P-OP2	5.33	117.10	110.70
36	1	2418	G	OP1-P-O3'	5.33	116.93	105.20
36	1	2541	U	P-O3'-C3'	5.33	126.10	119.70
49	M3	46	ILE	CG1-CB-CG2	-5.33	99.67	111.40
1	6	1600	A	O4'-C1'-N9	5.33	112.47	108.20
36	5	971	G	N7-C8-N9	-5.33	110.43	113.10
36	5	1189	C	C6-N1-C2	5.33	122.43	120.30
36	5	1834	U	C6-N1-C2	-5.33	117.80	121.00
36	5	2271	A	N1-C6-N6	-5.33	115.40	118.60
1	2	1761	U	N1-C2-N3	5.33	118.10	114.90
36	1	2163	C	N3-C4-N4	-5.33	114.27	118.00
36	1	2247	G	C5-C6-O6	-5.33	125.40	128.60
36	1	3183	A	C6-C5-N7	-5.33	128.57	132.30
36	5	649	A	N1-C6-N6	5.33	121.80	118.60
36	5	998	A	OP2-P-O3'	5.33	116.93	105.20
36	5	1060	U	C5-C6-N1	-5.33	120.03	122.70
1	2	42	G	C4-C5-N7	-5.33	108.67	110.80
36	1	24	G	N1-C2-N2	-5.33	111.40	116.20
36	1	270	U	N3-C2-O2	-5.33	118.47	122.20
36	1	688	G	N3-C4-C5	-5.33	125.94	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2622	C	OP2-P-O3'	5.33	116.92	105.20
1	2	190	C	O4'-C1'-N1	5.33	112.46	108.20
36	1	2527	G	N3-C4-N9	-5.33	122.80	126.00
36	1	2881	C	N1-C2-N3	-5.33	115.47	119.20
36	1	3004	C	N3-C4-C5	5.33	124.03	121.90
36	5	587	U	C5-C4-O4	-5.33	122.70	125.90
1	2	1572	G	N9-C4-C5	-5.33	103.27	105.40
36	1	107	A	C5-C6-N6	-5.33	119.44	123.70
36	1	2917	G	N3-C4-C5	-5.33	125.94	128.60
1	2	1745	G	C5-C6-N1	5.33	114.16	111.50
36	1	325	A	OP2-P-O3'	5.33	116.92	105.20
36	1	798	G	N7-C8-N9	5.33	115.76	113.10
36	1	2915	U	C2-N3-C4	-5.33	123.80	127.00
1	6	6	G	C6-C5-N7	-5.33	127.20	130.40
1	6	1000	C	N3-C2-O2	-5.33	118.17	121.90
36	1	392	G	C4-C5-N7	5.32	112.93	110.80
36	1	424	G	N7-C8-N9	-5.32	110.44	113.10
36	1	580	C	N3-C4-C5	5.32	124.03	121.90
36	1	1547	G	N1-C2-N3	-5.32	120.71	123.90
36	1	3046	A	O5'-P-OP1	-5.32	100.91	105.70
36	1	3057	U	N1-C2-N3	5.32	118.09	114.90
1	6	891	A	N1-C6-N6	5.32	121.79	118.60
36	5	2943	G	N9-C4-C5	-5.32	103.27	105.40
36	5	2954	U	N3-C4-O4	5.32	123.13	119.40
27	D5	95	HIS	N-CA-C	5.32	125.37	111.00
36	1	339	C	N3-C4-N4	-5.32	114.28	118.00
36	1	636	C	OP1-P-O3'	5.32	116.91	105.20
36	1	1332	A	N1-C2-N3	5.32	131.96	129.30
36	5	1429	G	N7-C8-N9	5.32	115.76	113.10
36	1	289	A	N1-C6-N6	5.32	121.79	118.60
36	1	2372	A	C5-C6-N1	5.32	120.36	117.70
36	5	1385	C	C5-C4-N4	-5.32	116.48	120.20
36	5	2832	C	C6-N1-C2	5.32	122.43	120.30
36	1	1213	G	C5'-C4'-O4'	-5.32	102.72	109.10
36	1	2800	G	N1-C2-N2	-5.32	111.41	116.20
36	5	949	C	N1-C2-O2	-5.32	115.71	118.90
36	1	2647	A	N9-C4-C5	5.32	107.93	105.80
36	1	2737	C	N3-C2-O2	5.32	125.62	121.90
37	3	10	C	C6-N1-C2	-5.32	118.17	120.30
1	6	1592	A	C2-N3-C4	-5.32	107.94	110.60
36	5	298	U	N1-C2-O2	5.32	126.52	122.80
36	5	641	C	C2-N3-C4	-5.32	117.24	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	820	A	C8-N9-C4	-5.32	103.67	105.80
36	5	1529	A	C8-N9-C4	5.32	107.93	105.80
36	5	2333	C	C6-N1-C2	5.32	122.43	120.30
36	5	2772	C	OP2-P-O3'	5.32	116.90	105.20
36	5	3301	U	O5'-P-OP1	-5.32	100.91	105.70
36	1	938	C	N1-C2-O2	-5.32	115.71	118.90
36	1	2403	G	N3-C2-N2	5.32	123.62	119.90
36	1	2639	G	N1-C2-N2	-5.32	111.42	116.20
1	6	607	G	C6-C5-N7	-5.32	127.21	130.40
1	6	992	A	O5'-P-OP1	-5.32	100.92	105.70
36	5	2643	A	C4-C5-N7	5.32	113.36	110.70
36	5	2704	A	O5'-P-OP1	-5.32	100.92	105.70
36	5	2885	C	N1-C2-N3	5.32	122.92	119.20
36	1	545	U	C2-N1-C1'	5.31	124.08	117.70
36	1	1210	U	N3-C2-O2	-5.31	118.48	122.20
36	1	2836	C	C4-C5-C6	5.31	120.06	117.40
36	5	424	G	C6-C5-N7	-5.31	127.21	130.40
1	2	1781	A	C5-C6-N6	5.31	127.95	123.70
36	1	339	C	C5-C4-N4	5.31	123.92	120.20
36	1	1751	G	N9-C4-C5	-5.31	103.28	105.40
36	1	1913	A	C5-C6-N6	-5.31	119.45	123.70
36	5	1339	C	N3-C4-C5	-5.31	119.78	121.90
36	5	2890	A	C6-N1-C2	5.31	121.79	118.60
37	7	103	A	C4-C5-N7	5.31	113.36	110.70
36	5	370	U	C2-N1-C1'	5.31	124.07	117.70
37	7	49	G	C5-C6-N1	-5.31	108.84	111.50
1	2	301	A	OP2-P-O3'	5.31	116.88	105.20
36	1	224	C	N1-C2-O2	-5.31	115.71	118.90
36	1	1142	G	N3-C4-N9	5.31	129.19	126.00
36	1	2599	U	C6-N1-C2	-5.31	117.81	121.00
36	5	686	G	OP1-P-OP2	-5.31	111.63	119.60
36	1	673	U	C5-C6-N1	-5.31	120.05	122.70
36	1	2276	G	C8-N9-C4	-5.31	104.28	106.40
36	1	2986	U	N1-C2-N3	5.31	118.08	114.90
1	6	65	A	C4-C5-N7	5.31	113.35	110.70
36	5	1449	A	C5-C6-N6	-5.31	119.45	123.70
36	5	2231	C	N3-C4-C5	-5.31	119.78	121.90
36	5	2767	U	O5'-P-OP2	-5.31	100.92	105.70
36	1	423	A	C4-C5-C6	5.31	119.65	117.00
1	6	1082	C	N3-C4-N4	5.31	121.72	118.00
36	5	952	A	C5-N7-C8	-5.31	101.25	103.90
36	1	2196	C	C5-C6-N1	5.30	123.65	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1565	C	N3-C4-C5	5.30	124.02	121.90
36	5	1175	C	N1-C2-O2	-5.30	115.72	118.90
36	5	3195	U	OP1-P-O3'	5.30	116.87	105.20
38	8	140	G	C5-C6-N1	-5.30	108.85	111.50
36	1	36	C	C5-C6-N1	5.30	123.65	121.00
36	1	1156	C	N1-C2-O2	5.30	122.08	118.90
36	5	1449	A	C8-N9-C4	5.30	107.92	105.80
36	5	3030	G	C5-C6-O6	5.30	131.78	128.60
1	2	75	U	C6-N1-C1'	-5.30	113.78	121.20
1	2	609	U	N1-C2-O2	-5.30	119.09	122.80
1	2	831	U	N3-C4-O4	5.30	123.11	119.40
36	1	107	A	N1-C6-N6	5.30	121.78	118.60
36	1	2968	G	C4-C5-N7	5.30	112.92	110.80
1	6	67	A	C4-C5-N7	5.30	113.35	110.70
36	5	2643	A	C8-N9-C4	5.30	107.92	105.80
36	5	2877	G	C4-C5-N7	-5.30	108.68	110.80
36	1	1329	U	C5'-C4'-O4'	-5.30	102.74	109.10
36	1	3183	A	C4-C5-N7	5.30	113.35	110.70
36	5	426	G	N7-C8-N9	-5.30	110.45	113.10
36	5	714	G	C8-N9-C4	5.30	108.52	106.40
36	5	924	G	N3-C2-N2	-5.30	116.19	119.90
36	5	1385	C	N3-C4-N4	5.30	121.71	118.00
36	5	2818	U	C5'-C4'-O4'	-5.30	102.74	109.10
1	2	1486	G	N7-C8-N9	5.30	115.75	113.10
36	1	2368	A	N3-C4-N9	-5.30	123.16	127.40
36	5	1405	U	N1-C2-N3	5.30	118.08	114.90
52	m6	128	ARG	NE-CZ-NH1	-5.30	117.65	120.30
36	1	2860	U	C4-C5-C6	-5.30	116.52	119.70
1	6	1600	A	C2-N3-C4	-5.30	107.95	110.60
36	5	1148	G	N1-C6-O6	5.30	123.08	119.90
36	5	2645	G	N1-C6-O6	-5.30	116.72	119.90
36	5	2691	A	C8-N9-C4	-5.30	103.68	105.80
36	1	2967	A	C8-N9-C4	5.29	107.92	105.80
1	6	1697	G	N3-C4-N9	5.29	129.18	126.00
36	5	810	A	N1-C2-N3	-5.29	126.65	129.30
36	5	1152	G	N1-C2-N2	5.29	120.97	116.20
1	2	73	U	P-O3'-C3'	5.29	126.05	119.70
1	2	392	G	N1-C6-O6	5.29	123.08	119.90
1	2	1389	C	N3-C2-O2	-5.29	118.19	121.90
36	5	1554	U	OP1-P-O3'	5.29	116.84	105.20
36	5	3144	G	N7-C8-N9	5.29	115.75	113.10
36	1	609	G	C8-N9-C4	-5.29	104.28	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	361	A	C5-C6-N6	5.29	127.93	123.70
36	5	1160	C	O4'-C1'-N1	5.29	112.43	108.20
36	5	1440	G	N9-C4-C5	5.29	107.52	105.40
36	1	421	G	C8-N9-C1'	-5.29	120.12	127.00
36	1	2226	U	N3-C4-C5	-5.29	111.43	114.60
38	4	149	A	N1-C6-N6	-5.29	115.43	118.60
1	6	1665	U	N3-C4-C5	5.29	117.77	114.60
36	5	2353	G	C6-C5-N7	-5.29	127.23	130.40
36	1	2376	G	C5-N7-C8	-5.29	101.66	104.30
36	1	2627	C	N1-C2-O2	-5.29	115.73	118.90
1	6	65	A	N3-C4-C5	5.29	130.50	126.80
1	6	539	G	C8-N9-C4	-5.29	104.28	106.40
1	6	1075	C	N3-C2-O2	5.29	125.60	121.90
1	6	1084	A	O5'-P-OP2	-5.29	100.94	105.70
36	5	971	G	C5-C6-O6	-5.29	125.43	128.60
36	5	1135	A	C8-N9-C4	-5.29	103.69	105.80
36	5	1317	A	C5-C6-N1	5.29	120.34	117.70
36	5	2180	G	N3-C4-C5	5.29	131.24	128.60
36	5	2816	G	N3-C2-N2	5.29	123.60	119.90
36	5	2858	U	N3-C2-O2	-5.29	118.50	122.20
1	2	477	A	N1-C6-N6	5.29	121.77	118.60
36	1	1141	C	C6-N1-C2	-5.29	118.19	120.30
36	1	1581	C	N1-C2-O2	5.29	122.07	118.90
36	1	2969	A	N1-C6-N6	5.29	121.77	118.60
1	6	114	C	C2-N1-C1'	5.29	124.61	118.80
36	5	1604	G	N3-C4-N9	5.29	129.17	126.00
36	5	3144	G	C8-N9-C4	-5.29	104.29	106.40
37	7	50	U	C6-N1-C2	-5.29	117.83	121.00
1	6	1105	C	C6-N1-C2	-5.28	118.19	120.30
36	5	661	G	P-O3'-C3'	5.28	126.04	119.70
36	5	1433	A	N9-C4-C5	5.28	107.91	105.80
36	5	2379	U	C2-N3-C4	-5.28	123.83	127.00
36	5	3008	A	N3-C4-C5	5.28	130.50	126.80
1	2	447	U	C2-N1-C1'	5.28	124.04	117.70
36	1	1428	A	N1-C6-N6	5.28	121.77	118.60
36	1	2620	G	N3-C2-N2	-5.28	116.20	119.90
61	N5	113	LEU	CB-CG-CD2	-5.28	102.02	111.00
1	6	65	A	N1-C6-N6	5.28	121.77	118.60
37	7	42	A	C5-C6-N6	-5.28	119.47	123.70
1	2	734	A	OP1-P-O3'	5.28	116.82	105.20
36	1	153	U	N3-C4-C5	-5.28	111.43	114.60
36	1	667	C	N3-C2-O2	5.28	125.60	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1181	U	O4'-C1'-N1	5.28	112.42	108.20
36	1	36	C	N3-C4-C5	-5.28	119.79	121.90
36	1	518	G	O4'-C1'-N9	5.28	112.42	108.20
36	1	2925	C	C2-N3-C4	-5.28	117.26	119.90
1	6	352	A	O5'-P-OP1	-5.28	100.95	105.70
1	6	470	A	C5-N7-C8	-5.28	101.26	103.90
36	5	682	U	N3-C4-O4	-5.28	115.71	119.40
36	5	1305	U	N3-C2-O2	5.28	125.89	122.20
36	5	2640	A	C2-N3-C4	-5.28	107.96	110.60
36	1	1359	C	N3-C2-O2	5.28	125.59	121.90
36	1	2870	C	O4'-C1'-N1	5.28	112.42	108.20
37	3	84	A	C4-C5-N7	5.28	113.34	110.70
1	6	1772	C	C5-C6-N1	-5.28	118.36	121.00
36	5	1095	U	N3-C2-O2	-5.28	118.51	122.20
36	5	1618	G	C8-N9-C4	5.28	108.51	106.40
36	5	1858	A	O5'-P-OP2	-5.28	100.95	105.70
36	5	1867	A	N9-C4-C5	-5.28	103.69	105.80
36	5	2282	U	N1-C2-O2	-5.28	119.11	122.80
36	5	2994	A	C5-C6-N1	5.28	120.34	117.70
37	7	44	C	N1-C2-O2	-5.28	115.73	118.90
36	1	1847	A	O5'-P-OP2	-5.27	100.95	105.70
36	1	2233	A	N9-C4-C5	5.27	107.91	105.80
36	1	2678	A	N1-C6-N6	-5.27	115.44	118.60
36	5	2213	A	OP2-P-O3'	5.27	116.80	105.20
36	1	880	G	N7-C8-N9	-5.27	110.46	113.10
36	1	1001	G	N1-C6-O6	5.27	123.06	119.90
36	1	2603	G	N3-C2-N2	5.27	123.59	119.90
36	1	2825	C	C6-N1-C2	5.27	122.41	120.30
38	4	65	A	C2-N3-C4	-5.27	107.96	110.60
36	5	644	G	N3-C4-C5	-5.27	125.96	128.60
36	5	659	G	N3-C4-N9	5.27	129.16	126.00
36	5	2616	C	N3-C2-O2	5.27	125.59	121.90
36	5	2877	G	C5-C6-O6	5.27	131.76	128.60
36	5	2889	C	N3-C4-C5	5.27	124.01	121.90
36	5	3301	U	C6-N1-C2	5.27	124.16	121.00
1	2	613	G	N9-C4-C5	-5.27	103.29	105.40
36	1	582	G	C4-C5-N7	5.27	112.91	110.80
36	1	1133	A	C8-N9-C4	5.27	107.91	105.80
36	1	2706	G	C5-C6-O6	-5.27	125.44	128.60
36	1	3171	U	N3-C2-O2	5.27	125.89	122.20
36	1	3362	A	C4-C5-N7	5.27	113.33	110.70
36	5	648	C	OP1-P-OP2	5.27	127.51	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	669	U	C2-N1-C1'	-5.27	111.38	117.70
36	5	2902	A	C6-N1-C2	-5.27	115.44	118.60
37	7	51	A	N1-C6-N6	5.27	121.76	118.60
1	2	1105	C	N3-C4-C5	-5.27	119.79	121.90
36	1	793	C	C6-N1-C2	-5.27	118.19	120.30
36	5	806	A	C4-C5-C6	-5.27	114.37	117.00
36	5	2970	C	N1-C2-O2	-5.27	115.74	118.90
36	1	2297	U	P-O3'-C3'	5.27	126.02	119.70
36	5	993	G	O5'-P-OP2	-5.27	100.96	105.70
1	2	539	G	N7-C8-N9	5.26	115.73	113.10
36	1	956	U	C6-N1-C2	-5.26	117.84	121.00
36	1	3212	C	C5-C6-N1	-5.26	118.37	121.00
36	5	417	A	N1-C6-N6	-5.26	115.44	118.60
36	1	1747	G	N1-C6-O6	5.26	123.06	119.90
36	1	2636	A	C5-N7-C8	-5.26	101.27	103.90
38	4	46	G	C2-N3-C4	5.26	114.53	111.90
36	5	1508	C	OP1-P-OP2	5.26	127.50	119.60
36	5	3108	G	C5-C6-O6	-5.26	125.44	128.60
1	2	7	G	C4-C5-N7	-5.26	108.70	110.80
36	1	1305	U	C5-C4-O4	5.26	129.06	125.90
36	1	2606	G	N9-C4-C5	-5.26	103.30	105.40
1	6	23	G	N9-C4-C5	5.26	107.50	105.40
1	6	466	U	C6-N1-C2	-5.26	117.84	121.00
1	6	1410	A	N1-C6-N6	5.26	121.76	118.60
36	5	183	G	C4-N9-C1'	5.26	133.34	126.50
36	5	2209	U	C2-N1-C1'	-5.26	111.39	117.70
36	5	2932	U	N1-C2-O2	5.26	126.48	122.80
3	S1	181	LEU	CA-CB-CG	5.26	127.39	115.30
36	1	1512	U	N3-C2-O2	-5.26	118.52	122.20
36	1	2309	A	N1-C6-N6	5.26	121.75	118.60
1	6	1141	G	C8-N9-C4	5.26	108.50	106.40
36	5	1548	C	C6-N1-C2	5.26	122.40	120.30
36	5	1892	G	C5-C6-N1	5.26	114.13	111.50
36	5	2639	G	N1-C2-N2	-5.26	111.47	116.20
36	5	2849	C	OP2-P-O3'	5.26	116.77	105.20
36	5	3294	A	C8-N9-C4	-5.26	103.70	105.80
37	7	56	A	C5-C6-N6	-5.26	119.49	123.70
50	m4	77	ARG	NE-CZ-NH1	-5.26	117.67	120.30
36	5	1006	A	OP1-P-OP2	5.26	127.49	119.60
36	1	917	A	N9-C4-C5	5.26	107.90	105.80
36	1	1115	G	C6-N1-C2	-5.26	121.95	125.10
36	1	1838	G	C5-C6-N1	-5.26	108.87	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2551	U	N3-C2-O2	-5.26	118.52	122.20
38	4	10	A	C5-C6-N1	5.26	120.33	117.70
1	6	858	G	C5-N7-C8	-5.26	101.67	104.30
36	5	1238	C	P-O3'-C3'	5.26	126.01	119.70
36	5	2632	G	OP1-P-O3'	5.26	116.77	105.20
36	5	2863	G	N3-C2-N2	5.26	123.58	119.90
36	1	1429	G	C5-N7-C8	5.25	106.93	104.30
36	5	1844	C	N1-C2-O2	-5.25	115.75	118.90
1	2	1199	G	N9-C4-C5	-5.25	103.30	105.40
36	1	627	U	C5-C6-N1	5.25	125.33	122.70
40	L3	35	ASP	CB-CG-OD1	-5.25	113.57	118.30
1	6	453	U	C5-C4-O4	5.25	129.05	125.90
1	6	1459	C	C6-N1-C2	-5.25	118.20	120.30
1	6	1463	C	C6-N1-C2	5.25	122.40	120.30
37	7	1	G	N3-C4-C5	-5.25	125.97	128.60
1	2	1273	G	N1-C6-O6	-5.25	116.75	119.90
1	2	1291	G	C5-N7-C8	-5.25	101.67	104.30
36	1	2827	U	C2-N1-C1'	-5.25	111.40	117.70
36	5	343	U	N1-C2-N3	5.25	118.05	114.90
36	5	643	U	C2-N3-C4	-5.25	123.85	127.00
36	5	1450	G	C5-N7-C8	-5.25	101.67	104.30
36	5	2850	G	N9-C4-C5	-5.25	103.30	105.40
36	1	2192	C	O5'-P-OP2	-5.25	100.97	105.70
36	1	3258	U	OP2-P-O3'	5.25	116.75	105.20
36	5	1602	A	OP2-P-O3'	5.25	116.75	105.20
36	5	1902	G	O5'-P-OP2	5.25	117.00	110.70
36	5	2168	A	O5'-P-OP2	-5.25	100.97	105.70
1	2	966	A	N9-C4-C5	-5.25	103.70	105.80
1	6	14	C	N1-C2-O2	-5.25	115.75	118.90
1	6	314	C	C2-N1-C1'	5.25	124.57	118.80
1	6	408	C	C6-N1-C2	-5.25	118.20	120.30
36	5	392	G	C5-C6-O6	-5.25	125.45	128.60
36	5	1449	A	N1-C2-N3	5.25	131.92	129.30
36	5	1770	G	C4-N9-C1'	5.25	133.32	126.50
36	5	2832	C	N1-C2-O2	5.25	122.05	118.90
36	1	300	G	O5'-P-OP1	-5.25	100.98	105.70
36	1	943	U	N3-C4-C5	5.25	117.75	114.60
36	1	1156	C	N3-C4-C5	5.25	124.00	121.90
36	1	3209	A	N9-C4-C5	-5.25	103.70	105.80
36	1	3391	A	N1-C6-N6	-5.25	115.45	118.60
36	5	3121	U	OP1-P-O3'	5.25	116.74	105.20
37	7	77	G	C6-C5-N7	-5.25	127.25	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2301	U	N3-C2-O2	-5.25	118.53	122.20
36	5	911	C	C2-N3-C4	-5.25	117.28	119.90
36	5	1451	C	N1-C2-O2	-5.25	115.75	118.90
38	8	3	A	C4-C5-C6	-5.25	114.38	117.00
1	2	1573	A	OP2-P-O3'	5.24	116.74	105.20
36	1	363	G	C6-C5-N7	-5.24	127.25	130.40
36	1	1882	G	N3-C2-N2	-5.24	116.23	119.90
36	1	2541	U	C2-N1-C1'	5.24	123.99	117.70
1	6	1675	C	N3-C4-N4	5.24	121.67	118.00
36	5	424	G	C5-C6-N1	5.24	114.12	111.50
36	5	1153	A	C5-N7-C8	-5.24	101.28	103.90
36	5	1292	C	O5'-P-OP1	-5.24	100.98	105.70
36	5	1379	G	C6-C5-N7	-5.24	127.25	130.40
36	5	1688	U	N3-C2-O2	-5.24	118.53	122.20
36	5	1908	A	N7-C8-N9	5.24	116.42	113.80
36	5	2950	G	OP1-P-O3'	5.24	116.73	105.20
36	1	363	G	N1-C6-O6	5.24	123.05	119.90
36	1	719	U	OP1-P-OP2	5.24	127.46	119.60
36	1	1326	A	O5'-P-OP2	-5.24	100.98	105.70
36	1	3201	C	C4-C5-C6	5.24	120.02	117.40
38	4	103	G	N9-C4-C5	5.24	107.50	105.40
36	5	361	A	C6-C5-N7	5.24	135.97	132.30
36	5	1152	G	N7-C8-N9	5.24	115.72	113.10
36	5	2550	U	C5-C4-O4	5.24	129.04	125.90
36	5	2887	A	N3-C4-C5	-5.24	123.13	126.80
36	5	3374	U	C6-N1-C2	5.24	124.14	121.00
36	1	2418	G	N3-C4-N9	5.24	129.14	126.00
36	1	2868	U	C2-N1-C1'	5.24	123.99	117.70
36	1	2946	A	C5-C6-N6	-5.24	119.51	123.70
36	1	2273	G	C4-N9-C1'	-5.24	119.69	126.50
36	1	2378	C	N3-C4-N4	5.24	121.67	118.00
1	2	499	U	C3'-C2'-C1'	5.24	105.69	101.50
36	1	1851	G	C6-C5-N7	-5.24	127.26	130.40
37	3	101	G	C8-N9-C4	5.24	108.49	106.40
1	6	23	G	C8-N9-C4	-5.24	104.31	106.40
1	6	424	C	C6-N1-C1'	-5.24	114.52	120.80
36	5	859	G	C4-C5-N7	5.24	112.89	110.80
36	5	2560	C	N1-C2-O2	5.24	122.04	118.90
36	5	2932	U	C6-N1-C1'	-5.24	113.87	121.20
36	5	3000	A	C2-N3-C4	-5.24	107.98	110.60
36	5	3204	C	C6-N1-C2	5.24	122.39	120.30
1	2	879	G	O5'-P-OP2	-5.23	100.99	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	376	G	C5-C6-N1	-5.23	108.88	111.50
36	1	2121	G	C2-N3-C4	5.23	114.52	111.90
36	1	2291	A	OP1-P-O3'	5.23	116.71	105.20
36	5	3228	C	C2-N1-C1'	5.23	124.56	118.80
36	1	1131	G	C8-N9-C1'	-5.23	120.20	127.00
36	1	2791	G	C8-N9-C4	-5.23	104.31	106.40
1	6	45	U	N1-C2-O2	5.23	126.46	122.80
36	5	63	A	N3-C4-N9	5.23	131.59	127.40
36	1	36	C	C6-N1-C2	-5.23	118.21	120.30
36	1	195	U	N1-C2-N3	5.23	118.04	114.90
36	1	1370	G	N7-C8-N9	5.23	115.72	113.10
36	1	1515	A	C4-C5-C6	5.23	119.61	117.00
36	1	1531	C	C5-C6-N1	5.23	123.62	121.00
36	1	2269	U	C5-C4-O4	-5.23	122.76	125.90
36	1	2615	G	C5-C6-O6	-5.23	125.46	128.60
36	1	2631	U	C2-N3-C4	-5.23	123.86	127.00
1	6	153	G	C6-C5-N7	-5.23	127.26	130.40
1	6	215	A	C8-N9-C4	-5.23	103.71	105.80
36	5	384	A	N7-C8-N9	-5.23	111.19	113.80
36	5	530	G	C8-N9-C1'	5.23	133.80	127.00
36	5	2750	U	N1-C2-N3	5.23	118.04	114.90
36	1	417	A	C5-C6-N6	-5.23	119.52	123.70
37	3	89	G	C8-N9-C4	5.23	108.49	106.40
1	6	347	G	C5-C6-O6	-5.23	125.46	128.60
37	7	93	C	O5'-P-OP1	5.23	116.97	110.70
1	6	30	G	N3-C4-N9	-5.23	122.86	126.00
1	6	128	U	N1-C2-N3	5.23	118.04	114.90
1	6	187	G	P-O3'-C3'	5.23	125.97	119.70
1	6	455	C	C5-C4-N4	-5.23	116.54	120.20
36	5	222	A	C8-N9-C4	5.23	107.89	105.80
36	1	96	G	N1-C6-O6	5.22	123.03	119.90
36	1	1340	G	N3-C4-N9	5.22	129.13	126.00
36	1	2372	A	O4'-C1'-N9	-5.22	104.02	108.20
37	3	96	U	C5-C6-N1	-5.22	120.09	122.70
1	6	782	U	C2-N1-C1'	5.22	123.97	117.70
36	5	1680	G	C4-C5-N7	-5.22	108.71	110.80
36	5	2258	U	N1-C2-O2	5.22	126.46	122.80
36	5	2979	U	C6-N1-C1'	5.22	128.51	121.20
37	7	37	G	C4-C5-N7	5.22	112.89	110.80
36	1	374	A	C4-C5-N7	-5.22	108.09	110.70
36	1	1585	C	N3-C4-C5	5.22	123.99	121.90
36	1	2856	G	O5'-P-OP2	5.22	116.97	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3087	A	C4-C5-C6	5.22	119.61	117.00
38	4	25	G	C5-N7-C8	5.22	106.91	104.30
36	5	1868	G	C8-N9-C4	5.22	108.49	106.40
36	5	2836	C	C2-N3-C4	-5.22	117.29	119.90
36	1	2283	G	N3-C4-C5	5.22	131.21	128.60
36	5	3127	A	C5-C6-N1	5.22	120.31	117.70
1	2	1644	C	C6-N1-C2	-5.22	118.21	120.30
35	SM	134	ASP	CB-CG-OD2	5.22	123.00	118.30
36	1	2142	A	OP1-P-OP2	-5.22	111.77	119.60
36	1	2443	A	C5-C6-N6	-5.22	119.52	123.70
1	6	60	U	C5-C6-N1	5.22	125.31	122.70
1	6	390	G	N3-C4-C5	-5.22	125.99	128.60
1	6	1051	G	C8-N9-C4	-5.22	104.31	106.40
36	5	411	U	C2-N3-C4	-5.22	123.87	127.00
36	5	960	U	N1-C2-O2	5.22	126.45	122.80
36	5	967	A	C5-C6-N6	-5.22	119.53	123.70
36	5	984	G	N3-C4-N9	5.22	129.13	126.00
36	5	1000	C	N3-C4-C5	5.22	123.99	121.90
36	5	3287	U	N1-C2-O2	5.22	126.45	122.80
1	2	694	U	N3-C2-O2	-5.22	118.55	122.20
36	1	1720	U	C5-C4-O4	5.22	129.03	125.90
38	4	102	U	C6-N1-C2	-5.22	117.87	121.00
1	6	558	U	C2-N1-C1'	5.22	123.96	117.70
1	2	782	U	P-O3'-C3'	5.22	125.96	119.70
36	1	2860	U	N1-C2-N3	-5.22	111.77	114.90
1	6	142	G	C8-N9-C1'	-5.22	120.22	127.00
36	5	584	G	C8-N9-C4	-5.22	104.31	106.40
1	2	704	C	C2-N1-C1'	5.21	124.54	118.80
36	1	1421	G	C5-C6-O6	-5.21	125.47	128.60
36	1	2623	G	C6-C5-N7	-5.21	127.27	130.40
41	L4	192	GLY	N-CA-C	-5.21	100.06	113.10
36	5	1321	G	N1-C2-N3	5.21	127.03	123.90
36	5	1688	U	N1-C2-O2	5.21	126.45	122.80
36	5	2127	U	N3-C2-O2	-5.21	118.55	122.20
3	S1	218	LEU	CA-CB-CG	5.21	127.29	115.30
36	1	1082	U	C5-C6-N1	5.21	125.31	122.70
41	L4	136	LEU	CA-CB-CG	-5.21	103.31	115.30
1	6	1021	C	C2-N1-C1'	5.21	124.53	118.80
36	5	526	C	N1-C2-O2	5.21	122.03	118.90
36	5	2234	G	C4-C5-N7	5.21	112.89	110.80
36	1	405	U	C5-C4-O4	-5.21	122.77	125.90
36	1	925	A	C4-C5-C6	5.21	119.61	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	1166	G	C6-C5-N7	-5.21	127.27	130.40
36	1	2170	U	C6-N1-C2	-5.21	117.87	121.00
36	1	2281	A	O4'-C1'-N9	5.21	112.37	108.20
36	5	101	G	C4-N9-C1'	5.21	133.28	126.50
36	5	2125	A	C5-C6-N1	5.21	120.31	117.70
1	6	337	G	N9-C4-C5	-5.21	103.32	105.40
36	5	3048	A	N7-C8-N9	5.21	116.41	113.80
1	2	240	U	OP2-P-O3'	5.21	116.66	105.20
36	1	207	U	N1-C2-O2	-5.21	119.15	122.80
36	1	1491	A	O5'-P-OP1	-5.21	101.01	105.70
59	N3	56	ASP	CB-CG-OD1	-5.21	113.61	118.30
1	6	1680	G	N9-C4-C5	-5.21	103.32	105.40
36	5	382	U	O5'-P-OP2	-5.21	101.01	105.70
36	5	649	A	C5-C6-N1	5.21	120.30	117.70
36	5	1500	G	N7-C8-N9	-5.21	110.50	113.10
36	5	2950	G	N3-C2-N2	5.21	123.55	119.90
1	2	378	A	OP2-P-O3'	5.21	116.65	105.20
36	1	1428	A	C5-C6-N6	-5.21	119.53	123.70
36	1	1906	G	C5-C6-O6	-5.21	125.48	128.60
36	1	2348	A	C5-C6-N1	-5.21	115.10	117.70
1	6	606	A	N9-C4-C5	-5.21	103.72	105.80
36	5	578	A	C6-C5-N7	-5.21	128.66	132.30
36	5	1866	C	C2-N1-C1'	5.21	124.53	118.80
36	5	2187	G	N9-C4-C5	-5.21	103.32	105.40
36	5	2648	G	OP1-P-O3'	5.21	116.65	105.20
36	5	2836	C	O4'-C1'-N1	5.21	112.36	108.20
36	5	2837	A	N7-C8-N9	-5.21	111.20	113.80
36	5	2910	A	OP2-P-O3'	5.21	116.66	105.20
38	8	39	G	N3-C4-N9	5.21	129.12	126.00
36	1	633	C	C4-C5-C6	5.21	120.00	117.40
36	1	2607	G	N3-C2-N2	5.21	123.54	119.90
36	1	3176	G	N1-C6-O6	5.21	123.02	119.90
1	6	1127	G	N1-C2-N3	5.21	127.02	123.90
1	6	1389	C	N1-C2-O2	5.21	122.02	118.90
1	2	619	A	OP2-P-O3'	5.20	116.65	105.20
36	1	43	A	C2-N3-C4	-5.20	108.00	110.60
37	3	38	U	N1-C2-O2	-5.20	119.16	122.80
1	6	1113	A	C2-N3-C4	-5.20	108.00	110.60
36	5	227	G	C5-C6-O6	-5.20	125.48	128.60
36	5	1396	C	N3-C4-C5	5.20	123.98	121.90
36	5	1598	G	C8-N9-C4	5.20	108.48	106.40
36	5	2625	C	C2-N3-C4	-5.20	117.30	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3015	G	OP2-P-O3'	5.20	116.65	105.20
36	1	3024	A	O5'-P-OP1	-5.20	101.02	105.70
36	5	1856	C	C5-C6-N1	5.20	123.60	121.00
36	5	2248	C	OP1-P-O3'	5.20	116.64	105.20
36	5	1193	A	C4-C5-C6	5.20	119.60	117.00
36	5	1605	A	O4'-C1'-N9	5.20	112.36	108.20
37	7	85	G	N9-C4-C5	5.20	107.48	105.40
36	1	1294	A	O4'-C1'-N9	5.20	112.36	108.20
36	1	1322	U	N3-C2-O2	5.20	125.84	122.20
36	1	2422	C	N3-C4-N4	-5.20	114.36	118.00
36	1	3319	U	P-O3'-C3'	5.20	125.94	119.70
1	6	154	G	C5-C6-O6	-5.20	125.48	128.60
36	5	1069	C	N1-C2-O2	5.20	122.02	118.90
36	5	816	A	N1-C6-N6	-5.20	115.48	118.60
36	5	1176	C	C5-C4-N4	-5.20	116.56	120.20
1	2	587	C	N3-C4-C5	-5.20	119.82	121.90
36	1	1217	A	OP2-P-O3'	5.20	116.63	105.20
36	1	1661	G	C4-C5-N7	5.20	112.88	110.80
36	1	2988	C	N1-C2-O2	-5.20	115.78	118.90
36	1	3275	U	C6-N1-C2	-5.20	117.88	121.00
36	1	3326	G	C8-N9-C4	5.20	108.48	106.40
1	6	158	U	C2-N1-C1'	5.20	123.94	117.70
1	6	1146	G	C8-N9-C1'	-5.20	120.25	127.00
36	5	830	A	O5'-P-OP1	-5.20	101.02	105.70
36	5	1371	G	N1-C6-O6	-5.20	116.78	119.90
36	5	2618	G	C4-C5-N7	5.20	112.88	110.80
36	5	941	G	N1-C6-O6	-5.19	116.78	119.90
36	5	2365	C	O5'-P-OP1	-5.19	101.03	105.70
1	2	969	C	C6-N1-C2	5.19	122.38	120.30
36	1	245	U	N1-C2-O2	5.19	126.44	122.80
36	1	2379	U	N1-C2-O2	-5.19	119.17	122.80
38	4	47	C	N3-C4-C5	5.19	123.98	121.90
1	6	402	C	O5'-P-OP1	5.19	116.93	110.70
1	6	424	C	C5-C4-N4	-5.19	116.56	120.20
36	5	1303	A	C8-N9-C4	5.19	107.88	105.80
36	5	1395	G	N1-C6-O6	5.19	123.02	119.90
36	5	1897	G	C2-N3-C4	-5.19	109.30	111.90
36	5	2353	G	C6-N1-C2	-5.19	121.98	125.10
36	1	186	U	O5'-P-OP2	5.19	116.93	110.70
36	1	884	A	C8-N9-C4	5.19	107.88	105.80
1	6	1021	C	C6-N1-C2	-5.19	118.22	120.30
1	6	1489	U	C2-N1-C1'	5.19	123.93	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1493	A	C5-N7-C8	-5.19	101.31	103.90
36	5	23	A	C5-C6-N6	-5.19	119.55	123.70
36	5	1100	U	N3-C4-O4	5.19	123.03	119.40
36	5	3024	A	C8-N9-C4	-5.19	103.72	105.80
36	1	2817	A	OP2-P-O3'	5.19	116.62	105.20
36	5	656	A	O5'-P-OP1	-5.19	101.03	105.70
1	2	543	C	P-O3'-C3'	5.19	125.92	119.70
36	1	1669	C	N3-C2-O2	5.19	125.53	121.90
36	1	2354	C	N1-C2-N3	5.19	122.83	119.20
36	1	2599	U	C5-C6-N1	5.19	125.29	122.70
38	4	110	C	OP2-P-O3'	5.19	116.61	105.20
1	6	1144	U	OP2-P-O3'	5.19	116.61	105.20
36	5	191	U	C2-N1-C1'	-5.19	111.47	117.70
36	5	1161	G	C2-N3-C4	5.19	114.49	111.90
36	1	2115	G	C6-C5-N7	-5.19	127.29	130.40
1	6	191	C	O4'-C1'-N1	5.19	112.35	108.20
1	2	95	G	C2-N3-C4	5.18	114.49	111.90
36	1	2154	U	C5-C4-O4	-5.18	122.79	125.90
36	1	2316	G	OP1-P-O3'	5.18	116.61	105.20
1	6	67	A	C5-C6-N6	-5.18	119.55	123.70
36	5	819	U	N3-C2-O2	5.18	125.83	122.20
36	5	991	G	N1-C6-O6	-5.18	116.79	119.90
36	1	98	G	C2-N3-C4	-5.18	109.31	111.90
36	1	1001	G	N3-C4-C5	-5.18	126.01	128.60
36	1	1183	C	N1-C2-O2	-5.18	115.79	118.90
36	1	2418	G	P-O3'-C3'	5.18	125.92	119.70
1	6	1091	A	C5-C6-N1	-5.18	115.11	117.70
1	6	1653	C	OP2-P-O3'	5.18	116.60	105.20
1	6	1737	G	N1-C6-O6	5.18	123.01	119.90
36	5	3166	C	C5-C6-N1	5.18	123.59	121.00
36	5	3225	C	C6-N1-C2	-5.18	118.23	120.30
36	5	869	G	C5-C6-N1	5.18	114.09	111.50
38	8	104	A	C8-N9-C4	5.18	107.87	105.80
1	2	412	A	N1-C6-N6	5.18	121.71	118.60
36	1	894	G	C4-C5-N7	5.18	112.87	110.80
36	1	1111	U	O5'-P-OP1	-5.18	101.04	105.70
36	1	1135	A	C8-N9-C4	5.18	107.87	105.80
36	5	374	A	P-O3'-C3'	5.18	125.92	119.70
36	5	779	G	C5-C6-O6	-5.18	125.49	128.60
36	5	905	U	C5-C4-O4	-5.18	122.79	125.90
36	5	1116	G	N3-C4-C5	-5.18	126.01	128.60
36	5	2404	A	C6-C5-N7	5.18	135.93	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	12	200	ARG	NE-CZ-NH2	-5.18	117.71	120.30
1	2	1486	G	C4-C5-N7	5.18	112.87	110.80
36	5	2965	U	N3-C2-O2	5.18	125.83	122.20
1	2	543	C	N1-C2-O2	5.18	122.01	118.90
36	1	718	G	C4-C5-N7	5.18	112.87	110.80
1	2	1479	A	N1-C6-N6	5.17	121.70	118.60
36	1	517	G	C5-N7-C8	-5.17	101.71	104.30
36	1	869	G	N3-C4-C5	-5.17	126.01	128.60
38	4	22	U	C5-C4-O4	5.17	129.00	125.90
1	6	617	U	N3-C2-O2	-5.17	118.58	122.20
36	5	90	C	C5-C6-N1	5.17	123.59	121.00
36	5	96	G	C2-N3-C4	-5.17	109.31	111.90
36	5	682	U	C5-C6-N1	-5.17	120.11	122.70
1	2	933	A	C8-N9-C4	-5.17	103.73	105.80
36	1	1164	G	C8-N9-C4	-5.17	104.33	106.40
36	1	3362	A	C4-N9-C1'	5.17	135.61	126.30
38	4	147	U	C2-N1-C1'	5.17	123.91	117.70
36	1	579	G	OP2-P-O3'	5.17	116.58	105.20
36	1	1383	G	C2-N3-C4	5.17	114.49	111.90
1	6	1491	U	P-O3'-C3'	5.17	125.91	119.70
36	5	659	G	C6-C5-N7	-5.17	127.30	130.40
36	5	1438	U	C2-N1-C1'	5.17	123.91	117.70
36	5	3154	C	C2-N3-C4	5.17	122.49	119.90
36	5	2117	A	C5-N7-C8	5.17	106.48	103.90
36	5	3335	A	C5-C6-N6	-5.17	119.56	123.70
36	1	1146	C	C5-C6-N1	5.17	123.58	121.00
36	1	2619	G	C2-N3-C4	5.17	114.48	111.90
36	5	429	U	N3-C4-C5	5.17	117.70	114.60
36	5	1119	C	OP2-P-O3'	5.17	116.57	105.20
36	5	2339	C	OP1-P-O3'	5.17	116.57	105.20
36	5	3059	G	OP2-P-O3'	5.17	116.57	105.20
36	5	3092	C	C2-N3-C4	-5.17	117.32	119.90
36	5	2849	C	O5'-P-OP1	-5.17	101.05	105.70
36	1	1906	G	C6-C5-N7	-5.17	127.30	130.40
36	1	3242	G	C4-N9-C1'	-5.17	119.78	126.50
1	2	1473	U	N1-C2-O2	5.16	126.42	122.80
36	1	2603	G	C4-C5-N7	5.16	112.86	110.80
1	6	1480	G	N7-C8-N9	5.16	115.68	113.10
36	5	1145	G	C4-C5-N7	-5.16	108.73	110.80
36	5	1148	G	OP2-P-O3'	5.16	116.56	105.20
36	5	1399	A	O5'-P-OP2	-5.16	101.05	105.70
36	5	1408	G	N3-C2-N2	-5.16	116.29	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2886	U	N3-C4-O4	5.16	123.01	119.40
36	1	3362	A	C8-N9-C4	-5.16	103.73	105.80
36	5	75	G	N1-C6-O6	5.16	123.00	119.90
36	1	1113	G	N7-C8-N9	5.16	115.68	113.10
36	5	816	A	C4-C5-N7	-5.16	108.12	110.70
36	5	927	C	N3-C2-O2	5.16	125.51	121.90
36	5	974	G	N3-C4-C5	-5.16	126.02	128.60
36	5	1433	A	C8-N9-C4	-5.16	103.73	105.80
37	7	78	U	N3-C2-O2	-5.16	118.59	122.20
1	2	1307	U	C2-N1-C1'	5.16	123.89	117.70
36	1	1182	A	C8-N9-C4	5.16	107.86	105.80
36	1	2139	A	N1-C6-N6	-5.16	115.50	118.60
36	1	3195	U	N3-C2-O2	-5.16	118.59	122.20
38	4	40	A	C6-C5-N7	-5.16	128.69	132.30
1	6	111	U	O5'-P-OP2	-5.16	101.06	105.70
36	5	2871	G	N3-C2-N2	5.16	123.51	119.90
36	5	2872	A	N3-C4-N9	-5.16	123.27	127.40
36	1	672	A	C5-C6-N6	-5.16	119.57	123.70
36	5	2753	G	N3-C2-N2	-5.16	116.29	119.90
36	1	1615	C	N3-C2-O2	-5.16	118.29	121.90
36	1	3344	A	C8-N9-C4	-5.16	103.74	105.80
1	6	96	G	C5-C6-O6	5.16	131.69	128.60
36	5	1069	C	N3-C2-O2	-5.16	118.29	121.90
36	5	1934	G	N3-C4-N9	-5.16	122.91	126.00
36	5	2872	A	C2-N3-C4	-5.16	108.02	110.60
36	5	2947	G	OP1-P-O3'	5.16	116.54	105.20
36	5	2993	G	O5'-P-OP1	-5.16	101.06	105.70
1	2	1745	G	C6-N1-C2	-5.15	122.01	125.10
36	1	371	G	O5'-P-OP2	-5.15	101.06	105.70
36	1	2135	U	N3-C4-C5	5.15	117.69	114.60
36	5	710	A	C6-C5-N7	5.15	135.91	132.30
36	5	873	C	O5'-P-OP1	5.15	116.88	110.70
36	5	1941	C	N1-C2-O2	-5.15	115.81	118.90
36	5	2258	U	N3-C2-O2	-5.15	118.59	122.20
36	5	2283	G	N1-C6-O6	5.15	122.99	119.90
36	1	1867	A	N1-C6-N6	5.15	121.69	118.60
36	1	2728	G	C2-N3-C4	5.15	114.48	111.90
36	1	2844	C	N3-C4-C5	5.15	123.96	121.90
36	5	419	G	C5-C6-O6	-5.15	125.51	128.60
36	5	826	G	N3-C4-C5	5.15	131.18	128.60
36	5	1462	A	N3-C4-N9	-5.15	123.28	127.40
36	5	2935	U	N3-C4-O4	5.15	123.01	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	3343	G	C6-C5-N7	-5.15	127.31	130.40
38	8	25	G	O5'-P-OP2	-5.15	101.06	105.70
38	8	95	G	C4-N9-C1'	-5.15	119.80	126.50
1	2	356	G	N1-C6-O6	5.15	122.99	119.90
36	1	426	G	N3-C4-C5	-5.15	126.03	128.60
36	1	930	U	N3-C4-C5	5.15	117.69	114.60
36	1	1618	G	N1-C6-O6	-5.15	116.81	119.90
36	1	2322	C	N3-C4-N4	-5.15	114.39	118.00
36	5	950	G	N3-C2-N2	5.15	123.50	119.90
36	5	1149	G	N3-C4-C5	-5.15	126.03	128.60
36	5	2145	A	N9-C4-C5	5.15	107.86	105.80
36	5	2819	A	O5'-P-OP2	-5.15	101.06	105.70
43	L6	154	LEU	CA-CB-CG	-5.15	103.46	115.30
36	5	424	G	C5-N7-C8	-5.15	101.73	104.30
36	5	2610	G	C8-N9-C4	-5.15	104.34	106.40
36	5	3218	A	C6-C5-N7	-5.15	128.70	132.30
1	2	1339	C	C6-N1-C2	-5.15	118.24	120.30
36	1	284	A	O5'-P-OP2	-5.15	101.07	105.70
36	1	1502	C	O5'-P-OP2	-5.15	101.07	105.70
36	1	2305	G	C6-C5-N7	-5.15	127.31	130.40
36	1	3209	A	C4-C5-N7	5.15	113.27	110.70
1	6	60	U	N1-C2-O2	5.15	126.40	122.80
36	5	2136	C	N3-C2-O2	-5.15	118.30	121.90
36	5	2939	G	N1-C2-N3	-5.15	120.81	123.90
36	5	1086	C	O5'-P-OP1	5.15	116.88	110.70
36	5	1452	A	C5-C6-N6	-5.15	119.58	123.70
1	2	965	U	N1-C2-O2	5.14	126.40	122.80
1	2	1370	U	P-O3'-C3'	5.14	125.87	119.70
36	1	1830	G	OP1-P-O3'	5.14	116.52	105.20
36	1	2662	G	O5'-P-OP2	-5.14	101.07	105.70
36	1	2887	A	N1-C6-N6	5.14	121.69	118.60
36	1	3093	C	C2-N1-C1'	-5.14	113.14	118.80
1	6	440	U	N1-C2-N3	5.14	117.99	114.90
1	6	956	C	C5-C6-N1	-5.14	118.43	121.00
5	s3	198	GLY	N-CA-C	-5.14	100.24	113.10
36	5	1440	G	C5-C6-O6	5.14	131.69	128.60
36	5	1520	G	C8-N9-C4	-5.14	104.34	106.40
36	5	2899	C	N3-C2-O2	-5.14	118.30	121.90
36	5	3091	A	C6-N1-C2	-5.14	115.51	118.60
36	1	859	G	C6-C5-N7	-5.14	127.31	130.40
36	1	1146	C	C6-N1-C2	-5.14	118.24	120.30
1	6	965	U	C2-N1-C1'	5.14	123.87	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1178	G	C4-N9-C1'	5.14	133.19	126.50
36	5	2191	U	N3-C4-C5	5.14	117.69	114.60
36	1	1520	G	C8-N9-C4	5.14	108.46	106.40
36	1	2403	G	O5'-P-OP1	5.14	116.87	110.70
38	4	102	U	N1-C2-N3	5.14	117.98	114.90
1	6	295	A	C8-N9-C4	5.14	107.86	105.80
1	6	1681	A	N1-C6-N6	5.14	121.68	118.60
36	5	934	G	N3-C4-C5	-5.14	126.03	128.60
36	5	2881	C	C4-C5-C6	-5.14	114.83	117.40
36	1	2974	U	C6-N1-C2	-5.14	117.92	121.00
37	3	91	G	N3-C2-N2	-5.14	116.30	119.90
1	6	755	A	O4'-C1'-N9	5.14	112.31	108.20
36	5	423	A	N7-C8-N9	-5.14	111.23	113.80
36	5	1376	C	OP1-P-OP2	5.14	127.31	119.60
36	5	1378	U	C6-N1-C2	5.14	124.08	121.00
36	1	714	G	OP2-P-O3'	5.14	116.50	105.20
36	1	2946	A	C6-C5-N7	-5.14	128.70	132.30
36	5	1791	C	C6-N1-C2	-5.14	118.25	120.30
38	4	115	C	O5'-P-OP2	-5.14	101.08	105.70
36	5	890	C	O5'-P-OP2	-5.14	101.08	105.70
36	5	936	A	P-O3'-C3'	5.14	125.86	119.70
36	5	2402	A	C8-N9-C4	-5.14	103.75	105.80
36	5	3362	A	C4-C5-N7	5.14	113.27	110.70
1	2	1773	C	C4-C5-C6	5.13	119.97	117.40
36	1	948	C	C2-N3-C4	-5.13	117.33	119.90
36	1	1578	C	C6-N1-C1'	-5.13	114.64	120.80
36	1	2377	G	N1-C2-N3	5.13	126.98	123.90
36	1	3266	G	N9-C4-C5	5.13	107.45	105.40
36	5	788	C	OP2-P-O3'	5.13	116.49	105.20
36	5	1178	G	C6-C5-N7	-5.13	127.32	130.40
36	5	2434	U	C5-C4-O4	5.13	128.98	125.90
36	5	2613	U	N3-C4-C5	-5.13	111.52	114.60
1	2	42	G	C6-C5-N7	5.13	133.48	130.40
1	2	1017	U	C5-C6-N1	-5.13	120.13	122.70
1	2	1633	A	N1-C2-N3	5.13	131.87	129.30
36	1	1056	U	C6-N1-C2	-5.13	117.92	121.00
36	1	1481	A	C4-C5-N7	5.13	113.27	110.70
38	4	116	G	C8-N9-C1'	-5.13	120.33	127.00
1	6	339	C	OP2-P-O3'	5.13	116.49	105.20
1	6	473	A	N1-C6-N6	-5.13	115.52	118.60
36	5	1390	A	C5-C6-N6	5.13	127.81	123.70
36	5	504	A	C8-N9-C4	5.13	107.85	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	641	C	N3-C4-C5	5.13	123.95	121.90
36	5	779	G	N1-C6-O6	5.13	122.98	119.90
36	5	878	G	OP1-P-O3'	5.13	116.48	105.20
1	2	1092	A	N1-C6-N6	5.13	121.68	118.60
36	1	922	U	C2-N1-C1'	5.13	123.85	117.70
36	1	2202	C	C5-C6-N1	5.13	123.56	121.00
38	4	147	U	C5-C4-O4	-5.13	122.82	125.90
1	6	1150	G	N7-C8-N9	-5.13	110.54	113.10
36	5	635	G	C6-C5-N7	-5.13	127.32	130.40
36	5	719	U	N3-C2-O2	-5.13	118.61	122.20
36	5	1154	A	N1-C6-N6	-5.13	115.52	118.60
36	5	2704	A	C8-N9-C4	5.13	107.85	105.80
1	2	1748	G	N3-C4-N9	-5.13	122.92	126.00
36	1	1428	A	C8-N9-C4	-5.13	103.75	105.80
4	s2	229	LEU	CA-CB-CG	5.13	127.09	115.30
36	5	1412	G	C5-N7-C8	-5.13	101.74	104.30
36	5	2366	C	C5-C6-N1	5.13	123.56	121.00
36	1	361	A	N9-C4-C5	5.12	107.85	105.80
36	1	1903	U	N3-C2-O2	5.12	125.79	122.20
36	1	3375	A	C5'-C4'-C3'	-5.12	107.80	116.00
37	3	97	A	N1-C6-N6	-5.12	115.53	118.60
36	5	2126	A	C8-N9-C4	5.12	107.85	105.80
1	2	1657	U	N1-C2-O2	5.12	126.39	122.80
1	2	1730	A	C4-C5-C6	-5.12	114.44	117.00
36	1	225	C	N3-C4-C5	-5.12	119.85	121.90
36	1	1165	A	C5-N7-C8	5.12	106.46	103.90
36	1	1210	U	C2-N3-C4	-5.12	123.93	127.00
36	1	3181	C	N1-C2-N3	5.12	122.79	119.20
36	1	3244	A	O5'-P-OP1	-5.12	101.09	105.70
1	6	1281	G	N1-C6-O6	5.12	122.97	119.90
36	5	3184	A	N1-C2-N3	-5.12	126.74	129.30
36	5	3311	C	N3-C4-C5	-5.12	119.85	121.90
1	2	1570	A	C8-N9-C4	5.12	107.85	105.80
36	1	1043	C	N3-C4-C5	5.12	123.95	121.90
36	1	2878	G	OP1-P-OP2	-5.12	111.92	119.60
36	1	2937	G	N7-C8-N9	-5.12	110.54	113.10
1	6	308	C	C2-N3-C4	-5.12	117.34	119.90
1	6	1726	G	OP2-P-O3'	5.12	116.47	105.20
36	1	1329	U	O4'-C1'-N1	5.12	112.30	108.20
36	1	1482	A	N3-C4-C5	-5.12	123.22	126.80
36	1	2627	C	C2-N3-C4	-5.12	117.34	119.90
36	5	2208	A	O4'-C1'-N9	5.12	112.30	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2	447	U	N3-C2-O2	-5.12	118.62	122.20
36	1	357	A	N1-C2-N3	5.12	131.86	129.30
36	1	427	C	N3-C4-C5	-5.12	119.85	121.90
36	1	2973	G	N3-C2-N2	-5.12	116.32	119.90
36	1	3277	U	N3-C2-O2	-5.12	118.62	122.20
1	6	1537	C	C4-C5-C6	5.12	119.96	117.40
36	5	216	G	C5-N7-C8	-5.12	101.74	104.30
36	5	661	G	OP1-P-O3'	5.12	116.46	105.20
36	5	2419	A	N7-C8-N9	5.12	116.36	113.80
36	1	298	U	N1-C2-O2	5.12	126.38	122.80
36	1	2831	G	C6-C5-N7	-5.12	127.33	130.40
36	5	915	A	N3-C4-N9	5.12	131.49	127.40
36	5	3223	A	C5-C6-N1	5.12	120.26	117.70
36	1	2218	G	N3-C4-C5	-5.12	126.04	128.60
36	1	2689	A	N1-C6-N6	-5.12	115.53	118.60
1	6	677	G	N3-C4-C5	5.12	131.16	128.60
36	5	964	G	C5-C6-O6	-5.12	125.53	128.60
36	5	1329	U	C5-C6-N1	-5.12	120.14	122.70
36	5	1902	G	N9-C4-C5	-5.12	103.35	105.40
36	5	2830	G	C4-C5-C6	5.12	121.87	118.80
36	5	3139	A	C5-N7-C8	-5.12	101.34	103.90
36	1	322	U	N3-C2-O2	-5.11	118.62	122.20
33	e1	100	LEU	CA-CB-CG	5.11	127.06	115.30
36	5	673	U	C4-C5-C6	5.11	122.77	119.70
36	5	793	C	C5-C6-N1	5.11	123.56	121.00
36	5	2299	A	O5'-P-OP2	-5.11	101.10	105.70
36	5	2621	G	C5-C6-O6	-5.11	125.53	128.60
1	6	1092	A	N1-C6-N6	5.11	121.67	118.60
36	5	530	G	C8-N9-C4	-5.11	104.36	106.40
36	5	644	G	C2-N3-C4	5.11	114.46	111.90
36	5	2349	U	OP1-P-O3'	5.11	116.45	105.20
36	1	231	G	N1-C6-O6	-5.11	116.83	119.90
1	6	475	A	N1-C6-N6	5.11	121.67	118.60
38	8	39	G	C4-N9-C1'	5.11	133.14	126.50
38	8	113	U	C5-C6-N1	5.11	125.25	122.70
36	1	374	A	C6-C5-N7	5.11	135.88	132.30
36	1	1924	U	N1-C2-O2	-5.11	119.22	122.80
36	1	2144	A	N3-C4-N9	5.11	131.49	127.40
36	1	3242	G	C6-C5-N7	5.11	133.47	130.40
36	5	1592	G	OP2-P-O3'	5.11	116.44	105.20
1	2	628	G	O5'-P-OP2	-5.11	101.10	105.70
36	1	633	C	N3-C4-C5	-5.11	119.86	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3015	G	C5-C6-O6	-5.11	125.53	128.60
38	4	24	G	C4-C5-N7	5.11	112.84	110.80
38	4	64	U	N3-C2-O2	-5.11	118.62	122.20
1	6	1696	G	C3'-C2'-C1'	5.11	105.58	101.50
36	5	974	G	C8-N9-C4	-5.11	104.36	106.40
36	5	1396	C	OP2-P-O3'	5.11	116.44	105.20
36	5	2751	G	N7-C8-N9	5.11	115.65	113.10
1	2	1639	C	C6-N1-C2	-5.11	118.26	120.30
36	1	345	G	N3-C4-C5	-5.11	126.05	128.60
36	1	637	C	OP1-P-O3'	5.11	116.43	105.20
36	1	2409	G	N9-C4-C5	5.11	107.44	105.40
36	1	2661	G	C5-C6-O6	-5.11	125.54	128.60
36	1	2993	G	N1-C6-O6	5.11	122.96	119.90
1	6	1478	G	C8-N9-C4	-5.11	104.36	106.40
37	7	92	A	C8-N9-C4	5.11	107.84	105.80
36	1	909	G	C8-N9-C4	5.10	108.44	106.40
36	5	2320	A	C2-N3-C4	-5.10	108.05	110.60
36	5	2754	G	C5-C6-O6	5.10	131.66	128.60
36	1	994	G	N3-C4-N9	5.10	129.06	126.00
36	5	2234	G	C5-C6-N1	5.10	114.05	111.50
1	2	9	U	O5'-P-OP1	-5.10	101.11	105.70
1	2	737	A	O4'-C1'-N9	5.10	112.28	108.20
36	1	125	C	C5-C6-N1	-5.10	118.45	121.00
36	1	519	A	N1-C6-N6	5.10	121.66	118.60
36	1	930	U	C2-N1-C1'	-5.10	111.58	117.70
36	1	1060	U	C5-C6-N1	-5.10	120.15	122.70
36	1	1340	G	C5-C6-N1	5.10	114.05	111.50
36	1	1469	C	C5-C4-N4	-5.10	116.63	120.20
1	6	421	A	C5-C6-N6	-5.10	119.62	123.70
68	o2	44	ARG	NE-CZ-NH2	5.10	122.85	120.30
36	1	1188	U	C5-C4-O4	5.10	128.96	125.90
36	1	1314	C	C5-C6-N1	5.10	123.55	121.00
36	1	1790	G	N1-C6-O6	5.10	122.96	119.90
36	1	2911	A	C8-N9-C4	5.10	107.84	105.80
1	6	1481	C	C6-N1-C2	-5.10	118.26	120.30
36	5	112	U	O4'-C1'-N1	5.10	112.28	108.20
36	5	2281	A	O4'-C1'-N9	5.10	112.28	108.20
36	5	2943	G	C4-N9-C1'	5.10	133.13	126.50
36	5	3243	A	C4-C5-C6	5.10	119.55	117.00
36	1	587	U	N1-C2-O2	-5.10	119.23	122.80
36	1	1815	U	P-O3'-C3'	5.10	125.82	119.70
36	1	3224	G	N1-C2-N2	5.10	120.79	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	4	11	C	OP2-P-O3'	5.10	116.42	105.20
64	N8	59	ARG	NE-CZ-NH1	-5.10	117.75	120.30
1	6	744	U	C5-C4-O4	5.10	128.96	125.90
36	5	641	C	C6-N1-C1'	5.10	126.92	120.80
36	5	661	G	N1-C6-O6	5.10	122.96	119.90
36	5	1408	G	N1-C6-O6	5.10	122.96	119.90
36	5	2389	C	N3-C4-C5	5.10	123.94	121.90
1	2	1241	G	C6-C5-N7	-5.10	127.34	130.40
36	1	1618	G	C5-C6-O6	5.10	131.66	128.60
36	1	1795	U	N1-C2-O2	5.10	126.37	122.80
1	6	106	U	OP2-P-O3'	5.10	116.41	105.20
36	5	2849	C	OP1-P-OP2	5.10	127.24	119.60
37	7	37	G	C6-C5-N7	-5.10	127.34	130.40
36	1	2599	U	C2-N1-C1'	5.09	123.81	117.70
36	1	3079	U	N1-C2-O2	-5.09	119.23	122.80
1	6	372	G	C2-N3-C4	5.09	114.45	111.90
1	6	767	U	N1-C2-N3	5.09	117.96	114.90
1	6	1235	C	C5-C6-N1	5.09	123.55	121.00
36	5	191	U	N3-C2-O2	5.09	125.77	122.20
36	5	681	U	O5'-P-OP2	-5.09	101.11	105.70
36	5	690	A	C8-N9-C4	5.09	107.84	105.80
36	5	2881	C	C5-C4-N4	-5.09	116.63	120.20
36	5	2990	G	C6-C5-N7	-5.09	127.34	130.40
1	2	558	U	N1-C2-O2	5.09	126.36	122.80
36	5	3207	U	N1-C2-O2	-5.09	119.23	122.80
36	1	884	A	C2-N3-C4	-5.09	108.05	110.60
36	1	1522	U	C5-C4-O4	-5.09	122.84	125.90
36	1	2177	G	C5-C6-N1	5.09	114.05	111.50
36	1	2937	G	N1-C2-N2	5.09	120.78	116.20
37	3	38	U	N3-C2-O2	5.09	125.76	122.20
1	6	100	A	C5-C6-N1	-5.09	115.15	117.70
36	5	1490	A	N7-C8-N9	5.09	116.35	113.80
36	5	2263	C	C5-C4-N4	-5.09	116.64	120.20
36	5	2292	U	O5'-P-OP2	-5.09	101.12	105.70
36	5	2889	C	N3-C2-O2	-5.09	118.34	121.90
36	1	519	A	O5'-P-OP1	-5.09	101.12	105.70
36	1	1798	A	C2-N3-C4	-5.09	108.06	110.60
1	6	1629	G	OP2-P-O3'	5.09	116.40	105.20
36	5	504	A	C2-N3-C4	-5.09	108.06	110.60
36	5	1853	U	N1-C2-N3	5.09	117.95	114.90
36	5	3308	C	N1-C2-O2	-5.09	115.85	118.90
36	5	971	G	OP2-P-O3'	5.09	116.39	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1464	G	C8-N9-C4	5.09	108.44	106.40
36	5	3030	G	C5-N7-C8	5.09	106.84	104.30
1	2	31	C	C5-C6-N1	5.09	123.54	121.00
36	1	1193	A	N1-C6-N6	5.09	121.65	118.60
36	1	1414	G	C2-N3-C4	-5.09	109.36	111.90
36	1	1547	G	C8-N9-C4	5.09	108.43	106.40
1	6	756	A	C5-N7-C8	-5.09	101.36	103.90
36	5	1903	U	O5'-P-OP2	5.09	116.80	110.70
36	5	2914	G	C2-N3-C4	5.09	114.44	111.90
1	2	1668	G	N9-C4-C5	5.08	107.43	105.40
36	1	1835	A	C5-C6-N6	5.08	127.77	123.70
36	1	2615	G	C4-C5-N7	5.08	112.83	110.80
36	5	2341	A	C8-N9-C4	5.08	107.83	105.80
36	1	1421	G	OP2-P-O3'	5.08	116.38	105.20
38	4	103	G	C6-N1-C2	-5.08	122.05	125.10
1	6	1465	C	C6-N1-C2	-5.08	118.27	120.30
36	5	410	U	C6-N1-C2	-5.08	117.95	121.00
36	5	1145	G	N3-C2-N2	-5.08	116.34	119.90
36	5	1368	U	N3-C2-O2	5.08	125.76	122.20
36	5	1902	G	C8-N9-C1'	-5.08	120.39	127.00
36	5	2724	U	N3-C2-O2	-5.08	118.64	122.20
36	5	3362	A	C6-C5-N7	-5.08	128.74	132.30
36	1	1150	A	O5'-P-OP2	-5.08	101.13	105.70
36	1	2718	U	N3-C2-O2	-5.08	118.64	122.20
36	1	3375	A	N7-C8-N9	5.08	116.34	113.80
1	6	4	C	N3-C4-C5	5.08	123.93	121.90
36	5	3174	A	N1-C6-N6	5.08	121.65	118.60
36	5	3303	G	C5-C6-O6	5.08	131.65	128.60
38	8	95	G	C8-N9-C1'	5.08	133.61	127.00
1	2	1445	G	O4'-C1'-N9	5.08	112.26	108.20
36	5	1846	C	N3-C4-C5	5.08	123.93	121.90
36	5	2273	G	C6-C5-N7	5.08	133.45	130.40
36	5	2297	U	O5'-P-OP2	-5.08	101.13	105.70
36	1	863	C	OP2-P-O3'	5.08	116.37	105.20
36	1	3016	A	C5-C6-N6	-5.08	119.64	123.70
36	1	3259	U	C6-N1-C2	-5.08	117.95	121.00
38	4	52	A	C8-N9-C4	-5.08	103.77	105.80
1	6	7	G	N3-C4-C5	-5.08	126.06	128.60
23	d1	11	LEU	CA-CB-CG	5.08	126.98	115.30
36	5	170	G	C4-N9-C1'	5.08	133.10	126.50
36	5	329	U	N3-C2-O2	-5.08	118.64	122.20
36	5	932	U	C5-C4-O4	-5.08	122.85	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1189	C	N3-C2-O2	5.08	125.46	121.90
36	5	1456	A	N1-C6-N6	5.08	121.65	118.60
36	5	2114	C	OP1-P-OP2	5.08	127.22	119.60
36	5	3315	G	C4-C5-N7	-5.08	108.77	110.80
36	1	784	A	O4'-C1'-N9	5.08	112.26	108.20
36	1	1879	A	O4'-C1'-N9	5.08	112.26	108.20
36	1	2404	A	N9-C1'-C2'	-5.08	106.42	112.00
38	4	40	A	C4-C5-N7	5.08	113.24	110.70
36	1	212	G	N3-C4-N9	5.08	129.04	126.00
36	1	406	G	N3-C2-N2	5.08	123.45	119.90
36	1	1152	G	O5'-P-OP1	-5.08	101.13	105.70
36	1	1845	G	C8-N9-C4	-5.08	104.37	106.40
36	1	2986	U	C6-N1-C1'	5.08	128.31	121.20
38	4	82	U	N3-C2-O2	5.08	125.75	122.20
57	N1	83	ARG	NE-CZ-NH2	-5.08	117.76	120.30
1	6	337	G	O4'-C1'-N9	-5.08	104.14	108.20
1	6	1324	G	N1-C6-O6	5.08	122.94	119.90
36	5	339	C	C6-N1-C1'	5.08	126.89	120.80
36	5	1129	A	O5'-P-OP2	-5.08	101.13	105.70
36	5	2404	A	C5-N7-C8	5.08	106.44	103.90
36	5	2948	C	O5'-P-OP1	5.08	116.79	110.70
1	2	1596	C	C2-N1-C1'	5.07	124.38	118.80
36	1	1191	U	N1-C2-N3	5.07	117.94	114.90
36	1	2294	U	N3-C2-O2	-5.07	118.65	122.20
1	6	1139	A	N1-C6-N6	-5.07	115.56	118.60
36	5	580	C	C6-N1-C2	-5.07	118.27	120.30
36	5	1314	C	C2-N1-C1'	5.07	124.38	118.80
36	5	1662	G	C6-C5-N7	-5.07	127.36	130.40
36	1	2606	G	C4-C5-C6	5.07	121.84	118.80
36	1	2821	C	O5'-P-OP1	-5.07	101.14	105.70
1	6	755	A	N1-C6-N6	5.07	121.64	118.60
36	5	2816	G	N1-C2-N2	-5.07	111.64	116.20
36	1	2353	G	N1-C6-O6	5.07	122.94	119.90
36	1	2606	G	N3-C4-C5	-5.07	126.06	128.60
1	6	1114	G	O4'-C1'-N9	5.07	112.26	108.20
36	5	110	G	C8-N9-C4	5.07	108.43	106.40
36	5	1113	G	C6-C5-N7	-5.07	127.36	130.40
36	5	2121	G	N9-C4-C5	-5.07	103.37	105.40
48	m1	30	LEU	CA-CB-CG	5.07	126.96	115.30
1	2	1291	G	C2-N3-C4	-5.07	109.36	111.90
1	6	89	G	N1-C6-O6	5.07	122.94	119.90
36	5	220	G	OP1-P-O3'	5.07	116.35	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	1931	U	N3-C4-O4	-5.07	115.85	119.40
1	2	192	U	N1-C2-O2	5.07	126.35	122.80
1	2	1777	G	C4-C5-N7	5.07	112.83	110.80
18	C6	40	GLU	C-N-CA	5.07	143.28	122.00
36	1	800	G	C5-C6-N1	-5.07	108.97	111.50
36	1	2215	A	N3-C4-C5	5.07	130.35	126.80
36	1	2789	U	N3-C4-C5	-5.07	111.56	114.60
38	4	88	A	N9-C4-C5	-5.07	103.77	105.80
36	5	183	G	C8-N9-C1'	-5.07	120.41	127.00
36	5	831	G	C5-C6-O6	-5.07	125.56	128.60
36	5	1506	A	N7-C8-N9	5.07	116.33	113.80
36	1	969	C	C5-C4-N4	-5.07	116.65	120.20
70	O4	8	ARG	NE-CZ-NH2	-5.07	117.77	120.30
36	5	1203	A	C5-C6-N6	-5.07	119.65	123.70
36	1	58	G	N7-C8-N9	5.06	115.63	113.10
36	1	590	G	C5-C6-O6	-5.06	125.56	128.60
38	4	81	U	N1-C2-O2	-5.06	119.25	122.80
24	d2	93	LEU	CA-CB-CG	5.06	126.95	115.30
36	5	1117	G	N1-C2-N3	-5.06	120.86	123.90
36	5	2849	C	N3-C4-C5	-5.06	119.87	121.90
38	8	44	A	C5-C6-N6	-5.06	119.65	123.70
36	1	305	U	C5-C6-N1	-5.06	120.17	122.70
36	1	806	A	C5-N7-C8	-5.06	101.37	103.90
36	1	2612	U	N3-C4-C5	5.06	117.64	114.60
36	1	2867	C	C2-N3-C4	-5.06	117.37	119.90
36	1	2912	G	C2-N3-C4	5.06	114.43	111.90
1	6	1522	U	C2-N1-C1'	-5.06	111.63	117.70
36	5	517	G	C8-N9-C4	-5.06	104.38	106.40
36	5	1390	A	N1-C2-N3	5.06	131.83	129.30
36	5	2935	U	C5-C6-N1	5.06	125.23	122.70
36	5	3128	G	N9-C4-C5	-5.06	103.38	105.40
36	5	3278	C	C5-C6-N1	-5.06	118.47	121.00
36	1	1396	C	C5-C4-N4	-5.06	116.66	120.20
38	4	52	A	C2-N3-C4	5.06	113.13	110.60
36	5	1311	G	C5-C6-N1	5.06	114.03	111.50
36	5	2215	A	C2-N3-C4	-5.06	108.07	110.60
36	5	2889	C	C2-N3-C4	-5.06	117.37	119.90
36	5	3368	U	O5'-P-OP1	-5.06	101.14	105.70
1	2	1455	G	C5-C6-N1	-5.06	108.97	111.50
36	1	382	U	N3-C2-O2	5.06	125.74	122.20
36	1	1316	C	C2-N3-C4	-5.06	117.37	119.90
36	1	2417	U	OP2-P-O3'	5.06	116.33	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	3218	A	P-O3'-C3'	5.06	125.77	119.70
36	1	3224	G	N3-C4-N9	-5.06	122.96	126.00
1	6	359	A	C8-N9-C1'	5.06	136.81	127.70
1	6	1481	C	N3-C2-O2	-5.06	118.36	121.90
36	5	2950	G	C6-N1-C2	5.06	128.13	125.10
1	6	421	A	C4-C5-N7	5.06	113.23	110.70
36	5	617	G	N1-C6-O6	5.06	122.93	119.90
36	5	1394	A	C6-C5-N7	5.06	135.84	132.30
36	5	1903	U	OP1-P-OP2	-5.06	112.01	119.60
36	5	2939	G	C8-N9-C4	5.06	108.42	106.40
36	1	392	G	N1-C6-O6	5.06	122.93	119.90
36	1	1475	A	C8-N9-C4	5.06	107.82	105.80
36	1	2942	C	N3-C2-O2	5.06	125.44	121.90
36	1	3059	G	N1-C6-O6	-5.06	116.87	119.90
1	6	297	U	C5-C4-O4	-5.06	122.87	125.90
1	6	1129	U	N3-C4-O4	-5.06	115.86	119.40
36	5	2213	A	N7-C8-N9	-5.06	111.27	113.80
36	5	2403	G	O5'-P-OP1	5.06	116.77	110.70
37	7	85	G	OP1-P-OP2	-5.06	112.02	119.60
1	2	56	U	N3-C2-O2	-5.05	118.66	122.20
1	2	465	G	O5'-P-OP1	-5.05	101.15	105.70
36	1	1432	C	C6-N1-C2	-5.05	118.28	120.30
36	1	2413	A	C5-C6-N1	5.05	120.23	117.70
37	7	53	U	N3-C4-O4	5.05	122.94	119.40
36	1	3197	G	N3-C4-C5	5.05	131.13	128.60
1	2	142	G	N3-C4-C5	5.05	131.13	128.60
36	1	809	G	N1-C6-O6	5.05	122.93	119.90
36	1	2414	G	N3-C4-N9	-5.05	122.97	126.00
1	6	866	G	C8-N9-C4	5.05	108.42	106.40
1	6	1100	G	C4-N9-C1'	5.05	133.07	126.50
36	5	419	G	N3-C4-N9	5.05	129.03	126.00
36	5	632	G	O5'-P-OP1	5.05	116.76	110.70
36	5	1931	U	C6-N1-C1'	5.05	128.27	121.20
36	5	2346	C	C5-C4-N4	-5.05	116.66	120.20
36	5	3209	A	C5-N7-C8	-5.05	101.38	103.90
36	5	3314	A	C5-N7-C8	-5.05	101.37	103.90
40	13	196	ARG	NE-CZ-NH2	-5.05	117.77	120.30
1	2	1783	C	C5-C4-N4	-5.05	116.67	120.20
36	1	660	A	O5'-P-OP1	-5.05	101.16	105.70
36	1	3349	C	C5-C6-N1	5.05	123.53	121.00
1	6	294	C	O5'-P-OP2	-5.05	101.16	105.70
1	6	447	U	C6-N1-C2	-5.05	117.97	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	6	1119	G	C5-C6-O6	5.05	131.63	128.60
1	6	1123	C	N3-C2-O2	5.05	125.44	121.90
1	6	1778	G	C5-N7-C8	-5.05	101.78	104.30
36	5	672	A	N1-C6-N6	5.05	121.63	118.60
36	5	1203	A	C5-N7-C8	-5.05	101.38	103.90
36	5	2871	G	N1-C6-O6	-5.05	116.87	119.90
36	1	2371	G	N9-C4-C5	-5.05	103.38	105.40
1	6	457	G	N1-C6-O6	5.05	122.93	119.90
36	5	2245	C	C5-C6-N1	5.05	123.52	121.00
37	7	109	G	C4-N9-C1'	-5.05	119.94	126.50
36	1	321	C	N3-C2-O2	-5.05	118.37	121.90
36	1	2401	A	N1-C6-N6	5.05	121.63	118.60
36	1	3127	A	C5-C6-N6	-5.05	119.66	123.70
36	5	1939	G	OP2-P-O3'	5.05	116.30	105.20
36	5	2637	A	N9-C4-C5	-5.05	103.78	105.80
36	5	3265	C	C6-N1-C2	-5.05	118.28	120.30
37	7	81	U	N3-C4-C5	5.05	117.63	114.60
36	1	1578	C	C6-N1-C2	-5.04	118.28	120.30
36	1	2255	A	P-O3'-C3'	5.04	125.75	119.70
1	6	334	G	N7-C8-N9	-5.04	110.58	113.10
1	6	966	A	C2-N3-C4	5.04	113.12	110.60
36	5	197	G	N3-C4-N9	5.04	129.03	126.00
36	5	651	G	C6-N1-C2	-5.04	122.07	125.10
36	5	3089	C	N3-C4-N4	5.04	121.53	118.00
36	1	1095	U	C5-C4-O4	5.04	128.93	125.90
36	1	2169	G	C5-C6-O6	5.04	131.63	128.60
36	1	3316	A	P-O3'-C3'	5.04	125.75	119.70
38	4	40	A	O5'-P-OP2	5.04	116.75	110.70
1	6	901	G	N1-C6-O6	5.04	122.93	119.90
36	5	297	G	N1-C6-O6	-5.04	116.87	119.90
36	5	326	U	N3-C2-O2	5.04	125.73	122.20
36	5	2794	G	C5-C6-O6	-5.04	125.57	128.60
36	5	2936	A	C8-N9-C4	-5.04	103.78	105.80
1	2	1324	G	C4-N9-C1'	-5.04	119.95	126.50
36	1	346	C	C6-N1-C2	5.04	122.32	120.30
36	1	1808	G	N3-C4-C5	-5.04	126.08	128.60
38	4	31	G	O5'-P-OP2	-5.04	101.16	105.70
1	6	484	C	C5-C6-N1	5.04	123.52	121.00
36	5	641	C	N3-C2-O2	5.04	125.43	121.90
36	5	878	G	N3-C2-N2	5.04	123.43	119.90
36	5	1317	A	C4-C5-N7	5.04	113.22	110.70
36	5	2385	G	C4-N9-C1'	-5.04	119.95	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2390	A	OP2-P-O3'	5.04	116.29	105.20
36	5	3196	U	O5'-P-OP1	-5.04	101.16	105.70
36	1	226	C	C5-C4-N4	-5.04	116.67	120.20
36	1	950	G	N3-C4-C5	5.04	131.12	128.60
36	1	1846	C	O5'-P-OP1	-5.04	101.16	105.70
36	1	2630	C	OP1-P-OP2	5.04	127.16	119.60
36	5	101	G	C8-N9-C1'	-5.04	120.45	127.00
36	5	1200	A	C4-C5-C6	5.04	119.52	117.00
36	5	1380	G	OP2-P-O3'	5.04	116.29	105.20
36	5	2412	G	N3-C4-C5	-5.04	126.08	128.60
36	5	2821	C	C5-C6-N1	-5.04	118.48	121.00
1	2	488	G	O5'-P-OP1	5.04	116.75	110.70
36	1	917	A	OP2-P-O3'	5.04	116.28	105.20
36	1	2960	C	N3-C4-C5	5.04	123.92	121.90
36	5	659	G	C5-C6-O6	-5.04	125.58	128.60
36	5	1155	C	C4-C5-C6	-5.04	114.88	117.40
36	5	1300	G	OP1-P-O3'	5.04	116.28	105.20
36	5	2291	A	C8-N9-C4	5.04	107.82	105.80
36	1	961	C	C2-N3-C4	-5.04	117.38	119.90
36	1	1952	G	N3-C4-C5	-5.04	126.08	128.60
36	1	3214	U	N3-C4-C5	-5.04	111.58	114.60
1	6	542	A	C5-N7-C8	-5.04	101.38	103.90
36	5	803	C	N1-C2-O2	5.04	121.92	118.90
36	5	1174	G	C4-N9-C1'	5.04	133.05	126.50
36	1	48	A	C5-C6-N1	5.04	120.22	117.70
36	1	340	C	C2-N3-C4	-5.04	117.38	119.90
36	1	1129	A	N1-C6-N6	5.04	121.62	118.60
36	1	2300	G	N3-C2-N2	-5.04	116.38	119.90
37	3	94	C	N1-C2-O2	-5.04	115.88	118.90
38	4	118	C	N1-C2-O2	-5.04	115.88	118.90
36	5	2693	C	O5'-P-OP1	-5.04	101.17	105.70
36	5	3214	U	N1-C2-O2	5.04	126.33	122.80
1	2	1600	A	C6-C5-N7	-5.03	128.78	132.30
36	1	1365	G	C2-N3-C4	5.03	114.42	111.90
36	1	2887	A	C5-C6-N6	-5.03	119.67	123.70
37	3	86	U	C5-C4-O4	-5.03	122.88	125.90
37	3	105	C	O5'-P-OP1	5.03	116.74	110.70
36	5	335	G	C6-C5-N7	5.03	133.42	130.40
36	5	1219	C	N3-C4-N4	-5.03	114.48	118.00
36	5	2278	C	N1-C2-O2	5.03	121.92	118.90
37	7	68	C	N3-C2-O2	-5.03	118.38	121.90
37	7	102	A	C5-C6-N1	-5.03	115.18	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2399	A	C2-N3-C4	5.03	113.12	110.60
36	5	1902	G	C4-N9-C1'	5.03	133.04	126.50
1	2	1423	U	N1-C2-O2	-5.03	119.28	122.80
36	1	80	G	N7-C8-N9	-5.03	110.58	113.10
36	1	935	U	OP2-P-O3'	5.03	116.27	105.20
36	1	1419	A	C4-C5-C6	5.03	119.52	117.00
36	1	3085	G	N1-C6-O6	5.03	122.92	119.90
1	6	813	U	C2-N1-C1'	5.03	123.74	117.70
1	6	1778	G	N9-C4-C5	5.03	107.41	105.40
36	5	821	U	N3-C2-O2	-5.03	118.68	122.20
36	5	2654	C	N1-C2-O2	-5.03	115.88	118.90
1	2	313	U	N1-C2-O2	-5.03	119.28	122.80
1	2	1768	G	C6-C5-N7	5.03	133.42	130.40
36	1	203	G	C8-N9-C4	5.03	108.41	106.40
36	1	664	U	C6-N1-C2	5.03	124.02	121.00
36	1	2637	A	O5'-P-OP1	-5.03	101.17	105.70
36	1	2818	U	OP2-P-O3'	5.03	116.26	105.20
1	6	106	U	O5'-P-OP1	-5.03	101.17	105.70
36	5	364	G	C4-C5-N7	5.03	112.81	110.80
36	5	1833	G	C6-C5-N7	5.03	133.42	130.40
36	5	1868	G	C4-C5-N7	5.03	112.81	110.80
1	2	36	C	C6-N1-C2	5.03	122.31	120.30
1	2	545	A	OP1-P-O3'	5.03	116.26	105.20
36	1	645	A	N1-C2-N3	5.03	131.81	129.30
36	1	2366	C	C5-C6-N1	5.03	123.51	121.00
36	1	2592	G	C4-C5-N7	5.03	112.81	110.80
36	1	2808	A	C8-N9-C1'	-5.03	118.65	127.70
1	6	829	A	O5'-P-OP1	5.03	116.73	110.70
1	6	1586	A	C8-N9-C4	5.03	107.81	105.80
1	6	1744	A	C2-N3-C4	-5.03	108.09	110.60
36	5	810	A	C5-C6-N1	5.03	120.21	117.70
36	5	1200	A	P-O3'-C3'	5.03	125.73	119.70
36	5	2970	C	OP1-P-OP2	5.03	127.14	119.60
1	6	163	G	C5-N7-C8	-5.02	101.79	104.30
36	5	32	U	N1-C2-O2	-5.02	119.28	122.80
36	5	340	C	N3-C4-C5	5.02	123.91	121.90
37	7	90	U	C5-C4-O4	-5.02	122.89	125.90
36	1	2300	G	N3-C4-N9	-5.02	122.99	126.00
36	1	2869	U	O5'-P-OP1	-5.02	101.18	105.70
36	1	2975	U	N3-C4-C5	5.02	117.61	114.60
36	5	1662	G	N1-C6-O6	5.02	122.91	119.90
36	5	1870	C	N1-C2-O2	-5.02	115.89	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	5	2584	G	OP2-P-O3'	5.02	116.25	105.20
1	2	1497	U	C2-N1-C1'	5.02	123.72	117.70
36	1	649	A	C8-N9-C4	5.02	107.81	105.80
36	1	667	C	C6-N1-C2	5.02	122.31	120.30
36	1	1450	G	C4-C5-N7	5.02	112.81	110.80
36	1	2241	U	C2-N1-C1'	-5.02	111.67	117.70
36	1	2983	C	O5'-P-OP1	-5.02	101.18	105.70
36	5	1513	G	C2-N3-C4	5.02	114.41	111.90
36	5	3245	A	N9-C4-C5	-5.02	103.79	105.80
36	1	394	G	C5-C6-O6	5.02	131.61	128.60
36	1	608	A	C4-C5-C6	5.02	119.51	117.00
36	1	967	A	OP2-P-O3'	5.02	116.24	105.20
36	1	1724	U	P-O3'-C3'	5.02	125.72	119.70
36	1	2944	U	C4-C5-C6	-5.02	116.69	119.70
1	6	417	A	O5'-P-OP2	-5.02	101.18	105.70
1	6	687	G	N1-C2-N2	5.02	120.72	116.20
36	5	514	G	C6-C5-N7	-5.02	127.39	130.40
36	5	1420	C	C2-N1-C1'	-5.02	113.28	118.80
36	5	1528	G	OP2-P-O3'	5.02	116.24	105.20
36	5	2802	A	N1-C2-N3	-5.02	126.79	129.30
37	7	56	A	C4-C5-N7	5.02	113.21	110.70
56	n0	117	ARG	NE-CZ-NH1	-5.02	117.79	120.30
36	1	545	U	N1-C2-O2	5.02	126.31	122.80
36	1	866	A	N1-C2-N3	-5.02	126.79	129.30
36	1	2627	C	N3-C4-C5	5.02	123.91	121.90
36	5	676	G	C5-C6-O6	5.02	131.61	128.60
43	l6	173	MET	CB-CG-SD	-5.02	97.35	112.40
36	1	2621	G	C5-C6-O6	-5.02	125.59	128.60
1	6	1307	U	C2-N1-C1'	-5.02	111.68	117.70
36	5	1698	C	O5'-P-OP2	-5.02	101.19	105.70
52	m6	94	ARG	NE-CZ-NH2	5.02	122.81	120.30
36	1	97	U	C6-N1-C1'	5.01	128.22	121.20
36	1	1143	A	N9-C4-C5	5.01	107.81	105.80
36	1	1196	C	OP1-P-O3'	5.01	116.23	105.20
36	1	2572	C	C6-N1-C2	-5.01	118.29	120.30
1	6	1747	G	O5'-P-OP2	-5.01	101.19	105.70
36	1	577	C	N3-C4-C5	-5.01	119.89	121.90
36	1	1371	G	C8-N9-C1'	-5.01	120.48	127.00
36	1	2169	G	OP2-P-O3'	5.01	116.23	105.20
36	1	2356	A	C4-C5-N7	5.01	113.21	110.70
37	7	57	G	N3-C4-C5	5.01	131.11	128.60
1	2	565	C	N3-C4-C5	5.01	123.91	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	35	A	N1-C6-N6	5.01	121.61	118.60
36	1	2606	G	C4-N9-C1'	5.01	133.01	126.50
36	1	2619	G	N1-C6-O6	-5.01	116.89	119.90
40	L3	102	LEU	CA-CB-CG	5.01	126.83	115.30
1	6	597	G	O5'-P-OP2	-5.01	101.19	105.70
36	5	1164	G	N9-C4-C5	5.01	107.40	105.40
36	5	2823	G	N1-C6-O6	5.01	122.91	119.90
36	5	2866	U	N3-C2-O2	-5.01	118.69	122.20
1	2	697	C	C6-N1-C2	-5.01	118.30	120.30
1	2	730	G	C4-N9-C1'	5.01	133.01	126.50
1	2	767	U	N3-C2-O2	-5.01	118.69	122.20
36	1	654	C	N1-C2-O2	-5.01	115.89	118.90
36	1	1125	U	OP2-P-O3'	5.01	116.22	105.20
36	1	1849	C	N3-C4-N4	5.01	121.51	118.00
36	1	2309	A	OP1-P-OP2	5.01	127.11	119.60
1	6	1192	C	N1-C2-O2	5.01	121.91	118.90
36	5	972	A	C4-C5-N7	-5.01	108.19	110.70
36	5	1542	G	N3-C2-N2	-5.01	116.39	119.90
1	6	969	C	N1-C2-O2	-5.01	115.89	118.90
36	5	1348	U	C6-N1-C2	-5.01	118.00	121.00
36	1	601	U	N1-C2-O2	5.01	126.31	122.80
36	1	807	A	N1-C6-N6	5.01	121.60	118.60
36	1	1345	G	O4'-C1'-N9	-5.01	104.19	108.20
36	1	1918	C	C6-N1-C2	-5.01	118.30	120.30
36	1	2400	G	N9-C4-C5	-5.01	103.40	105.40
36	1	3361	G	C4-N9-C1'	5.01	133.01	126.50
1	6	858	G	C4-N9-C1'	5.01	133.01	126.50
36	5	1413	G	N3-C4-C5	-5.01	126.10	128.60
36	5	1429	G	C8-N9-C1'	-5.01	120.49	127.00
1	2	1536	G	C4-N9-C1'	5.00	133.01	126.50
36	1	347	G	N3-C4-N9	5.00	129.00	126.00
36	1	917	A	C6-C5-N7	5.00	135.80	132.30
36	1	2861	U	C5-C4-O4	5.00	128.90	125.90
36	5	277	G	C6-C5-N7	5.00	133.40	130.40
36	5	1480	G	N3-C4-N9	-5.00	123.00	126.00
36	5	1604	G	N3-C4-C5	-5.00	126.10	128.60
36	5	2199	G	C6-C5-N7	-5.00	127.40	130.40
36	5	2384	A	OP2-P-O3'	5.00	116.21	105.20
1	2	1120	U	OP2-P-O3'	5.00	116.20	105.20
1	2	1652	C	C5-C6-N1	5.00	123.50	121.00
36	1	1741	A	C4-C5-N7	5.00	113.20	110.70
36	1	2624	G	N3-C2-N2	-5.00	116.40	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	1	2747	A	N9-C4-C5	5.00	107.80	105.80
36	1	2873	U	N1-C2-N3	5.00	117.90	114.90
37	3	39	C	C5-C4-N4	5.00	123.70	120.20
36	5	612	U	N1-C2-N3	5.00	117.90	114.90
36	5	907	G	N9-C4-C5	-5.00	103.40	105.40
36	5	1323	G	O5'-P-OP2	5.00	116.70	110.70
36	5	2873	U	C4-C5-C6	5.00	122.70	119.70

There are no chirality outliers.

All (44) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
36	1	406	G	Sidechain
16	C4	123	SER	Peptide
16	C4	124	ASP	Peptide
16	C4	38	THR	Peptide
19	C7	22	PRO	Peptide
19	C7	85	VAL	Peptide
24	D2	76	SER	Peptide
27	D5	54	VAL	Peptide
27	D5	94	LYS	Peptide
28	D6	97	PRO	Peptide
33	E1	105	TYR	Peptide
39	L2	142	ASP	Peptide
42	L5	57	ASN	Peptide
45	L8	30	THR	Peptide
45	L8	74	THR	Peptide
48	M1	8	PRO	Peptide
52	M6	110	PRO	Peptide
53	M7	35	ALA	Peptide
57	N1	16	GLN	Peptide
65	N9	19	ASN	Peptide
67	O1	5	LYS	Peptide
72	O6	2	THR	Peptide
6	S4	2	ALA	Peptide
9	S7	131	PHE	Peptide
17	c5	50	THR	Peptide
17	c5	52	LYS	Peptide
18	c6	40	GLU	Peptide
22	d0	70	THR	Peptide
25	d3	44	GLY	Peptide
39	l2	212	GLY	Peptide

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Mol	Chain	Res	Type	Group
41	l4	318	LEU	Peptide
42	l5	270	LYS	Peptide
43	l6	129	GLU	Peptide
43	l6	51	ARG	Peptide
44	l7	192	GLY	Peptide
44	l7	226	GLY	Peptide
52	m6	110	PRO	Peptide
56	n0	133	ALA	Peptide
64	n8	66	ALA	Peptide
67	o1	90	PHE	Peptide
2	s0	165	ARG	Peptide
5	s3	203	PRO	Peptide
7	s5	44	ASN	Peptide
7	s5	99	MET	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	2	37283	0	18757	987	0
1	6	38238	0	19240	921	0
2	S0	1577	0	1567	169	0
2	s0	1583	0	1578	0	0
3	S1	1709	0	1784	169	0
3	s1	1722	0	1793	0	0
4	S2	1635	0	1723	143	0
4	s2	1635	0	1723	0	0
5	S3	1734	0	1817	150	0
5	s3	1734	0	1817	0	0
6	S4	2068	0	2154	167	0
6	s4	2068	0	2154	0	0
7	S5	1609	0	1675	177	0
7	s5	1609	0	1675	0	0
8	S6	1799	0	1878	126	0
8	s6	1755	0	1846	0	0
9	S7	1481	0	1572	135	0
9	s7	1491	0	1578	0	0
10	S8	1489	0	1525	134	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
10	s8	1489	0	1525	0	0
11	S9	1494	0	1573	143	0
11	s9	1494	0	1573	0	0
12	C0	773	0	729	73	0
12	c0	762	0	699	0	0
13	C1	1214	0	1259	99	0
13	c1	1168	0	1231	0	0
14	C2	892	0	891	58	0
14	c2	892	0	891	0	0
15	C3	1192	0	1255	94	0
15	c3	1192	0	1255	0	0
16	C4	891	0	883	108	0
16	c4	949	0	985	0	0
17	C5	977	0	1002	91	0
17	c5	1039	0	1050	0	0
18	C6	1105	0	1166	130	0
18	c6	1111	0	1171	0	0
19	C7	926	0	930	83	0
19	c7	906	0	909	0	0
20	C8	1192	0	1222	115	0
20	c8	1192	0	1222	0	0
21	C9	1112	0	1124	101	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	66	0
23	d1	684	0	672	0	0
24	D2	1021	0	1060	84	0
24	d2	1021	0	1060	0	0
25	D3	1121	0	1196	99	0
25	d3	1121	0	1196	0	0
26	D4	1073	0	1132	78	0
26	d4	1073	0	1132	0	0
27	D5	563	0	603	75	0
27	d5	558	0	598	0	0
28	D6	769	0	814	98	0
28	d6	769	0	814	0	0
29	D7	610	0	632	33	0
29	d7	610	0	632	0	0
30	D8	497	0	535	49	0
30	d8	497	0	535	0	0
31	D9	442	0	428	33	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
31	d9	442	0	428	0	0
32	E0	475	0	525	43	0
33	E1	566	0	602	66	0
33	e1	608	0	657	0	0
34	SR	2441	0	2397	150	0
34	sR	2442	0	2392	0	0
35	SM	1104	0	996	91	0
35	sM	680	0	607	0	0
36	1	67355	0	33843	1397	0
36	5	67376	0	33857	1380	0
37	3	2579	0	1304	54	0
37	7	2579	0	1303	57	0
38	4	3353	0	1695	73	0
38	8	3353	0	1695	75	0
39	L2	1914	0	1981	173	0
39	l2	1912	0	1976	0	0
40	L3	3075	0	3142	269	0
40	l3	3075	0	3142	0	0
41	L4	2748	0	2859	228	0
41	l4	2748	0	2859	0	0
42	L5	2375	0	2325	211	0
42	l5	2359	0	2311	0	0
43	L6	1239	0	1326	94	0
43	l6	1248	0	1339	0	0
44	L7	1784	0	1862	128	0
44	l7	1791	0	1869	0	0
45	L8	1804	0	1877	140	0
45	l8	1763	0	1819	0	0
46	L9	1518	0	1587	144	0
46	l9	1518	0	1587	0	0
47	M0	1705	0	1735	148	0
47	m0	1722	0	1755	0	0
48	M1	1353	0	1383	113	0
48	m1	1353	0	1383	0	0
49	M3	1543	0	1608	133	0
49	m3	1548	0	1613	0	0
50	M4	1053	0	1149	76	0
50	m4	1059	0	1154	0	0
51	M5	1720	0	1779	133	0
51	m5	1720	0	1779	0	0
52	M6	1555	0	1659	129	0
52	m6	1555	0	1659	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
53	M7	1420	0	1437	110	0
53	m7	1227	0	1236	0	0
54	M8	1441	0	1543	114	0
54	m8	1441	0	1543	0	0
55	M9	1521	0	1617	124	0
55	m9	1521	0	1617	0	0
56	N0	1445	0	1487	103	0
56	n0	1445	0	1487	0	0
57	N1	1276	0	1323	95	0
57	n1	1276	0	1323	0	0
58	N2	796	0	812	52	0
58	n2	778	0	791	0	0
59	N3	1003	0	1048	88	0
59	n3	1003	0	1048	0	0
60	N4	699	0	640	32	0
60	n4	1038	0	1071	0	0
61	N5	964	0	1025	75	0
61	n5	959	0	1023	0	0
62	N6	993	0	1081	84	0
62	n6	993	0	1081	0	0
63	N7	1092	0	1155	117	0
63	n7	1092	0	1155	0	0
64	N8	1173	0	1215	110	0
64	n8	1173	0	1215	0	0
65	N9	462	0	491	44	0
65	n9	462	0	491	0	0
66	O0	743	0	797	60	0
66	o0	767	0	816	0	0
67	O1	876	0	912	59	0
67	o1	883	0	918	0	0
68	O2	1020	0	1090	75	0
68	o2	1020	0	1090	0	0
69	O3	850	0	880	65	0
69	o3	850	0	880	0	0
70	O4	880	0	945	83	0
70	o4	880	0	945	0	0
71	O5	969	0	1078	95	0
71	o5	965	0	1067	0	0
72	O6	771	0	849	75	0
72	o6	770	0	846	0	0
73	O7	681	0	683	65	0
73	o7	681	0	683	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
74	O8	612	0	682	46	0
74	o8	608	0	671	0	0
75	O9	436	0	475	43	0
75	o9	436	0	475	0	0
76	Q0	417	0	455	26	0
76	q0	417	0	455	0	0
77	Q1	233	0	284	25	0
77	q1	233	0	284	0	0
78	Q2	847	0	918	63	0
78	q2	847	0	918	0	0
79	Q3	694	0	734	60	0
79	q3	694	0	734	0	0
80	e0	491	0	542	0	0
81	m2	750	0	173	0	0
82	p0	1077	0	1041	0	0
83	p1	235	0	50	0	0
84	p2	230	0	50	0	0
85	1	475	0	0	0	0
85	2	122	0	0	0	0
85	3	14	0	0	0	0
85	4	23	0	0	0	0
85	5	508	0	0	0	0
85	6	146	0	0	0	0
85	7	15	0	0	0	0
85	8	13	0	0	0	0
85	D0	1	0	0	0	0
85	D3	1	0	0	0	0
85	D4	1	0	0	0	0
85	L2	1	0	0	0	0
85	L3	2	0	0	0	0
85	L4	2	0	0	0	0
85	L5	1	0	0	0	0
85	L7	4	0	0	0	0
85	L8	1	0	0	0	0
85	M0	2	0	0	0	0
85	M1	1	0	0	0	0
85	M3	3	0	0	0	0
85	M5	1	0	0	0	0
85	M6	1	0	0	0	0
85	M7	4	0	0	0	0
85	N0	1	0	0	0	0
85	N3	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
85	N5	2	0	0	0	0
85	N8	5	0	0	0	0
85	O1	1	0	0	0	0
85	O7	1	0	0	0	0
85	Q2	1	0	0	0	0
85	S4	1	0	0	0	0
85	S8	1	0	0	0	0
85	SM	1	0	0	0	0
85	c1	1	0	0	0	0
85	c7	1	0	0	0	0
85	c8	1	0	0	0	0
85	d3	2	0	0	0	0
85	d4	1	0	0	0	0
85	d6	1	0	0	0	0
85	l2	2	0	0	0	0
85	l3	2	0	0	0	0
85	l4	1	0	0	0	0
85	l5	2	0	0	0	0
85	l7	2	0	0	0	0
85	l9	1	0	0	0	0
85	m1	1	0	0	0	0
85	m5	2	0	0	0	0
85	m6	1	0	0	0	0
85	m7	5	0	0	0	0
85	n0	2	0	0	0	0
85	n3	2	0	0	0	0
85	n6	1	0	0	0	0
85	n8	4	0	0	0	0
85	n9	2	0	0	0	0
85	o0	1	0	0	0	0
85	o1	1	0	0	0	0
85	o3	1	0	0	0	0
85	q0	1	0	0	0	0
85	q1	1	0	0	0	0
85	q3	1	0	0	0	0
85	s1	1	0	0	0	0
85	s8	2	0	0	0	0
85	sM	2	0	0	0	0
86	1	2450	0	0	241	0
86	2	1106	0	0	126	0
86	3	77	0	0	3	0
86	4	119	0	0	10	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	5	2471	0	0	239	0
86	6	1099	0	0	111	0
86	7	84	0	0	13	0
86	8	112	0	0	17	0
86	C3	7	0	0	1	0
86	C5	7	0	0	6	0
86	C8	7	0	0	0	0
86	D9	7	0	0	0	0
86	L3	21	0	0	3	0
86	L4	7	0	0	3	0
86	M0	7	0	0	0	0
86	M5	7	0	0	0	0
86	M7	14	0	0	1	0
86	M8	7	0	0	0	0
86	M9	7	0	0	1	0
86	N1	7	0	0	2	0
86	N9	7	0	0	0	0
86	O3	7	0	0	1	0
86	O7	7	0	0	5	0
86	Q2	7	0	0	3	0
86	S8	7	0	0	0	0
86	SR	7	0	0	0	0
86	c3	7	0	0	0	0
86	c5	7	0	0	0	0
86	c8	7	0	0	0	0
86	d4	7	0	0	0	0
86	d9	7	0	0	0	0
86	l3	21	0	0	0	0
86	l4	14	0	0	0	0
86	l5	21	0	0	0	0
86	l9	7	0	0	0	0
86	m0	14	0	0	0	0
86	m1	7	0	0	0	0
86	m4	7	0	0	0	0
86	m5	7	0	0	0	0
86	m6	7	0	0	0	0
86	m7	7	0	0	0	0
86	n1	7	0	0	0	0
86	n3	14	0	0	0	0
86	n9	7	0	0	0	0
86	o2	7	0	0	0	0
86	o3	7	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	o7	14	0	0	0	0
86	q2	7	0	0	0	0
86	s1	14	0	0	0	0
86	s4	7	0	0	0	0
86	s8	7	0	0	0	0
86	s9	7	0	0	0	0
86	sR	7	0	0	0	0
87	2	55	0	56	7	0
87	6	55	0	57	3	0
88	D6	1	0	0	0	0
88	D7	1	0	0	0	0
88	D9	1	0	0	0	0
88	E1	1	0	0	0	0
88	O7	1	0	0	0	0
88	Q0	1	0	0	0	0
88	Q2	1	0	0	0	0
88	Q3	1	0	0	0	0
88	d6	1	0	0	0	0
88	d7	1	0	0	0	0
88	d9	1	0	0	0	0
88	e1	1	0	0	0	0
88	o7	1	0	0	0	0
88	q0	1	0	0	0	0
88	q2	1	0	0	0	0
88	q3	1	0	0	0	0
All	All	411258	0	297398	10934	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 16.

All (10934) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:Q2:17:CYS:CB	78:Q2:17:CYS:SG	2.09	1.45
40:L3:41:VAL:HA	40:L3:185:GLY:HA3	1.39	1.07
36:5:3274:A:H3'	36:5:3275:U:H5''	1.35	1.05
36:5:2273:G:O6	86:5:4200:OHX:N5	1.92	1.02
46:L9:105:GLU:HG3	46:L9:109:ALA:H	1.20	1.02
40:L3:296:THR:HG22	40:L3:298:PHE:H	4.43	0.99
78:Q2:17:CYS:SG	78:Q2:77:CYS:HB3	2.02	0.99
65:N9:50:THR:HG22	36:5:1073:U:H1'	205.63	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:49:ASN:HB3	2:S0:52:LYS:HG3	1.45	0.99
36:1:1639:C:OP2	70:O4:74:ARG:NH2	1.96	0.98
1:2:1508:U:O4	86:2:2030:OHX:N5	1.95	0.98
39:L2:70:ARG:NH2	36:5:2522:G:O6	175.59	0.98
1:6:1011:G:OP2	86:6:2118:OHX:N3	1.95	0.98
41:L4:170:LYS:HG3	41:L4:175:HIS:HB2	1.70	0.97
40:L3:218:ILE:HG13	40:L3:276:THR:HG23	3.43	0.96
55:M9:5:ARG:NH2	36:5:1471:U:OP1	122.34	0.96
57:N1:51:GLY:HA3	57:N1:92:ARG:HG3	1.98	0.95
70:O4:74:ARG:NH2	36:5:1639:C:OP2	199.86	0.95
7:S5:94:THR:HG22	7:S5:114:ILE:HG13	2.08	0.95
36:1:1898:G:OP2	86:1:3932:OHX:N4	1.99	0.95
31:D9:21:CYS:HB2	31:D9:39:CYS:HB3	2.48	0.94
1:2:1585:U:H3	1:2:1611:A:H2	1.05	0.94
1:2:79:C:H1'	8:S6:174:LYS:HD3	1.49	0.94
17:C5:129:GLY:HA3	35:SM:74:LYS:HD2	6.04	0.94
36:5:2836:C:H5	36:5:2852:C:H42	1.08	0.94
41:L4:317:PRO:O	41:L4:319:LYS:N	2.00	0.93
86:1:4082:OHX:N1	72:O6:28:TYR:O	2.02	0.93
1:2:320:U:H3'	1:2:321:C:H5''	1.50	0.93
36:5:3153:U:H4'	36:5:3154:C:H5'	1.51	0.93
52:M6:68:ARG:NH1	36:5:2988:C:OP1	217.20	0.92
1:6:1636:C:H4'	1:6:1637:C:H5''	1.50	0.92
36:1:13:A:OP2	86:1:4207:OHX:N5	2.03	0.92
39:L2:193:ARG:NH2	36:5:2181:C:OP1	197.31	0.91
64:N8:21:ARG:NH2	36:5:640:U:OP1	181.95	0.91
36:1:3182:G:OP1	52:M6:160:ARG:NH2	2.03	0.91
49:M3:39:ARG:NH1	36:5:107:A:OP1	74.10	0.91
38:4:95:G:OP2	73:O7:72:ARG:NH1	2.04	0.91
36:5:272:G:OP2	86:5:4076:OHX:N6	2.04	0.91
6:S4:49:ARG:NH1	1:6:448:C:OP2	378.98	0.91
10:S8:76:THR:HG22	10:S8:108:PRO:HG2	1.53	0.90
51:M5:98:LEU:HD23	51:M5:128:LYS:HD2	3.27	0.90
15:C3:29:SER:HG	15:C3:32:SER:HG	1.14	0.90
36:1:1507:G:N7	53:M7:129:THR:HG22	1.87	0.90
8:S6:2:LYS:HB3	8:S6:108:VAL:HG22	1.52	0.90
42:L5:111:GLN:HA	42:L5:116:ASP:HB3	3.26	0.90
36:1:438:A:OP1	68:O2:118:LYS:NZ	2.05	0.90
24:D2:47:ILE:HG22	24:D2:65:LEU:HB3	1.53	0.89
36:1:1878:G:OP1	86:1:3928:OHX:N4	2.04	0.89
43:L6:31:ARG:NH1	69:O3:107:ILE:O	2.06	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:70:ASN:ND2	24:D2:130:TYR:O	2.06	0.89
67:O1:13:THR:HG22	67:O1:72:ARG:HH11	1.37	0.89
41:L4:329:PRO:O	41:L4:331:ALA:N	3.38	0.89
10:S8:34:ALA:HB2	10:S8:56:ARG:HD3	2.96	0.89
1:6:140:A:N6	1:6:281:G:OP1	2.06	0.89
52:M6:121:PRO:HA	52:M6:124:LEU:HD22	2.37	0.89
2:S0:179:ARG:HD3	2:S0:183:ARG:HH11	1.36	0.89
10:S8:197:THR:HA	10:S8:200:LYS:HB2	1.55	0.88
1:2:471:A:OP2	86:2:2075:OHX:N4	2.06	0.88
56:N0:90:MET:HG3	36:5:1213:G:H4'	317.22	0.88
36:1:155:G:H1'	72:O6:26:ILE:HD13	1.55	0.88
36:1:1222:G:HO2'	36:1:1285:G:H1	1.15	0.88
36:5:343:U:OP2	86:5:3926:OHX:N3	2.07	0.88
1:6:991:G:OP2	86:6:2168:OHX:N2	2.05	0.88
71:O5:81:ARG:NH2	36:5:18:G:OP1	77.17	0.88
20:C8:120:ARG:NH2	35:SM:58:GLU:OE1	2.07	0.88
36:1:2513:U:HO2'	36:1:2592:G:H1	1.21	0.88
51:M5:49:ARG:NH2	36:5:115:A:OP1	100.94	0.88
1:6:1280:C:H2'	1:6:1281:G:H8	1.37	0.88
1:6:1588:G:H1	1:6:1608:U:H3	1.17	0.88
46:L9:9:GLN:HG2	46:L9:52:LEU:HD21	1.54	0.88
73:O7:87:SER:O	86:O7:103:OHX:N3	2.07	0.88
43:L6:78:ARG:NH1	36:5:3272:C:OP2	246.90	0.87
62:N6:52:ARG:O	62:N6:54:ASP:N	2.06	0.87
38:4:79:A:H2'	38:4:80:A:H1'	1.54	0.87
7:S5:92:ARG:NH2	7:S5:169:ASN:OD1	2.08	0.87
54:M8:176:ARG:NH1	64:N8:46:ASP:OD2	2.08	0.87
36:5:2258:U:OP2	86:5:3950:OHX:N4	2.07	0.87
1:2:1339:C:O2'	1:2:1341:A:N7	2.06	0.87
36:5:2444:C:H42	36:5:2503:G:H1	1.23	0.87
51:M5:188:ARG:NH2	36:5:31:C:OP2	121.69	0.87
54:M8:170:ARG:NH1	64:N8:56:VAL:O	2.08	0.87
44:L7:143:THR:HG22	44:L7:241:LYS:HE3	1.57	0.86
47:M0:174:THR:HG23	47:M0:176:LEU:H	1.41	0.86
52:M6:160:ARG:NH2	36:5:3182:G:OP1	280.11	0.86
36:1:3259:U:H6	36:1:3259:U:H5'	1.39	0.86
19:C7:27:ASP:O	19:C7:31:ASN:ND2	3.74	0.86
64:N8:128:ARG:HB2	72:O6:8:ALA:HB2	4.47	0.86
13:C1:69:LYS:HB3	13:C1:71:LEU:HD21	3.05	0.86
36:1:2794:G:N7	86:1:3935:OHX:N2	2.23	0.86
36:5:1015:U:O2'	36:5:1017:C:OP1	1.93	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:107:ARG:HH22	42:L5:120:LYS:HA	1.41	0.86
36:5:1239:C:H42	36:5:1249:G:H1	1.21	0.86
36:1:2736:A:OP1	57:N1:92:ARG:NH1	2.07	0.86
36:5:2371:G:O6	86:5:3911:OHX:N6	2.08	0.86
40:L3:25:ILE:H	40:L3:25:ILE:HD13	1.40	0.86
41:L4:126:ILE:HD11	41:L4:233:LEU:HD13	1.57	0.86
36:1:2818:U:H6	36:1:2818:U:H5'	1.41	0.85
1:6:1695:G:H21	1:6:1706:C:H41	1.20	0.85
1:6:1670:G:O6	86:6:2187:OHX:N4	2.09	0.85
40:L3:53:MET:HG3	40:L3:77:THR:HG22	2.85	0.85
42:L5:40:HIS:HD2	42:L5:42:ALA:H	1.23	0.85
6:S4:79:ASP:HB3	6:S4:82:TYR:HB2	1.56	0.85
36:5:658:G:OP1	86:5:4093:OHX:N5	2.09	0.85
15:C3:55:ARG:NH1	15:C3:56:ASP:OD2	2.09	0.85
50:M4:128:ARG:NH2	36:5:3214:U:OP2	280.30	0.85
8:S6:70:PRO:O	8:S6:98:ARG:NH1	2.09	0.85
36:1:2836:C:H5	36:1:2852:C:H42	1.24	0.85
16:C4:81:VAL:H	16:C4:115:ILE:HG22	1.42	0.85
1:2:1010:C:OP2	86:2:2131:OHX:N6	2.09	0.85
53:M7:69:ARG:HG2	53:M7:79:THR:HG23	4.40	0.85
36:1:640:U:OP1	64:N8:21:ARG:NH2	2.10	0.84
36:5:1192:C:N4	36:5:1301:A:O2'	2.08	0.84
1:2:1202:A:OP1	86:2:2110:OHX:N1	2.10	0.84
1:6:1492:A:HO2'	1:6:1493:A:H8	1.21	0.84
5:S3:94:ARG:NH2	35:SM:134:ASP:OD2	2.11	0.84
71:O5:78:LYS:HA	71:O5:81:ARG:HD3	1.62	0.84
1:6:1726:G:N7	86:6:2144:OHX:N5	2.25	0.84
48:M1:49:LYS:HB3	48:M1:62:ASN:HA	1.60	0.84
44:L7:217:PRO:O	86:5:4004:OHX:N3	259.48	0.84
20:C8:135:GLY:HA3	1:6:1559:A:H5''	365.27	0.84
66:O0:57:GLU:OE1	66:O0:69:TYR:OH	2.48	0.84
1:6:471:A:OP2	86:6:2101:OHX:N5	2.11	0.84
44:L7:216:VAL:HG11	44:L7:227:GLY:HA3	3.94	0.84
45:L8:101:THR:HG22	45:L8:104:GLU:H	1.42	0.84
72:O6:63:ASN:O	72:O6:65:GLY:N	4.78	0.84
17:C5:43:ARG:NH2	1:6:1552:U:OP2	402.81	0.84
44:L7:158:LYS:HE2	44:L7:159:GLN:H	1.43	0.84
36:5:2233:A:OP2	86:5:3964:OHX:N5	2.10	0.84
42:L5:256:THR:OG1	42:L5:258:LYS:NZ	2.11	0.84
36:1:1720:U:OP2	55:M9:110:ARG:NH1	2.10	0.83
48:M1:94:ARG:O	48:M1:96:PHE:N	2.19	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:109:LEU:HB2	11:S9:146:PHE:HB3	1.58	0.83
36:1:807:A:H61	36:1:934:G:H22	1.23	0.83
36:5:1878:G:OP1	86:5:3959:OHX:N5	2.12	0.83
38:4:70:G:O6	86:O7:103:OHX:N4	2.11	0.83
47:M0:3:ARG:NH2	36:5:2854:U:OP2	290.37	0.83
36:1:2123:G:N7	86:1:4202:OHX:N2	2.27	0.83
33:E1:97:LYS:NZ	1:6:1253:U:O4	439.54	0.83
18:C6:58:ASP:O	18:C6:60:PHE:N	2.11	0.83
1:6:484:C:H42	1:6:503:G:H1	1.21	0.83
36:1:2194:G:N2	36:1:2248:C:O2	2.12	0.83
36:5:2620:G:O6	86:5:4245:OHX:N4	2.12	0.83
63:N7:52:LYS:O	63:N7:65:ARG:NH1	2.11	0.83
20:C8:145:ARG:HG3	35:SM:68:ARG:HH22	3.98	0.83
1:6:895:G:H1	1:6:917:U:H3	1.26	0.83
86:2:2038:OHX:N1	25:D3:64:PRO:O	2.11	0.83
1:2:820:U:H2'	1:2:821:U:H4'	1.60	0.83
17:C5:69:GLU:OE1	86:C5:201:OHX:N4	2.12	0.83
36:1:944:C:H4'	68:O2:33:ARG:NH1	1.94	0.83
78:Q2:73:GLU:OE1	78:Q2:80:ARG:NH2	2.12	0.83
11:S9:126:ARG:NH1	1:6:475:A:OP2	422.99	0.82
79:Q3:73:THR:HB	79:Q3:76:ALA:H	4.52	0.82
1:2:283:U:H5''	8:S6:188:ARG:HD3	1.60	0.82
6:S4:187:ARG:NH2	1:6:753:A:N7	373.45	0.82
8:S6:135:PRO:HB2	8:S6:141:ILE:HG13	1.61	0.82
36:1:3376:A:OP2	86:1:3907:OHX:N5	2.12	0.82
43:L6:40:LEU:HD13	43:L6:84:VAL:HG11	2.14	0.82
6:S4:153:ASN:O	6:S4:174:LYS:NZ	2.12	0.82
36:1:1814:A:H4'	36:1:1815:U:H5'	1.59	0.82
1:2:895:G:H1	1:2:917:U:H3	1.26	0.82
42:L5:120:LYS:O	42:L5:248:ARG:NH2	2.92	0.82
3:S1:181:LEU:O	3:S1:185:THR:N	2.10	0.82
1:2:1203:A:OP2	86:2:2110:OHX:N5	2.12	0.82
53:M7:25:SER:O	53:M7:29:THR:HG23	1.80	0.82
40:L3:139:GLN:O	40:L3:141:GLY:N	2.13	0.82
46:L9:22:SER:OG	46:L9:23:ARG:N	2.09	0.82
36:1:317:A:OP2	72:O6:30:LYS:NZ	2.13	0.82
49:M3:46:ILE:HG22	49:M3:49:ARG:HB2	1.65	0.82
12:C0:27:PHE:HB3	12:C0:40:LEU:HD23	1.61	0.82
11:S9:90:LYS:HB2	11:S9:95:TYR:HD1	1.43	0.82
35:SM:83:LYS:HE2	1:6:1178:G:H4'	337.62	0.82
36:1:3344:A:H2	36:1:3361:G:H21	1.27	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2128:C:OP1	86:5:4091:OHX:N3	2.13	0.82
41:L4:35:VAL:HG21	41:L4:244:LEU:HD21	1.62	0.82
10:S8:36:THR:HB	10:S8:57:ALA:O	1.80	0.81
4:S2:159:THR:HG21	1:6:1097:U:O3'	382.60	0.81
36:5:2211:U:O4	86:5:3964:OHX:N4	2.13	0.81
25:D3:62:LYS:HD2	25:D3:118:PRO:HB3	1.63	0.81
36:1:3316:A:OP1	36:1:3318:G:N2	2.12	0.81
1:2:630:A:N6	1:2:969:C:O2	2.13	0.81
16:C4:50:ALA:O	16:C4:52:ARG:N	2.13	0.81
36:5:1414:G:O6	86:5:4148:OHX:N1	2.13	0.81
33:E1:144:CYS:HB3	33:E1:147:VAL:HG13	1.61	0.81
54:M8:134:GLY:O	54:M8:137:THR:OG1	2.61	0.81
67:O1:63:GLY:O	67:O1:65:LYS:N	3.25	0.81
2:S0:124:THR:HG22	2:S0:174:TRP:HE1	1.74	0.81
71:O5:10:ARG:NH1	71:O5:60:GLU:OE1	2.12	0.81
14:C2:61:VAL:HG13	14:C2:121:VAL:HG23	1.63	0.81
46:L9:120:ASP:OD1	46:L9:124:ARG:NH2	2.21	0.81
72:O6:28:TYR:O	86:5:4191:OHX:N2	104.09	0.81
7:S5:216:GLU:OE2	7:S5:219:ARG:NH2	2.13	0.81
36:1:1553:U:H4'	36:1:1554:U:H5'	1.61	0.81
36:1:900:G:H1'	36:1:1589:A:N6	1.96	0.81
36:5:23:A:OP1	86:5:3909:OHX:N4	2.14	0.81
1:2:1046:G:OP1	3:S1:157:GLN:NE2	2.14	0.81
16:C4:38:THR:HG21	1:6:895:G:H21	262.06	0.81
36:1:425:G:O6	86:1:3876:OHX:N6	2.15	0.80
39:L2:189:TYR:HA	39:L2:192:LYS:HG3	2.41	0.80
41:L4:311:HIS:CE1	41:L4:314:LYS:HA	2.16	0.80
59:N3:87:ARG:HH22	59:N3:137:VAL:HG21	1.45	0.80
65:N9:14:ARG:HH12	65:N9:18:ARG:HH11	2.20	0.80
1:2:9:U:O4	86:2:2154:OHX:N6	2.13	0.80
21:C9:16:ASN:OD1	21:C9:56:LYS:NZ	2.23	0.80
50:M4:132:LYS:HD3	36:5:3230:G:H4'	286.47	0.80
49:M3:28:GLN:HB3	51:M5:201:ARG:HD2	1.63	0.80
36:1:3195:U:O2'	36:1:3197:G:N2	2.15	0.80
38:4:107:G:OP2	86:4:236:OHX:N2	2.14	0.80
20:C8:83:ALA:HA	20:C8:86:LEU:HD22	1.62	0.80
22:D0:35:GLU:OE1	22:D0:89:ARG:NH1	5.73	0.80
41:L4:300:ARG:O	54:M8:39:ARG:NH1	2.14	0.80
66:O0:100:ILE:HD12	66:O0:101:LEU:HD23	1.64	0.80
1:2:523:G:OP2	26:D4:37:LYS:NZ	2.14	0.80
36:5:3194:C:O2	36:5:3197:G:N2	2.13	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2854:U:OP2	47:M0:3:ARG:NH2	2.15	0.80
36:1:283:G:OP1	78:Q2:45:ARG:NH2	2.14	0.80
36:1:3050:U:OP2	86:1:4184:OHX:N4	2.14	0.80
1:2:1014:G:OP1	86:2:2023:OHX:N5	2.14	0.80
25:D3:13:ARG:HA	25:D3:16:ARG:HD3	1.61	0.80
11:S9:157:ASP:OD1	11:S9:158:PHE:N	4.60	0.80
36:1:20:A:OP2	71:O5:90:ARG:NH1	2.15	0.80
77:Q1:15:ARG:NH1	1:6:1126:G:OP1	281.10	0.80
18:C6:112:TYR:OH	18:C6:114:ARG:NH1	2.15	0.80
48:M1:34:SER:HB2	48:M1:67:VAL:HG11	1.64	0.80
50:M4:55:ARG:NH2	50:M4:76:ALA:O	2.14	0.80
68:O2:19:ARG:HH11	68:O2:28:VAL:HG13	1.89	0.80
21:C9:28:LEU:HD13	21:C9:29:GLU:H	1.45	0.80
21:C9:37:VAL:HG11	21:C9:100:ILE:HD11	2.02	0.79
25:D3:64:PRO:O	86:6:2156:OHX:N2	359.99	0.79
39:L2:20:THR:HA	39:L2:23:ARG:HD2	1.63	0.79
47:M0:77:THR:HG22	47:M0:82:ARG:HA	1.98	0.79
36:1:2169:G:O6	86:1:3913:OHX:N4	2.15	0.79
1:2:452:A:OP2	86:2:2037:OHX:N5	2.14	0.79
36:5:1170:A:OP2	86:5:4004:OHX:N4	2.15	0.79
36:1:2108:C:O2'	36:1:3362:A:N6	2.14	0.79
36:1:2656:A:H4'	78:Q2:98:LYS:HD2	1.64	0.79
36:1:979:U:H1'	36:1:980:A:C8	2.16	0.79
36:1:824:C:H5''	39:L2:21:ARG:HD3	1.62	0.79
3:S1:70:LEU:HA	3:S1:73:LEU:HB3	1.65	0.79
1:2:702:G:O6	1:2:736:C:N4	2.13	0.79
36:5:1555:U:O4	36:5:1557:A:N6	2.15	0.79
1:2:1429:G:H1'	22:D0:74:GLU:HG2	1.63	0.79
45:L8:144:GLU:OE1	72:O6:36:ARG:NH2	2.39	0.79
34:SR:89:LEU:HB2	34:SR:103:PHE:HB2	1.85	0.79
36:1:2443:A:N6	36:1:2504:U:O4	2.15	0.79
1:2:1564:U:H2'	1:2:1565:C:C6	2.16	0.79
36:5:1952:G:H1	36:5:2094:C:H42	1.28	0.79
42:L5:126:GLU:HA	42:L5:196:ARG:HD2	1.82	0.79
55:M9:76:SER:O	55:M9:81:ARG:NH1	2.15	0.79
38:4:136:G:OP1	61:N5:48:SER:OG	2.01	0.79
4:S2:137:ILE:HG12	4:S2:138:PRO:HD2	1.64	0.79
36:1:31:C:OP2	51:M5:188:ARG:NH2	2.16	0.79
41:L4:143:GLU:O	86:L4:403:OHX:N2	2.16	0.79
44:L7:88:ARG:HD2	44:L7:90:LYS:O	2.02	0.79
47:M0:36:LEU:HD21	47:M0:69:ARG:HD3	1.75	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:120:LYS:HD3	59:N3:121:GLU:HG3	1.65	0.79
37:3:4:U:H2'	37:3:5:G:C8	2.18	0.79
12:C0:50:THR:HG22	12:C0:55:VAL:HG22	2.10	0.79
41:L4:300:ARG:HG2	41:L4:300:ARG:HH11	3.60	0.79
4:S2:140:ARG:NH1	23:D1:1:MET:SD	2.56	0.79
36:1:114:A:N1	36:1:266:A:O2'	2.16	0.79
86:1:3960:OHX:N6	44:L7:217:PRO:O	2.16	0.79
66:O0:34:LEU:HD23	66:O0:59:TYR:HB3	1.65	0.79
13:C1:99:ARG:NH1	25:D3:7:ARG:O	2.23	0.79
52:M6:68:ARG:HH12	36:5:2988:C:P	215.04	0.79
36:1:1369:A:OP1	64:N8:21:ARG:NH1	2.16	0.79
66:O0:100:ILE:HG13	66:O0:101:LEU:HD22	4.58	0.79
72:O6:45:ARG:NH2	72:O6:54:GLU:OE1	2.16	0.79
36:5:1556:C:H2'	36:5:2169:G:H1	1.48	0.78
10:S8:50:GLY:HA2	1:6:397:A:O3'	314.30	0.78
29:D7:37:CYS:O	29:D7:39:GLY:N	2.14	0.78
36:1:3272:C:OP2	43:L6:78:ARG:NH1	2.14	0.78
41:L4:204:GLY:O	41:L4:246:ARG:NH1	2.48	0.78
1:6:826:U:O4	86:6:2064:OHX:N3	2.14	0.78
59:N3:48:ARG:HH11	59:N3:48:ARG:HG3	2.00	0.78
71:O5:101:THR:HG22	71:O5:104:GLN:H	1.49	0.78
71:O5:85:THR:HG22	71:O5:88:LEU:H	1.54	0.78
36:5:1387:G:OP1	86:5:4202:OHX:N3	2.16	0.78
19:C7:8:THR:HG21	1:6:1330:G:H21	418.59	0.78
52:M6:110:PRO:O	52:M6:112:TYR:N	3.31	0.78
53:M7:136:ILE:O	53:M7:137:ASN:ND2	2.39	0.78
36:1:3358:U:H2'	36:1:3359:A:O4'	1.83	0.78
10:S8:10:LYS:HG2	13:C1:133:LYS:HE3	2.10	0.78
71:O5:76:GLN:O	71:O5:81:ARG:NH1	2.51	0.78
36:1:1441:G:O6	86:1:3926:OHX:N1	2.17	0.78
36:1:2528:G:N7	86:1:4186:OHX:N3	2.31	0.78
36:1:2535:A:H61	36:1:2544:U:H3	1.28	0.78
42:L5:270:LYS:HE2	42:L5:273:ARG:HA	9.44	0.78
36:1:3375:A:O2'	36:1:3378:C:OP2	2.01	0.78
40:L3:347:SER:HB3	40:L3:350:ALA:H	1.81	0.78
9:S7:38:LEU:HD23	9:S7:41:LEU:HD12	1.66	0.78
39:L2:128:ARG:NH1	36:5:2177:G:OP2	197.61	0.78
1:6:235:G:H2'	1:6:236:A:H8	1.47	0.78
46:L9:91:ARG:HG3	46:L9:91:ARG:HH21	1.49	0.78
20:C8:125:ILE:HG12	35:SM:61:ILE:HG23	1.64	0.78
49:M3:15:ARG:NH2	36:5:96:G:OP1	153.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1500:C:OP1	21:C9:122:ARG:NH2	2.16	0.78
50:M4:113:THR:HB	50:M4:116:GLU:HG3	1.66	0.78
5:S3:94:ARG:HH21	35:SM:134:ASP:CG	1.85	0.78
1:6:1665:U:O4	86:6:2121:OHX:N6	2.17	0.77
25:D3:73:ARG:HH21	25:D3:84:THR:HG22	1.47	0.77
2:S0:13:ASP:HA	2:S0:16:LEU:HD12	1.66	0.77
1:2:190:C:N4	1:2:196:G:O6	2.18	0.77
36:5:1025:A:H3'	36:5:1026:A:H4'	1.65	0.77
36:1:3343:G:H21	36:1:3362:A:H2	1.31	0.77
1:6:815:G:H5'	1:6:815:G:H8	1.50	0.77
33:E1:88:PRO:HB2	33:E1:89:LYS:HD3	6.36	0.77
64:N8:94:ALA:HB1	64:N8:121:VAL:HA	1.66	0.77
1:2:1572:G:H1'	7:S5:185:ARG:HH22	1.48	0.77
43:L6:3:ALA:HB2	68:O2:77:ALA:HB2	2.14	0.77
79:Q3:4:ARG:NH1	36:5:837:A:OP2	237.55	0.77
11:S9:38:ASN:HB2	11:S9:41:GLU:HG3	1.65	0.77
36:5:3276:G:OP2	36:5:3276:G:H2'	1.84	0.77
23:D1:60:ARG:HA	23:D1:65:SER:HB2	2.11	0.77
41:L4:145:ILE:HD11	41:L4:148:ILE:HG13	1.66	0.77
43:L6:31:ARG:NH2	43:L6:81:ALA:O	2.17	0.77
53:M7:64:ASN:O	53:M7:67:ILE:HG12	3.52	0.77
2:S0:90:ALA:HA	2:S0:95:ALA:HB3	2.16	0.77
4:S2:140:ARG:NH1	23:D1:10:GLU:OE1	5.37	0.77
36:1:953:G:OP1	65:N9:15:LYS:NZ	2.18	0.77
36:5:1541:G:OP2	86:5:4095:OHX:N4	2.17	0.77
18:C6:32:ASN:N	18:C6:67:VAL:O	2.14	0.77
18:C6:97:VAL:HG12	18:C6:98:ASP:H	1.79	0.77
41:L4:47:ARG:NH1	41:L4:109:TRP:O	2.18	0.77
48:M1:53:THR:HG23	48:M1:60:ARG:HA	1.65	0.77
8:S6:163:THR:HG22	8:S6:168:THR:HG22	1.66	0.77
4:S2:225:LEU:HD13	24:D2:68:ARG:HA	2.11	0.77
36:5:2818:U:H6	36:5:2818:U:H5'	1.47	0.77
10:S8:23:LYS:NZ	1:6:391:A:OP2	304.38	0.77
36:1:25:U:O4	86:1:3872:OHX:N4	2.17	0.77
28:D6:37:LYS:O	28:D6:38:ARG:NH1	2.18	0.77
47:M0:63:GLU:HB2	36:5:2853:A:H5'	296.66	0.77
78:Q2:17:CYS:SG	78:Q2:77:CYS:CB	2.76	0.77
10:S8:187:GLU:OE2	13:C1:30:ARG:NH1	2.16	0.77
13:C1:23:PRO:O	13:C1:26:LYS:NZ	2.18	0.77
36:1:2916:U:H1'	59:N3:44:SER:HB2	1.67	0.76
1:6:25:C:O2	86:6:2106:OHX:N5	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:36:HIS:CD2	63:N7:74:VAL:HG11	3.11	0.76
70:O4:58:ARG:HG3	70:O4:59:PRO:HD2	1.97	0.76
4:S2:170:ILE:HB	4:S2:197:TYR:HB2	1.66	0.76
1:6:1699:G:H22	1:6:1701:A:H3'	1.50	0.76
1:6:218:A:H2'	1:6:219:A:H5''	1.67	0.76
36:1:2924:U:O4	86:1:4019:OHX:N1	2.18	0.76
36:1:356:C:OP2	86:1:4144:OHX:N1	2.18	0.76
78:Q2:41:ARG:NH1	36:5:284:A:OP2	156.66	0.76
40:L3:315:GLY:HA2	36:5:3379:C:H4'	214.09	0.76
1:6:1491:U:H4'	1:6:1492:A:H5''	1.67	0.76
21:C9:68:ARG:NH1	1:6:1521:G:O6	413.88	0.76
13:C1:122:ILE:H	13:C1:144:ALA:HB2	1.50	0.76
40:L3:291:GLU:OE1	40:L3:302:LYS:NZ	4.22	0.76
1:6:1385:G:N7	86:6:2119:OHX:N6	2.34	0.76
63:N7:26:VAL:HG21	63:N7:96:VAL:HB	1.65	0.76
6:S4:187:ARG:NH1	1:6:753:A:OP2	376.00	0.76
34:SR:161:LYS:O	34:SR:161:LYS:HG2	1.85	0.76
36:1:276:U:O2	51:M5:93:LYS:NZ	2.19	0.76
36:1:3087:A:OP1	86:1:4184:OHX:N5	2.18	0.76
14:C2:103:LEU:HG	14:C2:116:VAL:HG22	1.67	0.76
36:1:3214:U:OP2	50:M4:128:ARG:NH2	2.19	0.76
1:6:1595:U:H3	1:6:1600:A:H2	1.34	0.76
16:C4:11:SER:OG	16:C4:12:GLN:N	4.38	0.76
42:L5:270:LYS:HB3	37:7:1:G:O2'	322.13	0.76
36:1:1740:U:H1'	36:1:1741:A:H2	1.51	0.76
1:6:1202:A:OP1	86:6:2128:OHX:N2	2.18	0.76
17:C5:81:ARG:NH1	17:C5:97:TYR:O	2.18	0.76
21:C9:63:ARG:NH1	21:C9:67:MET:SD	2.58	0.76
22:D0:74:GLU:HG2	1:6:1429:G:H1'	377.41	0.76
1:2:814:A:H5''	55:M9:170:ARG:HH22	1.51	0.76
41:L4:197:ARG:NH1	36:5:1381:A:OP1	109.18	0.76
27:D5:74:SER:OG	1:6:1534:G:OP2	343.77	0.76
45:L8:130:TYR:HD1	45:L8:202:GLU:HB3	1.49	0.76
53:M7:29:THR:HA	53:M7:32:THR:HG23	1.68	0.76
69:O3:86:ARG:HH12	36:5:498:A:H5'	215.90	0.76
5:S3:31:GLU:O	5:S3:54:ARG:NH2	3.92	0.76
7:S5:37:GLN:HB3	18:C6:53:LEU:HB3	1.66	0.76
36:1:1145:G:OP1	68:O2:44:ARG:NH1	2.18	0.76
49:M3:177:LYS:HA	72:O6:11:LEU:HD22	2.38	0.76
3:S1:109:LYS:HG3	3:S1:113:MET:HE3	1.67	0.76
1:6:1280:C:H2'	1:6:1281:G:C8	2.21	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:77:ARG:HD3	12:C0:84:GLU:HA	1.68	0.75
36:5:2211:U:H5	36:5:2234:G:O6	1.69	0.75
47:M0:14:ASN:O	47:M0:128:ARG:NH2	2.19	0.75
56:N0:6:GLU:OE1	56:N0:99:ARG:NH2	3.08	0.75
47:M0:168:SER:OG	57:N1:160:ILE:O	2.05	0.75
8:S6:57:ASP:HA	8:S6:106:LEU:HA	1.68	0.75
1:6:823:G:H2'	1:6:824:G:O4'	1.86	0.75
24:D2:15:ASN:HD21	24:D2:71:LYS:HA	1.54	0.75
36:1:3165:A:H61	36:1:3285:C:H42	1.33	0.75
36:5:2311:G:OP2	86:5:4200:OHX:N1	2.19	0.75
19:C7:26:LEU:HD21	19:C7:62:GLN:HG3	4.48	0.75
67:O1:31:ARG:HH11	67:O1:31:ARG:HB3	1.51	0.75
36:1:2185:G:O2'	36:1:2314:U:OP2	2.04	0.75
36:1:2107:A:H2	36:1:3344:A:H8	1.33	0.75
17:C5:14:THR:HB	17:C5:22:LEU:HB2	1.67	0.75
38:4:135:G:OP2	61:N5:56:ARG:NH2	2.18	0.75
62:N6:87:LYS:HG3	62:N6:97:ILE:HD11	2.64	0.75
78:Q2:12:CYS:SG	78:Q2:17:CYS:HB2	2.97	0.75
9:S7:50:ASP:HA	9:S7:56:LYS:HA	1.69	0.75
36:5:3053:G:O6	86:5:4174:OHX:N6	2.20	0.75
32:E0:55:ARG:HB3	32:E0:58:PRO:HG3	1.69	0.75
36:1:670:C:OP1	54:M8:147:ARG:NH2	2.20	0.75
38:4:63:G:O2'	71:O5:49:LYS:NZ	2.17	0.75
28:D6:87:ARG:NH2	28:D6:91:ASP:O	2.69	0.75
44:L7:151:ARG:HD2	44:L7:244:ASN:HD22	1.49	0.75
63:N7:83:THR:HG23	63:N7:85:TYR:H	1.51	0.75
4:S2:54:GLU:OE2	4:S2:110:HIS:NE2	2.20	0.75
36:1:2392:C:O2'	40:L3:266:ARG:NH2	2.17	0.75
1:2:1588:G:H1	1:2:1608:U:H3	1.31	0.75
32:E0:59:GLY:O	32:E0:61:SER:N	3.98	0.75
52:M6:182:ASN:HD21	52:M6:186:ALA:HB2	7.40	0.75
63:N7:36:HIS:HD2	63:N7:74:VAL:HG11	3.68	0.75
42:L5:236:LEU:HA	42:L5:239:ILE:HD12	1.68	0.74
36:1:1062:A:H5''	36:1:1063:G:H5'	1.68	0.74
66:O0:16:LEU:HB2	66:O0:98:SER:HB2	3.47	0.74
5:S3:164:VAL:HG13	5:S3:168:ILE:HD11	1.68	0.74
36:5:2509:U:H2'	36:5:2510:U:H5''	1.70	0.74
79:Q3:4:ARG:NH2	36:5:838:G:O6	236.32	0.74
46:L9:28:VAL:HG22	46:L9:33:THR:HB	2.33	0.74
65:N9:20:GLY:O	65:N9:21:ILE:HB	2.71	0.74
36:1:3066:U:O4	86:1:4137:OHX:N5	2.20	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:104:ASN:O	19:C7:106:THR:N	3.74	0.74
40:L3:3:HIS:ND1	40:L3:3:HIS:O	2.20	0.74
8:S6:98:ARG:NH2	8:S6:101:ILE:O	2.68	0.74
36:1:2766:U:O4	86:1:4040:OHX:N2	2.21	0.74
37:3:44:C:OP2	48:M1:137:ARG:NH2	2.21	0.74
25:D3:30:LYS:HE3	25:D3:34:LEU:HD11	1.70	0.74
55:M9:105:LEU:HD12	55:M9:135:LYS:HD2	1.68	0.74
11:S9:93:LEU:HA	11:S9:96:VAL:HG13	1.70	0.74
55:M9:135:LYS:NZ	36:5:1949:G:OP2	223.74	0.74
40:L3:232:ARG:NH2	36:5:2989:U:O2'	215.17	0.74
16:C4:125:SER:OG	16:C4:126:THR:N	3.60	0.74
43:L6:31:ARG:NH1	69:O3:107:ILE:HG22	5.96	0.74
72:O6:66:GLU:OE1	72:O6:70:ARG:NH2	2.92	0.74
8:S6:164:LYS:HB3	8:S6:167:LYS:HB3	1.68	0.74
36:1:1240:A:H61	36:1:1244:A:H5''	1.51	0.74
36:1:371:G:O6	86:1:4183:OHX:N4	2.20	0.74
36:1:742:G:N7	86:1:3976:OHX:N1	2.36	0.74
1:2:514:G:H1	1:2:543:C:H5	1.33	0.74
77:Q1:23:ARG:O	86:5:4003:OHX:N2	264.06	0.74
13:C1:101:GLU:OE2	25:D3:16:ARG:NH2	2.66	0.74
18:C6:82:ARG:HH12	18:C6:114:ARG:HB2	3.19	0.74
24:D2:11:LEU:HD12	24:D2:74:VAL:HG23	3.88	0.74
30:D8:36:THR:OG1	30:D8:37:SER:N	2.19	0.74
46:L9:105:GLU:HA	46:L9:109:ALA:HB3	1.68	0.74
62:N6:45:ILE:HD12	62:N6:119:ILE:HG23	1.68	0.74
9:S7:142:TYR:HE1	24:D2:39:GLN:HE21	1.36	0.74
36:5:2436:U:H2'	36:5:2437:G:H5''	1.70	0.74
20:C8:88:ARG:NH1	20:C8:112:ASP:OD1	2.21	0.74
42:L5:22:ARG:HG2	42:L5:28:THR:OG1	1.86	0.74
63:N7:67:LYS:NZ	36:5:1630:U:OP1	196.33	0.74
36:1:300:G:O6	86:1:4153:OHX:N1	2.20	0.74
36:1:368:G:OP1	86:1:3885:OHX:N1	2.21	0.74
1:6:755:A:O2'	1:6:756:A:H8	1.71	0.74
39:L2:245:LEU:HG	39:L2:247:ARG:HD3	1.70	0.74
47:M0:175:ASN:OD1	47:M0:176:LEU:N	5.11	0.74
1:2:1331:A:OP1	19:C7:45:ARG:NH2	2.21	0.74
1:2:1339:C:O2'	1:2:1340:U:OP1	2.06	0.74
1:6:1680:G:O6	86:6:2186:OHX:N4	2.21	0.74
41:L4:33:ASP:O	41:L4:37:THR:HG23	1.88	0.74
50:M4:22:LEU:HB3	50:M4:64:VAL:HG13	4.11	0.74
51:M5:73:ARG:HG2	51:M5:75:VAL:HG22	1.95	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:14:SER:OG	1:6:783:G:OP2	416.18	0.73
6:S4:108:ARG:NH2	1:6:789:A:OP1	390.50	0.73
1:2:513:U:OP1	11:S9:133:HIS:NE2	2.19	0.73
36:1:838:G:O6	79:Q3:4:ARG:NH2	2.20	0.73
1:2:1761:U:O2'	1:2:1762:A:OP2	2.05	0.73
2:S0:185:ARG:HB2	23:D1:45:ALA:HB3	1.69	0.73
61:N5:38:LEU:HD11	61:N5:40:LEU:HD13	1.68	0.73
79:Q3:36:ARG:HG3	79:Q3:48:LYS:HG3	2.50	0.73
2:S0:118:PRO:HG2	2:S0:141:ILE:HD13	2.05	0.73
34:SR:64:HIS:ND1	34:SR:86:ASP:OD2	2.32	0.73
1:2:140:A:N6	1:2:281:G:OP1	2.18	0.73
47:M0:84:ALA:O	47:M0:140:THR:HG22	2.03	0.73
4:S2:237:VAL:HB	4:S2:242:ILE:HD11	3.86	0.73
1:2:770:A:OP2	86:2:2138:OHX:N6	2.21	0.73
5:S3:40:ARG:HG2	22:D0:110:PRO:HB3	2.10	0.73
26:D4:14:SER:HB2	26:D4:21:LYS:HE3	1.69	0.73
32:E0:13:LYS:HE3	32:E0:17:GLN:HE22	5.54	0.73
36:1:3139:A:OP1	40:L3:274:SER:OG	2.05	0.73
1:2:1291:G:N2	1:2:1324:G:H22	1.87	0.73
36:5:2996:U:OP1	36:5:2996:U:H4'	1.87	0.73
1:6:538:A:H8	1:6:543:C:H41	1.35	0.73
69:O3:86:ARG:O	86:O3:201:OHX:N1	2.22	0.73
1:2:475:A:OP2	11:S9:126:ARG:NH1	2.22	0.73
62:N6:39:LEU:HD22	62:N6:43:TYR:HE2	1.52	0.73
36:1:3155:U:H3'	36:1:3156:U:H4'	1.71	0.73
1:2:803:A:H1'	9:S7:104:ARG:HH11	1.52	0.73
1:6:1508:U:O4	86:6:2053:OHX:N4	2.22	0.73
17:C5:65:LEU:O	86:C5:201:OHX:N2	4.15	0.73
20:C8:24:GLY:O	20:C8:26:ILE:N	2.22	0.73
33:E1:108:VAL:HB	33:E1:114:VAL:HG22	1.70	0.73
35:SM:23:LYS:HD2	35:SM:23:LYS:H	1.54	0.73
36:1:1719:G:OP2	55:M9:121:HIS:ND1	2.20	0.73
1:6:1579:U:OP1	86:6:2179:OHX:N4	2.22	0.73
11:S9:108:ARG:HB2	11:S9:111:THR:HG23	2.64	0.73
22:D0:53:LYS:HB2	22:D0:92:ASP:HB2	2.64	0.73
41:L4:211:GLU:OE2	41:L4:213:ASN:ND2	2.20	0.73
1:6:1662:G:O6	86:6:2061:OHX:N6	2.22	0.73
1:6:230:C:H42	1:6:235:G:H1	1.37	0.73
49:M3:166:ALA:HB1	64:N8:147:LEU:HD21	2.09	0.73
64:N8:77:LYS:O	64:N8:79:TRP:N	2.28	0.73
42:L5:8:LYS:NZ	37:7:15:C:O3'	311.88	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:91:TYR:O	56:N0:137:ARG:NH1	2.22	0.72
36:1:1581:C:H2'	36:1:1582:C:H5''	1.71	0.72
36:1:3148:U:O4	86:1:4111:OHX:N2	2.22	0.72
22:D0:20:ILE:HD13	22:D0:22:ILE:HD13	1.70	0.72
53:M7:24:VAL:HG12	53:M7:86:LYS:HG2	1.71	0.72
1:6:833:U:O4	86:6:2099:OHX:N2	2.23	0.72
20:C8:52:VAL:HG21	20:C8:69:ILE:HD11	1.89	0.72
40:L3:293:ASN:HB2	40:L3:304:THR:HA	1.70	0.72
10:S8:36:THR:HG21	10:S8:173:PRO:HB2	1.86	0.72
36:1:272:G:OP2	86:1:4032:OHX:N3	2.23	0.72
36:5:314:U:O4	86:5:4193:OHX:N5	2.21	0.72
1:6:1489:U:H5'	1:6:1494:C:H1'	1.70	0.72
21:C9:102:ARG:NH2	1:6:1502:G:N7	404.60	0.72
40:L3:41:VAL:CA	40:L3:185:GLY:HA3	2.19	0.72
55:M9:86:GLU:OE2	55:M9:91:SER:N	2.17	0.72
63:N7:135:ARG:HH21	63:N7:135:ARG:HB3	3.55	0.72
36:1:544:C:H1'	36:1:548:G:H22	1.54	0.72
1:2:1041:G:H2'	1:2:1042:G:C8	2.24	0.72
8:S6:87:ARG:NH2	1:6:161:U:OP2	314.51	0.72
1:6:486:G:H22	1:6:501:U:H3	1.36	0.72
13:C1:133:LYS:NZ	1:6:324:U:OP1	291.75	0.72
18:C6:109:PHE:O	18:C6:113:ASP:N	2.53	0.72
36:1:1949:G:OP1	55:M9:104:ARG:NH1	2.22	0.72
57:N1:129:LYS:NZ	36:5:1097:G:OP1	244.10	0.72
59:N3:3:GLY:HA2	59:N3:40:LYS:HB3	6.19	0.72
72:O6:33:ALA:O	72:O6:34:SER:HB3	1.90	0.72
2:S0:185:ARG:H	23:D1:45:ALA:H	1.90	0.72
6:S4:11:ARG:O	6:S4:12:LEU:HB2	2.05	0.72
36:1:1014:U:H2'	36:1:1015:U:H5''	1.71	0.72
36:1:3082:C:H2'	36:1:3083:G:H8	1.55	0.72
1:2:565:C:O2	86:2:2038:OHX:N5	2.22	0.72
36:5:1734:G:O6	86:5:3971:OHX:N5	2.22	0.72
1:6:453:U:O4	86:6:2060:OHX:N4	2.22	0.72
50:M4:19:ARG:HA	50:M4:69:THR:HG22	2.76	0.72
53:M7:125:GLN:HB2	53:M7:141:SER:HB2	1.71	0.72
55:M9:74:ARG:NH1	36:5:1942:U:OP2	209.49	0.72
36:1:2503:G:H1'	36:1:2504:U:H5	1.54	0.72
37:3:22:A:H2'	37:3:23:A:C8	2.24	0.72
46:L9:70:THR:HG21	36:5:3122:A:N1	323.99	0.72
36:1:2179:C:O3'	39:L2:174:ARG:NH2	2.22	0.72
36:1:2208:A:N1	86:1:4046:OHX:N2	2.38	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:530:G:N7	86:5:3951:OHX:N3	2.37	0.72
1:6:550:A:OP2	86:6:2048:OHX:N2	2.23	0.72
18:C6:95:LYS:O	34:SR:59:ARG:NH2	2.21	0.72
40:L3:4:ARG:HG3	40:L3:4:ARG:HH11	3.06	0.72
41:L4:337:GLU:O	41:L4:339:LEU:N	2.21	0.72
66:O0:40:LYS:HB3	66:O0:101:LEU:HD11	1.70	0.72
1:2:823:G:H2'	1:2:824:G:C8	2.24	0.72
36:5:863:C:OP1	86:5:3918:OHX:N3	2.23	0.72
20:C8:123:ARG:HG3	20:C8:133:VAL:HG21	1.72	0.72
62:N6:63:LYS:HE3	62:N6:97:ILE:HD13	1.72	0.72
2:S0:55:GLU:OE2	23:D1:80:LYS:N	2.14	0.72
3:S1:62:LYS:O	3:S1:64:ARG:N	2.22	0.72
36:1:1454:A:H5''	36:1:1455:U:H5'	1.70	0.72
1:2:829:A:O2'	1:2:830:U:OP2	2.07	0.72
16:C4:85:ALA:H	16:C4:119:THR:HG22	1.53	0.72
17:C5:25:LEU:HA	17:C5:28:MET:HE2	1.70	0.72
62:N6:35:LEU:HD13	62:N6:39:LEU:HB3	2.80	0.72
11:S9:171:ARG:HE	11:S9:174:ARG:HB2	4.23	0.72
86:1:3960:OHX:N4	44:L7:217:PRO:HA	2.05	0.71
1:2:337:G:H3'	13:C1:133:LYS:HB2	1.72	0.71
16:C4:85:ALA:H	16:C4:119:THR:CG2	2.03	0.71
30:D8:12:VAL:HG22	30:D8:28:VAL:HG11	1.72	0.71
42:L5:294:ALA:HB1	47:M0:217:PHE:HB3	1.72	0.71
75:O9:23:LEU:O	75:O9:25:GLN:NE2	2.23	0.71
36:5:2572:C:O2'	36:5:2573:G:OP2	2.08	0.71
36:5:3242:G:H5'	36:5:3245:A:H8	1.55	0.71
44:L7:217:PRO:O	86:5:4004:OHX:N6	259.20	0.71
68:O2:81:ASP:O	68:O2:84:THR:HG23	1.90	0.71
9:S7:131:PHE:O	9:S7:133:THR:N	2.23	0.71
86:5:3944:OHX:N2	86:5:4235:OHX:N4	2.39	0.71
36:1:2177:G:OP2	39:L2:128:ARG:NH1	2.23	0.71
1:2:142:G:H22	1:2:173:A:H2	1.38	0.71
1:2:151:G:O6	26:D4:124:ARG:NH2	2.22	0.71
1:2:397:A:O3'	10:S8:50:GLY:HA2	1.90	0.71
36:5:1103:A:H3'	36:5:1104:G:H5'	1.72	0.71
1:6:1542:G:N2	1:6:1568:C:H1'	2.05	0.71
36:1:1951:C:H42	36:1:2095:G:H1	1.36	0.71
36:1:562:C:H2'	36:1:563:U:H6	1.55	0.71
1:2:656:G:O2'	1:2:657:U:O4'	2.08	0.71
26:D4:29:HIS:O	26:D4:31:ASN:N	3.58	0.71
40:L3:227:GLU:HG3	40:L3:270:ARG:HE	4.13	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:N1:92:ARG:NH1	36:5:2736:A:OP1	234.90	0.71
67:O1:13:THR:HG22	67:O1:72:ARG:NH1	2.04	0.71
7:S5:117:THR:HG21	7:S5:194:LEU:HD12	1.73	0.71
10:S8:62:THR:HA	10:S8:76:THR:O	2.56	0.71
36:5:1556:C:H2'	36:5:2169:G:N1	2.06	0.71
20:C8:36:LYS:NZ	1:6:1568:C:OP1	334.16	0.71
1:6:104:A:H61	1:6:308:C:H5'	1.54	0.71
51:M5:13:LYS:O	51:M5:16:SER:OG	2.06	0.71
53:M7:29:THR:HG22	53:M7:87:SER:OG	1.91	0.71
67:O1:75:ILE:HG12	67:O1:93:VAL:HG13	2.75	0.71
71:O5:85:THR:HB	71:O5:88:LEU:HD12	1.73	0.71
2:S0:24:LEU:O	2:S0:163:ASN:ND2	2.23	0.71
36:1:410:U:O4	86:1:4058:OHX:N5	2.23	0.71
36:1:439:C:H3'	36:1:440:A:C8	2.26	0.71
37:3:8:G:O6	42:L5:21:ARG:NH2	2.18	0.71
2:S0:52:LYS:HD2	23:D1:82:VAL:HA	1.71	0.71
53:M7:62:ARG:O	86:M7:205:OHX:N1	2.23	0.71
66:O0:42:ILE:HD11	66:O0:67:VAL:HG22	1.73	0.71
1:2:1291:G:H5'	4:S2:119:LYS:HE2	1.70	0.71
7:S5:64:VAL:HG13	7:S5:89:ILE:HD11	4.06	0.71
9:S7:64:VAL:HG22	9:S7:94:ALA:HB1	2.62	0.71
11:S9:68:LYS:HG2	11:S9:72:GLU:HG3	1.73	0.71
1:2:959:U:C6	15:C3:61:THR:HB	2.25	0.71
36:5:1070:U:O4	86:5:4112:OHX:N6	2.24	0.71
50:M4:16:GLU:HB3	56:N0:149:LYS:HB3	1.84	0.71
49:M3:64:LYS:HE3	64:N8:69:TRP:CD1	2.26	0.71
8:S6:153:VAL:O	8:S6:155:ASP:N	2.47	0.71
11:S9:134:ILE:HA	11:S9:158:PHE:HA	1.73	0.71
36:1:1790:G:O6	86:1:4171:OHX:N4	2.24	0.71
1:2:1520:U:OP2	21:C9:75:LYS:NZ	2.23	0.71
44:L7:25:GLN:HG2	44:L7:29:GLU:HB2	1.71	0.71
54:M8:158:HIS:H	54:M8:186:VAL:HG12	1.54	0.71
1:2:868:G:OP1	15:C3:121:ARG:NH1	2.23	0.71
27:D5:49:ARG:O	27:D5:53:GLU:HB2	2.17	0.71
39:L2:137:ILE:HG12	39:L2:147:ARG:HG3	4.38	0.71
36:1:819:U:OP1	73:O7:10:LYS:NZ	2.23	0.70
38:8:74:U:O2	86:8:219:OHX:N5	2.24	0.70
21:C9:49:ASP:HB3	21:C9:53:TRP:HB3	1.73	0.70
16:C4:128:LYS:NZ	28:D6:27:SER:OG	2.23	0.70
2:S0:163:ASN:O	2:S0:165:ARG:N	2.58	0.70
1:2:1166:A:H5''	7:S5:101:GLY:H	1.56	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:62:VAL:HG13	7:S5:89:ILE:HG12	1.83	0.70
36:1:3060:C:OP1	86:1:4041:OHX:N4	2.24	0.70
15:C3:54:LEU:HB3	15:C3:60:VAL:HG11	3.32	0.70
16:C4:25:ASP:OD1	16:C4:26:THR:N	2.54	0.70
39:L2:204:MET:HE3	39:L2:209:HIS:HB2	1.73	0.70
51:M5:31:ARG:NH1	51:M5:124:ASP:OD1	2.89	0.70
6:S4:9:LEU:HB2	6:S4:30:ARG:HB2	2.07	0.70
36:1:679:U:O4	86:1:3974:OHX:N1	2.24	0.70
1:2:1585:U:N3	1:2:1611:A:H2	1.85	0.70
36:5:2615:G:H1	36:5:2625:C:H42	1.39	0.70
20:C8:30:TYR:O	20:C8:33:THR:OG1	2.24	0.70
24:D2:11:LEU:HD12	24:D2:74:VAL:HB	1.73	0.70
39:L2:116:VAL:HG22	39:L2:126:LEU:HD12	1.72	0.70
44:L7:134:VAL:O	44:L7:229:PHE:HA	2.77	0.70
54:M8:185:LYS:HD3	54:M8:186:VAL:HG23	1.89	0.70
75:O9:9:ILE:O	75:O9:13:MET:HG3	1.92	0.70
29:D7:62:ILE:HG13	29:D7:63:LEU:H	1.56	0.70
53:M7:32:THR:HG21	53:M7:87:SER:HB3	1.73	0.70
41:L4:36:HIS:O	41:L4:40:THR:HG23	1.90	0.70
1:2:1587:A:O2'	7:S5:104:ASN:OD1	2.07	0.70
1:2:800:U:H2'	1:2:801:G:H8	1.57	0.70
36:5:2569:A:H4'	36:5:2570:U:H5'	1.74	0.70
1:6:987:G:O6	86:6:2117:OHX:N4	2.25	0.70
18:C6:40:GLU:HA	18:C6:42:GLU:N	2.05	0.70
39:L2:32:LEU:HD22	39:L2:37:ARG:HD3	1.72	0.70
41:L4:283:THR:HG22	41:L4:285:ASP:H	1.56	0.70
46:L9:87:LYS:NZ	46:L9:191:LEU:HD21	16.40	0.70
49:M3:165:SER:O	49:M3:167:PHE:N	2.22	0.70
8:S6:120:GLU:HG3	8:S6:125:THR:HB	1.73	0.70
36:1:1308:A:C8	36:1:1308:A:OP2	2.44	0.70
36:1:860:G:OP1	79:Q3:17:ARG:NH1	2.25	0.70
1:6:1010:C:OP2	86:6:2168:OHX:N3	2.25	0.70
1:2:1386:G:OP2	19:C7:44:LYS:NZ	2.25	0.70
47:M0:130:ASP:OD1	47:M0:131:ILE:N	3.44	0.70
6:S4:100:ARG:NH2	6:S4:121:TYR:O	2.57	0.70
1:2:741:C:O2	9:S7:107:ARG:NH1	2.24	0.70
9:S7:50:ASP:N	9:S7:50:ASP:OD1	2.25	0.70
36:1:73:C:N3	49:M3:59:ARG:NH1	2.39	0.70
36:5:739:G:O6	86:5:3968:OHX:N6	2.25	0.70
1:6:1492:A:O2'	1:6:1493:A:H8	1.72	0.70
16:C4:115:ILE:HG21	28:D6:44:ILE:HG21	6.97	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:111:MET:HG3	20:C8:119:ILE:HG13	3.31	0.70
18:C6:34:SER:HB3	18:C6:38:LEU:HD12	1.74	0.70
20:C8:134:ARG:HB2	20:C8:136:GLN:HE22	1.55	0.70
38:4:41:A:O2'	73:O7:59:THR:HG22	1.91	0.70
36:1:2259:A:OP2	86:1:3934:OHX:N2	2.25	0.70
36:1:770:G:N7	86:1:4097:OHX:N6	2.39	0.70
86:2:2030:OHX:N6	86:2:2145:OHX:N5	2.40	0.70
36:5:1506:A:H1'	36:5:1848:G:O6	1.92	0.70
55:M9:104:ARG:NH1	36:5:1949:G:OP1	221.05	0.70
1:6:1698:G:N2	1:6:1699:G:N7	2.40	0.70
16:C4:136:ARG:HD2	1:6:1769:U:O2	302.57	0.70
12:C0:21:VAL:HB	12:C0:66:TYR:HB2	2.58	0.70
13:C1:6:THR:O	13:C1:8:GLN:N	2.25	0.70
4:S2:98:PHE:CE1	35:SM:116:GLU:HG3	2.27	0.70
36:1:1815:U:O2'	36:1:1816:A:OP2	2.10	0.70
1:2:771:A:OP1	11:S9:9:SER:OG	2.09	0.70
1:6:990:C:OP2	86:6:2118:OHX:N2	2.25	0.70
15:C3:65:VAL:O	15:C3:67:THR:N	3.39	0.70
36:1:3312:U:H5''	40:L3:25:ILE:HD12	1.72	0.70
42:L5:60:ILE:HB	42:L5:80:SER:HB3	1.74	0.70
36:1:3122:A:N1	46:L9:70:THR:HG21	2.07	0.70
57:N1:17:ARG:O	57:N1:18:ASP:HB2	1.91	0.70
11:S9:149:ARG:HH11	11:S9:149:ARG:HG3	4.43	0.70
26:D4:20:ARG:HE	26:D4:22:GLN:HE21	4.77	0.69
36:1:2664:C:OP2	48:M1:142:LYS:NZ	2.25	0.69
70:O4:67:LYS:HA	70:O4:70:LYS:HE3	1.74	0.69
3:S1:181:LEU:HA	3:S1:184:LEU:HB3	1.74	0.69
1:2:197:A:H61	10:S8:138:ASN:ND2	1.90	0.69
36:1:223:U:O4	86:1:4199:OHX:N5	2.24	0.69
1:2:16:G:H2'	1:2:17:C:C6	2.27	0.69
86:2:2030:OHX:N4	86:2:2145:OHX:N1	2.40	0.69
17:C5:18:ARG:HH21	17:C5:38:PRO:HG3	1.88	0.69
20:C8:86:LEU:HG	20:C8:99:HIS:HB2	1.74	0.69
62:N6:32:SER:HA	62:N6:49:PRO:HA	1.81	0.69
1:2:1649:G:N7	86:2:2050:OHX:N1	2.40	0.69
36:5:1194:G:OP1	86:5:4016:OHX:N6	2.25	0.69
36:5:3057:U:O2'	36:5:3059:G:OP1	2.10	0.69
12:C0:80:LEU:O	12:C0:82:LEU:N	2.25	0.69
39:L2:68:LYS:HD3	39:L2:70:ARG:HH21	2.71	0.69
41:L4:338:LYS:O	41:L4:340:GLY:N	2.22	0.69
62:N6:35:LEU:HD21	62:N6:48:LEU:HD12	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:37:CYS:O	73:O7:45:ARG:N	2.75	0.69
1:2:1459:C:OP1	20:C8:126:ARG:NH2	2.23	0.69
36:5:1898:G:OP2	86:5:3947:OHX:N5	2.25	0.69
36:5:3227:A:H2'	36:5:3228:C:H5'	1.72	0.69
36:5:549:U:O4	86:5:4015:OHX:N4	2.24	0.69
8:S6:176:GLN:HG2	1:6:169:A:H5'	327.72	0.69
46:L9:171:ASP:OD1	46:L9:173:ARG:HD2	1.92	0.69
36:1:924:G:OP1	86:1:4146:OHX:N5	2.25	0.69
1:2:991:G:OP2	86:2:2131:OHX:N1	2.26	0.69
36:5:2425:G:H2'	36:5:2426:U:O4'	1.92	0.69
86:5:3944:OHX:N5	86:5:4235:OHX:N6	2.40	0.69
1:6:312:A:H4'	1:6:313:U:H5''	1.74	0.69
16:C4:81:VAL:HG22	16:C4:115:ILE:HB	1.74	0.69
16:C4:30:VAL:HG22	16:C4:39:ILE:HG13	1.75	0.69
25:D3:7:ARG:HH11	25:D3:7:ARG:HB2	1.57	0.69
41:L4:144:LYS:HD3	41:L4:145:ILE:HG22	7.17	0.69
41:L4:8:VAL:HB	41:L4:16:THR:HG21	2.77	0.69
46:L9:49:ASN:O	46:L9:51:GLN:N	2.25	0.69
36:1:1307:G:H5''	52:M6:60:LYS:NZ	2.07	0.69
66:O0:26:GLY:O	66:O0:30:THR:HG23	1.92	0.69
2:S0:71:GLU:O	2:S0:96:THR:HG22	1.91	0.69
9:S7:99:LEU:HG	9:S7:116:ARG:HG2	3.23	0.69
36:1:2120:A:OP2	86:1:4010:OHX:N2	2.26	0.69
86:2:2030:OHX:N3	86:2:2145:OHX:N1	2.41	0.69
86:2:2030:OHX:N4	86:2:2145:OHX:N2	2.40	0.69
36:5:1110:U:H2'	36:5:1111:U:C6	2.27	0.69
63:N7:73:LYS:NZ	36:5:1637:A:OP2	210.64	0.69
22:D0:20:ILE:HD12	22:D0:100:VAL:HG21	3.98	0.69
36:1:684:G:OP2	49:M3:28:GLN:NE2	2.26	0.69
53:M7:108:ASP:N	53:M7:152:GLU:OE2	2.63	0.69
3:S1:157:GLN:O	3:S1:159:SER:N	2.25	0.69
1:2:1483:A:H2'	1:2:1484:G:C8	2.28	0.69
1:2:1564:U:H2'	1:2:1565:C:H6	1.57	0.69
86:2:2035:OHX:N2	10:S8:17:LYS:O	2.26	0.69
36:5:170:G:H22	36:5:248:U:H3	1.40	0.69
36:5:2568:C:N4	36:5:2574:G:O6	2.26	0.69
36:5:980:A:H2'	36:5:981:U:C2	2.27	0.69
6:S4:3:ARG:HB3	1:6:93:A:H1'	326.01	0.69
22:D0:48:HIS:O	22:D0:48:HIS:ND1	2.25	0.69
28:D6:87:ARG:HB3	28:D6:91:ASP:HB2	1.73	0.69
40:L3:152:LYS:HG2	40:L3:192:VAL:HG11	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1460:A:O3'	35:SM:72:ARG:NH2	2.26	0.69
1:2:1796:C:H5	28:D6:6:ALA:H	1.38	0.69
36:5:1466:G:O6	86:5:3914:OHX:N5	2.25	0.69
46:L9:57:VAL:HG23	46:L9:68:LEU:HG	2.05	0.69
52:M6:61:ALA:HA	52:M6:70:PRO:HD2	1.74	0.69
44:L7:77:VAL:HG22	57:N1:139:ARG:HG2	1.73	0.69
64:N8:6:THR:HG22	64:N8:9:ARG:HG2	1.85	0.69
36:1:900:G:H1'	36:1:1589:A:H61	1.57	0.69
1:2:104:A:OP2	1:2:308:C:N4	2.25	0.69
86:5:3944:OHX:N1	86:5:4235:OHX:N4	2.40	0.69
46:L9:76:ASP:O	46:L9:80:THR:HG22	4.53	0.69
36:1:743:C:N3	54:M8:141:ARG:NH1	2.41	0.69
63:N7:46:ILE:HD11	63:N7:49:TYR:HA	1.74	0.69
74:O8:3:ARG:NH2	36:5:1824:U:OP1	148.00	0.69
1:2:1774:G:N7	77:Q1:4:LYS:NZ	2.41	0.69
5:S3:11:LEU:HD12	22:D0:86:ILE:HG12	2.07	0.69
36:1:873:C:H5''	36:1:874:U:O5'	1.93	0.69
1:6:647:G:N2	1:6:687:G:H22	1.90	0.69
15:C3:132:VAL:HG23	15:C3:134:VAL:HG13	1.73	0.69
26:D4:29:HIS:HB3	26:D4:32:ARG:HB2	5.99	0.69
40:L3:113:GLU:OE2	40:L3:167:ARG:HB3	2.93	0.69
49:M3:64:LYS:HG3	64:N8:69:TRP:CG	2.28	0.69
74:O8:24:THR:HG23	74:O8:44:LYS:HB2	3.30	0.69
36:1:1495:U:H5	36:1:1835:A:N1	1.91	0.69
36:1:1844:C:H2'	36:1:1845:G:H5''	1.75	0.69
1:2:491:C:N3	1:2:496:G:N2	2.42	0.69
36:5:1596:C:H2'	36:5:1597:C:C6	2.28	0.69
36:5:2662:G:O6	86:5:3902:OHX:N3	2.26	0.69
1:6:868:G:H1	1:6:960:U:H3	1.41	0.69
19:C7:104:ASN:ND2	19:C7:105:GLN:OE1	5.60	0.69
28:D6:5:ARG:NH2	1:6:1795:U:OP2	336.75	0.69
41:L4:157:GLU:HG2	41:L4:209:TYR:HB2	1.75	0.69
54:M8:178:ARG:HD3	64:N8:50:PRO:HB2	3.09	0.69
74:O8:9:LYS:NZ	74:O8:13:GLU:OE2	2.26	0.69
9:S7:66:SER:O	9:S7:68:ALA:N	3.51	0.69
36:1:2137:U:OP2	36:1:2142:A:N6	2.25	0.68
1:2:1642:G:O6	86:2:2022:OHX:N6	2.26	0.68
17:C5:122:THR:HG22	1:6:1558:U:H3	366.28	0.68
9:S7:118:LEU:N	1:6:639:U:OP1	365.63	0.68
36:5:408:A:N6	38:8:15:G:H1'	2.07	0.68
42:L5:85:ARG:HD3	42:L5:86:TYR:CE2	2.28	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:88:TYR:CE2	46:L9:184:LYS:HG2	2.28	0.68
1:2:850:A:H5'	55:M9:165:LYS:HG2	1.74	0.68
36:1:3134:A:OP1	86:1:3902:OHX:N4	2.26	0.68
1:2:1291:G:H8	1:2:1291:G:O5'	1.77	0.68
61:N5:71:THR:HG21	36:5:1603:A:H61	89.89	0.68
13:C1:5:LEU:O	13:C1:7:VAL:N	2.19	0.68
1:2:328:A:OP2	13:C1:56:LYS:NZ	2.22	0.68
38:4:62:C:O2	86:4:231:OHX:N5	2.26	0.68
36:5:1345:G:N7	86:5:4068:OHX:N5	2.42	0.68
36:5:742:G:N7	86:5:4005:OHX:N4	2.41	0.68
1:6:1542:G:H22	1:6:1568:C:H1'	1.58	0.68
18:C6:99:GLU:HG2	34:SR:57:PRO:HB2	2.67	0.68
1:2:780:A:H8	26:D4:8:ARG:HB3	1.58	0.68
66:O0:99:ASP:O	66:O0:101:LEU:N	3.04	0.68
1:2:1424:A:H1'	4:S2:92:ALA:HB1	1.74	0.68
36:1:2703:A:OP2	42:L5:23:ARG:NH1	2.26	0.68
1:2:1521:G:O6	21:C9:68:ARG:NH1	2.26	0.68
1:2:176:C:OP1	86:2:2072:OHX:N3	2.27	0.68
1:2:1783:C:H2'	1:2:1784:C:H6	1.58	0.68
1:6:1230:A:H8	1:6:1258:U:C4	2.11	0.68
1:6:647:G:H1	1:6:687:G:H1	1.41	0.68
18:C6:47:LYS:NZ	18:C6:50:GLU:OE2	2.26	0.68
40:L3:117:ARG:NH2	40:L3:175:LYS:HG2	2.88	0.68
52:M6:18:ARG:NH2	36:5:1318:A:OP1	276.39	0.68
4:S2:69:ILE:HD11	4:S2:133:LYS:HD2	1.74	0.68
6:S4:139:VAL:HG13	6:S4:150:PRO:HG3	1.76	0.68
36:1:109:A:H4'	36:1:110:G:OP1	1.91	0.68
36:1:1243:G:N2	36:1:1244:A:N7	2.41	0.68
36:1:1381:A:OP1	41:L4:197:ARG:NH1	2.27	0.68
36:1:1748:G:OP2	74:O8:42:LYS:NZ	2.26	0.68
1:2:218:A:O2'	1:2:219:A:OP1	2.11	0.68
1:6:1542:G:N2	1:6:1569:A:OP2	2.27	0.68
47:M0:76:MET:CE	47:M0:148:VAL:HA	2.94	0.68
36:1:1307:G:H5''	52:M6:60:LYS:HZ2	1.58	0.68
86:1:3940:OHX:N5	86:1:4201:OHX:N6	2.42	0.68
36:1:781:G:N7	86:1:3942:OHX:N5	2.41	0.68
1:2:1525:A:OP1	21:C9:93:HIS:ND1	2.27	0.68
36:5:1765:U:OP1	36:5:1765:U:H4'	1.93	0.68
9:S7:11:GLN:HG3	9:S7:13:PRO:HD2	1.75	0.68
34:SR:178:VAL:HB	34:SR:192:PHE:HB2	2.21	0.68
34:SR:42:LEU:HD21	34:SR:82:SER:HB3	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:E0:17:GLN:NE2	1:6:563:U:H4'	383.29	0.68
18:C6:21:HIS:HB2	18:C6:66:ARG:HB3	3.58	0.68
25:D3:26:GLU:HB3	25:D3:29:TYR:HB3	1.76	0.68
39:L2:45:VAL:HG22	39:L2:84:THR:HA	1.74	0.68
42:L5:95:TRP:CH2	42:L5:181:PRO:HD3	4.70	0.68
54:M8:63:SER:OG	54:M8:64:VAL:N	2.79	0.68
71:O5:34:GLN:HB3	71:O5:38:ARG:NH2	4.24	0.68
5:S3:114:ALA:HB3	5:S3:117:ARG:HB2	1.74	0.68
36:1:1723:A:OP2	55:M9:103:ARG:NH2	2.26	0.68
14:C2:81:ASP:O	14:C2:83:GLU:N	2.99	0.68
15:C3:65:VAL:HG23	15:C3:66:ILE:HG23	5.68	0.68
24:D2:27:ILE:HG12	24:D2:61:ILE:HB	1.75	0.68
25:D3:69:ARG:NH1	25:D3:116:ASP:OD1	2.26	0.68
43:L6:50:LYS:HE2	43:L6:72:ASN:HB2	1.76	0.68
36:1:837:A:OP2	79:Q3:4:ARG:NH1	2.27	0.68
10:S8:61:GLU:HG2	10:S8:62:THR:HG23	2.57	0.68
34:SR:160:GLU:O	34:SR:162:ALA:N	2.24	0.68
36:1:1334:U:O2'	44:L7:151:ARG:NH2	2.27	0.68
36:1:1591:G:O2'	36:1:1799:A:N1	2.23	0.68
36:5:1717:U:H2'	36:5:1718:G:C8	2.29	0.68
1:6:1041:G:OP1	86:6:2172:OHX:N4	2.27	0.68
19:C7:57:LEU:O	19:C7:61:ILE:HG13	1.94	0.68
22:D0:58:LEU:HD12	22:D0:88:LYS:HB3	1.75	0.68
34:SR:115:ILE:HG13	34:SR:122:ILE:HG12	2.54	0.68
27:D5:77:ARG:NH1	1:6:1533:C:OP2	351.55	0.68
1:2:458:G:OP2	26:D4:105:ARG:NH2	2.26	0.68
27:D5:43:ASP:O	27:D5:45:GLU:N	2.33	0.68
36:1:2273:G:O6	86:1:4141:OHX:N5	2.27	0.67
36:1:2586:G:N7	45:L8:241:LYS:HB2	2.09	0.67
36:1:3085:G:OP2	86:1:3888:OHX:N2	2.27	0.67
36:1:917:A:OP2	86:1:4146:OHX:N2	2.26	0.67
36:1:735:A:H2'	36:1:736:A:C8	2.29	0.67
86:2:2030:OHX:N3	86:2:2145:OHX:N5	2.41	0.67
36:5:132:C:H2'	36:5:133:U:H5''	1.75	0.67
36:5:3242:G:H5'	36:5:3245:A:C8	2.28	0.67
25:D3:27:ASN:OD1	25:D3:31:LYS:NZ	2.26	0.67
74:O8:5:ILE:HG22	74:O8:54:LEU:HB2	1.75	0.67
3:S1:128:LYS:HE3	3:S1:132:ASP:HB3	1.75	0.67
20:C8:145:ARG:HB3	35:SM:68:ARG:HH12	4.11	0.67
36:1:3335:A:H2'	36:1:3336:A:C8	2.29	0.67
1:2:1535:U:O2'	1:2:1536:G:N3	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:105:ILE:O	42:L5:109:THR:HG23	1.95	0.67
8:S6:48:TYR:CZ	8:S6:121:LEU:HD22	4.61	0.67
10:S8:8:ARG:HH21	10:S8:22:ARG:HH11	6.52	0.67
11:S9:41:GLU:OE2	11:S9:126:ARG:NH2	2.97	0.67
1:2:1281:G:H2'	1:2:1282:U:H6	1.58	0.67
36:5:155:G:H5''	36:5:156:G:C8	2.29	0.67
86:5:3944:OHX:N5	86:5:4235:OHX:N3	2.43	0.67
8:S6:177:ARG:NH2	1:6:143:G:N7	310.81	0.67
10:S8:137:LYS:NZ	1:6:192:U:O4	263.98	0.67
1:6:542:A:C8	1:6:543:C:H2'	2.29	0.67
22:D0:27:THR:HG23	22:D0:113:ASP:HB3	1.77	0.67
40:L3:323:MET:HE1	40:L3:356:LEU:HD11	2.58	0.67
53:M7:47:TYR:HA	53:M7:50:GLN:HG3	3.25	0.67
41:L4:299:ILE:HG23	54:M8:39:ARG:HB3	1.90	0.67
70:O4:65:VAL:HG12	70:O4:70:LYS:HE2	2.60	0.67
36:1:624:G:OP2	86:1:4134:OHX:N3	2.27	0.67
40:L3:126:LYS:NZ	36:5:3294:A:OP2	188.75	0.67
86:5:3993:OHX:N4	38:8:112:U:O2	2.28	0.67
1:6:822:U:H2'	1:6:823:G:H5''	1.76	0.67
20:C8:27:LYS:O	20:C8:31:ALA:N	3.29	0.67
47:M0:78:THR:OG1	47:M0:79:VAL:N	3.63	0.67
1:2:68:A:OP1	8:S6:160:ARG:NH2	2.27	0.67
11:S9:129:ILE:HG12	11:S9:134:ILE:HG12	4.28	0.67
36:5:1724:U:H1'	36:5:1725:C:C6	2.29	0.67
39:L2:224:THR:HG21	36:5:2201:G:H21	222.09	0.67
86:5:3944:OHX:N1	86:5:4235:OHX:N3	2.42	0.67
71:O5:83:LYS:HA	38:8:38:U:H5	65.41	0.67
51:M5:80:THR:HG21	51:M5:87:GLN:HA	1.75	0.67
54:M8:30:VAL:O	54:M8:34:THR:HG23	1.95	0.67
4:S2:90:THR:O	4:S2:92:ALA:N	2.27	0.67
36:1:1409:G:N7	86:1:4068:OHX:N3	2.43	0.67
1:2:1745:G:O6	86:2:2085:OHX:N6	2.28	0.67
86:2:2134:OHX:N6	10:S8:52:ASN:OD1	2.28	0.67
36:5:2440:G:H2'	36:5:2441:A:C8	2.28	0.67
36:5:2696:A:H2'	36:5:2697:A:C8	2.28	0.67
1:6:151:G:H1	1:6:163:G:H1	1.41	0.67
13:C1:79:LYS:HB3	1:6:346:G:H5'	280.84	0.67
15:C3:91:LEU:HD12	15:C3:125:LEU:HD12	2.28	0.67
19:C7:44:LYS:HG3	19:C7:47:ARG:HH12	2.90	0.67
33:E1:82:LYS:O	33:E1:84:VAL:N	4.97	0.67
45:L8:156:ASP:OD2	45:L8:156:ASP:N	2.15	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:188:GLU:HG3	13:C1:13:PHE:CD2	2.30	0.67
36:1:2532:U:H3	36:1:2547:A:H61	1.43	0.67
36:1:3074:G:OP1	86:1:4041:OHX:N1	2.28	0.67
1:2:1239:U:O4	86:2:2046:OHX:N2	2.28	0.67
1:2:488:G:OP1	1:2:488:G:H4'	1.93	0.67
36:5:339:C:OP1	36:5:1380:G:O2'	2.13	0.67
17:C5:65:LEU:O	86:C5:201:OHX:N1	2.27	0.67
48:M1:85:LYS:O	48:M1:88:GLU:N	2.24	0.67
63:N7:46:ILE:HD13	63:N7:68:ILE:HG23	1.76	0.67
3:S1:28:GLU:OE2	3:S1:94:LYS:NZ	2.22	0.67
6:S4:23:LEU:HD22	6:S4:23:LEU:H	1.95	0.67
6:S4:247:SER:OG	6:S4:250:GLU:HG3	2.27	0.67
36:1:1466:G:O6	86:1:3880:OHX:N4	2.27	0.67
1:2:513:U:H2'	1:2:514:G:C8	2.30	0.67
36:5:201:A:OP2	86:5:3989:OHX:N1	2.28	0.67
63:N7:135:ARG:NH2	36:5:2556:C:O2'	199.68	0.67
19:C7:47:ARG:NH1	19:C7:48:ASN:OD1	2.27	0.67
47:M0:76:MET:HE1	47:M0:148:VAL:HA	3.34	0.67
66:O0:42:ILE:HG12	66:O0:67:VAL:HG22	2.89	0.67
73:O7:58:THR:O	73:O7:61:THR:HG23	1.95	0.67
36:1:1952:G:H3'	36:1:1953:G:H5''	1.77	0.67
36:1:2296:A:OP1	86:1:4150:OHX:N2	2.27	0.67
86:1:3940:OHX:N5	86:1:4201:OHX:N2	2.43	0.67
1:2:154:G:OP1	8:S6:2:LYS:NZ	2.25	0.67
1:2:40:A:OP1	11:S9:3:ARG:NH1	2.26	0.67
20:C8:143:ARG:NH2	1:6:1462:G:N7	337.95	0.67
5:S3:7:LYS:NZ	22:D0:115:GLU:OE2	2.23	0.67
28:D6:58:VAL:HG22	28:D6:59:TYR:H	2.77	0.67
34:SR:149:ASP:HB2	34:SR:175:ASP:HB3	2.11	0.67
36:1:1365:G:OP2	86:1:3969:OHX:N6	2.27	0.67
56:N0:108:GLN:NE2	36:5:1322:U:O2	292.63	0.67
36:5:3049:A:H8	36:5:3049:A:H5'	1.60	0.67
17:C5:121:ILE:HD13	17:C5:123:TYR:H	3.00	0.67
17:C5:22:LEU:HA	17:C5:25:LEU:HD12	2.52	0.67
49:M3:73:ARG:NH2	36:5:77:A:N7	79.09	0.67
51:M5:35:VAL:HG13	51:M5:65:ARG:HB2	1.77	0.67
71:O5:10:ARG:NH2	38:8:65:A:O3'	34.02	0.67
72:O6:25:LYS:O	72:O6:28:TYR:HB2	1.96	0.67
4:S2:116:LYS:HG2	4:S2:127:ALA:HB3	1.76	0.67
36:1:1567:U:H5	36:1:1568:U:C2	2.14	0.66
36:1:1317:A:OP1	86:1:4065:OHX:N2	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:169:A:H5''	8:S6:176:GLN:HG2	1.77	0.66
1:2:583:C:OP1	86:2:2025:OHX:N3	2.29	0.66
1:2:652:G:H1	1:2:682:C:H42	1.43	0.66
36:5:118:U:O2	36:5:121:A:H5'	1.94	0.66
36:5:182:U:N3	36:5:234:G:O6	2.16	0.66
1:6:1600:A:H4'	1:6:1601:G:OP1	1.94	0.66
15:C3:67:THR:O	15:C3:69:ASN:N	2.26	0.66
25:D3:125:VAL:HG12	25:D3:126:LYS:HG3	2.55	0.66
36:1:2356:A:H5'	53:M7:138:LYS:HE3	1.77	0.66
7:S5:53:VAL:HB	7:S5:59:VAL:HG22	1.78	0.66
36:1:830:A:OP1	86:1:4012:OHX:N4	2.28	0.66
1:2:885:G:H21	16:C4:123:SER:HB2	1.60	0.66
36:5:1696:A:OP2	86:5:4187:OHX:N6	2.28	0.66
36:5:92:G:H5'	36:5:93:C:H5''	1.76	0.66
14:C2:52:LEU:O	14:C2:85:LYS:NZ	2.28	0.66
19:C7:77:GLU:HG2	19:C7:80:ARG:HH21	7.46	0.66
31:D9:19:ARG:NH2	1:6:1597:A:OP1	406.31	0.66
40:L3:187:SER:HB3	40:L3:190:GLU:OE1	2.13	0.66
59:N3:93:LEU:H	59:N3:93:LEU:HD23	1.99	0.66
6:S4:240:LYS:HE2	6:S4:240:LYS:H	1.60	0.66
37:7:112:G:OP2	86:7:221:OHX:N2	2.29	0.66
29:D7:59:CYS:O	29:D7:61:THR:N	2.82	0.66
40:L3:41:VAL:HA	40:L3:185:GLY:CA	2.27	0.66
47:M0:177:ASP:N	47:M0:177:ASP:OD2	3.17	0.66
48:M1:15:GLU:HB3	48:M1:130:VAL:HG22	1.76	0.66
48:M1:143:ARG:NH2	37:7:5:G:OP1	291.60	0.66
36:1:768:C:OP1	49:M3:186:ARG:NH2	2.27	0.66
9:S7:35:LYS:O	9:S7:37:GLU:N	2.27	0.66
36:1:595:G:N1	36:1:609:G:H5''	2.11	0.66
1:2:115:G:OP1	13:C1:67:ARG:NH1	2.29	0.66
1:2:1776:A:H2'	1:2:1777:G:C8	2.30	0.66
65:N9:26:THR:OG1	36:5:1065:A:N1	215.15	0.66
12:C0:53:GLY:O	12:C0:55:VAL:N	2.28	0.66
40:L3:147:GLU:OE1	40:L3:150:ARG:NH2	4.35	0.66
41:L4:354:VAL:HG11	57:N1:143:THR:HG21	1.75	0.66
51:M5:8:GLU:HG3	51:M5:50:ARG:HH12	2.75	0.66
71:O5:90:ARG:NH1	36:5:20:A:OP2	86.02	0.66
4:S2:67:GLN:HA	4:S2:70:ASP:HB2	2.48	0.66
11:S9:163:PRO:O	11:S9:165:GLY:N	2.24	0.66
1:2:639:U:OP1	9:S7:117:THR:OG1	2.10	0.66
36:5:510:G:O6	86:5:4025:OHX:N2	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:86:ARG:NH2	36:5:497:C:O3'	214.50	0.66
28:D6:10:ARG:NE	1:6:1795:U:O2	327.87	0.66
71:O5:93:THR:OG1	71:O5:96:GLU:HG2	1.94	0.66
6:S4:45:ILE:HG13	6:S4:61:VAL:HG21	3.51	0.66
8:S6:67:VAL:HG21	8:S6:99:GLY:HA2	1.77	0.66
36:1:1233:G:H1	36:1:1255:C:H42	1.41	0.66
86:1:3913:OHX:N6	51:M5:32:GLN:O	2.28	0.66
36:5:3299:A:H61	36:5:3315:G:H1	1.43	0.66
36:5:2123:G:N7	86:5:4101:OHX:N1	2.43	0.66
16:C4:129:LYS:NZ	1:6:1009:U:OP2	280.92	0.66
1:6:1681:A:H2	1:6:1720:G:H21	1.42	0.66
10:S8:142:LYS:NZ	1:6:187:G:OP2	272.55	0.66
13:C1:7:VAL:O	13:C1:9:SER:N	3.21	0.66
25:D3:91:GLY:O	25:D3:93:LEU:N	2.28	0.66
41:L4:269:SER:O	41:L4:271:LYS:N	2.27	0.66
41:L4:271:LYS:HB2	41:L4:274:TYR:HB3	2.29	0.66
46:L9:171:ASP:OD1	46:L9:173:ARG:HD3	2.94	0.66
49:M3:52:ASP:N	49:M3:52:ASP:OD1	2.41	0.66
51:M5:38:ARG:HH21	51:M5:60:VAL:HG22	1.60	0.66
59:N3:83:LYS:HE2	59:N3:84:SER:O	1.95	0.66
9:S7:48:GLU:OE2	9:S7:88:ARG:NH2	2.28	0.66
10:S8:76:THR:HG22	10:S8:105:ASP:HB3	2.88	0.66
1:2:1160:A:H2'	1:2:1161:C:C6	2.30	0.66
36:1:331:G:H1	38:4:32:C:H42	1.44	0.66
36:5:1580:A:O2'	36:5:1581:C:OP2	2.12	0.66
1:6:1130:G:OP2	86:6:2111:OHX:N1	2.29	0.66
1:6:301:A:OP2	86:6:2091:OHX:N1	2.29	0.66
1:6:484:C:N4	1:6:503:G:H1	1.92	0.66
37:7:3:U:H2'	37:7:4:U:H6	1.60	0.66
12:C0:32:HIS:CD2	12:C0:33:GLU:H	4.73	0.66
14:C2:33:ARG:HA	14:C2:36:LEU:HD12	1.78	0.66
14:C2:89:ILE:HG23	14:C2:90:LYS:H	1.59	0.66
22:D0:22:ILE:HG22	22:D0:93:LEU:HB2	1.81	0.66
22:D0:95:ALA:HB1	22:D0:99:ILE:HG13	3.45	0.66
48:M1:50:ALA:HB2	48:M1:65:ILE:HD12	1.76	0.66
56:N0:155:ARG:HD3	56:N0:172:TYR:CG	2.31	0.66
44:L7:121:LYS:HB2	57:N1:133:ALA:HB3	2.23	0.66
3:S1:154:SER:OG	3:S1:154:SER:O	2.12	0.66
3:S1:168:ILE:HG12	3:S1:197:ILE:HD12	1.77	0.66
36:1:1674:G:OP2	86:1:3949:OHX:N2	2.28	0.66
36:1:1895:A:O2'	36:1:3053:G:H4'	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2983:C:OP1	86:1:4192:OHX:N3	2.29	0.66
1:6:1350:U:H2'	1:6:1351:G:C8	2.31	0.66
1:2:1480:G:H4'	21:C9:11:ALA:HB1	1.78	0.66
47:M0:144:ASN:O	47:M0:147:VAL:N	2.29	0.66
50:M4:17:VAL:HG21	50:M4:74:ARG:HB2	1.95	0.66
52:M6:15:LEU:HD21	52:M6:125:ARG:HG3	1.78	0.66
78:Q2:47:GLN:OE1	78:Q2:54:THR:OG1	2.33	0.66
4:S2:243:TYR:HB3	4:S2:246:GLU:HB2	1.78	0.66
11:S9:90:LYS:HB2	11:S9:95:TYR:CD1	2.28	0.66
36:1:847:A:H2'	36:1:848:A:C8	2.31	0.66
36:5:3035:A:OP2	86:5:4053:OHX:N5	2.29	0.66
36:5:2977:G:OP1	86:5:4154:OHX:N4	2.28	0.66
18:C6:12:LYS:NZ	1:6:1380:U:OP1	423.69	0.66
21:C9:31:PRO:HG3	21:C9:103:LYS:HD3	1.77	0.66
42:L5:148:ILE:HG12	42:L5:159:VAL:HG21	1.76	0.66
46:L9:44:THR:HG22	36:5:3186:A:C2	327.07	0.66
50:M4:17:VAL:HG12	50:M4:72:LEU:HB3	1.78	0.66
55:M9:62:ARG:NH2	36:5:3068:U:OP2	172.23	0.66
36:1:1033:U:H2'	36:1:1034:U:C6	2.31	0.66
36:1:1688:U:H2'	36:1:1689:U:C6	2.31	0.66
1:2:732:G:O2'	1:2:733:A:O4'	2.12	0.66
1:2:900:A:OP1	16:C4:43:THR:OG1	2.09	0.66
36:5:3197:G:H2'	36:5:3198:U:H5''	1.78	0.66
37:7:64:A:H5'	37:7:65:G:H5''	1.77	0.66
36:5:408:A:H61	38:8:15:G:H1'	1.57	0.66
39:L2:209:HIS:HD2	39:L2:211:HIS:H	1.42	0.66
57:N1:101:CYS:HB3	36:5:990:U:H1'	251.06	0.66
2:S0:76:ILE:HB	2:S0:123:VAL:HG22	1.78	0.66
9:S7:150:GLN:HB3	9:S7:181:ILE:HD12	1.78	0.66
10:S8:31:ARG:NH2	1:6:333:A:OP1	296.85	0.66
34:SR:14:GLU:HG2	34:SR:309:VAL:HG13	4.20	0.66
36:1:1947:G:H1	36:1:2101:C:H42	1.44	0.65
86:1:3940:OHX:N3	86:1:4201:OHX:N4	2.43	0.65
86:2:2030:OHX:N6	86:2:2145:OHX:N2	2.45	0.65
1:2:324:U:OP1	13:C1:133:LYS:NZ	2.25	0.65
1:2:734:A:H5''	1:2:735:C:OP1	1.96	0.65
1:6:194:U:O2	1:6:195:G:O2'	2.12	0.65
45:L8:221:ASN:HA	45:L8:225:LYS:HE3	2.77	0.65
47:M0:140:THR:HG21	47:M0:144:ASN:HD22	1.61	0.65
73:O7:65:ARG:HG3	73:O7:65:ARG:HH11	1.61	0.65
9:S7:46:ILE:HG12	9:S7:60:ILE:HG23	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:C7:29:GLN:HG2	34:SR:67:ILE:HD11	2.15	0.65
36:1:2107:A:H2	36:1:3344:A:C8	2.13	0.65
1:2:782:U:H4'	1:2:783:G:OP2	1.96	0.65
36:5:2248:C:OP2	86:5:3980:OHX:N6	2.29	0.65
1:6:1166:A:H2'	1:6:1167:G:O4'	1.96	0.65
24:D2:73:GLY:HA3	24:D2:128:PHE:CZ	2.60	0.65
45:L8:90:THR:HA	45:L8:214:LEU:HD21	1.78	0.65
36:1:2854:U:P	47:M0:3:ARG:HH22	2.19	0.65
51:M5:110:ALA:HB1	51:M5:113:LEU:HD23	1.78	0.65
60:N4:39:LEU:HD12	60:N4:44:LYS:HG3	1.90	0.65
63:N7:54:THR:HG22	63:N7:57:HIS:CE1	3.65	0.65
64:N8:6:THR:HG23	64:N8:8:THR:HG23	1.76	0.65
76:Q0:97:ARG:HB2	76:Q0:120:GLN:O	1.96	0.65
3:S1:111:ARG:HB3	28:D6:68:TYR:CD2	2.31	0.65
1:6:1294:G:O6	86:6:2067:OHX:N5	2.29	0.65
1:6:213:A:OP2	86:6:2147:OHX:N1	2.29	0.65
18:C6:82:ARG:HH22	18:C6:114:ARG:HG3	3.57	0.65
20:C8:42:TYR:HE2	20:C8:73:MET:HG3	3.85	0.65
28:D6:10:ARG:HB2	28:D6:34:LYS:HA	2.23	0.65
45:L8:81:THR:OG1	45:L8:82:LEU:N	2.46	0.65
47:M0:81:GLY:O	47:M0:83:ASP:N	2.95	0.65
50:M4:134:ALA:O	50:M4:136:ALA:N	2.51	0.65
67:O1:46:THR:HG23	67:O1:47:ASP:N	3.79	0.65
76:Q0:79:GLU:HG3	76:Q0:82:LEU:HG	1.78	0.65
2:S0:41:ARG:HE	2:S0:45:VAL:HB	1.61	0.65
3:S1:129:THR:HA	3:S1:177:GLN:HA	1.78	0.65
7:S5:132:VAL:HG13	7:S5:202:ALA:HB2	1.78	0.65
34:SR:224:ASN:HD21	34:SR:226:ALA:HB3	3.95	0.65
36:1:1596:C:H2'	36:1:1597:C:C6	2.31	0.65
36:1:2112:U:H4'	36:1:2113:A:H5'	1.77	0.65
1:2:1062:A:OP2	86:2:2164:OHX:N4	2.29	0.65
1:2:1542:G:N2	1:2:1569:A:OP2	2.29	0.65
1:2:355:G:O6	86:2:2026:OHX:N6	2.29	0.65
36:5:381:U:O4	86:5:4127:OHX:N5	2.29	0.65
1:6:491:C:H42	1:6:497:G:H21	1.45	0.65
40:L3:218:ILE:CG1	40:L3:276:THR:HG23	3.36	0.65
46:L9:87:LYS:HZ3	46:L9:191:LEU:HD21	17.12	0.65
36:1:2828:G:OP1	47:M0:7:ARG:NH1	2.29	0.65
63:N7:14:VAL:HG22	70:O4:86:LYS:HG2	1.79	0.65
78:Q2:71:ARG:NH2	78:Q2:80:ARG:HD3	3.01	0.65
1:6:1584:G:N2	1:6:1611:A:OP2	2.16	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:97:LEU:HD11	14:C2:121:VAL:HG22	1.77	0.65
16:C4:103:ARG:NH2	28:D6:52:ASP:OD1	2.29	0.65
1:2:901:G:N2	16:C4:54:GLU:OE1	2.30	0.65
18:C6:26:LYS:NZ	1:6:1364:G:O3'	435.08	0.65
18:C6:38:LEU:O	18:C6:40:GLU:N	2.29	0.65
22:D0:118:VAL:HG13	22:D0:119:ALA:H	2.73	0.65
49:M3:138:VAL:HB	71:O5:118:ILE:HB	1.77	0.65
71:O5:86:ARG:HG3	71:O5:90:ARG:NH2	2.30	0.65
73:O7:2:GLY:N	36:5:2138:A:HO2'	173.29	0.65
3:S1:70:LEU:HB3	3:S1:79:HIS:HB3	5.12	0.65
36:1:1688:U:H2'	36:1:1689:U:H6	1.62	0.65
36:1:2812:C:H2'	36:1:2813:A:H8	1.62	0.65
36:1:2842:U:OP1	36:1:2844:C:N4	2.28	0.65
36:1:410:U:O4	86:1:4058:OHX:N2	2.29	0.65
36:1:718:G:C2	36:1:721:G:H1'	2.32	0.65
36:1:801:A:O2'	86:1:3982:OHX:N2	2.30	0.65
1:2:1428:G:H5'	1:2:1428:G:H8	1.62	0.65
1:2:434:G:N7	86:2:2047:OHX:N4	2.45	0.65
73:O7:59:THR:HG22	38:8:41:A:O2'	91.48	0.65
18:C6:47:LYS:HZ1	18:C6:114:ARG:HG2	1.60	0.65
20:C8:134:ARG:NH1	1:6:1559:A:N1	363.17	0.65
21:C9:52:GLY:O	21:C9:54:PHE:N	2.24	0.65
39:L2:121:GLY:HA2	39:L2:163:ARG:HH21	1.59	0.65
40:L3:239:PRO:O	40:L3:242:THR:HG23	1.97	0.65
48:M1:109:HIS:HD2	48:M1:123:PHE:H	1.44	0.65
64:N8:21:ARG:NH1	36:5:1369:A:OP1	183.32	0.65
36:1:1492:G:N7	75:O9:2:ALA:HB3	2.11	0.65
10:S8:161:SER:OG	36:5:3353:G:OP1	232.44	0.65
11:S9:95:TYR:HD2	11:S9:98:ALA:HB3	1.60	0.65
1:2:383:G:N7	86:2:2130:OHX:N4	2.44	0.65
58:N2:82:LYS:NZ	36:5:1686:U:O4	162.52	0.65
36:5:2510:U:O2'	36:5:2511:A:H5''	1.97	0.65
36:5:3241:G:H2'	36:5:3245:A:C8	2.31	0.65
20:C8:26:ILE:HD11	20:C8:30:TYR:HB2	1.77	0.65
22:D0:106:ILE:HG13	22:D0:107:THR:H	1.61	0.65
32:E0:48:THR:OG1	32:E0:49:LEU:N	3.19	0.65
52:M6:110:PRO:O	52:M6:113:ASP:N	5.29	0.65
6:S4:242:LYS:HE3	6:S4:242:LYS:H	1.61	0.65
7:S5:143:ARG:NH1	7:S5:218:GLU:OE2	3.04	0.65
8:S6:10:ASN:HB3	8:S6:128:THR:HA	2.11	0.65
34:SR:123:ILE:HG21	34:SR:169:ILE:HD13	2.57	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2437:G:N2	36:1:2511:A:H1'	2.11	0.65
36:1:3166:C:H42	36:1:3284:G:H1	1.43	0.65
1:2:1795:U:O2	28:D6:10:ARG:HD2	1.97	0.65
1:2:484:C:H42	1:2:503:G:H22	1.43	0.65
1:6:383:G:N7	86:6:2146:OHX:N5	2.44	0.65
11:S9:149:ARG:HD2	1:6:765:G:N7	427.24	0.65
66:O0:29:SER:HA	66:O0:32:LYS:HD3	3.26	0.65
3:S1:70:LEU:O	3:S1:74:GLN:N	2.30	0.65
36:1:1944:U:H2'	36:1:1945:A:C8	2.32	0.65
36:1:353:G:N7	73:O7:55:ARG:HD3	2.12	0.65
1:6:86:A:OP2	86:6:2185:OHX:N1	2.30	0.65
22:D0:28:SER:OG	22:D0:29:THR:N	2.29	0.65
28:D6:87:ARG:NH2	28:D6:94:ASN:O	2.29	0.65
40:L3:35:ASP:OD2	40:L3:191:LYS:NZ	3.10	0.65
40:L3:284:ARG:HH12	40:L3:296:THR:HG23	1.61	0.65
48:M1:59:ILE:HG21	48:M1:65:ILE:HD11	1.79	0.65
53:M7:88:VAL:O	53:M7:92:GLN:HG2	1.96	0.65
67:O1:41:LYS:HD2	67:O1:47:ASP:HA	2.32	0.65
69:O3:75:HIS:HB3	69:O3:80:VAL:HG12	1.78	0.65
7:S5:23:VAL:O	7:S5:34:GLN:NE2	2.29	0.65
8:S6:70:PRO:HD2	8:S6:71:THR:HG23	1.78	0.65
11:S9:146:PHE:O	11:S9:147:MET:HB2	2.29	0.65
36:1:1798:A:H2'	36:1:1799:A:C8	2.32	0.65
36:1:3329:U:H5''	40:L3:308:MET:HE3	1.78	0.65
1:2:1487:A:H2'	1:2:1488:G:C8	2.32	0.65
1:2:1650:U:H2'	1:2:1651:A:C8	2.32	0.65
1:2:1726:G:N7	86:2:2098:OHX:N4	2.45	0.65
36:5:25:U:O4	86:5:3909:OHX:N5	2.29	0.65
39:L2:206:PRO:HD3	39:L2:212:GLY:O	4.01	0.65
40:L3:284:ARG:NH2	40:L3:295:ALA:O	2.30	0.65
48:M1:137:ARG:HG2	37:7:28:C:H5''	305.63	0.65
51:M5:46:ASP:OD1	51:M5:50:ARG:NH2	2.41	0.65
36:1:3043:C:P	59:N3:48:ARG:HH22	2.20	0.65
62:N6:55:GLU:HB2	62:N6:108:LYS:HB2	1.78	0.65
72:O6:81:THR:HA	72:O6:84:LYS:HE3	5.07	0.65
34:SR:123:ILE:HG22	34:SR:133:VAL:HG13	1.78	0.65
36:1:1103:A:OP2	36:1:1103:A:H4'	1.95	0.64
36:1:1509:A:H2'	36:1:1510:G:C8	2.32	0.64
36:1:2947:G:H4'	36:1:2947:G:OP2	1.97	0.64
87:2:2180:EDE:H101	87:2:2180:EDE:H35	1.79	0.64
86:5:3944:OHX:N2	86:5:4235:OHX:N6	2.43	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:151:LYS:NZ	1:6:1066:C:OP1	336.86	0.64
1:6:1765:A:OP1	86:6:2124:OHX:N2	2.31	0.64
13:C1:93:TYR:HB2	13:C1:100:TYR:CE1	2.66	0.64
15:C3:26:PHE:CE2	15:C3:28:LEU:HB2	2.94	0.64
42:L5:270:LYS:HG3	42:L5:273:ARG:HB3	5.00	0.64
44:L7:44:ILE:HD13	44:L7:180:SER:HB3	1.79	0.64
45:L8:94:PHE:HB3	45:L8:189:LEU:HD13	1.79	0.64
53:M7:67:ILE:HB	53:M7:80:LYS:HG2	4.06	0.64
49:M3:158:ALA:O	64:N8:124:ILE:HD11	2.72	0.64
34:SR:214:ALA:HB2	34:SR:220:ILE:HA	1.79	0.64
36:1:1564:U:H2'	36:1:1565:G:H8	1.62	0.64
36:5:1231:A:H5''	36:5:1232:C:H5'	1.78	0.64
36:5:3341:U:H5''	36:5:3342:A:OP2	1.97	0.64
1:6:1239:U:O2	1:6:1246:C:N4	2.29	0.64
1:6:1417:A:OP1	86:6:2085:OHX:N4	2.29	0.64
26:D4:122:GLY:O	26:D4:124:ARG:N	3.03	0.64
64:N8:133:LEU:HD13	64:N8:137:LYS:HE3	1.79	0.64
43:L6:3:ALA:HB1	68:O2:75:LEU:HD13	2.02	0.64
36:1:1808:G:O6	86:1:3983:OHX:N3	2.30	0.64
36:1:1276:U:OP1	86:1:4087:OHX:N4	2.31	0.64
1:2:527:A:OP2	86:2:2052:OHX:N4	2.31	0.64
1:6:1767:G:OP1	1:6:1770:U:H4'	1.98	0.64
25:D3:74:VAL:HG21	25:D3:104:LEU:HD11	1.77	0.64
39:L2:209:HIS:CD2	39:L2:211:HIS:H	2.16	0.64
39:L2:79:ASN:O	39:L2:82:VAL:HG13	1.97	0.64
40:L3:296:THR:HG22	40:L3:298:PHE:N	5.03	0.64
41:L4:118:LYS:O	41:L4:122:THR:HG23	1.98	0.64
46:L9:8:GLN:HG2	46:L9:68:LEU:HD13	1.79	0.64
67:O1:44:MET:O	67:O1:46:THR:N	3.12	0.64
10:S8:58:LEU:O	10:S8:59:ARG:HB2	1.96	0.64
36:1:3082:C:H2'	36:1:3083:G:C8	2.32	0.64
36:1:1231:A:OP2	86:1:4087:OHX:N6	2.30	0.64
1:2:422:G:N7	86:2:2107:OHX:N5	2.45	0.64
1:2:740:A:H2'	1:2:741:C:H5''	1.78	0.64
64:N8:22:ILE:HD12	36:5:1114:U:H5''	191.11	0.64
36:5:2169:G:O6	86:5:3956:OHX:N5	2.31	0.64
1:6:1342:C:O2'	1:6:1343:U:H5'	1.98	0.64
1:6:578:U:O2	86:6:2151:OHX:N3	2.31	0.64
13:C1:33:ARG:NH2	13:C1:51:GLY:O	3.12	0.64
40:L3:19:ARG:HB3	40:L3:232:ARG:NH1	2.12	0.64
48:M1:82:ARG:HB3	48:M1:112:LEU:HB2	4.51	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:O6:25:LYS:HB2	72:O6:28:TYR:HD2	1.88	0.64
5:S3:175:VAL:HG13	5:S3:182:LEU:HD13	1.79	0.64
36:1:18:G:OP1	71:O5:81:ARG:NH2	2.27	0.64
36:1:1933:A:OP2	86:1:3886:OHX:N6	2.31	0.64
1:6:152:U:C2	1:6:163:G:N2	2.66	0.64
1:2:901:G:H22	16:C4:54:GLU:CD	2.01	0.64
41:L4:193:LYS:O	41:L4:198:ARG:HG2	4.17	0.64
56:N0:137:ARG:HG2	56:N0:139:TYR:CE1	2.32	0.64
36:5:1750:A:H4'	36:5:1751:G:H5'	1.78	0.64
1:6:486:G:O6	1:6:488:G:N2	2.31	0.64
12:C0:29:GLN:HB3	12:C0:39:ASN:HB2	1.79	0.64
19:C7:86:PRO:HG2	19:C7:88:VAL:HA	9.20	0.64
40:L3:346:THR:O	40:L3:348:ARG:N	2.30	0.64
46:L9:28:VAL:HG13	46:L9:33:THR:HB	1.78	0.64
52:M6:171:LYS:O	52:M6:175:THR:HG22	2.03	0.64
36:1:1720:U:P	55:M9:110:ARG:HH12	2.19	0.64
55:M9:21:LYS:HE3	55:M9:55:VAL:HA	1.80	0.64
72:O6:4:LYS:HD2	72:O6:14:GLY:HA3	2.23	0.64
1:2:105:A:OP1	10:S8:18:ARG:NH1	2.30	0.64
10:S8:5:ARG:NH1	10:S8:29:LEU:O	2.27	0.64
36:1:1636:U:H5''	63:N7:73:LYS:HZ2	1.60	0.64
86:1:3940:OHX:N1	86:1:4201:OHX:N4	2.46	0.64
36:1:619:A:H5''	36:1:620:U:OP1	1.96	0.64
36:5:1329:U:O2'	36:5:1330:A:OP1	2.16	0.64
36:5:2236:G:OP1	86:5:4251:OHX:N3	2.30	0.64
19:C7:7:LYS:N	1:6:1316:G:OP1	409.58	0.64
37:7:3:U:H2'	37:7:4:U:C6	2.33	0.64
48:M1:139:THR:HG22	48:M1:147:THR:HA	1.79	0.64
49:M3:91:ARG:NH1	49:M3:97:VAL:HB	2.12	0.64
64:N8:132:LYS:O	64:N8:136:GLU:HG3	2.70	0.64
36:1:157:A:C8	72:O6:26:ILE:HG12	2.32	0.64
1:2:1487:A:H2'	1:2:1488:G:H8	1.63	0.64
36:5:3155:U:H4'	36:5:3156:U:OP2	1.98	0.64
36:5:3279:A:C2'	36:5:3280:U:H5'	2.26	0.64
43:L6:23:LYS:NZ	36:5:503:C:O2	238.72	0.64
1:6:1057:U:O2'	1:6:1059:U:OP1	2.12	0.64
1:6:500:C:O2'	1:6:501:U:O4'	2.15	0.64
8:S6:154:ARG:HD3	1:6:78:A:C8	339.28	0.64
14:C2:30:VAL:HB	14:C2:132:GLU:HG3	2.26	0.64
1:2:867:G:OP2	15:C3:3:ARG:NH1	2.31	0.64
25:D3:92:CYS:O	25:D3:95:PHE:N	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:D7:54:VAL:O	29:D7:63:LEU:HB2	1.97	0.64
32:E0:18:THR:HG21	1:6:584:C:H1'	388.84	0.64
41:L4:144:LYS:H	41:L4:144:LYS:HD2	5.01	0.64
52:M6:182:ASN:ND2	52:M6:186:ALA:HB2	7.19	0.64
63:N7:88:ASP:O	63:N7:121:ARG:NH2	2.90	0.64
3:S1:110:LEU:HD11	3:S1:213:ARG:HD2	1.79	0.64
7:S5:61:TYR:HE2	7:S5:164:PRO:HG2	2.53	0.64
11:S9:110:GLN:HE22	11:S9:126:ARG:HG2	1.63	0.64
11:S9:3:ARG:HG2	11:S9:3:ARG:HH21	4.39	0.64
36:1:2310:U:OP1	86:1:4141:OHX:N1	2.31	0.64
36:1:3308:C:N3	53:M7:69:ARG:NH1	2.46	0.64
1:2:905:A:H5''	16:C4:52:ARG:HD3	1.79	0.64
15:C3:33:VAL:O	15:C3:37:ILE:HG12	3.91	0.64
16:C4:54:GLU:OE1	1:6:901:G:N2	281.25	0.64
1:2:1191:U:H4'	18:C6:143:ARG:HB3	1.80	0.64
20:C8:33:THR:HA	20:C8:38:VAL:HG23	2.51	0.64
25:D3:79:ASN:HB3	25:D3:81:LYS:H	1.62	0.64
40:L3:56:ILE:HD11	40:L3:359:ILE:HD13	3.84	0.64
43:L6:86:ALA:H	69:O3:107:ILE:HG21	5.44	0.64
45:L8:240:ASN:HA	45:L8:243:GLN:HB2	1.80	0.64
49:M3:99:HIS:CE1	49:M3:100:ARG:HG2	2.32	0.64
55:M9:41:ILE:HD13	55:M9:44:LEU:HD12	8.58	0.64
59:N3:13:ILE:HD12	59:N3:85:TRP:CG	2.33	0.64
59:N3:89:ASP:OD1	59:N3:91:VAL:HG12	3.44	0.64
2:S0:139:VAL:HG23	4:S2:62:PRO:HG3	2.32	0.64
5:S3:222:VAL:HG11	34:SR:229:LYS:HA	2.69	0.64
36:1:656:A:H2'	36:1:657:A:C8	2.33	0.64
1:2:1420:C:OP1	31:D9:54:LYS:NZ	2.31	0.64
1:2:649:U:O2'	1:2:650:U:O5'	2.14	0.64
1:2:876:G:H1'	1:2:944:A:O4'	1.99	0.64
51:M5:172:ARG:HD2	36:5:30:G:O5'	110.34	0.64
36:5:3165:A:H2'	36:5:3166:C:H6	1.63	0.64
1:6:1595:U:N3	1:6:1600:A:H2	1.95	0.64
1:6:694:U:H3'	1:6:695:U:O2	1.99	0.64
22:D0:27:THR:HB	22:D0:88:LYS:HG2	2.10	0.64
31:D9:21:CYS:SG	31:D9:24:CYS:N	2.94	0.64
49:M3:58:VAL:HG13	36:5:75:G:H5''	87.95	0.64
36:1:1114:U:H5''	64:N8:22:ILE:HD12	1.80	0.64
72:O6:70:ARG:HD3	72:O6:84:LYS:HG2	2.47	0.64
11:S9:109:LEU:HD13	11:S9:129:ILE:HD13	2.23	0.64
36:1:1581:C:C2	36:1:1582:C:H5'	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1724:U:H4'	36:1:1725:C:OP1	1.97	0.63
1:2:730:G:O6	86:2:2155:OHX:N4	2.31	0.63
1:2:843:U:H2'	1:2:844:A:C8	2.33	0.63
37:3:49:G:O6	42:L5:58:LYS:NZ	2.29	0.63
36:5:2207:A:H62	36:5:2236:G:H1	1.46	0.63
36:5:2897:A:H2'	36:5:2899:C:H5''	1.80	0.63
19:C7:88:VAL:HG22	19:C7:89:SER:H	1.63	0.63
3:S1:119:THR:HB	3:S1:143:THR:HG23	1.79	0.63
7:S5:143:ARG:HD3	30:D8:55:VAL:HG11	2.02	0.63
8:S6:137:ARG:NH1	1:6:144:U:H5	311.32	0.63
9:S7:46:ILE:HD11	9:S7:60:ILE:HG12	1.79	0.63
36:1:2573:G:N7	86:1:3999:OHX:N1	2.46	0.63
36:1:3155:U:H3'	36:1:3156:U:C4'	2.29	0.63
36:1:3259:U:H5'	36:1:3259:U:C6	2.30	0.63
1:2:45:U:O2'	1:2:46:A:H2'	1.98	0.63
1:2:637:C:O2	9:S7:114:ARG:NH2	2.31	0.63
36:5:1249:G:H2'	36:5:1250:G:H8	1.62	0.63
58:N2:103:TYR:OH	36:5:1677:G:OP2	146.87	0.63
36:5:22:G:H1'	38:8:104:A:N3	2.13	0.63
86:7:218:OHX:N3	86:7:226:OHX:N6	2.46	0.63
16:C4:17:ALA:HB3	16:C4:81:VAL:HA	1.81	0.63
31:D9:33:LYS:HE2	31:D9:34:TYR:CZ	4.15	0.63
39:L2:30:ARG:NH2	39:L2:33:ASP:OD2	2.31	0.63
44:L7:102:VAL:HG13	44:L7:126:LEU:HD22	1.79	0.63
48:M1:141:ARG:O	48:M1:145:LYS:HE2	2.63	0.63
43:L6:51:ARG:NH1	50:M4:114:ASP:OD2	2.32	0.63
78:Q2:50:PHE:O	86:Q2:503:OHX:N2	2.31	0.63
3:S1:183:GLN:O	3:S1:187:LYS:N	2.31	0.63
1:2:127:G:N7	8:S6:202:ARG:NH2	2.46	0.63
36:5:1877:U:H5''	36:5:1878:G:H5'	1.80	0.63
36:5:2875:U:H3	36:5:2952:G:H1	1.45	0.63
14:C2:119:SER:OG	1:6:1228:G:OP1	464.55	0.63
18:C6:99:GLU:O	18:C6:102:LYS:N	2.64	0.63
40:L3:227:GLU:OE2	40:L3:270:ARG:NE	2.32	0.63
47:M0:55:ASN:ND2	47:M0:162:GLN:OE1	2.25	0.63
55:M9:180:LYS:HD3	55:M9:184:LEU:HD12	1.81	0.63
68:O2:11:LYS:O	68:O2:12:LYS:HB2	2.10	0.63
64:N8:128:ARG:HB2	72:O6:8:ALA:CB	4.77	0.63
2:S0:175:TYR:HE1	2:S0:197:ILE:HG22	1.64	0.63
3:S1:34:ALA:N	3:S1:41:ARG:O	2.26	0.63
5:S3:37:VAL:HG12	5:S3:50:ILE:HA	2.44	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:68:ILE:HD13	7:S5:69:PHE:H	5.34	0.63
8:S6:159:ARG:NH2	1:6:79:C:OP1	348.74	0.63
36:1:3043:C:OP2	59:N3:48:ARG:NH2	2.31	0.63
1:2:1533:C:H4'	1:2:1539:G:N1	2.13	0.63
38:4:10:A:H2'	38:4:11:C:C6	2.34	0.63
36:5:1796:G:H5''	36:5:1797:A:OP1	1.98	0.63
1:6:188:A:H2'	1:6:189:C:O4'	1.99	0.63
21:C9:57:ARG:HH11	21:C9:57:ARG:HG3	1.63	0.63
59:N3:81:GLN:O	59:N3:98:ASN:ND2	2.31	0.63
65:N9:14:ARG:HH12	65:N9:18:ARG:NH1	2.67	0.63
7:S5:41:LYS:HG2	7:S5:69:PHE:CZ	5.62	0.63
34:SR:123:ILE:HG22	34:SR:133:VAL:HG22	3.25	0.63
36:1:92:G:OP2	36:1:93:C:H5''	1.98	0.63
1:2:1542:G:N2	1:2:1568:C:H1'	2.14	0.63
55:M9:20:ARG:HG3	36:5:1875:G:OP2	137.89	0.63
45:L8:241:LYS:HB2	36:5:2586:G:N7	183.92	0.63
27:D5:77:ARG:NH2	1:6:1534:G:N7	348.29	0.63
1:6:1754:A:H4'	1:6:1755:A:O5'	1.97	0.63
1:6:235:G:H2'	1:6:236:A:C8	2.33	0.63
17:C5:52:LYS:HG3	17:C5:53:PRO:HD3	1.79	0.63
32:E0:61:SER:OG	32:E0:61:SER:O	2.17	0.63
1:2:1773:C:OP2	77:Q1:2:ARG:NH1	2.30	0.63
36:1:2927:C:H2'	36:1:2928:C:C6	2.33	0.63
36:5:3055:U:O2'	36:5:3057:U:OP1	2.15	0.63
36:5:3152:U:O2	86:5:4227:OHX:N5	2.32	0.63
36:5:2705:A:OP2	86:5:3902:OHX:N2	2.32	0.63
1:6:1042:G:N2	1:6:1077:C:O2	2.31	0.63
1:6:653:C:H42	1:6:677:G:H1	1.44	0.63
30:D8:8:THR:HB	30:D8:56:LEU:HB2	1.80	0.63
40:L3:173:GLN:O	40:L3:175:LYS:N	2.30	0.63
1:2:1066:C:H4'	3:S1:149:GLN:NE2	2.13	0.63
36:5:1536:G:N7	86:5:3924:OHX:N2	2.47	0.63
1:6:1645:G:OP2	86:6:2180:OHX:N3	2.31	0.63
1:6:755:A:O2'	1:6:756:A:H5''	1.98	0.63
42:L5:24:ARG:NH2	37:7:13:A:N3	292.46	0.63
26:D4:122:GLY:O	26:D4:125:LEU:N	2.63	0.63
24:D2:53:ILE:HD13	29:D7:24:LEU:HD11	2.94	0.63
39:L2:27:ALA:O	39:L2:128:ARG:NH2	2.31	0.63
70:O4:38:LEU:H	70:O4:38:LEU:HD12	3.15	0.63
4:S2:45:VAL:HG21	4:S2:68:ILE:HG23	2.65	0.63
5:S3:209:ILE:O	19:C7:20:TYR:OH	2.53	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:S7:96:ARG:NH1	9:S7:128:ASP:OD2	2.78	0.63
1:2:1061:A:H2'	1:2:1062:A:H5'	1.80	0.63
1:2:1537:C:N3	86:2:2153:OHX:N3	2.46	0.63
50:M4:121:MET:HE1	36:5:3214:U:H2'	275.55	0.63
39:L2:116:VAL:HG13	39:L2:126:LEU:HB2	2.48	0.63
40:L3:332:ARG:HH11	40:L3:332:ARG:HG2	1.62	0.63
42:L5:64:ILE:HG13	42:L5:109:THR:HG21	4.65	0.63
47:M0:205:SER:O	47:M0:209:ASN:HB2	1.97	0.63
49:M3:56:PRO:HG3	49:M3:74:GLY:O	2.15	0.63
36:1:2790:A:OP2	54:M8:181:SER:HB3	1.98	0.63
38:4:69:U:OP2	86:O7:103:OHX:N3	2.32	0.63
2:S0:74:VAL:HG12	2:S0:76:ILE:HG13	2.81	0.63
6:S4:159:THR:OG1	6:S4:160:VAL:N	2.91	0.63
11:S9:133:HIS:CD2	11:S9:162:SER:HB2	2.70	0.63
34:SR:116:ASP:HB2	34:SR:117:LYS:HD2	1.81	0.63
36:1:1064:A:H5''	36:1:1066:G:O4'	1.98	0.63
36:1:1443:G:O6	86:1:3978:OHX:N3	2.31	0.63
36:1:249:U:H1'	36:1:250:U:O2	1.99	0.63
36:1:2970:C:HO2'	36:1:2971:A:H2	1.47	0.63
36:5:2255:A:H5'	36:5:2261:G:H22	1.64	0.63
1:6:454:U:H5''	1:6:455:C:C5	2.34	0.63
22:D0:28:SER:HB2	22:D0:112:VAL:HA	1.81	0.63
25:D3:68:ILE:O	25:D3:70:LYS:NZ	2.61	0.63
28:D6:10:ARG:HD2	28:D6:34:LYS:HG2	4.26	0.63
40:L3:232:ARG:NH1	40:L3:269:GLN:O	2.31	0.63
44:L7:80:GLN:NE2	57:N1:135:PRO:O	6.96	0.63
63:N7:27:LYS:HB3	63:N7:42:LEU:HB2	2.59	0.63
65:N9:24:PRO:O	65:N9:25:LYS:HB2	2.43	0.63
9:S7:147:ASN:N	9:S7:147:ASN:OD1	2.31	0.63
36:1:1556:C:H2'	36:1:2169:G:N1	2.14	0.62
36:1:2218:G:H2'	36:1:2219:A:H8	1.63	0.62
36:1:2572:C:O2'	36:1:2573:G:O4'	2.16	0.62
36:1:3033:A:H2'	36:1:3034:C:C6	2.34	0.62
36:1:3353:G:O2'	36:1:3356:G:H5'	1.99	0.62
36:5:2841:G:OP2	86:5:4139:OHX:N1	2.32	0.62
1:6:193:U:C2	1:6:195:G:H1'	2.34	0.62
41:L4:181:VAL:O	41:L4:182:LEU:HB2	1.99	0.62
41:L4:122:THR:HG22	41:L4:235:LEU:HB2	1.97	0.62
42:L5:115:LEU:HD22	42:L5:115:LEU:H	1.61	0.62
42:L5:294:ALA:O	42:L5:296:GLN:N	2.27	0.62
55:M9:46:LYS:HZ1	36:5:1766:G:H8	101.10	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:50:ALA:N	71:O5:79:ASP:OD1	3.93	0.62
73:O7:69:HIS:O	73:O7:73:ARG:HG3	1.99	0.62
3:S1:126:THR:HG22	3:S1:136:ARG:HE	1.86	0.62
1:2:1473:U:O2'	7:S5:103:ASN:OD1	2.10	0.62
10:S8:22:ARG:HH21	10:S8:25:ARG:HG3	1.62	0.62
11:S9:171:ARG:CZ	11:S9:174:ARG:HD3	4.65	0.62
11:S9:171:ARG:NH1	11:S9:174:ARG:HD3	3.63	0.62
86:1:4086:OHX:N4	55:M9:14:VAL:O	2.32	0.62
36:1:979:U:H1'	36:1:980:A:N9	2.14	0.62
1:2:1485:C:OP1	86:2:2099:OHX:N6	2.32	0.62
1:2:491:C:H42	1:2:496:G:H1	1.44	0.62
1:2:793:A:H5''	1:2:794:U:C5	2.33	0.62
70:O4:52:GLN:HG2	36:5:1639:C:H5'	196.94	0.62
36:5:1781:C:H2'	36:5:1782:U:H6	1.64	0.62
36:5:330:G:OP2	86:5:4051:OHX:N1	2.31	0.62
36:5:410:U:O4	86:5:4104:OHX:N1	2.31	0.62
1:6:1208:A:N1	1:6:1455:G:N2	2.47	0.62
1:6:158:U:O2'	1:6:159:U:H3'	1.99	0.62
14:C2:59:LEU:HA	14:C2:87:PRO:HB2	1.81	0.62
27:D5:60:VAL:HG22	27:D5:101:TYR:HB2	1.81	0.62
27:D5:88:ILE:HG22	27:D5:89:ILE:HG23	2.32	0.62
52:M6:41:LEU:HB3	52:M6:138:LEU:HD22	1.80	0.62
72:O6:58:ILE:HG22	72:O6:90:MET:HG3	2.76	0.62
3:S1:26:ARG:NH1	3:S1:49:ASN:OD1	2.30	0.62
5:S3:210:GLU:OE1	19:C7:19:ARG:NH1	5.39	0.62
11:S9:92:LYS:HB2	11:S9:95:TYR:HD2	9.23	0.62
36:1:1204:A:H2	36:1:2834:G:N3	1.97	0.62
36:1:2178:A:H5''	39:L2:132:ASN:OD1	1.99	0.62
36:1:2310:U:OP1	86:1:4141:OHX:N2	2.32	0.62
1:2:1173:C:H3'	20:C8:141:THR:HG21	1.81	0.62
1:2:1680:G:O6	86:2:2109:OHX:N5	2.33	0.62
36:5:1781:C:H2'	36:5:1782:U:C6	2.34	0.62
36:5:1481:A:H2'	36:5:1858:A:N3	2.14	0.62
47:M0:4:ARG:NH1	36:5:2828:G:O2'	263.93	0.62
41:L4:226:GLU:OE1	41:L4:237:GLN:NE2	2.44	0.62
36:1:2384:A:N1	52:M6:96:LYS:HE2	2.14	0.62
36:1:1230:G:H1	36:1:1279:C:H42	1.43	0.62
36:1:2207:A:H2'	36:1:2208:A:H8	1.64	0.62
1:2:1517:U:OP2	1:2:1518:C:N4	2.30	0.62
36:5:1919:G:N7	86:5:4074:OHX:N4	2.47	0.62
36:5:566:G:N7	86:5:4132:OHX:N5	2.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:439:C:H4'	36:5:440:A:H5'	1.80	0.62
1:6:488:G:N2	1:6:499:U:H3	1.96	0.62
1:6:922:G:H2'	1:6:923:A:H8	1.64	0.62
13:C1:57:LYS:HD3	13:C1:131:ILE:HG23	2.09	0.62
1:2:1228:G:H5'	14:C2:45:LEU:HB3	1.82	0.62
18:C6:22:VAL:HG22	18:C6:65:ILE:HD12	2.71	0.62
36:1:3115:C:OP1	46:L9:62:ARG:NH2	2.31	0.62
53:M7:172:GLN:NE2	69:O3:60:ARG:O	2.31	0.62
54:M8:60:PRO:HG3	54:M8:144:ARG:HB3	4.41	0.62
68:O2:40:SER:O	68:O2:44:ARG:HG3	1.99	0.62
74:O8:46:ARG:NH1	74:O8:47:GLY:O	3.01	0.62
7:S5:166:ARG:NH1	7:S5:170:GLN:OE1	2.59	0.62
7:S5:57:SER:O	7:S5:59:VAL:N	2.32	0.62
34:SR:25:THR:OG1	34:SR:26:SER:N	3.23	0.62
36:1:1498:A:H2'	36:1:1499:C:C6	2.34	0.62
1:2:1445:G:N2	33:E1:90:LYS:O	2.31	0.62
1:2:886:U:O2'	16:C4:121:VAL:O	2.16	0.62
1:6:1700:C:O2'	1:6:1701:A:OP1	2.17	0.62
38:8:6:U:H2'	38:8:7:U:C6	2.35	0.62
38:8:79:A:H3'	38:8:80:A:C8	2.35	0.62
16:C4:81:VAL:HG22	16:C4:115:ILE:HG23	3.93	0.62
19:C7:20:TYR:CD1	19:C7:38:ILE:HD11	2.34	0.62
25:D3:75:GLN:NE2	25:D3:80:GLY:O	3.16	0.62
28:D6:88:SER:OG	28:D6:91:ASP:OD2	4.50	0.62
45:L8:130:TYR:CD1	45:L8:202:GLU:HB3	2.34	0.62
53:M7:67:ILE:HD11	36:5:1447:G:H3'	164.87	0.62
70:O4:99:LYS:O	70:O4:103:LYS:HG2	2.10	0.62
72:O6:25:LYS:HB2	72:O6:28:TYR:CD2	2.78	0.62
75:O9:5:LYS:HD3	75:O9:13:MET:HE1	2.51	0.62
4:S2:152:HIS:CG	4:S2:174:ARG:HG3	2.34	0.62
10:S8:26:LYS:HD2	10:S8:29:LEU:HD12	1.82	0.62
36:1:3066:U:H2'	36:1:3067:C:C6	2.34	0.62
36:1:3078:U:H4'	36:1:3079:U:O5'	1.98	0.62
1:2:1034:C:HO2'	24:D2:2:THR:N	1.97	0.62
1:2:1600:A:H4'	1:2:1601:G:OP1	1.99	0.62
1:2:851:U:H2'	1:2:852:C:C6	2.35	0.62
36:5:1785:U:H2'	36:5:1786:G:C8	2.34	0.62
86:5:3975:OHX:N3	86:5:4245:OHX:N5	2.47	0.62
1:6:1714:A:H2'	1:6:1715:G:O4'	2.00	0.62
1:6:75:U:O2'	1:6:76:A:O5'	2.13	0.62
41:L4:193:LYS:NZ	38:8:21:C:OP1	109.10	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:176:TYR:CZ	44:L7:197:GLN:HG2	2.34	0.62
49:M3:47:ALA:HB1	49:M3:48:PRO:HD2	1.80	0.62
57:N1:7:TYR:OH	57:N1:54:HIS:HB2	2.25	0.62
72:O6:95:ALA:O	72:O6:99:ARG:HB2	2.00	0.62
75:O9:21:ARG:HD3	75:O9:22:PRO:O	1.99	0.62
78:Q2:46:LYS:O	86:Q2:503:OHX:N6	2.33	0.62
3:S1:129:THR:HB	3:S1:180:THR:HA	1.82	0.62
4:S2:125:ILE:O	4:S2:129:ILE:HG13	2.22	0.62
6:S4:163:ASP:O	6:S4:165:ALA:N	2.32	0.62
11:S9:133:HIS:HD2	11:S9:162:SER:HB2	2.64	0.62
36:1:2697:A:H2'	36:1:2698:G:C8	2.35	0.62
36:1:3143:C:O2'	86:1:3901:OHX:N2	2.32	0.62
1:2:377:G:O6	86:2:2077:OHX:N5	2.33	0.62
1:2:800:U:H2'	1:2:801:G:C8	2.34	0.62
1:2:818:C:N4	1:2:819:G:O6	2.28	0.62
1:2:819:G:H22	1:2:853:G:H2'	1.63	0.62
36:5:1493:G:OP2	36:5:1493:G:N2	2.31	0.62
15:C3:3:ARG:NH1	1:6:955:A:OP1	327.53	0.62
16:C4:81:VAL:HG13	16:C4:115:ILE:HG21	1.80	0.62
17:C5:18:ARG:NH2	17:C5:38:PRO:HG3	2.39	0.62
21:C9:33:TYR:OH	21:C9:99:SER:OG	2.17	0.62
26:D4:120:GLY:HA2	1:6:85:A:O3'	334.36	0.62
52:M6:78:ARG:HH11	52:M6:78:ARG:HG3	1.63	0.62
53:M7:48:LEU:HB3	53:M7:88:VAL:HG13	1.81	0.62
49:M3:94:GLY:HA3	71:O5:116:TYR:OH	1.99	0.62
78:Q2:73:GLU:OE1	78:Q2:80:ARG:NH1	4.35	0.62
2:S0:202:TYR:HD2	2:S0:202:TYR:H	1.48	0.62
3:S1:101:HIS:HA	3:S1:217:LEU:HD22	1.85	0.62
36:1:1286:A:N3	36:1:1287:A:H1'	2.15	0.62
36:1:213:A:H5''	62:N6:2:ALA:HA	1.82	0.62
1:2:992:A:H2	1:2:1012:U:H3	1.42	0.62
1:2:132:U:H1'	1:2:133:U:OP2	2.00	0.62
1:2:717:C:H42	1:2:720:G:H22	1.47	0.62
36:5:1806:A:OP2	86:5:4026:OHX:N5	2.33	0.62
36:5:181:U:H1'	36:5:236:G:N2	2.14	0.62
42:L5:54:ARG:NH1	42:L5:147:ASP:O	2.52	0.62
62:N6:59:VAL:HG22	62:N6:103:LYS:O	5.66	0.62
69:O3:51:TYR:CE2	69:O3:53:TYR:HB3	2.95	0.62
36:1:3276:G:H1	69:O3:60:ARG:HH12	1.46	0.62
6:S4:19:LEU:HD11	6:S4:108:ARG:HD3	3.61	0.62
8:S6:63:MET:HE1	8:S6:106:LEU:HD13	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3118:C:H4'	76:Q0:106:ARG:NH2	2.15	0.62
36:1:962:A:N1	36:1:2814:G:O2'	2.29	0.62
1:2:116:U:H2'	1:2:117:U:C6	2.35	0.62
1:2:1559:A:OP1	1:2:1559:A:H4'	1.99	0.62
1:2:868:G:H1	1:2:960:U:H3	1.48	0.62
36:5:529:A:H2'	36:5:530:G:O4'	2.00	0.62
1:6:176:C:OP1	86:6:2094:OHX:N6	2.33	0.62
20:C8:53:ASP:HB3	20:C8:56:LYS:HG3	1.82	0.62
46:L9:86:TYR:CE2	46:L9:151:VAL:HG22	2.34	0.62
53:M7:29:THR:HA	53:M7:32:THR:CG2	2.29	0.62
59:N3:87:ARG:NH2	59:N3:137:VAL:HG21	2.13	0.62
36:1:1073:U:H1'	65:N9:50:THR:HG22	1.82	0.62
67:O1:13:THR:HG22	67:O1:72:ARG:HH21	4.95	0.62
4:S2:140:ARG:HH12	23:D1:1:MET:HB3	1.64	0.62
7:S5:222:LYS:HA	7:S5:225:ARG:HH11	4.31	0.62
7:S5:65:ARG:HE	7:S5:65:ARG:HA	4.74	0.62
10:S8:36:THR:HG23	10:S8:96:LEU:O	2.04	0.62
36:1:3033:A:H2'	36:1:3034:C:H6	1.65	0.62
1:2:1595:U:N3	1:2:1600:A:H2	1.98	0.62
1:2:538:A:H8	1:2:543:C:N4	1.98	0.62
36:5:314:U:H2'	36:5:315:C:C6	2.35	0.62
36:5:990:U:O4	86:5:4186:OHX:N6	2.33	0.62
1:6:1151:A:O2'	1:6:1766:A:N7	2.26	0.62
41:L4:285:ASP:OD2	41:L4:288:ARG:HB2	2.00	0.62
42:L5:256:THR:HG1	42:L5:258:LYS:HZ3	1.46	0.62
48:M1:90:GLN:OE1	48:M1:172:LEU:HD11	2.00	0.62
49:M3:75:PHE:O	49:M3:79:GLU:HB2	2.00	0.62
65:N9:58:LYS:HA	65:N9:58:LYS:NZ	4.19	0.62
72:O6:74:LYS:HD2	72:O6:80:PHE:HD2	1.73	0.62
6:S4:96:ASN:N	6:S4:96:ASN:OD1	2.32	0.62
34:SR:22:SER:OG	34:SR:69:GLN:O	4.59	0.62
36:1:2718:U:OP2	86:1:3984:OHX:N3	2.32	0.61
1:2:520:A:H2'	1:2:521:A:C8	2.35	0.61
1:2:819:G:O2'	1:2:821:U:OP2	2.10	0.61
38:4:141:C:OP1	51:M5:109:ARG:NH1	2.33	0.61
36:5:1152:G:N2	36:5:1200:A:H61	1.97	0.61
36:5:1599:G:OP1	86:5:4138:OHX:N4	2.32	0.61
36:5:3346:U:O4	36:5:3359:A:N6	2.19	0.61
86:5:4022:OHX:N6	86:5:4218:OHX:N2	2.49	0.61
36:5:231:G:O6	86:5:4134:OHX:N4	2.33	0.61
1:6:363:G:OP1	86:6:2110:OHX:N1	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:975:C:H5''	15:C3:109:LYS:HE2	1.82	0.61
19:C7:105:GLN:O	19:C7:109:LEU:N	2.66	0.61
39:L2:9:ARG:NH1	36:5:912:G:OP2	179.48	0.61
41:L4:29:PRO:HG2	41:L4:277:PRO:HB2	1.81	0.61
45:L8:41:GLN:HG3	45:L8:44:ARG:HH12	1.64	0.61
50:M4:39:ILE:HD12	50:M4:43:LYS:HB3	1.81	0.61
53:M7:172:GLN:OE1	69:O3:60:ARG:NH1	2.33	0.61
2:S0:134:LYS:O	2:S0:137:SER:OG	2.18	0.61
10:S8:163:GLY:HA3	36:1:3354:U:H1'	1.82	0.61
36:5:169:U:H4'	36:5:170:G:OP1	1.98	0.61
46:L9:62:ARG:NH2	36:5:3115:C:OP1	329.45	0.61
36:5:864:G:OP2	86:5:3918:OHX:N4	2.33	0.61
40:L3:140:ASP:OD2	40:L3:141:GLY:N	3.88	0.61
44:L7:154:GLY:N	44:L7:161:VAL:O	2.66	0.61
45:L8:68:ARG:O	45:L8:69:LEU:HB2	4.56	0.61
36:1:2895:G:O2'	76:Q0:100:TYR:O	2.16	0.61
79:Q3:56:THR:HG22	79:Q3:63:THR:HG23	1.81	0.61
3:S1:104:ASP:HA	3:S1:214:LYS:HE2	1.82	0.61
3:S1:175:GLU:HG3	3:S1:193:ILE:HG23	1.80	0.61
1:2:1145:U:O2'	4:S2:89:GLN:O	2.16	0.61
36:1:1151:U:O4	36:1:1200:A:N6	2.33	0.61
36:1:2104:A:OP2	55:M9:81:ARG:NH2	2.26	0.61
36:1:3022:G:O2'	36:1:3031:G:O6	2.14	0.61
1:2:732:G:O6	86:2:2129:OHX:N5	2.33	0.61
38:4:85:G:O6	62:N6:112:ASP:HB3	2.01	0.61
75:O9:2:ALA:N	36:5:1493:G:O6	122.82	0.61
36:5:1586:G:OP1	86:5:3993:OHX:N3	2.33	0.61
74:O8:17:ARG:NH2	36:5:1824:U:O3'	137.45	0.61
36:5:3174:A:H2'	36:5:3175:U:H5'	1.82	0.61
36:5:3364:C:OP1	86:5:3944:OHX:N1	2.33	0.61
36:5:3192:U:O4	86:5:4145:OHX:N6	2.33	0.61
15:C3:101:HIS:O	15:C3:105:ASN:ND2	2.28	0.61
16:C4:29:HIS:HB3	16:C4:41:ARG:HG3	1.83	0.61
22:D0:60:THR:HG22	1:6:1382:A:H5''	436.47	0.61
44:L7:222:HIS:CE1	44:L7:224:ILE:HG13	2.34	0.61
47:M0:174:THR:OG1	47:M0:175:ASN:N	3.01	0.61
50:M4:121:MET:O	50:M4:125:LYS:HG2	2.01	0.61
59:N3:89:ASP:OD1	59:N3:91:VAL:HG13	2.00	0.61
3:S1:40:ASN:N	3:S1:40:ASN:OD1	2.92	0.61
36:1:3246:G:O6	86:1:4109:OHX:N4	2.33	0.61
1:2:549:G:OP2	86:2:2025:OHX:N2	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1688:U:H2'	1:6:1689:A:C8	2.35	0.61
1:6:25:C:OP2	1:6:25:C:H4'	1.99	0.61
30:D8:10:ALA:HA	30:D8:32:PHE:HA	1.81	0.61
47:M0:66:GLU:OE1	47:M0:69:ARG:NH2	2.34	0.61
36:1:1942:U:OP2	55:M9:74:ARG:NH1	2.33	0.61
49:M3:161:ASP:OD2	64:N8:139:ARG:NH1	2.85	0.61
69:O3:14:LEU:HD11	69:O3:31:LYS:HB2	2.20	0.61
10:S8:117:TYR:CD1	10:S8:150:ALA:HB2	2.34	0.61
34:SR:216:LYS:HA	34:SR:239:GLU:HG3	1.83	0.61
36:1:162:G:N2	36:1:259:C:O2	2.29	0.61
86:1:3940:OHX:N3	86:1:4201:OHX:N6	2.48	0.61
1:2:1114:G:O6	86:2:2073:OHX:N5	2.33	0.61
1:2:564:G:N2	1:2:577:G:OP1	2.31	0.61
37:3:39:C:N3	48:M1:70:THR:HG23	2.14	0.61
64:N8:9:ARG:NH2	36:5:1431:G:N7	148.60	0.61
36:5:378:A:N7	36:5:391:A:H2	1.97	0.61
8:S6:87:ARG:NH1	1:6:159:U:O2'	320.76	0.61
22:D0:61:LYS:HG3	22:D0:86:ILE:HB	1.81	0.61
25:D3:53:VAL:HG23	25:D3:100:ASP:O	2.01	0.61
1:2:780:A:C8	26:D4:8:ARG:HB3	2.35	0.61
33:E1:87:THR:O	1:6:1445:G:N1	377.44	0.61
39:L2:113:VAL:HG23	39:L2:134:VAL:HG22	2.19	0.61
39:L2:209:HIS:HD2	39:L2:211:HIS:N	1.99	0.61
49:M3:126:PHE:HD2	71:O5:115:LYS:HG2	1.86	0.61
53:M7:16:SER:HB2	53:M7:149:VAL:HG22	2.86	0.61
36:1:779:G:OP1	54:M8:185:LYS:NZ	2.33	0.61
59:N3:81:GLN:HG2	59:N3:83:LYS:O	2.01	0.61
68:O2:123:LYS:HA	68:O2:126:LEU:HD12	2.19	0.61
36:1:1014:U:C2'	36:1:1015:U:H5''	2.31	0.61
36:1:1564:U:H2'	36:1:1565:G:C8	2.35	0.61
1:2:1469:A:H2'	1:2:1470:C:C6	2.36	0.61
44:L7:208:SER:HB2	36:5:1334:U:H1'	241.72	0.61
25:D3:92:CYS:HA	25:D3:95:PHE:CD2	2.35	0.61
41:L4:288:ARG:O	41:L4:291:ASN:N	3.16	0.61
47:M0:177:ASP:O	47:M0:180:GLU:N	2.99	0.61
36:1:1505:C:OP1	53:M7:23:ARG:NH2	2.33	0.61
79:Q3:83:ILE:HG22	79:Q3:87:ARG:HH12	1.66	0.61
1:2:149:C:O2'	8:S6:132:ARG:NH1	2.34	0.61
36:1:1069:C:H2'	36:1:1070:U:H6	1.64	0.61
36:1:1278:A:O2'	36:1:1279:C:O5'	2.17	0.61
36:1:1577:G:H2'	36:1:1578:C:O4'	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3169:U:H2'	36:1:3170:A:O4'	2.00	0.61
1:2:1358:G:H2'	1:2:1359:C:C6	2.36	0.61
1:2:446:A:N6	1:2:461:G:H21	1.97	0.61
36:5:2264:U:OP2	86:5:3958:OHX:N4	2.33	0.61
64:N8:32:ARG:NH1	36:5:799:G:OP2	151.71	0.61
24:D2:71:LYS:NZ	1:6:1099:U:OP1	374.33	0.61
10:S8:141:ARG:NH2	1:6:196:G:N7	279.56	0.61
1:6:906:A:H2'	1:6:907:A:C8	2.36	0.61
13:C1:17:PRO:HB2	13:C1:18:HIS:CD2	3.80	0.61
40:L3:53:MET:HG2	40:L3:77:THR:HG22	1.82	0.61
46:L9:91:ARG:NH2	46:L9:91:ARG:HG3	2.15	0.61
57:N1:82:ASN:O	65:N9:21:ILE:HA	2.01	0.61
8:S6:186:ARG:O	8:S6:190:GLN:HG2	2.01	0.61
34:SR:169:ILE:HG12	34:SR:183:LEU:HD21	2.58	0.61
36:1:3087:A:P	86:1:4184:OHX:N5	2.74	0.61
36:1:314:U:O4	86:1:4153:OHX:N4	2.33	0.61
1:2:1140:G:OP2	86:2:2064:OHX:N6	2.34	0.61
1:2:1720:G:O6	86:2:2081:OHX:N5	2.34	0.61
1:2:412:A:H2'	1:2:413:U:H6	1.66	0.61
1:2:931:C:O2'	3:S1:118:GLN:O	2.18	0.61
36:5:1716:U:H6	36:5:1716:U:H5'	1.65	0.61
13:C1:77:SER:HB3	13:C1:85:VAL:HB	2.12	0.61
16:C4:54:GLU:CD	1:6:901:G:H22	281.25	0.61
18:C6:82:ARG:HH22	18:C6:114:ARG:HB3	1.65	0.61
20:C8:30:TYR:HE2	20:C8:40:ARG:HH11	1.48	0.61
45:L8:90:THR:HG22	45:L8:214:LEU:HG	4.58	0.61
50:M4:72:LEU:HD13	50:M4:73:PRO:HD2	1.82	0.61
52:M6:110:PRO:O	52:M6:111:PRO:C	3.71	0.61
58:N2:59:ASP:O	58:N2:61:THR:N	2.34	0.61
3:S1:103:MET:H	3:S1:215:VAL:HG13	2.89	0.61
1:2:7:G:O6	4:S2:205:ARG:NH2	2.33	0.61
6:S4:108:ARG:HH22	1:6:788:A:H3'	392.44	0.61
6:S4:159:THR:HB	6:S4:227:VAL:HG23	1.82	0.61
1:2:753:A:H5'	6:S4:221:ARG:HG3	1.83	0.61
36:1:1103:A:H1'	36:1:1104:G:OP1	2.01	0.61
1:2:1783:C:H2'	1:2:1784:C:C6	2.36	0.61
1:2:1:U:C4	11:S9:54:ARG:HG3	2.36	0.61
36:5:3089:C:H2'	36:5:3090:U:O4'	2.00	0.61
86:5:4022:OHX:N5	86:5:4218:OHX:N2	2.49	0.61
1:6:1041:G:H2'	1:6:1042:G:C8	2.36	0.61
1:6:921:U:O4	86:6:2176:OHX:N3	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:4:VAL:HG21	27:D5:82:HIS:CG	3.03	0.61
25:D3:97:ASP:O	25:D3:100:ASP:HB2	2.82	0.61
13:C1:101:GLU:CD	25:D3:16:ARG:HH22	3.32	0.61
30:D8:32:PHE:O	30:D8:34:GLU:N	3.79	0.61
33:E1:123:ASN:O	33:E1:125:THR:N	2.34	0.61
40:L3:92:TYR:HB2	40:L3:157:VAL:HG22	1.99	0.61
36:1:1386:A:C8	41:L4:183:LYS:HB3	2.35	0.61
41:L4:39:PHE:CD2	41:L4:242:ALA:HB2	2.88	0.61
42:L5:39:GLN:OE1	42:L5:40:HIS:N	2.62	0.61
45:L8:74:THR:HA	45:L8:77:GLN:HE21	2.96	0.61
49:M3:186:ARG:O	49:M3:190:LYS:HB3	2.01	0.61
3:S1:181:LEU:HD13	3:S1:181:LEU:H	1.66	0.61
6:S4:104:ASP:HB2	6:S4:108:ARG:H	1.64	0.61
36:1:1597:C:H2'	36:1:1598:G:H8	1.66	0.61
36:1:1934:G:N7	86:1:3886:OHX:N2	2.49	0.61
1:2:1151:A:H4'	1:2:1766:A:C5	2.36	0.61
1:2:1240:U:OP2	86:2:2144:OHX:N1	2.34	0.61
37:3:112:G:OP2	86:3:220:OHX:N1	2.34	0.61
1:6:1227:A:H4'	1:6:1228:G:H5'	1.82	0.61
11:S9:9:SER:OG	1:6:771:A:OP1	389.81	0.61
41:L4:354:VAL:O	41:L4:358:THR:HG23	2.82	0.61
42:L5:55:PHE:CZ	42:L5:158:ARG:HB3	4.53	0.61
45:L8:70:LYS:HA	45:L8:235:GLY:HA3	3.86	0.61
36:1:3187:A:H5''	50:M4:8:LYS:HE2	1.81	0.61
56:N0:73:LYS:NZ	56:N0:97:VAL:O	3.71	0.61
69:O3:69:GLY:HA3	69:O3:85:PHE:HA	2.41	0.61
36:1:1235:U:H4'	36:1:1236:G:H5'	1.83	0.60
36:1:1940:G:H21	36:1:3362:A:H8	1.47	0.60
36:1:3215:A:O5'	50:M4:121:MET:HE1	2.01	0.60
36:5:1238:C:O2'	36:5:1239:C:OP1	2.16	0.60
36:5:1815:U:O2'	36:5:1816:A:OP2	2.19	0.60
41:L4:144:LYS:N	41:L4:144:LYS:HD2	4.64	0.60
42:L5:261:THR:H	42:L5:264:GLN:NE2	2.82	0.60
47:M0:145:LYS:HD3	47:M0:167:LEU:HD11	1.83	0.60
7:S5:225:ARG:NH2	30:D8:58:GLU:HB2	5.61	0.60
9:S7:74:GLN:HE22	9:S7:92:PHE:HB2	1.66	0.60
34:SR:159:ASN:O	34:SR:161:LYS:N	4.30	0.60
36:1:3139:A:H5''	36:1:3139:A:H8	1.66	0.60
36:1:367:A:OP1	86:1:3885:OHX:N2	2.34	0.60
1:2:485:A:H2'	1:2:486:G:O4'	2.01	0.60
1:2:814:A:C5'	55:M9:170:ARG:HH22	2.14	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1564:U:H2'	1:6:1565:C:C6	2.35	0.60
1:6:228:G:H1	1:6:236:A:H61	1.49	0.60
1:6:282:C:H2'	1:6:283:U:O4'	2.00	0.60
41:L4:5:GLN:HA	41:L4:20:LEU:O	2.01	0.60
52:M6:78:ARG:HG3	52:M6:78:ARG:NH1	2.17	0.60
67:O1:19:ARG:HD3	67:O1:35:GLU:HG2	1.83	0.60
3:S1:87:ARG:NH2	3:S1:89:ASP:OD1	6.18	0.60
5:S3:108:LYS:HG2	5:S3:113:LEU:HD12	1.82	0.60
11:S9:121:SER:HB3	11:S9:124:HIS:HB2	3.85	0.60
1:2:144:U:HO2'	1:2:145:A:H8	1.48	0.60
1:2:14:C:H2'	1:2:15:U:H6	1.65	0.60
38:4:37:A:H5''	38:4:39:G:O4'	2.01	0.60
40:L3:53:MET:HE1	36:5:3048:A:H5'	234.68	0.60
39:L2:3:ARG:HD3	36:5:911:C:H42	179.10	0.60
1:6:1458:G:H5''	1:6:1459:C:OP2	2.00	0.60
47:M0:202:LYS:HE3	37:7:64:A:N1	345.28	0.60
18:C6:82:ARG:HH12	18:C6:114:ARG:HB3	1.65	0.60
19:C7:23:LYS:NZ	34:SR:198:ASN:OD1	3.89	0.60
22:D0:28:SER:OG	22:D0:111:GLY:O	3.20	0.60
33:E1:126:CYS:O	33:E1:128:ALA:N	2.31	0.60
42:L5:233:ALA:O	42:L5:235:SER:N	2.34	0.60
48:M1:18:VAL:HG22	48:M1:70:THR:HB	1.83	0.60
57:N1:13:TYR:O	86:N1:201:OHX:N4	5.34	0.60
66:O0:66:LYS:H	66:O0:66:LYS:HD2	3.41	0.60
78:Q2:17:CYS:HG	78:Q2:74:CYS:HG	1.53	0.60
79:Q3:84:ARG:O	79:Q3:88:GLU:HG2	2.02	0.60
7:S5:92:ARG:HH11	7:S5:92:ARG:HG2	2.67	0.60
35:SM:33:LYS:HD2	36:5:2667:A:H5''	285.94	0.60
36:1:250:U:H5	36:1:251:G:N7	1.99	0.60
1:2:17:C:H2'	1:2:18:C:C6	2.37	0.60
38:4:85:G:C8	38:4:85:G:H3'	2.37	0.60
36:5:25:U:O4	86:5:3909:OHX:N6	2.35	0.60
36:5:2924:U:O4	86:5:4061:OHX:N2	2.33	0.60
1:6:755:A:HO2'	1:6:756:A:H8	1.49	0.60
13:C1:21:ASN:N	13:C1:21:ASN:OD1	2.41	0.60
22:D0:104:THR:HG22	22:D0:116:VAL:HG11	4.12	0.60
42:L5:56:THR:O	42:L5:58:LYS:N	2.33	0.60
46:L9:189:GLU:C	46:L9:191:LEU:H	2.05	0.60
51:M5:45:PRO:O	51:M5:49:ARG:HB2	4.28	0.60
49:M3:128:ARG:NH1	71:O5:109:ILE:O	3.71	0.60
71:O5:6:ALA:O	71:O5:10:ARG:HG3	2.99	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:O8:44:LYS:HG2	74:O8:53:THR:HB	2.37	0.60
2:S0:120:LEU:HD21	2:S0:144:ILE:HD11	2.70	0.60
35:SM:65:THR:O	35:SM:70:ASN:ND2	5.88	0.60
36:1:829:U:H3	36:1:895:A:H62	1.49	0.60
36:5:2209:U:O4	86:5:3964:OHX:N4	2.34	0.60
36:5:3274:A:H3'	36:5:3275:U:C5'	2.19	0.60
36:5:300:G:O6	86:5:4193:OHX:N2	2.35	0.60
1:6:546:U:H2'	1:6:547:U:C6	2.37	0.60
1:6:914:G:H5'	1:6:914:G:C8	2.37	0.60
1:6:922:G:H2'	1:6:923:A:C8	2.37	0.60
21:C9:66:TYR:HB2	21:C9:124:ILE:HD13	3.06	0.60
27:D5:71:ILE:HG23	27:D5:73:GLY:H	7.36	0.60
41:L4:120:TYR:CE2	41:L4:277:PRO:HB3	2.37	0.60
44:L7:221:LYS:HB2	44:L7:227:GLY:HA3	1.83	0.60
63:N7:51:LEU:HB2	63:N7:65:ARG:HD2	1.84	0.60
11:S9:29:LYS:O	11:S9:33:GLU:HG2	3.87	0.60
35:SM:68:ARG:NH2	1:6:1460:A:OP2	332.13	0.60
36:1:2320:A:H2	79:Q3:16:VAL:HG13	1.65	0.60
36:1:3242:G:N2	36:1:3245:A:H5''	2.17	0.60
36:1:956:U:H2'	36:1:957:C:C6	2.35	0.60
1:2:61:A:C8	1:2:269:G:O2'	2.54	0.60
36:5:2514:U:OP1	36:5:2514:U:H6	1.84	0.60
71:O5:83:LYS:HA	38:8:38:U:C5	66.22	0.60
18:C6:16:ALA:HB2	18:C6:72:GLY:HA3	1.82	0.60
20:C8:108:LYS:HA	20:C8:111:ASP:HB2	2.28	0.60
22:D0:97:VAL:HG13	22:D0:98:GLN:H	2.15	0.60
41:L4:327:LEU:HA	44:L7:166:ASN:HD21	2.26	0.60
43:L6:102:ASN:OD1	43:L6:104:GLU:N	2.34	0.60
46:L9:124:ARG:HG2	46:L9:164:ILE:HD12	1.83	0.60
51:M5:37:HIS:CD2	51:M5:63:ARG:HB3	2.37	0.60
55:M9:180:LYS:HA	55:M9:183:ALA:HB3	1.81	0.60
57:N1:56:PHE:CE1	57:N1:78:LYS:HD3	2.35	0.60
58:N2:50:LEU:HB3	58:N2:54:VAL:HG23	1.84	0.60
61:N5:58:ASP:O	61:N5:62:VAL:HG23	2.39	0.60
66:O0:24:THR:HG23	66:O0:91:SER:HB3	1.83	0.60
36:1:1492:G:O3'	75:O9:48:LYS:NZ	2.33	0.60
7:S5:225:ARG:NH1	30:D8:58:GLU:OE1	5.06	0.60
36:1:2207:A:H2'	36:1:2208:A:C8	2.37	0.60
36:1:2264:U:OP2	86:1:3987:OHX:N5	2.34	0.60
1:2:1234:A:O2'	33:E1:146:SER:HB3	2.01	0.60
1:2:1449:U:H2'	1:2:1450:U:C6	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1629:G:H2'	1:2:1630:U:C6	2.36	0.60
61:N5:31:THR:OG1	36:5:2523:A:OP1	162.70	0.60
1:2:348:U:OP1	13:C1:85:VAL:HG11	2.02	0.60
16:C4:29:HIS:ND1	16:C4:29:HIS:O	2.35	0.60
17:C5:64:LYS:HA	17:C5:73:PRO:HB3	1.84	0.60
23:D1:64:GLU:OE1	29:D7:3:LEU:HB2	2.00	0.60
29:D7:41:LEU:H	29:D7:41:LEU:HD23	2.91	0.60
40:L3:37:ARG:HG2	40:L3:187:SER:H	1.75	0.60
56:N0:148:LEU:HD12	56:N0:149:LYS:N	2.17	0.60
44:L7:73:GLY:O	57:N1:143:THR:HB	2.18	0.60
49:M3:166:ALA:N	64:N8:135:GLU:OE1	3.92	0.60
66:O0:20:SER:OG	66:O0:96:GLY:HA3	2.02	0.60
2:S0:142:PRO:HB3	23:D1:34:ILE:HD13	2.28	0.60
3:S1:176:VAL:HG12	3:S1:177:GLN:H	1.67	0.60
36:1:1445:U:H5''	36:1:1446:A:OP2	2.02	0.60
36:1:1634:G:OP1	63:N7:107:ARG:NH1	2.35	0.60
35:SM:32:SER:OG	36:1:2666:C:O2'	2.12	0.60
36:1:514:G:N3	41:L4:341:SER:OG	2.35	0.60
1:2:1320:U:O2	1:2:1322:A:H5'	2.02	0.60
1:2:514:G:O2'	1:2:515:A:H5'	2.02	0.60
36:5:1081:U:O2'	36:5:1082:U:O5'	2.18	0.60
36:5:1530:U:OP1	86:5:3993:OHX:N1	2.34	0.60
1:6:470:A:H8	1:6:470:A:H5''	1.67	0.60
1:6:489:C:O2'	1:6:490:C:O4'	2.18	0.60
23:D1:41:GLU:H	23:D1:41:GLU:CD	2.04	0.60
33:E1:86:THR:O	33:E1:87:THR:OG1	2.60	0.60
40:L3:43:LEU:HG	40:L3:181:ILE:HG21	2.54	0.60
48:M1:155:THR:O	48:M1:159:THR:HG23	5.22	0.60
50:M4:17:VAL:HG22	50:M4:36:VAL:O	2.02	0.60
52:M6:65:ASN:OD1	52:M6:67:THR:HB	2.02	0.60
57:N1:12:ARG:HD2	57:N1:13:TYR:CE2	2.37	0.60
63:N7:53:VAL:HA	63:N7:57:HIS:HD2	1.65	0.60
4:S2:103:VAL:HG22	4:S2:113:LEU:HD23	2.32	0.60
36:1:242:C:HO2'	36:1:243:G:H8	1.50	0.60
36:1:2255:A:OP1	86:1:3934:OHX:N3	2.34	0.60
1:2:1160:A:H2'	1:2:1161:C:H6	1.67	0.60
1:2:919:A:H5'	16:C4:18:ARG:HH12	1.67	0.60
19:C7:52:GLY:HA3	1:6:1389:C:O2'	422.19	0.60
21:C9:89:ARG:NH2	1:6:1562:G:OP1	375.84	0.60
46:L9:17:THR:HG21	50:M4:3:THR:HB	1.83	0.60
48:M1:28:ASP:HA	48:M1:31:THR:HG23	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:155:VAL:HG23	51:M5:156:HIS:ND1	2.17	0.60
53:M7:168:LEU:HB2	53:M7:172:GLN:HB3	1.82	0.60
54:M8:65:SER:HB3	54:M8:93:ILE:HG12	1.83	0.60
56:N0:135:VAL:O	56:N0:141:LYS:HE3	2.02	0.60
63:N7:88:ASP:HB3	63:N7:121:ARG:HH22	1.67	0.60
51:M5:15:GLN:HG2	72:O6:52:PRO:HG2	3.34	0.60
5:S3:141:LYS:HE3	5:S3:179:GLN:HG3	1.83	0.60
1:2:494:U:O2'	1:2:495:C:O5'	2.20	0.60
1:2:899:G:O2'	1:2:915:A:N1	2.33	0.60
1:2:978:A:H2'	1:2:979:A:O4'	2.02	0.60
36:5:1804:A:H2'	36:5:1805:C:C6	2.36	0.60
1:6:595:G:H2'	1:6:596:C:C6	2.37	0.60
36:5:419:G:N7	86:8:214:OHX:N3	2.50	0.60
19:C7:109:LEU:O	19:C7:113:LEU:HB2	4.52	0.60
20:C8:42:TYR:HA	20:C8:85:PHE:HE1	1.67	0.60
23:D1:34:ILE:HG13	23:D1:69:LEU:HD11	1.84	0.60
28:D6:35:ALA:HB3	28:D6:37:LYS:HE2	1.84	0.60
47:M0:24:ARG:HB2	47:M0:24:ARG:HH11	1.67	0.60
49:M3:57:VAL:HG22	49:M3:147:ILE:HG23	4.18	0.60
57:N1:122:GLN:HB3	57:N1:124:VAL:HG23	7.04	0.60
57:N1:88:ARG:NH2	65:N9:33:LYS:O	2.25	0.60
3:S1:137:ILE:HD11	3:S1:172:LEU:HB3	1.83	0.60
3:S1:88:VAL:HG11	3:S1:96:LEU:HD12	1.84	0.60
36:1:1532:C:H2'	36:1:1533:U:C6	2.37	0.59
36:1:2404:A:N3	36:1:2404:A:H2'	2.17	0.59
36:1:3281:U:H2'	36:1:3282:U:C6	2.37	0.59
36:1:3364:C:H2'	36:1:3365:U:C6	2.36	0.59
36:5:1757:A:H2'	36:5:1758:G:C8	2.37	0.59
1:6:947:U:H2'	1:6:948:G:H8	1.67	0.59
13:C1:3:THR:HG1	13:C1:82:ARG:HE	1.48	0.59
14:C2:66:VAL:HG11	14:C2:71:ILE:HD12	1.83	0.59
33:E1:144:CYS:O	33:E1:146:SER:N	2.37	0.59
45:L8:153:ILE:HD13	45:L8:166:LEU:HB3	2.43	0.59
41:L4:301:PRO:O	54:M8:39:ARG:NH1	3.50	0.59
67:O1:12:TYR:O	67:O1:72:ARG:HD2	2.01	0.59
71:O5:118:ILE:O	71:O5:119:LYS:HB2	2.13	0.59
3:S1:89:ASP:OD1	3:S1:89:ASP:N	2.34	0.59
4:S2:78:ASP:HA	4:S2:104:VAL:HG12	1.82	0.59
1:2:1473:U:H5''	7:S5:190:ILE:HG13	1.84	0.59
7:S5:223:SER:O	7:S5:224:ASN:ND2	2.34	0.59
7:S5:48:PHE:O	7:S5:65:ARG:NH1	5.43	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1636:U:H5''	63:N7:73:LYS:NZ	2.17	0.59
36:1:2669:G:N7	86:1:4072:OHX:N4	2.50	0.59
1:2:1672:G:H2'	1:2:1673:G:C8	2.36	0.59
1:2:703:G:H2'	1:2:704:C:H5'	1.85	0.59
53:M7:139:TYR:CE2	36:5:2355:G:H4'	147.39	0.59
1:6:1058:U:H4'	1:6:1059:U:OP1	2.02	0.59
15:C3:66:ILE:HG13	15:C3:67:THR:HG23	1.84	0.59
16:C4:87:GLY:HA3	16:C4:120:PRO:HG2	2.42	0.59
36:1:2680:A:C2	48:M1:24:GLY:HA2	2.38	0.59
52:M6:8:VAL:HG12	52:M6:117:ARG:HB3	2.35	0.59
68:O2:44:ARG:NH1	36:5:1145:G:OP1	207.16	0.59
5:S3:167:PHE:HA	5:S3:190:ARG:HD3	1.84	0.59
11:S9:53:ARG:NH2	11:S9:97:LEU:O	2.36	0.59
36:1:1320:C:O2	56:N0:115:ARG:NH2	2.36	0.59
36:1:2534:G:H2'	36:1:2535:A:H8	1.67	0.59
36:1:2593:A:H4'	36:1:2594:C:O5'	2.02	0.59
36:1:2683:U:H2'	36:1:2684:C:C6	2.38	0.59
36:1:627:U:H2'	36:1:628:A:C8	2.37	0.59
1:2:1175:U:H2'	1:2:1176:G:C8	2.37	0.59
36:5:252:U:H4'	36:5:253:A:C5'	2.32	0.59
57:N1:57:TYR:OH	36:5:2724:U:OP1	223.02	0.59
36:5:2916:U:H5	36:5:2935:U:HO2'	1.51	0.59
36:5:2810:C:OP1	86:5:4081:OHX:N3	2.35	0.59
15:C3:25:TRP:HA	15:C3:27:LYS:HE2	6.35	0.59
17:C5:77:ARG:NH1	1:6:1241:G:OP2	383.38	0.59
22:D0:42:VAL:HG21	22:D0:55:PRO:HD3	1.83	0.59
63:N7:16:GLY:O	63:N7:18:TYR:N	2.29	0.59
6:S4:151:ASP:HB3	6:S4:154:ILE:HG13	1.99	0.59
7:S5:220:VAL:HA	7:S5:223:SER:HB3	1.84	0.59
8:S6:87:ARG:N	8:S6:91:GLU:OE1	2.32	0.59
35:SM:64:LYS:O	35:SM:66:ALA:N	3.26	0.59
34:SR:38:ARG:HG2	34:SR:67:ILE:HG23	2.00	0.59
1:2:1474:G:H2'	1:2:1475:A:C8	2.38	0.59
36:5:1701:C:H2'	36:5:1702:U:O4'	2.02	0.59
70:O4:29:ILE:HD12	86:5:4138:OHX:N5	133.00	0.59
1:6:1696:G:H2'	1:6:1698:G:O6	2.02	0.59
1:6:564:G:O6	86:6:2151:OHX:N5	2.35	0.59
1:6:539:G:OP2	1:6:539:G:H8	1.85	0.59
40:L3:86:VAL:HG22	40:L3:162:VAL:HG12	2.70	0.59
61:N5:103:TYR:O	61:N5:105:VAL:HG23	2.16	0.59
36:1:944:C:H4'	68:O2:33:ARG:HH11	1.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:81:MET:HG3	4:S2:103:VAL:HG23	2.63	0.59
6:S4:124:GLY:HA2	6:S4:142:HIS:CE1	2.41	0.59
6:S4:3:ARG:HG2	1:6:399:A:H4'	319.88	0.59
8:S6:98:ARG:HD3	8:S6:99:GLY:N	2.40	0.59
36:1:3116:G:N2	36:1:3116:G:OP1	2.36	0.59
36:1:789:A:H2'	36:1:790:U:H6	1.67	0.59
86:2:2043:OHX:N1	86:2:2098:OHX:N5	2.50	0.59
37:3:8:G:OP1	42:L5:33:ARG:NE	2.35	0.59
1:6:219:A:C6	1:6:843:U:H1'	2.38	0.59
1:6:454:U:OP1	1:6:455:C:N4	2.35	0.59
1:6:947:U:H2'	1:6:948:G:C8	2.38	0.59
28:D6:75:VAL:O	28:D6:79:ILE:N	2.26	0.59
32:E0:41:THR:HG22	32:E0:45:VAL:HG11	3.90	0.59
40:L3:25:ILE:CD1	40:L3:25:ILE:H	2.11	0.59
45:L8:161:GLU:HA	45:L8:164:VAL:HG22	1.83	0.59
52:M6:62:THR:H	52:M6:69:GLY:HA3	1.68	0.59
78:Q2:48:SER:O	86:Q2:503:OHX:N6	2.35	0.59
2:S0:74:VAL:HG23	2:S0:118:PRO:HB3	1.86	0.59
2:S0:119:ARG:HH21	4:S2:240:LEU:HD23	1.67	0.59
4:S2:45:VAL:HG21	4:S2:68:ILE:HG12	1.85	0.59
8:S6:20:ASP:O	8:S6:23:ARG:N	3.02	0.59
9:S7:75:THR:O	9:S7:79:ARG:HB2	2.34	0.59
11:S9:110:GLN:HE22	11:S9:126:ARG:HE	3.87	0.59
36:1:1592:G:OP2	70:O4:37:LYS:NZ	2.35	0.59
36:1:2717:U:OP1	86:1:3984:OHX:N6	2.35	0.59
36:1:2734:A:OP1	86:1:4008:OHX:N3	2.36	0.59
36:1:2356:A:H61	36:1:2983:C:H5	1.51	0.59
36:1:2573:G:O6	86:1:3999:OHX:N3	2.35	0.59
36:1:160:G:O6	86:1:4198:OHX:N6	2.36	0.59
1:2:356:G:OP2	86:2:2035:OHX:N6	2.35	0.59
36:5:1450:G:OP1	86:5:4230:OHX:N4	2.36	0.59
38:8:6:U:H2'	38:8:7:U:H6	1.65	0.59
38:8:77:A:H2'	38:8:78:G:O4'	2.02	0.59
12:C0:15:LEU:HD13	12:C0:21:VAL:HG23	1.84	0.59
15:C3:64:ARG:HG3	15:C3:70:LYS:HD2	5.47	0.59
39:L2:213:GLY:HA2	36:5:2967:A:H5''	204.84	0.59
38:4:142:C:H5'	51:M5:113:LEU:HD21	1.83	0.59
67:O1:55:LEU:HB2	67:O1:95:PRO:HD3	1.84	0.59
1:2:354:C:H5''	10:S8:16:ALA:HB2	1.85	0.59
35:SM:65:THR:O	35:SM:67:GLY:N	4.81	0.59
1:2:416:A:H4'	1:2:417:A:OP2	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:591:A:H2'	1:2:592:A:C8	2.37	0.59
1:2:788:A:H3'	6:S4:108:ARG:NH2	2.18	0.59
36:5:541:U:H2'	36:5:542:G:C8	2.38	0.59
36:5:956:U:H2'	36:5:957:C:C6	2.38	0.59
1:6:276:C:H1'	1:6:277:U:H5	1.68	0.59
1:6:652:G:N2	1:6:682:C:O2	2.35	0.59
23:D1:74:GLN:HG3	23:D1:79:LEU:HB2	3.21	0.59
46:L9:150:SER:HB3	46:L9:153:ASP:HB2	1.96	0.59
71:O5:34:GLN:HB3	71:O5:38:ARG:HH22	4.00	0.59
73:O7:76:ASN:O	73:O7:79:GLN:HG3	2.23	0.59
7:S5:64:VAL:HG22	7:S5:89:ILE:HD11	1.85	0.59
8:S6:164:LYS:N	8:S6:167:LYS:O	2.34	0.59
36:1:200:C:OP1	62:N6:60:ARG:NH1	2.36	0.59
36:1:2617:U:H5	36:1:2621:G:OP2	1.85	0.59
1:2:514:G:N1	1:2:543:C:H5	2.00	0.59
36:5:173:G:H1'	36:5:174:C:H5'	1.83	0.59
39:L2:204:MET:HB3	36:5:914:A:C2	193.55	0.59
1:6:1370:U:H4'	1:6:1371:A:H4'	1.83	0.59
86:6:2103:OHX:N5	86:6:2187:OHX:N6	2.51	0.59
12:C0:1:MET:HG2	12:C0:2:LEU:H	1.68	0.59
18:C6:39:VAL:HG12	18:C6:41:PRO:HD2	4.24	0.59
19:C7:50:ILE:O	19:C7:54:THR:HG23	2.08	0.59
26:D4:12:VAL:HG13	26:D4:23:PHE:HB3	1.84	0.59
27:D5:54:VAL:HA	27:D5:57:TYR:CE1	2.85	0.59
39:L2:44:ILE:HD13	39:L2:46:LYS:HD3	1.83	0.59
40:L3:227:GLU:HG3	40:L3:270:ARG:NE	4.62	0.59
46:L9:105:GLU:OE2	46:L9:108:GLY:HA2	2.02	0.59
36:1:1722:U:H5''	55:M9:99:LEU:HD12	1.84	0.59
62:N6:4:GLN:HB2	36:5:229:G:H5''	69.35	0.59
68:O2:27:ARG:HB3	36:5:655:C:OP1	161.89	0.59
7:S5:91:GLU:HA	7:S5:94:THR:HG23	1.84	0.59
8:S6:136:LYS:HG2	8:S6:173:PRO:HB3	3.90	0.59
36:1:118:U:O2	36:1:121:A:H5'	2.02	0.59
36:1:1507:G:C8	53:M7:129:THR:HG22	2.38	0.59
36:5:3165:A:H2'	36:5:3166:C:C6	2.38	0.59
36:5:2234:G:O6	86:5:3964:OHX:N1	2.35	0.59
1:6:85:A:OP1	86:6:2185:OHX:N4	2.35	0.59
1:6:5:U:HO2'	1:6:553:G:HO2'	1.48	0.59
1:6:73:U:H2'	1:6:74:U:C6	2.37	0.59
17:C5:44:ARG:NH2	17:C5:82:ASN:O	2.36	0.59
26:D4:124:ARG:O	26:D4:127:LYS:HG3	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:52:VAL:HG21	42:L5:65:ILE:HD12	1.84	0.59
47:M0:74:LYS:O	47:M0:78:THR:OG1	2.21	0.59
57:N1:65:TYR:HB3	57:N1:75:ILE:HG13	5.35	0.59
59:N3:2:SER:HA	59:N3:56:ASP:OD1	5.66	0.59
63:N7:95:VAL:O	63:N7:100:THR:HG21	2.92	0.59
2:S0:123:VAL:HG11	2:S0:133:ILE:HD11	1.84	0.59
9:S7:55:LYS:HE2	9:S7:87:ASP:HA	2.88	0.59
10:S8:48:THR:HG21	10:S8:54:LYS:HG3	1.85	0.59
34:SR:133:VAL:O	34:SR:141:LEU:N	2.76	0.59
36:1:2656:A:C8	36:1:2658:G:C8	2.91	0.59
36:1:2746:A:C6	42:L5:148:ILE:HD12	2.37	0.59
1:2:140:A:OP2	8:S6:187:LYS:NZ	2.29	0.59
55:M9:3:ASN:OD1	36:5:1471:U:H4'	113.42	0.59
36:5:955:U:H2'	36:5:956:U:C6	2.38	0.59
24:D2:2:THR:N	1:6:1034:C:HO2'	337.62	0.59
16:C4:85:ALA:HB2	16:C4:94:PRO:HA	2.59	0.59
17:C5:75:PRO:HA	17:C5:93:VAL:HG12	1.85	0.59
19:C7:15:ALA:HA	19:C7:18:GLU:HB2	1.85	0.59
1:2:1479:A:OP1	21:C9:57:ARG:NH1	2.36	0.59
25:D3:107:PHE:CD2	25:D3:114:LYS:HB2	2.37	0.59
39:L2:65:ASP:HB3	39:L2:68:LYS:O	2.13	0.59
46:L9:171:ASP:OD2	46:L9:173:ARG:NH1	2.93	0.59
59:N3:128:ARG:HB3	59:N3:128:ARG:NH2	4.19	0.59
63:N7:9:LYS:HB3	63:N7:25:ILE:HD12	3.46	0.59
64:N8:133:LEU:CD1	64:N8:137:LYS:HE3	2.33	0.59
3:S1:113:MET:HE3	3:S1:209:ASN:HB3	5.22	0.59
36:1:776:U:C5	36:1:2719:U:O2	2.56	0.58
36:5:1355:A:H1'	36:5:1356:U:OP2	2.03	0.58
36:5:3275:U:H4'	36:5:3276:G:OP2	2.02	0.58
1:6:1263:G:H2'	1:6:1264:G:O4'	2.03	0.58
12:C0:56:LYS:HG3	12:C0:67:THR:HB	1.85	0.58
16:C4:84:ARG:HA	16:C4:119:THR:HG22	3.02	0.58
21:C9:49:ASP:OD1	21:C9:53:TRP:N	2.34	0.58
42:L5:48:LYS:HE3	42:L5:145:PHE:CE2	2.37	0.58
49:M3:8:PRO:HA	54:M8:164:ARG:O	2.29	0.58
70:O4:3:GLN:HB3	70:O4:30:LEU:HD12	1.85	0.58
6:S4:160:VAL:HG13	6:S4:169:ILE:HG23	2.73	0.58
11:S9:59:LEU:HD22	11:S9:69:ARG:HA	2.95	0.58
1:2:480:G:H22	1:2:509:G:H1'	1.68	0.58
58:N2:82:LYS:NZ	36:5:1682:U:O2	159.57	0.58
36:5:2507:C:O2'	36:5:2508:U:OP1	2.21	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3258:U:O2'	36:5:3260:G:OP1	2.20	0.58
36:5:604:G:N7	86:5:4169:OHX:N2	2.50	0.58
69:O3:53:TYR:OH	36:5:431:U:OP1	212.16	0.58
1:6:914:G:H5'	1:6:914:G:H8	1.68	0.58
16:C4:50:ALA:C	16:C4:52:ARG:H	2.55	0.58
39:L2:48:ILE:HD12	79:Q3:65:ALA:HB2	4.09	0.58
36:1:2548:C:OP2	39:L2:93:LYS:NZ	2.36	0.58
40:L3:18:PRO:HG2	40:L3:20:LYS:HD2	2.25	0.58
40:L3:296:THR:CG2	40:L3:298:PHE:H	4.56	0.58
55:M9:90:PRO:HB2	55:M9:93:VAL:HG23	1.85	0.58
59:N3:13:ILE:HG12	59:N3:53:SER:HB2	1.83	0.58
72:O6:76:ARG:HA	72:O6:76:ARG:HE	1.68	0.58
72:O6:62:ARG:HH11	72:O6:94:ILE:HD11	4.70	0.58
36:1:2255:A:H5'	36:1:2261:G:H22	1.69	0.58
36:1:567:G:O6	86:1:4004:OHX:N1	2.37	0.58
1:2:482:U:H2'	1:2:483:A:H8	1.68	0.58
36:5:1301:A:OP1	36:5:1301:A:H8	1.86	0.58
36:5:1495:U:H2'	36:5:1842:A:C2	2.38	0.58
36:5:2101:C:O2'	36:5:2102:U:OP1	2.21	0.58
36:5:3354:U:O2	36:5:3354:U:H5''	2.02	0.58
20:C8:41:ARG:HD3	1:6:1565:C:OP1	368.43	0.58
1:2:325:G:H4'	13:C1:83:THR:HG21	1.86	0.58
17:C5:126:VAL:O	17:C5:127:ARG:HB2	2.55	0.58
36:1:2941:A:N7	40:L3:256:HIS:HE1	2.00	0.58
52:M6:116:LYS:HG3	52:M6:117:ARG:N	2.28	0.58
70:O4:71:THR:HG22	70:O4:78:GLY:H	1.68	0.58
6:S4:18:TRP:HE3	6:S4:20:LEU:HD11	1.69	0.58
1:2:1473:U:O3'	7:S5:109:LYS:HE2	2.02	0.58
1:2:930:A:OP1	28:D6:32:LYS:NZ	2.36	0.58
12:C0:8:ARG:HD2	12:C0:12:HIS:CE1	2.38	0.58
13:C1:21:ASN:HD22	13:C1:31:THR:HA	1.85	0.58
20:C8:31:ALA:O	20:C8:34:THR:HG22	3.48	0.58
27:D5:54:VAL:HG13	27:D5:57:TYR:CD1	2.38	0.58
41:L4:192:GLY:HA2	41:L4:195:ARG:HG3	3.66	0.58
43:L6:129:GLU:OE2	43:L6:130:ILE:N	2.36	0.58
46:L9:171:ASP:HA	36:5:2899:C:C5	322.49	0.58
73:O7:17:THR:HG22	73:O7:18:LEU:H	1.68	0.58
2:S0:126:PRO:HB2	2:S0:152:PRO:HG2	1.93	0.58
2:S0:41:ARG:HD2	2:S0:42:PRO:O	2.03	0.58
5:S3:105:MET:HG2	5:S3:122:VAL:HG21	1.84	0.58
6:S4:191:ARG:HD3	6:S4:245:LYS:HB3	2.31	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:52:ASN:OD1	86:6:2134:OHX:N3	310.26	0.58
36:1:1752:A:OP2	86:1:4049:OHX:N3	2.36	0.58
86:1:4005:OHX:N3	86:1:4175:OHX:N5	2.52	0.58
1:2:1466:G:O2'	1:2:1602:C:OP1	2.21	0.58
1:2:61:A:H8	1:2:269:G:O2'	1.85	0.58
1:2:694:U:H3	9:S7:98:ILE:HD12	1.68	0.58
1:2:693:U:H5'	1:2:694:U:H5''	1.84	0.58
36:5:2537:U:O2'	36:5:2538:U:O4'	2.16	0.58
1:6:1230:A:H2	1:6:1255:G:H21	1.50	0.58
18:C6:139:GLN:NE2	1:6:1465:C:OP1	352.16	0.58
1:6:639:U:H1'	1:6:640:U:C5	2.38	0.58
42:L5:269:SER:OG	37:7:1:G:N3	315.51	0.58
13:C1:100:TYR:O	25:D3:10:ASN:HA	2.04	0.58
26:D4:35:VAL:HG13	26:D4:36:SER:H	1.69	0.58
32:E0:56:MET:HG2	1:6:590:C:H5'	417.33	0.58
45:L8:50:VAL:HG22	45:L8:52:TRP:CE2	2.38	0.58
47:M0:190:VAL:HG13	47:M0:197:VAL:HG11	4.07	0.58
64:N8:116:GLY:HA2	64:N8:137:LYS:HZ3	1.68	0.58
67:O1:44:MET:HB2	67:O1:46:THR:HG22	1.85	0.58
4:S2:121:VAL:O	4:S2:125:ILE:HG13	2.02	0.58
34:SR:50:ASP:O	34:SR:52:GLN:N	2.36	0.58
36:1:2209:U:O2'	36:1:2210:G:OP1	2.20	0.58
36:1:2221:G:N2	36:1:2224:A:OP2	2.23	0.58
1:2:1067:C:H2'	1:2:1068:C:H6	1.67	0.58
1:2:330:G:H2'	1:2:331:A:C8	2.39	0.58
78:Q2:45:ARG:NH2	36:5:283:G:OP2	146.94	0.58
36:5:3054:U:OP2	86:5:3908:OHX:N6	2.37	0.58
1:6:1482:C:OP2	1:6:1521:G:N1	2.36	0.58
1:6:1638:G:C2	1:6:1639:C:H1'	2.38	0.58
1:6:356:G:OP2	86:6:2073:OHX:N5	2.36	0.58
1:6:58:U:O2'	1:6:451:A:N3	2.32	0.58
20:C8:5:VAL:HG23	27:D5:42:LEU:HD23	1.85	0.58
26:D4:35:VAL:O	26:D4:36:SER:HB3	2.03	0.58
29:D7:47:PHE:CE1	29:D7:49:HIS:HB2	2.65	0.58
40:L3:303:LYS:HD2	40:L3:361:THR:HG21	1.85	0.58
41:L4:20:LEU:HD11	41:L4:252:GLU:HG3	2.37	0.58
48:M1:73:GLY:O	48:M1:75:LYS:N	2.36	0.58
51:M5:150:TRP:CH2	51:M5:151:ILE:HG12	2.37	0.58
55:M9:133:LYS:HG2	55:M9:134:HIS:CD2	2.39	0.58
62:N6:74:TYR:CE2	62:N6:77:LYS:HD2	5.35	0.58
73:O7:24:ARG:NH1	36:5:361:A:OP1	120.35	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:167:LYS:HE3	2:S0:168:HIS:NE2	4.07	0.58
11:S9:119:ALA:O	11:S9:124:HIS:ND1	4.24	0.58
34:SR:107:LYS:HB2	34:SR:128:ASP:HB3	2.77	0.58
36:1:249:U:H1'	36:1:250:U:C2	2.39	0.58
36:1:2585:G:N3	38:4:151:C:H5	2.01	0.58
86:1:3940:OHX:N1	86:1:4201:OHX:N2	2.51	0.58
1:2:1150:G:HO2'	1:2:1151:A:P	2.26	0.58
1:2:1151:A:H2'	1:2:1152:A:C8	2.39	0.58
1:2:1760:G:C2'	1:2:1761:U:H5'	2.34	0.58
38:4:83:C:H1'	38:4:85:G:H21	1.69	0.58
36:5:1659:U:H2'	36:5:1660:C:C6	2.38	0.58
36:5:255:A:H2'	36:5:256:G:H8	1.68	0.58
36:5:3343:G:H21	36:5:3362:A:H2	1.48	0.58
1:6:196:G:O2'	1:6:197:A:OP2	2.22	0.58
40:L3:105:VAL:HG21	40:L3:148:LEU:HD13	1.85	0.58
40:L3:313:HIS:O	40:L3:333:LYS:HD2	2.03	0.58
36:1:2561:A:N1	45:L8:32:LYS:HB2	2.18	0.58
50:M4:115:PHE:O	50:M4:119:GLN:HG3	2.04	0.58
59:N3:86:ARG:HG3	59:N3:92:PHE:CE2	2.98	0.58
63:N7:84:ARG:CZ	63:N7:85:TYR:HE1	2.99	0.58
79:Q3:7:LYS:O	79:Q3:27:LYS:NZ	2.88	0.58
86:1:3960:OHX:N3	44:L7:217:PRO:O	2.37	0.58
1:2:1417:A:OP1	86:2:2070:OHX:N5	2.37	0.58
1:2:320:U:H3'	1:2:321:C:C5'	2.31	0.58
1:2:788:A:H3'	6:S4:108:ARG:HH22	1.69	0.58
1:2:912:U:O4	1:2:914:G:N2	2.37	0.58
44:L7:159:GLN:HA	36:5:1362:G:O2'	217.84	0.58
36:5:1393:A:N3	36:5:1419:A:O2'	2.37	0.58
62:N6:2:ALA:N	36:5:212:G:OP2	77.54	0.58
36:5:708:G:H5''	36:5:708:G:H8	1.68	0.58
36:5:847:A:H2'	36:5:848:A:C8	2.38	0.58
1:6:719:U:C4	1:6:721:U:H5	2.22	0.58
15:C3:124:ARG:NH2	1:6:967:A:OP2	318.98	0.58
38:8:157:U:H2'	38:8:158:U:H6	1.68	0.58
33:E1:102:VAL:O	33:E1:104:SER:N	2.33	0.58
40:L3:20:LYS:HG2	40:L3:21:ARG:O	2.03	0.58
54:M8:67:ILE:HG23	54:M8:81:VAL:HG11	2.87	0.58
55:M9:106:LEU:HD13	55:M9:138:LEU:HD11	1.88	0.58
55:M9:25:ASP:OD1	55:M9:25:ASP:N	2.33	0.58
63:N7:53:VAL:HA	63:N7:57:HIS:CD2	2.38	0.58
65:N9:23:LYS:HB3	65:N9:24:PRO:CD	3.17	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:36:ILE:O	67:O1:39:PHE:N	2.36	0.58
3:S1:32:ILE:HG13	3:S1:96:LEU:HD21	1.85	0.58
5:S3:72:LEU:HD22	12:C0:65:TYR:HD1	2.09	0.58
6:S4:199:GLU:HB2	6:S4:207:LEU:HB2	1.85	0.58
34:SR:81:LEU:HG	34:SR:91:LEU:HD13	1.86	0.58
36:1:3286:G:H3'	36:1:3287:U:H5''	1.85	0.58
36:1:1207:G:N7	86:1:4064:OHX:N2	2.52	0.58
36:1:541:U:O4	86:1:4196:OHX:N2	2.37	0.58
1:2:312:A:H4'	1:2:313:U:H5''	1.86	0.58
1:2:929:A:C8	16:C4:123:SER:HA	2.39	0.58
36:5:1409:G:O6	86:5:4163:OHX:N6	2.37	0.58
36:5:1785:U:H2'	36:5:1786:G:H8	1.69	0.58
36:5:2102:U:H2'	36:5:2103:U:C6	2.39	0.58
36:5:2765:C:H2'	36:5:2766:U:H6	1.69	0.58
36:5:507:U:H2'	36:5:508:U:C6	2.39	0.58
36:5:776:U:H5	36:5:2719:U:O2	1.87	0.58
1:6:1395:G:O6	86:6:2087:OHX:N3	2.37	0.58
7:S5:185:ARG:NH1	1:6:1471:A:OP1	332.38	0.58
15:C3:93:LYS:HA	15:C3:150:VAL:HG21	2.15	0.58
3:S1:83:LYS:NZ	16:C4:116:GLU:OE2	2.29	0.58
24:D2:103:ILE:HA	24:D2:112:ASP:HA	1.85	0.58
45:L8:71:VAL:HG22	45:L8:76:ALA:HB2	1.84	0.58
46:L9:156:GLN:NE2	46:L9:160:ASP:OD1	4.81	0.58
46:L9:20:ILE:HG23	46:L9:25:VAL:HA	1.86	0.58
52:M6:10:ASP:HA	52:M6:36:VAL:HG23	1.86	0.58
58:N2:37:LEU:O	58:N2:41:ILE:HG13	2.04	0.58
62:N6:39:LEU:HD12	62:N6:43:TYR:HE2	4.58	0.58
65:N9:7:HIS:O	36:5:1135:A:H5'	226.60	0.58
67:O1:46:THR:HG23	67:O1:47:ASP:H	4.36	0.58
72:O6:43:LEU:HD13	72:O6:47:ILE:HD11	2.43	0.58
39:L2:171:GLY:O	79:Q3:68:ALA:HB2	2.18	0.58
2:S0:84:ARG:HH21	2:S0:201:LEU:HD12	3.97	0.58
2:S0:28:ASN:O	2:S0:150:ASP:HB3	6.08	0.58
10:S8:116:HIS:CD2	10:S8:146:ARG:HD3	4.37	0.58
11:S9:114:TYR:HE1	11:S9:121:SER:H	1.51	0.58
34:SR:227:ALA:O	34:SR:229:LYS:NZ	2.31	0.58
36:1:13:A:H4'	61:N5:39:LYS:HG3	1.84	0.58
1:2:75:U:H2'	1:2:76:A:O4'	2.04	0.58
36:5:1915:A:H2'	36:5:1916:U:C6	2.39	0.58
86:5:4022:OHX:N5	86:5:4218:OHX:N1	2.51	0.58
36:5:438:A:H2'	36:5:494:G:H21	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:7:218:OHX:N1	86:7:226:OHX:N2	2.51	0.58
1:2:1258:U:H4'	12:C0:2:LEU:HD13	1.85	0.58
19:C7:6:THR:OG1	19:C7:7:LYS:N	2.35	0.58
16:C4:111:ARG:NH2	28:D6:57:SER:O	2.37	0.58
41:L4:222:VAL:HG22	41:L4:225:VAL:HG23	1.86	0.58
42:L5:261:THR:HG23	42:L5:264:GLN:HE21	1.69	0.58
45:L8:160:ILE:HG23	45:L8:164:VAL:HG13	3.40	0.58
46:L9:20:ILE:HD12	46:L9:45:PHE:CD1	2.39	0.58
52:M6:27:LEU:HD22	52:M6:101:ARG:HB2	1.97	0.58
53:M7:10:ASN:HD22	53:M7:13:LYS:NZ	2.02	0.58
54:M8:66:ARG:NH2	36:5:744:A:OP1	166.18	0.58
6:S4:104:ASP:HB3	6:S4:106:LYS:H	2.00	0.58
6:S4:121:TYR:HA	6:S4:163:ASP:O	3.75	0.58
36:1:2510:U:O2'	36:1:2511:A:H5''	2.03	0.57
36:1:3294:A:H2'	36:1:3295:A:O4'	2.03	0.57
36:1:3383:G:H2'	36:1:3384:U:H6	1.68	0.57
1:2:1235:C:H2'	33:E1:138:ARG:NH2	2.19	0.57
36:5:1235:U:H4'	36:5:1236:G:H5'	1.86	0.57
36:5:1329:U:HO2'	36:5:1330:A:P	2.27	0.57
36:5:731:U:H2'	36:5:732:C:H6	1.68	0.57
1:6:1350:U:H2'	1:6:1351:G:H8	1.67	0.57
1:6:717:C:O2	1:6:722:G:N2	2.35	0.57
42:L5:122:VAL:HG23	42:L5:123:GLU:N	3.99	0.57
42:L5:57:ASN:HA	42:L5:58:LYS:HD3	1.85	0.57
44:L7:142:SER:O	44:L7:146:GLN:HG3	2.37	0.57
62:N6:112:ASP:H	62:N6:115:ARG:HB2	1.68	0.57
64:N8:3:SER:OG	36:5:1430:U:O4	139.64	0.57
70:O4:88:ARG:NH1	36:5:2556:C:OP1	199.67	0.57
78:Q2:9:LYS:HE2	78:Q2:22:GLN:OE1	2.04	0.57
2:S0:179:ARG:HD3	2:S0:183:ARG:CZ	3.20	0.57
2:S0:56:LYS:NZ	2:S0:159:ALA:O	2.36	0.57
7:S5:140:THR:HG21	7:S5:175:LEU:HD21	3.66	0.57
36:1:2689:A:H2'	36:1:2689:A:N3	2.18	0.57
1:2:1488:G:H3'	1:2:1515:A:H61	1.69	0.57
36:5:171:G:H1	36:5:247:C:N4	2.02	0.57
36:5:2827:U:O4	86:5:3904:OHX:N6	2.37	0.57
86:5:4022:OHX:N6	86:5:4218:OHX:N4	2.52	0.57
22:D0:87:HIS:ND1	1:6:1383:G:OP1	440.79	0.57
1:6:1451:C:H2'	1:6:1452:U:H6	1.69	0.57
30:D8:22:ARG:HD2	1:6:1619:C:C2	342.90	0.57
1:6:191:C:O2'	1:6:192:U:O5'	2.22	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:7:218:OHX:N3	86:7:226:OHX:N5	2.53	0.57
12:C0:46:LEU:O	12:C0:50:THR:HG23	2.03	0.57
40:L3:81:THR:O	40:L3:81:THR:HG22	2.27	0.57
48:M1:94:ARG:C	48:M1:96:PHE:H	2.07	0.57
54:M8:42:ALA:HB2	54:M8:133:LYS:HD3	2.14	0.57
61:N5:105:VAL:HG11	61:N5:126:LEU:HD13	1.85	0.57
62:N6:100:HIS:ND1	62:N6:102:SER:OG	2.99	0.57
72:O6:70:ARG:NH1	72:O6:84:LYS:HD3	2.19	0.57
2:S0:148:ASP:OD1	2:S0:149:LEU:N	2.72	0.57
6:S4:157:ASN:OD1	6:S4:222:LEU:HD11	4.00	0.57
7:S5:143:ARG:NH1	7:S5:218:GLU:OE1	2.37	0.57
10:S8:84:HIS:CE1	10:S8:86:SER:HB2	2.39	0.57
36:1:1447:G:H3'	53:M7:67:ILE:HD11	1.87	0.57
36:1:726:G:H8	36:1:726:G:H5''	1.69	0.57
1:2:1290:U:H2'	1:2:1291:G:C8	2.39	0.57
1:2:1586:A:H2'	1:2:1587:A:O4'	2.05	0.57
1:2:1629:G:H2'	1:2:1630:U:H6	1.69	0.57
1:2:855:A:C2	1:2:857:U:H1'	2.39	0.57
36:5:1724:U:H4'	36:5:1725:C:OP1	2.04	0.57
36:5:3377:G:O6	86:5:4089:OHX:N2	2.37	0.57
36:5:679:U:O4	86:5:4017:OHX:N2	2.38	0.57
19:C7:32:LYS:NZ	1:6:1387:G:OP1	438.91	0.57
38:8:83:C:H4'	38:8:85:G:C2	2.40	0.57
27:D5:42:LEU:HD22	27:D5:47:TYR:HB2	6.64	0.57
40:L3:81:THR:HB	40:L3:321:PHE:HA	2.72	0.57
54:M8:158:HIS:H	54:M8:186:VAL:CG1	2.17	0.57
68:O2:103:LYS:O	68:O2:106:VAL:HG22	5.20	0.57
71:O5:95:PHE:CG	36:5:136:G:H5'	61.54	0.57
2:S0:193:GLN:O	2:S0:195:TRP:N	2.37	0.57
3:S1:180:THR:HG22	3:S1:181:LEU:HD13	1.86	0.57
4:S2:53:ILE:HG12	4:S2:73:LEU:HD22	4.23	0.57
6:S4:95:THR:HG23	6:S4:97:GLU:HG3	6.15	0.57
11:S9:110:GLN:NE2	11:S9:126:ARG:HG2	2.28	0.57
36:1:1110:U:H2'	36:1:1111:U:C6	2.39	0.57
36:1:2093:A:H3'	36:1:2093:A:N3	2.20	0.57
36:1:239:G:O2'	36:1:240:U:OP1	2.19	0.57
1:2:161:U:OP2	8:S6:87:ARG:NH2	2.37	0.57
1:2:702:G:O2'	1:2:703:G:H8	1.88	0.57
1:2:959:U:H6	15:C3:61:THR:HB	1.65	0.57
38:4:125:U:O2'	38:4:126:A:OP2	2.23	0.57
36:5:1221:A:H3'	36:5:1222:G:H5'	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2730:G:OP2	86:5:3961:OHX:N4	2.37	0.57
36:5:409:A:OP2	86:5:4104:OHX:N3	2.37	0.57
1:6:1248:C:H2'	1:6:1249:U:C6	2.39	0.57
1:6:1696:G:H5''	1:6:1696:G:H8	1.68	0.57
15:C3:119:GLU:HG2	15:C3:141:TYR:HE2	2.90	0.57
39:L2:130:SER:HA	39:L2:169:ILE:HG22	1.87	0.57
45:L8:151:VAL:HG13	45:L8:199:ALA:HB2	2.82	0.57
47:M0:47:PRO:HB3	47:M0:171:TRP:CE2	2.39	0.57
49:M3:46:ILE:HA	49:M3:49:ARG:HH11	3.48	0.57
62:N6:39:LEU:HD22	62:N6:43:TYR:CE2	2.37	0.57
67:O1:31:ARG:O	67:O1:35:GLU:HB2	2.53	0.57
2:S0:120:LEU:HD12	2:S0:121:VAL:H	1.69	0.57
2:S0:172:LEU:HD13	2:S0:176:LEU:HD11	2.65	0.57
4:S2:148:LEU:HA	23:D1:4:ASP:HB2	1.85	0.57
4:S2:186:LYS:HD2	4:S2:189:GLN:OE1	3.34	0.57
6:S4:26:CYS:HB2	6:S4:27:TYR:CE2	5.14	0.57
9:S7:120:ALA:O	9:S7:124:LYS:HG2	3.12	0.57
36:1:2745:G:O2'	36:1:2747:A:N7	2.28	0.57
36:1:3138:U:H2'	36:1:3139:A:H5''	1.85	0.57
1:2:1301:U:H2'	1:2:1302:U:O4'	2.04	0.57
1:2:442:C:O2'	1:2:525:A:N1	2.37	0.57
36:5:1258:U:O2	36:5:1260:A:H8	1.87	0.57
68:O2:33:ARG:NH2	36:5:1407:A:O3'	161.28	0.57
36:5:900:G:H1'	36:5:1589:A:H61	1.69	0.57
5:S3:179:GLN:NE2	1:6:1438:G:O2'	393.79	0.57
1:6:578:U:H4'	1:6:579:A:H5'	1.87	0.57
18:C6:52:LEU:HB2	18:C6:53:LEU:HD23	2.07	0.57
21:C9:53:TRP:HH2	21:C9:100:ILE:HD12	1.81	0.57
27:D5:43:ASP:O	27:D5:46:LYS:N	2.27	0.57
36:1:121:A:C6	45:L8:129:PRO:HG3	2.39	0.57
45:L8:78:PHE:O	45:L8:80:TYR:N	2.33	0.57
36:1:1655:G:H5''	70:O4:58:ARG:NH2	2.19	0.57
77:Q1:11:ARG:HG2	77:Q1:11:ARG:HH11	1.70	0.57
2:S0:26:ALA:HB3	2:S0:149:LEU:HB2	1.86	0.57
5:S3:202:LEU:HB2	5:S3:204:ASP:HB3	3.80	0.57
6:S4:251:GLU:O	6:S4:255:ARG:HG2	4.00	0.57
8:S6:114:VAL:HG12	8:S6:115:LYS:HD3	1.87	0.57
1:2:144:U:H5	8:S6:137:ARG:NH1	2.03	0.57
8:S6:67:VAL:HG23	8:S6:68:LEU:O	2.22	0.57
36:1:1603:A:OP1	55:M9:38:ARG:NH1	2.38	0.57
36:1:2155:G:O2'	39:L2:227:ARG:NH2	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2218:G:H2'	36:1:2219:A:C8	2.40	0.57
36:1:608:A:N6	43:L6:22:ARG:HD3	2.20	0.57
1:2:1615:C:O2'	1:2:1616:G:OP2	2.21	0.57
38:4:9:A:H2'	38:4:10:A:C8	2.39	0.57
37:7:91:G:H2'	37:7:92:A:C8	2.40	0.57
17:C5:99:GLY:O	1:6:1211:A:H1'	375.28	0.57
1:2:359:A:C2	25:D3:38:PHE:HB3	2.39	0.57
26:D4:43:LYS:O	26:D4:47:VAL:HG13	5.31	0.57
28:D6:19:LYS:HG3	28:D6:20:PRO:HD2	1.87	0.57
7:S5:162:VAL:HA	30:D8:45:LYS:HB3	1.87	0.57
39:L2:114:SER:HB2	39:L2:169:ILE:HD12	1.85	0.57
39:L2:201:GLY:O	39:L2:204:MET:HG2	3.08	0.57
39:L2:222:ALA:HB1	39:L2:224:THR:HG22	5.88	0.57
47:M0:86:HIS:HB3	47:M0:139:ARG:HG3	3.28	0.57
51:M5:136:ASP:OD2	51:M5:138:GLN:HG2	2.04	0.57
56:N0:1:MET:SD	56:N0:36:ILE:HD13	2.44	0.57
68:O2:100:ILE:O	68:O2:105:ARG:NH1	2.36	0.57
68:O2:119:VAL:O	68:O2:122:PRO:HD3	2.32	0.57
70:O4:47:CYS:SG	70:O4:48:GLY:N	2.78	0.57
70:O4:55:SER:OG	70:O4:69:HIS:HB3	2.04	0.57
74:O8:42:LYS:HG2	74:O8:55:VAL:HG22	1.85	0.57
3:S1:146:GLN:H	3:S1:149:GLN:NE2	2.02	0.57
10:S8:16:ALA:HB2	1:6:354:C:H5''	297.10	0.57
36:1:3243:A:H4'	40:L3:95:THR:HG22	1.85	0.57
36:1:618:C:H5'	53:M7:169:THR:HG22	1.85	0.57
1:2:1370:U:O4	86:2:2120:OHX:N1	2.38	0.57
38:4:124:G:OP2	86:4:234:OHX:N4	2.38	0.57
66:O0:28:LYS:NZ	36:5:1713:G:O6	233.66	0.57
36:5:2309:A:H4'	86:5:4200:OHX:N4	2.19	0.57
21:C9:122:ARG:NH1	1:6:1499:G:OP1	420.62	0.57
86:7:218:OHX:N4	86:7:226:OHX:N2	2.53	0.57
22:D0:118:VAL:HG22	22:D0:119:ALA:H	1.68	0.57
30:D8:27:GLN:HE22	30:D8:64:ARG:HE	1.52	0.57
40:L3:219:ALA:HB2	40:L3:336:VAL:HG13	1.85	0.57
46:L9:93:VAL:HG22	76:Q0:82:LEU:HB3	1.86	0.57
71:O5:68:GLN:HA	71:O5:71:LYS:HB2	1.87	0.57
78:Q2:17:CYS:SG	78:Q2:74:CYS:SG	3.04	0.57
3:S1:171:ILE:HA	3:S1:174:LYS:HE3	1.85	0.57
6:S4:129:VAL:HB	6:S4:139:VAL:HG12	1.87	0.57
9:S7:143:LEU:HB2	9:S7:147:ASN:O	2.64	0.57
11:S9:122:VAL:O	11:S9:125:ALA:HB3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1391:C:C2	68:O2:103:LYS:HD3	2.40	0.57
36:1:2225:U:H2'	36:1:2226:U:C6	2.39	0.57
36:1:2444:C:H3'	36:1:2445:A:H5''	1.85	0.57
36:1:2810:C:OP1	86:1:4084:OHX:N6	2.38	0.57
36:1:3152:U:O2	86:1:4147:OHX:N4	2.38	0.57
36:1:656:A:H2'	36:1:657:A:H8	1.69	0.57
38:4:77:A:OP2	86:4:229:OHX:N2	2.38	0.57
36:5:3159:C:H2'	36:5:3160:U:C6	2.40	0.57
4:S2:206:THR:HG21	1:6:14:C:OP2	375.03	0.57
5:S3:144:ALA:HB2	1:6:579:A:N1	390.98	0.57
1:6:871:G:H2'	1:6:872:G:C8	2.40	0.57
12:C0:52:LYS:HE2	1:6:1220:C:H5'	443.29	0.57
13:C1:78:THR:HG22	13:C1:84:ILE:HG22	1.87	0.57
14:C2:60:VAL:HG13	14:C2:122:VAL:HG22	1.87	0.57
1:2:916:U:H3	16:C4:41:ARG:NH2	2.02	0.57
22:D0:58:LEU:HD23	1:6:1516:A:C8	443.79	0.57
7:S5:61:TYR:OH	30:D8:52:ASP:OD1	3.64	0.57
33:E1:127:GLY:O	33:E1:129:GLY:N	2.37	0.57
40:L3:25:ILE:HD13	40:L3:25:ILE:N	2.17	0.57
41:L4:309:ARG:NH2	41:L4:312:VAL:HB	2.20	0.57
41:L4:60:THR:HG21	41:L4:77:VAL:HG22	1.85	0.57
42:L5:146:LEU:HB3	36:5:2746:A:H2	259.22	0.57
45:L8:54:GLU:O	45:L8:58:VAL:HG23	2.04	0.57
47:M0:86:HIS:HB3	47:M0:139:ARG:CG	2.78	0.57
63:N7:17:ARG:HG2	70:O4:73:SER:O	2.04	0.57
71:O5:31:LEU:HB3	71:O5:44:ILE:HD12	1.86	0.57
77:Q1:6:ARG:HA	77:Q1:9:ARG:HB2	1.87	0.57
2:S0:185:ARG:HG3	23:D1:47:PRO:HD3	1.87	0.57
6:S4:108:ARG:NH1	1:6:788:A:OP2	396.63	0.57
6:S4:9:LEU:HD12	6:S4:30:ARG:HA	2.47	0.57
8:S6:142:ARG:HA	8:S6:147:LEU:HD12	2.30	0.57
1:2:1606:C:H2'	1:2:1607:G:C8	2.40	0.57
36:5:2322:C:OP1	86:5:4161:OHX:N6	2.38	0.57
36:5:2528:G:N7	86:5:4209:OHX:N3	2.53	0.57
36:5:286:U:H2'	36:5:287:G:C8	2.40	0.57
40:L3:120:LYS:NZ	36:5:3001:C:OP1	204.32	0.57
86:5:4022:OHX:N3	86:5:4218:OHX:N1	2.52	0.57
1:6:1628:U:H2'	1:6:1629:G:C8	2.39	0.57
1:6:915:A:OP1	86:6:2069:OHX:N6	2.38	0.57
1:6:1588:G:OP1	86:6:2122:OHX:N2	2.38	0.57
1:6:542:A:O2'	1:6:543:C:O5'	2.22	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:153:LYS:HG2	40:L3:154:TYR:CE2	4.30	0.57
40:L3:221:THR:HB	40:L3:273:HIS:H	1.74	0.57
41:L4:152:VAL:HG22	41:L4:172:VAL:HG21	1.87	0.57
45:L8:156:ASP:O	45:L8:183:LYS:HE3	7.33	0.57
49:M3:98:ASP:OD2	36:5:76:G:O2'	82.05	0.57
51:M5:179:LYS:HD3	36:5:287:G:OP1	125.60	0.57
58:N2:22:PRO:HG3	58:N2:105:LEU:HB3	1.87	0.57
10:S8:82:VAL:HG13	10:S8:196:LEU:HD21	4.64	0.57
11:S9:143:ILE:HD12	1:6:767:U:C5	422.30	0.57
36:1:1815:U:H1'	36:1:1816:A:O5'	2.05	0.57
36:1:385:A:H2'	36:1:386:A:C8	2.40	0.57
36:1:2659:G:N7	86:1:3881:OHX:N5	2.53	0.57
36:1:3026:G:O6	86:1:3941:OHX:N4	2.38	0.57
36:1:517:G:P	44:L7:60:ARG:HH22	2.28	0.57
1:2:539:G:OP2	1:2:539:G:H8	1.87	0.57
1:6:1039:A:O2'	1:6:1040:G:OP2	2.23	0.57
1:6:1590:G:H2'	1:6:1591:C:H6	1.70	0.57
1:6:67:A:O2'	1:6:69:G:OP1	2.08	0.57
13:C1:64:VAL:HG11	13:C1:131:ILE:HD11	1.87	0.57
17:C5:100:LYS:HG3	17:C5:101:ALA:N	3.51	0.57
7:S5:73:THR:HG23	18:C6:114:ARG:HD2	1.87	0.57
18:C6:49:TYR:HB3	18:C6:53:LEU:HD11	1.87	0.57
27:D5:85:LYS:HG3	27:D5:86:GLU:H	2.26	0.57
1:2:936:G:N7	28:D6:15:ARG:NH1	2.53	0.57
42:L5:56:THR:C	42:L5:58:LYS:H	2.08	0.57
45:L8:160:ILE:HG22	45:L8:164:VAL:HG13	1.87	0.57
46:L9:90:MET:O	46:L9:91:ARG:HD2	4.27	0.57
48:M1:38:GLU:C	48:M1:40:LEU:H	2.27	0.57
56:N0:137:ARG:HG2	56:N0:139:TYR:CZ	2.68	0.57
56:N0:2:ALA:HB3	56:N0:32:SER:CB	2.35	0.57
56:N0:79:VAL:HG21	56:N0:106:LEU:HD21	2.51	0.57
57:N1:17:ARG:HH11	57:N1:17:ARG:HG2	3.79	0.57
62:N6:45:ILE:HD13	62:N6:122:LYS:HD3	1.87	0.57
73:O7:63:ARG:O	73:O7:68:LYS:HE3	3.74	0.57
5:S3:161:GLY:O	5:S3:164:VAL:HB	2.05	0.57
36:1:2535:A:N6	36:1:2544:U:H3	1.99	0.56
36:1:339:C:OP1	36:1:1380:G:O2'	2.22	0.56
1:2:422:G:OP1	86:2:2041:OHX:N6	2.38	0.56
1:2:74:U:O2'	1:2:75:U:OP2	2.21	0.56
36:5:1070:U:C4	36:5:1071:U:C4	2.93	0.56
36:5:2947:G:H4'	36:5:2947:G:OP2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:488:G:H21	1:6:499:U:H3	1.53	0.56
18:C6:31:VAL:O	18:C6:33:GLY:N	2.38	0.56
19:C7:26:LEU:HD22	19:C7:59:LYS:HA	1.87	0.56
23:D1:17:CYS:HB2	23:D1:56:SER:HB3	1.86	0.56
25:D3:42:PRO:O	25:D3:79:ASN:ND2	2.38	0.56
33:E1:123:ASN:C	33:E1:125:THR:H	2.08	0.56
39:L2:243:THR:OG1	36:5:2244:A:H5''	227.99	0.56
46:L9:48:VAL:HG11	46:L9:52:LEU:HD13	1.87	0.56
56:N0:82:ASP:OD1	56:N0:87:THR:HB	2.05	0.56
63:N7:83:THR:HG23	63:N7:85:TYR:N	2.19	0.56
3:S1:34:ALA:HA	3:S1:98:THR:HG22	1.87	0.56
11:S9:168:ARG:HD3	11:S9:171:ARG:HH11	1.70	0.56
36:1:105:C:HO2'	36:1:684:G:HO2'	1.42	0.56
36:1:1331:U:OP2	36:1:1332:A:N6	2.33	0.56
36:1:2206:G:H1	36:1:2237:C:H42	1.52	0.56
36:1:1078:U:O4	86:1:3968:OHX:N2	2.39	0.56
36:1:1819:U:O4	86:1:4043:OHX:N4	2.37	0.56
36:1:1413:G:N7	86:1:4124:OHX:N4	2.53	0.56
1:2:138:A:N6	1:2:266:A:H61	2.03	0.56
1:2:154:G:H5'	8:S6:108:VAL:HG21	1.86	0.56
1:2:623:A:OP1	86:2:2156:OHX:N1	2.38	0.56
1:2:701:U:H3	1:2:737:A:H61	1.51	0.56
1:2:883:C:H2'	1:2:884:A:H8	1.70	0.56
37:3:113:C:H2'	37:3:114:U:O4'	2.05	0.56
70:O4:37:LYS:NZ	36:5:1591:G:OP1	159.57	0.56
36:5:1688:U:H2'	36:5:1689:U:C6	2.40	0.56
36:5:2227:C:H2'	36:5:2228:A:H5''	1.86	0.56
36:5:770:G:N7	86:5:4098:OHX:N6	2.52	0.56
36:5:595:G:H1	36:5:609:G:H5''	1.70	0.56
36:5:900:G:H1'	36:5:1589:A:N6	2.20	0.56
1:6:647:G:H22	1:6:687:G:N2	2.02	0.56
26:D4:12:VAL:HG22	26:D4:23:PHE:HB3	2.78	0.56
29:D7:56:CYS:SG	29:D7:57:GLU:N	2.78	0.56
32:E0:39:LEU:O	32:E0:43:ARG:HB2	2.27	0.56
49:M3:168:ARG:HA	49:M3:171:ARG:HB2	1.86	0.56
62:N6:112:ASP:HB2	62:N6:115:ARG:H	1.69	0.56
62:N6:50:ILE:HD13	62:N6:51:ARG:H	3.10	0.56
73:O7:18:LEU:HA	73:O7:25:ARG:H	1.71	0.56
78:Q2:2:VAL:N	78:Q2:90:HIS:O	2.38	0.56
78:Q2:46:LYS:HD3	78:Q2:54:THR:HB	2.02	0.56
2:S0:70:PRO:O	2:S0:95:ALA:N	2.31	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:190:ILE:O	7:S5:194:LEU:HB2	2.37	0.56
9:S7:9:LEU:HD21	9:S7:17:GLU:HB3	1.87	0.56
11:S9:129:ILE:HA	11:S9:134:ILE:HD11	2.94	0.56
36:1:287:G:OP1	51:M5:179:LYS:HE3	2.05	0.56
36:1:2960:C:H2'	36:1:2961:G:H8	1.70	0.56
36:5:119:U:H4'	36:5:120:G:H3'	1.86	0.56
39:L2:233:GLN:NE2	36:5:2607:G:OP1	194.60	0.56
1:6:1171:A:H2'	1:6:1172:G:C8	2.40	0.56
1:6:1735:U:O4	86:6:2121:OHX:N5	2.39	0.56
22:D0:63:LEU:HB2	22:D0:84:MET:HB3	2.34	0.56
23:D1:81:ASN:O	23:D1:82:VAL:HB	2.04	0.56
27:D5:72:GLY:O	1:6:1534:G:O2'	338.17	0.56
39:L2:108:PRO:O	39:L2:111:THR:OG1	2.21	0.56
42:L5:40:HIS:CE1	42:L5:42:ALA:HB3	3.65	0.56
41:L4:326:ARG:O	44:L7:41:ARG:NH2	3.88	0.56
56:N0:78:TRP:CE3	56:N0:125:LYS:HG2	2.51	0.56
57:N1:138:SER:C	57:N1:139:ARG:HG3	4.47	0.56
66:O0:46:ALA:HB2	66:O0:72:GLY:H	1.71	0.56
66:O0:16:LEU:HD11	66:O0:97:ASP:HB3	1.87	0.56
49:M3:123:ILE:HG22	71:O5:118:ILE:HG12	3.28	0.56
7:S5:40:ILE:HG23	7:S5:42:LEU:HG	4.23	0.56
36:1:1062:A:N3	57:N1:130:ARG:NH2	2.54	0.56
36:1:1723:A:N1	36:1:1788:C:O2'	2.34	0.56
1:2:1308:G:C2	1:2:1309:C:C2	2.93	0.56
1:2:1657:U:H5	36:1:2125:A:O3'	1.89	0.56
1:2:1002:G:N1	1:2:1761:U:OP1	2.35	0.56
71:O5:95:PHE:CD2	36:5:136:G:H5'	62.89	0.56
36:5:1378:U:OP1	86:5:4029:OHX:N3	2.39	0.56
36:5:789:A:H2'	36:5:790:U:C6	2.40	0.56
1:6:837:G:O6	86:6:2099:OHX:N1	2.37	0.56
12:C0:87:VAL:O	12:C0:89:ALA:N	5.22	0.56
16:C4:31:THR:HA	16:C4:38:THR:HA	3.15	0.56
20:C8:13:HIS:CD2	20:C8:13:HIS:H	2.94	0.56
24:D2:7:LEU:HD22	24:D2:11:LEU:HG	2.64	0.56
25:D3:57:LEU:HD22	32:E0:4:VAL:HG12	1.88	0.56
39:L2:112:ILE:HG22	39:L2:135:ILE:HG12	5.43	0.56
41:L4:229:ASN:OD1	41:L4:231:ALA:N	2.32	0.56
41:L4:23:PRO:HB3	41:L4:258:LEU:HB3	1.87	0.56
42:L5:75:LEU:HD22	42:L5:112:LYS:HE2	4.73	0.56
42:L5:144:VAL:HG12	42:L5:173:VAL:HG22	1.91	0.56
42:L5:17:GLN:OE1	57:N1:22:HIS:N	2.34	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:261:THR:H	42:L5:264:GLN:HG3	1.71	0.56
43:L6:55:LEU:HB2	43:L6:64:LEU:HB3	2.45	0.56
45:L8:41:GLN:HG3	45:L8:44:ARG:NH1	2.20	0.56
48:M1:92:ARG:NH2	48:M1:94:ARG:HD2	6.87	0.56
53:M7:147:GLU:HG3	53:M7:147:GLU:O	2.29	0.56
58:N2:54:VAL:HG13	58:N2:67:SER:HB2	3.03	0.56
62:N6:23:PRO:HD2	62:N6:26:GLN:HB2	1.88	0.56
64:N8:96:LYS:O	64:N8:98:THR:N	2.35	0.56
74:O8:66:ILE:HA	74:O8:69:LEU:HD23	1.87	0.56
78:Q2:83:LEU:HD22	78:Q2:84:THR:H	1.71	0.56
2:S0:78:SER:OG	2:S0:129:ASP:OD1	2.97	0.56
3:S1:41:ARG:HH22	3:S1:232:HIS:HA	2.19	0.56
6:S4:122:LYS:HB3	6:S4:164:LEU:HD21	1.86	0.56
36:1:2107:A:C2	36:1:3344:A:H8	2.20	0.56
1:2:1483:A:H61	1:2:1591:C:H1'	1.71	0.56
36:5:1366:A:C2	36:5:1367:G:C4	2.94	0.56
36:5:1560:G:O2'	36:5:1561:G:OP1	2.22	0.56
76:Q0:102:ARG:NE	36:5:2896:A:OP1	320.62	0.56
36:5:549:U:H2'	36:5:550:A:C8	2.40	0.56
36:5:953:G:H2'	36:5:1117:G:H5''	1.86	0.56
64:N8:34:MET:HB2	36:5:95:A:H5''	163.01	0.56
1:6:1142:A:H2'	1:6:1143:A:C8	2.40	0.56
1:6:1150:G:O6	86:6:2113:OHX:N5	2.39	0.56
1:6:1160:A:H2'	1:6:1161:C:C6	2.41	0.56
28:D6:6:ALA:H	1:6:1796:C:H5	344.31	0.56
32:E0:31:LYS:HD2	1:6:545:A:H2'	414.58	0.56
61:N5:56:ARG:NH2	38:8:135:G:OP2	82.58	0.56
38:8:1:A:OP1	86:8:214:OHX:N5	2.39	0.56
15:C3:55:ARG:HD2	29:D7:47:PHE:CD1	2.41	0.56
17:C5:98:ASN:HD21	17:C5:101:ALA:HB3	3.37	0.56
18:C6:46:PHE:O	18:C6:50:GLU:HG3	2.06	0.56
27:D5:60:VAL:HG13	27:D5:101:TYR:HB2	3.90	0.56
46:L9:94:TYR:CE2	46:L9:98:PRO:HA	2.40	0.56
49:M3:109:PHE:O	49:M3:113:VAL:HG23	2.26	0.56
52:M6:134:LYS:NZ	36:5:3124:G:OP1	301.63	0.56
36:1:1719:G:H5''	55:M9:110:ARG:HH22	1.71	0.56
62:N6:91:ASN:O	62:N6:93:ALA:N	2.38	0.56
73:O7:8:PHE:O	73:O7:11:ARG:HG3	2.05	0.56
10:S8:89:GLU:CD	10:S8:92:ARG:HH21	2.07	0.56
17:C5:126:VAL:HG13	35:SM:71:ASN:HD21	1.69	0.56
36:1:1064:A:H4'	36:1:1065:A:O5'	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1454:A:OP2	86:1:4211:OHX:N6	2.38	0.56
36:1:2115:G:H22	36:1:2120:A:H1'	1.70	0.56
1:2:412:A:H2'	1:2:413:U:C6	2.40	0.56
36:5:1940:G:H21	36:5:3362:A:H8	1.53	0.56
36:5:602:A:H2'	36:5:603:A:C8	2.40	0.56
36:5:920:A:OP1	36:5:922:U:H5	1.89	0.56
1:6:653:C:N4	1:6:677:G:H1	2.02	0.56
1:6:711:U:H5'	1:6:712:G:OP2	2.06	0.56
38:8:16:G:O2'	38:8:17:A:OP2	2.20	0.56
16:C4:30:VAL:HG13	16:C4:39:ILE:O	2.05	0.56
18:C6:82:ARG:NH1	18:C6:114:ARG:HB2	3.80	0.56
21:C9:33:TYR:CD1	21:C9:37:VAL:HG21	3.25	0.56
26:D4:11:LYS:HB2	26:D4:24:VAL:HG23	2.34	0.56
28:D6:5:ARG:NH2	1:6:1793:G:O2'	334.91	0.56
49:M3:16:LYS:O	49:M3:17:HIS:HB2	4.60	0.56
53:M7:69:ARG:HD3	36:5:3308:C:O2	185.44	0.56
56:N0:2:ALA:HB3	56:N0:32:SER:HB3	1.88	0.56
5:S3:143:ARG:HH21	5:S3:143:ARG:HG2	1.71	0.56
36:1:440:A:OP1	36:1:494:G:H1'	2.05	0.56
1:2:348:U:O4	86:2:2127:OHX:N5	2.39	0.56
1:2:542:A:H5''	1:2:544:A:C8	2.40	0.56
36:5:2406:C:H2'	36:5:2407:C:C6	2.41	0.56
36:5:2964:G:N2	36:5:2967:A:OP2	2.34	0.56
36:5:2971:A:H3'	36:5:2971:A:N3	2.21	0.56
11:S9:142:ASN:ND2	1:6:767:U:H5	425.06	0.56
1:2:1235:C:O2'	33:E1:149:LYS:HD2	2.06	0.56
39:L2:5:ILE:HG12	39:L2:8:GLN:HG2	1.87	0.56
40:L3:106:TRP:HB2	40:L3:133:TYR:CE2	2.40	0.56
47:M0:76:MET:CE	47:M0:148:VAL:HG13	2.36	0.56
48:M1:23:VAL:HG11	48:M1:29:ARG:HG2	1.87	0.56
49:M3:130:GLY:O	49:M3:132:ALA:N	2.39	0.56
53:M7:67:ILE:HD12	53:M7:82:ARG:CZ	3.13	0.56
56:N0:52:LYS:HG3	56:N0:54:ALA:HB3	1.87	0.56
60:N4:47:ARG:HG2	60:N4:54:LEU:HD12	7.47	0.56
62:N6:86:THR:HG22	62:N6:96:PRO:HA	3.13	0.56
2:S0:79:ARG:HD2	2:S0:125:ASP:HB2	5.50	0.56
5:S3:176:LEU:HD12	5:S3:176:LEU:H	1.75	0.56
7:S5:57:SER:OG	7:S5:167:ARG:NH2	2.39	0.56
34:SR:33:LEU:HB2	34:SR:47:LEU:HD11	1.86	0.56
36:1:2544:U:H2'	36:1:2545:C:C6	2.41	0.56
86:1:4005:OHX:N6	86:1:4175:OHX:N1	2.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:887:A:H1'	16:C4:122:PRO:HB3	1.88	0.56
36:5:1772:U:H5''	36:5:1773:C:H5'	1.87	0.56
1:6:770:A:OP2	86:6:2136:OHX:N3	2.39	0.56
1:6:76:A:H3'	86:6:2189:OHX:N1	2.20	0.56
1:6:291:G:H2'	1:6:292:U:C6	2.41	0.56
9:S7:114:ARG:NH2	1:6:637:C:O2	351.13	0.56
1:6:992:A:OP1	86:6:2052:OHX:N1	2.39	0.56
17:C5:110:GLU:HG3	20:C8:119:ILE:HD11	1.87	0.56
22:D0:106:ILE:HG23	22:D0:107:THR:HG23	1.87	0.56
23:D1:14:PRO:HB2	23:D1:23:ILE:HG23	2.27	0.56
40:L3:228:GLY:O	40:L3:232:ARG:HB3	2.72	0.56
44:L7:222:HIS:ND1	44:L7:224:ILE:HG13	2.21	0.56
44:L7:33:ARG:HA	44:L7:36:ALA:HB3	2.43	0.56
46:L9:93:VAL:O	46:L9:177:ASP:HA	2.34	0.56
48:M1:139:THR:O	48:M1:140:ARG:HB2	2.05	0.56
49:M3:89:TYR:CE1	49:M3:93:ILE:HD11	3.36	0.56
53:M7:30:ARG:HA	53:M7:119:VAL:HG11	2.32	0.56
61:N5:115:ARG:NH1	61:N5:119:THR:OG1	2.54	0.56
72:O6:56:ARG:O	72:O6:60:LEU:HB2	2.05	0.56
2:S0:150:ASP:OD1	2:S0:165:ARG:NH2	2.39	0.56
3:S1:123:ALA:HB2	3:S1:165:ARG:HG2	2.59	0.56
3:S1:147:ALA:O	3:S1:148:ASN:HB3	2.05	0.56
4:S2:103:VAL:HG12	4:S2:190:LEU:HD12	1.87	0.56
5:S3:177:MET:HG3	5:S3:178:ARG:H	4.75	0.56
6:S4:100:ARG:HG2	6:S4:102:VAL:HG12	3.56	0.56
1:2:799:A:H5''	6:S4:201:HIS:CE1	2.41	0.56
7:S5:42:LEU:HB2	7:S5:46:TRP:O	2.05	0.56
8:S6:49:VAL:HB	8:S6:115:LYS:HG2	4.57	0.56
10:S8:116:HIS:O	10:S8:146:ARG:NH1	2.38	0.56
10:S8:57:ALA:HB2	10:S8:177:GLY:HA2	2.10	0.56
34:SR:164:ASP:O	34:SR:166:SER:N	2.50	0.56
36:1:1240:A:H2	36:1:1248:C:H41	1.53	0.56
36:1:1507:G:N3	36:1:1507:G:H5'	2.21	0.56
36:1:2970:C:H4'	36:1:2971:A:N1	2.20	0.56
36:1:863:C:H2'	36:1:864:G:O4'	2.06	0.56
36:5:1236:G:N2	36:5:1244:A:OP1	2.39	0.56
36:5:1650:G:N7	86:5:4183:OHX:N3	2.53	0.56
36:5:1881:A:OP2	86:5:4032:OHX:N6	2.39	0.56
36:5:2836:C:H41	36:5:2852:C:H41	1.54	0.56
17:C5:122:THR:HG21	1:6:1455:G:OP1	368.89	0.56
1:6:1699:G:N1	1:6:1701:A:H5''	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:180:A:H2'	1:6:181:A:O4'	2.05	0.56
8:S6:94:ARG:HH21	1:6:407:A:H5'	289.07	0.56
1:6:830:U:H2'	1:6:831:U:H5'	1.88	0.56
1:6:894:U:H2'	1:6:895:G:C8	2.40	0.56
17:C5:79:HIS:O	17:C5:81:ARG:N	2.39	0.56
20:C8:3:LEU:HD23	20:C8:5:VAL:HG13	1.87	0.56
26:D4:20:ARG:NH1	26:D4:22:GLN:OE1	2.39	0.56
43:L6:157:GLN:N	43:L6:157:GLN:OE1	2.83	0.56
48:M1:133:ARG:NH1	48:M1:153:LYS:O	2.37	0.56
36:1:687:U:OP2	49:M3:36:ARG:NH2	2.37	0.56
51:M5:156:HIS:HB3	51:M5:159:ARG:HD2	3.69	0.56
53:M7:60:PHE:CE2	53:M7:82:ARG:HB2	2.41	0.56
56:N0:169:SER:HA	36:5:3185:U:O2	301.70	0.56
57:N1:130:ARG:HD3	36:5:1098:A:OP2	254.63	0.56
58:N2:98:THR:HG23	58:N2:104:ARG:HH21	6.98	0.56
61:N5:57:LEU:HD23	61:N5:61:LYS:HG2	5.97	0.56
3:S1:144:ARG:HG2	3:S1:206:PRO:HB3	1.89	0.56
5:S3:135:GLU:HB3	5:S3:187:LYS:HB3	1.86	0.56
6:S4:185:GLY:N	6:S4:189:LEU:HD13	2.21	0.56
36:1:1543:G:O6	86:1:4059:OHX:N2	2.39	0.56
36:1:2592:G:O6	86:1:3909:OHX:N1	2.38	0.56
36:5:1276:U:OP2	86:5:4009:OHX:N1	2.39	0.56
36:5:1887:A:OP1	86:5:4115:OHX:N6	2.38	0.56
36:5:246:U:H2'	36:5:247:C:H5''	1.88	0.56
36:5:2765:C:H2'	36:5:2766:U:C6	2.40	0.56
8:S6:137:ARG:HH12	1:6:144:U:H5	311.11	0.56
1:6:542:A:H2'	1:6:542:A:OP1	2.05	0.56
16:C4:71:CYS:O	16:C4:76:ILE:N	2.96	0.56
18:C6:47:LYS:NZ	18:C6:114:ARG:HD3	4.40	0.56
18:C6:67:VAL:HG11	18:C6:81:ILE:HG22	2.45	0.56
20:C8:12:GLN:NE2	20:C8:14:ILE:O	3.95	0.56
52:M6:36:VAL:HB	52:M6:108:ILE:HG22	4.90	0.56
56:N0:12:ARG:HB3	56:N0:24:LEU:HD23	1.89	0.56
59:N3:87:ARG:HH22	59:N3:137:VAL:HG22	3.01	0.56
61:N5:100:LYS:HZ3	61:N5:107:VAL:H	1.54	0.56
61:N5:105:VAL:HA	61:N5:130:TYR:CE2	2.40	0.56
71:O5:89:ARG:HD2	38:8:38:U:C4	68.29	0.56
8:S6:84:TYR:OH	8:S6:91:GLU:HG2	2.84	0.56
11:S9:41:GLU:OE1	11:S9:126:ARG:NH2	2.39	0.56
34:SR:128:ASP:OD1	34:SR:130:THR:OG1	2.97	0.56
36:1:1763:U:H5'	36:1:1764:U:OP2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2376:G:H2'	36:1:2377:G:C8	2.41	0.56
36:1:3318:G:H2'	36:1:3318:G:OP2	2.05	0.56
36:1:547:G:O2'	36:1:548:G:C8	2.54	0.56
1:2:1584:G:H5''	18:C6:122:ARG:HG2	1.88	0.56
36:5:1643:A:H4'	36:5:1822:C:H5'	1.88	0.56
36:5:2818:U:C6	36:5:2818:U:H5'	2.36	0.56
50:M4:77:ARG:NH2	36:5:524:U:OP1	341.07	0.56
11:S9:17:ARG:NH1	1:6:4:C:O2'	388.66	0.56
18:C6:90:VAL:HG21	18:C6:106:LYS:HG3	4.08	0.56
21:C9:28:LEU:CD1	21:C9:29:GLU:H	2.17	0.56
27:D5:41:ILE:HG13	27:D5:42:LEU:HG	1.87	0.56
28:D6:44:ILE:H	28:D6:44:ILE:HD12	1.71	0.56
41:L4:339:LEU:HA	41:L4:342:LYS:HB3	4.46	0.56
41:L4:84:ARG:O	41:L4:87:GLN:HG3	2.22	0.56
45:L8:246:MET:HA	45:L8:249:ARG:HB3	1.88	0.56
55:M9:24:LEU:HD22	55:M9:50:ILE:HG12	5.46	0.56
59:N3:86:ARG:HB2	59:N3:92:PHE:CE1	2.41	0.56
62:N6:79:ALA:HB1	62:N6:98:ASN:HB3	1.86	0.56
67:O1:80:ASN:N	67:O1:88:PRO:O	2.35	0.56
69:O3:48:ARG:HH11	69:O3:48:ARG:HG2	1.71	0.56
74:O8:27:ILE:HD13	74:O8:41:THR:HB	2.02	0.56
2:S0:182:LEU:O	2:S0:186:GLY:HA3	2.06	0.56
5:S3:106:LYS:O	5:S3:110:LEU:HB2	2.06	0.56
7:S5:166:ARG:HD3	30:D8:45:LYS:HG3	1.87	0.56
9:S7:39:ARG:HH12	55:M9:188:ASP:HB2	1.72	0.56
35:SM:54:PRO:HB2	35:SM:59:GLY:HA2	2.28	0.56
36:1:2518:C:OP1	86:1:4210:OHX:N5	2.39	0.55
36:1:3151:U:OP2	40:L3:132:LYS:NZ	2.31	0.55
1:2:1529:C:OP1	7:S5:112:ARG:NH1	2.31	0.55
1:2:497:G:O2'	1:2:498:G:O4'	2.24	0.55
1:2:6:G:OP2	4:S2:205:ARG:HD2	2.05	0.55
1:2:881:A:H2'	1:2:882:U:O4'	2.05	0.55
37:3:52:G:H21	48:M1:9:MET:HE1	1.70	0.55
36:5:1014:U:C3'	36:5:1015:U:H5'	2.36	0.55
45:L8:129:PRO:HB3	36:5:121:A:C2	101.46	0.55
36:5:1340:G:H2'	36:5:1341:U:H6	1.71	0.55
36:5:522:A:OP1	86:5:3941:OHX:N1	2.39	0.55
1:6:1161:C:H2'	1:6:1162:C:H6	1.70	0.55
1:6:1244:A:H3'	1:6:1244:A:N3	2.21	0.55
1:6:1776:A:H2'	1:6:1777:G:C8	2.40	0.55
1:6:700:C:H2'	1:6:701:U:C6	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:21:ASN:ND2	13:C1:31:THR:HA	2.26	0.55
13:C1:33:ARG:HH22	13:C1:52:SER:HA	2.45	0.55
24:D2:89:TRP:O	24:D2:93:LEU:HD22	2.23	0.55
39:L2:133:TYR:HB3	39:L2:168:VAL:HG12	2.56	0.55
41:L4:191:LYS:HG3	41:L4:194:TYR:CZ	4.29	0.55
45:L8:83:ASP:OD2	45:L8:86:THR:OG1	3.01	0.55
46:L9:91:ARG:HD3	46:L9:143:GLU:HB2	1.87	0.55
47:M0:42:THR:HG23	47:M0:45:GLU:HG3	4.80	0.55
50:M4:48:GLY:HA3	50:M4:53:VAL:HG13	1.95	0.55
51:M5:14:LYS:HA	51:M5:19:LEU:HD23	1.89	0.55
62:N6:56:VAL:HG11	62:N6:104:LEU:HD13	2.07	0.55
67:O1:17:HIS:HB2	67:O1:69:TYR:HB3	2.21	0.55
78:Q2:100:LYS:HE3	78:Q2:100:LYS:H	1.71	0.55
78:Q2:105:GLN:HB2	78:Q2:106:PHE:CE1	3.77	0.55
4:S2:68:ILE:O	4:S2:72:LEU:HB2	2.17	0.55
7:S5:26:ALA:N	18:C6:27:GLY:O	2.91	0.55
1:2:92:A:N6	8:S6:89:ASP:OD2	2.34	0.55
1:2:1274:C:H41	35:SM:95:SER:HA	1.71	0.55
34:SR:22:SER:OG	34:SR:70:ASP:HA	2.83	0.55
36:1:391:A:OP2	86:1:4149:OHX:N1	2.40	0.55
1:2:968:U:H5''	1:2:1033:C:O2'	2.06	0.55
38:4:81:U:O2	38:4:82:U:H3'	2.05	0.55
4:S2:168:ARG:NE	1:6:1098:U:OP2	383.81	0.55
1:6:1726:G:O6	86:6:2144:OHX:N2	2.39	0.55
12:C0:80:LEU:C	12:C0:82:LEU:H	2.10	0.55
17:C5:122:THR:CG2	1:6:1558:U:H3	365.95	0.55
18:C6:52:LEU:HA	18:C6:60:PHE:CE1	3.11	0.55
19:C7:24:LEU:HD23	19:C7:34:LEU:HD13	1.88	0.55
21:C9:52:GLY:HA2	21:C9:55:TYR:CD2	2.42	0.55
22:D0:98:GLN:O	22:D0:102:ARG:HB3	3.12	0.55
24:D2:8:ALA:HA	24:D2:74:VAL:HG11	1.87	0.55
41:L4:16:THR:HG23	41:L4:18:ASN:N	2.91	0.55
41:L4:264:SER:OG	41:L4:267:VAL:HG13	2.06	0.55
36:1:516:A:O3'	44:L7:60:ARG:NH2	2.40	0.55
46:L9:19:SER:HB3	50:M4:6:ILE:H	5.20	0.55
52:M6:85:ARG:HD3	52:M6:90:HIS:CG	3.19	0.55
54:M8:86:THR:HB	54:M8:105:ARG:HB2	2.28	0.55
55:M9:99:LEU:O	55:M9:103:ARG:HB2	2.07	0.55
36:1:1051:U:H4'	57:N1:19:PHE:CD2	2.41	0.55
58:N2:89:LEU:O	58:N2:93:ILE:HG13	2.07	0.55
60:N4:5:ILE:O	60:N4:5:ILE:HG13	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:O2:41:VAL:HG12	68:O2:46:PHE:CD2	2.64	0.55
2:S0:70:PRO:HB2	2:S0:94:GLY:HA3	1.89	0.55
3:S1:185:THR:O	3:S1:189:ILE:HG13	2.07	0.55
7:S5:90:ILE:O	7:S5:94:THR:HG23	2.44	0.55
10:S8:99:ALA:HB3	1:6:329:G:H5'	269.92	0.55
35:SM:116:GLU:O	35:SM:119:ALA:N	2.25	0.55
36:1:3049:A:C2	40:L3:75:ALA:HB2	2.41	0.55
36:1:562:C:H2'	36:1:563:U:C6	2.38	0.55
36:1:978:G:O2'	36:1:979:U:O2	2.17	0.55
1:2:1274:C:C5	35:SM:95:SER:HA	2.41	0.55
1:2:1332:C:O5'	1:2:1332:C:H6	1.89	0.55
1:2:1385:G:N7	86:2:2132:OHX:N3	2.55	0.55
1:2:614:C:OP2	25:D3:5:LYS:NZ	2.29	0.55
36:5:1439:U:H2'	36:5:1440:G:O4'	2.06	0.55
36:5:3195:U:H1'	36:5:3196:U:OP1	2.06	0.55
36:5:533:A:OP2	86:5:4086:OHX:N6	2.39	0.55
36:5:546:C:H4'	36:5:547:G:OP1	2.07	0.55
33:E1:134:ASN:H	1:6:1251:U:H4'	441.79	0.55
1:6:276:C:H1'	1:6:277:U:C5	2.42	0.55
1:6:532:U:H2'	1:6:533:U:O4'	2.06	0.55
1:6:833:U:O4	86:6:2099:OHX:N5	2.39	0.55
86:7:218:OHX:N4	86:7:226:OHX:N6	2.54	0.55
17:C5:87:PRO:HA	17:C5:90:ILE:HG13	1.88	0.55
21:C9:33:TYR:HD1	21:C9:34:VAL:H	2.78	0.55
2:S0:52:LYS:NZ	23:D1:82:VAL:O	2.42	0.55
24:D2:30:SER:HB2	24:D2:61:ILE:HG13	1.87	0.55
4:S2:230:TRP:NE1	24:D2:68:ARG:HB2	3.74	0.55
26:D4:2:SER:N	26:D4:32:ARG:HD3	4.72	0.55
27:D5:55:PRO:HG3	27:D5:88:ILE:HD12	7.14	0.55
41:L4:203:ARG:NH1	41:L4:226:GLU:OE2	2.38	0.55
42:L5:143:LYS:HE3	42:L5:145:PHE:HZ	2.68	0.55
42:L5:22:ARG:NH1	42:L5:28:THR:OG1	4.86	0.55
47:M0:80:SER:O	47:M0:84:ALA:HB2	2.06	0.55
48:M1:38:GLU:O	48:M1:40:LEU:N	2.70	0.55
44:L7:120:THR:HB	57:N1:132:PRO:HB2	1.89	0.55
58:N2:90:ARG:O	58:N2:91:ASP:HB2	2.06	0.55
43:L6:13:GLU:OE2	68:O2:91:THR:HB	4.22	0.55
4:S2:174:ARG:HA	4:S2:195:ASP:OD2	2.19	0.55
5:S3:41:VAL:HA	5:S3:46:THR:HG23	2.86	0.55
5:S3:64:ARG:HH22	5:S3:65:ARG:HD3	9.31	0.55
8:S6:57:ASP:OD1	8:S6:72:ARG:NH1	2.59	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:138:ASN:OD1	10:S8:138:ASN:N	2.38	0.55
10:S8:184:LEU:HB3	10:S8:189:LEU:HB2	2.11	0.55
11:S9:143:ILE:HG22	11:S9:145:SER:H	1.71	0.55
11:S9:53:ARG:HD2	11:S9:97:LEU:O	3.68	0.55
35:SM:77:THR:OG1	35:SM:79:SER:OG	2.83	0.55
36:1:2197:C:N4	36:1:2241:U:H2'	2.20	0.55
36:1:86:G:O2'	49:M3:11:LYS:HD3	2.06	0.55
1:2:1226:A:O2'	1:2:1227:A:OP1	2.24	0.55
1:2:542:A:HO2'	1:2:542:A:H8	1.54	0.55
38:4:103:G:O6	86:4:226:OHX:N4	2.39	0.55
36:5:129:U:H2'	36:5:130:A:C8	2.41	0.55
86:5:3980:OHX:N2	86:5:4200:OHX:N1	2.54	0.55
1:6:138:A:N6	1:6:266:A:H61	2.04	0.55
26:D4:10:ARG:NH1	1:6:778:G:O6	429.28	0.55
15:C3:16:ILE:HD12	1:6:959:U:H4'	345.84	0.55
38:8:157:U:H2'	38:8:158:U:C6	2.40	0.55
15:C3:33:VAL:HA	15:C3:36:GLN:HB2	1.88	0.55
18:C6:115:THR:O	18:C6:117:LEU:N	2.53	0.55
24:D2:30:SER:HA	24:D2:34:ILE:HD12	1.88	0.55
31:D9:32:ARG:HH11	31:D9:32:ARG:HG2	1.70	0.55
1:2:1235:C:H2'	33:E1:138:ARG:HH21	1.71	0.55
41:L4:131:VAL:O	41:L4:135:VAL:HG23	2.53	0.55
46:L9:1:MET:HG3	56:N0:139:TYR:HB3	4.56	0.55
47:M0:170:LYS:HD2	47:M0:176:LEU:N	2.98	0.55
48:M1:152:HIS:O	48:M1:153:LYS:HB3	4.77	0.55
49:M3:15:ARG:CZ	36:5:96:G:H5'	151.85	0.55
52:M6:190:VAL:O	52:M6:194:LEU:HD12	2.06	0.55
57:N1:68:THR:OG1	57:N1:69:LYS:N	2.40	0.55
60:N4:38:SER:O	60:N4:42:GLN:HG3	2.30	0.55
61:N5:61:LYS:NZ	38:8:59:A:O2'	70.39	0.55
67:O1:75:ILE:HG23	67:O1:93:VAL:HG22	1.89	0.55
9:S7:49:ILE:O	9:S7:57:ALA:N	2.29	0.55
10:S8:39:GLY:HA2	10:S8:61:GLU:HB3	1.89	0.55
36:1:440:A:OP2	36:1:440:A:H8	1.88	0.55
1:2:1013:A:H2'	1:2:1014:G:O4'	2.06	0.55
1:2:495:C:H3'	1:2:496:G:O4'	2.06	0.55
1:2:623:A:OP1	86:2:2156:OHX:N2	2.39	0.55
36:5:174:C:H2'	36:5:175:C:O4'	2.07	0.55
36:5:90:C:H2'	36:5:91:G:H5'	1.88	0.55
78:Q2:46:LYS:HE2	36:5:92:G:OP1	163.72	0.55
8:S6:179:VAL:HG21	1:6:140:A:H1'	327.03	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:173:LEU:HD21	44:L7:198:ALA:HA	2.40	0.55
46:L9:20:ILE:HG12	46:L9:25:VAL:HG22	4.62	0.55
46:L9:75:VAL:HA	46:L9:78:MET:HE2	1.89	0.55
47:M0:171:TRP:O	47:M0:174:THR:HG23	3.72	0.55
36:1:1546:A:N7	51:M5:71:ARG:NH1	2.53	0.55
56:N0:23:LYS:O	56:N0:24:LEU:HB2	2.06	0.55
59:N3:23:MET:HB2	59:N3:99:ALA:HA	1.89	0.55
66:O0:53:LYS:HZ2	66:O0:69:TYR:HE2	3.89	0.55
67:O1:29:ALA:HB3	67:O1:30:PRO:HD3	2.15	0.55
70:O4:104:VAL:HA	70:O4:107:GLU:HB2	1.98	0.55
75:O9:10:LYS:HA	75:O9:13:MET:CE	2.36	0.55
9:S7:43:PHE:HB2	9:S7:61:PHE:O	2.07	0.55
10:S8:97:THR:OG1	10:S8:98:LYS:O	3.22	0.55
11:S9:120:LYS:O	11:S9:121:SER:HB3	2.05	0.55
35:SM:65:THR:OG1	35:SM:66:ALA:N	3.95	0.55
36:1:1260:A:H1'	36:1:1280:C:H1'	1.88	0.55
1:2:542:A:H2'	1:2:543:C:H3'	1.87	0.55
1:2:702:G:O6	1:2:737:A:N6	2.40	0.55
74:O8:51:LEU:N	36:5:1613:A:OP1	135.56	0.55
36:5:2975:U:OP1	86:5:4090:OHX:N3	2.39	0.55
36:5:438:A:H2'	36:5:494:G:N2	2.22	0.55
17:C5:128:HIS:HA	1:6:1180:C:O2'	333.81	0.55
1:6:815:G:H5'	1:6:815:G:C8	2.36	0.55
12:C0:55:VAL:HB	12:C0:68:LEU:HD12	3.43	0.55
13:C1:57:LYS:HB2	13:C1:110:HIS:CE1	2.42	0.55
13:C1:86:ILE:HD11	13:C1:125:VAL:HG11	3.71	0.55
24:D2:6:VAL:HG13	24:D2:29:PRO:HD2	1.88	0.55
28:D6:18:VAL:HG23	28:D6:19:LYS:O	3.90	0.55
39:L2:59:ALA:HB3	39:L2:76:PHE:HB2	2.60	0.55
43:L6:43:LEU:HD21	43:L6:85:ILE:HG13	1.89	0.55
45:L8:86:THR:O	45:L8:90:THR:HG23	5.18	0.55
47:M0:16:PRO:C	47:M0:18:PRO:HD3	2.27	0.55
48:M1:137:ARG:HD3	37:7:28:C:OP1	302.74	0.55
48:M1:17:LEU:HD21	48:M1:19:LEU:HD21	1.89	0.55
49:M3:25:HIS:HD2	51:M5:199:LEU:O	1.88	0.55
67:O1:13:THR:HG22	67:O1:72:ARG:HD3	3.05	0.55
68:O2:64:LYS:HD3	68:O2:65:PHE:CE2	2.41	0.55
71:O5:59:ASN:O	71:O5:63:ARG:HG2	3.91	0.55
78:Q2:40:LYS:HE3	78:Q2:44:ASP:OD2	2.36	0.55
35:SM:47:ALA:HB2	36:1:2678:A:C8	2.41	0.55
36:1:298:U:H5''	36:1:299:G:H5'	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:912:G:OP2	39:L2:9:ARG:NH1	2.36	0.55
1:2:1472:C:OP1	7:S5:102:ARG:NH2	2.33	0.55
86:2:2043:OHX:N1	86:2:2098:OHX:N3	2.54	0.55
1:2:808:U:O4	1:2:809:A:N6	2.39	0.55
1:2:854:U:O4	55:M9:173:ARG:NH2	2.40	0.55
36:5:1752:A:OP2	86:5:4082:OHX:N3	2.40	0.55
36:5:69:C:H2'	36:5:70:A:O4'	2.07	0.55
36:5:80:G:H2'	36:5:81:C:C6	2.41	0.55
1:6:604:A:OP2	86:6:2148:OHX:N4	2.40	0.55
3:S1:65:VAL:HG12	1:6:920:U:H5''	263.93	0.55
86:8:216:OHX:N2	86:8:224:OHX:N1	2.54	0.55
12:C0:15:LEU:HD22	12:C0:46:LEU:HD11	1.89	0.55
13:C1:46:LYS:O	13:C1:50:GLU:HG2	4.10	0.55
19:C7:88:VAL:HG22	19:C7:89:SER:O	4.78	0.55
29:D7:2:VAL:O	29:D7:3:LEU:HB2	2.61	0.55
32:E0:21:VAL:HG22	1:6:586:G:H4'	409.98	0.55
40:L3:217:ALA:HB1	40:L3:328:ILE:HD11	3.47	0.55
36:1:2341:A:OP2	40:L3:247:ARG:NH2	2.39	0.55
47:M0:99:ILE:HG22	47:M0:123:HIS:HB2	1.88	0.55
47:M0:3:ARG:CZ	47:M0:63:GLU:HG3	2.37	0.55
55:M9:105:LEU:HD22	55:M9:138:LEU:HD13	1.89	0.55
50:M4:60:LEU:HD13	56:N0:152:LEU:HD11	2.41	0.55
61:N5:82:LEU:HD11	61:N5:126:LEU:HD11	1.88	0.55
69:O3:72:THR:HG23	69:O3:83:ALA:HA	1.89	0.55
78:Q2:8:ARG:O	78:Q2:23:HIS:N	2.67	0.55
2:S0:102:PHE:O	2:S0:103:THR:HB	2.05	0.55
3:S1:30:PHE:HB3	3:S1:96:LEU:HD22	3.85	0.55
4:S2:139:ILE:HD12	4:S2:191:ALA:HB1	1.89	0.55
1:2:788:A:H2'	6:S4:19:LEU:HD22	1.89	0.55
10:S8:26:LYS:HG3	10:S8:29:LEU:HD13	4.07	0.55
36:1:2947:G:C2	40:L3:250:ALA:HB1	2.41	0.55
36:1:3233:C:H2'	36:1:3234:A:C8	2.42	0.55
36:1:789:A:H2'	36:1:790:U:C6	2.42	0.55
1:2:1151:A:H2'	1:2:1152:A:H8	1.70	0.55
1:2:795:U:OP2	24:D2:82:LYS:NZ	2.38	0.55
36:5:3358:U:H2'	36:5:3359:A:H8	1.71	0.55
1:6:918:U:H2'	1:6:919:A:H8	1.71	0.55
13:C1:29:LYS:O	13:C1:31:THR:N	2.40	0.55
18:C6:82:ARG:HH22	18:C6:114:ARG:CB	2.20	0.55
19:C7:14:LYS:NZ	19:C7:18:GLU:OE2	2.39	0.55
23:D1:20:THR:HB	23:D1:22:ARG:HD3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:102:VAL:HG12	25:D3:127:VAL:HG23	5.53	0.55
25:D3:57:LEU:HD22	32:E0:4:VAL:HG13	2.96	0.55
33:E1:100:LEU:HD12	33:E1:102:VAL:HA	6.42	0.55
39:L2:204:MET:CE	39:L2:209:HIS:HB2	2.35	0.55
40:L3:19:ARG:HB3	40:L3:232:ARG:HH12	1.71	0.55
37:3:27:A:O5'	42:L5:57:ASN:ND2	2.39	0.55
49:M3:144:THR:O	49:M3:146:PRO:HD3	3.19	0.55
51:M5:143:ARG:HH21	71:O5:92:LEU:HA	1.72	0.55
57:N1:15:PHE:CE2	57:N1:44:ALA:HB3	2.42	0.55
43:L6:166:LYS:HE2	69:O3:4:SER:OG	2.07	0.55
75:O9:9:ILE:HD11	75:O9:51:ILE:HG23	2.01	0.55
2:S0:82:GLY:O	2:S0:86:VAL:HG22	2.06	0.55
35:SM:23:LYS:HE3	35:SM:24:GLU:H	6.70	0.55
36:1:128:G:H2'	36:1:129:U:O4'	2.07	0.55
36:1:2869:U:H5''	36:1:2870:C:OP2	2.07	0.55
36:1:801:A:OP1	64:N8:27:LYS:NZ	2.35	0.55
36:1:975:C:H2'	36:1:976:U:C6	2.42	0.55
1:2:1236:A:O4'	33:E1:138:ARG:NH2	2.39	0.55
1:2:549:G:H1	1:2:589:C:H42	1.54	0.55
37:3:85:G:O6	86:3:216:OHX:N4	2.40	0.55
36:5:1246:G:O2'	36:5:1264:G:OP2	2.25	0.55
36:5:177:U:O4	36:5:239:G:N2	2.40	0.55
36:5:3238:G:N2	36:5:3250:U:H1'	2.22	0.55
8:S6:13:GLN:HE22	1:6:151:G:H21	312.35	0.55
24:D2:82:LYS:O	24:D2:84:GLY:N	2.33	0.55
24:D2:86:ILE:HD12	24:D2:87:GLU:N	2.21	0.55
27:D5:55:PRO:C	27:D5:57:TYR:H	2.11	0.55
39:L2:46:LYS:O	39:L2:47:GLN:HB2	2.06	0.55
41:L4:99:MET:HE3	41:L4:103:THR:H	1.72	0.55
47:M0:149:VAL:HG13	47:M0:165:ILE:HG21	3.11	0.55
47:M0:174:THR:HA	47:M0:196:PHE:HE2	2.38	0.55
48:M1:106:ILE:CD1	48:M1:125:MET:HG2	5.09	0.55
51:M5:23:GLN:HG2	51:M5:122:ASN:ND2	2.20	0.55
55:M9:167:ARG:HH11	55:M9:167:ARG:HB3	4.16	0.55
57:N1:128:LEU:H	57:N1:128:LEU:HD12	1.72	0.55
59:N3:2:SER:O	59:N3:57:MET:N	5.50	0.55
63:N7:33:SER:HB2	63:N7:40:HIS:HE1	1.72	0.55
73:O7:55:ARG:HD3	36:5:353:G:N7	108.70	0.55
4:S2:214:ALA:O	4:S2:218:ILE:HG13	2.36	0.55
5:S3:136:VAL:HG22	5:S3:186:VAL:HG13	1.89	0.55
7:S5:128:ASN:HB2	7:S5:131:GLN:HB3	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:S6:20:ASP:OD2	8:S6:22:HIS:HB2	6.00	0.55
8:S6:64:LYS:O	8:S6:67:VAL:HG22	2.06	0.55
36:1:2433:U:H1'	51:M5:125:SER:HB3	1.88	0.55
36:1:2592:G:H4'	36:1:2594:C:C2	2.42	0.55
36:1:263:C:H2'	36:1:264:G:O4'	2.06	0.55
1:2:1498:G:C2'	1:2:1499:G:H5'	2.38	0.55
1:2:274:G:H3'	1:2:275:C:C6	2.42	0.55
1:2:322:G:OP1	86:2:2090:OHX:N4	2.40	0.55
1:2:355:G:OP2	86:2:2035:OHX:N4	2.40	0.55
1:2:652:G:H1	1:2:682:C:N4	2.04	0.55
1:2:927:C:H2'	1:2:928:U:C6	2.42	0.55
36:5:1580:A:HO2'	36:5:1581:C:P	2.30	0.55
36:5:2115:G:H22	36:5:2120:A:H1'	1.72	0.55
36:5:2249:G:OP1	86:5:4200:OHX:N6	2.40	0.55
36:5:595:G:N1	36:5:609:G:H5''	2.22	0.55
36:5:917:A:OP2	86:5:4225:OHX:N3	2.39	0.55
1:6:1297:G:N2	1:6:1300:A:OP2	2.38	0.55
17:C5:122:THR:OG1	1:6:1454:G:O3'	368.02	0.55
37:7:79:A:OP2	86:7:218:OHX:N3	2.40	0.55
13:C1:5:LEU:HD22	13:C1:5:LEU:H	4.31	0.55
14:C2:60:VAL:HG22	14:C2:122:VAL:HG22	2.48	0.55
39:L2:22:LEU:HD22	36:5:1796:G:H5'	183.72	0.55
40:L3:296:THR:H	40:L3:299:ASP:HB3	1.71	0.55
36:1:209:A:OP1	41:L4:161:LYS:NZ	2.40	0.55
36:1:3206:C:O2	56:N0:155:ARG:NH1	2.40	0.55
57:N1:129:LYS:HD2	36:5:1097:G:H4'	249.00	0.55
58:N2:21:SER:HA	58:N2:24:GLU:OE2	2.07	0.55
67:O1:79:ARG:NE	67:O1:79:ARG:H	2.05	0.55
4:S2:203:LYS:O	4:S2:206:THR:HG23	3.64	0.55
8:S6:26:VAL:HG21	8:S6:40:ALA:HB1	1.89	0.55
10:S8:194:ARG:HD2	10:S8:195:ARG:HH12	3.47	0.55
36:1:1227:C:H5'	36:1:1228:C:OP2	2.07	0.54
36:1:3308:C:O2	53:M7:69:ARG:HD3	2.07	0.54
36:1:500:C:O2'	36:1:501:A:H5'	2.06	0.54
1:2:1497:U:OP2	86:2:2030:OHX:N1	2.41	0.54
1:2:823:G:H2'	1:2:824:G:H8	1.71	0.54
1:2:830:U:C2	1:2:831:U:H5	2.25	0.54
36:5:2516:U:O2	36:5:2594:C:N4	2.40	0.54
36:5:348:A:N3	36:5:352:A:O2'	2.39	0.54
36:5:1317:A:OP1	86:5:4099:OHX:N1	2.40	0.54
1:6:1244:A:O2'	1:6:1245:G:O5'	2.16	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:172:ARG:NH1	1:6:330:G:OP2	279.72	0.54
1:6:639:U:H1'	1:6:640:U:C6	2.42	0.54
51:M5:109:ARG:NH1	38:8:141:C:OP1	120.47	0.54
14:C2:95:LYS:HA	14:C2:117:GLY:HA2	3.73	0.54
17:C5:68:PRO:O	86:C5:201:OHX:N5	6.82	0.54
22:D0:45:ALA:HB1	22:D0:50:LEU:HD22	1.89	0.54
2:S0:55:GLU:HG2	23:D1:79:LEU:HD23	1.89	0.54
28:D6:79:ILE:HA	28:D6:84:VAL:HG11	1.88	0.54
36:1:1794:G:H4'	39:L2:191:LEU:HD13	1.89	0.54
41:L4:192:GLY:O	41:L4:195:ARG:N	2.63	0.54
41:L4:26:PHE:HA	41:L4:127:ALA:HA	2.22	0.54
51:M5:33:LYS:HB2	51:M5:37:HIS:HD1	1.73	0.54
52:M6:88:VAL:HG12	52:M6:89:SER:N	2.74	0.54
54:M8:170:ARG:O	54:M8:171:LYS:HB2	3.09	0.54
56:N0:40:ARG:O	56:N0:43:TYR:HB3	2.07	0.54
11:S9:107:ARG:O	11:S9:147:MET:HA	2.06	0.54
1:2:545:A:H4'	1:2:546:U:OP1	2.08	0.54
1:2:73:U:H1'	1:2:74:U:H5'	1.89	0.54
63:N7:69:LYS:NZ	36:5:1633:C:OP2	193.69	0.54
36:5:182:U:H2'	36:5:183:G:C8	2.43	0.54
36:5:738:A:H2'	36:5:739:G:H8	1.72	0.54
1:6:1511:U:H2'	1:6:1512:G:C8	2.41	0.54
1:6:825:U:O2'	1:6:826:U:H6	1.90	0.54
16:C4:117:ASP:OD2	16:C4:119:THR:HG23	3.65	0.54
17:C5:33:PHE:O	17:C5:36:LEU:HD22	4.18	0.54
2:S0:50:VAL:HG22	19:C7:109:LEU:HD21	1.89	0.54
20:C8:140:THR:HA	20:C8:143:ARG:NH1	2.54	0.54
21:C9:57:ARG:O	21:C9:61:VAL:HG23	2.85	0.54
25:D3:134:ALA:HB1	25:D3:140:LYS:HB2	2.33	0.54
16:C4:111:ARG:HA	28:D6:56:ALA:O	2.37	0.54
28:D6:73:TYR:CZ	28:D6:82:ARG:HD2	2.43	0.54
40:L3:375:GLU:OE2	60:N4:14:TYR:OH	2.20	0.54
47:M0:6:ALA:HB3	36:5:2855:U:OP2	285.43	0.54
49:M3:157:ARG:HG2	49:M3:158:ALA:N	2.21	0.54
52:M6:54:TYR:CE2	52:M6:58:LEU:HD22	2.63	0.54
36:1:1375:G:O6	64:N8:10:LYS:HE3	2.06	0.54
72:O6:57:LEU:O	72:O6:61:ILE:HG13	2.19	0.54
5:S3:64:ARG:O	5:S3:67:ASN:N	2.39	0.54
11:S9:79:ARG:O	11:S9:83:VAL:HG22	2.70	0.54
34:SR:123:ILE:HD13	34:SR:169:ILE:HG21	2.23	0.54
36:1:1108:U:H2'	36:1:1109:U:H6	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2697:A:H2'	36:1:2698:G:H8	1.72	0.54
36:1:2768:U:H2'	36:1:2769:A:H8	1.70	0.54
36:1:3186:A:O2'	46:L9:42:ASP:HA	2.08	0.54
36:1:3341:U:O2'	36:1:3342:A:H5'	2.08	0.54
86:1:4005:OHX:N3	86:1:4175:OHX:N3	2.55	0.54
36:1:1814:A:OP1	86:1:4092:OHX:N2	2.41	0.54
36:1:904:A:OP2	73:O7:30:GLN:NE2	2.41	0.54
1:2:15:U:H2'	1:2:16:G:O4'	2.08	0.54
1:2:443:C:OP2	26:D4:105:ARG:HB3	2.08	0.54
36:5:2187:G:OP2	86:5:3974:OHX:N4	2.40	0.54
36:5:2254:U:H2'	36:5:2261:G:N2	2.22	0.54
36:5:247:C:N3	36:5:248:U:H1'	2.22	0.54
36:5:322:U:H5''	36:5:323:A:OP1	2.07	0.54
18:C6:128:LYS:HE3	1:6:1417:A:O3'	393.05	0.54
21:C9:23:GLN:HG3	21:C9:55:TYR:CE2	4.68	0.54
23:D1:15:ARG:HB2	23:D1:24:ILE:HG13	3.79	0.54
36:1:3268:A:O2'	43:L6:130:ILE:HD11	2.07	0.54
47:M0:38:LYS:HG3	47:M0:41:ALA:HB2	3.66	0.54
48:M1:164:LYS:HE3	48:M1:171:VAL:HG12	2.50	0.54
50:M4:21:VAL:HB	50:M4:63:VAL:HG13	1.92	0.54
54:M8:138:LEU:HD13	54:M8:140:LEU:HD21	2.19	0.54
55:M9:38:ARG:NH2	36:5:1603:A:OP1	111.84	0.54
57:N1:87:LYS:NZ	36:5:2723:U:OP1	214.17	0.54
66:O0:9:SER:OG	66:O0:12:GLN:HB3	4.72	0.54
71:O5:54:VAL:O	71:O5:58:ILE:HG13	2.29	0.54
72:O6:27:SER:OG	72:O6:27:SER:O	2.22	0.54
2:S0:182:LEU:HB3	2:S0:188:LEU:HD23	1.90	0.54
2:S0:59:LEU:HD23	2:S0:63:ILE:HD11	1.88	0.54
1:2:332:U:P	10:S8:56:ARG:HH22	2.30	0.54
34:SR:23:LEU:HB2	34:SR:293:ALA:HB2	2.73	0.54
34:SR:76:ASP:OD1	34:SR:76:ASP:N	2.40	0.54
36:1:1069:C:H2'	36:1:1070:U:C6	2.42	0.54
36:1:155:G:H5''	36:1:156:G:C8	2.42	0.54
36:1:2748:A:O2'	42:L5:48:LYS:HE2	2.07	0.54
36:1:3393:U:H2'	36:1:3394:U:C6	2.41	0.54
86:1:3973:OHX:N6	86:1:4159:OHX:N4	2.56	0.54
36:1:770:G:OP1	49:M3:171:ARG:HD2	2.07	0.54
36:5:2635:A:H4'	36:5:2636:A:O5'	2.07	0.54
36:5:80:G:H2'	36:5:81:C:H6	1.72	0.54
1:6:1031:U:H4'	1:6:1032:G:OP2	2.08	0.54
1:6:1685:G:H1	1:6:1716:C:H42	1.54	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:126:LYS:HA	25:D3:131:SER:HA	1.89	0.54
1:2:1253:U:H4'	33:E1:143:LYS:N	2.22	0.54
42:L5:211:LEU:HD22	42:L5:215:ASP:HB3	2.16	0.54
42:L5:88:ILE:HD13	42:L5:239:ILE:HG22	4.96	0.54
46:L9:22:SER:HG	46:L9:23:ARG:H	1.53	0.54
47:M0:99:ILE:HD13	47:M0:101:LYS:HB2	4.37	0.54
48:M1:91:LEU:HB3	48:M1:95:ASN:HD22	1.72	0.54
52:M6:141:LEU:O	52:M6:144:SER:HB3	2.71	0.54
52:M6:182:ASN:O	52:M6:185:ALA:N	2.92	0.54
68:O2:122:PRO:O	68:O2:123:LYS:HB2	2.07	0.54
70:O4:81:CYS:SG	70:O4:84:CYS:HB2	3.01	0.54
71:O5:101:THR:HG22	71:O5:104:GLN:HB2	2.10	0.54
3:S1:105:PHE:CD2	3:S1:213:ARG:HA	2.43	0.54
4:S2:218:ILE:O	4:S2:221:THR:OG1	2.24	0.54
6:S4:49:ARG:HG3	6:S4:50:ASN:N	3.64	0.54
34:SR:272:ASP:OD1	34:SR:273:ASP:N	2.41	0.54
36:1:952:A:O3'	36:1:968:G:N2	2.41	0.54
1:2:1537:C:N4	1:2:1572:G:H1	2.04	0.54
1:2:1151:A:H4'	1:2:1766:A:N7	2.23	0.54
1:2:795:U:C5	1:2:796:A:C8	2.94	0.54
38:4:83:C:H1'	38:4:85:G:N2	2.22	0.54
36:5:1595:U:C2	36:5:1596:C:C5	2.96	0.54
15:C3:107:LYS:NZ	1:6:1019:A:OP2	266.70	0.54
1:6:1347:U:O2	1:6:1516:A:H5'	2.07	0.54
1:6:1695:G:N2	1:6:1706:C:H41	1.99	0.54
86:6:2058:OHX:N2	86:6:2144:OHX:N4	2.56	0.54
86:8:216:OHX:N6	86:8:224:OHX:N3	2.55	0.54
13:C1:80:MET:HB3	13:C1:83:THR:O	5.01	0.54
18:C6:29:ILE:HD11	18:C6:60:PHE:HB3	3.98	0.54
22:D0:27:THR:HB	22:D0:88:LYS:HG3	1.89	0.54
27:D5:56:THR:HA	27:D5:103:ARG:HH11	1.72	0.54
28:D6:51:ARG:NH2	30:D8:60:GLU:OE1	7.57	0.54
28:D6:53:LEU:O	28:D6:57:SER:OG	2.23	0.54
28:D6:60:PRO:O	28:D6:62:TYR:N	2.39	0.54
40:L3:3:HIS:O	40:L3:5:LYS:N	2.41	0.54
42:L5:146:LEU:HD13	42:L5:148:ILE:HD13	4.84	0.54
46:L9:49:ASN:OD1	46:L9:51:GLN:N	3.33	0.54
48:M1:11:ASP:O	48:M1:12:LEU:HB3	3.54	0.54
58:N2:43:VAL:HG23	58:N2:49:ASN:HB3	2.60	0.54
68:O2:26:HIS:O	68:O2:28:VAL:N	2.50	0.54
71:O5:86:ARG:O	71:O5:90:ARG:HG2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:O7:39:TYR:CD2	73:O7:40:PRO:HA	2.51	0.54
2:S0:74:VAL:HG22	2:S0:96:THR:HG23	1.90	0.54
3:S1:178:GLY:O	3:S1:179:SER:HB2	4.58	0.54
11:S9:134:ILE:HD13	11:S9:141:VAL:O	3.42	0.54
11:S9:146:PHE:HZ	1:6:765:G:C2	429.75	0.54
36:1:1245:A:H3'	36:1:1246:G:H5''	1.90	0.54
36:1:1694:U:H2'	36:1:1695:U:C6	2.43	0.54
1:2:1433:G:N2	31:D9:45:GLU:OE1	2.41	0.54
1:2:1518:C:OP1	86:2:2120:OHX:N5	2.41	0.54
1:2:1657:U:H4'	1:2:1658:G:O5'	2.08	0.54
1:2:622:A:H4'	1:2:623:A:OP1	2.06	0.54
1:2:67:A:C2	1:2:69:G:H1'	2.42	0.54
36:5:112:U:O2'	36:5:113:C:OP2	2.15	0.54
36:5:3203:U:H2'	36:5:3204:C:C6	2.43	0.54
86:6:2118:OHX:N6	86:6:2168:OHX:N5	2.55	0.54
26:D4:112:LYS:NZ	1:6:55:A:OP1	347.96	0.54
21:C9:15:ILE:HD13	21:C9:60:SER:HA	2.27	0.54
27:D5:61:SER:H	27:D5:64:VAL:HB	1.73	0.54
31:D9:38:ILE:HG22	31:D9:42:CYS:HB3	2.74	0.54
42:L5:21:ARG:HH11	42:L5:21:ARG:HG2	2.12	0.54
42:L5:61:ILE:HG23	42:L5:79:TYR:CE1	2.60	0.54
43:L6:5:LYS:O	43:L6:6:ALA:HB3	2.08	0.54
43:L6:85:ILE:HG23	69:O3:107:ILE:HG12	4.93	0.54
62:N6:27:ARG:HA	62:N6:30:LEU:HD12	1.89	0.54
68:O2:101:SER:O	68:O2:105:ARG:HG3	2.08	0.54
72:O6:45:ARG:NH2	72:O6:50:LEU:HA	3.67	0.54
74:O8:65:LEU:HD23	74:O8:68:SER:HB2	2.61	0.54
6:S4:176:ASP:N	6:S4:176:ASP:OD2	3.10	0.54
7:S5:119:ASP:O	7:S5:123:VAL:HG23	3.14	0.54
1:2:66:U:C5	8:S6:173:PRO:HG3	2.43	0.54
11:S9:52:ILE:HG23	11:S9:76:LEU:HD21	2.71	0.54
36:1:1887:A:OP2	86:1:3893:OHX:N4	2.41	0.54
36:1:2636:A:H5''	36:1:2637:A:H5'	1.89	0.54
36:1:3278:C:H2'	36:1:3278:C:O2	2.07	0.54
36:1:716:A:N6	64:N8:117:ARG:HG3	2.22	0.54
36:1:776:U:H5	36:1:2719:U:O2	1.91	0.54
1:2:1562:G:OP1	21:C9:89:ARG:NH2	2.41	0.54
1:2:180:A:H2'	1:2:181:A:O4'	2.07	0.54
69:O3:73:ARG:HH22	36:5:1167:U:P	247.62	0.54
36:5:1595:U:H1'	36:5:1596:C:C6	2.43	0.54
44:L7:60:ARG:NH2	36:5:516:A:O3'	304.13	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:C0:69:THR:O	12:C0:73:VAL:HG23	2.07	0.54
14:C2:124:LYS:O	14:C2:126:TRP:N	2.40	0.54
14:C2:47:GLU:N	1:6:1229:G:O6	461.58	0.54
1:2:1389:C:O2'	19:C7:52:GLY:HA3	2.07	0.54
26:D4:104:SER:HB3	26:D4:107:GLN:HG3	1.88	0.54
26:D4:26:ASP:OD1	26:D4:68:LYS:HE3	2.50	0.54
40:L3:142:ALA:O	40:L3:146:ARG:N	3.67	0.54
41:L4:290:ILE:HG23	54:M8:35:PHE:CE2	2.42	0.54
44:L7:27:ALA:HA	44:L7:30:ARG:HB3	1.90	0.54
44:L7:80:GLN:HE21	57:N1:136:ARG:CB	5.94	0.54
46:L9:34:LEU:HD21	46:L9:149:ASN:HB2	1.97	0.54
47:M0:80:SER:HB3	47:M0:147:VAL:HG11	2.06	0.54
51:M5:190:THR:O	51:M5:194:GLN:HG2	2.18	0.54
55:M9:17:VAL:HG21	55:M9:52:LYS:HE3	1.90	0.54
36:1:1213:G:OP1	56:N0:137:ARG:HD3	2.07	0.54
68:O2:12:LYS:HD3	68:O2:57:TYR:HA	1.95	0.54
70:O4:8:ARG:HH21	70:O4:31:ARG:HD2	2.90	0.54
5:S3:142:LEU:O	5:S3:144:ALA:N	2.38	0.54
9:S7:78:THR:O	9:S7:82:GLU:N	3.06	0.54
35:SM:47:ALA:O	35:SM:48:ARG:HD3	5.99	0.54
35:SM:64:LYS:O	35:SM:65:THR:OG1	2.18	0.54
36:1:1695:U:H5''	70:O4:24:LYS:HB3	1.89	0.54
36:1:2443:A:N6	36:1:2504:U:C4	2.75	0.54
36:1:299:G:N7	86:1:4082:OHX:N2	2.56	0.54
1:2:1291:G:H22	1:2:1324:G:H1	1.54	0.54
1:2:1291:G:N2	1:2:1324:G:N2	2.55	0.54
1:2:651:G:N7	86:2:2103:OHX:N6	2.55	0.54
1:2:220:A:H5''	1:2:832:U:H1'	1.90	0.54
36:5:2180:G:H2'	36:5:2181:C:C6	2.43	0.54
53:M7:138:LYS:NZ	36:5:2356:A:OP1	147.56	0.54
36:5:298:U:H5''	36:5:299:G:H5'	1.89	0.54
36:5:308:A:H5'	36:5:2223:A:O2'	2.08	0.54
1:6:1324:G:N7	86:6:2102:OHX:N2	2.55	0.54
1:6:1374:C:H2'	1:6:1375:A:H8	1.73	0.54
1:6:1388:A:H4'	1:6:1389:C:O5'	2.07	0.54
21:C9:97:SER:OG	1:6:1504:G:OP1	393.57	0.54
1:6:538:A:C8	1:6:543:C:N4	2.76	0.54
14:C2:103:LEU:HD23	14:C2:115:VAL:HA	2.78	0.54
15:C3:18:TYR:O	15:C3:19:SER:HB2	4.54	0.54
23:D1:40:ASP:HB3	23:D1:46:ILE:HD11	1.98	0.54
1:2:1792:G:O5'	28:D6:3:LYS:HA	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:55:PHE:CZ	42:L5:158:ARG:HG3	2.42	0.54
48:M1:109:HIS:CD2	48:M1:114:ILE:HG21	4.45	0.54
48:M1:34:SER:HA	48:M1:67:VAL:HG11	2.78	0.54
54:M8:150:VAL:HA	54:M8:153:PHE:CD1	2.43	0.54
55:M9:143:ILE:HG12	36:5:2093:A:H5''	249.06	0.54
61:N5:132:ALA:O	61:N5:135:ILE:HG22	2.07	0.54
68:O2:77:ALA:HB3	68:O2:81:ASP:OD2	2.28	0.54
5:S3:195:SER:HB2	5:S3:200:LYS:HG2	5.28	0.54
7:S5:123:VAL:O	27:D5:58:ARG:NH1	2.37	0.54
8:S6:116:LYS:HD2	8:S6:125:THR:HG21	1.90	0.54
8:S6:175:ILE:HB	8:S6:178:LEU:HD22	2.27	0.54
9:S7:31:SER:HB2	9:S7:32:PRO:HD3	1.89	0.54
36:1:1024:G:N7	86:1:4168:OHX:N6	2.56	0.54
36:1:2385:G:OP1	86:1:4174:OHX:N4	2.41	0.54
36:1:2728:G:O6	57:N1:78:LYS:HE3	2.07	0.54
36:1:671:U:OP2	54:M8:57:ILE:HD12	2.08	0.54
1:2:1029:U:O4	86:2:2168:OHX:N3	2.41	0.54
1:2:336:G:H5'	13:C1:130:PRO:O	2.08	0.54
1:2:751:G:H2'	1:2:752:A:H8	1.72	0.54
36:5:283:G:O6	36:5:304:G:H1'	2.08	0.54
36:5:3066:U:O4	86:5:4107:OHX:N4	2.40	0.54
40:L3:129:ALA:O	36:5:3150:A:H5'	211.52	0.54
1:6:1071:U:H2'	1:6:1072:C:C6	2.42	0.54
1:6:1491:U:H5'	1:6:1492:A:OP1	2.07	0.54
1:6:647:G:N2	1:6:687:G:N2	2.54	0.54
1:6:829:A:OP1	1:6:829:A:H4'	2.08	0.54
14:C2:50:LYS:HZ1	33:E1:131:PHE:HE2	1.56	0.54
19:C7:19:ARG:HG3	19:C7:20:TYR:CD1	2.43	0.54
25:D3:44:GLY:H	25:D3:78:LYS:HZ1	1.56	0.54
39:L2:214:GLY:O	39:L2:215:ASN:HB2	4.42	0.54
42:L5:111:GLN:HA	42:L5:116:ASP:HB2	1.90	0.54
45:L8:162:LEU:HA	51:M5:7:LEU:HD11	1.89	0.54
53:M7:59:PRO:HG3	53:M7:76:PHE:CD1	2.43	0.54
38:4:131:A:H5''	61:N5:93:TYR:CE2	2.42	0.54
62:N6:81:GLN:NE2	62:N6:96:PRO:HB2	2.92	0.54
73:O7:21:ARG:HD2	73:O7:37:CYS:SG	2.46	0.54
77:Q1:13:LEU:O	77:Q1:17:ARG:HG3	2.08	0.54
79:Q3:8:VAL:HB	79:Q3:11:THR:HG22	1.90	0.54
8:S6:141:ILE:HG21	8:S6:153:VAL:HG13	1.89	0.54
8:S6:21:GLU:O	8:S6:25:ARG:N	2.37	0.54
11:S9:96:VAL:HA	11:S9:99:LEU:HD22	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:106:HIS:ND1	34:SR:128:ASP:OD2	3.48	0.54
36:1:3106:A:H2'	36:1:3107:U:O4'	2.08	0.54
36:1:3136:G:OP2	86:1:4101:OHX:N6	2.41	0.54
36:1:2957:G:OP2	86:1:3879:OHX:N1	2.41	0.54
36:1:595:G:H1	36:1:609:G:H5''	1.72	0.54
1:2:1789:G:OP2	16:C4:132:ARG:NH2	2.40	0.54
36:5:1487:G:H1	36:5:1855:U:H3	1.53	0.54
36:5:2568:C:O2'	36:5:2569:A:O5'	2.15	0.54
1:6:1309:C:O2'	1:6:1401:A:N1	2.27	0.54
15:C3:13:SER:OG	15:C3:14:SER:O	2.26	0.54
24:D2:55:ASP:O	24:D2:57:ARG:N	2.93	0.54
33:E1:106:TYR:CZ	33:E1:131:PHE:HZ	2.95	0.54
33:E1:91:ILE:HG12	33:E1:92:LYS:HG2	7.24	0.54
36:1:2157:G:O6	39:L2:151:PRO:HD2	2.08	0.54
37:3:17:A:OP1	42:L5:2:ALA:N	2.40	0.54
42:L5:59:ASP:OD2	42:L5:60:ILE:N	3.29	0.54
53:M7:4:TYR:CZ	53:M7:18:ARG:HG3	2.62	0.54
54:M8:64:VAL:HG13	54:M8:93:ILE:HD11	1.89	0.54
55:M9:106:LEU:HB3	55:M9:120:TYR:CE1	2.43	0.54
55:M9:106:LEU:HB3	55:M9:120:TYR:HE1	1.72	0.54
58:N2:31:ALA:O	58:N2:33:TYR:N	2.41	0.54
60:N4:50:ALA:HA	60:N4:55:PHE:CG	2.43	0.54
77:Q1:16:LYS:O	77:Q1:20:VAL:HG23	2.08	0.54
78:Q2:14:GLY:O	78:Q2:18:ARG:HG3	4.93	0.54
7:S5:146:THR:HG23	7:S5:157:ARG:HB3	3.99	0.54
36:1:1877:U:OP2	86:1:3928:OHX:N2	2.42	0.53
36:1:677:A:H4'	36:1:678:G:O5'	2.07	0.53
1:2:1451:C:H2'	1:2:1452:U:H6	1.72	0.53
1:2:197:A:H2'	1:2:198:A:C8	2.43	0.53
37:3:4:U:H2'	37:3:5:G:H8	1.69	0.53
36:5:1230:G:OP2	86:5:4009:OHX:N6	2.41	0.53
36:5:72:C:C2	36:5:74:G:H1'	2.44	0.53
36:5:945:C:H2'	36:5:946:U:C6	2.42	0.53
1:6:1680:G:O6	86:6:2186:OHX:N1	2.40	0.53
1:6:404:G:H2'	1:6:405:C:C6	2.43	0.53
1:6:417:A:H4'	1:6:418:G:O5'	2.07	0.53
42:L5:265:TYR:OH	37:7:121:U:OP2	312.01	0.53
12:C0:49:LEU:O	12:C0:54:TYR:HB2	2.08	0.53
16:C4:121:VAL:O	1:6:886:U:O2'	286.70	0.53
16:C4:32:ASP:O	16:C4:34:SER:N	2.41	0.53
17:C5:15:HIS:CG	17:C5:16:SER:N	2.75	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:26:ILE:HD11	20:C8:31:ALA:HA	3.46	0.53
21:C9:117:SER:OG	21:C9:118:PRO:O	2.25	0.53
24:D2:53:ILE:HG12	24:D2:60:LYS:HB2	1.90	0.53
44:L7:140:SER:OG	44:L7:143:THR:HG23	2.08	0.53
49:M3:42:ARG:O	49:M3:46:ILE:HG12	2.11	0.53
50:M4:124:ARG:NH2	36:5:3212:C:OP2	289.83	0.53
59:N3:74:MET:SD	59:N3:102:ILE:HD13	2.62	0.53
62:N6:55:GLU:OE2	62:N6:69:LYS:NZ	2.41	0.53
64:N8:73:LEU:HD11	64:N8:78:LEU:HA	3.20	0.53
66:O0:101:LEU:HD22	66:O0:101:LEU:H	3.51	0.53
68:O2:82:LEU:HD22	68:O2:117:ILE:HD13	2.56	0.53
74:O8:66:ILE:HD13	74:O8:77:ARG:HH21	1.73	0.53
3:S1:40:ASN:ND2	3:S1:42:ASN:O	2.35	0.53
4:S2:89:GLN:HG3	4:S2:93:GLY:O	4.27	0.53
11:S9:38:ASN:HB3	11:S9:40:LYS:H	1.72	0.53
36:1:1668:G:C6	36:1:1669:C:C4	2.97	0.53
36:1:964:G:OP1	86:1:3966:OHX:N2	2.40	0.53
36:1:329:U:OP2	86:1:4045:OHX:N4	2.42	0.53
36:1:666:A:H2'	36:1:667:C:H5''	1.90	0.53
1:2:219:A:H5'	1:2:831:U:O2'	2.08	0.53
1:2:5:U:H2'	1:2:6:G:H8	1.74	0.53
37:3:46:A:OP1	42:L5:158:ARG:HG2	2.09	0.53
36:5:2403:G:N2	36:5:2404:A:N7	2.56	0.53
36:5:2957:G:H8	36:5:2957:G:H5'	1.73	0.53
36:5:3153:U:H1'	36:5:3154:C:C6	2.43	0.53
1:6:1091:A:H4'	1:6:1092:A:O5'	2.09	0.53
86:6:2058:OHX:N5	86:6:2144:OHX:N6	2.56	0.53
1:6:454:U:H5''	1:6:455:C:H5	1.70	0.53
1:6:811:A:C2	1:6:858:G:H1'	2.43	0.53
38:8:133:G:O6	86:8:221:OHX:N6	2.40	0.53
16:C4:107:ARG:HH21	16:C4:107:ARG:HB2	3.58	0.53
16:C4:92:LYS:HD2	16:C4:121:VAL:HG22	6.09	0.53
18:C6:10:PHE:CE2	1:6:1379:C:H5'	431.25	0.53
22:D0:20:ILE:HG13	22:D0:96:PRO:HA	3.26	0.53
41:L4:148:ILE:HA	41:L4:149:PRO:C	2.40	0.53
41:L4:106:TRP:CZ2	49:M3:19:GLN:HG2	3.00	0.53
55:M9:96:ILE:O	55:M9:100:ARG:HG3	2.08	0.53
63:N7:29:HIS:HD1	63:N7:40:HIS:CD2	2.82	0.53
66:O0:54:SER:HB3	70:O4:94:LEU:HD13	1.91	0.53
2:S0:184:LEU:O	2:S0:186:GLY:N	2.90	0.53
3:S1:129:THR:OG1	3:S1:131:ASP:O	2.50	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:111:VAL:O	4:S2:136:VAL:HA	2.07	0.53
5:S3:108:LYS:O	5:S3:113:LEU:HB2	2.95	0.53
8:S6:155:ASP:OD2	8:S6:155:ASP:N	2.38	0.53
34:SR:198:ASN:O	34:SR:215:GLY:HA3	2.10	0.53
34:SR:52:GLN:HG2	34:SR:53:LYS:HG2	2.74	0.53
36:1:1679:A:OP1	58:N2:94:ARG:NH1	2.41	0.53
36:1:2206:G:OP2	36:1:2206:G:H8	1.90	0.53
36:1:402:A:OP1	75:O9:36:ARG:NH2	2.41	0.53
1:2:1015:U:OP1	86:2:2044:OHX:N3	2.41	0.53
36:1:331:G:H1	38:4:32:C:N4	2.07	0.53
36:5:1128:U:H2'	36:5:1129:A:O4'	2.09	0.53
55:M9:8:LYS:NZ	36:5:1473:G:OP2	124.44	0.53
58:N2:42:LYS:NZ	36:5:1686:U:OP1	175.75	0.53
62:N6:103:LYS:NZ	36:5:217:U:O2	78.44	0.53
40:L3:130:PHE:CE1	36:5:3149:G:H4'	221.38	0.53
1:6:1533:C:H4'	1:6:1539:G:N1	2.23	0.53
28:D6:4:LYS:NZ	1:6:1794:A:OP2	339.86	0.53
1:6:212:U:OP2	86:6:2123:OHX:N1	2.41	0.53
1:6:385:A:H2'	1:6:386:G:C8	2.44	0.53
1:6:667:U:H4'	1:6:668:C:OP1	2.08	0.53
1:6:992:A:O2'	1:6:1785:U:O2	2.26	0.53
13:C1:76:VAL:HG12	13:C1:85:VAL:O	2.31	0.53
14:C2:131:ASP:OD1	14:C2:132:GLU:N	2.36	0.53
19:C7:46:LEU:O	19:C7:50:ILE:HG13	2.08	0.53
21:C9:42:GLY:HA2	21:C9:84:LYS:HG3	1.90	0.53
40:L3:372:THR:O	40:L3:375:GLU:N	3.41	0.53
44:L7:191:VAL:HG12	44:L7:192:GLY:H	4.32	0.53
44:L7:27:ALA:O	44:L7:30:ARG:HB3	2.08	0.53
48:M1:139:THR:CG2	48:M1:147:THR:HA	2.39	0.53
49:M3:75:PHE:H	49:M3:97:VAL:HA	1.76	0.53
51:M5:110:ALA:HB1	51:M5:113:LEU:CD2	2.39	0.53
57:N1:57:TYR:CD1	57:N1:89:LEU:HD21	2.43	0.53
59:N3:74:MET:HE3	59:N3:102:ILE:HB	1.89	0.53
61:N5:137:ASN:OD1	61:N5:137:ASN:N	2.35	0.53
62:N6:39:LEU:HD21	62:N6:107:THR:O	3.92	0.53
62:N6:83:ASP:O	62:N6:84:LYS:HB2	2.12	0.53
63:N7:64:LYS:HD2	36:5:1812:G:O6	186.12	0.53
68:O2:19:ARG:NH1	68:O2:28:VAL:HG13	2.23	0.53
43:L6:31:ARG:HH11	69:O3:107:ILE:HG22	5.27	0.53
73:O7:28:HIS:ND1	73:O7:31:LYS:HB2	2.23	0.53
2:S0:48:ILE:HG21	2:S0:161:PRO:HB2	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:82:ASN:HB2	4:S2:207:LEU:HD13	1.90	0.53
5:S3:211:PRO:HG2	19:C7:19:ARG:HB2	2.39	0.53
6:S4:13:ALA:O	6:S4:39:ARG:NH2	2.39	0.53
6:S4:121:TYR:CD2	6:S4:161:LYS:HE3	2.43	0.53
6:S4:180:LEU:HD13	6:S4:228:ILE:HD11	3.08	0.53
7:S5:144:GLU:HB2	7:S5:160:VAL:O	2.08	0.53
8:S6:22:HIS:HA	8:S6:25:ARG:NH1	2.23	0.53
9:S7:39:ARG:HH22	55:M9:185:LEU:HA	1.73	0.53
36:1:2108:C:H1'	36:1:3344:A:C8	2.43	0.53
36:1:2294:U:OP2	59:N3:71:LYS:HE2	2.09	0.53
36:1:2818:U:C6	36:1:2818:U:H5'	2.32	0.53
36:1:3298:C:OP1	86:1:3897:OHX:N3	2.41	0.53
36:1:3298:C:OP1	53:M7:74:LYS:NZ	2.42	0.53
36:1:715:A:H5''	64:N8:114:GLY:O	2.08	0.53
1:2:1105:C:H2'	1:2:1106:U:H6	1.74	0.53
1:2:1291:G:H5'	4:S2:119:LYS:CE	2.37	0.53
38:4:106:C:O2'	86:4:236:OHX:N4	2.42	0.53
36:5:1554:U:H4'	36:5:1555:U:OP1	2.08	0.53
36:5:209:A:H4'	36:5:211:A:C8	2.44	0.53
36:5:3174:A:H2'	36:5:3175:U:C5'	2.38	0.53
36:5:3279:A:H2'	36:5:3280:U:H5'	1.90	0.53
36:5:621:A:H2'	36:5:622:A:C8	2.42	0.53
1:6:1175:U:H2'	1:6:1176:G:C8	2.44	0.53
17:C5:43:ARG:NH1	1:6:1553:G:N7	400.32	0.53
1:6:189:C:H2'	1:6:190:C:H5'	1.90	0.53
1:6:1095:U:O4	86:6:2177:OHX:N2	2.41	0.53
10:S8:2:GLY:N	1:6:393:C:OP2	291.08	0.53
1:6:489:C:O2'	1:6:490:C:O5'	2.26	0.53
38:8:154:C:H2'	38:8:155:A:O4'	2.08	0.53
15:C3:119:GLU:HG2	15:C3:141:TYR:CE2	3.33	0.53
1:2:896:U:O4'	16:C4:38:THR:HG21	2.09	0.53
20:C8:134:ARG:HB2	20:C8:136:GLN:OE1	3.37	0.53
28:D6:49:ALA:O	28:D6:52:ASP:N	3.18	0.53
30:D8:26:THR:O	30:D8:44:VAL:HG22	2.64	0.53
7:S5:163:SER:HB3	30:D8:46:GLY:HA3	2.93	0.53
36:1:2988:C:O2	40:L3:266:ARG:NH1	2.41	0.53
41:L4:286:VAL:HG11	54:M8:31:LYS:HD3	3.70	0.53
36:1:2899:C:C5	46:L9:171:ASP:HA	2.44	0.53
36:1:3186:A:O2'	46:L9:23:ARG:NH2	2.42	0.53
50:M4:94:TRP:O	50:M4:97:SER:OG	2.76	0.53
51:M5:184:LYS:H	51:M5:186:GLY:H	1.67	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:O3:13:HIS:O	69:O3:95:GLY:N	2.40	0.53
69:O3:92:LYS:HE2	36:5:630:A:O2'	212.24	0.53
36:1:3118:C:H4'	76:Q0:106:ARG:HH22	1.73	0.53
79:Q3:49:ARG:HB2	79:Q3:55:TRP:CZ3	2.70	0.53
8:S6:4:ASN:HA	8:S6:15:THR:HG22	1.90	0.53
8:S6:7:TYR:CD1	8:S6:125:THR:HA	3.15	0.53
9:S7:30:SER:HB2	9:S7:34:LEU:HB2	2.06	0.53
11:S9:162:SER:OG	11:S9:163:PRO:O	2.24	0.53
34:SR:23:LEU:HG	34:SR:291:SER:HB2	2.43	0.53
36:1:1724:U:H1'	36:1:1725:C:C6	2.43	0.53
36:1:1944:U:H2'	36:1:1945:A:H8	1.72	0.53
36:1:2392:C:H5''	36:1:2393:G:OP2	2.09	0.53
86:1:3870:OHX:N1	43:L6:29:LYS:O	2.42	0.53
1:2:1578:U:O2'	1:2:1579:U:H5'	2.08	0.53
1:2:891:A:H2'	1:2:892:A:C8	2.43	0.53
36:5:3163:A:O2'	36:5:3164:C:H5'	2.08	0.53
36:5:731:U:H2'	36:5:732:C:C6	2.44	0.53
22:D0:58:LEU:HD22	1:6:1516:A:H5''	442.47	0.53
22:D0:23:ARG:HD3	22:D0:92:ASP:OD1	2.08	0.53
28:D6:18:VAL:HG21	28:D6:33:ASP:OD1	2.08	0.53
31:D9:5:ASN:OD1	31:D9:7:TRP:NE1	2.34	0.53
40:L3:224:HIS:HB2	40:L3:270:ARG:O	2.74	0.53
40:L3:332:ARG:NH1	40:L3:333:LYS:HD2	3.40	0.53
41:L4:139:GLY:O	41:L4:140:HIS:HB2	2.08	0.53
44:L7:93:ASN:N	44:L7:93:ASN:OD1	2.41	0.53
47:M0:174:THR:OG1	47:M0:175:ASN:O	5.77	0.53
36:1:2355:G:H4'	53:M7:139:TYR:CE2	2.43	0.53
59:N3:2:SER:OG	59:N3:3:GLY:N	4.05	0.53
59:N3:11:PHE:CD1	59:N3:88:ARG:HD2	2.45	0.53
61:N5:92:LYS:HE2	61:N5:110:VAL:O	2.08	0.53
49:M3:153:ASP:OD1	64:N8:101:VAL:HG11	2.38	0.53
71:O5:64:GLU:HA	71:O5:67:ARG:HB2	2.26	0.53
6:S4:102:VAL:HG23	6:S4:182:TYR:OH	3.22	0.53
11:S9:85:VAL:HG12	11:S9:99:LEU:HD11	1.97	0.53
36:1:1095:U:H4'	36:1:1096:U:H5''	1.90	0.53
36:1:1347:U:H4'	41:L4:305:ALA:HB2	1.91	0.53
36:1:664:U:H5'	41:L4:107:ARG:HA	1.89	0.53
1:2:1474:G:H1	1:2:1533:C:H42	1.56	0.53
1:2:1600:A:O2'	1:2:1602:C:N4	2.40	0.53
1:2:280:U:O2'	1:2:281:G:OP2	2.22	0.53
52:M6:60:LYS:HD3	36:5:1307:G:H5''	248.20	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1581:C:OP2	36:5:1581:C:H4'	2.06	0.53
36:5:1822:C:H2'	36:5:1823:A:C8	2.43	0.53
16:C4:37:GLU:HA	1:6:895:G:O2'	258.57	0.53
21:C9:57:ARG:HH11	21:C9:57:ARG:CG	2.20	0.53
26:D4:20:ARG:HH11	26:D4:22:GLN:NE2	3.25	0.53
28:D6:60:PRO:C	28:D6:62:TYR:H	2.10	0.53
39:L2:144:ASN:HB2	39:L2:160:SER:HB2	1.90	0.53
44:L7:83:LEU:HD22	44:L7:84:VAL:N	2.48	0.53
45:L8:148:ALA:HA	45:L8:201:THR:HG22	1.90	0.53
47:M0:208:ASN:HA	47:M0:211:ARG:HD2	2.11	0.53
48:M1:11:ASP:O	48:M1:12:LEU:HB2	2.07	0.53
48:M1:15:GLU:OE1	48:M1:140:ARG:NH1	2.40	0.53
49:M3:48:PRO:HB2	71:O5:117:ALA:HB2	1.89	0.53
49:M3:98:ASP:OD1	49:M3:100:ARG:HG3	2.09	0.53
51:M5:8:GLU:HG3	51:M5:50:ARG:NH1	3.10	0.53
53:M7:41:LEU:HD23	53:M7:95:LEU:HD22	1.90	0.53
58:N2:18:ASP:HB3	58:N2:104:ARG:HB2	1.90	0.53
36:1:2916:U:H1'	59:N3:44:SER:CB	2.37	0.53
67:O1:86:LYS:H	67:O1:86:LYS:HD2	1.74	0.53
74:O8:31:LEU:HA	74:O8:37:PRO:HA	1.90	0.53
73:O7:14:LYS:HD2	75:O9:51:ILE:HD11	1.91	0.53
36:1:1927:G:P	79:Q3:6:LYS:H	2.28	0.53
7:S5:219:ARG:O	7:S5:223:SER:OG	4.57	0.53
8:S6:102:VAL:HG13	8:S6:106:LEU:HD12	1.90	0.53
11:S9:34:PHE:HD1	11:S9:111:THR:HG21	2.02	0.53
36:1:1240:A:H3'	36:1:1241:U:H5'	1.91	0.53
36:1:994:G:N2	36:1:1053:A:H2'	2.23	0.53
1:2:1266:U:H2'	1:2:1267:G:C8	2.44	0.53
1:2:1504:G:H2'	1:2:1505:A:C8	2.43	0.53
1:2:446:A:H2'	1:2:447:U:H6	1.74	0.53
1:2:694:U:H2'	1:2:695:U:H5	1.74	0.53
1:2:830:U:C2	1:2:831:U:C5	2.97	0.53
37:3:106:U:H2'	37:3:107:C:C6	2.44	0.53
37:3:27:A:OP2	42:L5:57:ASN:HB2	2.09	0.53
36:5:1020:G:H2'	36:5:1021:G:O4'	2.08	0.53
36:5:1119:C:OP2	86:5:3988:OHX:N2	2.42	0.53
36:5:1363:A:OP2	86:5:4201:OHX:N3	2.41	0.53
1:6:1018:U:H2'	1:6:1019:A:C8	2.43	0.53
1:6:1504:G:H2'	1:6:1505:A:C8	2.43	0.53
1:6:709:C:O2	1:6:730:G:N2	2.41	0.53
13:C1:78:THR:HG21	13:C1:118:GLN:HA	3.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:32:ASP:O	16:C4:35:GLY:N	2.33	0.53
19:C7:33:ARG:NH2	34:SR:109:ASP:OD1	2.42	0.53
22:D0:83:GLU:HG3	22:D0:85:ARG:HE	1.74	0.53
24:D2:105:THR:HG23	24:D2:110:ILE:HG12	1.90	0.53
25:D3:70:LYS:HB3	25:D3:93:LEU:HD22	1.95	0.53
26:D4:49:LYS:N	26:D4:49:LYS:HD3	3.39	0.53
40:L3:284:ARG:HB3	40:L3:323:MET:HB3	1.91	0.53
44:L7:47:ARG:NH1	44:L7:183:ASP:OD2	2.42	0.53
41:L4:302:ALA:HB2	54:M8:39:ARG:CZ	2.38	0.53
56:N0:23:LYS:HD2	56:N0:25:PHE:CZ	2.44	0.53
57:N1:105:PHE:O	57:N1:109:VAL:HG23	2.36	0.53
63:N7:46:ILE:HD11	63:N7:49:TYR:CA	2.38	0.53
64:N8:111:LYS:HD3	64:N8:113:LEU:HD21	2.51	0.53
36:1:40:A:N7	64:N8:29:PRO:O	2.42	0.53
67:O1:72:ARG:NE	67:O1:104:LEU:HD12	2.24	0.53
68:O2:24:ARG:HG2	68:O2:25:TYR:CZ	2.62	0.53
78:Q2:12:CYS:SG	78:Q2:77:CYS:SG	3.05	0.53
39:L2:57:PRO:HB3	79:Q3:54:ILE:HG22	5.76	0.53
2:S0:189:VAL:HG22	2:S0:190:ASP:H	1.73	0.53
4:S2:102:VAL:HG11	4:S2:129:ILE:HG12	1.90	0.53
4:S2:234:PRO:O	4:S2:235:LEU:HB2	2.09	0.53
5:S3:64:ARG:NH1	5:S3:68:GLU:OE1	4.80	0.53
6:S4:15:PRO:HG2	6:S4:18:TRP:CE2	2.43	0.53
6:S4:200:ARG:HG3	6:S4:206:ASP:OD2	3.99	0.53
8:S6:139:ASN:HA	8:S6:142:ARG:HB2	1.91	0.53
36:1:3095:U:H2'	36:1:3096:C:H6	1.74	0.53
10:S8:162:ALA:HA	36:1:3353:G:H5'	1.91	0.53
36:1:2236:G:OP1	86:1:4120:OHX:N6	2.42	0.53
1:2:1280:C:H2'	1:2:1281:G:C8	2.44	0.53
36:5:3362:A:C2	36:5:3363:U:C2	2.97	0.53
36:5:1161:G:OP1	86:5:4031:OHX:N4	2.42	0.53
36:5:879:U:O2	36:5:2357:A:H1'	2.08	0.53
26:D4:11:LYS:NZ	1:6:775:G:N7	413.26	0.53
1:6:793:A:H3'	1:6:794:U:H5'	1.91	0.53
16:C4:127:ARG:HG3	28:D6:22:ARG:HH12	1.74	0.53
33:E1:135:HIS:ND1	33:E1:138:ARG:HD2	2.24	0.53
40:L3:55:THR:O	40:L3:56:ILE:HD12	2.08	0.53
52:M6:27:LEU:HD11	52:M6:102:LEU:HB2	1.94	0.53
52:M6:88:VAL:HG12	52:M6:89:SER:H	2.88	0.53
59:N3:108:GLU:HB3	59:N3:128:ARG:HH11	4.05	0.53
61:N5:67:ILE:HD12	61:N5:121:LYS:HG3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:N5:105:VAL:HG13	61:N5:130:TYR:CD2	2.53	0.53
63:N7:14:VAL:HG21	70:O4:90:ILE:HD11	1.90	0.53
63:N7:83:THR:HG22	63:N7:85:TYR:H	2.81	0.53
6:S4:161:LYS:HB3	6:S4:170:THR:O	4.72	0.53
10:S8:147:ALA:C	10:S8:149:SER:H	2.91	0.53
36:1:2105:G:C2'	36:1:2106:A:H5'	2.38	0.53
36:1:2298:U:O4	36:1:2923:U:H5	1.91	0.53
86:1:4005:OHX:N6	86:1:4175:OHX:N5	2.56	0.53
36:1:715:A:H4'	36:1:716:A:OP1	2.08	0.53
1:2:1410:A:H2'	1:2:1411:A:O4'	2.07	0.53
1:2:1381:U:H1'	1:2:1516:A:N6	2.24	0.53
1:2:1561:U:H2'	1:2:1562:G:H8	1.73	0.53
1:2:1665:U:O4	86:2:2136:OHX:N4	2.41	0.53
1:2:482:U:H2'	1:2:483:A:C8	2.44	0.53
1:6:1398:U:H4'	1:6:1399:C:OP2	2.09	0.53
16:C4:84:ARG:HB2	16:C4:118:VAL:HG23	1.91	0.53
19:C7:20:TYR:CE1	19:C7:38:ILE:HD11	2.44	0.53
25:D3:130:VAL:HG21	25:D3:135:LEU:HD21	2.05	0.53
39:L2:142:ASP:OD2	39:L2:142:ASP:N	2.42	0.53
42:L5:204:VAL:O	42:L5:208:MET:HG3	2.09	0.53
43:L6:102:ASN:OD1	43:L6:102:ASN:N	3.60	0.53
44:L7:158:LYS:HD2	44:L7:159:GLN:N	4.30	0.53
45:L8:45:ASN:ND2	61:N5:26:VAL:HG22	5.58	0.53
46:L9:147:SER:HB2	46:L9:187:ILE:HD11	1.89	0.53
48:M1:30:LEU:O	48:M1:34:SER:HB2	3.44	0.53
51:M5:172:ARG:NH1	36:5:30:G:OP1	107.10	0.53
53:M7:67:ILE:HD12	53:M7:82:ARG:NH1	3.18	0.53
66:O0:77:LEU:O	66:O0:81:VAL:HG22	2.09	0.53
66:O0:38:LYS:HB3	66:O0:93:LEU:HD23	2.50	0.53
70:O4:78:GLY:O	70:O4:80:ARG:N	4.84	0.53
38:4:67:U:H5''	73:O7:84:SER:O	2.09	0.53
2:S0:109:ASN:O	2:S0:112:THR:HG22	2.09	0.53
2:S0:124:THR:HA	2:S0:146:LEU:HB2	1.91	0.53
2:S0:69:ASN:HB3	2:S0:71:GLU:OE1	2.08	0.53
4:S2:98:PHE:CZ	35:SM:116:GLU:HG3	2.44	0.53
36:1:246:U:H2'	36:1:247:C:C6	2.44	0.53
36:1:3030:G:N7	86:1:4075:OHX:N6	2.57	0.53
36:1:517:G:H8	36:1:517:G:H5''	1.74	0.53
1:2:178:U:C4	8:S6:191:ARG:HD3	2.44	0.53
1:2:199:G:HO2'	1:2:200:A:H8	1.57	0.53
1:2:38:C:H2'	1:2:39:A:H5'	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:79:A:O3'	38:4:80:A:H4'	2.07	0.53
36:5:2830:G:H1'	36:5:2861:U:C2	2.44	0.53
36:5:3255:U:H2'	36:5:3256:G:C8	2.44	0.53
68:O2:33:ARG:NH1	36:5:944:C:H4'	161.78	0.53
1:6:452:A:OP2	86:6:2060:OHX:N1	2.42	0.53
1:6:76:A:N3	1:6:76:A:H2'	2.24	0.53
12:C0:8:ARG:HD2	12:C0:12:HIS:HE1	1.73	0.53
17:C5:85:ILE:HD11	17:C5:116:LEU:HD23	1.90	0.53
21:C9:86:ARG:NH2	21:C9:89:ARG:HE	2.82	0.53
26:D4:89:TYR:O	26:D4:92:VAL:HB	2.09	0.53
27:D5:71:ILE:HG21	27:D5:76:ALA:HB2	3.77	0.53
40:L3:35:ASP:OD2	40:L3:37:ARG:NH1	2.40	0.53
41:L4:99:MET:CE	41:L4:103:THR:H	2.22	0.53
45:L8:33:ASN:O	45:L8:35:GLY:N	3.24	0.53
46:L9:129:ARG:O	46:L9:132:VAL:HG13	2.72	0.53
49:M3:91:ARG:NH2	49:M3:97:VAL:O	2.92	0.53
51:M5:180:PHE:O	51:M5:184:LYS:HB2	2.31	0.53
51:M5:70:ASN:ND2	51:M5:93:LYS:HE2	2.24	0.53
63:N7:104:PRO:O	63:N7:108:GLU:HG3	2.53	0.53
63:N7:62:VAL:O	63:N7:66:THR:OG1	2.24	0.53
63:N7:70:PRO:HG3	63:N7:115:LYS:HB2	2.02	0.53
70:O4:37:LYS:HE2	70:O4:58:ARG:HH12	3.06	0.53
36:1:1841:A:H2	75:O9:45:ARG:HH22	1.57	0.53
4:S2:227:PRO:HA	4:S2:230:TRP:CE2	2.43	0.53
5:S3:167:PHE:CE1	5:S3:192:PRO:HB3	2.61	0.53
8:S6:74:LYS:HG3	8:S6:96:SER:HA	1.91	0.53
9:S7:129:LEU:HD21	9:S7:172:VAL:HG11	1.90	0.53
10:S8:182:TYR:OH	10:S8:188:GLU:OE1	2.21	0.53
11:S9:114:TYR:HA	11:S9:119:ALA:HB3	1.96	0.53
36:1:2747:A:H2'	36:1:2748:A:C8	2.43	0.52
36:1:2943:G:OP2	40:L3:2:SER:OG	2.05	0.52
36:1:1310:G:O6	86:1:4029:OHX:N1	2.41	0.52
36:1:3361:G:O6	86:1:4163:OHX:N6	2.41	0.52
1:2:1760:G:H2'	1:2:1761:U:H5'	1.90	0.52
86:2:2043:OHX:N4	86:2:2098:OHX:N6	2.56	0.52
1:2:882:U:H2'	1:2:883:C:C6	2.44	0.52
1:2:896:U:C4'	16:C4:38:THR:HG21	2.39	0.52
36:5:252:U:H4'	36:5:253:A:H5''	1.91	0.52
36:5:653:A:OP1	86:5:3983:OHX:N2	2.42	0.52
1:6:1392:U:H2'	1:6:1393:C:C6	2.44	0.52
13:C1:80:MET:HB2	13:C1:83:THR:HG23	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:50:GLU:OE1	18:C6:112:TYR:OH	2.27	0.52
21:C9:66:TYR:HE2	21:C9:129:GLN:HG3	4.70	0.52
23:D1:25:LYS:HB2	23:D1:28:ASP:HB2	5.34	0.52
25:D3:108:GLY:HA2	1:6:600:U:OP2	356.75	0.52
27:D5:54:VAL:HG13	27:D5:57:TYR:HD1	1.73	0.52
39:L2:187:HIS:ND1	39:L2:190:ARG:NH1	4.16	0.52
41:L4:302:ALA:HB2	54:M8:39:ARG:NH2	2.24	0.52
43:L6:170:LYS:HB3	43:L6:172:HIS:CE1	2.44	0.52
47:M0:86:HIS:HB3	47:M0:139:ARG:HG2	1.91	0.52
54:M8:170:ARG:O	54:M8:171:LYS:HB3	2.09	0.52
56:N0:96:ASP:OD1	56:N0:97:VAL:N	2.43	0.52
62:N6:50:ILE:HD13	62:N6:51:ARG:N	3.52	0.52
64:N8:94:ALA:HB2	64:N8:121:VAL:HG22	1.91	0.52
79:Q3:30:GLU:HA	79:Q3:33:GLN:HG2	1.90	0.52
3:S1:180:THR:HG22	3:S1:181:LEU:H	1.73	0.52
5:S3:170:THR:HG22	5:S3:187:LYS:HA	5.30	0.52
5:S3:42:THR:OG1	5:S3:45:LYS:O	2.74	0.52
34:SR:44:SER:OG	34:SR:59:ARG:HB2	2.08	0.52
36:1:2897:A:H2'	36:1:2899:C:H5''	1.92	0.52
36:1:2875:U:H3	36:1:2952:G:H1	1.57	0.52
1:2:1488:G:H5'	1:2:1489:U:OP1	2.10	0.52
1:2:28:A:H2'	1:2:29:U:C6	2.43	0.52
1:2:826:U:H2'	1:2:827:C:C6	2.44	0.52
36:5:1249:G:H2'	36:5:1250:G:C8	2.44	0.52
36:5:662:U:H2'	36:5:663:C:C6	2.44	0.52
36:5:93:C:OP2	36:5:2764:C:O2'	2.26	0.52
1:6:1151:A:O3'	1:6:1766:A:N6	2.42	0.52
1:6:521:A:H2'	1:6:522:U:O4'	2.09	0.52
1:6:82:U:H2'	1:6:83:G:O4'	2.10	0.52
42:L5:265:TYR:HE1	37:7:121:U:H5''	315.50	0.52
36:5:59:G:H2'	38:8:33:A:O2'	2.09	0.52
14:C2:73:LYS:NZ	33:E1:108:VAL:HG13	2.24	0.52
17:C5:122:THR:HG22	17:C5:123:TYR:HD1	5.76	0.52
20:C8:113:LEU:HD21	20:C8:127:HIS:CE1	2.44	0.52
27:D5:54:VAL:HG22	27:D5:57:TYR:CE1	2.44	0.52
1:2:1433:G:C8	31:D9:41:GLN:HG2	2.44	0.52
39:L2:80:GLU:HG3	79:Q3:66:GLY:HA2	1.91	0.52
40:L3:102:LEU:HD11	40:L3:150:ARG:HD2	1.90	0.52
41:L4:353:ALA:O	41:L4:357:GLU:HG3	2.09	0.52
49:M3:100:ARG:O	49:M3:101:ARG:HB3	4.62	0.52
49:M3:180:ARG:HD3	72:O6:11:LEU:HD21	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:31:LYS:O	49:M3:35:ARG:HB2	2.09	0.52
51:M5:38:ARG:NH2	51:M5:60:VAL:HG22	2.24	0.52
61:N5:91:ASN:OD1	61:N5:94:GLN:HG3	2.10	0.52
69:O3:16:TYR:OH	69:O3:91:ALA:HB2	2.09	0.52
79:Q3:37:TYR:HB2	79:Q3:47:VAL:HB	1.91	0.52
3:S1:113:MET:HE1	3:S1:211:HIS:CD2	2.78	0.52
3:S1:70:LEU:HD21	3:S1:79:HIS:CD2	2.45	0.52
4:S2:139:ILE:CD1	4:S2:191:ALA:HB1	2.39	0.52
5:S3:34:TYR:HE2	5:S3:37:VAL:HG13	1.83	0.52
5:S3:3:ALA:O	5:S3:4:LEU:HB2	2.76	0.52
8:S6:162:VAL:HG21	8:S6:171:LYS:HD3	4.90	0.52
10:S8:25:ARG:O	10:S8:28:GLU:HG2	2.33	0.52
36:1:3085:G:H5''	36:1:3086:A:OP1	2.09	0.52
36:1:76:G:O2'	49:M3:100:ARG:NH1	2.40	0.52
1:2:1329:A:O5'	1:2:1329:A:H8	1.93	0.52
1:2:72:A:C2	1:2:73:U:N3	2.77	0.52
1:2:833:U:H5'	1:2:834:G:H5''	1.90	0.52
36:5:1239:C:N3	36:5:1249:G:N2	2.49	0.52
36:5:1352:A:H1'	36:5:1353:U:O5'	2.09	0.52
36:5:1597:C:C4'	36:5:1696:A:H1'	2.39	0.52
36:5:2836:C:H41	36:5:2852:C:N4	2.07	0.52
36:5:2970:C:H4'	36:5:2971:A:N1	2.25	0.52
86:5:4068:OHX:N5	86:5:4144:OHX:N2	2.57	0.52
1:6:705:U:HO2'	1:6:706:A:H8	1.55	0.52
25:D3:96:VAL:HG23	25:D3:97:ASP:H	1.74	0.52
39:L2:156:LYS:NZ	36:5:2157:G:O3'	204.49	0.52
41:L4:51:ALA:HB3	38:8:27:U:H4'	109.68	0.52
42:L5:282:ARG:O	42:L5:286:VAL:HG23	2.87	0.52
46:L9:116:ASN:OD1	46:L9:119:GLY:HA2	2.08	0.52
48:M1:10:ARG:NH2	48:M1:151:SER:O	2.43	0.52
51:M5:173:GLY:HA3	51:M5:183:THR:OG1	2.10	0.52
54:M8:67:ILE:HG12	54:M8:81:VAL:HG21	1.92	0.52
55:M9:175:GLN:O	55:M9:179:GLU:N	2.41	0.52
56:N0:125:LYS:HG3	56:N0:126:VAL:N	2.67	0.52
59:N3:79:VAL:HG12	59:N3:122:CYS:SG	3.53	0.52
66:O0:73:GLY:O	66:O0:76:GLU:HG2	2.10	0.52
66:O0:78:GLY:HA2	66:O0:87:VAL:HG13	1.91	0.52
75:O9:7:PHE:HB3	38:8:113:U:H5''	108.17	0.52
3:S1:133:TYR:CD2	3:S1:181:LEU:HD11	2.44	0.52
7:S5:72:HIS:ND1	18:C6:79:TYR:OH	2.70	0.52
1:2:79:C:H4'	8:S6:173:PRO:O	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:2:GLY:HA2	1:6:1729:C:O2'	286.17	0.52
36:1:1015:U:O2'	36:1:1017:C:OP2	2.27	0.52
36:1:1809:A:H2'	36:1:1810:A:O4'	2.09	0.52
36:1:1488:G:H5''	36:1:1838:G:O6	2.09	0.52
36:1:2213:A:N1	36:1:2429:G:H1'	2.24	0.52
36:1:3006:A:H2'	36:1:3007:U:O4'	2.09	0.52
36:1:358:G:N2	36:1:361:A:OP2	2.42	0.52
36:1:3:U:H2'	36:1:4:U:O4'	2.08	0.52
1:2:1291:G:H2'	1:2:1292:G:H8	1.74	0.52
1:2:702:G:HO2'	1:2:703:G:H8	1.57	0.52
37:3:61:G:H2'	37:3:62:U:H6	1.74	0.52
36:5:655:C:H2'	36:5:656:A:H8	1.75	0.52
1:6:197:A:H2'	1:6:198:A:C8	2.43	0.52
13:C1:4:GLU:HG3	13:C1:5:LEU:HD22	4.75	0.52
17:C5:18:ARG:NH1	20:C8:90:ASN:O	2.42	0.52
40:L3:167:ARG:O	86:L3:403:OHX:N5	24.24	0.52
40:L3:75:ALA:HB2	36:5:3049:A:C2	245.83	0.52
41:L4:205:PRO:HB3	41:L4:247:PHE:CD2	2.52	0.52
41:L4:299:ILE:HG22	41:L4:300:ARG:O	2.09	0.52
42:L5:160:PHE:HA	42:L5:163:LEU:HB3	2.70	0.52
36:1:2645:G:OP2	47:M0:117:GLY:HA2	2.09	0.52
47:M0:129:VAL:HG13	47:M0:133:GLN:HG2	1.92	0.52
49:M3:124:ILE:HD11	49:M3:126:PHE:CZ	2.43	0.52
74:O8:32:ASN:HD21	74:O8:36:LYS:H	1.56	0.52
74:O8:8:ILE:HD12	74:O8:8:ILE:H	1.74	0.52
5:S3:203:PRO:CB	1:6:1332:C:H4'	426.59	0.52
1:2:143:G:N7	8:S6:177:ARG:NH2	2.57	0.52
35:SM:77:THR:O	35:SM:79:SER:N	3.44	0.52
36:1:1047:A:C6	36:1:1048:A:C6	2.98	0.52
36:1:1833:G:OP1	75:O9:10:LYS:HD3	2.09	0.52
36:1:2662:G:H2'	36:1:2663:G:H8	1.75	0.52
36:1:2777:G:H5'	36:1:2779:A:OP2	2.09	0.52
36:1:2960:C:OP1	86:1:4003:OHX:N4	2.42	0.52
36:1:3152:U:O2'	36:1:3153:U:H5'	2.09	0.52
36:1:956:U:OP1	86:1:4127:OHX:N1	2.42	0.52
1:2:1202:A:H2'	1:2:1203:A:H5''	1.92	0.52
1:2:1254:U:OP2	14:C2:46:ARG:NH1	2.29	0.52
1:2:131:C:OP1	86:2:2072:OHX:N4	2.43	0.52
1:2:1393:C:H2'	1:2:1394:G:O4'	2.09	0.52
1:2:1427:A:OP2	35:SM:93:ARG:NH1	2.40	0.52
36:5:2520:A:H2'	36:5:2521:U:C6	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:5:4057:OHX:N5	86:5:4201:OHX:N6	2.58	0.52
49:M3:13:HIS:NE2	36:5:98:G:N7	139.06	0.52
1:6:1690:G:H1	1:6:1711:C:H42	1.56	0.52
1:6:188:A:H3'	1:6:189:C:H6	1.74	0.52
1:6:320:U:H2'	1:6:321:C:C2	2.44	0.52
10:S8:10:LYS:NZ	1:6:337:G:O2'	285.04	0.52
12:C0:29:GLN:NE2	12:C0:31:LYS:O	5.26	0.52
31:D9:22:ARG:HG3	31:D9:38:ILE:HD13	1.91	0.52
14:C2:73:LYS:NZ	33:E1:108:VAL:O	2.41	0.52
40:L3:10:ARG:NH2	40:L3:263:SER:O	2.39	0.52
40:L3:123:TYR:CE2	40:L3:124:LYS:HG3	2.45	0.52
45:L8:203:VAL:HG12	45:L8:204:ARG:O	3.48	0.52
60:N4:63:ILE:O	60:N4:65:GLU:N	2.60	0.52
63:N7:54:THR:OG1	63:N7:55:LYS:N	2.42	0.52
66:O0:27:TYR:OH	66:O0:55:GLU:OE1	2.24	0.52
73:O7:31:LYS:O	73:O7:33:THR:HG22	2.50	0.52
74:O8:11:PHE:HD1	74:O8:12:LEU:HD22	3.33	0.52
6:S4:130:GLN:HB2	6:S4:138:TYR:CE2	2.45	0.52
1:2:386:G:OP2	10:S8:25:ARG:NH2	2.43	0.52
36:1:1579:C:H2'	36:1:1580:A:C8	2.45	0.52
36:1:1581:C:H2'	36:1:1582:C:C5'	2.40	0.52
36:1:1925:U:O2	79:Q3:19:GLY:HA2	2.10	0.52
1:2:130:C:O2'	1:2:131:C:OP1	2.25	0.52
1:2:1642:G:O3'	77:Q1:9:ARG:NH2	2.42	0.52
1:2:1588:G:OP1	86:2:2116:OHX:N3	2.41	0.52
1:2:83:G:OP2	86:2:2065:OHX:N5	2.42	0.52
36:5:999:G:C6	36:5:1000:C:N4	2.77	0.52
36:5:1018:G:H2'	36:5:1019:G:O4'	2.09	0.52
36:5:1064:A:H4'	36:5:1065:A:O5'	2.10	0.52
65:N9:38:LYS:HE2	36:5:1076:C:O3'	215.81	0.52
36:5:1564:U:H2'	36:5:1565:G:C8	2.44	0.52
36:5:1839:A:N6	36:5:1843:C:C2	2.77	0.52
36:5:2209:U:H4'	36:5:2210:G:OP1	2.10	0.52
36:5:2256:A:OP2	36:5:2256:A:H2'	2.10	0.52
36:5:247:C:C2	36:5:248:U:H1'	2.44	0.52
34:SR:102:ARG:NH2	1:6:1341:A:O2'	457.58	0.52
1:6:1649:G:N7	86:6:2108:OHX:N2	2.58	0.52
86:6:2118:OHX:N4	86:6:2168:OHX:N3	2.57	0.52
86:7:218:OHX:N1	86:7:226:OHX:N5	2.57	0.52
16:C4:19:ILE:HD11	16:C4:105:LEU:HD21	1.91	0.52
18:C6:93:HIS:ND1	18:C6:101:SER:OG	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:124:GLY:O	20:C8:127:HIS:N	2.41	0.52
20:C8:61:LEU:HD22	20:C8:65:GLU:OE1	3.74	0.52
27:D5:83:LEU:O	27:D5:89:ILE:HG12	3.35	0.52
40:L3:171:LEU:O	86:L3:404:OHX:N6	2.42	0.52
44:L7:178:ILE:HA	44:L7:183:ASP:HB3	2.04	0.52
44:L7:68:ASP:O	44:L7:71:ALA:HB3	2.64	0.52
45:L8:122:LYS:C	45:L8:124:ASP:H	2.51	0.52
49:M3:76:THR:HG22	49:M3:101:ARG:HG2	2.83	0.52
54:M8:165:ILE:HD13	54:M8:166:LEU:H	5.08	0.52
55:M9:23:TRP:CH2	55:M9:25:ASP:HB3	2.45	0.52
54:M8:157:PRO:HD3	64:N8:47:LYS:HB2	1.90	0.52
70:O4:99:LYS:HB3	70:O4:103:LYS:NZ	2.24	0.52
75:O9:4:GLN:HG2	36:5:1588:A:C2	126.32	0.52
78:Q2:105:GLN:HB2	78:Q2:106:PHE:CD1	3.20	0.52
3:S1:48:VAL:HG21	3:S1:61:LEU:HD22	4.10	0.52
5:S3:119:ALA:O	5:S3:123:VAL:HG23	2.10	0.52
5:S3:182:LEU:H	5:S3:182:LEU:HD12	1.75	0.52
7:S5:145:ASP:OD2	7:S5:146:THR:N	2.43	0.52
9:S7:12:ALA:HB3	9:S7:13:PRO:HD3	1.90	0.52
36:1:1245:A:N6	36:1:1272:C:O2'	2.43	0.52
36:1:1795:U:H2'	39:L2:50:HIS:CD2	2.45	0.52
36:1:1623:G:OP2	86:1:4043:OHX:N1	2.43	0.52
1:2:1096:C:O2	1:2:1096:C:H2'	2.08	0.52
1:2:1105:C:H41	25:D3:4:GLY:HA2	1.75	0.52
1:2:1490:C:H4'	1:2:1491:U:OP1	2.08	0.52
1:2:95:G:C2	1:2:96:G:H1'	2.45	0.52
37:3:71:G:H2'	37:3:72:A:C8	2.44	0.52
36:5:240:U:O2'	36:5:241:G:H8	1.93	0.52
36:5:279:U:H2'	36:5:280:U:C6	2.44	0.52
36:5:2320:A:OP2	86:5:4077:OHX:N5	2.43	0.52
36:5:725:G:H3'	36:5:726:G:H5''	1.91	0.52
36:5:738:A:H2'	36:5:739:G:C8	2.44	0.52
36:5:90:C:C2'	36:5:91:G:H5'	2.39	0.52
13:C1:69:LYS:HG3	1:6:304:U:O2'	326.06	0.52
1:6:702:G:N7	86:6:2097:OHX:N4	2.58	0.52
13:C1:101:GLU:HG3	25:D3:13:ARG:CZ	2.40	0.52
27:D5:41:ILE:HG23	27:D5:42:LEU:H	1.74	0.52
39:L2:51:ASP:HB3	39:L2:54:ARG:HD2	1.90	0.52
40:L3:252:ILE:HG12	40:L3:266:ARG:NH2	2.25	0.52
41:L4:120:TYR:CD2	41:L4:277:PRO:HG3	2.45	0.52
50:M4:38:ILE:HD11	56:N0:150:PHE:CE2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:84:THR:O	55:M9:88:ARG:HG2	3.88	0.52
66:O0:9:SER:OG	66:O0:10:ILE:N	2.42	0.52
69:O3:59:VAL:HG23	69:O3:60:ARG:H	2.33	0.52
4:S2:129:ILE:HG22	4:S2:133:LYS:HE3	1.91	0.52
6:S4:126:VAL:HG13	6:S4:158:ASP:O	2.21	0.52
6:S4:246:LEU:HD13	6:S4:251:GLU:HG2	2.05	0.52
10:S8:18:ARG:NH1	1:6:105:A:OP1	304.71	0.52
36:1:108:A:O2'	36:1:109:A:H2'	2.10	0.52
36:1:1565:G:H1'	36:1:1575:A:C2	2.44	0.52
36:1:1686:U:O2	36:1:1688:U:H1'	2.09	0.52
36:1:168:U:H2'	36:1:169:U:C6	2.45	0.52
36:1:2186:U:OP2	39:L2:200:ARG:NH2	2.41	0.52
36:1:230:U:H2'	36:1:231:G:O4'	2.09	0.52
36:1:3353:G:O2'	36:1:3356:G:OP2	2.19	0.52
36:1:346:C:OP1	41:L4:53:SER:N	2.29	0.52
36:1:715:A:H8	64:N8:115:LYS:HG2	1.75	0.52
1:2:1402:G:OP1	19:C7:10:LYS:NZ	2.42	0.52
1:2:1597:A:OP2	31:D9:32:ARG:NH2	2.43	0.52
1:2:538:A:H5'	1:2:543:C:H42	1.75	0.52
1:2:704:C:OP2	1:2:704:C:H3'	2.10	0.52
36:5:1208:U:H6	36:5:3115:C:N4	2.08	0.52
36:5:1301:A:H4'	36:5:1302:A:H5''	1.92	0.52
46:L9:168:ARG:HD2	36:5:2894:C:OP1	306.11	0.52
36:5:2897:A:H2'	36:5:2899:C:C5'	2.39	0.52
36:5:3299:A:N6	36:5:3315:G:H1	2.07	0.52
36:5:2822:U:OP2	86:5:3955:OHX:N1	2.43	0.52
86:5:4003:OHX:N4	86:5:4091:OHX:N2	2.58	0.52
49:M3:63:VAL:HG13	36:5:72:C:H5'	113.35	0.52
49:M3:73:ARG:HD2	36:5:76:G:H3'	81.82	0.52
1:6:1151:A:H4'	1:6:1766:A:C5	2.44	0.52
1:6:1029:U:O4	86:6:2196:OHX:N6	2.42	0.52
1:6:800:U:H2'	1:6:801:G:H8	1.75	0.52
15:C3:27:LYS:HE2	15:C3:27:LYS:H	1.74	0.52
20:C8:13:HIS:HA	20:C8:24:GLY:HA3	2.82	0.52
20:C8:91:ASP:OD1	20:C8:92:ILE:N	2.48	0.52
24:D2:31:SER:HB3	24:D2:34:ILE:HG13	3.90	0.52
40:L3:287:LYS:O	40:L3:290:ASP:HB3	2.10	0.52
41:L4:91:GLY:HA3	41:L4:93:MET:HE2	1.91	0.52
45:L8:244:ALA:HA	45:L8:247:ASP:HB2	2.41	0.52
51:M5:59:PHE:HD1	51:M5:133:ILE:HD11	1.74	0.52
51:M5:5:LYS:NZ	51:M5:8:GLU:OE1	4.18	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
77:Q1:9:ARG:NH2	1:6:1642:G:O3'	307.09	0.52
78:Q2:99:GLN:NE2	78:Q2:102:GLN:HE21	2.08	0.52
39:L2:112:ILE:HD11	79:Q3:79:VAL:HG11	5.39	0.52
2:S0:175:TYR:CD1	2:S0:199:PRO:HA	2.45	0.52
2:S0:63:ILE:HD13	23:D1:34:ILE:HG21	2.48	0.52
3:S1:88:VAL:HA	3:S1:98:THR:HG22	5.94	0.52
5:S3:29:LEU:HD21	5:S3:69:LEU:HD21	3.86	0.52
6:S4:185:GLY:H	6:S4:189:LEU:HD13	1.75	0.52
34:SR:295:SER:HB2	34:SR:300:THR:HB	1.92	0.52
45:L8:241:LYS:HB2	36:5:2586:G:C5	183.49	0.52
36:5:1171:G:O6	86:5:4004:OHX:N1	2.43	0.52
86:5:4057:OHX:N3	86:5:4201:OHX:N6	2.58	0.52
36:5:2983:C:OP1	86:5:4230:OHX:N5	2.43	0.52
36:5:541:U:O4	86:5:4015:OHX:N3	2.42	0.52
36:5:677:A:H4'	36:5:678:G:O5'	2.10	0.52
36:5:690:A:H4'	36:5:691:A:OP1	2.10	0.52
36:5:998:A:O2'	36:5:999:G:H5'	2.10	0.52
1:6:1757:G:O6	86:6:2045:OHX:N4	2.43	0.52
1:6:825:U:O2'	1:6:826:U:OP2	2.24	0.52
38:8:79:A:H2'	38:8:80:A:O4'	2.10	0.52
18:C6:47:LYS:HZ1	18:C6:114:ARG:HD3	3.59	0.52
18:C6:8:GLN:O	1:6:1340:U:H5	437.79	0.52
19:C7:6:THR:OG1	19:C7:8:THR:HG23	4.42	0.52
22:D0:43:LYS:HD3	22:D0:47:GLN:HB2	5.65	0.52
28:D6:84:VAL:HG13	28:D6:85:ARG:N	2.25	0.52
39:L2:3:ARG:HD3	36:5:911:C:N4	178.73	0.52
41:L4:6:VAL:HG21	41:L4:255:PHE:CZ	2.45	0.52
41:L4:262:TRP:HB3	41:L4:276:LEU:HD21	1.90	0.52
41:L4:316:ASN:OD1	41:L4:318:LEU:HB2	2.09	0.52
41:L4:74:ILE:HG22	41:L4:76:ARG:NH1	7.05	0.52
41:L4:89:ALA:O	41:L4:91:GLY:N	2.39	0.52
37:3:5:G:OP2	42:L5:27:LYS:NZ	2.41	0.52
44:L7:150:LYS:HD3	44:L7:244:ASN:HD21	1.74	0.52
50:M4:70:PHE:CE2	50:M4:72:LEU:HD23	2.44	0.52
56:N0:42:TRP:O	56:N0:46:GLN:HG3	2.22	0.52
68:O2:19:ARG:HD3	68:O2:28:VAL:HG13	3.24	0.52
79:Q3:13:LYS:HD2	79:Q3:14:TYR:CZ	3.02	0.52
4:S2:44:LEU:HD11	4:S2:247:ALA:HB2	2.56	0.52
6:S4:46:VAL:O	6:S4:50:ASN:HB2	2.09	0.52
1:2:405:C:O2'	8:S6:92:ARG:O	2.26	0.52
10:S8:196:LEU:HD22	10:S8:200:LYS:HD3	8.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1141:C:O2'	36:1:1153:A:N3	2.41	0.52
36:1:2973:G:N7	86:1:4100:OHX:N2	2.57	0.52
36:1:3013:U:H2'	36:1:3014:U:C6	2.44	0.52
36:1:3165:A:H2'	36:1:3166:C:C6	2.45	0.52
36:1:3319:U:O2'	36:1:3320:A:OP1	2.21	0.52
36:1:655:C:H2'	36:1:656:A:H8	1.74	0.52
36:1:792:G:H2'	36:1:793:C:C6	2.44	0.52
1:2:1209:C:H2'	1:2:1210:C:H6	1.75	0.52
1:2:1409:G:N2	1:2:1411:A:H3'	2.26	0.52
1:2:181:A:H2'	1:2:182:A:C8	2.45	0.52
36:5:1927:G:N2	36:5:1928:G:C8	2.78	0.52
36:5:2379:U:H2'	36:5:2380:U:H6	1.75	0.52
36:5:171:G:H1	36:5:247:C:H42	1.57	0.52
36:5:3287:U:H2'	36:5:3288:G:H5'	1.92	0.52
36:5:3343:G:N2	36:5:3362:A:H2	2.08	0.52
36:5:177:U:OP2	86:5:4019:OHX:N6	2.43	0.52
36:5:726:G:H1'	36:5:744:A:H61	1.75	0.52
36:5:887:G:H2'	36:5:888:A:C8	2.44	0.52
1:6:1374:C:H2'	1:6:1375:A:C8	2.45	0.52
10:S8:178:ARG:NH1	1:6:207:U:O2	287.70	0.52
18:C6:44:LEU:O	18:C6:47:LYS:HB2	2.45	0.52
21:C9:127:ASN:OD1	21:C9:130:ARG:NH1	8.07	0.52
26:D4:120:GLY:O	26:D4:122:GLY:N	4.15	0.52
29:D7:61:THR:HG23	29:D7:62:ILE:H	1.90	0.52
30:D8:5:THR:O	30:D8:7:VAL:N	3.34	0.52
40:L3:250:ALA:HB3	36:5:2880:U:H1'	223.76	0.52
40:L3:332:ARG:O	40:L3:333:LYS:HB2	2.22	0.52
41:L4:80:GLY:O	36:5:357:A:H1'	130.08	0.52
42:L5:40:HIS:HE1	42:L5:42:ALA:HB3	4.24	0.52
42:L5:5:LYS:HE2	42:L5:5:LYS:HA	1.92	0.52
45:L8:133:LYS:NZ	36:5:119:U:O2'	104.41	0.52
47:M0:36:LEU:HD12	47:M0:87:LEU:HB3	3.20	0.52
50:M4:84:LYS:O	50:M4:87:ALA:HB3	2.09	0.52
53:M7:16:SER:HB3	53:M7:149:VAL:HG22	1.92	0.52
53:M7:41:LEU:O	53:M7:41:LEU:HD22	2.10	0.52
53:M7:52:LEU:HD13	53:M7:88:VAL:HG11	1.92	0.52
56:N0:23:LYS:HB3	56:N0:25:PHE:CE2	2.45	0.52
59:N3:13:ILE:CD1	59:N3:53:SER:HB2	2.88	0.52
60:N4:5:ILE:HD12	60:N4:10:GLY:HA2	1.91	0.52
2:S0:9:LEU:HD13	2:S0:10:THR:O	2.85	0.52
2:S0:71:GLU:HA	2:S0:95:ALA:N	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:79:ARG:NH1	2:S0:164:ASN:O	3.29	0.52
3:S1:119:THR:HB	3:S1:143:THR:CG2	2.39	0.52
3:S1:33:LYS:HE2	3:S1:41:ARG:NH1	4.21	0.52
4:S2:56:ILE:HG23	4:S2:61:LEU:HB2	2.21	0.52
35:SM:48:ARG:HA	36:5:1019:G:OP1	333.88	0.52
34:SR:267:PRO:HD2	34:SR:269:TYR:HE1	2.67	0.52
36:1:1478:C:H2'	36:1:1479:U:H6	1.75	0.51
36:1:1951:C:N4	36:1:2095:G:H1	2.06	0.51
36:1:2257:C:H2'	36:1:2258:U:O4'	2.11	0.51
36:1:627:U:H4'	36:1:1399:A:O2'	2.10	0.51
36:1:726:G:H8	36:1:726:G:C5'	2.24	0.51
1:2:1188:G:O2'	1:2:1430:U:OP1	2.23	0.51
1:2:1755:A:OP2	86:2:2057:OHX:N3	2.43	0.51
36:5:1262:G:H5''	36:5:1263:A:OP2	2.11	0.51
46:L9:70:THR:HB	36:5:3112:G:O2'	328.81	0.51
36:5:2573:G:N7	86:5:4196:OHX:N6	2.58	0.51
86:5:3980:OHX:N6	86:5:4200:OHX:N5	2.58	0.51
36:5:789:A:H2'	36:5:790:U:H6	1.73	0.51
36:5:830:A:OP2	86:5:4064:OHX:N5	2.43	0.51
37:7:106:U:H2'	37:7:107:C:C6	2.46	0.51
86:8:216:OHX:N6	86:8:224:OHX:N4	2.59	0.51
15:C3:54:LEU:HB3	15:C3:60:VAL:CG1	3.67	0.51
17:C5:53:PRO:O	17:C5:56:PHE:HB3	2.11	0.51
22:D0:24:ILE:HG23	22:D0:116:VAL:HG12	5.33	0.51
24:D2:104:LEU:HB2	24:D2:124:LYS:O	2.10	0.51
24:D2:24:GLN:OE1	29:D7:4:VAL:HA	2.10	0.51
40:L3:92:TYR:O	40:L3:155:ALA:HA	2.10	0.51
41:L4:271:LYS:HB2	41:L4:274:TYR:CB	2.82	0.51
42:L5:226:TYR:HE1	42:L5:236:LEU:HD11	6.16	0.51
42:L5:34:LYS:HA	57:N1:27:LEU:HD11	1.91	0.51
43:L6:149:ILE:HG23	43:L6:155:LEU:HD13	2.20	0.51
46:L9:114:VAL:HB	46:L9:124:ARG:HB2	2.06	0.51
52:M6:16:VAL:HG23	52:M6:42:ASN:O	2.34	0.51
54:M8:86:THR:HG22	54:M8:105:ARG:HB2	1.92	0.51
55:M9:138:LEU:O	55:M9:142:ILE:HG13	2.09	0.51
56:N0:13:ARG:HA	56:N0:56:GLY:HA2	1.93	0.51
61:N5:45:LYS:HG2	71:O5:75:TYR:CD2	2.45	0.51
63:N7:4:PHE:CE2	66:O0:63:SER:HB3	2.90	0.51
36:1:2138:A:C4	73:O7:3:LYS:HB3	2.45	0.51
74:O8:17:ARG:O	74:O8:19:ASP:N	2.43	0.51
3:S1:144:ARG:HD2	3:S1:208:GLN:HB3	3.88	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:149:ARG:O	11:S9:151:ASP:N	2.40	0.51
11:S9:28:LEU:HD11	32:E0:39:LEU:HB3	1.92	0.51
5:S3:94:ARG:NH2	35:SM:134:ASP:CG	2.59	0.51
34:SR:111:MET:N	34:SR:125:GLY:O	2.75	0.51
36:1:1108:U:H2'	36:1:1109:U:C6	2.44	0.51
36:1:1316:C:O4'	52:M6:130:LYS:HD3	2.11	0.51
36:1:1817:G:OP1	86:1:4092:OHX:N1	2.43	0.51
36:1:2157:G:N2	36:1:2178:A:OP2	2.35	0.51
36:1:2208:A:N1	86:1:4046:OHX:N4	2.58	0.51
36:1:2210:G:H8	36:1:2210:G:OP2	1.92	0.51
36:1:1171:G:O6	86:1:3960:OHX:N2	2.43	0.51
86:1:4134:OHX:N5	86:1:4167:OHX:N6	2.58	0.51
1:2:1486:G:H1'	1:2:1592:A:O2'	2.10	0.51
1:2:1623:C:H2'	1:2:1624:C:C6	2.46	0.51
1:2:749:U:H3	1:2:800:U:H3	1.56	0.51
40:L3:2:SER:HA	36:5:2940:A:N7	239.06	0.51
36:5:3305:A:H2'	36:5:3306:U:C6	2.45	0.51
1:6:196:G:N3	1:6:197:A:H1'	2.24	0.51
1:6:982:U:O4	1:6:983:A:N6	2.43	0.51
36:5:407:A:C2	38:8:17:A:H1'	2.45	0.51
40:L3:146:ARG:O	40:L3:149:ALA:HB3	2.38	0.51
46:L9:162:GLN:HG3	46:L9:163:GLN:N	2.32	0.51
47:M0:82:ARG:O	47:M0:82:ARG:HG2	3.99	0.51
47:M0:81:GLY:C	47:M0:83:ASP:H	2.49	0.51
56:N0:12:ARG:O	56:N0:13:ARG:HB2	2.10	0.51
60:N4:50:ALA:HA	60:N4:55:PHE:CD2	2.45	0.51
63:N7:87:LEU:HD13	63:N7:127:ASN:CG	2.85	0.51
69:O3:48:ARG:HG2	69:O3:48:ARG:NH1	2.26	0.51
71:O5:40:SER:HA	38:8:49:G:O2'	55.06	0.51
73:O7:50:GLY:O	73:O7:53:ALA:HB3	2.10	0.51
74:O8:64:LYS:HG3	74:O8:65:LEU:N	4.84	0.51
76:Q0:93:LYS:HG3	76:Q0:102:ARG:HG2	1.92	0.51
3:S1:81:PHE:HD2	3:S1:82:ARG:HG3	1.75	0.51
7:S5:87:CYS:SG	7:S5:92:ARG:HG3	2.63	0.51
8:S6:2:LYS:HE2	8:S6:17:GLU:OE2	4.36	0.51
10:S8:170:SER:OG	10:S8:181:GLY:HA2	2.10	0.51
35:SM:50:ASN:N	35:SM:50:ASN:OD1	3.94	0.51
36:1:1565:G:N2	36:1:1574:C:O2	2.44	0.51
36:1:2780:A:OP1	49:M3:177:LYS:NZ	2.43	0.51
36:1:67:A:O2'	36:1:315:C:O2	2.25	0.51
1:2:1460:A:C8	17:C5:128:HIS:HB3	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:543:C:O2	1:2:543:C:H5'	2.09	0.51
36:5:2112:U:H4'	36:5:2113:A:H5'	1.91	0.51
86:5:4013:OHX:N6	86:5:4202:OHX:N2	2.59	0.51
1:6:660:G:H2'	1:6:661:A:H4'	1.92	0.51
11:S9:142:ASN:HD22	1:6:767:U:H5	425.68	0.51
86:8:216:OHX:N5	86:8:224:OHX:N1	2.59	0.51
15:C3:27:LYS:HE2	15:C3:27:LYS:N	2.25	0.51
23:D1:3:ASN:HD21	23:D1:7:GLN:CG	4.21	0.51
39:L2:250:GLN:HG2	39:L2:251:LYS:H	4.25	0.51
43:L6:54:TYR:HA	43:L6:65:ILE:HD13	6.04	0.51
46:L9:105:GLU:HG3	46:L9:109:ALA:N	2.06	0.51
47:M0:60:LEU:HD12	47:M0:129:VAL:HG21	1.92	0.51
49:M3:133:PRO:O	49:M3:135:ALA:N	3.34	0.51
53:M7:116:HIS:HB3	53:M7:149:VAL:HB	1.92	0.51
55:M9:27:ASN:O	86:M9:201:OHX:N6	2.42	0.51
63:N7:38:PHE:O	63:N7:40:HIS:ND1	2.41	0.51
64:N8:96:LYS:C	64:N8:98:THR:H	2.14	0.51
67:O1:46:THR:HG21	67:O1:91:SER:OG	2.10	0.51
69:O3:8:TYR:CE2	69:O3:99:ARG:HG2	2.72	0.51
70:O4:86:LYS:O	70:O4:90:ILE:HG12	2.11	0.51
77:Q1:13:LEU:HD11	77:Q1:17:ARG:CZ	2.41	0.51
3:S1:81:PHE:CD1	3:S1:109:LYS:HG2	2.45	0.51
5:S3:69:LEU:HA	5:S3:72:LEU:HD12	1.92	0.51
8:S6:67:VAL:O	8:S6:68:LEU:HB2	2.37	0.51
36:1:1712:G:N2	36:1:1731:A:OP2	2.40	0.51
36:1:2273:G:O2'	36:1:2274:U:P	2.68	0.51
36:1:2754:G:OP2	86:1:4008:OHX:N6	2.43	0.51
36:1:304:G:N3	36:1:304:G:H5'	2.24	0.51
1:2:1041:G:OP1	86:2:2148:OHX:N5	2.43	0.51
1:2:1670:G:N7	86:2:2122:OHX:N5	2.59	0.51
1:2:217:A:H4'	1:2:218:A:OP2	2.11	0.51
1:2:373:G:N7	86:2:2158:OHX:N6	2.58	0.51
1:2:682:C:H2'	1:2:683:C:O4'	2.10	0.51
36:5:2859:U:O2'	86:5:3904:OHX:N2	2.44	0.51
86:5:4003:OHX:N3	86:5:4091:OHX:N5	2.59	0.51
36:5:2732:G:OP2	86:5:4220:OHX:N1	2.43	0.51
1:6:1773:C:H2'	1:6:1774:G:C8	2.46	0.51
1:6:1336:A:OP1	86:6:2175:OHX:N1	2.43	0.51
6:S4:221:ARG:HG3	1:6:753:A:H5''	359.72	0.51
42:L5:270:LYS:HD3	37:7:2:G:H4'	320.99	0.51
16:C4:19:ILE:HB	16:C4:83:ILE:HD12	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:46:PHE:CE2	40:L3:205:VAL:HG13	3.39	0.51
40:L3:269:GLN:HG3	40:L3:270:ARG:N	2.25	0.51
45:L8:116:VAL:C	45:L8:118:GLU:H	2.60	0.51
46:L9:77:ASN:HA	46:L9:80:THR:CG2	4.23	0.51
48:M1:138:VAL:HG12	48:M1:139:THR:HG23	1.93	0.51
51:M5:99:ARG:CZ	51:M5:167:THR:HB	3.51	0.51
52:M6:136:THR:HG22	52:M6:137:THR:N	2.51	0.51
52:M6:185:ALA:O	52:M6:188:SER:N	3.28	0.51
57:N1:83:ARG:HG2	57:N1:84:TYR:N	2.24	0.51
36:1:3276:G:H1	69:O3:60:ARG:HH22	1.59	0.51
71:O5:115:LYS:HB2	71:O5:115:LYS:NZ	2.25	0.51
77:Q1:21:ARG:HD2	1:6:1653:C:O3'	283.93	0.51
79:Q3:17:ARG:NH1	36:5:860:G:OP1	219.25	0.51
3:S1:62:LYS:O	3:S1:88:VAL:HB	2.10	0.51
5:S3:177:MET:SD	5:S3:182:LEU:HD11	2.50	0.51
36:1:1565:G:N2	36:1:1574:C:C2	2.79	0.51
36:1:331:G:O6	86:1:4045:OHX:N5	2.44	0.51
36:1:980:A:H2'	36:1:981:U:C2	2.45	0.51
1:2:1338:C:H1'	1:2:1410:A:C4	2.46	0.51
1:2:346:G:O6	86:2:2125:OHX:N5	2.43	0.51
1:2:498:G:C4	1:2:499:U:N3	2.79	0.51
1:2:603:U:H2'	1:2:604:A:H8	1.75	0.51
1:2:872:G:O6	86:2:2126:OHX:N3	2.43	0.51
37:3:3:U:H2'	37:3:4:U:C6	2.46	0.51
36:5:3156:U:O2'	36:5:3157:U:O2	2.25	0.51
36:5:186:U:OP2	86:5:3912:OHX:N4	2.43	0.51
86:5:4068:OHX:N3	86:5:4144:OHX:N6	2.59	0.51
15:C3:46:THR:HG23	15:C3:49:GLN:CD	2.30	0.51
16:C4:124:ASP:O	16:C4:125:SER:HB2	2.11	0.51
17:C5:22:LEU:O	17:C5:26:LEU:HG	4.92	0.51
21:C9:57:ARG:NH2	21:C9:80:TYR:HB3	2.26	0.51
22:D0:117:VAL:HG22	22:D0:118:VAL:H	1.74	0.51
22:D0:27:THR:HB	22:D0:88:LYS:CG	2.41	0.51
28:D6:38:ARG:HH21	28:D6:83:ILE:HG13	1.76	0.51
28:D6:84:VAL:HG13	28:D6:85:ARG:H	1.76	0.51
39:L2:201:GLY:O	39:L2:204:MET:HG3	2.10	0.51
39:L2:83:HIS:CE1	39:L2:86:GLN:HB2	2.47	0.51
40:L3:171:LEU:HD21	40:L3:333:LYS:HG2	1.93	0.51
44:L7:152:GLY:O	44:L7:163:LEU:HG	2.11	0.51
46:L9:12:VAL:HB	46:L9:51:GLN:HA	1.95	0.51
46:L9:166:ARG:HD2	46:L9:168:ARG:NH1	12.37	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:94:TYR:CD2	46:L9:98:PRO:HA	2.53	0.51
54:M8:60:PRO:HG3	54:M8:144:ARG:HA	1.91	0.51
61:N5:105:VAL:HG13	61:N5:130:TYR:CG	2.80	0.51
63:N7:4:PHE:HE1	63:N7:82:PRO:HG3	1.75	0.51
36:1:814:U:H5'	73:O7:45:ARG:HH12	1.76	0.51
75:O9:24:PRO:HB2	75:O9:27:ILE:HD12	3.15	0.51
3:S1:133:TYR:CE1	3:S1:220:GLN:HB3	2.45	0.51
7:S5:121:ILE:HA	7:S5:199:ILE:HD11	1.92	0.51
36:1:1117:G:OP1	65:N9:4:SER:HB2	2.10	0.51
36:1:1770:G:H5'	36:1:1771:C:OP2	2.10	0.51
36:1:2278:C:C2'	36:1:2279:A:H5''	2.41	0.51
36:1:1580:A:H5'	36:1:2522:G:C5	2.46	0.51
36:1:2617:U:C5	36:1:2621:G:OP2	2.64	0.51
36:1:2768:U:H2'	36:1:2769:A:C8	2.45	0.51
36:1:2894:C:OP1	46:L9:168:ARG:NH2	2.44	0.51
36:1:3087:A:H5''	40:L3:365:PHE:CD1	2.46	0.51
36:1:384:A:H2'	36:1:385:A:O4'	2.10	0.51
1:2:1091:A:H5''	1:2:1091:A:N3	2.26	0.51
1:2:1362:U:O2'	1:2:1363:U:O2	2.28	0.51
1:2:480:G:N2	1:2:509:G:H1'	2.26	0.51
36:5:1152:G:OP2	36:5:1152:G:H8	1.92	0.51
36:5:1573:G:C5	36:5:1574:C:H1'	2.45	0.51
36:5:1778:G:O2'	36:5:1780:G:OP2	2.28	0.51
36:5:1934:G:O6	86:5:3917:OHX:N2	2.42	0.51
39:L2:226:SER:N	36:5:2202:C:H5''	208.34	0.51
52:M6:161:LYS:HD3	36:5:3182:G:H4'	286.86	0.51
86:5:4057:OHX:N1	86:5:4201:OHX:N2	2.58	0.51
36:5:908:G:H4'	36:5:909:G:O5'	2.11	0.51
1:6:1408:G:H2'	1:6:1409:G:O4'	2.11	0.51
21:C9:47:PRO:HA	1:6:1477:G:O2'	374.25	0.51
1:6:1673:G:O5'	1:6:1673:G:H8	1.93	0.51
1:6:647:G:N2	1:6:688:G:C4	2.79	0.51
1:6:982:U:OP1	86:6:2074:OHX:N2	2.44	0.51
37:7:47:C:H2'	37:7:48:U:H6	1.76	0.51
16:C4:43:THR:OG1	16:C4:46:MET:HG3	2.91	0.51
18:C6:113:ASP:CG	18:C6:114:ARG:H	2.14	0.51
21:C9:118:PRO:C	21:C9:120:GLY:H	2.14	0.51
20:C8:41:ARG:NH1	21:C9:38:LYS:HG3	2.24	0.51
28:D6:10:ARG:HB3	28:D6:34:LYS:HA	1.93	0.51
39:L2:70:ARG:HG3	39:L2:71:LEU:O	4.43	0.51
40:L3:185:GLY:O	40:L3:191:LYS:NZ	2.31	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:229:VAL:HG13	40:L3:235:THR:HG21	2.43	0.51
40:L3:292:ALA:HA	40:L3:303:LYS:O	2.40	0.51
41:L4:188:ARG:O	41:L4:193:LYS:HE3	2.11	0.51
41:L4:330:TYR:CZ	44:L7:49:ALA:HA	2.56	0.51
42:L5:50:ARG:NH2	42:L5:147:ASP:OD2	2.38	0.51
42:L5:236:LEU:HD12	42:L5:239:ILE:HD12	1.91	0.51
46:L9:117:PHE:CE1	46:L9:165:CYS:HB3	2.56	0.51
47:M0:47:PRO:HB3	47:M0:171:TRP:CZ2	2.46	0.51
42:L5:296:GLN:HG2	47:M0:214:PRO:HB3	10.10	0.51
51:M5:197:LEU:HD21	51:M5:199:LEU:HD21	1.93	0.51
55:M9:15:VAL:HG11	55:M9:52:LYS:HB2	3.69	0.51
56:N0:52:LYS:O	56:N0:55:SER:N	2.40	0.51
57:N1:91:LEU:HD12	57:N1:96:ILE:HD11	1.92	0.51
58:N2:32:SER:HA	58:N2:35:LYS:HB3	1.92	0.51
59:N3:12:ARG:HG2	59:N3:13:ILE:N	2.51	0.51
63:N7:110:ALA:O	63:N7:114:VAL:HG23	2.35	0.51
63:N7:53:VAL:HG21	63:N7:62:VAL:HG13	1.91	0.51
64:N8:86:LYS:O	64:N8:89:GLN:HB2	2.11	0.51
71:O5:58:ILE:O	71:O5:61:GLN:HB2	3.34	0.51
76:Q0:77:ILE:HG13	76:Q0:78:ILE:N	4.47	0.51
2:S0:59:LEU:HA	2:S0:62:ARG:HB2	1.91	0.51
3:S1:71:ALA:HB3	16:C4:114:ARG:NH1	2.65	0.51
4:S2:82:ASN:HD22	4:S2:207:LEU:HD12	1.76	0.51
4:S2:53:ILE:HD12	4:S2:53:ILE:H	4.14	0.51
6:S4:57:ASN:HB2	6:S4:60:GLU:H	2.06	0.51
34:SR:156:VAL:HA	34:SR:169:ILE:HG22	2.32	0.51
36:1:1812:G:O3'	36:1:1817:G:O2'	2.29	0.51
36:1:2340:U:OP1	40:L3:236:LYS:HE3	2.11	0.51
36:1:2707:C:H2'	36:1:2708:C:H6	1.76	0.51
1:2:1460:A:O2'	35:SM:72:ARG:NH2	2.43	0.51
1:2:358:U:O2'	1:2:360:A:OP1	2.28	0.51
1:2:968:U:O3'	1:2:1032:G:N2	2.44	0.51
47:M0:198:LYS:HE2	36:5:1040:A:O2'	332.14	0.51
36:5:2204:C:H4'	36:5:2205:U:OP1	2.11	0.51
36:5:374:A:N3	36:5:376:G:H5''	2.26	0.51
36:5:3327:G:O6	86:5:3960:OHX:N1	2.43	0.51
1:6:1110:G:N2	1:6:1136:U:H1'	2.26	0.51
1:6:1398:U:H3'	1:6:1399:C:H4'	1.93	0.51
31:D9:19:ARG:HH22	1:6:1597:A:P	405.22	0.51
1:6:348:U:O4	86:6:2160:OHX:N4	2.43	0.51
1:6:241:U:H2'	1:6:242:U:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:59:PRO:HB3	13:C1:66:ILE:HD11	1.91	0.51
17:C5:115:TYR:OH	1:6:1556:A:H5''	384.99	0.51
19:C7:28:PHE:HA	19:C7:55:THR:HG21	2.60	0.51
47:M0:75:TYR:CE2	47:M0:79:VAL:HG21	3.47	0.51
50:M4:17:VAL:HG11	50:M4:74:ARG:HA	1.98	0.51
60:N4:53:VAL:HG12	60:N4:57:LYS:HD2	3.54	0.51
64:N8:18:GLY:O	36:5:1370:G:H5''	174.62	0.51
66:O0:13:LYS:O	66:O0:17:VAL:HG23	2.11	0.51
69:O3:48:ARG:HH11	69:O3:70:LYS:HB3	3.01	0.51
36:1:1492:G:N7	75:O9:2:ALA:CB	2.73	0.51
76:Q0:96:CYS:HB3	76:Q0:101:ALA:H	1.75	0.51
78:Q2:22:GLN:O	78:Q2:75:VAL:HG22	2.35	0.51
3:S1:195:LYS:HA	3:S1:198:GLU:HB3	1.92	0.51
4:S2:42:GLY:HA2	4:S2:68:ILE:HD11	1.93	0.51
10:S8:26:LYS:O	10:S8:28:GLU:N	3.68	0.51
34:SR:19:TRP:HB2	34:SR:38:ARG:HG3	2.30	0.51
36:1:1556:C:H2'	36:1:2169:G:H1	1.75	0.51
36:1:3343:G:N2	36:1:3362:A:H2	2.04	0.51
36:1:926:A:H2'	36:1:927:C:C6	2.46	0.51
1:2:1283:U:OP1	86:2:2114:OHX:N2	2.44	0.51
1:2:1542:G:H22	1:2:1568:C:H1'	1.76	0.51
1:2:1645:G:H22	1:2:1756:A:H2	1.58	0.51
1:2:1761:U:HO2'	1:2:1762:A:P	2.32	0.51
37:3:45:A:H2'	37:3:46:A:C8	2.46	0.51
36:5:1066:G:OP1	86:5:4229:OHX:N2	2.44	0.51
39:L2:7:ASN:O	36:5:2163:C:H4'	185.30	0.51
36:5:2960:C:H2'	36:5:2961:G:C8	2.45	0.51
40:L3:380:MET:HE3	36:5:3369:G:C6	224.78	0.51
86:5:3980:OHX:N4	86:5:4200:OHX:N3	2.59	0.51
36:5:567:G:O6	86:5:4132:OHX:N2	2.44	0.51
36:5:851:C:OP2	36:5:851:C:H6	1.94	0.51
49:M3:15:ARG:NH2	36:5:96:G:H5'	152.58	0.51
1:6:475:A:H2'	1:6:476:U:O4'	2.10	0.51
1:6:872:G:H2'	1:6:873:U:O4'	2.11	0.51
12:C0:54:TYR:CE2	12:C0:75:TYR:HB2	3.66	0.51
18:C6:140:LYS:NZ	1:6:1192:C:O2'	361.20	0.51
19:C7:25:THR:OG1	19:C7:31:ASN:ND2	5.12	0.51
30:D8:12:VAL:HA	30:D8:30:VAL:HG12	1.92	0.51
33:E1:106:TYR:HE2	33:E1:116:LYS:HG2	2.28	0.51
40:L3:211:GLN:NE2	40:L3:283:TYR:O	2.39	0.51
49:M3:94:GLY:HA3	49:M3:119:TYR:OH	3.29	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:66:LYS:HB3	59:N3:68:GLU:OE1	2.10	0.51
59:N3:87:ARG:HG3	59:N3:93:LEU:HD21	3.20	0.51
63:N7:85:TYR:HE2	63:N7:129:TRP:CE2	3.33	0.51
63:N7:9:LYS:HD2	63:N7:83:THR:O	2.11	0.51
3:S1:117:TRP:HE1	3:S1:152:ARG:CZ	2.23	0.51
5:S3:202:LEU:O	5:S3:204:ASP:N	2.94	0.51
5:S3:210:GLU:HG3	5:S3:211:PRO:HD2	1.93	0.51
10:S8:29:LEU:HD23	10:S8:30:GLY:N	2.26	0.51
10:S8:9:HIS:CD2	10:S8:10:LYS:HD2	2.46	0.51
36:1:2357:A:H2'	36:1:2358:A:C8	2.45	0.51
36:1:250:U:C5	36:1:251:G:N7	2.78	0.51
36:1:1119:C:OP2	86:1:3956:OHX:N1	2.44	0.51
36:1:582:G:O6	86:1:4175:OHX:N2	2.44	0.51
1:2:103:A:H4'	1:2:104:A:OP2	2.11	0.51
1:2:1105:C:H2'	1:2:1106:U:C6	2.46	0.51
1:2:1556:A:C5	1:2:1560:U:C2	2.98	0.51
1:2:647:G:N2	1:2:687:G:H22	2.09	0.51
1:2:66:U:O4	8:S6:134:GLY:N	2.36	0.51
37:3:71:G:H2'	37:3:72:A:H8	1.76	0.51
36:5:2409:G:H4'	36:5:2410:U:OP2	2.09	0.51
36:5:1940:G:N2	36:5:3362:A:H8	2.09	0.51
86:5:4022:OHX:N3	86:5:4218:OHX:N4	2.58	0.51
36:5:629:U:H2'	36:5:630:A:C8	2.45	0.51
1:6:1081:A:H4'	1:6:1082:C:O5'	2.10	0.51
1:6:1216:C:O2'	1:6:1444:A:N1	2.32	0.51
20:C8:135:GLY:CA	1:6:1559:A:H5''	364.32	0.51
1:6:1657:U:H4'	1:6:1658:G:OP2	2.11	0.51
1:6:1672:G:H2'	1:6:1673:G:C8	2.45	0.51
1:6:76:A:H3'	86:6:2189:OHX:N2	2.26	0.51
12:C0:59:PHE:CZ	12:C0:62:GLN:HA	2.46	0.51
14:C2:103:LEU:HG	14:C2:116:VAL:HG13	3.67	0.51
21:C9:3:GLY:H	1:6:1360:A:H4'	425.67	0.51
25:D3:6:PRO:HG3	25:D3:14:LYS:HG2	1.98	0.51
7:S5:189:THR:OG1	27:D5:98:GLN:OE1	2.21	0.51
41:L4:300:ARG:NH1	41:L4:300:ARG:HG2	3.92	0.51
41:L4:44:LYS:HA	41:L4:47:ARG:HD2	2.97	0.51
36:1:2586:G:C5	45:L8:241:LYS:HB2	2.45	0.51
55:M9:105:LEU:HD12	55:M9:138:LEU:HD13	4.32	0.51
62:N6:5:SER:OG	62:N6:6:LEU:N	2.44	0.51
63:N7:46:ILE:HG12	63:N7:49:TYR:CE1	2.92	0.51
63:N7:83:THR:CG2	63:N7:85:TYR:H	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:103:ASP:HB3	64:N8:106:ALA:HB3	1.92	0.51
67:O1:55:LEU:O	67:O1:58:ALA:HB3	2.57	0.51
2:S0:64:ILE:HG23	2:S0:73:VAL:HG11	2.19	0.51
9:S7:154:LEU:HD11	9:S7:183:PHE:CD1	4.49	0.51
34:SR:93:ASP:HB3	34:SR:96:THR:HG22	1.92	0.51
36:1:1229:G:H1	36:1:1280:C:H42	1.58	0.51
36:1:1940:G:H2'	36:1:1941:C:O4'	2.11	0.51
1:2:1207:C:H42	1:2:1456:C:H5	1.58	0.51
1:2:1474:G:O2'	1:2:1475:A:O5'	2.22	0.51
64:N8:42:ARG:HH21	36:5:2799:A:H1'	192.36	0.51
1:6:201:G:H2'	1:6:202:A:C8	2.46	0.51
1:6:1745:G:O6	86:6:2076:OHX:N4	2.44	0.51
1:6:83:G:OP2	86:6:2096:OHX:N4	2.44	0.51
26:D4:105:ARG:HB2	1:6:443:C:OP2	371.52	0.51
1:6:66:U:H4'	1:6:67:A:OP1	2.10	0.51
1:6:794:U:H4'	1:6:795:U:OP2	2.11	0.51
15:C3:17:PRO:HD2	15:C3:62:GLN:NE2	2.26	0.51
17:C5:119:PHE:HA	35:SM:57:ASN:ND2	2.71	0.51
17:C5:25:LEU:HA	17:C5:28:MET:SD	3.41	0.51
25:D3:23:ARG:HD2	25:D3:26:GLU:OE1	2.10	0.51
20:C8:6:GLN:O	27:D5:42:LEU:HD13	2.11	0.51
40:L3:153:LYS:HG2	40:L3:154:TYR:CZ	4.05	0.51
40:L3:117:ARG:HA	40:L3:175:LYS:HD2	4.32	0.51
41:L4:42:VAL:HG12	41:L4:236:LEU:HD21	1.92	0.51
43:L6:137:ASP:O	43:L6:141:VAL:HG23	2.11	0.51
59:N3:24:ASN:O	59:N3:99:ALA:HA	2.35	0.51
64:N8:94:ALA:HB1	64:N8:122:PRO:HD2	1.92	0.51
65:N9:14:ARG:NH1	65:N9:18:ARG:HH11	2.98	0.51
36:1:424:G:O2'	68:O2:23:ASP:OD2	2.26	0.51
68:O2:27:ARG:HG2	68:O2:28:VAL:HG23	2.34	0.51
3:S1:142:PHE:O	3:S1:207:LEU:HA	2.16	0.51
1:2:1300:A:OP1	4:S2:99:LYS:NZ	2.42	0.51
9:S7:41:LEU:HB3	9:S7:70:PHE:CE1	2.46	0.51
10:S8:76:THR:HB	10:S8:105:ASP:HB2	1.93	0.51
34:SR:37:SER:OG	34:SR:38:ARG:N	2.73	0.51
36:1:1355:A:H4'	36:1:1356:U:O5'	2.09	0.50
1:2:1761:U:H6	1:2:1762:A:H62	1.59	0.50
1:2:788:A:OP2	6:S4:108:ARG:NH1	2.36	0.50
1:2:823:G:O2'	1:2:824:G:O5'	2.29	0.50
38:4:137:C:OP2	86:4:236:OHX:N5	2.44	0.50
36:5:1013:G:C2	36:5:1014:U:H1'	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1100:U:H2'	36:5:1101:G:O4'	2.10	0.50
36:5:1151:U:H3'	36:5:1152:G:C8	2.46	0.50
36:5:1152:G:OP2	36:5:1152:G:C8	2.63	0.50
36:5:1661:G:H2'	36:5:1662:G:C8	2.46	0.50
36:5:255:A:H2'	36:5:256:G:C8	2.45	0.50
1:6:1279:C:H2'	1:6:1280:C:O4'	2.10	0.50
1:6:1609:U:H2'	1:6:1610:G:O4'	2.11	0.50
1:6:83:G:N7	86:6:2096:OHX:N1	2.60	0.50
1:6:491:C:N4	1:6:497:G:H21	2.06	0.50
37:7:91:G:H2'	37:7:92:A:H8	1.76	0.50
12:C0:14:TYR:CE2	12:C0:21:VAL:HG22	2.47	0.50
5:S3:75:LYS:HB3	12:C0:22:VAL:HG22	2.32	0.50
20:C8:18:LEU:O	20:C8:19:ASN:HB2	2.37	0.50
21:C9:52:GLY:HA2	21:C9:55:TYR:HD2	1.76	0.50
27:D5:47:TYR:CZ	27:D5:51:LEU:HD11	2.84	0.50
27:D5:59:TYR:HD2	27:D5:60:VAL:N	2.09	0.50
41:L4:23:PRO:HD2	41:L4:26:PHE:CD2	2.94	0.50
41:L4:269:SER:O	41:L4:269:SER:OG	2.37	0.50
42:L5:95:TRP:HZ3	42:L5:156:GLY:C	9.09	0.50
42:L5:34:LYS:O	42:L5:38:THR:HG23	2.11	0.50
45:L8:75:ILE:HG22	45:L8:76:ALA:H	1.75	0.50
47:M0:138:VAL:HG21	47:M0:152:LEU:HD11	1.93	0.50
62:N6:120:GLN:NE2	62:N6:126:LEU:HA	8.11	0.50
70:O4:46:ASP:CG	70:O4:80:ARG:HD2	2.65	0.50
36:1:2138:A:HO2'	73:O7:2:GLY:N	2.09	0.50
36:1:1844:C:O2	73:O7:9:GLY:HA2	2.11	0.50
2:S0:101:ARG:HH11	2:S0:101:ARG:HG2	3.30	0.50
2:S0:41:ARG:HB3	2:S0:45:VAL:HG23	4.13	0.50
4:S2:90:THR:HG22	4:S2:93:GLY:N	2.26	0.50
6:S4:98:ASN:ND2	6:S4:116:ASP:OD1	2.39	0.50
6:S4:31:PRO:HD2	6:S4:38:LEU:HD13	2.97	0.50
9:S7:164:TYR:CZ	9:S7:165:LYS:HG3	2.46	0.50
36:1:2405:C:O2	36:1:2819:A:N1	2.45	0.50
86:1:4005:OHX:N5	86:1:4175:OHX:N5	2.59	0.50
36:1:528:U:H2'	36:1:529:A:C8	2.46	0.50
36:1:566:G:N7	86:1:4004:OHX:N4	2.60	0.50
1:2:1119:G:O6	86:2:2147:OHX:N1	2.44	0.50
1:2:751:G:H2'	1:2:752:A:C8	2.46	0.50
36:5:1221:A:H4'	36:5:1222:G:OP2	2.11	0.50
36:5:181:U:H1'	36:5:236:G:H22	1.74	0.50
54:M8:184:PHE:CG	36:5:2730:G:H4'	190.39	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:93:LYS:HG3	36:5:289:A:N3	145.06	0.50
36:5:2985:C:H2'	36:5:2986:U:O4'	2.10	0.50
36:5:3094:A:H2'	36:5:3095:U:C6	2.46	0.50
86:5:4068:OHX:N1	86:5:4144:OHX:N2	2.60	0.50
86:5:4068:OHX:N3	86:5:4144:OHX:N4	2.59	0.50
1:6:1727:G:H2'	1:6:1728:A:C8	2.46	0.50
1:6:1762:A:H1'	1:6:1783:C:H5'	1.93	0.50
17:C5:126:VAL:HG13	17:C5:127:ARG:H	1.79	0.50
1:2:1192:C:H5'	18:C6:142:TYR:HA	1.93	0.50
24:D2:18:GLU:HG2	24:D2:65:LEU:HG	2.63	0.50
28:D6:12:LYS:NZ	28:D6:12:LYS:HB3	4.65	0.50
31:D9:41:GLN:N	31:D9:41:GLN:OE1	2.44	0.50
40:L3:227:GLU:CG	40:L3:270:ARG:HE	3.26	0.50
40:L3:221:THR:HG22	40:L3:272:TYR:H	2.16	0.50
37:3:7:G:OP2	42:L5:22:ARG:NH2	2.45	0.50
45:L8:163:VAL:HG22	45:L8:166:LEU:HD12	1.92	0.50
46:L9:55:VAL:O	46:L9:68:LEU:HD21	2.51	0.50
47:M0:77:THR:HG23	47:M0:85:PHE:CZ	3.13	0.50
49:M3:157:ARG:HG2	49:M3:158:ALA:H	1.76	0.50
49:M3:79:GLU:OE2	49:M3:103:ASN:ND2	2.78	0.50
50:M4:24:LYS:NZ	50:M4:61:GLY:O	2.38	0.50
51:M5:168:GLY:O	51:M5:172:ARG:HB2	2.27	0.50
52:M6:102:LEU:HD12	52:M6:103:LYS:H	1.75	0.50
56:N0:71:LYS:HD3	56:N0:73:LYS:HG2	1.94	0.50
64:N8:46:ASP:N	64:N8:46:ASP:OD1	2.44	0.50
65:N9:23:LYS:HD2	65:N9:24:PRO:HD3	2.03	0.50
71:O5:49:LYS:O	71:O5:52:ALA:N	3.07	0.50
71:O5:83:LYS:O	71:O5:85:THR:N	3.27	0.50
78:Q2:17:CYS:SG	78:Q2:76:LYS:HB2	2.94	0.50
4:S2:157:LYS:HG3	24:D2:95:PRO:O	2.37	0.50
5:S3:61:GLU:O	5:S3:63:GLY:N	2.44	0.50
9:S7:28:GLU:HG2	9:S7:35:LYS:HA	3.66	0.50
9:S7:7:LYS:C	9:S7:9:LEU:H	2.51	0.50
1:2:1533:C:H4'	1:2:1539:G:C6	2.47	0.50
1:2:14:C:H2'	1:2:15:U:C6	2.46	0.50
1:2:66:U:H5'	8:S6:173:PRO:HA	1.93	0.50
37:3:60:G:OP2	86:3:225:OHX:N3	2.45	0.50
38:4:82:U:O2	38:4:83:C:C5	2.65	0.50
36:5:1822:C:H2'	36:5:1823:A:H8	1.76	0.50
36:5:2523:A:O2'	36:5:2587:U:H1'	2.11	0.50
57:N1:68:THR:OG1	36:5:2737:C:H4'	223.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2953:U:H2'	36:5:2954:U:H2'	1.93	0.50
36:5:8:C:H2'	36:5:9:U:O4'	2.12	0.50
1:6:1645:G:H22	1:6:1756:A:H2	1.59	0.50
1:6:219:A:H2'	1:6:831:U:O2	2.11	0.50
16:C4:41:ARG:O	16:C4:42:VAL:HG22	2.12	0.50
17:C5:15:HIS:O	17:C5:21:ASP:HA	2.10	0.50
20:C8:49:LYS:NZ	20:C8:79:TYR:O	2.45	0.50
39:L2:238:ILE:HG22	39:L2:239:ALA:N	2.84	0.50
40:L3:160:VAL:HG23	40:L3:183:LEU:HD22	1.93	0.50
42:L5:257:GLU:C	42:L5:258:LYS:HD3	4.59	0.50
44:L7:102:VAL:HG12	44:L7:130:ILE:HD12	3.81	0.50
36:1:2562:A:H2	45:L8:31:PRO:HD3	1.76	0.50
48:M1:162:TRP:CZ2	48:M1:166:LYS:HD2	2.46	0.50
57:N1:12:ARG:HD2	57:N1:13:TYR:CZ	2.46	0.50
62:N6:16:ARG:HG2	62:N6:16:ARG:HH11	1.75	0.50
64:N8:16:SER:HA	36:5:942:U:N3	169.25	0.50
64:N8:28:HIS:CE1	64:N8:32:ARG:CZ	2.94	0.50
65:N9:14:ARG:CZ	65:N9:18:ARG:HD2	2.41	0.50
67:O1:19:ARG:NH1	67:O1:19:ARG:HG3	3.36	0.50
75:O9:10:LYS:HA	75:O9:13:MET:HE2	1.94	0.50
77:Q1:25:LYS:HE2	86:5:4003:OHX:N1	260.37	0.50
78:Q2:17:CYS:CB	78:Q2:77:CYS:HG	2.52	0.50
2:S0:147:THR:O	2:S0:161:PRO:HA	2.49	0.50
3:S1:35:PRO:HB3	3:S1:231:LEU:HD21	5.51	0.50
4:S2:132:ALA:O	4:S2:135:SER:OG	2.72	0.50
7:S5:222:LYS:HG3	7:S5:225:ARG:CZ	2.41	0.50
8:S6:199:GLN:O	8:S6:203:GLU:HG2	3.31	0.50
8:S6:67:VAL:CG2	8:S6:99:GLY:HA2	2.59	0.50
36:1:1237:G:H2'	36:1:1237:G:N3	2.25	0.50
36:1:2696:A:H2'	36:1:2697:A:C8	2.47	0.50
86:1:3973:OHX:N3	86:1:4159:OHX:N1	2.59	0.50
1:2:1067:C:H2'	1:2:1068:C:C6	2.45	0.50
1:2:1150:G:O2'	1:2:1151:A:OP2	2.25	0.50
37:3:26:C:H5'	42:L5:56:THR:HB	1.93	0.50
36:5:1226:G:H2'	36:5:1227:C:C6	2.45	0.50
36:5:1241:U:O2'	36:5:1242:G:O5'	2.28	0.50
36:5:1807:G:C6	36:5:1808:G:N1	2.80	0.50
36:5:2768:U:H2'	36:5:2769:A:C8	2.47	0.50
86:5:3980:OHX:N6	86:5:4200:OHX:N3	2.60	0.50
36:5:420:G:O5'	36:5:420:G:OP2	2.29	0.50
1:6:1159:C:N3	86:6:2135:OHX:N5	2.60	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:6:2118:OHX:N2	86:6:2168:OHX:N1	2.60	0.50
1:6:825:U:O2'	1:6:826:U:P	2.69	0.50
86:8:216:OHX:N5	86:8:224:OHX:N3	2.59	0.50
38:8:83:C:H4'	38:8:85:G:N3	2.26	0.50
16:C4:13:VAL:HG22	16:C4:76:ILE:HA	1.92	0.50
18:C6:98:ASP:OD2	18:C6:100:GLN:N	2.42	0.50
19:C7:71:PHE:HD1	19:C7:73:LEU:HB3	1.77	0.50
20:C8:143:ARG:C	20:C8:145:ARG:H	4.02	0.50
21:C9:100:ILE:O	21:C9:104:VAL:HG23	2.32	0.50
24:D2:18:GLU:OE1	24:D2:69:LEU:HB3	3.02	0.50
28:D6:10:ARG:NH1	28:D6:36:ILE:HG13	4.36	0.50
1:2:958:U:OP2	29:D7:20:LYS:HE2	2.11	0.50
1:2:590:C:H5''	32:E0:43:ARG:HH12	1.76	0.50
33:E1:151:ASN:O	33:E1:151:ASN:ND2	2.44	0.50
39:L2:200:ARG:NH1	36:5:2146:C:OP1	212.72	0.50
40:L3:339:ARG:NH1	40:L3:342:LEU:HD21	2.57	0.50
42:L5:152:ARG:HG3	37:7:44:C:H4'	281.40	0.50
46:L9:137:SER:HB2	46:L9:143:GLU:HB3	2.27	0.50
36:1:291:C:H5''	51:M5:68:ARG:HH12	1.76	0.50
55:M9:90:PRO:HG2	55:M9:93:VAL:CG2	3.22	0.50
64:N8:104:THR:HG21	64:N8:112:ILE:HD11	1.94	0.50
64:N8:76:ASP:HB2	64:N8:115:LYS:O	5.33	0.50
73:O7:5:THR:HA	73:O7:8:PHE:CD2	2.46	0.50
36:1:1517:G:P	75:O9:41:ARG:HH22	2.35	0.50
2:S0:195:TRP:CE2	2:S0:197:ILE:HB	2.80	0.50
2:S0:35:PRO:C	2:S0:37:VAL:H	2.14	0.50
4:S2:163:GLY:HA3	4:S2:209:ASN:ND2	2.27	0.50
9:S7:40:PRO:HG2	9:S7:41:LEU:HD23	3.60	0.50
36:1:1285:G:O2'	36:1:1286:A:OP2	2.26	0.50
36:1:1523:U:OP2	36:1:1604:G:O2'	2.29	0.50
36:1:1826:C:H2'	36:1:1827:C:H6	1.76	0.50
36:1:2853:A:O3'	47:M0:64:ALA:HB2	2.11	0.50
36:1:3192:U:H2'	36:1:3193:C:C6	2.47	0.50
36:1:3230:G:H4'	50:M4:132:LYS:HD3	1.94	0.50
36:1:564:G:H2'	36:1:565:U:C6	2.46	0.50
36:1:956:U:H2'	36:1:957:C:H6	1.75	0.50
1:2:819:G:O6	1:2:853:G:C6	2.65	0.50
36:5:286:U:H2'	36:5:287:G:H8	1.74	0.50
36:5:3241:G:H2'	36:5:3245:A:H8	1.75	0.50
36:5:3117:C:N3	86:5:4205:OHX:N2	2.59	0.50
1:6:53:G:H2'	1:6:54:C:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:784:C:H2'	1:6:785:U:C6	2.47	0.50
12:C0:32:HIS:HB3	12:C0:34:GLU:O	7.82	0.50
21:C9:118:PRO:HD2	21:C9:123:ARG:NH2	2.27	0.50
23:D1:3:ASN:HD21	23:D1:7:GLN:HG2	5.02	0.50
26:D4:10:ARG:HB3	1:6:778:G:O6	428.02	0.50
26:D4:36:SER:O	26:D4:40:LEU:HG	2.12	0.50
41:L4:126:ILE:HG13	41:L4:238:LEU:CD1	2.42	0.50
41:L4:159:ILE:HD13	41:L4:164:GLU:HG2	2.64	0.50
47:M0:138:VAL:CG2	47:M0:152:LEU:HD11	2.41	0.50
49:M3:59:ARG:O	49:M3:59:ARG:HG3	4.40	0.50
51:M5:35:VAL:HA	51:M5:65:ARG:HD3	1.94	0.50
61:N5:136:ALA:HB1	61:N5:141:TYR:CE1	2.46	0.50
61:N5:58:ASP:OD1	71:O5:25:LYS:NZ	2.45	0.50
36:1:716:A:O2'	64:N8:117:ARG:NH2	2.45	0.50
49:M3:2:ALA:N	64:N8:33:GLY:O	4.37	0.50
66:O0:22:LYS:HB2	66:O0:94:GLU:HB2	2.25	0.50
2:S0:120:LEU:HD13	2:S0:142:PRO:HB2	1.92	0.50
5:S3:134:CYS:N	5:S3:157:LEU:HD11	2.27	0.50
7:S5:109:LYS:O	7:S5:113:ILE:HG13	2.13	0.50
9:S7:103:SER:N	9:S7:106:SER:O	5.80	0.50
9:S7:96:ARG:CZ	9:S7:124:LYS:HB3	2.42	0.50
11:S9:39:LYS:HB3	11:S9:43:TYR:CZ	2.47	0.50
35:SM:102:THR:HG23	35:SM:105:LYS:H	1.76	0.50
34:SR:19:TRP:CD2	34:SR:306:THR:HG22	2.46	0.50
36:1:1440:G:H2'	36:1:1441:G:H8	1.76	0.50
36:1:1915:A:H2'	36:1:1916:U:C6	2.46	0.50
1:2:894:U:H2'	1:2:895:G:C8	2.46	0.50
37:3:62:U:O4	37:3:63:A:N6	2.45	0.50
52:M6:25:LYS:HG3	36:5:1175:C:H5''	254.81	0.50
52:M6:148:LYS:HD3	36:5:3135:U:OP1	258.65	0.50
36:5:1877:U:OP2	86:5:3959:OHX:N1	2.44	0.50
86:5:4057:OHX:N3	86:5:4201:OHX:N4	2.58	0.50
36:5:759:U:H2'	36:5:760:G:H5'	1.94	0.50
1:6:263:C:H4'	1:6:292:U:H5'	1.94	0.50
1:6:417:A:H5'	1:6:418:G:C5	2.46	0.50
11:S9:78:ARG:NH1	1:6:764:U:OP2	418.91	0.50
19:C7:5:ARG:O	19:C7:10:LYS:HE2	2.21	0.50
30:D8:21:SER:OG	30:D8:67:ARG:O	3.04	0.50
41:L4:119:ARG:O	41:L4:122:THR:N	2.85	0.50
43:L6:62:THR:OG1	43:L6:78:ARG:HD3	2.51	0.50
45:L8:26:LEU:HD12	45:L8:26:LEU:H	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:M1:160:VAL:O	48:M1:164:LYS:N	2.35	0.50
48:M1:90:GLN:HG2	48:M1:170:ASP:HB2	1.94	0.50
51:M5:23:GLN:HG2	51:M5:122:ASN:HD21	1.77	0.50
53:M7:105:LYS:HB3	53:M7:107:LEU:HD13	2.69	0.50
36:1:1677:G:H5'	58:N2:97:SER:CB	2.42	0.50
69:O3:30:ILE:HG21	69:O3:100:ILE:HD11	2.55	0.50
70:O4:8:ARG:NH2	70:O4:31:ARG:HD2	3.15	0.50
71:O5:28:LEU:O	71:O5:32:LYS:HG3	2.26	0.50
38:4:113:U:H5''	75:O9:7:PHE:HB3	1.93	0.50
4:S2:150:GLN:HG3	4:S2:151:PRO:HD2	4.80	0.50
6:S4:213:SER:O	6:S4:214:LEU:HD12	2.61	0.50
6:S4:71:LYS:O	6:S4:90:ILE:HA	3.23	0.50
6:S4:98:ASN:ND2	6:S4:116:ASP:HA	2.26	0.50
7:S5:43:PHE:H	7:S5:46:TRP:H	2.37	0.50
8:S6:148:SER:O	8:S6:151:ASP:HB2	3.40	0.50
11:S9:113:VAL:HG21	11:S9:134:ILE:HG21	3.21	0.50
34:SR:299:GLN:NE2	34:SR:314:GLN:HE21	7.19	0.50
36:1:1074:U:O2'	36:1:1075:A:H2'	2.12	0.50
36:1:1101:G:H5''	44:L7:107:ARG:HD3	1.94	0.50
36:1:2623:G:C5	36:1:2624:G:C5	3.00	0.50
36:1:3333:G:N2	36:1:3369:G:O2'	2.45	0.50
36:1:578:A:H5''	36:1:579:G:O5'	2.12	0.50
1:2:1242:A:OP1	17:C5:59:LYS:NZ	2.44	0.50
1:2:1316:G:H2'	1:2:1317:C:C6	2.47	0.50
1:2:1482:C:OP2	1:2:1521:G:N2	2.45	0.50
1:2:515:A:OP2	86:2:2069:OHX:N3	2.44	0.50
1:2:702:G:O2'	1:2:703:G:O4'	2.28	0.50
1:2:778:G:H22	26:D4:10:ARG:NH1	2.10	0.50
36:5:1055:A:H4'	37:7:100:C:O2	2.12	0.50
75:O9:45:ARG:NH2	36:5:1841:A:N3	127.12	0.50
40:L3:250:ALA:HB1	36:5:2947:G:C2	219.53	0.50
36:5:2949:U:O2'	36:5:2950:G:H5'	2.12	0.50
36:5:368:G:OP1	86:5:3926:OHX:N4	2.45	0.50
36:5:299:G:N7	86:5:4191:OHX:N1	2.59	0.50
36:5:726:G:H8	36:5:726:G:C5'	2.24	0.50
1:6:217:A:C8	1:6:218:A:C8	3.00	0.50
1:6:635:A:C2	1:6:863:A:C8	3.00	0.50
75:O9:35:ILE:HD11	38:8:53:A:C2	83.06	0.50
18:C6:127:LYS:HA	18:C6:134:ALA:HA	1.93	0.50
7:S5:29:ILE:HG21	18:C6:57:LEU:HD11	1.94	0.50
22:D0:51:VAL:HG13	22:D0:94:GLU:HB2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:104:LEU:HB2	24:D2:125:ILE:HA	1.94	0.50
25:D3:62:LYS:H	25:D3:116:ASP:HB2	1.76	0.50
28:D6:9:GLY:O	28:D6:10:ARG:HG3	2.42	0.50
40:L3:238:LEU:HB3	40:L3:242:THR:HG21	2.17	0.50
40:L3:256:HIS:HA	40:L3:257:PRO:C	2.40	0.50
41:L4:138:ARG:HB3	41:L4:138:ARG:NH1	2.91	0.50
41:L4:330:TYR:O	41:L4:333:VAL:HG13	2.12	0.50
44:L7:121:LYS:O	44:L7:121:LYS:HD3	4.42	0.50
44:L7:150:LYS:HD3	44:L7:244:ASN:ND2	2.26	0.50
45:L8:161:GLU:OE2	51:M5:26:ARG:NH2	2.97	0.50
46:L9:7:GLU:HB2	46:L9:56:ALA:HB2	1.94	0.50
55:M9:101:VAL:HG13	55:M9:104:ARG:NH1	2.27	0.50
57:N1:135:PRO:O	57:N1:136:ARG:CB	3.99	0.50
57:N1:68:THR:HG23	57:N1:71:SER:HB2	1.92	0.50
64:N8:13:GLY:HA2	36:5:943:U:H3'	163.64	0.50
68:O2:16:LYS:O	68:O2:17:PHE:HB2	4.59	0.50
69:O3:59:VAL:O	69:O3:61:GLY:N	3.11	0.50
70:O4:51:LEU:HD12	70:O4:54:ILE:HD12	6.13	0.50
4:S2:67:GLN:O	4:S2:71:THR:HG23	2.98	0.50
5:S3:116:ARG:O	5:S3:120:TYR:HB2	2.12	0.50
11:S9:153:GLU:HA	11:S9:156:ILE:HD11	1.94	0.50
34:SR:216:LYS:O	34:SR:218:GLY:N	2.44	0.50
34:SR:264:SER:O	34:SR:268:GLN:HA	2.12	0.50
34:SR:309:VAL:HB	34:SR:311:ARG:NH1	2.69	0.50
36:1:2395:G:H5''	40:L3:255:TRP:CD1	2.47	0.50
36:1:2503:G:H1'	36:1:2504:U:C5	2.41	0.50
36:1:2623:G:H2'	36:1:2624:G:H8	1.76	0.50
36:1:2960:C:H2'	36:1:2961:G:C8	2.47	0.50
86:1:4034:OHX:N6	86:1:4047:OHX:N3	2.60	0.50
86:1:3973:OHX:N5	86:1:4159:OHX:N1	2.60	0.50
86:2:2043:OHX:N2	86:2:2098:OHX:N5	2.59	0.50
1:2:73:U:H4'	1:2:74:U:OP1	2.12	0.50
36:5:1157:G:H2'	36:5:1158:A:O4'	2.11	0.50
36:5:3024:A:H5''	36:5:3025:C:OP2	2.11	0.50
1:6:1431:C:H1'	1:6:1437:U:O4	2.11	0.50
1:6:119:A:H1'	1:6:397:A:C5	2.47	0.50
1:6:829:A:H61	1:6:843:U:H3	1.59	0.50
13:C1:3:THR:OG1	13:C1:82:ARG:NE	2.37	0.50
27:D5:55:PRO:O	27:D5:57:TYR:N	2.45	0.50
41:L4:145:ILE:O	86:L4:403:OHX:N5	2.45	0.50
42:L5:187:THR:O	42:L5:189:GLU:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:225:LYS:O	45:L8:229:VAL:HG23	2.12	0.50
47:M0:144:ASN:O	47:M0:145:LYS:C	2.50	0.50
47:M0:65:LEU:O	47:M0:69:ARG:N	2.62	0.50
52:M6:35:VAL:HG11	52:M6:80:PHE:HE2	1.77	0.50
53:M7:136:ILE:HG13	36:5:1846:C:C4	145.87	0.50
57:N1:105:PHE:CE2	36:5:1062:A:H4'	244.25	0.50
57:N1:54:HIS:CE1	57:N1:55:LYS:HD3	2.47	0.50
77:Q1:12:ARG:O	77:Q1:15:ARG:N	2.44	0.50
2:S0:83:GLN:O	2:S0:87:LEU:HD22	2.12	0.50
3:S1:77:GLU:OE1	16:C4:114:ARG:NH1	2.42	0.50
9:S7:122:HIS:NE2	9:S7:177:THR:HB	3.85	0.50
36:1:209:A:H4'	36:1:211:A:C8	2.47	0.50
36:1:361:A:H5'	73:O7:35:SER:OG	2.11	0.50
36:1:748:U:H2'	36:1:749:C:C6	2.47	0.50
36:1:977:C:OP1	54:M8:141:ARG:NH2	2.45	0.50
1:2:194:U:O2'	1:2:195:G:O4'	2.30	0.50
1:2:523:G:H5''	26:D4:59:GLY:O	2.11	0.50
1:2:840:U:O2'	1:2:841:U:H5''	2.12	0.50
36:5:1340:G:H2'	36:5:1341:U:C6	2.46	0.50
36:5:1664:G:H2'	36:5:1665:C:O4'	2.12	0.50
36:5:1596:C:O2'	36:5:1696:A:N3	2.40	0.50
79:Q3:36:ARG:HH12	36:5:1725:C:H5'	225.18	0.50
36:5:2103:U:H2'	36:5:2104:A:C8	2.47	0.50
36:5:2140:U:O2'	36:5:2978:U:H5'	2.12	0.50
36:5:2573:G:H3'	36:5:2574:G:H5''	1.94	0.50
36:5:2921:U:H2'	36:5:2923:U:H5''	1.94	0.50
36:5:527:A:H2'	36:5:528:U:C6	2.46	0.50
64:N8:8:THR:HG21	36:5:662:U:OP1	149.36	0.50
36:5:734:C:H2'	36:5:735:A:O4'	2.12	0.50
39:L2:181:LYS:NZ	36:5:860:G:O5'	211.74	0.50
1:6:407:A:H2'	1:6:408:C:C6	2.47	0.50
38:8:142:C:H2'	38:8:143:U:C6	2.47	0.50
13:C1:72:THR:O	13:C1:88:ARG:HD2	2.23	0.50
39:L2:113:VAL:HG12	39:L2:166:ILE:HA	1.94	0.50
40:L3:58:ARG:NH1	40:L3:354:VAL:HG12	2.26	0.50
42:L5:289:LYS:O	42:L5:292:ALA:HB3	3.31	0.50
47:M0:30:LYS:HD2	47:M0:63:GLU:OE1	2.11	0.50
50:M4:113:THR:HG22	50:M4:116:GLU:H	1.77	0.50
50:M4:32:LEU:HD11	50:M4:94:TRP:CG	2.46	0.50
51:M5:91:GLU:O	51:M5:93:LYS:HE3	2.11	0.50
54:M8:122:ILE:HG23	54:M8:126:GLN:HB2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:16:ARG:NH1	54:M8:55:SER:HB3	2.27	0.50
55:M9:42:ARG:NH2	36:5:1601:U:OP2	104.28	0.50
62:N6:120:GLN:OE1	62:N6:126:LEU:HA	9.50	0.50
63:N7:95:VAL:O	63:N7:100:THR:OG1	2.19	0.50
73:O7:2:GLY:O	73:O7:7:SER:HB3	2.42	0.50
36:1:2652:U:O3'	78:Q2:89:LYS:HD2	2.12	0.50
3:S1:70:LEU:HB3	3:S1:79:HIS:CB	5.98	0.50
6:S4:11:ARG:HD3	6:S4:25:GLY:O	5.09	0.50
9:S7:99:LEU:HD12	9:S7:116:ARG:HG2	1.94	0.50
36:1:1338:C:OP2	86:1:4200:OHX:N2	2.45	0.49
1:2:1215:C:OP1	86:2:2151:OHX:N4	2.44	0.49
1:2:473:A:H4'	1:2:768:C:O2	2.12	0.49
1:2:911:U:O2'	1:2:915:A:H1'	2.12	0.49
38:4:26:U:H5'	41:L4:53:SER:HB2	1.94	0.49
36:5:1000:C:C2	36:5:1045:C:N4	2.79	0.49
36:5:1438:U:H2'	36:5:1439:U:C6	2.47	0.49
78:Q2:89:LYS:HB2	36:5:2653:C:OP1	236.94	0.49
36:5:3295:A:H2'	36:5:3296:A:C8	2.47	0.49
86:5:3926:OHX:N5	38:8:17:A:OP1	2.45	0.49
36:5:3074:G:OP1	86:5:4120:OHX:N4	2.45	0.49
1:6:846:G:H2'	1:6:847:A:C8	2.47	0.49
1:6:993:A:OP1	1:6:1777:G:N2	2.42	0.49
37:7:2:G:O2'	37:7:23:A:N1	2.35	0.49
14:C2:32:LEU:O	14:C2:36:LEU:N	2.44	0.49
14:C2:67:THR:HG22	14:C2:68:GLU:HG3	1.94	0.49
18:C6:33:GLY:O	21:C9:7:ARG:HD3	3.04	0.49
20:C8:45:LEU:HD11	21:C9:36:ILE:HG22	1.94	0.49
21:C9:52:GLY:C	21:C9:54:PHE:H	2.12	0.49
24:D2:53:ILE:HG13	24:D2:54:ASP:N	2.26	0.49
30:D8:37:SER:OG	30:D8:37:SER:O	3.02	0.49
40:L3:258:ALA:O	40:L3:259:HIS:CD2	2.79	0.49
41:L4:338:LYS:C	41:L4:340:GLY:H	2.13	0.49
48:M1:60:ARG:O	48:M1:63:GLU:HB2	2.12	0.49
51:M5:38:ARG:HH11	51:M5:38:ARG:HG3	1.76	0.49
53:M7:4:TYR:OH	53:M7:18:ARG:HG3	2.11	0.49
54:M8:120:GLU:OE2	54:M8:130:ARG:NH2	2.58	0.49
61:N5:76:VAL:HG22	61:N5:81:ILE:O	2.11	0.49
63:N7:73:LYS:HZ2	36:5:1637:A:P	212.17	0.49
67:O1:55:LEU:O	67:O1:59:ILE:HG13	2.56	0.49
70:O4:74:ARG:HG2	70:O4:75:ALA:N	2.26	0.49
4:S2:170:ILE:HG12	4:S2:197:TYR:O	3.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:12:VAL:HG21	31:D9:34:TYR:HB3	2.20	0.49
9:S7:30:SER:O	9:S7:34:LEU:HB2	2.12	0.49
9:S7:10:SER:HB3	9:S7:43:PHE:O	2.11	0.49
10:S8:5:ARG:HD3	10:S8:29:LEU:O	2.12	0.49
36:1:1048:A:H2'	47:M0:22:TYR:CE1	2.47	0.49
36:1:1481:A:N1	70:O4:2:ALA:HA	2.27	0.49
36:1:1621:A:C2	36:1:1825:G:C2	3.01	0.49
36:1:2871:G:H5''	36:1:2872:A:H5'	1.94	0.49
36:1:2882:U:H2'	36:1:2883:U:C6	2.47	0.49
36:1:3317:U:H4'	36:1:3318:G:O5'	2.12	0.49
36:1:953:G:N2	36:1:1116:G:H2'	2.28	0.49
1:2:1006:C:OP1	86:2:2034:OHX:N5	2.45	0.49
1:2:1015:U:H5''	1:2:1016:C:OP2	2.12	0.49
1:2:1351:G:N2	1:2:1375:A:N3	2.59	0.49
1:2:207:U:O2	10:S8:178:ARG:NH1	2.44	0.49
1:2:709:C:N4	1:2:710:U:H1'	2.27	0.49
1:2:912:U:H4'	1:2:913:G:O5'	2.12	0.49
36:5:2386:A:OP1	86:5:4021:OHX:N1	2.45	0.49
36:5:3289:G:H4'	36:5:3290:G:OP1	2.12	0.49
36:5:2718:U:OP2	86:5:4070:OHX:N6	2.45	0.49
1:6:196:G:C2	1:6:197:A:H1'	2.47	0.49
1:6:355:G:OP1	86:6:2065:OHX:N5	2.46	0.49
1:6:648:G:C2	1:6:687:G:C2	3.00	0.49
37:7:86:U:O2	86:7:219:OHX:N4	2.44	0.49
38:8:43:A:OP1	86:8:225:OHX:N3	2.45	0.49
12:C0:46:LEU:HA	12:C0:49:LEU:HB2	2.19	0.49
18:C6:103:ASN:O	18:C6:107:LYS:HB2	2.40	0.49
24:D2:36:LYS:HA	24:D2:39:GLN:HB2	1.94	0.49
26:D4:8:ARG:NH1	26:D4:26:ASP:OD1	2.45	0.49
31:D9:19:ARG:HD2	31:D9:32:ARG:HD2	1.94	0.49
32:E0:43:ARG:HB3	32:E0:44:PHE:CD2	2.47	0.49
39:L2:192:LYS:HB3	39:L2:193:ARG:CZ	2.42	0.49
40:L3:35:ASP:HA	40:L3:184:ASN:ND2	3.10	0.49
41:L4:135:VAL:HA	41:L4:245:GLY:O	2.12	0.49
45:L8:167:PRO:HB3	45:L8:177:TYR:CE1	3.25	0.49
45:L8:213:LYS:O	45:L8:217:THR:HG22	6.28	0.49
46:L9:26:LYS:HA	46:L9:35:THR:HG22	1.93	0.49
47:M0:210:ILE:HG23	47:M0:217:PHE:CD2	2.47	0.49
53:M7:10:ASN:O	53:M7:13:LYS:N	2.55	0.49
55:M9:104:ARG:NH2	55:M9:105:LEU:HB2	2.26	0.49
55:M9:61:SER:OG	55:M9:62:ARG:N	2.69	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:24:LEU:HD13	57:N1:148:PRO:HG3	1.93	0.49
62:N6:115:ARG:O	62:N6:119:ILE:HG13	2.12	0.49
63:N7:42:LEU:HG	63:N7:101:PHE:HE1	1.77	0.49
72:O6:53:TYR:O	72:O6:57:LEU:HB2	2.60	0.49
73:O7:8:PHE:O	73:O7:11:ARG:HD3	4.20	0.49
78:Q2:65:THR:CG2	78:Q2:89:LYS:HG3	3.14	0.49
3:S1:86:LEU:HB3	3:S1:98:THR:OG1	2.12	0.49
4:S2:115:ILE:HD13	4:S2:208:GLU:HG2	1.93	0.49
7:S5:78:ALA:O	1:6:1615:C:N4	378.85	0.49
8:S6:38:GLY:O	8:S6:40:ALA:N	2.44	0.49
34:SR:83:ALA:HB1	34:SR:110:VAL:HG12	1.94	0.49
34:SR:61:PHE:HD1	34:SR:92:TRP:CE3	2.48	0.49
36:1:132:C:H2'	36:1:133:U:H5''	1.93	0.49
36:1:1675:G:H2'	36:1:1676:A:C8	2.47	0.49
36:1:2228:A:H2'	36:1:2229:A:C8	2.46	0.49
36:1:612:U:H2'	36:1:613:G:H8	1.77	0.49
36:1:872:U:H2'	36:1:873:C:C6	2.47	0.49
86:2:2043:OHX:N4	86:2:2098:OHX:N3	2.60	0.49
38:4:125:U:HO2'	38:4:126:A:P	2.35	0.49
38:4:45:C:H2'	38:4:46:G:O4'	2.12	0.49
36:5:2376:G:O2'	36:5:2377:G:H5'	2.12	0.49
36:5:2612:U:H2'	36:5:2613:U:O4'	2.12	0.49
36:5:3084:C:H2'	36:5:3085:G:O4'	2.13	0.49
36:5:3057:U:H5'	36:5:3086:A:H61	1.76	0.49
36:5:3306:U:O2'	36:5:3308:C:OP2	2.25	0.49
36:5:2400:G:OP1	86:5:4111:OHX:N1	2.45	0.49
86:5:3980:OHX:N2	86:5:4200:OHX:N5	2.60	0.49
41:L4:93:MET:HB2	36:5:658:G:N2	145.63	0.49
36:5:996:A:H2'	36:5:997:A:O4'	2.11	0.49
1:6:1432:U:H4'	1:6:1433:G:H5''	1.94	0.49
1:6:1535:U:H4'	1:6:1535:U:OP1	2.12	0.49
1:6:1603:U:H2'	1:6:1604:U:H6	1.77	0.49
1:6:1699:G:H22	1:6:1702:A:H5''	1.77	0.49
86:6:2058:OHX:N1	86:6:2144:OHX:N4	2.59	0.49
19:C7:23:LYS:H	34:SR:216:LYS:HE2	1.78	0.49
28:D6:37:LYS:HA	28:D6:71:LEU:O	2.12	0.49
40:L3:358:TRP:CH2	40:L3:360:ASP:HB2	2.47	0.49
40:L3:53:MET:CG	40:L3:77:THR:HG22	2.68	0.49
43:L6:129:GLU:O	43:L6:130:ILE:HG13	4.47	0.49
43:L6:35:VAL:HB	43:L6:90:LYS:HE2	5.70	0.49
45:L8:165:PHE:HA	72:O6:47:ILE:HD13	2.17	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:7:GLU:HA	46:L9:68:LEU:HD11	2.25	0.49
49:M3:105:ASN:OD1	49:M3:107:GLU:HG2	2.65	0.49
49:M3:168:ARG:NH1	49:M3:172:LEU:HD11	2.27	0.49
53:M7:108:ASP:HB3	53:M7:111:LYS:HD2	1.93	0.49
63:N7:50:PRO:HD3	63:N7:68:ILE:HG12	2.13	0.49
67:O1:19:ARG:HG3	67:O1:19:ARG:HH11	2.91	0.49
69:O3:42:GLN:HA	69:O3:45:LEU:HG	2.42	0.49
71:O5:62:GLN:O	71:O5:65:ALA:HB3	2.12	0.49
74:O8:16:ARG:O	74:O8:18:ALA:N	3.54	0.49
3:S1:195:LYS:O	3:S1:199:ASN:N	2.45	0.49
5:S3:156:PHE:HE1	1:6:1326:A:O3'	419.73	0.49
8:S6:14:LYS:HG2	8:S6:15:THR:N	2.27	0.49
9:S7:126:LEU:HD13	9:S7:173:TYR:CD2	2.86	0.49
9:S7:98:ILE:HD13	9:S7:118:LEU:HA	2.33	0.49
18:C6:99:GLU:OE2	34:SR:60:SER:HB2	2.13	0.49
36:1:3:U:C2	38:4:157:U:C2	3.00	0.49
1:2:1592:A:H2'	1:2:1593:A:C8	2.47	0.49
1:2:1636:C:C2	1:2:1638:G:C5	3.00	0.49
1:2:28:A:H2'	1:2:29:U:H6	1.77	0.49
1:2:46:A:N6	1:2:433:C:H4'	2.27	0.49
36:5:1155:C:O2'	36:5:1197:A:N1	2.40	0.49
36:5:1790:G:O6	86:5:4199:OHX:N4	2.45	0.49
45:L8:49:TYR:HD2	36:5:2587:U:H4'	177.61	0.49
51:M5:120:TRP:CE3	36:5:269:G:H5'	132.54	0.49
36:5:2762:A:H1'	36:5:2800:G:C6	2.46	0.49
36:5:1208:U:H6	36:5:3115:C:H42	1.59	0.49
36:5:59:G:H4'	36:5:60:A:H4'	1.93	0.49
1:6:1133:A:H2'	1:6:1134:C:O4'	2.13	0.49
18:C6:55:VAL:HG21	18:C6:105:LEU:HG	1.95	0.49
19:C7:5:ARG:NH1	1:6:1402:G:OP2	407.93	0.49
19:C7:66:VAL:HB	19:C7:69:ILE:HD11	1.93	0.49
1:2:1544:U:H4'	20:C8:132:ARG:NH2	2.28	0.49
25:D3:12:ALA:O	25:D3:16:ARG:HG3	2.12	0.49
26:D4:89:TYR:O	26:D4:93:ARG:HG3	2.48	0.49
1:2:1796:C:C5	28:D6:5:ARG:HA	2.48	0.49
32:E0:46:ASN:OD1	32:E0:47:VAL:N	3.03	0.49
33:E1:98:VAL:HG22	33:E1:99:LYS:H	1.76	0.49
40:L3:289:ASP:N	40:L3:289:ASP:OD1	2.41	0.49
41:L4:39:PHE:CG	41:L4:242:ALA:HB2	2.62	0.49
44:L7:217:PRO:HA	86:5:4004:OHX:N5	262.39	0.49
44:L7:51:TYR:O	44:L7:55:TYR:N	2.40	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:65:ARG:HB3	51:M5:127:TYR:CD1	2.46	0.49
55:M9:92:GLN:O	55:M9:96:ILE:HG13	2.28	0.49
56:N0:70:THR:O	56:N0:70:THR:OG1	2.76	0.49
59:N3:75:PRO:HB2	59:N3:103:ALA:O	2.13	0.49
66:O0:30:THR:HB	66:O0:91:SER:HB2	1.94	0.49
67:O1:10:ARG:HH12	67:O1:44:MET:HG3	4.90	0.49
68:O2:5:PRO:HD2	68:O2:6:HIS:H	5.12	0.49
73:O7:21:ARG:NH2	73:O7:41:ALA:O	2.46	0.49
5:S3:40:ARG:HD2	5:S3:49:ILE:HD11	2.99	0.49
5:S3:60:GLY:HA3	5:S3:65:ARG:HB3	3.79	0.49
6:S4:236:ILE:HD12	6:S4:238:LEU:HD23	2.94	0.49
7:S5:124:LEU:O	7:S5:125:THR:OG1	2.24	0.49
9:S7:23:ALA:O	9:S7:27:LEU:HG	2.13	0.49
9:S7:71:HIS:CG	9:S7:131:PHE:CZ	3.00	0.49
34:SR:64:HIS:HD1	34:SR:86:ASP:CG	2.14	0.49
36:1:2746:A:H2'	36:1:2747:A:O4'	2.12	0.49
36:1:655:C:H2'	36:1:656:A:C8	2.48	0.49
1:2:1683:C:O2'	1:2:1684:U:O5'	2.27	0.49
1:2:1738:U:H2'	1:2:1739:C:C6	2.47	0.49
36:5:2102:U:H2'	36:5:2103:U:H6	1.76	0.49
36:5:2561:A:O2'	36:5:2562:A:H5''	2.13	0.49
36:5:2947:G:N2	36:5:2948:C:C2	2.81	0.49
36:5:495:G:H2'	36:5:496:C:O4'	2.12	0.49
44:L7:70:LYS:NZ	36:5:520:U:OP2	316.85	0.49
1:6:1451:C:H2'	1:6:1452:U:C6	2.47	0.49
1:6:1473:U:O2	1:6:1473:U:H2'	2.11	0.49
9:S7:101:LYS:HD3	1:6:639:U:H5''	365.03	0.49
11:S9:92:LYS:NZ	1:6:673:A:OP2	429.85	0.49
1:6:691:C:OP1	1:6:696:C:N4	2.33	0.49
1:6:722:G:O2'	1:6:723:G:H5''	2.12	0.49
1:6:723:G:H5'	1:6:724:C:OP2	2.13	0.49
15:C3:55:ARG:HD3	29:D7:47:PHE:CD1	3.18	0.49
19:C7:107:SER:O	19:C7:110:VAL:HG23	2.80	0.49
25:D3:14:LYS:O	25:D3:18:HIS:HB3	4.54	0.49
27:D5:85:LYS:HG3	27:D5:86:GLU:N	2.27	0.49
30:D8:13:ILE:HD13	30:D8:31:GLU:HB2	1.94	0.49
31:D9:21:CYS:HA	31:D9:30:LEU:HD21	3.05	0.49
32:E0:14:VAL:O	32:E0:18:THR:HG23	2.16	0.49
41:L4:138:ARG:HB3	41:L4:138:ARG:HH11	2.80	0.49
42:L5:48:LYS:HE3	42:L5:145:PHE:HE2	1.76	0.49
44:L7:207:LEU:O	36:5:1334:U:H5'	240.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:134:TYR:CG	45:L8:190:VAL:HG21	2.47	0.49
46:L9:138:THR:HG22	46:L9:139:ASN:HB3	1.92	0.49
52:M6:46:GLU:HG2	52:M6:48:PHE:H	1.78	0.49
54:M8:141:ARG:HD3	36:5:743:C:O2	174.97	0.49
54:M8:34:THR:HG22	54:M8:49:LEU:HD21	1.94	0.49
57:N1:132:PRO:O	57:N1:134:GLN:HG2	3.65	0.49
42:L5:41:LYS:HB2	57:N1:68:THR:O	2.48	0.49
64:N8:47:LYS:O	64:N8:49:HIS:N	2.88	0.49
69:O3:39:GLN:CD	69:O3:39:GLN:H	2.33	0.49
69:O3:85:PHE:CZ	69:O3:89:LEU:HD11	2.86	0.49
70:O4:8:ARG:HB2	70:O4:34:HIS:CD2	2.50	0.49
72:O6:33:ALA:HB1	72:O6:38:LYS:HD3	4.55	0.49
4:S2:130:ILE:O	4:S2:134:LEU:HD22	2.12	0.49
4:S2:58:LEU:O	23:D1:15:ARG:NE	2.63	0.49
6:S4:100:ARG:NH2	6:S4:122:LYS:HA	2.74	0.49
6:S4:208:VAL:HG12	6:S4:210:ILE:HD11	1.93	0.49
9:S7:118:LEU:HD23	1:6:639:U:C2	371.97	0.49
9:S7:51:VAL:HG22	9:S7:55:LYS:O	2.51	0.49
1:2:767:U:C5	11:S9:143:ILE:HD12	2.48	0.49
11:S9:171:ARG:HH11	11:S9:174:ARG:HB3	3.96	0.49
36:1:1103:A:N3	36:1:1103:A:H2'	2.26	0.49
36:1:1323:G:O3'	56:N0:2:ALA:HA	2.12	0.49
36:1:1878:G:C2'	36:1:1879:A:H5'	2.43	0.49
36:1:2514:U:OP2	36:1:2586:G:N2	2.46	0.49
36:1:2677:G:H2'	36:1:2679:A:C2	2.48	0.49
1:2:1323:C:H2'	1:2:1324:G:O4'	2.12	0.49
1:2:1218:G:N2	1:2:1444:A:OP2	2.31	0.49
1:2:755:A:HO2'	1:2:756:A:P	2.35	0.49
38:4:68:G:OP2	86:O7:103:OHX:N6	2.45	0.49
1:6:1758:U:O2'	36:5:2262:A:N1	2.38	0.49
36:5:2298:U:O4	36:5:2923:U:H5	1.95	0.49
36:5:2439:A:N6	36:5:2508:U:H3	2.11	0.49
36:5:618:C:H2'	36:5:619:A:C8	2.48	0.49
36:5:655:C:H2'	36:5:656:A:C8	2.47	0.49
1:6:219:A:N6	1:6:843:U:C2	2.81	0.49
1:6:538:A:H2	1:6:540:G:H22	1.61	0.49
15:C3:130:ARG:HD3	15:C3:138:ASN:H	1.76	0.49
18:C6:129:PHE:CE1	22:D0:78:THR:HA	2.57	0.49
19:C7:13:SER:HA	19:C7:54:THR:HG22	1.93	0.49
22:D0:100:VAL:O	22:D0:104:THR:HG23	2.32	0.49
24:D2:114:GLU:O	24:D2:118:ARG:HG3	2.19	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D4:27:VAL:HG21	26:D4:40:LEU:HD11	1.94	0.49
36:1:2880:U:O2	40:L3:250:ALA:HB3	2.12	0.49
40:L3:77:THR:HG23	40:L3:326:GLY:O	2.26	0.49
44:L7:159:GLN:O	44:L7:160:ARG:C	2.50	0.49
46:L9:41:ILE:HG23	46:L9:43:VAL:HG13	1.95	0.49
46:L9:44:THR:HG22	36:5:3186:A:N3	326.40	0.49
46:L9:88:TYR:CE2	46:L9:184:LYS:HE2	2.61	0.49
49:M3:102:GLN:HB2	49:M3:104:ARG:NH2	2.28	0.49
50:M4:50:LYS:HD3	50:M4:85:TRP:CD1	2.48	0.49
45:L8:159:PRO:HG3	51:M5:43:THR:O	4.26	0.49
53:M7:33:ALA:HB1	53:M7:117:ILE:HG12	1.99	0.49
54:M8:54:LEU:HD22	54:M8:58:ASN:HB2	1.93	0.49
36:1:741:U:O2'	54:M8:73:GLN:HG2	2.12	0.49
57:N1:143:THR:O	57:N1:146:ASN:N	2.42	0.49
58:N2:28:PHE:HE1	58:N2:83:TYR:HE2	2.19	0.49
63:N7:43:VAL:HG22	63:N7:73:LYS:O	2.58	0.49
72:O6:93:ILE:O	72:O6:97:SER:HB3	2.13	0.49
73:O7:25:ARG:HB3	73:O7:25:ARG:HH11	3.45	0.49
46:L9:180:TYR:HB2	76:Q0:85:LEU:HD13	2.45	0.49
3:S1:180:THR:HB	3:S1:182:ALA:H	1.76	0.49
5:S3:202:LEU:H	5:S3:202:LEU:HD22	1.76	0.49
5:S3:34:TYR:CE2	5:S3:37:VAL:HG13	2.48	0.49
9:S7:167:GLU:HG3	9:S7:170:GLN:OE1	2.12	0.49
34:SR:161:LYS:O	34:SR:161:LYS:CG	2.58	0.49
36:1:1714:A:O2'	36:1:1728:G:O6	2.22	0.49
36:1:1796:G:H5''	36:1:1797:A:OP1	2.12	0.49
36:1:2544:U:H2'	36:1:2545:C:H6	1.77	0.49
36:1:2662:G:H2'	36:1:2663:G:C8	2.47	0.49
36:1:3094:A:H2'	36:1:3095:U:C6	2.47	0.49
36:1:568:G:H2'	36:1:569:A:O4'	2.13	0.49
36:1:764:U:O4	86:1:3964:OHX:N5	2.46	0.49
1:2:1171:A:H2'	1:2:1172:G:C8	2.48	0.49
1:2:498:G:O2'	1:2:499:U:O5'	2.25	0.49
38:4:133:G:O6	86:4:232:OHX:N5	2.46	0.49
36:5:1495:U:H4'	36:5:1514:G:H4'	1.95	0.49
36:5:209:A:H4'	36:5:211:A:N7	2.27	0.49
28:D6:6:ALA:N	1:6:1796:C:H5	343.60	0.49
1:6:577:G:N1	86:6:2156:OHX:N4	2.61	0.49
1:6:221:A:C2'	1:6:222:A:H5'	2.43	0.49
1:6:805:U:C2'	1:6:806:A:H5'	2.43	0.49
38:8:19:C:H2'	38:8:20:U:O4'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:8:216:OHX:N2	86:8:224:OHX:N4	2.60	0.49
12:C0:54:TYR:HD2	12:C0:72:GLY:HA2	4.63	0.49
17:C5:24:LYS:O	17:C5:28:MET:HB2	2.12	0.49
19:C7:104:ASN:O	19:C7:106:THR:HG22	6.49	0.49
26:D4:10:ARG:HD2	1:6:778:G:O6	428.98	0.49
22:D0:82:TYR:HB3	31:D9:52:PHE:HB3	2.07	0.49
32:E0:47:VAL:HG22	32:E0:48:THR:H	1.77	0.49
41:L4:141:ARG:O	41:L4:144:LYS:NZ	9.03	0.49
41:L4:145:ILE:O	41:L4:145:ILE:HG13	2.12	0.49
36:1:147:U:O4	45:L8:157:VAL:HA	2.11	0.49
46:L9:9:GLN:HB3	46:L9:52:LEU:HD21	2.89	0.49
48:M1:32:ARG:O	48:M1:36:VAL:HG23	2.12	0.49
51:M5:53:TYR:HD1	51:M5:133:ILE:HD13	1.76	0.49
66:O0:24:THR:HG22	66:O0:93:LEU:HD11	2.23	0.49
70:O4:74:ARG:HB3	70:O4:74:ARG:CZ	2.42	0.49
71:O5:34:GLN:HB3	71:O5:38:ARG:NH1	2.28	0.49
72:O6:62:ARG:NH1	72:O6:94:ILE:HD11	4.70	0.49
75:O9:14:ALA:O	75:O9:18:LYS:HG3	2.12	0.49
79:Q3:18:TYR:H	36:5:2131:A:H61	226.75	0.49
3:S1:117:TRP:HB3	3:S1:153:HIS:HA	2.90	0.49
5:S3:70:THR:CG2	5:S3:86:LEU:HB2	2.51	0.49
6:S4:26:CYS:HB2	6:S4:27:TYR:CD2	5.16	0.49
6:S4:57:ASN:HB3	6:S4:59:ARG:H	2.55	0.49
9:S7:74:GLN:NE2	9:S7:92:PHE:HB2	2.26	0.49
36:1:1701:C:H2'	36:1:1702:U:O4'	2.12	0.49
36:1:174:C:H2'	36:1:175:C:C6	2.48	0.49
36:1:1814:A:C2	36:1:1816:A:C6	3.00	0.49
36:1:2812:C:H2'	36:1:2813:A:C8	2.44	0.49
36:1:706:A:H4'	36:1:781:G:O2'	2.12	0.49
1:2:1120:U:H2'	1:2:1121:C:C6	2.47	0.49
1:2:1182:U:O2	1:2:1184:A:H8	1.96	0.49
1:2:1509:C:H2'	1:2:1510:U:O4'	2.12	0.49
47:M0:8:CYS:HB3	36:5:1128:U:O2'	267.62	0.49
36:5:1242:G:H2'	36:5:1243:G:O4'	2.12	0.49
36:5:2659:G:H4'	36:5:2751:G:O2'	2.13	0.49
36:5:2775:U:H2'	36:5:2776:C:H6	1.77	0.49
36:5:754:G:H2'	36:5:755:A:H8	1.78	0.49
39:L2:181:LYS:HB3	36:5:860:G:C5	212.48	0.49
1:6:485:A:N6	1:6:486:G:N3	2.60	0.49
24:D2:105:THR:HG21	1:6:805:U:O4'	363.84	0.49
17:C5:98:ASN:ND2	17:C5:103:ASN:HD21	2.10	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:31:VAL:HG22	18:C6:67:VAL:HB	2.86	0.49
2:S0:62:ARG:HH21	23:D1:39:VAL:HG22	1.77	0.49
26:D4:66:GLY:H	1:6:532:U:H5''	429.85	0.49
27:D5:54:VAL:HG22	27:D5:57:TYR:HE1	1.78	0.49
33:E1:126:CYS:HB3	33:E1:130:VAL:HG21	2.66	0.49
39:L2:242:ARG:O	36:5:2154:U:H5''	224.47	0.49
40:L3:83:PRO:HG3	40:L3:204:ALA:HB2	3.69	0.49
47:M0:99:ILE:HD13	47:M0:101:LYS:HG2	4.61	0.49
47:M0:4:ARG:NH2	47:M0:99:ILE:HG22	6.20	0.49
43:L6:174:LEU:HD22	50:M4:117:ARG:CZ	4.75	0.49
58:N2:42:LYS:HG2	58:N2:46:ALA:HA	3.13	0.49
60:N4:25:ASP:OD2	60:N4:27:LYS:HB2	2.12	0.49
71:O5:78:LYS:O	71:O5:81:ARG:HB2	2.13	0.49
2:S0:64:ILE:HG12	2:S0:122:ILE:HD11	1.94	0.49
3:S1:175:GLU:HG2	3:S1:193:ILE:HD13	4.37	0.49
1:2:1099:U:O4	4:S2:168:ARG:NH1	2.45	0.49
5:S3:115:ILE:HD11	5:S3:138:VAL:HG21	1.95	0.49
6:S4:221:ARG:O	6:S4:224:ASN:N	2.89	0.49
8:S6:13:GLN:NE2	1:6:151:G:H21	312.43	0.49
10:S8:152:ILE:HD13	10:S8:157:GLU:OE1	2.13	0.49
1:2:393:C:OP2	10:S8:2:GLY:N	2.45	0.49
5:S3:115:ILE:HG21	35:SM:110:TRP:HA	1.94	0.49
35:SM:107:ASN:OD1	35:SM:112:ASP:HB3	2.11	0.49
36:1:1306:G:C6	52:M6:62:THR:HA	2.47	0.49
36:1:2401:A:O2'	41:L4:68:GLY:HA2	2.13	0.49
1:2:1417:A:O2'	18:C6:128:LYS:HE2	2.13	0.49
1:2:217:A:OP1	1:2:217:A:H2'	2.12	0.49
1:2:438:A:H1'	1:2:466:U:O2	2.13	0.49
1:2:625:C:H2'	1:2:626:U:C6	2.47	0.49
36:5:1397:C:O2'	36:5:1398:U:H5'	2.12	0.49
36:5:3131:U:H2'	36:5:3132:C:C6	2.48	0.49
36:5:3177:G:O2'	36:5:3179:U:OP1	2.20	0.49
36:5:608:A:H5''	36:5:609:G:OP2	2.13	0.49
36:5:771:A:H2'	36:5:772:U:O4'	2.13	0.49
36:5:796:U:H2'	36:5:797:U:C6	2.48	0.49
26:D4:66:GLY:HA2	1:6:532:U:H4'	431.22	0.49
1:6:626:U:H2'	1:6:627:C:H6	1.77	0.49
37:7:119:U:H2'	37:7:120:C:C6	2.48	0.49
12:C0:7:ASP:O	12:C0:11:ILE:HG12	2.13	0.49
13:C1:10:GLU:HG2	1:6:327:U:H1'	269.53	0.49
14:C2:36:LEU:HD11	14:C2:101:ALA:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:26:LEU:HD12	24:D2:27:ILE:N	5.58	0.49
27:D5:93:SER:HB3	27:D5:100:ILE:HB	1.94	0.49
39:L2:236:GLY:O	39:L2:238:ILE:HD12	3.69	0.49
40:L3:116:ARG:HG2	40:L3:175:LYS:HA	1.94	0.49
44:L7:26:VAL:HG23	44:L7:27:ALA:H	1.78	0.49
47:M0:139:ARG:HB3	47:M0:173:PHE:CE1	2.48	0.49
47:M0:210:ILE:HA	47:M0:217:PHE:CE2	2.47	0.49
48:M1:89:TYR:HB3	48:M1:169:ALA:CB	2.43	0.49
49:M3:25:HIS:H	49:M3:25:HIS:CD2	2.31	0.49
52:M6:148:LYS:HB2	52:M6:149:TYR:CE2	2.47	0.49
53:M7:25:SER:HB3	53:M7:28:ASN:HB2	1.95	0.49
61:N5:136:ALA:O	61:N5:139:ILE:HG23	2.13	0.49
61:N5:34:LEU:HD23	61:N5:35:PRO:HD2	2.31	0.49
63:N7:73:LYS:HB3	63:N7:75:VAL:HG12	1.94	0.49
67:O1:5:LYS:O	67:O1:6:ASP:HB2	2.13	0.49
70:O4:51:LEU:H	70:O4:51:LEU:HD23	1.77	0.49
72:O6:56:ARG:O	72:O6:60:LEU:HD22	5.43	0.49
72:O6:82:ARG:HH11	36:5:295:A:H1'	135.76	0.49
74:O8:32:ASN:ND2	74:O8:32:ASN:O	2.45	0.49
79:Q3:36:ARG:HG3	79:Q3:48:LYS:CG	2.96	0.49
5:S3:162:GLN:O	5:S3:165:ASN:N	2.81	0.49
5:S3:6:SER:HB3	5:S3:9:ARG:HB2	1.95	0.49
5:S3:93:ASP:N	5:S3:93:ASP:OD2	2.46	0.49
10:S8:21:PHE:HD1	10:S8:22:ARG:HG2	3.07	0.49
34:SR:34:LEU:HD21	34:SR:42:LEU:HD23	1.93	0.49
36:1:1508:C:C6	36:1:1880:U:H1'	2.48	0.49
36:1:271:C:O2	72:O6:82:ARG:NH2	2.35	0.49
36:1:2904:U:H2'	36:1:2905:U:C6	2.48	0.49
36:1:3010:U:OP2	86:1:4204:OHX:N5	2.46	0.49
36:1:3356:G:H2'	36:1:3357:U:O4'	2.13	0.49
36:1:2767:U:OP2	86:1:4135:OHX:N2	2.46	0.49
36:1:829:U:H3	36:1:895:A:N6	2.10	0.49
1:2:1718:G:OP2	86:2:2081:OHX:N1	2.46	0.49
1:2:273:G:H1	1:2:283:U:H3	1.61	0.49
1:2:330:G:OP2	10:S8:172:ARG:NH1	2.43	0.49
36:5:1192:C:H42	36:5:1301:A:HO2'	1.56	0.49
39:L2:2:GLY:HA2	36:5:2415:C:OP1	182.23	0.49
1:6:1268:G:H1'	1:6:1448:G:H5''	1.93	0.49
1:6:1590:G:H2'	1:6:1591:C:C6	2.47	0.49
86:6:2118:OHX:N6	86:6:2168:OHX:N3	2.61	0.49
1:6:278:U:OP2	1:6:278:U:H2'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:350:U:H5''	1:6:352:A:H5'	1.95	0.49
1:6:73:U:O2'	1:6:74:U:O4'	2.23	0.49
7:S5:37:GLN:CD	18:C6:53:LEU:HD22	2.42	0.49
20:C8:31:ALA:O	20:C8:34:THR:HG23	2.11	0.49
25:D3:44:GLY:H	25:D3:78:LYS:NZ	2.11	0.49
40:L3:153:LYS:HD3	40:L3:154:TYR:CZ	2.47	0.49
47:M0:76:MET:HE3	47:M0:148:VAL:HA	2.03	0.49
55:M9:105:LEU:HD11	55:M9:139:VAL:HG23	1.95	0.49
56:N0:155:ARG:HG2	56:N0:172:TYR:HB2	4.18	0.49
67:O1:46:THR:CG2	67:O1:47:ASP:N	4.17	0.49
69:O3:75:HIS:HB3	69:O3:80:VAL:CG1	2.43	0.49
72:O6:5:THR:HG23	72:O6:12:ASN:C	2.33	0.49
74:O8:32:ASN:ND2	74:O8:36:LYS:H	2.10	0.49
5:S3:53:THR:HG22	5:S3:91:VAL:CG1	2.43	0.49
10:S8:72:ILE:HD13	10:S8:112:TRP:CD2	2.47	0.49
1:2:1179:G:H4'	35:SM:79:SER:O	2.13	0.49
34:SR:249:ARG:NH1	34:SR:298:GLY:O	3.05	0.49
36:1:1015:U:O2	36:1:1017:C:H6	1.96	0.48
36:1:1804:A:H2'	36:1:1805:C:C6	2.48	0.48
36:1:2213:A:H2'	36:1:2214:A:C8	2.48	0.48
36:1:2278:C:H2'	36:1:2279:A:H5''	1.94	0.48
36:1:266:A:H5''	36:1:267:G:OP1	2.13	0.48
1:2:1164:G:H2'	1:2:1165:G:H8	1.78	0.48
1:2:142:G:N2	1:2:173:A:H2	2.07	0.48
1:2:705:U:H2'	1:2:706:A:C8	2.47	0.48
1:2:778:G:H22	26:D4:10:ARG:HH12	1.60	0.48
36:5:1046:A:H2'	36:5:1049:C:C5	2.48	0.48
52:M6:83:ALA:CB	36:5:1313:G:H5'	258.41	0.48
36:5:148:G:O2'	36:5:149:U:OP2	2.29	0.48
36:5:2896:A:H8	36:5:2896:A:H5''	1.77	0.48
36:5:3294:A:H2'	36:5:3295:A:O4'	2.13	0.48
36:5:3358:U:H2'	36:5:3359:A:C8	2.48	0.48
17:C5:115:TYR:CZ	1:6:1556:A:H5''	384.08	0.48
1:6:482:U:H3	1:6:505:A:H61	1.60	0.48
1:6:496:G:O6	1:6:497:G:N2	2.45	0.48
37:7:55:A:H2'	37:7:56:A:O4'	2.13	0.48
17:C5:50:THR:O	17:C5:50:THR:OG1	2.28	0.48
7:S5:25:LEU:HB2	18:C6:27:GLY:O	2.29	0.48
18:C6:66:ARG:NH2	18:C6:68:ARG:HD3	2.28	0.48
20:C8:13:HIS:O	20:C8:14:ILE:HG22	3.57	0.48
39:L2:219:ILE:HD13	39:L2:223:SER:HB3	3.11	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:114:VAL:O	40:L3:117:ARG:HB3	2.22	0.48
40:L3:86:VAL:HG13	40:L3:160:VAL:CG1	2.42	0.48
40:L3:339:ARG:HG2	40:L3:340:LYS:O	2.55	0.48
40:L3:49:TYR:C	40:L3:79:VAL:HG23	3.78	0.48
42:L5:52:VAL:HG22	42:L5:147:ASP:HB3	1.95	0.48
42:L5:214:ASP:O	42:L5:215:ASP:HB2	2.13	0.48
42:L5:271:LYS:HD3	42:L5:271:LYS:HA	4.13	0.48
44:L7:158:LYS:HG2	44:L7:203:TRP:HH2	1.77	0.48
46:L9:86:TYR:CD2	46:L9:151:VAL:HG22	2.74	0.48
51:M5:140:LYS:O	51:M5:144:ARG:HB2	2.94	0.48
51:M5:183:THR:O	51:M5:184:LYS:HB2	2.13	0.48
57:N1:48:ILE:HG13	57:N1:94:GLU:HG2	2.46	0.48
62:N6:82:VAL:O	62:N6:84:LYS:N	2.89	0.48
67:O1:14:ILE:HG13	67:O1:19:ARG:NH1	2.28	0.48
68:O2:78:ASN:HA	68:O2:108:ILE:HD11	1.95	0.48
69:O3:13:HIS:ND1	69:O3:93:THR:HB	2.27	0.48
70:O4:66:SER:O	70:O4:69:HIS:ND1	2.34	0.48
76:Q0:110:CYS:HB2	76:Q0:121:LEU:HD21	1.95	0.48
36:1:1295:G:P	56:N0:84:ARG:HG3	2.53	0.48
36:1:1363:A:OP2	86:1:4047:OHX:N6	2.46	0.48
36:1:3153:U:O2	36:1:3158:G:N1	2.46	0.48
36:1:559:A:OP1	36:1:559:A:H4'	2.14	0.48
1:2:516:G:OP2	86:2:2069:OHX:N6	2.45	0.48
86:2:2089:OHX:N3	86:2:2131:OHX:N6	2.61	0.48
86:2:2089:OHX:N5	86:2:2131:OHX:N2	2.61	0.48
1:2:38:C:C2'	1:2:39:A:H5'	2.43	0.48
1:2:986:G:H2'	1:2:987:G:O4'	2.13	0.48
37:3:64:A:H3'	47:M0:204:GLY:O	2.12	0.48
38:4:79:A:H2'	38:4:80:A:C1'	2.35	0.48
36:5:2442:G:H22	36:5:2506:U:H3	1.61	0.48
51:M5:12:ARG:HG3	36:5:268:A:C4	127.14	0.48
78:Q2:63:LYS:NZ	36:5:2761:G:N7	211.21	0.48
36:5:3278:C:O2'	36:5:3279:A:OP2	2.23	0.48
1:6:1228:G:H2'	1:6:1228:G:N3	2.28	0.48
1:6:151:G:N2	1:6:163:G:N2	2.62	0.48
1:6:1699:G:N2	1:6:1701:A:H3'	2.25	0.48
16:C4:92:LYS:HB2	16:C4:92:LYS:HE2	2.90	0.48
27:D5:55:PRO:HG3	27:D5:88:ILE:HG23	6.12	0.48
28:D6:10:ARG:HB2	28:D6:34:LYS:HG3	1.94	0.48
41:L4:275:THR:HG22	41:L4:276:LEU:O	2.13	0.48
45:L8:115:ALA:O	45:L8:119:GLY:N	2.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:93:LEU:HD21	45:L8:211:LEU:HD23	4.89	0.48
47:M0:170:LYS:HA	47:M0:177:ASP:HA	1.94	0.48
35:SM:27:LYS:HD2	48:M1:68:HIS:CE1	6.15	0.48
54:M8:89:ASP:OD1	54:M8:90:ASP:N	2.58	0.48
56:N0:71:LYS:HG2	56:N0:73:LYS:HD3	5.19	0.48
57:N1:131:GLN:HG3	57:N1:132:PRO:HD2	2.27	0.48
57:N1:132:PRO:O	57:N1:134:GLN:NE2	2.46	0.48
49:M3:6:ASN:HB2	64:N8:48:TYR:CE2	2.48	0.48
67:O1:46:THR:CG2	67:O1:47:ASP:H	4.60	0.48
71:O5:21:LEU:O	71:O5:25:LYS:HG3	2.30	0.48
79:Q3:50:GLY:O	79:Q3:51:ALA:HB3	2.13	0.48
2:S0:11:PRO:O	2:S0:15:GLN:HG3	2.14	0.48
2:S0:172:LEU:O	2:S0:175:TYR:HB3	2.34	0.48
4:S2:140:ARG:HD2	23:D1:10:GLU:OE1	3.58	0.48
4:S2:52:THR:HB	4:S2:54:GLU:HG2	1.94	0.48
4:S2:73:LEU:HG	4:S2:76:LEU:HD13	1.95	0.48
5:S3:54:ARG:HD2	5:S3:57:ASP:OD1	4.14	0.48
9:S7:63:PRO:O	9:S7:64:VAL:HB	2.32	0.48
36:1:1161:G:H5'	36:1:1365:G:O2'	2.12	0.48
36:1:1240:A:H3'	36:1:1241:U:C5'	2.43	0.48
36:1:2318:U:O4	86:1:4042:OHX:N2	2.46	0.48
36:1:3280:U:O2'	36:1:3281:U:H5'	2.13	0.48
36:1:871:U:H2'	36:1:872:U:C6	2.48	0.48
86:2:2089:OHX:N5	86:2:2131:OHX:N6	2.60	0.48
36:5:1015:U:O2'	36:5:1016:C:H3'	2.13	0.48
36:5:244:G:C6	36:5:245:U:C4	3.01	0.48
36:5:2869:U:O2'	36:5:2873:U:OP1	2.28	0.48
36:5:2881:C:H2'	36:5:2882:U:H6	1.78	0.48
36:5:1895:A:O2'	36:5:3053:G:H4'	2.13	0.48
36:5:2993:G:H2'	36:5:3142:A:N6	2.28	0.48
44:L7:60:ARG:HH22	36:5:517:G:P	306.25	0.48
41:L4:312:VAL:HG21	36:5:610:G:C8	222.73	0.48
36:5:677:A:C8	36:5:786:A:C6	3.02	0.48
36:5:701:G:H2'	36:5:702:C:C6	2.48	0.48
1:6:833:U:OP2	86:6:2199:OHX:N5	2.45	0.48
12:C0:80:LEU:HB2	12:C0:82:LEU:HG	1.94	0.48
15:C3:34:ILE:O	15:C3:38:VAL:HG23	2.22	0.48
17:C5:77:ARG:HB3	17:C5:102:PHE:CE1	2.79	0.48
20:C8:119:ILE:HA	20:C8:119:ILE:HD12	2.70	0.48
20:C8:3:LEU:HD23	20:C8:5:VAL:HG23	4.78	0.48
1:2:1236:A:C1'	33:E1:138:ARG:HH22	2.26	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:E1:144:CYS:C	33:E1:146:SER:N	2.67	0.48
39:L2:179:LEU:O	39:L2:180:LEU:HB2	2.12	0.48
41:L4:141:ARG:NH1	41:L4:180:LYS:HD3	2.50	0.48
42:L5:107:ARG:O	42:L5:111:GLN:N	2.79	0.48
42:L5:146:LEU:HG	42:L5:163:LEU:HG	1.95	0.48
42:L5:75:LEU:O	42:L5:75:LEU:HD22	3.14	0.48
44:L7:143:THR:HG21	44:L7:237:ASN:HB3	1.95	0.48
49:M3:131:LYS:H	49:M3:131:LYS:HD3	4.17	0.48
49:M3:57:VAL:HG13	49:M3:147:ILE:HD12	1.94	0.48
59:N3:128:ARG:CZ	59:N3:128:ARG:HB3	3.53	0.48
63:N7:33:SER:HB2	63:N7:40:HIS:CE1	2.47	0.48
64:N8:90:TYR:CG	64:N8:100:PRO:HG3	2.48	0.48
72:O6:26:ILE:H	72:O6:26:ILE:HG13	1.81	0.48
75:O9:5:LYS:HD3	75:O9:13:MET:CE	2.76	0.48
2:S0:172:LEU:O	2:S0:176:LEU:HG	2.23	0.48
6:S4:205:PHE:HB3	6:S4:221:ARG:HD2	1.95	0.48
6:S4:87:MET:SD	6:S4:123:LEU:HB2	3.07	0.48
7:S5:39:GLU:HB3	7:S5:40:ILE:H	1.41	0.48
9:S7:132:PRO:O	9:S7:133:THR:OG1	4.79	0.48
11:S9:38:ASN:HB3	11:S9:40:LYS:N	2.28	0.48
34:SR:182:ASN:O	34:SR:186:PHE:HA	2.12	0.48
36:1:1566:A:H2'	36:1:1567:U:H5''	1.94	0.48
36:1:2194:G:H2'	36:1:2195:C:C6	2.48	0.48
36:1:2208:A:C6	86:1:4046:OHX:N2	2.82	0.48
36:1:2427:U:H2'	36:1:2428:U:C6	2.48	0.48
86:1:4034:OHX:N2	86:1:4047:OHX:N1	2.62	0.48
36:1:726:G:H1'	36:1:744:A:H61	1.78	0.48
1:2:602:U:H2'	1:2:603:U:C6	2.48	0.48
1:2:772:G:N2	1:2:774:A:O2'	2.46	0.48
36:5:1032:C:H5'	36:5:1033:U:OP2	2.14	0.48
36:5:1152:G:H8	36:5:1152:G:P	2.36	0.48
36:5:2405:C:O2	36:5:2819:A:N1	2.46	0.48
86:5:4057:OHX:N5	86:5:4201:OHX:N2	2.61	0.48
36:5:937:G:C6	36:5:2410:U:H5''	2.49	0.48
25:D3:30:LYS:NZ	1:6:1132:A:OP1	320.30	0.48
1:6:782:U:H5''	1:6:782:U:O2	2.13	0.48
12:C0:24:LYS:HB2	12:C0:63:TYR:CE1	2.63	0.48
15:C3:52:VAL:HG22	15:C3:55:ARG:NH2	2.28	0.48
18:C6:20:ALA:HB2	18:C6:84:ALA:HB1	2.39	0.48
19:C7:8:THR:HG21	1:6:1330:G:N2	418.56	0.48
21:C9:65:ILE:HG12	21:C9:71:VAL:HG13	4.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1382:A:H5''	22:D0:60:THR:HG22	1.95	0.48
40:L3:188:ILE:HD12	40:L3:188:ILE:H	2.88	0.48
41:L4:38:VAL:HG21	41:L4:121:ALA:HB2	2.20	0.48
45:L8:216:SER:OG	45:L8:217:THR:N	3.89	0.48
47:M0:206:LEU:O	47:M0:210:ILE:HG13	2.14	0.48
49:M3:100:ARG:NH1	36:5:77:A:H5'	85.22	0.48
49:M3:106:GLN:HA	72:O6:20:MET:SD	2.68	0.48
65:N9:16:ALA:O	65:N9:20:GLY:HA3	4.23	0.48
70:O4:57:LEU:HB3	70:O4:61:GLN:HB2	2.21	0.48
77:Q1:2:ARG:HB3	77:Q1:5:TRP:CD1	2.48	0.48
2:S0:14:ALA:O	2:S0:18:LEU:HG	2.13	0.48
2:S0:183:ARG:HA	2:S0:188:LEU:HB2	2.84	0.48
4:S2:41:LEU:HD23	4:S2:240:LEU:HD11	1.95	0.48
5:S3:94:ARG:NH2	35:SM:134:ASP:OD1	2.47	0.48
36:1:1307:G:H1'	36:1:1308:A:C8	2.48	0.48
36:1:1506:A:H1'	36:1:1848:G:O6	2.13	0.48
36:1:3334:U:H4'	36:1:3335:A:H5''	1.96	0.48
86:1:3973:OHX:N3	86:1:4159:OHX:N4	2.61	0.48
1:2:1105:C:N4	25:D3:4:GLY:HA2	2.28	0.48
1:2:1248:C:H2'	1:2:1249:U:C6	2.49	0.48
1:2:902:G:H8	1:2:902:G:O5'	1.97	0.48
38:4:85:G:H3'	38:4:85:G:H8	1.78	0.48
38:4:87:G:OP2	71:O5:5:LYS:NZ	2.46	0.48
36:5:2101:C:H2'	36:5:2102:U:C6	2.49	0.48
1:6:913:G:O6	36:5:2205:U:H1'	2.13	0.48
1:6:1173:C:H2'	1:6:1174:C:H6	1.78	0.48
12:C0:51:SER:OG	1:6:1219:A:N3	431.48	0.48
1:6:1788:G:H2'	1:6:1789:G:H5''	1.96	0.48
1:6:513:U:H2'	1:6:514:G:C8	2.48	0.48
1:6:542:A:H8	1:6:543:C:H5'	1.77	0.48
37:7:107:C:H2'	37:7:108:A:C8	2.48	0.48
42:L5:272:TYR:CZ	37:7:22:A:H1'	333.29	0.48
15:C3:47:PRO:HA	15:C3:50:ILE:HD12	1.95	0.48
18:C6:126:PRO:O	18:C6:128:LYS:HE3	2.13	0.48
21:C9:72:GLY:O	21:C9:76:LEU:HG	2.13	0.48
39:L2:146:THR:HG1	39:L2:160:SER:HG	2.59	0.48
40:L3:210:GLU:O	40:L3:213:GLU:HB2	2.50	0.48
40:L3:265:ALA:C	40:L3:266:ARG:HG2	2.34	0.48
40:L3:215:ILE:HG12	40:L3:280:HIS:O	2.14	0.48
40:L3:31:ALA:O	40:L3:339:ARG:NH1	2.37	0.48
41:L4:193:LYS:O	41:L4:193:LYS:HG2	2.24	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:22:LEU:HD22	41:L4:26:PHE:HB2	2.59	0.48
42:L5:234:ASP:OD2	42:L5:234:ASP:N	2.46	0.48
36:1:3261:C:OP1	50:M4:126:GLN:NE2	2.47	0.48
52:M6:35:VAL:HG11	52:M6:80:PHE:CE2	2.49	0.48
53:M7:108:ASP:HB3	53:M7:111:LYS:HD3	3.35	0.48
53:M7:30:ARG:HA	53:M7:119:VAL:CG1	2.81	0.48
41:L4:302:ALA:HB2	54:M8:39:ARG:HH12	2.49	0.48
41:L4:354:VAL:HG21	57:N1:143:THR:HG21	2.64	0.48
57:N1:142:SER:OG	57:N1:143:THR:N	2.47	0.48
36:1:1821:U:C2	70:O4:67:LYS:HB2	2.48	0.48
72:O6:97:SER:OG	72:O6:98:ARG:N	2.46	0.48
77:Q1:2:ARG:HD2	77:Q1:4:LYS:HB3	3.33	0.48
2:S0:54:TRP:O	2:S0:58:VAL:HG23	2.71	0.48
5:S3:106:LYS:HG2	5:S3:110:LEU:HD12	1.95	0.48
5:S3:64:ARG:HG2	5:S3:65:ARG:H	2.28	0.48
6:S4:180:LEU:HD12	6:S4:234:PRO:HB3	3.08	0.48
7:S5:40:ILE:HD13	7:S5:42:LEU:HD23	4.96	0.48
8:S6:213:ALA:O	8:S6:217:SER:OG	2.45	0.48
9:S7:69:GLY:HA2	9:S7:72:LYS:HB2	1.94	0.48
11:S9:118:LEU:HD23	11:S9:158:PHE:CE1	3.66	0.48
34:SR:159:ASN:ND2	34:SR:163:ASP:HA	2.28	0.48
36:1:1639:C:O2'	36:1:1640:G:H5'	2.13	0.48
36:1:2501:U:H4'	36:1:2502:A:OP1	2.13	0.48
36:1:3217:C:H2'	36:1:3217:C:O2	2.12	0.48
36:1:3227:A:H2'	36:1:3228:C:H5'	1.95	0.48
1:2:1000:C:H2'	1:2:1002:G:OP2	2.13	0.48
1:2:873:U:O2'	1:2:1047:G:OP1	2.31	0.48
1:2:1051:G:O2'	1:2:1052:U:P	2.71	0.48
1:2:1746:A:H2'	1:2:1747:G:O4'	2.13	0.48
38:4:104:A:C8	38:4:105:A:C8	3.02	0.48
38:4:78:G:H2'	38:4:79:A:C8	2.48	0.48
1:6:1017:U:H2'	1:6:1018:U:C6	2.48	0.48
24:D2:71:LYS:NZ	1:6:1099:U:H5''	373.54	0.48
1:6:1603:U:H2'	1:6:1604:U:C6	2.49	0.48
21:C9:61:VAL:HG11	21:C9:105:LEU:HD21	3.20	0.48
24:D2:10:ALA:HB1	24:D2:27:ILE:HD12	1.96	0.48
25:D3:10:ASN:C	25:D3:12:ALA:H	2.17	0.48
1:2:1076:A:O5'	28:D6:13:LYS:HB3	2.13	0.48
36:1:2943:G:N3	40:L3:254:ALA:HB2	2.29	0.48
40:L3:361:THR:HG23	40:L3:371:GLN:O	2.34	0.48
40:L3:3:HIS:O	40:L3:4:ARG:C	2.51	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:L4:98:ARG:HD2	41:L4:99:MET:O	3.49	0.48
42:L5:79:TYR:HB2	42:L5:81:HIS:CE1	2.49	0.48
43:L6:107:ALA:O	43:L6:109:GLU:HG3	3.79	0.48
44:L7:229:PHE:CD1	44:L7:229:PHE:C	3.06	0.48
45:L8:186:LEU:HB3	45:L8:195:SER:HB3	1.96	0.48
47:M0:73:ASN:O	47:M0:77:THR:HG23	2.13	0.48
48:M1:63:GLU:O	48:M1:64:LYS:HB2	2.14	0.48
48:M1:8:PRO:CG	48:M1:9:MET:H	3.24	0.48
52:M6:189:ASP:O	52:M6:193:GLN:HG3	2.67	0.48
59:N3:53:SER:N	59:N3:56:ASP:OD2	2.45	0.48
59:N3:93:LEU:HD23	59:N3:93:LEU:N	2.50	0.48
61:N5:105:VAL:HG11	61:N5:126:LEU:HD22	1.96	0.48
61:N5:53:HIS:ND1	61:N5:54:TYR:O	2.88	0.48
65:N9:58:LYS:O	65:N9:59:LYS:HE3	7.08	0.48
66:O0:54:SER:HA	66:O0:57:GLU:OE2	2.71	0.48
67:O1:13:THR:HG22	67:O1:72:ARG:CD	3.23	0.48
69:O3:45:LEU:HA	69:O3:71:VAL:HG12	1.94	0.48
69:O3:88:ASN:HB2	36:5:429:U:H5'	214.66	0.48
36:1:814:U:H5'	73:O7:45:ARG:NH1	2.28	0.48
74:O8:59:ALA:O	74:O8:62:ALA:HB3	2.41	0.48
79:Q3:36:ARG:HH12	36:5:1725:C:C5'	225.99	0.48
3:S1:93:GLY:C	3:S1:95:ASN:H	2.70	0.48
5:S3:5:ILE:CG2	5:S3:9:ARG:HB3	2.44	0.48
36:1:156:G:OP2	72:O6:25:LYS:HB3	2.13	0.48
36:1:2343:C:H2'	36:1:2344:U:H6	1.78	0.48
36:1:3383:G:H2'	36:1:3384:U:C6	2.48	0.48
36:1:508:U:O4	86:1:4175:OHX:N5	2.46	0.48
36:1:807:A:C2	36:1:808:A:C8	3.01	0.48
1:2:237:C:H5''	1:2:238:U:H5'	1.94	0.48
1:2:892:A:C6	1:2:893:U:C4	3.02	0.48
1:2:932:U:H4'	1:2:933:A:O4'	2.13	0.48
38:4:19:C:H2'	38:4:20:U:O4'	2.14	0.48
36:5:2279:A:H2'	36:5:2288:G:O6	2.13	0.48
36:5:3132:C:H2'	36:5:3133:C:C6	2.48	0.48
1:6:1467:C:H2'	1:6:1468:U:H6	1.78	0.48
1:6:1650:U:H2'	1:6:1651:A:C8	2.48	0.48
1:6:1766:A:H5''	86:6:2124:OHX:N3	2.29	0.48
1:6:333:A:C6	1:6:334:G:C6	3.02	0.48
1:6:831:U:O2'	1:6:832:U:H5'	2.14	0.48
42:L5:279:LYS:NZ	37:7:110:G:OP2	325.41	0.48
38:8:145:U:H2'	38:8:146:U:H6	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:107:ARG:NH2	16:C4:107:ARG:HB2	4.33	0.48
20:C8:142:GLY:O	20:C8:145:ARG:HD2	2.14	0.48
29:D7:63:LEU:O	29:D7:74:SER:N	2.45	0.48
39:L2:70:ARG:HG3	39:L2:71:LEU:N	3.71	0.48
40:L3:313:HIS:O	40:L3:333:LYS:HE3	3.53	0.48
42:L5:86:TYR:CE1	42:L5:247:ILE:HA	2.48	0.48
42:L5:263:GLU:O	42:L5:266:ALA:HB3	2.13	0.48
44:L7:137:GLY:HA3	44:L7:233:GLU:O	2.78	0.48
44:L7:80:GLN:HE21	57:N1:136:ARG:HB3	6.62	0.48
36:1:2528:G:O3'	45:L8:248:LYS:NZ	2.47	0.48
49:M3:89:TYR:CE1	49:M3:93:ILE:HG13	2.49	0.48
50:M4:77:ARG:O	50:M4:81:VAL:HG23	2.14	0.48
36:1:1186:G:N3	56:N0:112:ALA:HB1	2.29	0.48
56:N0:137:ARG:HD3	36:5:1213:G:OP1	324.59	0.48
57:N1:96:ILE:HA	57:N1:96:ILE:HD13	3.18	0.48
63:N7:99:GLU:HG3	63:N7:100:THR:N	2.59	0.48
1:2:2:A:O2'	4:S2:198:THR:O	2.30	0.48
4:S2:53:ILE:O	4:S2:56:ILE:N	2.47	0.48
6:S4:187:ARG:NH2	1:6:754:A:C8	373.97	0.48
7:S5:80:LYS:HG3	7:S5:83:ARG:NH1	3.42	0.48
1:2:323:A:OP2	10:S8:10:LYS:HA	2.13	0.48
36:1:1072:G:O2'	36:1:1073:U:H5'	2.14	0.48
36:1:2157:G:O6	39:L2:152:SER:HB3	2.14	0.48
36:1:2574:G:H2'	36:1:2575:G:H8	1.77	0.48
36:1:535:G:O6	86:1:4062:OHX:N3	2.47	0.48
36:1:625:G:H2'	36:1:626:U:O4'	2.13	0.48
36:1:655:C:H5''	68:O2:26:HIS:HB2	1.95	0.48
36:1:662:U:OP1	64:N8:8:THR:HG21	2.13	0.48
1:2:1178:G:H2'	1:2:1179:G:O4'	2.13	0.48
1:2:1347:U:O2	1:2:1516:A:H5'	2.13	0.48
1:2:851:U:H2'	1:2:852:C:C5	2.49	0.48
36:5:2774:C:C2	36:5:2787:G:C2	3.02	0.48
36:5:3106:A:H2'	36:5:3107:U:O4'	2.13	0.48
86:5:4013:OHX:N4	86:5:4202:OHX:N1	2.62	0.48
1:6:1271:G:H2'	1:6:1272:U:O4'	2.13	0.48
1:6:1402:G:C6	1:6:1403:C:C4	3.02	0.48
31:D9:24:CYS:HB2	1:6:1434:U:H4'	409.49	0.48
1:6:1765:A:OP2	86:6:2124:OHX:N4	2.47	0.48
86:6:2058:OHX:N5	86:6:2144:OHX:N3	2.62	0.48
1:6:648:G:N3	1:6:687:G:N2	2.61	0.48
38:8:90:U:O2	86:8:220:OHX:N2	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:C1:75:VAL:HG12	13:C1:119:VAL:HA	1.95	0.48
18:C6:41:PRO:HG2	18:C6:78:VAL:HG21	1.94	0.48
20:C8:82:PRO:HG3	21:C9:36:ILE:HD12	2.47	0.48
21:C9:11:ALA:O	21:C9:15:ILE:HG13	2.39	0.48
25:D3:56:LYS:HG2	25:D3:93:LEU:HD11	1.96	0.48
27:D5:58:ARG:HB3	27:D5:103:ARG:NH1	8.46	0.48
28:D6:87:ARG:HD2	1:6:1797:A:C6	343.55	0.48
29:D7:50:ALA:O	29:D7:52:THR:N	2.44	0.48
30:D8:13:ILE:HB	30:D8:29:ARG:HG2	3.91	0.48
39:L2:44:ILE:HG23	39:L2:87:PHE:CD1	2.48	0.48
40:L3:150:ARG:HG2	40:L3:150:ARG:HH11	1.79	0.48
41:L4:337:GLU:O	41:L4:339:LEU:HD23	2.14	0.48
42:L5:269:SER:HB2	37:7:1:G:H21	316.64	0.48
45:L8:79:GLN:O	45:L8:81:THR:HG22	2.14	0.48
46:L9:117:PHE:CE2	46:L9:118:LEU:HD12	2.48	0.48
47:M0:68:ALA:HB2	47:M0:158:LYS:HB2	1.95	0.48
49:M3:8:PRO:HD3	54:M8:164:ARG:HB3	2.73	0.48
57:N1:38:ASP:O	57:N1:64:VAL:HG23	2.13	0.48
60:N4:9:SER:HA	60:N4:52:THR:HG22	1.96	0.48
61:N5:57:LEU:HD22	61:N5:62:VAL:HG22	3.62	0.48
2:S0:17:LEU:HD23	2:S0:172:LEU:HD13	1.96	0.48
3:S1:229:MET:O	3:S1:232:HIS:N	3.40	0.48
5:S3:125:TYR:O	5:S3:129:SER:OG	3.11	0.48
6:S4:36:HIS:CG	6:S4:85:GLY:HA3	2.48	0.48
8:S6:58:LYS:HE3	8:S6:105:ASP:C	2.34	0.48
9:S7:130:VAL:HG11	9:S7:154:LEU:HD21	3.37	0.48
10:S8:188:GLU:HG2	10:S8:192:TYR:HE2	1.79	0.48
34:SR:16:HIS:CE1	34:SR:43:ILE:HG12	2.48	0.48
36:1:2193:U:H5'	36:1:2194:G:H5'	1.95	0.48
36:1:650:C:H2'	36:1:651:G:C8	2.48	0.48
1:2:1081:A:H5''	1:2:1082:C:OP1	2.14	0.48
1:2:1165:G:C6	1:2:1166:A:C6	3.01	0.48
1:2:393:C:H2'	1:2:394:C:C6	2.49	0.48
1:2:579:A:H2	5:S3:143:ARG:HG3	1.79	0.48
1:2:711:U:H1'	1:2:712:G:H5'	1.95	0.48
36:5:1155:C:H2'	36:5:1156:C:C6	2.49	0.48
36:5:1348:U:C6	36:5:1355:A:C5	3.02	0.48
36:5:1565:G:N2	36:5:1566:A:H1'	2.29	0.48
36:5:279:U:H2'	36:5:280:U:H6	1.77	0.48
36:5:1090:G:O6	86:5:4192:OHX:N5	2.47	0.48
36:5:707:U:H1'	36:5:754:G:O2'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:M8:93:ILE:HG23	36:5:784:A:C6	151.12	0.48
41:L4:64:SER:HB2	36:5:806:A:OP1	154.83	0.48
36:5:929:A:H2'	36:5:930:U:C6	2.49	0.48
1:6:1524:A:H2'	1:6:1525:A:C8	2.49	0.48
86:6:2118:OHX:N2	86:6:2168:OHX:N5	2.62	0.48
37:7:106:U:H2'	37:7:107:C:O4'	2.14	0.48
38:8:27:U:H6	38:8:27:U:O5'	1.97	0.48
14:C2:71:ILE:O	14:C2:75:VAL:HG23	2.14	0.48
16:C4:17:ALA:O	16:C4:81:VAL:HA	5.19	0.48
1:2:1539:G:O4'	20:C8:40:ARG:NH1	2.46	0.48
21:C9:27:LYS:HB3	21:C9:111:ILE:HD11	1.96	0.48
26:D4:49:LYS:HD2	26:D4:49:LYS:N	2.28	0.48
7:S5:158:GLN:HG2	30:D8:66:LEU:HD21	1.96	0.48
39:L2:57:PRO:HG2	39:L2:78:ALA:HB3	2.83	0.48
40:L3:57:VAL:HG23	40:L3:358:TRP:HE3	1.78	0.48
36:1:1382:G:OP2	41:L4:188:ARG:NH1	2.46	0.48
44:L7:125:GLU:OE1	44:L7:128:LYS:HE2	2.13	0.48
48:M1:103:GLY:HA3	48:M1:128:TYR:CD2	2.49	0.48
52:M6:56:ASP:O	52:M6:59:ARG:HG2	2.22	0.48
46:L9:1:MET:SD	56:N0:138:GLN:HG2	2.53	0.48
56:N0:84:ARG:HG3	36:5:1295:G:OP1	294.17	0.48
62:N6:11:ASP:HB3	62:N6:14:LYS:HG3	2.24	0.48
71:O5:7:TYR:CE1	71:O5:8:GLU:HG3	2.69	0.48
73:O7:48:ASN:HA	73:O7:54:LYS:HZ2	1.87	0.48
74:O8:77:ARG:O	74:O8:78:LEU:HB2	2.14	0.48
3:S1:126:THR:CG2	3:S1:136:ARG:HE	2.47	0.48
3:S1:129:THR:OG1	3:S1:131:ASP:OD1	5.78	0.48
7:S5:136:ALA:HA	7:S5:201:ALA:O	2.14	0.48
9:S7:21:ALA:O	9:S7:25:VAL:HG23	2.33	0.48
9:S7:35:LYS:O	9:S7:37:GLU:HG2	2.14	0.48
11:S9:129:ILE:HA	11:S9:134:ILE:CG1	4.18	0.48
11:S9:167:ALA:O	11:S9:168:ARG:HB2	2.14	0.48
11:S9:81:VAL:O	11:S9:150:LEU:HD22	2.24	0.48
34:SR:127:ARG:HG2	34:SR:150:TRP:CD1	2.48	0.48
34:SR:276:PRO:HB2	34:SR:278:PHE:CE1	4.39	0.48
34:SR:21:THR:O	34:SR:291:SER:HB3	2.14	0.48
36:1:1888:U:OP1	40:L3:247:ARG:HD3	2.14	0.48
36:1:1927:G:OP2	79:Q3:6:LYS:N	2.24	0.48
36:1:2210:G:N2	36:1:2235:C:O2	2.30	0.48
36:1:2944:U:H1'	40:L3:251:CYS:SG	2.54	0.48
36:1:2947:G:N3	40:L3:250:ALA:HB1	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:532:A:H2	36:1:560:G:H22	1.60	0.48
36:1:735:A:H2'	36:1:736:A:H8	1.76	0.48
1:2:1164:G:H2'	1:2:1165:G:C8	2.49	0.48
1:2:1572:G:H1'	7:S5:185:ARG:NH2	2.22	0.48
86:2:2089:OHX:N1	86:2:2131:OHX:N4	2.62	0.48
1:2:256:A:H2'	1:2:257:A:O4'	2.14	0.48
1:2:619:A:H5'	1:2:620:A:OP2	2.13	0.48
38:4:143:U:H2'	38:4:144:G:O4'	2.13	0.48
36:5:1863:G:N1	36:5:1866:C:OP2	2.35	0.48
36:5:2112:U:O2	86:5:3978:OHX:N1	2.47	0.48
36:5:2133:U:OP1	36:5:2322:C:O2'	2.32	0.48
36:5:3219:G:H4'	36:5:3220:G:H5'	1.95	0.48
36:5:1861:G:OP2	86:5:3997:OHX:N2	2.46	0.48
36:5:909:G:O2'	86:5:4080:OHX:N2	2.47	0.48
64:N8:59:ARG:NH1	36:5:90:C:OP1	151.69	0.48
1:6:152:U:O2	1:6:163:G:N2	2.46	0.48
1:6:315:A:C6	1:6:350:U:C5	3.02	0.48
1:6:546:U:H2'	1:6:547:U:H6	1.76	0.48
1:6:848:C:H2'	1:6:849:C:C6	2.48	0.48
38:8:157:U:O2'	38:8:158:U:H5'	2.13	0.48
75:O9:15:LYS:HD3	38:8:46:G:OP2	91.28	0.48
12:C0:56:LYS:N	12:C0:67:THR:O	3.01	0.48
15:C3:132:VAL:HG23	15:C3:134:VAL:CG1	2.59	0.48
16:C4:129:LYS:HB2	1:6:990:C:H5''	281.46	0.48
21:C9:57:ARG:HG3	21:C9:57:ARG:NH1	2.29	0.48
25:D3:103:LEU:HB2	25:D3:126:LYS:HB2	2.80	0.48
41:L4:146:PRO:O	86:L4:403:OHX:N5	2.47	0.48
41:L4:234:ASN:OD1	41:L4:236:LEU:N	2.46	0.48
42:L5:286:VAL:O	42:L5:290:ILE:HG12	2.14	0.48
43:L6:97:ASN:O	43:L6:99:GLU:HG3	2.68	0.48
45:L8:140:VAL:O	45:L8:144:GLU:HG3	2.14	0.48
47:M0:210:ILE:HG23	47:M0:217:PHE:CE2	2.49	0.48
49:M3:177:LYS:HG3	72:O6:11:LEU:HD13	1.94	0.48
55:M9:28:GLU:HG3	55:M9:49:THR:HB	5.39	0.48
57:N1:104:GLU:HG2	36:5:989:A:O2'	257.46	0.48
58:N2:22:PRO:HB2	58:N2:28:PHE:HB2	2.83	0.48
61:N5:63:ILE:HD11	61:N5:84:PHE:CD1	2.49	0.48
63:N7:3:LYS:O	63:N7:6:LYS:HG3	2.13	0.48
64:N8:92:LYS:O	64:N8:93:SER:OG	2.27	0.48
1:2:579:A:C8	5:S3:178:ARG:HD2	2.49	0.48
6:S4:159:THR:HG22	6:S4:227:VAL:HB	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:87:MET:O	6:S4:122:LYS:HE3	2.14	0.48
8:S6:214:LYS:HB3	8:S6:218:GLU:OE1	5.24	0.48
10:S8:83:TYR:O	10:S8:101:ILE:HB	2.92	0.48
36:1:1642:A:O2'	36:1:1643:A:C8	2.67	0.47
1:2:1657:U:C5	36:1:2125:A:O3'	2.65	0.47
36:1:2294:U:O2	36:1:2296:A:H8	1.97	0.47
36:1:2771:U:O2'	36:1:2772:C:O5'	2.32	0.47
36:1:3087:A:H5''	40:L3:365:PHE:CE1	2.48	0.47
1:2:131:C:O2'	1:2:132:U:OP1	2.28	0.47
1:2:1351:G:C2	1:2:1375:A:C2	3.02	0.47
36:5:1015:U:O3'	36:5:1016:C:H2'	2.14	0.47
36:5:1913:A:N3	36:5:2120:A:H2'	2.29	0.47
36:5:2542:U:O2'	36:5:2543:U:H3'	2.13	0.47
36:5:2310:U:OP1	86:5:4200:OHX:N2	2.47	0.47
36:5:528:U:H2'	36:5:529:A:C8	2.49	0.47
36:5:594:U:H2'	36:5:609:G:O6	2.14	0.47
36:5:92:G:H5''	36:5:94:G:N7	2.29	0.47
1:6:1054:U:H2'	1:6:1055:U:C6	2.49	0.47
1:6:1621:U:H2'	1:6:1622:G:H8	1.78	0.47
15:C3:85:PRO:HG2	15:C3:129:TYR:CE2	2.74	0.47
19:C7:45:ARG:HG3	1:6:1389:C:OP2	421.57	0.47
21:C9:16:ASN:HA	21:C9:56:LYS:HZ2	2.76	0.47
24:D2:26:LEU:HD21	24:D2:60:LYS:HB3	1.96	0.47
24:D2:34:ILE:O	24:D2:38:LEU:HG	2.62	0.47
25:D3:43:PHE:CE1	25:D3:49:ALA:HB3	2.51	0.47
39:L2:4:VAL:HG12	39:L2:8:GLN:HG3	1.96	0.47
36:1:1159:A:H5'	44:L7:92:ILE:HG22	1.96	0.47
49:M3:105:ASN:CG	49:M3:108:ILE:HG12	3.14	0.47
45:L8:72:PRO:HG3	51:M5:18:VAL:HA	1.94	0.47
51:M5:85:THR:HG22	78:Q2:50:PHE:O	2.14	0.47
52:M6:57:PHE:CE2	52:M6:72:HIS:HD2	2.32	0.47
54:M8:130:ARG:O	54:M8:132:PRO:HD3	3.11	0.47
55:M9:70:LYS:O	55:M9:73:GLY:N	2.41	0.47
55:M9:7:GLN:HE21	55:M9:35:ALA:HB3	3.58	0.47
56:N0:146:LYS:HG3	56:N0:147:ASP:N	2.56	0.47
57:N1:12:ARG:O	57:N1:16:GLN:HG3	3.29	0.47
58:N2:41:ILE:HD13	58:N2:71:PHE:CE2	3.47	0.47
62:N6:57:LEU:HD13	62:N6:59:VAL:HG12	5.61	0.47
63:N7:10:VAL:O	63:N7:83:THR:HB	2.46	0.47
64:N8:116:GLY:HA2	64:N8:137:LYS:NZ	2.28	0.47
65:N9:32:LEU:O	65:N9:35:VAL:HB	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:O0:13:LYS:NZ	66:O0:99:ASP:OD2	2.47	0.47
67:O1:33:VAL:HG13	67:O1:51:LEU:HD12	2.44	0.47
38:4:75:G:C8	75:O9:30:ARG:HG2	2.49	0.47
78:Q2:72:LEU:HD11	78:Q2:83:LEU:HB2	1.96	0.47
4:S2:185:LYS:O	4:S2:189:GLN:HG3	2.14	0.47
7:S5:105:GLY:O	1:6:1609:U:O2'	375.60	0.47
7:S5:69:PHE:CE2	18:C6:53:LEU:HD12	2.48	0.47
9:S7:20:VAL:HG22	9:S7:85:PHE:CE1	2.49	0.47
9:S7:89:HIS:CE1	9:S7:165:LYS:HA	2.51	0.47
36:1:1949:G:H2'	36:1:1950:U:C6	2.48	0.47
36:1:361:A:O3'	73:O7:45:ARG:NH2	2.46	0.47
86:1:4034:OHX:N4	86:1:4047:OHX:N3	2.61	0.47
1:2:1281:G:H2'	1:2:1282:U:C6	2.46	0.47
1:2:1339:C:H6	1:2:1339:C:H5''	1.80	0.47
1:2:238:U:O2'	1:2:239:C:H5'	2.14	0.47
36:5:951:A:H5''	36:5:1143:A:N1	2.29	0.47
36:5:1302:A:OP1	86:5:4092:OHX:N3	2.47	0.47
36:5:2287:C:C5	36:5:2298:U:C2	3.01	0.47
73:O7:55:ARG:NH1	36:5:353:G:O6	112.65	0.47
41:L4:60:THR:HG23	36:5:364:G:OP1	128.49	0.47
36:5:3078:U:O2'	86:5:4197:OHX:N1	2.47	0.47
36:5:1543:G:O6	86:5:4203:OHX:N1	2.47	0.47
36:5:597:G:H2'	36:5:598:A:H8	1.79	0.47
64:N8:27:LYS:NZ	36:5:801:A:OP1	153.99	0.47
31:D9:14:TYR:OH	1:6:1553:G:O2'	401.85	0.47
1:6:1691:A:H2'	1:6:1692:G:C8	2.49	0.47
86:6:2058:OHX:N1	86:6:2144:OHX:N3	2.62	0.47
1:6:325:G:C2	1:6:344:A:C2	3.02	0.47
1:6:453:U:O2	1:6:453:U:H3'	2.14	0.47
9:S7:118:LEU:HB2	1:6:639:U:O2	369.22	0.47
1:6:862:A:C2	1:6:963:A:C4	3.03	0.47
13:C1:46:LYS:HA	13:C1:46:LYS:HD2	2.80	0.47
1:2:1132:A:OP1	25:D3:30:LYS:HE2	2.13	0.47
26:D4:59:GLY:O	26:D4:60:PHE:HB2	2.14	0.47
33:E1:135:HIS:HB2	33:E1:138:ARG:CB	2.44	0.47
39:L2:30:ARG:O	39:L2:163:ARG:NH2	3.06	0.47
40:L3:320:ASP:N	40:L3:320:ASP:OD2	2.37	0.47
41:L4:361:HIS:CG	41:L4:362:ASP:H	2.32	0.47
41:L4:99:MET:HE1	41:L4:103:THR:HG23	1.95	0.47
44:L7:130:ILE:O	44:L7:134:VAL:HG22	2.15	0.47
45:L8:180:VAL:HG11	45:L8:186:LEU:HD21	2.85	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:67:ILE:HG23	45:L8:237:ILE:HD12	1.97	0.47
48:M1:137:ARG:HG2	48:M1:141:ARG:HB3	1.95	0.47
55:M9:121:HIS:HE1	36:5:1719:G:N7	239.89	0.47
57:N1:130:ARG:O	36:5:1098:A:O2'	256.11	0.47
57:N1:95:HIS:O	57:N1:96:ILE:HD12	2.14	0.47
61:N5:137:ASN:HB3	61:N5:142:ILE:HG12	1.96	0.47
62:N6:27:ARG:NH1	62:N6:76:LEU:O	2.47	0.47
68:O2:35:GLN:HB3	68:O2:43:ARG:HB2	2.89	0.47
2:S0:157:ASP:OD2	23:D1:65:SER:OG	2.23	0.47
5:S3:172:THR:HA	5:S3:184:ILE:O	2.15	0.47
6:S4:126:VAL:HG22	6:S4:156:VAL:HA	1.96	0.47
7:S5:205:SER:O	7:S5:205:SER:OG	2.31	0.47
10:S8:96:LEU:HD13	10:S8:179:CYS:SG	2.55	0.47
34:SR:218:GLY:HA2	34:SR:238:ASP:O	2.13	0.47
34:SR:248:ASN:N	34:SR:248:ASN:OD1	2.47	0.47
34:SR:84:SER:OG	34:SR:85:TRP:N	2.67	0.47
36:1:1233:G:H22	36:1:1255:C:N4	2.10	0.47
36:1:1485:G:N2	70:O4:4:ARG:HD2	2.29	0.47
36:1:1565:G:H1'	36:1:1575:A:H2	1.80	0.47
36:1:1577:G:H2'	36:1:1578:C:C1'	2.44	0.47
36:1:2869:U:O2'	36:1:2873:U:OP1	2.27	0.47
36:1:3051:U:OP1	60:N4:17:ARG:HD3	2.14	0.47
36:1:352:A:H61	36:1:365:A:H5''	1.79	0.47
36:1:402:A:C6	53:M7:21:TYR:CE2	3.03	0.47
1:2:1594:G:OP2	1:2:1596:C:N4	2.47	0.47
1:2:1769:U:OP2	87:2:2180:EDE:H13	2.14	0.47
1:2:365:G:C2	1:2:366:A:C8	3.02	0.47
1:2:549:G:H1	1:2:589:C:N4	2.12	0.47
1:2:992:A:C2	1:2:1012:U:N3	2.72	0.47
36:5:2882:U:H2'	36:5:2883:U:C6	2.49	0.47
40:L3:2:SER:N	36:5:2943:G:N7	235.90	0.47
36:5:3017:A:H2'	36:5:3018:C:C6	2.49	0.47
36:5:3065:G:O6	86:5:4107:OHX:N6	2.47	0.47
36:5:436:A:H61	36:5:623:U:H3	1.61	0.47
36:5:871:U:H2'	36:5:872:U:C6	2.49	0.47
1:6:1334:U:H2'	1:6:1335:U:O4'	2.14	0.47
1:6:1339:C:O2'	1:6:1341:A:N7	2.43	0.47
12:C0:72:GLY:O	12:C0:75:TYR:N	2.47	0.47
14:C2:131:ASP:OD1	14:C2:132:GLU:HG2	2.14	0.47
16:C4:45:GLY:HA3	16:C4:54:GLU:HG2	2.45	0.47
1:2:1410:A:H5''	18:C6:118:ILE:HD13	1.94	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:16:ASN:HA	21:C9:56:LYS:NZ	3.19	0.47
24:D2:25:VAL:HG22	24:D2:65:LEU:HD21	3.94	0.47
26:D4:3:ASP:C	26:D4:5:VAL:H	2.18	0.47
26:D4:87:PRO:HG2	26:D4:90:ARG:CZ	2.44	0.47
31:D9:10:HIS:CG	31:D9:11:PRO:HD2	2.49	0.47
32:E0:13:LYS:HE3	32:E0:17:GLN:NE2	6.02	0.47
36:1:2242:A:H5'	39:L2:243:THR:HG23	1.96	0.47
41:L4:193:LYS:HE3	41:L4:193:LYS:HB3	1.93	0.47
41:L4:333:VAL:HG23	41:L4:337:GLU:HG3	3.49	0.47
42:L5:111:GLN:CA	42:L5:116:ASP:HB3	4.20	0.47
45:L8:126:SER:O	36:5:120:G:N2	93.38	0.47
46:L9:166:ARG:NH2	46:L9:168:ARG:HH22	9.46	0.47
46:L9:49:ASN:O	46:L9:52:LEU:N	2.26	0.47
46:L9:61:GLY:O	46:L9:65:VAL:HG23	2.14	0.47
48:M1:101:ASN:HB3	48:M1:130:VAL:HA	1.96	0.47
48:M1:150:ASN:C	48:M1:152:HIS:H	2.17	0.47
48:M1:49:LYS:HA	48:M1:64:LYS:H	1.78	0.47
53:M7:51:VAL:HG22	53:M7:57:ALA:HA	3.12	0.47
58:N2:20:SER:O	58:N2:23:THR:N	2.48	0.47
58:N2:36:TYR:CD2	58:N2:83:TYR:HB2	3.07	0.47
59:N3:18:PRO:HA	59:N3:51:ALA:HA	2.07	0.47
61:N5:67:ILE:HD11	61:N5:85:GLN:HB2	2.95	0.47
62:N6:95:VAL:HA	62:N6:96:PRO:HD3	1.74	0.47
68:O2:74:PHE:HB3	68:O2:85:LEU:HD11	2.49	0.47
69:O3:90:PRO:O	69:O3:91:ALA:HB3	2.13	0.47
75:O9:23:LEU:HD23	75:O9:24:PRO:HD2	3.75	0.47
2:S0:9:LEU:HD11	2:S0:14:ALA:HB2	1.96	0.47
3:S1:114:VAL:HG11	1:6:930:A:H2'	309.71	0.47
3:S1:35:PRO:HG3	3:S1:98:THR:O	2.13	0.47
3:S1:34:ALA:HB3	3:S1:41:ARG:HA	1.94	0.47
4:S2:141:ARG:H	4:S2:141:ARG:HG2	2.40	0.47
4:S2:170:ILE:O	4:S2:196:VAL:HG23	2.51	0.47
2:S0:119:ARG:NE	4:S2:240:LEU:HD23	2.96	0.47
7:S5:41:LYS:HB3	7:S5:41:LYS:HE2	2.81	0.47
1:2:512:A:OP2	11:S9:172:VAL:HG13	2.14	0.47
11:S9:5:PRO:HA	1:6:380:U:H3	371.58	0.47
34:SR:127:ARG:HG2	34:SR:150:TRP:NE1	2.29	0.47
36:1:1478:C:H2'	36:1:1479:U:C6	2.49	0.47
36:1:2407:C:H1'	36:1:2818:U:O2	2.15	0.47
86:1:3973:OHX:N5	86:1:4159:OHX:N2	2.62	0.47
36:1:3103:A:OP2	86:1:4170:OHX:N1	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:598:A:OP1	44:L7:41:ARG:NH1	2.47	0.47
1:2:1573:A:H8	1:2:1573:A:O5'	1.98	0.47
1:2:653:C:H2'	1:2:654:C:O4'	2.15	0.47
1:2:802:G:C6	1:2:803:A:C2	3.02	0.47
1:2:886:U:H2'	1:2:887:A:O4'	2.14	0.47
36:5:1152:G:H22	36:5:1200:A:H61	1.61	0.47
36:5:1307:G:C2	36:5:1308:A:C2	3.02	0.47
36:5:1434:G:OP1	36:5:1437:C:N4	2.47	0.47
36:5:2257:C:H6	36:5:2257:C:O5'	1.97	0.47
36:5:2775:U:H2'	36:5:2776:C:C6	2.50	0.47
36:5:3316:A:H5''	36:5:3318:G:N2	2.29	0.47
36:5:58:G:N2	36:5:60:A:N3	2.62	0.47
19:C7:2:GLY:N	1:6:1312:A:OP1	390.32	0.47
1:6:16:G:H2'	1:6:17:C:C6	2.49	0.47
86:6:2058:OHX:N2	86:6:2144:OHX:N6	2.62	0.47
15:C3:127:ARG:NH2	1:6:629:U:OP1	307.57	0.47
42:L5:285:ARG:NH1	37:7:62:U:O3'	340.50	0.47
14:C2:132:GLU:O	14:C2:136:ILE:HG12	2.15	0.47
14:C2:50:LYS:HG3	33:E1:129:GLY:HA2	3.33	0.47
15:C3:142:GLU:HG3	15:C3:145:THR:HG23	1.96	0.47
15:C3:24:ALA:O	15:C3:27:LYS:HE2	6.57	0.47
18:C6:93:HIS:HA	18:C6:97:VAL:HG23	2.37	0.47
20:C8:14:ILE:HA	20:C8:22:VAL:O	2.14	0.47
25:D3:96:VAL:HG23	25:D3:97:ASP:N	2.29	0.47
28:D6:6:ALA:C	28:D6:8:ASN:H	2.18	0.47
11:S9:36:LEU:O	32:E0:33:ARG:HG3	2.14	0.47
39:L2:181:LYS:HE3	39:L2:184:ARG:HE	1.80	0.47
39:L2:183:GLY:O	39:L2:186:PHE:HB3	2.15	0.47
39:L2:71:LEU:HD22	36:5:1651:U:H5''	188.01	0.47
40:L3:151:ILE:O	40:L3:155:ALA:HB3	2.33	0.47
44:L7:151:ARG:HD2	44:L7:244:ASN:OD1	4.40	0.47
44:L7:59:GLU:HG2	44:L7:63:ILE:HD11	1.95	0.47
51:M5:172:ARG:HB3	51:M5:174:ILE:HG13	1.95	0.47
36:1:289:A:H5'	51:M5:95:GLN:O	2.14	0.47
53:M7:85:ALA:O	53:M7:89:LYS:HB2	2.93	0.47
54:M8:135:GLN:CD	54:M8:135:GLN:H	2.34	0.47
55:M9:110:ARG:HA	55:M9:115:ILE:HG22	1.96	0.47
57:N1:102:ARG:O	57:N1:106:LEU:HD22	2.14	0.47
64:N8:147:LEU:HD12	72:O6:7:ILE:HD11	6.04	0.47
66:O0:74:ASN:OD1	66:O0:74:ASN:N	2.86	0.47
3:S1:144:ARG:HB3	3:S1:208:GLN:HG2	2.76	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:90:THR:HB	4:S2:93:GLY:O	2.14	0.47
9:S7:184:GLU:HG2	9:S7:185:ILE:H	3.92	0.47
1:2:856:A:H1'	9:S7:64:VAL:HG11	1.96	0.47
10:S8:138:ASN:HA	10:S8:141:ARG:HD2	2.91	0.47
36:1:1414:G:N7	86:1:4124:OHX:N2	2.62	0.47
36:1:2225:U:H2'	36:1:2226:U:H6	1.78	0.47
36:1:2535:A:H3'	36:1:2536:A:C8	2.49	0.47
36:1:2712:U:H2'	36:1:2713:U:C6	2.49	0.47
36:1:812:G:N7	86:1:3985:OHX:N1	2.61	0.47
36:1:787:G:H2'	36:1:788:C:C6	2.49	0.47
1:2:108:A:H2'	1:2:109:G:C8	2.49	0.47
1:2:11:A:N3	1:2:1300:A:O2'	2.40	0.47
1:2:16:G:O6	4:S2:203:LYS:HE2	2.15	0.47
1:2:1150:G:N2	87:2:2180:EDE:O49	2.47	0.47
38:4:70:G:H8	38:4:70:G:OP2	1.97	0.47
42:L5:15:ARG:CZ	36:5:1003:A:H1'	289.73	0.47
36:5:1940:G:H2'	36:5:1941:C:O4'	2.15	0.47
36:5:3000:A:H2'	36:5:3001:C:C6	2.49	0.47
36:5:2960:C:OP1	86:5:3974:OHX:N5	2.47	0.47
86:5:3975:OHX:N1	86:5:4245:OHX:N2	2.61	0.47
36:5:2787:G:OP2	86:5:4036:OHX:N6	2.47	0.47
36:5:945:C:H2'	36:5:946:U:H6	1.80	0.47
1:6:1214:U:OP1	1:6:1246:C:O2'	2.15	0.47
28:D6:79:ILE:HD12	1:6:1794:A:H1'	330.01	0.47
1:6:485:A:C5	1:6:486:G:H1'	2.49	0.47
25:D3:65:ASN:ND2	1:6:574:G:O6	363.59	0.47
35:SM:25:ILE:HG12	37:7:39:C:H5'	290.45	0.47
13:C1:123:VAL:HG22	13:C1:142:VAL:HG22	4.01	0.47
1:2:1228:G:OP1	14:C2:119:SER:HB3	2.14	0.47
14:C2:57:ALA:O	14:C2:85:LYS:HE3	3.58	0.47
16:C4:84:ARG:HG2	16:C4:85:ALA:O	2.39	0.47
17:C5:68:PRO:O	86:C5:201:OHX:N1	6.74	0.47
1:2:1584:G:C8	18:C6:122:ARG:HB3	2.50	0.47
18:C6:52:LEU:HA	18:C6:60:PHE:HE1	2.49	0.47
2:S0:50:VAL:H	19:C7:109:LEU:HD21	2.20	0.47
23:D1:71:ARG:O	23:D1:75:ASN:HB2	4.19	0.47
25:D3:37:ALA:O	25:D3:41:SER:HB3	3.08	0.47
28:D6:44:ILE:CD1	28:D6:44:ILE:H	2.21	0.47
33:E1:144:CYS:HB3	33:E1:147:VAL:HG12	2.74	0.47
40:L3:111:SER:O	40:L3:114:VAL:HG23	2.22	0.47
40:L3:252:ILE:HG12	40:L3:266:ARG:HH21	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:660:A:H5''	41:L4:100:PHE:CD1	2.49	0.47
41:L4:74:ILE:HG21	41:L4:94:CYS:SG	2.54	0.47
43:L6:64:LEU:O	43:L6:65:ILE:HD13	5.04	0.47
46:L9:103:ILE:HG13	46:L9:136:PHE:CE2	2.48	0.47
47:M0:52:LEU:HA	47:M0:52:LEU:HD23	1.70	0.47
53:M7:51:VAL:HA	53:M7:56:ARG:O	2.14	0.47
53:M7:32:THR:HG21	53:M7:87:SER:CB	2.41	0.47
54:M8:57:ILE:HG22	54:M8:58:ASN:OD1	2.14	0.47
55:M9:7:GLN:N	55:M9:7:GLN:OE1	2.47	0.47
49:M3:64:LYS:HG3	64:N8:69:TRP:CD1	2.50	0.47
67:O1:16:LEU:HD12	67:O1:16:LEU:HA	1.64	0.47
36:1:1368:U:H5'	68:O2:43:ARG:NH1	2.29	0.47
69:O3:35:VAL:HG13	69:O3:40:ASP:HB3	1.97	0.47
69:O3:57:LYS:HB3	69:O3:57:LYS:HE2	3.43	0.47
69:O3:59:VAL:HG23	69:O3:60:ARG:N	2.97	0.47
3:S1:145:LYS:HG3	3:S1:149:GLN:NE2	5.99	0.47
5:S3:115:ILE:H	5:S3:115:ILE:HG13	4.08	0.47
5:S3:194:LYS:O	5:S3:196:ARG:N	2.48	0.47
7:S5:76:ARG:HG3	7:S5:79:ASN:HD21	1.80	0.47
34:SR:300:THR:HG23	34:SR:314:GLN:HG3	1.97	0.47
36:1:1565:G:N2	36:1:1574:C:N3	2.62	0.47
36:1:2601:A:H2'	36:1:2602:G:H8	1.79	0.47
36:1:2767:U:H2'	36:1:2768:U:C6	2.49	0.47
36:1:3355:U:H3'	36:1:3356:G:H5''	1.97	0.47
37:3:79:A:C2	37:3:102:A:C4	3.02	0.47
36:5:1013:G:H2'	36:5:1014:U:O4'	2.14	0.47
42:L5:46:THR:HG21	36:5:1078:U:H4'	237.28	0.47
36:5:1240:A:H2'	36:5:1241:U:H5'	1.96	0.47
36:5:1396:C:H2'	36:5:1397:C:H6	1.79	0.47
36:5:2207:A:H2'	36:5:2208:A:O4'	2.15	0.47
36:5:644:G:H2'	36:5:2372:A:N7	2.29	0.47
36:5:304:G:N3	36:5:304:G:H5'	2.29	0.47
36:5:3218:A:H4'	36:5:3219:G:O5'	2.15	0.47
36:5:35:A:H2'	36:5:36:C:H6	1.80	0.47
36:5:2973:G:N7	86:5:4118:OHX:N1	2.62	0.47
1:6:1620:C:H2'	1:6:1621:U:C6	2.50	0.47
1:6:1695:G:H21	1:6:1706:C:N4	2.00	0.47
1:6:784:C:H2'	1:6:785:U:H6	1.79	0.47
1:6:975:C:H2'	1:6:976:G:O4'	2.14	0.47
17:C5:75:PRO:HG3	17:C5:93:VAL:HG11	2.78	0.47
18:C6:120:ASP:OD1	18:C6:121:SER:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:84:TRP:HA	20:C8:89:GLN:HE22	2.15	0.47
21:C9:39:THR:OG1	21:C9:43:ASN:ND2	2.46	0.47
36:1:911:C:N4	39:L2:3:ARG:HD3	2.29	0.47
40:L3:215:ILE:HD13	40:L3:282:ILE:HD11	2.04	0.47
42:L5:282:ARG:O	42:L5:285:ARG:HB2	2.77	0.47
37:3:27:A:P	42:L5:57:ASN:H	2.38	0.47
44:L7:223:PHE:HA	44:L7:227:GLY:O	2.15	0.47
45:L8:195:SER:O	45:L8:196:ALA:HB3	2.15	0.47
46:L9:159:ALA:O	46:L9:163:GLN:HB2	2.58	0.47
52:M6:23:VAL:CG1	52:M6:84:LEU:HD11	2.91	0.47
56:N0:155:ARG:NH2	56:N0:171:PHE:O	2.46	0.47
56:N0:13:ARG:HG2	56:N0:51:VAL:CG1	2.45	0.47
68:O2:15:LYS:HE3	68:O2:15:LYS:HB3	3.82	0.47
72:O6:59:ASP:O	72:O6:63:ASN:ND2	4.21	0.47
74:O8:12:LEU:HA	74:O8:12:LEU:HD13	3.49	0.47
79:Q3:17:ARG:O	79:Q3:23:ARG:HD3	3.74	0.47
2:S0:71:GLU:HA	2:S0:95:ALA:H	1.80	0.47
4:S2:133:LYS:HA	4:S2:136:VAL:HG23	2.67	0.47
2:S0:108:THR:HA	4:S2:64:LYS:HE3	1.95	0.47
5:S3:57:ASP:O	5:S3:65:ARG:HG2	4.71	0.47
7:S5:33:VAL:HG13	7:S5:37:GLN:OE1	2.72	0.47
8:S6:158:ILE:HA	8:S6:158:ILE:HD12	1.60	0.47
8:S6:56:ASN:ND2	8:S6:60:GLY:O	2.46	0.47
10:S8:8:ARG:NH2	10:S8:28:GLU:OE1	9.09	0.47
36:1:1135:A:OP1	65:N9:6:ASN:HB2	2.15	0.47
36:1:1340:G:H2'	36:1:1341:U:H6	1.79	0.47
36:1:2775:U:H2'	36:1:2776:C:C6	2.50	0.47
36:1:3375:A:O2'	36:1:3378:C:H5'	2.15	0.47
86:1:4034:OHX:N4	86:1:4047:OHX:N1	2.62	0.47
36:1:40:A:C2	64:N8:40:HIS:CE1	3.02	0.47
86:1:4187:OHX:N1	51:M5:204:LYS:O	2.48	0.47
1:2:1672:G:N7	86:2:2043:OHX:N5	2.62	0.47
1:2:621:A:N3	1:2:1107:G:H1'	2.29	0.47
1:2:839:U:C2'	1:2:840:U:H5'	2.44	0.47
1:2:912:U:H4'	1:2:913:G:H3'	1.96	0.47
37:3:112:G:H2'	37:3:113:C:C6	2.50	0.47
36:5:1367:G:HO2'	36:5:1368:U:H6	1.58	0.47
36:5:2881:C:H2'	36:5:2882:U:C6	2.50	0.47
36:5:956:U:H2'	36:5:957:C:H6	1.78	0.47
1:6:1030:A:H4'	1:6:1031:U:OP2	2.15	0.47
1:6:1621:U:H2'	1:6:1622:G:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:246:G:C6	1:6:247:A:C6	3.02	0.47
1:6:337:G:C8	1:6:337:G:H5''	2.49	0.47
1:6:1:U:C4	1:6:369:A:C6	3.02	0.47
1:6:587:C:H2'	1:6:588:U:O4'	2.15	0.47
37:7:113:C:H2'	37:7:114:U:O4'	2.15	0.47
38:8:145:U:H2'	38:8:146:U:C6	2.49	0.47
13:C1:24:LYS:O	13:C1:26:LYS:HE2	2.15	0.47
15:C3:21:ASN:HB2	15:C3:22:ALA:H	1.84	0.47
20:C8:129:TRP:O	35:SM:68:ARG:HB2	3.07	0.47
23:D1:16:LYS:HD2	23:D1:21:ASN:O	3.59	0.47
30:D8:66:LEU:HA	30:D8:66:LEU:HD23	1.76	0.47
40:L3:50:LYS:HG2	40:L3:332:ARG:HA	2.58	0.47
43:L6:166:LYS:HA	43:L6:166:LYS:HD3	1.65	0.47
36:1:1101:G:H1'	44:L7:105:LEU:HD23	1.95	0.47
47:M0:76:MET:HE1	47:M0:148:VAL:HG13	1.96	0.47
48:M1:47:GLN:OE1	48:M1:64:LYS:HD3	2.89	0.47
50:M4:12:TRP:CZ2	56:N0:153:PRO:HB3	2.49	0.47
55:M9:23:TRP:O	55:M9:50:ILE:HA	2.15	0.47
56:N0:13:ARG:O	56:N0:22:PRO:HG2	2.14	0.47
63:N7:95:VAL:HG21	63:N7:113:VAL:HG11	1.96	0.47
36:1:1821:U:C4	70:O4:67:LYS:HD2	2.49	0.47
78:Q2:28:TYR:HB3	78:Q2:69:VAL:HB	2.01	0.47
2:S0:10:THR:OG1	2:S0:12:GLU:HG2	2.15	0.47
7:S5:97:LEU:O	7:S5:99:MET:N	2.68	0.47
10:S8:39:GLY:N	10:S8:60:ILE:O	2.32	0.47
10:S8:61:GLU:HG3	10:S8:77:ARG:HH21	9.50	0.47
34:SR:172:ALA:HB2	34:SR:202:LEU:HD13	1.96	0.47
36:1:1230:G:OP2	86:1:4087:OHX:N2	2.47	0.47
36:1:1362:G:H2'	36:1:1363:A:C8	2.50	0.47
36:1:1525:G:N3	36:1:1525:G:H2'	2.28	0.47
36:1:2180:G:H2'	36:1:2181:C:C6	2.50	0.47
36:1:2921:U:O5'	36:1:2921:U:H6	1.97	0.47
36:1:2932:U:OP1	59:N3:41:GLY:N	2.38	0.47
36:1:3088:G:H2'	36:1:3089:C:O4'	2.14	0.47
36:1:3288:G:O2'	36:1:3289:G:OP2	2.30	0.47
1:2:1428:G:H5'	1:2:1428:G:C8	2.46	0.47
1:2:1459:C:H4'	17:C5:126:VAL:HG11	1.95	0.47
1:2:1619:C:H1'	30:D8:22:ARG:HH21	1.79	0.47
1:2:1785:U:OP2	16:C4:133:ARG:NH2	2.48	0.47
1:2:51:A:OP2	86:2:2071:OHX:N3	2.47	0.47
1:2:637:C:OP1	24:D2:32:LYS:HG3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:68:A:O2'	1:2:69:G:OP2	2.31	0.47
1:2:883:C:H2'	1:2:884:A:C8	2.49	0.47
36:5:1243:G:OP2	36:5:1243:G:H8	1.97	0.47
36:5:1566:A:H2'	36:5:1567:U:H5'	1.97	0.47
36:5:2299:A:OP2	86:5:3962:OHX:N1	2.47	0.47
36:5:2890:A:N1	36:5:2913:C:N3	2.63	0.47
36:5:3047:U:O2'	36:5:3048:A:H5'	2.15	0.47
1:6:1230:A:H2	1:6:1255:G:N2	2.13	0.47
1:6:1357:A:H2'	1:6:1358:G:C8	2.50	0.47
6:S4:66:MET:HB3	1:6:454:U:C4	376.00	0.47
13:C1:131:ILE:HA	13:C1:131:ILE:HD13	1.70	0.47
13:C1:2:SER:HB2	13:C1:82:ARG:H	1.80	0.47
17:C5:77:ARG:NH2	1:6:1241:G:OP1	383.48	0.47
20:C8:112:ASP:O	20:C8:115:ARG:HB3	2.52	0.47
25:D3:28:ASN:O	25:D3:32:ARG:HB2	2.14	0.47
27:D5:38:HIS:HA	27:D5:70:LYS:HD3	6.92	0.47
27:D5:70:LYS:HB3	27:D5:71:ILE:HG13	1.97	0.47
40:L3:37:ARG:CA	40:L3:186:GLY:HA2	2.65	0.47
42:L5:254:LYS:O	42:L5:254:LYS:HG3	3.31	0.47
44:L7:207:LEU:HD23	44:L7:207:LEU:N	2.65	0.47
45:L8:71:VAL:HG13	45:L8:234:GLY:C	2.35	0.47
46:L9:3:TYR:HA	56:N0:142:GLN:OE1	2.15	0.47
47:M0:174:THR:HG23	47:M0:176:LEU:N	2.20	0.47
49:M3:9:ILE:HD13	64:N8:34:MET:SD	4.12	0.47
54:M8:178:ARG:HD3	54:M8:178:ARG:HA	1.69	0.47
52:M6:127:LEU:HB3	56:N0:156:VAL:HG13	4.17	0.47
56:N0:84:ARG:HD3	37:7:89:G:H4'	285.57	0.47
60:N4:52:THR:O	60:N4:56:ARG:HG3	2.14	0.47
65:N9:21:ILE:HG22	65:N9:22:LYS:N	3.45	0.47
72:O6:61:ILE:HD11	72:O6:87:VAL:HG13	2.94	0.47
74:O8:5:ILE:HG22	74:O8:54:LEU:HD13	2.35	0.47
2:S0:111:ILE:HA	2:S0:111:ILE:HD12	1.68	0.47
2:S0:71:GLU:O	2:S0:73:VAL:N	3.03	0.47
5:S3:139:SER:O	5:S3:182:LEU:HB3	2.14	0.47
8:S6:141:ILE:HD13	8:S6:153:VAL:HG11	1.96	0.47
11:S9:14:THR:HA	11:S9:15:PRO:HD2	1.63	0.47
34:SR:107:LYS:HB2	34:SR:128:ASP:CB	3.13	0.47
1:2:189:C:H2'	1:2:190:C:H5'	1.96	0.47
1:2:591:A:H2'	1:2:592:A:H8	1.77	0.47
36:5:1680:G:C5	36:5:1681:U:C5	3.02	0.47
36:5:1716:U:H5'	36:5:1716:U:C6	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2964:G:N7	86:5:3984:OHX:N6	2.63	0.47
40:L3:274:SER:OG	36:5:3139:A:OP1	228.22	0.47
20:C8:40:ARG:NH1	1:6:1539:G:O4'	352.16	0.47
1:6:198:A:H2'	1:6:199:G:H5'	1.97	0.47
1:6:499:U:O2	1:6:500:C:N4	2.48	0.47
1:6:542:A:H1'	1:6:543:C:OP1	2.15	0.47
1:6:74:U:H3'	1:6:75:U:H3'	1.97	0.47
28:D6:19:LYS:NZ	1:6:944:A:OP2	295.46	0.47
1:6:926:A:H1'	1:6:988:A:C2	2.50	0.47
38:8:1:A:C2	38:8:2:A:C4	3.03	0.47
12:C0:14:TYR:CE1	12:C0:18:GLU:HG3	2.49	0.47
12:C0:44:LYS:HD3	12:C0:44:LYS:HA	1.74	0.47
14:C2:52:LEU:HD12	14:C2:78:LEU:HB3	1.96	0.47
16:C4:29:HIS:CB	16:C4:41:ARG:HA	2.44	0.47
19:C7:82:ASP:O	19:C7:83:GLN:HB2	2.15	0.47
5:S3:8:LYS:HE2	22:D0:61:LYS:HD3	1.95	0.47
39:L2:230:VAL:O	39:L2:233:GLN:HB2	2.15	0.47
43:L6:56:LYS:NZ	43:L6:101:PHE:O	2.41	0.47
44:L7:88:ARG:CZ	44:L7:103:LEU:HD13	2.45	0.47
46:L9:45:PHE:CD1	46:L9:55:VAL:HG13	3.60	0.47
48:M1:95:ASN:N	48:M1:95:ASN:OD1	2.64	0.47
52:M6:3:VAL:HG22	52:M6:4:GLU:HG3	1.96	0.47
53:M7:30:ARG:HD3	53:M7:30:ARG:C	2.41	0.47
53:M7:65:SER:O	53:M7:66:SER:HB2	2.22	0.47
55:M9:43:LYS:NZ	36:5:1765:U:H5'	93.32	0.47
56:N0:46:GLN:HG2	56:N0:51:VAL:O	2.15	0.47
56:N0:96:ASP:OD1	56:N0:97:VAL:HG12	2.15	0.47
58:N2:33:TYR:O	58:N2:36:TYR:N	2.48	0.47
74:O8:61:LYS:H	74:O8:61:LYS:HG2	3.28	0.47
78:Q2:73:GLU:HG3	78:Q2:80:ARG:HE	1.80	0.47
2:S0:52:LYS:HD3	23:D1:82:VAL:HA	3.19	0.47
3:S1:171:ILE:HD12	3:S1:197:ILE:HG13	4.74	0.47
5:S3:32:GLU:O	5:S3:54:ARG:HB2	3.42	0.47
5:S3:58:VAL:O	5:S3:60:GLY:N	4.08	0.47
6:S4:77:ARG:HD2	6:S4:82:TYR:CE1	4.62	0.47
7:S5:107:LYS:O	7:S5:111:VAL:HG23	2.15	0.47
7:S5:156:ARG:HA	7:S5:157:ARG:NH2	3.92	0.47
11:S9:132:ARG:O	11:S9:134:ILE:HD12	7.21	0.47
36:1:1246:G:H2'	36:1:1247:U:O4'	2.15	0.47
36:1:1351:U:H2'	36:1:1351:U:O2	2.15	0.47
36:1:243:G:OP1	71:O5:115:LYS:HE3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2775:U:H2'	36:1:2776:C:H6	1.80	0.47
36:1:537:A:C2	36:1:557:A:C4	3.03	0.47
1:2:1163:A:C6	1:2:1164:G:C5	3.02	0.47
1:2:1332:C:O2'	5:S3:162:GLN:HB3	2.14	0.47
1:2:1417:A:H2'	1:2:1418:G:O4'	2.15	0.47
1:2:476:U:H5''	1:2:477:A:O4'	2.15	0.47
86:1:4207:OHX:N4	38:4:140:G:OP1	2.47	0.47
56:N0:114:HIS:CE1	36:5:1212:A:H1'	310.38	0.47
36:5:1329:U:O2'	36:5:1330:A:H5''	2.15	0.47
39:L2:193:ARG:NH2	36:5:2181:C:H5''	195.58	0.47
36:5:34:A:H2'	36:5:35:A:C8	2.50	0.47
86:5:3975:OHX:N4	86:5:4245:OHX:N2	2.62	0.47
86:5:4025:OHX:N4	86:5:4218:OHX:N3	2.62	0.47
86:5:4003:OHX:N4	86:5:4091:OHX:N1	2.63	0.47
56:N0:146:LYS:HA	36:5:534:U:O2	350.26	0.47
1:6:140:A:H4'	1:6:140:A:OP2	2.15	0.47
1:6:189:C:C2'	1:6:190:C:H5'	2.44	0.47
1:6:629:U:H1'	1:6:971:A:N1	2.30	0.47
1:6:862:A:H4'	1:6:863:A:O5'	2.15	0.47
1:6:907:A:N3	1:6:997:G:O2'	2.40	0.47
15:C3:42:ARG:C	15:C3:44:GLY:H	2.67	0.47
23:D1:15:ARG:NH1	23:D1:33:GLN:OE1	2.85	0.47
24:D2:103:ILE:HD13	24:D2:126:LEU:HB2	1.97	0.47
26:D4:60:PHE:O	1:6:523:G:H5'	411.89	0.47
30:D8:38:ARG:NH1	30:D8:40:ILE:HD11	2.30	0.47
33:E1:119:ARG:O	33:E1:132:LEU:HG	2.34	0.47
33:E1:144:CYS:C	33:E1:146:SER:H	2.25	0.47
39:L2:200:ARG:HG3	36:5:2147:A:OP1	207.74	0.47
39:L2:66:PRO:HB2	39:L2:67:TYR:CE2	2.71	0.47
40:L3:284:ARG:HB3	40:L3:323:MET:HB2	2.42	0.47
41:L4:322:GLN:O	41:L4:325:LEU:N	3.13	0.47
47:M0:210:ILE:HG12	47:M0:217:PHE:CZ	2.49	0.47
48:M1:13:LYS:HD2	48:M1:132:ASN:OD1	2.15	0.47
48:M1:81:GLU:HA	48:M1:84:LEU:HB2	1.96	0.47
50:M4:60:LEU:HA	50:M4:60:LEU:HD23	2.16	0.47
55:M9:17:VAL:CG2	55:M9:52:LYS:HE3	2.44	0.47
63:N7:17:ARG:HG3	70:O4:73:SER:HB3	1.96	0.47
36:1:1177:G:N7	69:O3:20:LYS:HD3	2.29	0.47
70:O4:8:ARG:HB2	70:O4:34:HIS:NE2	2.30	0.47
72:O6:58:ILE:HG22	72:O6:90:MET:CG	3.17	0.47
72:O6:91:ASN:O	72:O6:94:ILE:HG22	4.70	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:M3:174:ARG:CZ	72:O6:9:ILE:HD13	2.45	0.47
74:O8:14:LEU:HD23	74:O8:17:ARG:HD3	2.86	0.47
3:S1:156:ALA:HB1	3:S1:160:HIS:HB2	1.96	0.47
5:S3:164:VAL:O	5:S3:168:ILE:HG13	2.37	0.47
5:S3:21:LEU:HD22	5:S3:25:PHE:CE2	2.50	0.47
8:S6:193:LEU:HA	8:S6:193:LEU:HD23	1.63	0.47
10:S8:22:ARG:HD2	10:S8:25:ARG:NH2	3.60	0.47
35:SM:116:GLU:O	35:SM:117:LEU:C	2.53	0.47
35:SM:43:ASP:HA	35:SM:44:PRO:HD3	2.50	0.47
34:SR:122:ILE:HB	34:SR:134:TRP:HB2	2.40	0.47
36:1:1571:A:H2'	36:1:1572:U:O4'	2.15	0.47
36:1:233:C:H2'	36:1:234:G:O4'	2.15	0.47
1:2:155:U:H4'	8:S6:59:GLN:H	1.80	0.47
1:2:1565:C:H2'	1:2:1566:U:O4'	2.15	0.47
1:2:301:A:H2'	1:2:302:U:O4'	2.14	0.47
1:2:442:C:H2'	1:2:443:C:H6	1.80	0.47
1:2:505:A:N3	1:2:505:A:H2'	2.29	0.47
55:M9:125:LYS:NZ	36:5:1720:U:O4	240.17	0.47
36:5:2198:A:OP2	86:5:4194:OHX:N4	2.48	0.47
36:5:422:A:N1	36:5:2362:C:O2'	2.39	0.47
36:5:428:A:H2'	36:5:429:U:C6	2.50	0.47
1:6:100:A:H2'	1:6:101:U:O4'	2.14	0.47
33:E1:143:LYS:HD3	1:6:1254:U:OP1	456.82	0.47
1:6:1595:U:H3'	1:6:1596:C:O2	2.15	0.47
1:6:1203:A:OP2	86:6:2128:OHX:N4	2.48	0.47
1:6:230:C:N3	1:6:235:G:N2	2.47	0.47
1:6:831:U:OP2	1:6:831:U:H6	1.98	0.47
36:5:419:G:N2	38:8:5:U:C2	2.83	0.47
10:S8:10:LYS:CG	13:C1:133:LYS:HE3	2.58	0.47
15:C3:41:ALA:HB1	15:C3:75:LEU:HD21	2.62	0.47
18:C6:14:LYS:HE2	1:6:1584:G:N7	395.34	0.47
19:C7:71:PHE:CZ	19:C7:74:GLN:HB2	5.68	0.47
21:C9:66:TYR:CE2	21:C9:129:GLN:HG3	5.41	0.47
25:D3:75:GLN:HG3	25:D3:82:LYS:HG3	1.95	0.47
39:L2:219:ILE:HG22	39:L2:221:LYS:O	2.15	0.47
41:L4:295:ILE:O	41:L4:299:ILE:HG12	2.15	0.47
42:L5:9:SER:HG	42:L5:12:TYR:H	1.55	0.47
42:L5:208:MET:HG2	42:L5:223:PHE:CZ	2.49	0.47
45:L8:72:PRO:HA	45:L8:73:PRO:HD3	1.85	0.47
48:M1:54:VAL:HG12	48:M1:57:PHE:H	1.79	0.47
51:M5:106:VAL:O	51:M5:109:ARG:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:143:ARG:NH2	71:O5:92:LEU:HD23	2.29	0.47
55:M9:173:ARG:O	55:M9:177:VAL:HG23	2.15	0.47
56:N0:16:THR:OG1	56:N0:19:VAL:N	3.23	0.47
56:N0:50:LYS:HD3	56:N0:50:LYS:HA	1.63	0.47
57:N1:86:GLU:OE1	57:N1:88:ARG:NH1	2.47	0.47
58:N2:79:LEU:HA	58:N2:79:LEU:HD23	1.78	0.47
62:N6:103:LYS:HD3	62:N6:103:LYS:HA	1.91	0.47
66:O0:75:ASN:HA	66:O0:86:ARG:HB2	2.92	0.47
67:O1:51:LEU:HD22	67:O1:55:LEU:HD12	1.97	0.47
68:O2:77:ALA:O	68:O2:100:ILE:HD12	2.16	0.47
78:Q2:63:LYS:HD2	78:Q2:87:ARG:CZ	2.44	0.47
79:Q3:83:ILE:HG22	79:Q3:87:ARG:NH1	2.30	0.47
2:S0:163:ASN:C	2:S0:165:ARG:H	2.19	0.47
2:S0:202:TYR:O	2:S0:203:PHE:CD2	2.75	0.47
3:S1:135:LEU:HD11	3:S1:176:VAL:HG11	1.97	0.47
4:S2:152:HIS:ND1	4:S2:174:ARG:HG3	2.30	0.47
5:S3:84:ILE:HD13	5:S3:85:VAL:N	2.30	0.47
1:2:639:U:P	9:S7:117:THR:HG1	2.34	0.47
34:SR:131:ILE:HG23	34:SR:154:VAL:HG11	1.96	0.47
36:1:114:A:OP1	51:M5:54:LYS:NZ	2.48	0.46
36:1:1878:G:C3'	36:1:1879:A:H5'	2.45	0.46
36:1:1887:A:OP1	86:1:4089:OHX:N3	2.48	0.46
36:1:824:C:H2'	36:1:825:U:C6	2.51	0.46
1:2:1294:G:O2'	1:2:1321:A:N1	2.41	0.46
1:2:147:A:H2'	1:2:148:A:O4'	2.15	0.46
1:2:1489:U:H5'	1:2:1494:C:H1'	1.96	0.46
86:2:2074:OHX:N4	86:2:2161:OHX:N2	2.63	0.46
1:2:484:C:N4	1:2:503:G:H22	2.10	0.46
1:2:71:A:H2'	1:2:72:A:O4'	2.16	0.46
37:3:30:G:C6	37:3:31:U:C4	3.03	0.46
36:5:1390:A:N3	36:5:1390:A:H5'	2.30	0.46
36:5:1567:U:H2'	36:5:1568:U:H4'	1.97	0.46
36:5:1806:A:H2'	36:5:1807:G:O4'	2.15	0.46
36:5:2442:G:C2	36:5:2443:A:N7	2.84	0.46
36:5:284:A:H4'	36:5:285:A:C2	2.50	0.46
39:L2:215:ASN:HB2	36:5:2968:G:N7	216.22	0.46
36:5:2996:U:H2'	36:5:2996:U:O2	2.15	0.46
36:5:426:G:H2'	36:5:427:C:C6	2.50	0.46
36:5:527:A:H2'	36:5:528:U:H6	1.79	0.46
36:5:567:G:H2'	36:5:568:G:C8	2.50	0.46
36:5:579:G:O2'	36:5:580:C:H5'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:686:G:C6	36:5:687:U:C2	3.03	0.46
36:5:687:U:H2'	36:5:688:G:C8	2.50	0.46
1:6:1198:G:OP1	1:6:1199:G:H1'	2.15	0.46
1:6:1207:C:N3	1:6:1456:C:H5	2.14	0.46
1:6:199:G:HO2'	1:6:200:A:H8	1.63	0.46
36:5:406:G:H1'	38:8:16:G:N2	2.30	0.46
12:C0:77:ARG:HA	12:C0:82:LEU:HD12	1.97	0.46
15:C3:23:PRO:HD2	15:C3:26:PHE:HB3	1.97	0.46
16:C4:12:GLN:HB3	16:C4:77:THR:OG1	2.15	0.46
18:C6:28:LEU:HG	18:C6:64:ASP:CG	2.35	0.46
20:C8:8:GLN:C	20:C8:10:SER:H	2.48	0.46
1:2:1430:U:O4'	22:D0:72:ASN:ND2	2.47	0.46
25:D3:24:TRP:CE3	25:D3:30:LYS:HG3	2.87	0.46
28:D6:5:ARG:HH12	1:6:1795:U:H3'	338.07	0.46
25:D3:59:ILE:CD1	32:E0:4:VAL:HG13	2.45	0.46
42:L5:40:HIS:CD2	42:L5:42:ALA:HB3	2.50	0.46
43:L6:65:ILE:HA	43:L6:65:ILE:HD13	3.98	0.46
46:L9:75:VAL:HA	46:L9:78:MET:HE3	3.26	0.46
46:L9:90:MET:HB2	46:L9:144:ILE:HG22	1.96	0.46
51:M5:48:ALA:C	51:M5:53:TYR:HB3	2.57	0.46
53:M7:50:GLN:O	53:M7:53:ASP:N	2.47	0.46
56:N0:13:ARG:O	56:N0:14:LEU:C	2.53	0.46
61:N5:64:GLU:O	61:N5:65:GLN:HG3	2.14	0.46
62:N6:40:ARG:HG3	62:N6:45:ILE:O	2.14	0.46
63:N7:54:THR:O	63:N7:57:HIS:HB2	2.14	0.46
67:O1:44:MET:HB3	67:O1:77:ARG:HD3	1.97	0.46
70:O4:96:GLU:O	70:O4:99:LYS:HB2	2.42	0.46
36:1:817:A:N3	73:O7:11:ARG:HB3	2.31	0.46
3:S1:175:GLU:HG2	3:S1:193:ILE:CD1	4.42	0.46
36:1:1158:A:O5'	36:1:1158:A:H8	1.98	0.46
36:1:1560:G:O6	61:N5:36:LYS:NZ	2.47	0.46
36:1:2343:C:H2'	36:1:2344:U:C6	2.50	0.46
36:1:2352:A:N6	36:1:2353:G:C6	2.83	0.46
36:1:3045:G:O2'	40:L3:275:ARG:HD2	2.15	0.46
86:1:4005:OHX:N3	86:1:4175:OHX:N1	2.63	0.46
36:1:413:U:OP1	53:M7:30:ARG:NH2	2.41	0.46
1:2:1157:A:H2'	1:2:1160:A:N7	2.31	0.46
1:2:1492:A:HO2'	1:2:1493:A:H8	1.56	0.46
1:2:1595:U:H5	1:2:1596:C:C5	2.33	0.46
1:2:730:G:H21	1:2:731:C:H5''	1.80	0.46
1:2:961:U:H2'	1:2:962:C:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:85:G:C8	38:4:85:G:C3'	2.98	0.46
76:Q0:113:ARG:NH1	36:5:1298:C:O3'	290.72	0.46
36:5:1817:G:O2'	36:5:1818:U:OP2	2.30	0.46
36:5:2746:A:H2'	36:5:2747:A:O4'	2.15	0.46
36:5:650:C:O5'	36:5:650:C:H6	1.99	0.46
1:6:1236:A:H2'	1:6:1237:G:C8	2.50	0.46
1:6:800:U:H2'	1:6:801:G:C8	2.50	0.46
12:C0:14:TYR:HE2	12:C0:21:VAL:HG22	1.80	0.46
12:C0:44:LYS:NZ	12:C0:47:GLN:HE22	2.13	0.46
13:C1:86:ILE:HD11	13:C1:125:VAL:CG1	4.27	0.46
13:C1:22:ASN:OD1	13:C1:24:LYS:HB2	2.15	0.46
13:C1:93:TYR:OH	13:C1:98:ASN:OD1	2.27	0.46
14:C2:123:VAL:CG1	14:C2:126:TRP:HB3	2.46	0.46
19:C7:49:LYS:HE2	1:6:1390:U:OP2	415.20	0.46
20:C8:104:ASN:O	20:C8:107:SER:HB2	2.91	0.46
23:D1:9:VAL:HG22	23:D1:10:GLU:H	2.12	0.46
24:D2:57:ARG:N	24:D2:57:ARG:HD2	2.31	0.46
39:L2:143:GLU:O	39:L2:145:LYS:HG2	2.14	0.46
36:1:3313:U:H4'	40:L3:173:GLN:OE1	2.15	0.46
40:L3:56:ILE:HG22	40:L3:74:GLU:HB2	2.43	0.46
41:L4:16:THR:HG23	41:L4:18:ASN:H	2.09	0.46
42:L5:95:TRP:HZ3	42:L5:156:GLY:O	8.40	0.46
44:L7:147:LEU:HD22	44:L7:205:PHE:CD1	3.24	0.46
46:L9:40:HIS:ND1	46:L9:41:ILE:HG13	4.56	0.46
47:M0:24:ARG:CB	47:M0:24:ARG:HH11	2.28	0.46
47:M0:19:LYS:HE3	47:M0:26:VAL:HG13	1.96	0.46
51:M5:27:VAL:HB	51:M5:122:ASN:ND2	2.31	0.46
54:M8:178:ARG:HD2	54:M8:178:ARG:HA	2.33	0.46
56:N0:115:ARG:N	56:N0:115:ARG:HD2	2.29	0.46
56:N0:91:TYR:HD1	56:N0:137:ARG:NH1	2.13	0.46
58:N2:104:ARG:NH2	36:5:1758:G:H5'	119.47	0.46
61:N5:57:LEU:HA	61:N5:57:LEU:HD23	4.18	0.46
66:O0:66:LYS:N	66:O0:66:LYS:HD2	3.83	0.46
68:O2:109:LEU:HD21	68:O2:122:PRO:HB3	1.97	0.46
2:S0:169:SER:O	2:S0:173:ILE:HG12	2.16	0.46
2:S0:31:VAL:HG23	2:S0:150:ASP:HA	1.97	0.46
4:S2:205:ARG:HD2	1:6:6:G:OP2	378.83	0.46
4:S2:59:HIS:CE1	4:S2:238:SER:HA	3.51	0.46
5:S3:117:ARG:HE	35:SM:126:ASP:CB	6.56	0.46
6:S4:187:ARG:NH2	1:6:753:A:H62	374.19	0.46
7:S5:112:ARG:HD3	1:6:1529:C:OP1	372.72	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:166:ARG:HA	7:S5:169:ASN:HB2	2.30	0.46
7:S5:194:LEU:HD22	7:S5:198:LEU:HG	4.71	0.46
7:S5:25:LEU:HD22	7:S5:25:LEU:H	1.80	0.46
7:S5:43:PHE:HB3	7:S5:46:TRP:HD1	5.77	0.46
9:S7:35:LYS:HG2	9:S7:36:ALA:H	1.81	0.46
10:S8:106:ALA:O	10:S8:109:PHE:N	2.49	0.46
10:S8:38:ILE:HG13	10:S8:96:LEU:HD11	3.87	0.46
11:S9:138:LYS:NZ	11:S9:138:LYS:O	2.31	0.46
34:SR:112:SER:HB2	34:SR:153:GLN:HA	2.13	0.46
36:1:1018:G:H2'	36:1:1019:G:O4'	2.15	0.46
36:1:1171:G:OP2	44:L7:218:ARG:HD2	2.16	0.46
36:1:2386:A:OP1	86:1:4026:OHX:N2	2.48	0.46
86:1:4057:OHX:N4	86:1:4166:OHX:N1	2.62	0.46
36:1:719:U:H5''	36:1:719:U:H6	1.80	0.46
1:2:1502:G:N7	21:C9:102:ARG:NH2	2.60	0.46
1:2:1756:A:O5'	1:2:1756:A:H8	1.99	0.46
86:2:2089:OHX:N1	86:2:2131:OHX:N2	2.63	0.46
1:2:222:A:C6	1:2:223:U:C4	3.03	0.46
1:2:279:G:N7	1:2:281:G:C8	2.84	0.46
1:2:709:C:C4	1:2:710:U:H1'	2.49	0.46
36:5:1155:C:H2'	36:5:1156:C:H6	1.81	0.46
36:5:2615:G:H1	36:5:2625:C:N4	2.09	0.46
86:5:3975:OHX:N1	86:5:4245:OHX:N5	2.62	0.46
36:5:570:A:H2'	36:5:571:U:O4'	2.16	0.46
54:M8:147:ARG:NH2	36:5:670:C:OP1	163.04	0.46
36:5:817:A:H2'	36:5:920:A:C2	2.50	0.46
36:5:996:A:C2	36:5:1054:A:C4	3.04	0.46
5:S3:160:SER:OG	1:6:1331:A:N6	413.68	0.46
1:6:1467:C:H2'	1:6:1468:U:C6	2.50	0.46
1:6:1520:U:OP1	1:6:1520:U:H6	1.98	0.46
1:6:1631:A:OP2	86:6:2165:OHX:N3	2.48	0.46
1:6:432:G:H2'	1:6:433:C:O4'	2.16	0.46
1:6:916:U:H5''	1:6:917:U:OP2	2.16	0.46
13:C1:80:MET:H	13:C1:80:MET:HG3	1.45	0.46
13:C1:93:TYR:HB2	13:C1:100:TYR:HE1	2.53	0.46
15:C3:56:ASP:O	29:D7:46:VAL:HA	2.28	0.46
19:C7:19:ARG:HG3	19:C7:20:TYR:CE1	2.50	0.46
20:C8:134:ARG:HB2	20:C8:136:GLN:NE2	2.26	0.46
20:C8:96:LYS:HB2	20:C8:98:TYR:CE2	2.56	0.46
21:C9:70:GLN:HA	21:C9:122:ARG:O	2.82	0.46
27:D5:43:ASP:HB2	27:D5:46:LYS:HB2	2.94	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:30:ARG:HB2	39:L2:36:GLU:OE2	2.15	0.46
40:L3:250:ALA:HB3	36:5:2880:U:O2	223.72	0.46
43:L6:136:GLU:O	43:L6:140:VAL:HG23	2.95	0.46
44:L7:136:TYR:CZ	44:L7:231:ASN:HB2	2.50	0.46
45:L8:91:PHE:CE2	45:L8:185:ARG:HD3	5.19	0.46
46:L9:92:TYR:N	46:L9:92:TYR:CD1	2.81	0.46
47:M0:174:THR:HA	47:M0:196:PHE:CE2	3.00	0.46
48:M1:26:SER:HB3	48:M1:64:LYS:O	2.15	0.46
50:M4:14:LEU:H	50:M4:19:ARG:NH1	2.79	0.46
53:M7:36:ILE:HG12	53:M7:44:ALA:HB1	1.97	0.46
57:N1:114:ALA:O	57:N1:116:ARG:N	2.47	0.46
44:L7:77:VAL:CG2	57:N1:139:ARG:HG2	2.44	0.46
61:N5:42:ARG:O	61:N5:44:PRO:HD3	2.52	0.46
64:N8:133:LEU:O	64:N8:133:LEU:HD22	2.57	0.46
65:N9:46:ALA:O	65:N9:50:THR:HG23	2.75	0.46
79:Q3:84:ARG:NH2	79:Q3:88:GLU:OE2	2.48	0.46
7:S5:79:ASN:H	7:S5:79:ASN:ND2	2.12	0.46
7:S5:84:LYS:HG3	7:S5:92:ARG:NH1	2.57	0.46
10:S8:8:ARG:NH2	10:S8:21:PHE:HB3	2.30	0.46
34:SR:109:ASP:O	34:SR:126:SER:OG	2.18	0.46
34:SR:144:LEU:HD21	34:SR:186:PHE:HB3	4.06	0.46
36:1:1245:A:C3'	36:1:1246:G:H5''	2.44	0.46
36:1:138:U:H2'	36:1:139:G:C8	2.50	0.46
36:1:1547:G:H2'	36:1:1548:C:C6	2.49	0.46
36:1:171:G:H2'	36:1:172:G:O4'	2.16	0.46
36:1:208:C:C2'	36:1:209:A:H5'	2.45	0.46
36:1:2176:U:C2'	36:1:2177:G:H5'	2.44	0.46
36:1:2416:U:H2'	36:1:2417:U:C6	2.50	0.46
36:1:2513:U:O2'	36:1:2592:G:N1	2.35	0.46
36:1:2877:G:H2'	36:1:2878:G:C8	2.51	0.46
1:2:1234:A:OP2	1:2:1245:G:O2'	2.32	0.46
1:2:1280:C:H2'	1:2:1281:G:H8	1.79	0.46
1:2:1158:C:OP2	86:2:2172:OHX:N5	2.48	0.46
1:2:538:A:C8	1:2:543:C:C4	3.02	0.46
1:2:981:U:C2'	1:2:982:U:H5'	2.45	0.46
1:2:981:U:H2'	1:2:982:U:H5'	1.96	0.46
36:5:2186:U:H5'	36:5:2314:U:OP2	2.16	0.46
36:5:2206:G:OP2	36:5:2206:G:H8	1.97	0.46
40:L3:247:ARG:NH2	36:5:2341:A:OP2	218.50	0.46
36:5:2418:G:O6	86:5:4251:OHX:N2	2.49	0.46
36:5:2551:U:H4'	36:5:2552:C:OP1	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:113:C:C2	36:5:319:A:C2	3.04	0.46
36:5:3264:G:N2	36:5:3265:C:H1'	2.30	0.46
36:5:595:G:C8	36:5:609:G:C6	3.03	0.46
39:L2:181:LYS:HB3	36:5:860:G:C6	213.49	0.46
36:5:912:G:H1'	36:5:917:A:C2	2.50	0.46
1:6:1255:G:O2'	1:6:1256:A:O5'	2.31	0.46
15:C3:114:ARG:HH11	15:C3:114:ARG:HG2	1.80	0.46
15:C3:93:LYS:HG3	15:C3:150:VAL:HG11	1.97	0.46
16:C4:39:ILE:HG21	16:C4:76:ILE:HG13	6.20	0.46
18:C6:82:ARG:CZ	18:C6:116:LEU:HD11	2.45	0.46
25:D3:95:PHE:O	25:D3:142:LYS:NZ	2.33	0.46
27:D5:59:TYR:HE2	27:D5:61:SER:HB3	1.79	0.46
39:L2:201:GLY:HA3	39:L2:209:HIS:ND1	3.06	0.46
39:L2:225:ILE:HG21	39:L2:234:LYS:HA	1.98	0.46
39:L2:51:ASP:HB3	39:L2:54:ARG:HB3	1.97	0.46
41:L4:259:ASP:OD1	41:L4:259:ASP:N	3.26	0.46
41:L4:73:ARG:NH2	36:5:2814:G:OP1	171.88	0.46
41:L4:80:GLY:HA2	41:L4:85:SER:OG	2.66	0.46
42:L5:140:ARG:HH21	36:5:1080:A:P	228.12	0.46
45:L8:163:VAL:O	45:L8:166:LEU:HB2	2.46	0.46
45:L8:41:GLN:HG3	45:L8:42:PRO:HD2	2.20	0.46
45:L8:79:GLN:HG2	45:L8:80:TYR:N	2.33	0.46
46:L9:163:GLN:O	46:L9:165:CYS:N	2.48	0.46
46:L9:13:PRO:HG2	46:L9:16:VAL:CG1	2.94	0.46
47:M0:190:VAL:HG22	47:M0:199:PHE:CE1	2.50	0.46
48:M1:91:LEU:O	48:M1:92:ARG:HG3	2.15	0.46
49:M3:119:TYR:HD1	49:M3:145:PHE:CE2	2.48	0.46
58:N2:19:VAL:O	58:N2:22:PRO:HD2	2.15	0.46
58:N2:18:ASP:HA	58:N2:62:VAL:HG22	1.97	0.46
59:N3:104:ASN:HD21	59:N3:106:LYS:HB2	1.79	0.46
67:O1:11:GLU:OE2	67:O1:74:ARG:NH2	2.49	0.46
68:O2:126:LEU:HA	68:O2:126:LEU:HD23	1.55	0.46
71:O5:6:ALA:HB1	71:O5:10:ARG:NH2	2.67	0.46
36:1:853:G:N7	79:Q3:2:ALA:HB2	2.30	0.46
2:S0:59:LEU:HD11	23:D1:78:LEU:HD12	1.96	0.46
3:S1:48:VAL:HG21	3:S1:61:LEU:HB2	5.71	0.46
4:S2:129:ILE:O	4:S2:133:LYS:HG2	2.16	0.46
4:S2:65:GLU:O	4:S2:68:ILE:HB	2.16	0.46
5:S3:179:GLN:OE1	5:S3:180:GLY:N	4.27	0.46
5:S3:28:GLU:OE2	5:S3:28:GLU:HA	2.16	0.46
1:2:1167:G:OP1	7:S5:101:GLY:HA3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S5:59:VAL:O	7:S5:60:ASP:HB2	2.14	0.46
8:S6:142:ARG:NH2	8:S6:149:LYS:O	6.04	0.46
9:S7:154:LEU:HD21	9:S7:183:PHE:HD1	1.80	0.46
9:S7:164:TYR:CE1	9:S7:165:LYS:HG3	2.80	0.46
10:S8:11:ARG:NH1	10:S8:15:GLY:O	3.21	0.46
34:SR:289:ALA:HA	34:SR:305:TYR:HA	2.19	0.46
36:1:1100:U:H2'	36:1:1101:G:O4'	2.16	0.46
36:1:1246:G:H8	36:1:1246:G:OP1	1.98	0.46
36:1:1301:A:OP1	36:1:1301:A:H8	1.98	0.46
36:1:3006:A:C2	36:1:3141:A:C4	3.04	0.46
36:1:3045:G:O3'	40:L3:275:ARG:NH1	2.48	0.46
86:1:4021:OHX:N4	86:1:4059:OHX:N2	2.64	0.46
36:1:3200:G:O6	86:1:4130:OHX:N4	2.48	0.46
36:1:608:A:C4	43:L6:22:ARG:NH1	2.84	0.46
1:2:1009:U:OP2	16:C4:129:LYS:NZ	2.48	0.46
1:2:1147:A:H2'	1:2:1148:C:C6	2.50	0.46
1:2:1181:U:O4	86:2:2118:OHX:N6	2.49	0.46
1:2:1220:C:OP1	12:C0:48:SER:OG	2.25	0.46
1:2:1451:C:H2'	1:2:1452:U:C6	2.50	0.46
1:2:1641:C:H2'	1:2:1642:G:C8	2.51	0.46
1:2:387:A:OP2	1:2:387:A:H8	1.97	0.46
1:2:458:G:P	26:D4:105:ARG:NH2	2.89	0.46
1:2:499:U:O2'	1:2:500:C:O4'	2.33	0.46
38:4:31:G:OP2	86:4:227:OHX:N1	2.48	0.46
36:5:1456:A:H4'	36:5:1457:U:O5'	2.14	0.46
79:Q3:36:ARG:HH22	36:5:1725:C:H5''	228.02	0.46
36:5:1847:A:O2'	36:5:1848:G:H5''	2.16	0.46
36:5:192:C:H2'	36:5:193:C:C6	2.50	0.46
36:5:2407:C:H2'	36:5:2408:U:C6	2.51	0.46
36:5:2912:G:H1'	36:5:3131:U:OP1	2.15	0.46
1:6:1255:G:H4'	1:6:1256:A:OP1	2.14	0.46
1:6:1490:C:O2	1:6:1491:U:H1'	2.16	0.46
1:6:350:U:H5''	1:6:352:A:C5'	2.46	0.46
1:6:976:G:O6	86:6:2078:OHX:N6	2.48	0.46
13:C1:128:CYS:O	13:C1:129:ARG:HB3	4.54	0.46
15:C3:26:PHE:HE1	15:C3:60:VAL:H	5.03	0.46
18:C6:115:THR:HB	18:C6:118:ILE:O	2.16	0.46
19:C7:23:LYS:HB3	19:C7:34:LEU:HD11	1.97	0.46
25:D3:126:LYS:HB3	25:D3:130:VAL:O	4.64	0.46
7:S5:82:PHE:CE1	30:D8:49:ARG:HD2	3.17	0.46
31:D9:5:ASN:CG	31:D9:7:TRP:HE1	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:L3:154:TYR:O	40:L3:155:ALA:O	2.58	0.46
40:L3:205:VAL:C	40:L3:207:SER:N	2.92	0.46
41:L4:209:TYR:C	41:L4:254:ALA:HB2	2.61	0.46
42:L5:261:THR:HG23	42:L5:264:GLN:NE2	2.41	0.46
43:L6:71:VAL:HG23	43:L6:146:ILE:HD13	3.90	0.46
43:L6:55:LEU:HA	43:L6:55:LEU:HD23	1.55	0.46
45:L8:190:VAL:HG22	45:L8:190:VAL:O	2.15	0.46
45:L8:214:LEU:HA	45:L8:214:LEU:HD12	1.86	0.46
47:M0:12:GLN:HG3	47:M0:128:ARG:NH2	2.31	0.46
48:M1:13:LYS:O	48:M1:131:MET:HE3	2.16	0.46
55:M9:115:ILE:HG22	55:M9:146:LYS:HE3	9.17	0.46
55:M9:168:ALA:O	55:M9:172:ARG:HD2	2.15	0.46
56:N0:155:ARG:NH1	36:5:3206:C:O2	310.30	0.46
58:N2:47:VAL:O	58:N2:49:ASN:N	3.38	0.46
60:N4:35:LYS:O	60:N4:39:LEU:HB2	2.55	0.46
64:N8:14:HIS:N	64:N8:14:HIS:ND1	2.64	0.46
67:O1:13:THR:CG2	67:O1:72:ARG:HH21	5.82	0.46
69:O3:60:ARG:HD2	36:5:3275:U:C4	214.11	0.46
73:O7:52:LYS:O	73:O7:56:ARG:HG3	2.16	0.46
77:Q1:11:ARG:NH1	77:Q1:11:ARG:HG2	2.29	0.46
79:Q3:53:GLY:HA2	79:Q3:66:GLY:O	2.15	0.46
2:S0:122:ILE:HA	2:S0:144:ILE:O	2.35	0.46
3:S1:135:LEU:HD21	3:S1:217:LEU:HD12	6.06	0.46
3:S1:105:PHE:CE2	3:S1:213:ARG:HA	2.51	0.46
3:S1:104:ASP:OD2	3:S1:214:LYS:HE2	3.68	0.46
5:S3:63:GLY:O	5:S3:67:ASN:HB2	3.81	0.46
5:S3:5:ILE:HG22	5:S3:6:SER:O	2.53	0.46
5:S3:74:GLN:HA	5:S3:79:TYR:HB2	2.52	0.46
7:S5:109:LYS:HE2	1:6:1474:G:OP2	362.50	0.46
7:S5:40:ILE:HG23	7:S5:42:LEU:HD22	1.96	0.46
8:S6:68:LEU:HD13	8:S6:68:LEU:HA	2.13	0.46
34:SR:159:ASN:C	34:SR:161:LYS:H	4.34	0.46
34:SR:248:ASN:OD1	34:SR:249:ARG:HG3	3.70	0.46
34:SR:38:ARG:HA	34:SR:67:ILE:HG23	2.06	0.46
36:1:2226:U:H2'	36:1:2227:C:H6	1.79	0.46
36:1:2333:C:H2'	36:1:2334:U:O4'	2.16	0.46
36:1:269:G:H5'	51:M5:120:TRP:CE3	2.50	0.46
1:2:286:C:H2'	1:2:287:G:H5'	1.97	0.46
1:2:491:C:N4	1:2:496:G:H1	2.13	0.46
1:2:609:U:H4'	1:2:610:G:O5'	2.15	0.46
38:4:59:A:O2'	61:N5:61:LYS:NZ	2.26	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1009:A:OP2	86:5:4117:OHX:N2	2.48	0.46
36:5:2326:A:O2'	36:5:2975:U:H5''	2.15	0.46
36:5:2427:U:H2'	36:5:2428:U:C6	2.50	0.46
36:5:3121:U:H1'	36:5:3122:A:H5''	1.98	0.46
36:5:3266:G:C6	36:5:3267:A:C6	3.02	0.46
53:M7:69:ARG:NH1	36:5:3308:C:N3	189.93	0.46
51:M5:178:HIS:ND1	36:5:69:C:OP1	116.65	0.46
36:5:985:U:H2'	36:5:986:U:H6	1.81	0.46
1:6:1305:U:OP2	1:6:1306:C:N4	2.46	0.46
1:6:1390:U:O2'	1:6:1391:A:H8	1.99	0.46
1:6:1525:A:H2'	1:6:1526:A:O4'	2.16	0.46
38:8:37:A:H5''	38:8:39:G:O4'	2.16	0.46
16:C4:16:VAL:HG22	16:C4:33:LEU:HA	1.98	0.46
20:C8:23:ASP:HB3	20:C8:26:ILE:HD13	6.16	0.46
22:D0:82:TYR:OH	31:D9:44:ARG:HG2	2.16	0.46
28:D6:36:ILE:HG21	28:D6:78:ALA:HB2	1.97	0.46
28:D6:66:LYS:HB2	28:D6:66:LYS:HE2	1.83	0.46
29:D7:61:THR:HG23	29:D7:62:ILE:O	2.15	0.46
36:1:2392:C:HO2'	40:L3:266:ARG:HH22	1.55	0.46
41:L4:264:SER:HB2	41:L4:265:GLU:OE1	2.14	0.46
41:L4:44:LYS:HB3	41:L4:47:ARG:NH1	2.36	0.46
42:L5:122:VAL:HG23	42:L5:123:GLU:H	4.59	0.46
44:L7:25:GLN:O	44:L7:28:ALA:HB3	3.66	0.46
45:L8:94:PHE:HB3	45:L8:189:LEU:HD21	3.66	0.46
46:L9:13:PRO:HG2	46:L9:16:VAL:HG11	3.10	0.46
48:M1:6:GLN:HA	48:M1:6:GLN:NE2	2.28	0.46
49:M3:102:GLN:HB2	49:M3:104:ARG:CZ	2.46	0.46
49:M3:61:PRO:HD2	49:M3:70:ARG:HH21	2.39	0.46
51:M5:113:LEU:HD12	51:M5:136:ASP:HA	1.98	0.46
56:N0:13:ARG:NH2	56:N0:50:LYS:O	2.79	0.46
59:N3:79:VAL:HG13	59:N3:100:GLY:HA2	1.97	0.46
62:N6:48:LEU:HA	62:N6:48:LEU:HD23	2.62	0.46
63:N7:36:HIS:HB3	63:N7:40:HIS:CE1	3.97	0.46
64:N8:42:ARG:NH2	36:5:2799:A:H1'	192.64	0.46
67:O1:23:VAL:O	67:O1:28:ARG:NH1	2.48	0.46
67:O1:81:GLU:O	67:O1:82:GLU:HG2	2.49	0.46
73:O7:25:ARG:HD3	75:O9:51:ILE:HG13	3.95	0.46
74:O8:23:ALA:HB2	74:O8:73:LEU:HD21	1.96	0.46
36:1:1493:G:O6	75:O9:2:ALA:HB2	2.15	0.46
3:S1:48:VAL:HG13	3:S1:61:LEU:HD11	1.97	0.46
4:S2:180:ALA:HB2	4:S2:198:THR:HG21	2.20	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:162:GLN:HG3	1:6:1333:C:C4'	426.49	0.46
5:S3:60:GLY:O	5:S3:62:ASN:N	3.45	0.46
7:S5:94:THR:O	7:S5:97:LEU:HB2	2.15	0.46
8:S6:25:ARG:HH11	8:S6:25:ARG:HB2	1.81	0.46
9:S7:164:TYR:OH	9:S7:165:LYS:HE2	3.49	0.46
9:S7:41:LEU:HD22	9:S7:70:PHE:CD1	2.51	0.46
9:S7:78:THR:HA	9:S7:81:LEU:HB2	2.73	0.46
10:S8:33:PRO:HB3	1:6:330:G:O2'	272.96	0.46
11:S9:109:LEU:HD22	11:S9:113:VAL:HG23	1.98	0.46
11:S9:133:HIS:O	11:S9:134:ILE:HG13	4.55	0.46
11:S9:93:LEU:O	11:S9:96:VAL:HG22	2.27	0.46
35:SM:65:THR:C	35:SM:67:GLY:H	4.77	0.46
34:SR:231:MET:HB3	34:SR:232:TYR:HD2	1.80	0.46
34:SR:282:SER:H	34:SR:285:ALA:HB3	2.70	0.46
34:SR:63:GLY:HA3	34:SR:90:ARG:NH1	2.47	0.46
34:SR:86:ASP:O	34:SR:88:THR:HG23	2.15	0.46
36:1:407:A:O2'	36:1:1397:C:OP1	2.34	0.46
36:1:2850:G:O6	86:1:4077:OHX:N6	2.48	0.46
36:1:2859:U:H4'	36:1:2860:U:OP1	2.15	0.46
36:1:345:G:OP1	36:1:1429:G:N1	2.40	0.46
36:1:1389:G:OP2	86:1:3973:OHX:N4	2.49	0.46
86:1:3962:OHX:N1	86:1:4142:OHX:N4	2.63	0.46
36:1:85:A:O2'	86:1:4143:OHX:N6	2.49	0.46
1:2:12:U:H2'	1:2:13:C:C6	2.50	0.46
1:2:138:A:H62	1:2:266:A:H61	1.61	0.46
1:2:1768:G:H3'	87:2:2180:EDE:O44	2.15	0.46
87:2:2180:EDE:H24	87:2:2180:EDE:H272	1.58	0.46
1:2:274:G:C2	1:2:275:C:H1'	2.51	0.46
1:2:276:C:O2'	1:2:277:U:H5''	2.15	0.46
36:1:407:A:C2	38:4:17:A:H1'	2.50	0.46
36:5:54:C:H1'	36:5:1546:A:C2	2.51	0.46
36:5:2407:C:H2'	36:5:2408:U:H6	1.80	0.46
36:5:2590:A:C4	36:5:2591:A:C8	3.04	0.46
36:5:3022:G:O2'	36:5:3031:G:O6	2.34	0.46
36:5:385:A:H2'	36:5:386:A:C8	2.50	0.46
36:5:1534:A:OP1	86:5:3924:OHX:N1	2.48	0.46
1:6:421:A:O2'	1:6:422:G:H5'	2.16	0.46
1:6:427:C:C4	1:6:428:A:N7	2.83	0.46
1:6:485:A:H61	1:6:502:U:H3	1.62	0.46
11:S9:133:HIS:NE2	1:6:513:U:OP1	446.43	0.46
17:C5:111:MET:HG3	20:C8:119:ILE:CG1	3.86	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C5:127:ARG:O	17:C5:130:ARG:NH1	4.68	0.46
18:C6:110:THR:HA	18:C6:113:ASP:HB2	2.53	0.46
18:C6:136:SER:O	18:C6:137:ARG:NH2	2.49	0.46
18:C6:35:PRO:HG2	18:C6:38:LEU:HG	1.97	0.46
22:D0:23:ARG:HD2	22:D0:90:TYR:CD1	2.50	0.46
26:D4:50:ALA:HB1	26:D4:54:ALA:HB3	3.04	0.46
28:D6:18:VAL:HG21	28:D6:33:ASP:H	2.81	0.46
41:L4:180:LYS:HE3	41:L4:180:LYS:HB3	1.88	0.46
41:L4:292:SER:OG	41:L4:293:SER:N	2.47	0.46
43:L6:175:LYS:O	50:M4:117:ARG:NH2	2.49	0.46
45:L8:68:ARG:HG2	45:L8:68:ARG:H	1.97	0.46
46:L9:91:ARG:HG2	46:L9:182:SER:HB3	4.29	0.46
47:M0:33:ILE:O	47:M0:33:ILE:HG12	2.15	0.46
48:M1:33:ALA:HB2	48:M1:123:PHE:CE1	2.74	0.46
49:M3:153:ASP:OD1	49:M3:157:ARG:NH2	2.48	0.46
51:M5:96:ARG:NH2	51:M5:104:GLU:OE1	3.11	0.46
52:M6:59:ARG:NH1	36:5:1307:G:OP1	253.76	0.46
54:M8:67:ILE:HG22	54:M8:68:ALA:N	2.30	0.46
55:M9:123:LEU:O	55:M9:127:SER:N	2.46	0.46
56:N0:5:LYS:HB2	56:N0:7:TYR:CE2	2.66	0.46
57:N1:41:ASP:HB2	57:N1:97:LYS:CD	3.91	0.46
59:N3:87:ARG:NH2	59:N3:121:GLU:OE1	2.91	0.46
61:N5:80:ASN:ND2	61:N5:126:LEU:HB2	2.31	0.46
63:N7:7:ALA:HA	63:N7:25:ILE:HG22	1.97	0.46
63:N7:33:SER:HB3	63:N7:36:HIS:HB2	2.70	0.46
68:O2:64:LYS:O	68:O2:65:PHE:HB2	2.15	0.46
72:O6:5:THR:OG1	72:O6:7:ILE:HG12	2.15	0.46
72:O6:62:ARG:HH12	72:O6:98:ARG:HD3	1.81	0.46
73:O7:66:TYR:OH	73:O7:73:ARG:NH2	3.13	0.46
1:2:1775:U:OP2	77:Q1:7:LYS:HE2	2.16	0.46
79:Q3:49:ARG:HG3	79:Q3:55:TRP:CZ2	2.84	0.46
3:S1:193:ILE:HG12	3:S1:193:ILE:H	1.61	0.46
5:S3:217:ILE:HG22	5:S3:219:ALA:H	3.14	0.46
6:S4:212:ASP:OD1	6:S4:214:LEU:N	2.49	0.46
6:S4:32:SER:HB2	6:S4:83:PRO:HD3	1.96	0.46
6:S4:62:LYS:HB2	6:S4:62:LYS:NZ	2.31	0.46
7:S5:29:ILE:O	7:S5:34:GLN:HG3	2.16	0.46
9:S7:56:LYS:HB2	9:S7:88:ARG:HH11	2.43	0.46
1:2:767:U:H5	11:S9:142:ASN:OD1	1.99	0.46
36:1:103:G:OP1	49:M3:70:ARG:NH2	2.42	0.46
36:1:2777:G:H5''	36:1:2778:G:OP1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3139:A:C8	36:1:3139:A:H5''	2.50	0.46
36:1:2263:C:OP1	86:1:3987:OHX:N1	2.49	0.46
86:1:4057:OHX:N2	86:1:4166:OHX:N5	2.63	0.46
1:2:1089:U:O2'	1:2:1090:C:H5'	2.14	0.46
1:2:1157:A:C8	1:2:1157:A:H3'	2.51	0.46
1:2:1475:A:H2'	1:2:1476:C:O4'	2.15	0.46
1:2:530:C:O2	26:D4:61:ARG:NH2	2.49	0.46
1:2:603:U:H2'	1:2:604:A:C8	2.50	0.46
1:2:702:G:C2	1:2:703:G:H1'	2.51	0.46
38:4:15:G:C6	38:4:16:G:N1	2.84	0.46
36:5:1638:A:H2	36:5:1736:G:N3	2.14	0.46
36:5:3160:U:OP1	86:5:4184:OHX:N1	2.49	0.46
1:6:1393:C:H2'	1:6:1394:G:H8	1.81	0.46
1:6:149:C:H2'	1:6:150:U:H6	1.79	0.46
1:6:1698:G:H1'	1:6:1699:G:OP1	2.15	0.46
1:6:270:C:H2'	1:6:271:A:O4'	2.14	0.46
10:S8:56:ARG:HH22	1:6:332:U:P	287.11	0.46
1:6:413:U:H2'	1:6:414:C:C6	2.50	0.46
1:6:525:A:H2'	1:6:526:A:C8	2.50	0.46
1:6:72:A:H2'	1:6:73:U:C1'	2.46	0.46
9:S7:115:SER:O	1:6:856:A:N6	359.87	0.46
17:C5:105:VAL:HG12	17:C5:106:GLU:O	2.43	0.46
18:C6:31:VAL:HA	18:C6:67:VAL:O	2.53	0.46
23:D1:3:ASN:HD21	23:D1:7:GLN:HB3	3.32	0.46
24:D2:104:LEU:HA	24:D2:126:LEU:H	1.81	0.46
25:D3:48:HIS:CD2	25:D3:105:ALA:HB2	2.51	0.46
25:D3:90:ASP:OD2	32:E0:12:GLY:HA2	2.66	0.46
39:L2:180:LEU:HD23	39:L2:180:LEU:HA	1.86	0.46
42:L5:219:PHE:O	42:L5:223:PHE:HB2	2.16	0.46
44:L7:139:PRO:HA	44:L7:237:ASN:OD1	2.27	0.46
46:L9:38:LEU:HD23	46:L9:38:LEU:HA	2.03	0.46
46:L9:7:GLU:OE1	46:L9:54:LYS:HD3	3.79	0.46
47:M0:19:LYS:HE3	47:M0:26:VAL:HG22	3.46	0.46
50:M4:45:LEU:HA	50:M4:45:LEU:HD12	2.34	0.46
50:M4:32:LEU:HD11	50:M4:94:TRP:CD1	2.51	0.46
51:M5:93:LYS:O	51:M5:94:TYR:HB3	2.16	0.46
52:M6:27:LEU:HB3	52:M6:98:ALA:HB1	1.96	0.46
54:M8:86:THR:CG2	54:M8:105:ARG:HB2	2.53	0.46
54:M8:87:VAL:O	54:M8:107:THR:HG23	2.16	0.46
56:N0:115:ARG:NH1	36:5:1295:G:O2'	294.90	0.46
64:N8:75:LEU:HD12	64:N8:137:LYS:HD2	2.19	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:O1:19:ARG:HB3	67:O1:35:GLU:HG2	1.98	0.46
67:O1:43:HIS:O	67:O1:44:MET:HE2	6.25	0.46
70:O4:81:CYS:SG	70:O4:81:CYS:O	2.82	0.46
63:N7:136:PHE:CE1	70:O4:89:ILE:HG12	3.02	0.46
3:S1:201:THR:HG21	3:S1:207:LEU:HD22	1.96	0.46
1:2:1301:U:OP1	4:S2:88:LYS:HB2	2.16	0.46
6:S4:106:LYS:HG3	6:S4:108:ARG:HH11	2.38	0.46
7:S5:59:VAL:HG12	7:S5:60:ASP:H	1.99	0.46
7:S5:77:TYR:HB3	7:S5:84:LYS:HA	1.96	0.46
8:S6:79:LYS:HB3	8:S6:79:LYS:HE3	1.78	0.46
9:S7:102:PRO:HD3	9:S7:112:ARG:HD3	2.95	0.46
9:S7:58:LEU:N	9:S7:89:HIS:O	2.49	0.46
9:S7:67:LEU:HG	9:S7:94:ALA:HB2	2.30	0.46
36:1:2190:U:OP1	79:Q3:21:SER:OG	2.30	0.46
36:1:2307:G:O2'	36:1:2310:U:OP2	2.33	0.46
36:1:2676:A:H4'	36:1:2677:G:O5'	2.16	0.46
36:1:3043:C:P	59:N3:48:ARG:NH2	2.87	0.46
36:1:3119:U:OP2	86:1:3892:OHX:N3	2.49	0.46
36:1:398:A:C4	53:M7:3:ARG:NH2	2.84	0.46
36:1:422:A:C2	36:1:2363:A:H4'	2.51	0.46
36:1:707:U:H2'	36:1:708:G:H5''	1.97	0.46
36:1:711:A:N7	36:1:712:G:H1'	2.31	0.46
1:2:1553:G:O2'	31:D9:14:TYR:OH	2.30	0.46
1:2:25:C:O2	86:2:2083:OHX:N1	2.49	0.46
1:2:77:U:H5'	1:2:79:C:OP2	2.16	0.46
36:5:1260:A:H1'	36:5:1280:C:H1'	1.97	0.46
55:M9:42:ARG:HH22	36:5:1601:U:P	102.69	0.46
55:M9:46:LYS:NZ	36:5:1766:G:C8	101.50	0.46
36:5:1800:A:H2'	36:5:1801:U:O4'	2.16	0.46
42:L5:31:TYR:OH	36:5:2705:A:OP1	257.90	0.46
36:5:371:G:O6	86:5:4206:OHX:N5	2.48	0.46
36:5:587:U:C2'	36:5:588:G:H5'	2.46	0.46
36:5:83:U:H2'	36:5:84:U:O4'	2.16	0.46
1:6:1397:U:C5	1:6:1399:C:C2	3.03	0.46
1:6:1756:A:C8	1:6:1756:A:O5'	2.69	0.46
10:S8:14:THR:HG22	1:6:348:U:H4'	299.49	0.46
38:8:10:A:H2'	38:8:11:C:C6	2.51	0.46
14:C2:81:ASP:HA	14:C2:82:PRO:HD2	2.53	0.46
15:C3:70:LYS:NZ	1:6:963:A:OP2	331.40	0.46
21:C9:15:ILE:HD11	21:C9:63:ARG:HD3	4.08	0.46
22:D0:62:VAL:HG22	22:D0:85:ARG:HG3	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:47:ILE:HG22	24:D2:65:LEU:HD12	3.21	0.46
25:D3:23:ARG:O	25:D3:26:GLU:HB2	2.16	0.46
26:D4:53:ASP:OD1	26:D4:96:LEU:HD21	3.94	0.46
27:D5:51:LEU:HD12	27:D5:51:LEU:H	2.86	0.46
27:D5:49:ARG:NH2	27:D5:53:GLU:OE2	3.30	0.46
29:D7:63:LEU:HD23	29:D7:63:LEU:HA	1.78	0.46
30:D8:64:ARG:HB3	30:D8:65:ARG:H	1.63	0.46
31:D9:4:GLU:OE1	31:D9:4:GLU:N	4.63	0.46
33:E1:127:GLY:C	33:E1:129:GLY:H	2.19	0.46
40:L3:188:ILE:CD1	40:L3:188:ILE:H	3.16	0.46
40:L3:209:PHE:HB3	40:L3:282:ILE:HD12	2.09	0.46
40:L3:385:LYS:HB2	40:L3:386:ASP:H	1.49	0.46
37:3:36:C:H4'	42:L5:155:THR:HG23	1.98	0.46
42:L5:226:TYR:H	42:L5:226:TYR:HD2	4.78	0.46
46:L9:101:VAL:HG12	46:L9:136:PHE:CE1	2.51	0.46
47:M0:174:THR:O	47:M0:175:ASN:HB2	4.45	0.46
47:M0:193:ASP:OD2	47:M0:198:LYS:NZ	3.90	0.46
47:M0:48:LEU:HD22	47:M0:49:CYS:N	2.31	0.46
47:M0:4:ARG:CZ	47:M0:99:ILE:HG22	6.41	0.46
36:1:73:C:O2	49:M3:59:ARG:HD3	2.16	0.46
49:M3:87:ALA:O	49:M3:91:ARG:HG3	2.35	0.46
52:M6:12:LYS:O	52:M6:14:HIS:N	3.83	0.46
52:M6:38:ALA:O	52:M6:41:LEU:HB2	2.16	0.46
53:M7:24:VAL:CG1	53:M7:86:LYS:HG2	2.42	0.46
65:N9:58:LYS:HA	65:N9:58:LYS:HD2	1.57	0.46
67:O1:97:LEU:HD23	67:O1:97:LEU:HA	1.77	0.46
69:O3:38:PRO:HD3	69:O3:77:ASN:O	2.15	0.46
73:O7:55:ARG:O	73:O7:55:ARG:HG2	2.65	0.46
3:S1:184:LEU:HA	3:S1:187:LYS:HB2	1.98	0.46
4:S2:49:LYS:HD3	4:S2:49:LYS:HA	1.88	0.46
6:S4:124:GLY:HA2	6:S4:142:HIS:HE1	1.81	0.46
6:S4:6:LYS:O	6:S4:7:LYS:HD2	3.11	0.46
7:S5:113:ILE:O	7:S5:117:THR:OG1	2.17	0.46
7:S5:188:LYS:HE3	7:S5:196:GLU:OE2	3.90	0.46
7:S5:42:LEU:HD21	7:S5:45:LYS:HD3	1.98	0.46
7:S5:49:GLU:HG3	7:S5:49:GLU:H	1.43	0.46
8:S6:66:GLY:HA3	1:6:1681:A:H1'	273.81	0.46
9:S7:52:ALA:HB3	9:S7:167:GLU:OE1	5.12	0.46
35:SM:107:ASN:CG	35:SM:112:ASP:HB3	2.36	0.46
36:1:1553:U:C4'	36:1:1554:U:H5'	2.41	0.46
36:1:1495:U:C5	36:1:1835:A:N1	2.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2154:U:OP1	39:L2:242:ARG:NH1	2.49	0.46
36:1:2767:U:O4	86:1:4040:OHX:N6	2.49	0.46
36:1:1204:A:C2	36:1:2834:G:N3	2.81	0.46
36:1:3304:U:P	40:L3:332:ARG:HH22	2.39	0.46
36:1:1166:G:N7	86:1:3867:OHX:N4	2.64	0.46
36:1:1599:G:OP1	86:1:4086:OHX:N5	2.48	0.46
1:2:1067:C:H5''	3:S1:150:VAL:HG23	1.99	0.46
1:2:1267:G:H21	1:2:1448:G:H5'	1.81	0.46
1:2:1490:C:H5'	5:S3:5:ILE:HD13	1.98	0.46
1:2:990:C:H2'	1:2:991:G:O4'	2.16	0.46
37:3:93:C:O2'	37:3:94:C:H5'	2.16	0.46
36:5:128:G:H2'	36:5:129:U:O4'	2.15	0.46
36:5:129:U:O4	86:5:3934:OHX:N4	2.49	0.46
72:O6:25:LYS:HB3	36:5:156:G:OP2	87.63	0.46
36:5:1786:G:H2'	36:5:1787:A:C8	2.50	0.46
36:5:2101:C:HO2'	36:5:2102:U:P	2.36	0.46
36:5:2505:U:H2'	36:5:2506:U:C4	2.51	0.46
36:5:2611:U:H2'	36:5:2612:U:C6	2.51	0.46
36:5:2651:G:H4'	36:5:2652:U:OP2	2.16	0.46
36:5:3194:C:H2'	36:5:3195:U:H3'	1.98	0.46
36:5:3302:U:H3	36:5:3312:U:H3	1.64	0.46
36:5:374:A:HO2'	36:5:376:G:H8	1.62	0.46
36:5:727:G:H2'	36:5:728:G:O4'	2.16	0.46
8:S6:202:ARG:NH2	1:6:127:G:N7	329.01	0.46
1:6:1304:G:H5'	1:6:1322:A:OP2	2.16	0.46
1:6:162:A:H2'	1:6:163:G:C8	2.51	0.46
1:6:808:U:H2'	1:6:809:A:C8	2.51	0.46
1:6:837:G:H2'	1:6:838:G:C8	2.51	0.46
1:6:913:G:H3'	1:6:914:G:H5''	1.98	0.46
1:6:920:U:H2'	1:6:921:U:O4'	2.15	0.46
12:C0:15:LEU:HG	12:C0:68:LEU:HD22	1.98	0.46
17:C5:115:TYR:N	17:C5:118:GLU:OE1	3.31	0.46
17:C5:65:LEU:C	17:C5:67:ALA:H	2.20	0.46
20:C8:35:ILE:HB	20:C8:38:VAL:CG2	2.45	0.46
21:C9:64:HIS:CE1	21:C9:79:LEU:HD22	3.13	0.46
22:D0:58:LEU:HD23	1:6:1516:A:H8	444.28	0.46
22:D0:70:THR:HG23	1:6:1280:C:O2'	388.15	0.46
24:D2:119:LYS:HB3	24:D2:121:VAL:HG13	5.49	0.46
24:D2:27:ILE:HD11	24:D2:34:ILE:HG21	1.98	0.46
25:D3:107:PHE:CE1	25:D3:123:LYS:HB3	2.50	0.46
28:D6:26:CYS:SG	28:D6:28:LYS:HB2	2.76	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D6:23:CYS:SG	28:D6:74:CYS:HB3	2.56	0.46
39:L2:83:HIS:O	39:L2:86:GLN:HB3	2.30	0.46
40:L3:205:VAL:HA	40:L3:208:VAL:HG23	4.23	0.46
41:L4:219:LEU:HD23	41:L4:219:LEU:HA	1.75	0.46
42:L5:86:TYR:CD1	42:L5:247:ILE:HG13	2.59	0.46
48:M1:15:GLU:HB2	48:M1:132:ASN:ND2	2.31	0.46
49:M3:151:ALA:O	49:M3:153:ASP:N	4.02	0.46
52:M6:127:LEU:HD11	56:N0:168:PRO:HG3	2.34	0.46
58:N2:29:ASP:OD1	58:N2:31:ALA:HB3	2.16	0.46
60:N4:23:ARG:NH2	60:N4:27:LYS:HD3	2.31	0.46
60:N4:5:ILE:HD12	60:N4:6:ASP:O	2.66	0.46
61:N5:96:LYS:O	61:N5:100:LYS:HB2	2.38	0.46
62:N6:120:GLN:CD	62:N6:126:LEU:HA	8.51	0.46
71:O5:70:TYR:CE1	71:O5:77:PRO:HD3	2.51	0.46
78:Q2:14:GLY:O	78:Q2:16:THR:N	2.44	0.46
78:Q2:26:THR:OG1	78:Q2:71:ARG:HD3	3.24	0.46
2:S0:195:TRP:CD2	2:S0:197:ILE:HB	3.07	0.46
3:S1:133:TYR:CE2	3:S1:181:LEU:HD12	4.53	0.46
3:S1:51:SER:HA	3:S1:56:SER:HA	1.98	0.46
4:S2:159:THR:HB	4:S2:168:ARG:HG3	4.12	0.46
4:S2:188:LEU:HD13	4:S2:196:VAL:HG11	1.97	0.46
6:S4:43:PRO:HD2	6:S4:46:VAL:HG21	1.97	0.46
8:S6:109:LEU:HD13	8:S6:111:LEU:HD21	1.97	0.46
35:SM:123:ALA:O	35:SM:126:ASP:HB2	2.16	0.46
20:C8:145:ARG:CG	35:SM:68:ARG:HH22	3.78	0.46
35:SM:75:ASP:N	35:SM:75:ASP:OD1	3.79	0.46
36:1:110:G:H5''	49:M3:91:ARG:HH21	1.81	0.45
36:1:2282:U:O2	36:1:2310:U:H4'	2.15	0.45
36:1:816:A:H5''	36:1:920:A:H62	1.81	0.45
36:1:93:C:O2'	64:N8:55:LYS:HE3	2.17	0.45
1:2:1107:G:C6	1:2:1108:G:C6	3.04	0.45
1:2:1176:G:O6	20:C8:140:THR:HG21	2.16	0.45
1:2:549:G:H2'	1:2:550:A:H8	1.82	0.45
1:2:552:G:C6	1:2:553:G:C6	3.04	0.45
36:5:1238:C:H2'	36:5:1239:C:O4'	2.16	0.45
68:O2:61:LYS:HD3	36:5:1339:C:OP1	193.05	0.45
36:5:1808:G:O6	86:5:4026:OHX:N3	2.49	0.45
52:M6:156:LEU:HB3	36:5:3243:A:N7	267.23	0.45
86:5:3975:OHX:N3	86:5:4245:OHX:N2	2.64	0.45
86:5:4013:OHX:N3	86:5:4202:OHX:N5	2.64	0.45
51:M5:201:ARG:NH2	36:5:692:A:OP1	96.73	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:145:A:O2'	1:6:146:U:OP1	2.31	0.45
86:6:2123:OHX:N5	86:6:2147:OHX:N3	2.64	0.45
1:6:542:A:OP1	1:6:544:A:C5	2.69	0.45
37:7:23:A:C6	37:7:24:A:C6	3.04	0.45
12:C0:44:LYS:HZ3	12:C0:47:GLN:HE22	1.62	0.45
15:C3:61:THR:HB	1:6:959:U:O2	350.75	0.45
18:C6:7:VAL:HG22	18:C6:22:VAL:HB	1.98	0.45
20:C8:49:LYS:NZ	20:C8:80:LYS:O	2.32	0.45
22:D0:20:ILE:HG13	22:D0:95:ALA:O	2.16	0.45
2:S0:185:ARG:N	23:D1:45:ALA:H	2.49	0.45
25:D3:92:CYS:HA	25:D3:95:PHE:HD2	1.79	0.45
28:D6:43:ASN:HD22	28:D6:43:ASN:H	3.84	0.45
33:E1:140:TYR:HE1	33:E1:146:SER:HA	1.82	0.45
39:L2:241:ARG:HA	36:5:2203:U:H4'	220.45	0.45
40:L3:43:LEU:HA	40:L3:43:LEU:HD12	2.47	0.45
36:1:2584:G:O2'	45:L8:240:ASN:ND2	2.49	0.45
45:L8:242:ALA:HA	45:L8:245:LYS:HD3	3.16	0.45
46:L9:12:VAL:HG13	46:L9:16:VAL:HG22	3.21	0.45
47:M0:76:MET:HE1	47:M0:138:VAL:HG11	1.99	0.45
48:M1:109:HIS:CD2	48:M1:123:PHE:H	2.29	0.45
48:M1:166:LYS:O	48:M1:168:ASP:N	3.76	0.45
49:M3:116:LEU:HD23	49:M3:116:LEU:HA	1.83	0.45
59:N3:92:PHE:CE1	36:5:3051:U:H1'	245.63	0.45
62:N6:60:ARG:HA	62:N6:60:ARG:HD3	1.44	0.45
65:N9:23:LYS:HD2	65:N9:23:LYS:HA	1.47	0.45
70:O4:105:VAL:O	70:O4:108:GLN:HB2	2.15	0.45
70:O4:7:PHE:HD1	70:O4:34:HIS:HE1	1.64	0.45
71:O5:14:LYS:HB3	71:O5:15:GLU:OE2	7.01	0.45
71:O5:34:GLN:HB3	71:O5:38:ARG:HH12	1.81	0.45
72:O6:60:LEU:HD21	72:O6:68:ARG:NH2	2.30	0.45
74:O8:4:GLU:HG3	74:O8:5:ILE:H	1.81	0.45
77:Q1:1:MET:SD	77:Q1:9:ARG:NH1	3.75	0.45
3:S1:172:LEU:O	3:S1:176:VAL:HG23	2.16	0.45
3:S1:55:LYS:HD3	3:S1:55:LYS:HA	1.88	0.45
4:S2:90:THR:HG22	4:S2:94:GLN:O	7.16	0.45
1:2:1277:G:H5'	5:S3:140:GLY:HA2	1.97	0.45
7:S5:73:THR:C	7:S5:75:GLY:H	2.82	0.45
7:S5:63:GLN:CB	7:S5:88:PRO:HA	2.47	0.45
1:2:761:G:H4'	11:S9:72:GLU:OE1	2.16	0.45
34:SR:157:VAL:HB	34:SR:168:THR:HG22	3.61	0.45
36:1:1120:A:C2	36:1:1139:G:C2	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1236:G:N2	36:1:1244:A:H4'	2.31	0.45
36:1:2971:A:N3	36:1:2971:A:H3'	2.31	0.45
86:1:3966:OHX:N3	86:1:4074:OHX:N4	2.64	0.45
36:1:980:A:H2'	36:1:981:U:N1	2.30	0.45
1:2:1031:U:H4'	1:2:1032:G:OP2	2.16	0.45
1:2:1316:G:H2'	1:2:1317:C:H6	1.79	0.45
86:2:2074:OHX:N3	86:2:2161:OHX:N5	2.64	0.45
36:5:999:G:O2'	36:5:1000:C:H5'	2.16	0.45
36:5:1307:G:H1'	36:5:1308:A:C8	2.50	0.45
36:5:1366:A:H2'	36:5:1367:G:C8	2.51	0.45
36:5:2770:G:C2'	36:5:2771:U:H5'	2.47	0.45
50:M4:121:MET:HE1	36:5:3215:A:H5'	275.33	0.45
86:5:4068:OHX:N5	86:5:4144:OHX:N6	2.64	0.45
36:5:797:U:O2'	36:5:798:G:H5'	2.16	0.45
36:5:979:U:O2'	36:5:980:A:C5	2.65	0.45
1:6:1151:A:H4'	1:6:1766:A:C6	2.51	0.45
1:6:1382:A:O2'	1:6:1383:G:H5''	2.16	0.45
1:6:138:A:H5''	1:6:138:A:N3	2.31	0.45
1:6:1239:U:O4	86:6:2095:OHX:N5	2.49	0.45
1:6:218:A:H61	1:6:829:A:H2	1.62	0.45
37:7:47:C:H2'	37:7:48:U:C6	2.52	0.45
12:C0:3:MET:SD	12:C0:8:ARG:NH1	2.89	0.45
13:C1:104:HIS:O	13:C1:105:LYS:HG2	2.16	0.45
13:C1:33:ARG:HH22	13:C1:52:SER:CA	3.06	0.45
14:C2:118:ALA:O	14:C2:120:VAL:N	2.49	0.45
16:C4:90:ARG:O	16:C4:92:LYS:N	2.49	0.45
19:C7:4:VAL:HA	1:6:1402:G:OP1	404.00	0.45
20:C8:145:ARG:HG3	35:SM:68:ARG:NH2	4.39	0.45
24:D2:73:GLY:HA3	24:D2:128:PHE:CE1	3.18	0.45
26:D4:44:LEU:HA	26:D4:47:VAL:HG23	1.98	0.45
41:L4:18:ASN:N	41:L4:18:ASN:OD1	4.38	0.45
41:L4:311:HIS:HE1	41:L4:314:LYS:HA	1.76	0.45
41:L4:361:HIS:CG	41:L4:362:ASP:N	2.91	0.45
42:L5:242:SER:O	42:L5:245:GLU:HB2	2.62	0.45
46:L9:101:VAL:HG12	46:L9:136:PHE:HE1	1.81	0.45
46:L9:87:LYS:HD2	46:L9:191:LEU:HD11	14.40	0.45
47:M0:54:SER:HB2	47:M0:135:ILE:HD11	2.33	0.45
48:M1:10:ARG:HA	48:M1:134:PRO:HD2	2.77	0.45
52:M6:11:GLY:O	52:M6:14:HIS:HB2	2.50	0.45
52:M6:77:SER:O	52:M6:80:PHE:HB3	2.16	0.45
36:1:2115:G:O2'	55:M9:82:LYS:HE3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:N0:117:ARG:HG2	56:N0:117:ARG:H	2.20	0.45
66:O0:86:ARG:HG2	66:O0:86:ARG:O	3.27	0.45
3:S1:48:VAL:HG22	3:S1:64:ARG:NH2	3.41	0.45
4:S2:150:GLN:HA	4:S2:151:PRO:HD3	1.83	0.45
5:S3:137:VAL:HG22	5:S3:151:LYS:HE2	1.98	0.45
7:S5:112:ARG:HD3	27:D5:95:HIS:NE2	2.32	0.45
10:S8:76:THR:HG23	10:S8:108:PRO:HG2	2.93	0.45
17:C5:127:ARG:NH2	35:SM:66:ALA:HB2	3.65	0.45
34:SR:242:SER:H	34:SR:255:ALA:HB3	1.81	0.45
36:1:1293:U:O2'	36:1:1294:A:H5'	2.16	0.45
36:1:1782:U:H2'	36:1:1783:U:O4'	2.16	0.45
36:1:2224:A:N1	36:1:2783:U:O2'	2.41	0.45
36:1:2258:U:H2'	36:1:2259:A:O4'	2.16	0.45
36:1:2357:A:H2'	36:1:2358:A:H8	1.80	0.45
36:1:2683:U:H2'	36:1:2684:C:H6	1.78	0.45
36:1:277:G:H2'	36:1:278:U:C6	2.51	0.45
36:1:2796:G:N7	78:Q2:63:LYS:NZ	2.64	0.45
36:1:2995:A:H2'	36:1:2996:U:H5''	1.98	0.45
36:1:3019:U:C4	36:1:3020:U:C4	3.04	0.45
36:1:330:G:OP2	86:1:4045:OHX:N2	2.49	0.45
36:1:1541:G:OP2	86:1:4021:OHX:N5	2.49	0.45
36:1:1789:G:N7	86:1:4171:OHX:N2	2.64	0.45
36:1:700:C:OP1	49:M3:65:TYR:OH	2.20	0.45
36:1:908:G:H4'	36:1:909:G:O5'	2.17	0.45
1:2:1130:G:OP2	86:2:2073:OHX:N2	2.50	0.45
1:2:1147:A:H2'	1:2:1148:C:H6	1.81	0.45
1:2:1237:G:H2'	1:2:1238:A:O4'	2.17	0.45
1:2:25:C:OP2	1:2:26:A:H2'	2.17	0.45
38:4:143:U:P	51:M5:38:ARG:HH22	2.39	0.45
36:5:1709:C:H2'	36:5:1710:C:C6	2.51	0.45
36:5:1818:U:H2'	36:5:1819:U:H6	1.81	0.45
36:5:1908:A:H2'	36:5:1909:A:O4'	2.15	0.45
55:M9:143:ILE:CG1	36:5:2093:A:H5''	249.19	0.45
36:5:2512:C:H5''	36:5:2512:C:H6	1.80	0.45
42:L5:36:LEU:HD23	36:5:2748:A:H1'	253.31	0.45
36:5:3017:A:H2'	36:5:3018:C:H6	1.82	0.45
36:5:765:C:H4'	36:5:766:U:OP2	2.15	0.45
33:E1:146:SER:HB3	1:6:1234:A:H4'	433.64	0.45
1:6:1744:A:N6	1:6:1745:G:C6	2.85	0.45
1:6:486:G:H4'	1:6:486:G:OP1	2.17	0.45
1:6:526:A:N6	1:6:527:A:C6	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:72:A:H5'	1:6:73:U:OP2	2.15	0.45
1:6:993:A:H2'	1:6:994:G:O4'	2.16	0.45
12:C0:45:ALA:O	12:C0:49:LEU:HD23	2.63	0.45
12:C0:72:GLY:O	12:C0:76:LEU:HD22	2.17	0.45
23:D1:74:GLN:OE1	23:D1:82:VAL:N	3.80	0.45
27:D5:41:ILE:HG23	27:D5:42:LEU:N	2.32	0.45
39:L2:28:LYS:HB3	39:L2:123:ARG:HB3	2.28	0.45
41:L4:13:GLY:HA2	41:L4:171:ALA:O	2.79	0.45
41:L4:216:VAL:HG13	41:L4:227:THR:OG1	4.16	0.45
43:L6:97:ASN:O	43:L6:99:GLU:N	2.74	0.45
45:L8:67:ILE:HA	45:L8:67:ILE:HD13	4.26	0.45
52:M6:16:VAL:HG21	52:M6:43:ILE:HG12	2.38	0.45
53:M7:51:VAL:HG11	53:M7:88:VAL:HG21	1.97	0.45
54:M8:161:LYS:O	54:M8:162:ALA:HB3	2.16	0.45
54:M8:58:ASN:C	54:M8:60:PRO:HD3	2.65	0.45
56:N0:170:THR:HG1	36:5:3185:U:HO2'	304.94	0.45
36:1:2756:C:O4'	57:N1:49:GLN:HG2	2.16	0.45
59:N3:27:ASP:HA	59:N3:113:ALA:O	2.16	0.45
62:N6:74:TYR:CD2	62:N6:77:LYS:HD2	5.43	0.45
63:N7:16:GLY:C	63:N7:18:TYR:H	2.13	0.45
66:O0:99:ASP:O	66:O0:103:THR:HG23	2.16	0.45
43:L6:13:GLU:OE2	68:O2:90:LYS:HB2	2.16	0.45
71:O5:32:LYS:HG2	71:O5:44:ILE:HD11	1.99	0.45
71:O5:85:THR:O	71:O5:89:ARG:HB2	2.16	0.45
76:Q0:106:ARG:HH11	76:Q0:106:ARG:HB2	4.41	0.45
2:S0:74:VAL:HA	2:S0:96:THR:O	2.65	0.45
4:S2:238:SER:HB3	4:S2:241:ASP:OD2	2.17	0.45
4:S2:39:THR:O	4:S2:42:GLY:N	3.13	0.45
5:S3:31:GLU:HA	5:S3:107:PHE:HE2	1.81	0.45
5:S3:195:SER:O	5:S3:197:THR:N	2.46	0.45
6:S4:195:ILE:O	6:S4:196:VAL:HG23	4.19	0.45
10:S8:32:GLN:OE1	1:6:1727:G:N2	273.73	0.45
11:S9:17:ARG:HD2	11:S9:20:GLU:OE1	2.15	0.45
1:2:1274:C:H5	35:SM:95:SER:HA	1.80	0.45
36:1:1304:A:OP1	86:1:4212:OHX:N5	2.49	0.45
36:1:1356:U:H6	36:1:1356:U:O5'	1.99	0.45
36:1:1651:U:H2'	36:1:1652:G:C8	2.51	0.45
36:1:198:A:C6	36:1:219:A:C6	3.04	0.45
36:1:2665:U:H4'	36:1:2666:C:OP1	2.16	0.45
36:1:2838:A:N6	36:1:2850:G:O2'	2.49	0.45
36:1:3066:U:H2'	36:1:3067:C:H6	1.78	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3164:C:H1'	36:1:3165:A:H5'	1.99	0.45
36:1:608:A:C6	43:L6:22:ARG:HD3	2.51	0.45
36:1:671:U:H2'	36:1:672:A:C8	2.51	0.45
36:1:846:A:H2'	36:1:847:A:O4'	2.15	0.45
1:2:1083:G:O2'	1:2:1084:A:H5'	2.16	0.45
1:2:1241:G:C6	1:2:1242:A:C6	3.04	0.45
1:2:1543:A:H1'	1:2:1569:A:C2	2.52	0.45
1:2:1595:U:N3	1:2:1600:A:C2	2.82	0.45
1:2:1:U:C4	1:2:369:A:C6	3.04	0.45
1:2:477:A:OP1	32:E0:30:PRO:HA	2.17	0.45
1:2:706:A:N1	1:2:734:A:N6	2.64	0.45
1:2:852:C:N4	1:2:853:G:C6	2.84	0.45
37:3:45:A:H5'	42:L5:154:THR:HG21	1.99	0.45
36:5:1815:U:O2'	36:5:1816:A:P	2.74	0.45
39:L2:236:GLY:HA2	36:5:2184:U:O4'	208.87	0.45
36:5:2509:U:H2'	36:5:2510:U:C5'	2.44	0.45
36:5:2599:U:H2'	36:5:2600:C:C6	2.52	0.45
36:5:883:A:H8	36:5:883:A:O5'	2.00	0.45
1:6:1309:C:H2'	1:6:1310:U:O4'	2.16	0.45
19:C7:10:LYS:NZ	1:6:1401:A:O3'	406.48	0.45
33:E1:82:LYS:NZ	1:6:1447:C:C2	381.98	0.45
1:6:337:G:H8	1:6:337:G:H5''	1.80	0.45
1:6:817:A:H2'	1:6:818:C:C6	2.51	0.45
38:8:139:U:O4	86:8:222:OHX:N5	2.49	0.45
13:C1:78:THR:HG22	13:C1:84:ILE:CG2	2.46	0.45
15:C3:44:GLY:O	15:C3:45:LEU:HD23	3.81	0.45
16:C4:122:PRO:HB3	1:6:887:A:H1'	282.84	0.45
1:2:928:U:H4'	16:C4:124:ASP:OD1	2.17	0.45
18:C6:49:TYR:HB3	18:C6:53:LEU:HD21	2.16	0.45
20:C8:56:LYS:HD2	20:C8:61:LEU:HD23	3.90	0.45
21:C9:86:ARG:HG3	21:C9:90:PRO:O	2.77	0.45
22:D0:48:HIS:O	22:D0:48:HIS:CG	2.69	0.45
22:D0:20:ILE:O	22:D0:94:GLU:HA	5.52	0.45
29:D7:64:CYS:HA	29:D7:72:LYS:O	2.16	0.45
30:D8:11:LYS:O	30:D8:31:GLU:N	2.42	0.45
40:L3:186:GLY:O	40:L3:190:GLU:HB2	2.98	0.45
40:L3:220:VAL:O	40:L3:334:ARG:NH1	2.38	0.45
40:L3:255:TRP:CD1	36:5:2395:G:H5''	216.35	0.45
41:L4:157:GLU:HG3	41:L4:251:THR:HG21	1.97	0.45
42:L5:83:LEU:HB3	42:L5:88:ILE:HB	1.97	0.45
43:L6:154:LEU:HD23	43:L6:154:LEU:HA	1.94	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:L7:25:GLN:H	44:L7:28:ALA:HB3	1.81	0.45
44:L7:62:ILE:O	44:L7:65:ALA:N	2.49	0.45
47:M0:49:CYS:O	47:M0:168:SER:HB3	2.60	0.45
47:M0:86:HIS:ND1	47:M0:139:ARG:NH1	2.65	0.45
51:M5:70:ASN:HD21	51:M5:93:LYS:HE2	1.82	0.45
52:M6:94:ARG:HH11	52:M6:94:ARG:HG2	1.82	0.45
53:M7:32:THR:O	53:M7:35:ALA:HB3	2.38	0.45
63:N7:15:ARG:NH1	70:O4:86:LYS:HE3	4.90	0.45
63:N7:41:ALA:O	63:N7:43:VAL:HG13	3.10	0.45
64:N8:73:LEU:HB2	64:N8:109:TYR:CD2	2.67	0.45
70:O4:44:CYS:SG	70:O4:46:ASP:HB2	2.57	0.45
79:Q3:18:TYR:H	36:5:2131:A:N6	226.68	0.45
2:S0:63:ILE:HG12	23:D1:36:VAL:HG22	2.07	0.45
7:S5:65:ARG:NE	7:S5:65:ARG:HA	4.68	0.45
8:S6:28:PHE:CZ	8:S6:104:PRO:HB3	2.79	0.45
11:S9:115:LYS:HD2	11:S9:115:LYS:HA	1.71	0.45
11:S9:3:ARG:N	11:S9:3:ARG:HD3	2.51	0.45
35:SM:61:ILE:HG13	35:SM:61:ILE:H	1.52	0.45
34:SR:246:SER:HB3	34:SR:251:TRP:HB2	2.87	0.45
36:1:1362:G:OP1	86:1:4034:OHX:N6	2.50	0.45
36:1:653:A:C2	36:1:1443:G:C4	3.04	0.45
36:1:190:U:C4	36:1:224:C:H1'	2.51	0.45
36:1:2677:G:H2'	36:1:2679:A:H2	1.81	0.45
1:2:1504:G:C6	1:2:1505:A:C6	3.05	0.45
1:2:577:G:C4	35:SM:99:LYS:HD3	2.51	0.45
1:2:987:G:C2	39:L2:249:SER:HB2	2.52	0.45
36:5:1464:G:N1	36:5:1467:A:OP2	2.50	0.45
36:5:1615:C:H2'	36:5:1616:U:C6	2.52	0.45
36:5:2252:A:H5'	36:5:2253:G:OP2	2.17	0.45
86:5:4003:OHX:N6	86:5:4091:OHX:N2	2.64	0.45
36:5:441:U:H2'	36:5:442:G:C8	2.52	0.45
36:5:591:G:N2	36:5:612:U:OP1	2.46	0.45
1:6:274:G:H2'	1:6:275:C:H6	1.80	0.45
11:S9:172:VAL:HG22	1:6:511:A:H5''	457.31	0.45
37:7:48:U:O2	37:7:50:U:C4	2.70	0.45
12:C0:1:MET:HG3	12:C0:2:LEU:H	3.19	0.45
1:2:1073:G:H4'	15:C3:10:GLY:HA2	1.99	0.45
15:C3:21:ASN:HA	15:C3:65:VAL:HG13	1.98	0.45
15:C3:65:VAL:HG23	15:C3:66:ILE:CG2	5.99	0.45
17:C5:16:SER:HB2	17:C5:20:VAL:N	2.31	0.45
19:C7:53:TYR:CZ	19:C7:57:LEU:HD21	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C8:35:ILE:HB	20:C8:38:VAL:HG22	2.20	0.45
22:D0:109:GLU:HB3	22:D0:112:VAL:HB	2.41	0.45
25:D3:50:LYS:HB2	25:D3:103:LEU:HD23	1.98	0.45
41:L4:135:VAL:O	41:L4:140:HIS:HB2	2.18	0.45
42:L5:222:LEU:HA	42:L5:222:LEU:HD23	4.23	0.45
44:L7:39:GLU:O	44:L7:42:ALA:HB3	2.16	0.45
45:L8:26:LEU:HD13	63:N7:53:VAL:HG11	1.98	0.45
48:M1:137:ARG:O	48:M1:141:ARG:N	2.75	0.45
50:M4:24:LYS:HG2	50:M4:62:GLN:O	2.17	0.45
52:M6:32:LYS:HA	52:M6:101:ARG:HB3	1.97	0.45
52:M6:11:GLY:O	52:M6:14:HIS:ND1	2.48	0.45
55:M9:133:LYS:HG2	55:M9:134:HIS:HD2	2.21	0.45
57:N1:68:THR:HG22	57:N1:71:SER:O	3.12	0.45
57:N1:90:ASN:O	57:N1:91:LEU:HD23	2.16	0.45
60:N4:4:GLU:HG2	60:N4:30:ARG:CD	2.46	0.45
61:N5:113:LEU:O	61:N5:113:LEU:HD12	2.66	0.45
63:N7:97:SER:HB3	63:N7:99:GLU:HG2	2.63	0.45
64:N8:35:ALA:HB2	36:5:39:A:H5''	167.22	0.45
65:N9:23:LYS:HD3	65:N9:23:LYS:HA	2.76	0.45
65:N9:35:VAL:HG12	65:N9:40:ARG:HG3	1.97	0.45
66:O0:9:SER:O	66:O0:13:LYS:HG3	2.17	0.45
68:O2:32:TRP:CZ2	68:O2:53:PRO:HD2	2.63	0.45
71:O5:68:GLN:O	71:O5:70:TYR:N	2.80	0.45
72:O6:45:ARG:HH21	72:O6:50:LEU:HA	2.90	0.45
2:S0:106:SER:C	2:S0:107:PHE:HD2	2.20	0.45
6:S4:232:GLY:O	6:S4:234:PRO:HD3	2.15	0.45
34:SR:159:ASN:ND2	34:SR:166:SER:O	2.49	0.45
36:1:1680:G:H2'	36:1:1681:U:H6	1.80	0.45
36:1:1728:G:H5''	36:1:1730:G:O4'	2.17	0.45
36:1:2601:A:H2'	36:1:2602:G:C8	2.52	0.45
36:1:2989:U:H2'	36:1:2990:G:O4'	2.15	0.45
36:1:29:C:H4'	36:1:62:A:H4'	1.98	0.45
36:1:3317:U:H1'	86:1:4025:OHX:N6	2.32	0.45
86:1:4057:OHX:N6	86:1:4166:OHX:N3	2.65	0.45
1:2:1052:U:OP2	1:2:1052:U:H3'	2.16	0.45
1:2:1738:U:O4	86:2:2040:OHX:N3	2.49	0.45
1:2:393:C:H2'	1:2:394:C:H6	1.82	0.45
38:4:71:A:H2	38:4:82:U:O2	1.99	0.45
36:5:1235:U:C4'	36:5:1236:G:H5'	2.46	0.45
36:5:1525:G:C6	36:5:1526:U:O4	2.70	0.45
36:5:2369:G:H2'	36:5:2370:G:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:2379:U:H2'	36:5:2380:U:C6	2.52	0.45
36:5:2584:G:H3'	36:5:2585:G:H4'	1.99	0.45
36:5:2711:C:H4'	86:5:4237:OHX:N1	2.32	0.45
36:5:2836:C:C5	36:5:2852:C:N4	2.72	0.45
36:5:3027:A:H2'	36:5:3028:G:O4'	2.17	0.45
36:5:370:U:H4'	36:5:404:G:H5'	1.99	0.45
86:5:4057:OHX:N1	86:5:4201:OHX:N4	2.65	0.45
36:5:969:C:H6	36:5:969:C:O5'	2.00	0.45
54:M8:16:ARG:HG3	36:5:975:C:P	174.34	0.45
1:6:105:A:H2'	1:6:106:U:O4'	2.16	0.45
1:6:1450:U:OP2	86:6:2126:OHX:N4	2.50	0.45
1:6:320:U:H2'	1:6:321:C:H2'	1.99	0.45
1:6:396:G:N2	1:6:398:G:H3'	2.32	0.45
26:D4:89:TYR:CD1	1:6:525:A:H5''	395.79	0.45
1:6:542:A:H8	1:6:543:C:H2'	1.79	0.45
1:6:706:A:H2'	1:6:707:A:O4'	2.16	0.45
1:6:820:U:O2'	1:6:821:U:H5''	2.17	0.45
1:2:961:U:H5''	15:C3:71:ILE:HD12	1.99	0.45
16:C4:60:ALA:HB1	16:C4:101:ALA:HB2	2.58	0.45
18:C6:27:GLY:HA2	18:C6:63:ILE:O	2.16	0.45
1:2:1459:C:N4	20:C8:139:LYS:HG3	2.32	0.45
22:D0:46:GLU:HG2	22:D0:52:LYS:HZ3	1.80	0.45
27:D5:73:GLY:HA2	27:D5:76:ALA:HB3	2.09	0.45
16:C4:114:ARG:HA	28:D6:62:TYR:CZ	2.52	0.45
7:S5:161:ASP:O	30:D8:44:VAL:HA	2.22	0.45
39:L2:129:ALA:O	39:L2:132:ASN:ND2	4.79	0.45
41:L4:329:PRO:HB2	41:L4:330:TYR:H	3.84	0.45
42:L5:180:PHE:HB3	42:L5:195:LEU:HD13	2.62	0.45
42:L5:256:THR:HG1	42:L5:258:LYS:NZ	2.05	0.45
45:L8:57:ARG:O	45:L8:61:GLN:HG3	3.13	0.45
45:L8:75:ILE:O	45:L8:76:ALA:HB3	2.16	0.45
46:L9:85:GLY:O	46:L9:186:PHE:HA	2.32	0.45
48:M1:114:ILE:HG22	48:M1:115:LYS:O	2.85	0.45
48:M1:139:THR:HG22	48:M1:146:GLY:O	2.16	0.45
49:M3:64:LYS:HD2	64:N8:66:ALA:HB1	2.94	0.45
51:M5:97:SER:O	51:M5:100:ALA:N	2.50	0.45
52:M6:192:LYS:O	52:M6:195:ALA:HB3	2.17	0.45
52:M6:28:LEU:HD22	52:M6:94:ARG:NH2	3.05	0.45
52:M6:54:TYR:CD2	52:M6:58:LEU:HD22	2.58	0.45
54:M8:123:THR:OG1	54:M8:125:ASP:OD2	2.22	0.45
55:M9:60:LYS:O	55:M9:64:ARG:HG3	2.57	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:N2:31:ALA:C	58:N2:33:TYR:H	2.20	0.45
59:N3:30:GLY:HA3	59:N3:66:LYS:HD2	1.98	0.45
65:N9:33:LYS:HE2	65:N9:33:LYS:HB3	4.27	0.45
67:O1:80:ASN:ND2	67:O1:85:ALA:HB3	2.58	0.45
69:O3:12:LYS:HD2	69:O3:12:LYS:HA	2.16	0.45
70:O4:102:LYS:HB3	70:O4:103:LYS:HE2	4.94	0.45
71:O5:47:VAL:O	71:O5:51:ILE:HG13	2.17	0.45
71:O5:4:VAL:HG13	71:O5:50:SER:OG	2.16	0.45
72:O6:68:ARG:HD2	72:O6:68:ARG:O	2.44	0.45
2:S0:71:GLU:HG2	2:S0:72:ASP:H	3.02	0.45
4:S2:49:LYS:HB3	4:S2:243:TYR:CD1	3.44	0.45
4:S2:90:THR:C	4:S2:92:ALA:N	2.70	0.45
6:S4:15:PRO:HD2	6:S4:18:TRP:CZ3	3.24	0.45
6:S4:179:LYS:N	6:S4:194:THR:O	2.49	0.45
7:S5:108:LEU:HA	7:S5:108:LEU:HD23	1.90	0.45
7:S5:65:ARG:HA	7:S5:67:PRO:HD3	1.98	0.45
10:S8:184:LEU:HD12	10:S8:184:LEU:HA	1.66	0.45
35:SM:77:THR:C	35:SM:79:SER:H	2.76	0.45
5:S3:220:PRO:HA	34:SR:194:GLY:HA3	1.97	0.45
36:1:149:U:OP2	51:M5:49:ARG:NH2	2.44	0.45
36:1:1615:C:H2'	36:1:1616:U:C6	2.51	0.45
36:1:2379:U:H2'	36:1:2380:U:H6	1.82	0.45
36:1:2389:C:O2'	36:1:2390:A:H5'	2.17	0.45
36:1:2796:G:H4'	36:1:2798:C:C6	2.52	0.45
36:1:2954:U:O5'	36:1:2954:U:H6	2.00	0.45
36:1:3119:U:H2'	36:1:3121:U:OP1	2.17	0.45
36:1:3342:A:O5'	36:1:3342:A:H8	2.00	0.45
36:1:3392:U:H2'	36:1:3393:U:H6	1.82	0.45
36:1:849:C:O2'	36:1:850:U:H5'	2.17	0.45
36:1:884:A:P	73:O7:5:THR:HG23	2.57	0.45
1:2:1017:U:H2'	1:2:1018:U:C6	2.52	0.45
1:2:1115:U:O3'	77:Q1:17:ARG:NH2	2.50	0.45
1:2:187:G:H4'	1:2:188:A:OP1	2.17	0.45
87:2:2180:EDE:H101	87:2:2180:EDE:C35	2.47	0.45
1:2:264:G:N7	86:2:2033:OHX:N1	2.65	0.45
1:2:301:A:OP2	86:2:2063:OHX:N2	2.49	0.45
36:5:1811:G:H2'	36:5:1812:G:O4'	2.17	0.45
36:5:2872:A:C8	36:5:2872:A:H5'	2.52	0.45
1:6:569:C:H2'	1:6:570:A:O4'	2.17	0.45
1:6:583:C:OP1	86:6:2048:OHX:N6	2.50	0.45
1:6:683:C:OP2	1:6:683:C:H6	2.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:733:A:H2'	1:6:734:A:O4'	2.17	0.45
1:6:913:G:H3'	1:6:914:G:C5'	2.47	0.45
15:C3:98:VAL:HG22	1:6:952:A:H5'	292.81	0.45
16:C4:42:VAL:HG23	16:C4:63:ALA:HB1	1.99	0.45
19:C7:106:THR:O	19:C7:110:VAL:HG23	2.16	0.45
19:C7:119:LEU:HD12	19:C7:119:LEU:H	1.81	0.45
19:C7:74:GLN:HA	19:C7:77:GLU:HB2	1.98	0.45
4:S2:140:ARG:HA	23:D1:10:GLU:OE1	2.16	0.45
24:D2:94:LEU:HA	24:D2:95:PRO:HD3	1.81	0.45
25:D3:109:ARG:HB3	25:D3:112:LYS:HB2	1.99	0.45
36:1:2203:U:H4'	39:L2:241:ARG:HB3	1.98	0.45
39:L2:82:VAL:HA	39:L2:86:GLN:OE1	2.50	0.45
40:L3:5:LYS:HG3	40:L3:6:TYR:CD1	2.51	0.45
40:L3:77:THR:OG1	40:L3:324:VAL:HG12	2.17	0.45
40:L3:49:TYR:O	40:L3:79:VAL:HG23	3.36	0.45
41:L4:141:ARG:CZ	41:L4:180:LYS:HD3	2.67	0.45
41:L4:269:SER:C	41:L4:271:LYS:H	2.17	0.45
41:L4:98:ARG:HG2	41:L4:99:MET:N	2.73	0.45
42:L5:184:ASP:HB3	42:L5:187:THR:O	2.17	0.45
45:L8:150:LEU:HD22	45:L8:151:VAL:N	2.31	0.45
36:1:3198:U:O4	46:L9:26:LYS:HB2	2.16	0.45
47:M0:216:TYR:CG	47:M0:217:PHE:N	2.84	0.45
48:M1:116:TYR:HE1	48:M1:118:PRO:HB3	2.08	0.45
48:M1:9:MET:O	48:M1:11:ASP:N	3.51	0.45
49:M3:119:TYR:O	49:M3:123:ILE:HG23	2.16	0.45
51:M5:171:SER:HB3	36:5:289:A:OP1	125.25	0.45
36:1:291:C:H5''	51:M5:68:ARG:NH1	2.32	0.45
52:M6:42:ASN:HA	52:M6:136:THR:O	2.17	0.45
54:M8:58:ASN:HB3	54:M8:144:ARG:NH2	2.32	0.45
54:M8:16:ARG:HH12	54:M8:55:SER:HB3	1.80	0.45
59:N3:102:ILE:HD12	59:N3:103:ALA:N	2.32	0.45
62:N6:11:ASP:HB3	62:N6:14:LYS:HB2	1.99	0.45
63:N7:88:ASP:OD1	63:N7:89:VAL:N	2.49	0.45
71:O5:101:THR:HG22	71:O5:104:GLN:N	2.24	0.45
75:O9:9:ILE:HD11	75:O9:51:ILE:CG2	2.82	0.45
2:S0:168:HIS:O	2:S0:172:LEU:HB2	2.17	0.45
5:S3:115:ILE:HD12	5:S3:116:ARG:H	4.52	0.45
6:S4:88:ASP:OD1	6:S4:122:LYS:NZ	2.49	0.45
6:S4:75:LYS:HD3	6:S4:77:ARG:NH2	2.93	0.45
7:S5:161:ASP:OD2	30:D8:42:ARG:NH1	3.79	0.45
8:S6:135:PRO:HB2	8:S6:141:ILE:HG12	2.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:66:HIS:HB3	34:SR:85:TRP:HB2	2.47	0.45
36:1:1194:G:H2'	36:1:1195:A:C8	2.51	0.45
36:1:1352:A:H1'	36:1:1353:U:O5'	2.16	0.45
36:1:1528:G:N3	36:1:1588:A:H2	2.15	0.45
36:1:1691:U:H2'	36:1:1692:U:C6	2.51	0.45
36:1:2761:G:C4	36:1:2795:U:C5	3.04	0.45
36:1:3344:A:H5''	36:1:3345:G:OP2	2.16	0.45
86:1:3973:OHX:N6	86:1:4159:OHX:N2	2.64	0.45
36:1:661:G:C5	36:1:802:C:C6	3.05	0.45
1:2:1003:A:H1'	1:2:1005:A:N7	2.32	0.45
1:2:1018:U:H2'	1:2:1019:A:C8	2.51	0.45
1:2:105:A:H2'	1:2:106:U:O4'	2.17	0.45
1:2:1450:U:H2'	1:2:1451:C:C6	2.52	0.45
1:2:1507:G:O6	86:2:2145:OHX:N5	2.50	0.45
1:2:77:U:H4'	1:2:78:A:O5'	2.16	0.45
37:3:52:G:H21	48:M1:9:MET:CE	2.29	0.45
36:5:1783:U:H2'	36:5:1784:G:H8	1.81	0.45
36:5:2304:C:C5	36:5:2305:G:C6	3.04	0.45
36:5:2514:U:C6	36:5:2514:U:OP1	2.66	0.45
36:5:2694:A:C6	36:5:2695:A:C6	3.05	0.45
36:5:2768:U:H2'	36:5:2769:A:H8	1.82	0.45
43:L6:17:ALA:O	36:5:592:A:H5'	212.65	0.45
36:5:796:U:H2'	36:5:797:U:H6	1.82	0.45
1:6:799:A:H2'	1:6:800:U:O4'	2.17	0.45
38:8:108:C:H2'	38:8:109:A:O4'	2.17	0.45
12:C0:50:THR:HG21	12:C0:57:THR:OG1	2.17	0.45
14:C2:60:VAL:O	14:C2:89:ILE:HG22	2.17	0.45
18:C6:7:VAL:N	18:C6:22:VAL:O	3.28	0.45
23:D1:41:GLU:O	23:D1:42:GLU:HB3	2.57	0.45
27:D5:71:ILE:CG2	27:D5:76:ALA:HB2	3.75	0.45
32:E0:50:VAL:HA	32:E0:53:LYS:O	2.17	0.45
33:E1:98:VAL:HG13	33:E1:99:LYS:N	2.32	0.45
40:L3:154:TYR:CD1	36:5:3242:G:H2'	260.98	0.45
41:L4:158:SER:HA	41:L4:213:ASN:O	2.17	0.45
42:L5:48:LYS:HZ2	42:L5:145:PHE:HE2	3.52	0.45
43:L6:60:ASP:OD1	43:L6:62:THR:OG1	2.22	0.45
47:M0:168:SER:OG	47:M0:170:LYS:HB2	2.66	0.45
50:M4:36:VAL:HG12	50:M4:75:GLY:HA2	1.99	0.45
52:M6:193:GLN:O	52:M6:196:ALA:HB3	2.21	0.45
53:M7:10:ASN:HD22	53:M7:13:LYS:HZ2	1.64	0.45
53:M7:48:LEU:O	53:M7:51:VAL:HB	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:82:ARG:HA	53:M7:83:TRP:CE3	2.78	0.45
54:M8:26:LEU:O	54:M8:30:VAL:HG23	2.16	0.45
61:N5:141:TYR:O	61:N5:142:ILE:HD13	2.16	0.45
66:O0:51:LEU:HA	66:O0:51:LEU:HD12	1.78	0.45
66:O0:23:TYR:OH	66:O0:83:LYS:HE2	3.65	0.45
71:O5:31:LEU:HD12	71:O5:31:LEU:H	2.29	0.45
36:1:1493:G:C6	75:O9:2:ALA:HB2	2.51	0.45
36:1:2320:A:C2	79:Q3:16:VAL:HG13	2.49	0.45
4:S2:137:ILE:HG12	4:S2:138:PRO:CD	2.42	0.45
4:S2:143:TYR:CE1	4:S2:151:PRO:HG3	2.52	0.45
6:S4:128:LYS:HB3	6:S4:128:LYS:HE2	2.19	0.45
7:S5:142:PRO:HG2	7:S5:170:GLN:NE2	2.63	0.45
7:S5:59:VAL:C	7:S5:61:TYR:H	2.20	0.45
10:S8:100:ALA:HB3	10:S8:169:ILE:HG12	2.71	0.45
10:S8:21:PHE:CD1	10:S8:22:ARG:HG2	3.10	0.45
36:1:1686:U:OP1	58:N2:42:LYS:NZ	2.39	0.45
36:1:1748:G:C6	36:1:1749:A:C6	3.05	0.45
36:1:2261:G:O2'	36:1:2263:C:N4	2.50	0.45
36:1:2374:C:N4	36:1:2941:A:N3	2.65	0.45
36:1:255:A:H2'	36:1:256:G:H8	1.82	0.45
36:1:2736:A:O2'	57:N1:68:THR:HG21	2.17	0.45
86:1:3940:OHX:N4	67:O1:83:GLU:OE2	2.50	0.45
1:2:1235:C:O2	33:E1:138:ARG:NE	2.50	0.45
1:2:1266:U:H2'	1:2:1267:G:H8	1.79	0.45
1:2:1490:C:H1'	1:2:1491:U:O4'	2.16	0.45
1:2:1537:C:C4	1:2:1572:G:N1	2.83	0.45
1:2:1796:C:H4'	1:2:1797:A:OP2	2.16	0.45
1:2:1238:A:OP2	86:2:2046:OHX:N2	2.50	0.45
86:2:2074:OHX:N3	86:2:2161:OHX:N1	2.64	0.45
1:2:327:U:H2'	1:2:328:A:C8	2.52	0.45
1:2:706:A:C6	1:2:734:A:N6	2.85	0.45
1:2:749:U:H2'	1:2:750:U:C6	2.52	0.45
1:2:852:C:O5'	1:2:852:C:H6	1.99	0.45
36:5:1122:U:H2'	36:5:1123:U:H6	1.81	0.45
36:5:173:G:HO2'	36:5:174:C:H6	1.63	0.45
36:5:1815:U:H1'	36:5:1816:A:O5'	2.16	0.45
36:5:3393:U:H2'	36:5:3394:U:C6	2.52	0.45
51:M5:84:PRO:HD2	36:5:44:U:OP1	166.14	0.45
49:M3:101:ARG:HB2	36:5:76:G:N7	84.85	0.45
36:5:827:A:O2'	36:5:828:A:H5'	2.16	0.45
1:6:1011:G:N7	86:6:2118:OHX:N4	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:C4:106:ALA:HB2	16:C4:112:ILE:HD11	1.99	0.45
18:C6:79:TYR:HA	18:C6:82:ARG:HD3	1.99	0.45
20:C8:16:ARG:HG3	20:C8:20:THR:O	2.17	0.45
40:L3:188:ILE:O	40:L3:192:VAL:HG12	2.17	0.45
40:L3:299:ASP:O	40:L3:300:ARG:HB2	2.16	0.45
41:L4:62:ALA:HB1	41:L4:76:ARG:C	2.38	0.45
41:L4:99:MET:HE3	41:L4:102:PRO:HA	1.99	0.45
42:L5:279:LYS:HE3	42:L5:282:ARG:NH1	2.32	0.45
42:L5:68:THR:HB	42:L5:71:GLY:O	2.17	0.45
42:L5:97:ALA:O	42:L5:101:THR:OG1	2.33	0.45
44:L7:191:VAL:HG12	44:L7:192:GLY:N	3.82	0.45
46:L9:90:MET:HG2	46:L9:181:VAL:HG22	1.98	0.45
48:M1:28:ASP:OD2	48:M1:32:ARG:NH2	6.45	0.45
49:M3:171:ARG:HD3	36:5:770:G:OP1	143.92	0.45
49:M3:32:LYS:HA	49:M3:35:ARG:NH1	3.27	0.45
50:M4:131:VAL:HG13	52:M6:181:ALA:HB1	1.99	0.45
54:M8:40:THR:C	54:M8:42:ALA:H	2.19	0.45
59:N3:79:VAL:HG22	59:N3:99:ALA:O	2.17	0.45
62:N6:74:TYR:CD1	62:N6:77:LYS:HG3	2.51	0.45
63:N7:135:ARG:HG2	63:N7:135:ARG:HH21	1.82	0.45
63:N7:81:LEU:HA	63:N7:81:LEU:HD22	2.08	0.45
49:M3:9:ILE:HD11	64:N8:45:MET:HE1	2.97	0.45
64:N8:92:LYS:HG2	64:N8:92:LYS:H	1.55	0.45
66:O0:15:ALA:O	66:O0:18:ILE:HG22	2.17	0.45
69:O3:58:GLU:OE2	69:O3:61:GLY:HA2	2.90	0.45
71:O5:93:THR:HG23	71:O5:96:GLU:OE1	2.16	0.45
36:1:2216:G:P	72:O6:75:LYS:HZ3	2.40	0.45
2:S0:146:LEU:HB3	2:S0:162:CYS:SG	3.07	0.45
2:S0:7:PHE:HD2	2:S0:7:PHE:HA	1.69	0.45
3:S1:175:GLU:O	3:S1:187:LYS:NZ	2.45	0.45
4:S2:148:LEU:HB3	4:S2:149:GLY:H	1.63	0.45
4:S2:58:LEU:HD23	4:S2:58:LEU:HA	1.82	0.45
5:S3:70:THR:HG22	5:S3:86:LEU:HD13	1.99	0.45
7:S5:145:ASP:CG	7:S5:146:THR:H	2.20	0.45
7:S5:222:LYS:HG3	7:S5:225:ARG:NH2	2.31	0.45
7:S5:44:ASN:O	7:S5:45:LYS:HE3	2.16	0.45
9:S7:111:LYS:O	9:S7:112:ARG:HB2	2.17	0.45
11:S9:55:ALA:O	11:S9:59:LEU:HG	2.17	0.45
36:1:1072:G:C4	36:1:1087:G:C2	3.05	0.45
36:1:1340:G:H2'	36:1:1341:U:C6	2.52	0.45
36:1:2350:C:H4'	36:1:3308:C:O2'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1194:G:OP1	86:1:3965:OHX:N1	2.50	0.45
36:1:501:A:H5''	43:L6:28:GLN:HE21	1.81	0.45
1:2:319:U:H1'	1:2:323:A:C4	2.52	0.45
1:2:992:A:H2	1:2:1012:U:N3	2.11	0.45
68:O2:45:ARG:NH1	36:5:1160:C:N3	205.84	0.45
36:5:131:C:H42	36:5:137:G:H1	1.64	0.45
36:5:1765:U:H2'	36:5:1766:G:O4'	2.16	0.45
55:M9:88:ARG:NH1	36:5:2103:U:OP1	213.12	0.45
36:5:3041:U:H2'	36:5:3042:U:C6	2.51	0.45
86:5:4096:OHX:N3	86:5:4237:OHX:N4	2.65	0.45
36:5:651:G:C6	36:5:652:G:C6	3.05	0.45
15:C3:20:ARG:HH11	15:C3:20:ARG:CG	3.97	0.45
22:D0:42:VAL:HG23	22:D0:91:ILE:HD13	1.99	0.45
23:D1:71:ARG:HG3	23:D1:83:TRP:CZ2	2.51	0.45
24:D2:10:ALA:CB	24:D2:27:ILE:HD12	2.47	0.45
24:D2:37:PHE:CE2	24:D2:103:ILE:HD12	2.51	0.45
4:S2:230:TRP:CD2	24:D2:68:ARG:HD3	2.52	0.45
26:D4:34:ASN:HB3	26:D4:35:VAL:H	4.35	0.45
31:D9:32:ARG:NH1	31:D9:32:ARG:HG2	2.32	0.45
40:L3:49:TYR:OH	40:L3:166:ILE:HD12	2.16	0.45
41:L4:3:ARG:HA	41:L4:4:PRO:HD2	1.62	0.45
42:L5:190:ILE:HD11	42:L5:195:LEU:HD22	2.59	0.45
42:L5:268:GLU:O	42:L5:270:LYS:N	3.85	0.45
45:L8:63:LYS:O	45:L8:67:ILE:HG12	4.49	0.45
46:L9:4:ILE:HD11	56:N0:148:LEU:HD11	1.98	0.45
36:1:3113:A:H1'	46:L9:70:THR:HG22	1.99	0.45
50:M4:37:GLU:HG3	50:M4:38:ILE:H	1.82	0.45
51:M5:150:TRP:CZ3	51:M5:151:ILE:HG12	2.52	0.45
36:1:3180:A:C4	52:M6:114:LYS:HA	2.52	0.45
52:M6:62:THR:HG21	52:M6:68:ARG:HG3	2.00	0.45
53:M7:29:THR:HG22	53:M7:87:SER:CB	2.87	0.45
53:M7:41:LEU:HD21	53:M7:95:LEU:HD22	2.55	0.45
56:N0:155:ARG:O	56:N0:170:THR:HG22	2.17	0.45
58:N2:105:LEU:HD12	58:N2:105:LEU:HA	2.10	0.45
59:N3:46:LEU:O	59:N3:47:ASN:HB2	2.17	0.45
59:N3:83:LYS:NZ	59:N3:84:SER:O	3.73	0.45
59:N3:11:PHE:CG	59:N3:88:ARG:HD2	2.51	0.45
70:O4:60:ARG:HG2	70:O4:60:ARG:O	2.17	0.45
72:O6:74:LYS:HG2	72:O6:74:LYS:O	2.17	0.45
78:Q2:33:ALA:O	78:Q2:34:SER:HB3	2.17	0.45
78:Q2:83:LEU:HA	78:Q2:83:LEU:HD23	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:142:PRO:HB3	23:D1:34:ILE:CD1	2.69	0.45
3:S1:61:LEU:HD22	3:S1:61:LEU:H	1.82	0.45
3:S1:83:LYS:HE2	3:S1:104:ASP:HB3	1.99	0.45
6:S4:34:GLY:HA3	6:S4:83:PRO:HG3	2.24	0.45
9:S7:158:ASP:O	9:S7:161:GLN:HG3	2.17	0.45
10:S8:8:ARG:C	10:S8:9:HIS:O	2.55	0.45
11:S9:65:LYS:HA	11:S9:70:LEU:HD11	2.03	0.45
34:SR:42:LEU:O	34:SR:43:ILE:HD13	2.45	0.45
36:1:1807:G:C6	36:1:1808:G:N1	2.84	0.44
36:1:1844:C:C2'	36:1:1845:G:H5''	2.45	0.44
36:1:210:U:C2	36:1:230:U:H4'	2.51	0.44
36:1:2631:U:C4	36:1:2648:G:N1	2.85	0.44
36:1:595:G:C6	36:1:609:G:H5''	2.52	0.44
1:2:119:A:H1'	1:2:397:A:C5	2.52	0.44
1:2:1232:U:H4'	12:C0:2:LEU:HD21	1.99	0.44
1:2:1349:G:H1	1:2:1376:C:H42	1.64	0.44
36:5:1563:C:O2	36:5:1577:G:N2	2.51	0.44
70:O4:83:ASN:ND2	36:5:1709:C:OP1	213.20	0.44
36:5:3245:A:H2	36:5:3246:G:N1	2.15	0.44
43:L6:69:PHE:CE1	36:5:3268:A:C4	257.98	0.44
36:5:758:C:C2	36:5:774:G:C2	3.05	0.44
36:5:873:C:H5''	36:5:874:U:O5'	2.18	0.44
1:6:1697:G:H8	1:6:1705:C:N3	2.15	0.44
1:6:234:G:H2'	1:6:235:G:O4'	2.17	0.44
38:8:67:U:O4	86:8:226:OHX:N3	2.50	0.44
13:C1:26:LYS:HD3	13:C1:26:LYS:HA	1.62	0.44
1:2:325:G:C4'	13:C1:80:MET:HE2	2.47	0.44
14:C2:81:ASP:HA	14:C2:82:PRO:HD3	1.69	0.44
15:C3:94:LYS:HB2	15:C3:94:LYS:HE3	1.76	0.44
16:C4:114:ARG:HE	28:D6:62:TYR:HE1	1.65	0.44
16:C4:45:GLY:HA2	16:C4:54:GLU:HG2	1.99	0.44
25:D3:137:LYS:HE3	25:D3:139:LYS:HD2	1.98	0.44
40:L3:76:VAL:HG12	40:L3:325:LYS:HA	1.99	0.44
42:L5:148:ILE:HG23	42:L5:151:GLN:HB3	1.99	0.44
42:L5:21:ARG:HB2	42:L5:24:ARG:NH2	2.33	0.44
42:L5:108:ARG:CZ	42:L5:253:PHE:HB2	2.47	0.44
45:L8:231:LYS:HB2	45:L8:231:LYS:HE3	4.28	0.44
46:L9:112:ILE:HB	46:L9:126:VAL:HB	2.23	0.44
50:M4:121:MET:HG3	36:5:3214:U:C4	282.42	0.44
51:M5:173:GLY:O	51:M5:183:THR:OG1	2.94	0.44
41:L4:106:TRP:HB2	51:M5:199:LEU:HD12	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:21:PHE:O	51:M5:25:VAL:HG23	2.38	0.44
51:M5:38:ARG:HD3	51:M5:39:ALA:H	1.81	0.44
51:M5:93:LYS:HE2	36:5:277:G:H1'	151.15	0.44
53:M7:22:LEU:HD13	53:M7:90:PHE:HD2	1.81	0.44
53:M7:59:PRO:HB3	53:M7:78:VAL:HG11	1.99	0.44
54:M8:122:ILE:HG23	54:M8:126:GLN:CB	2.77	0.44
54:M8:41:ASP:HB2	54:M8:42:ALA:H	4.46	0.44
55:M9:20:ARG:HG3	55:M9:20:ARG:H	3.70	0.44
56:N0:139:TYR:CD2	56:N0:140:VAL:HG23	2.53	0.44
56:N0:141:LYS:HE2	36:5:1287:A:OP1	347.59	0.44
56:N0:151:PRO:HG2	56:N0:153:PRO:HD3	2.74	0.44
58:N2:19:VAL:HG12	58:N2:105:LEU:HD22	2.52	0.44
59:N3:11:PHE:HB2	59:N3:88:ARG:NH1	2.91	0.44
64:N8:127:ALA:O	64:N8:148:ILE:HG12	2.63	0.44
66:O0:45:ALA:O	66:O0:48:THR:HG23	2.25	0.44
70:O4:72:VAL:HG22	70:O4:77:GLY:O	2.85	0.44
2:S0:110:TYR:HA	2:S0:115:PHE:CE2	2.52	0.44
3:S1:193:ILE:O	3:S1:197:ILE:HG12	2.17	0.44
3:S1:104:ASP:OD1	3:S1:214:LYS:HG3	4.03	0.44
1:2:581:U:OP2	5:S3:143:ARG:NH1	2.50	0.44
6:S4:141:THR:OG1	6:S4:143:ASP:OD2	2.33	0.44
8:S6:126:ASP:OD2	8:S6:127:THR:HG22	2.18	0.44
10:S8:67:TRP:HA	10:S8:183:ILE:HG23	5.29	0.44
35:SM:23:LYS:HD2	35:SM:23:LYS:N	2.28	0.44
34:SR:164:ASP:C	34:SR:166:SER:H	2.20	0.44
34:SR:289:ALA:HB2	34:SR:305:TYR:CE2	3.24	0.44
36:1:1029:G:H2'	36:1:1030:A:C8	2.53	0.44
36:1:1659:U:H2'	36:1:1660:C:C6	2.52	0.44
36:1:839:C:O2'	36:1:1724:U:OP1	2.23	0.44
36:1:1752:A:OP2	86:1:4049:OHX:N5	2.51	0.44
36:1:2553:U:O4'	66:O0:50:VAL:HB	2.17	0.44
36:1:2590:A:C4	36:1:2591:A:C8	3.06	0.44
36:1:2727:A:H4'	36:1:2728:G:OP2	2.18	0.44
36:1:3286:G:H5'	36:1:3287:U:OP2	2.17	0.44
86:1:3995:OHX:N5	37:3:86:U:O2	2.50	0.44
36:1:2973:G:O6	86:1:4100:OHX:N2	2.50	0.44
36:1:594:U:H2'	36:1:609:G:O6	2.17	0.44
36:1:806:A:C4	36:1:936:A:C2	3.05	0.44
1:2:1282:U:O2'	1:2:1283:U:H5'	2.17	0.44
1:2:1592:A:H2'	1:2:1593:A:H8	1.83	0.44
1:2:513:U:H1'	11:S9:131:GLN:HE21	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:74:U:HO2'	1:2:75:U:P	2.39	0.44
1:2:794:U:O2'	1:2:795:U:O2	2.34	0.44
36:5:1012:G:O2'	36:5:1013:G:H5'	2.17	0.44
36:5:1329:U:O2'	36:5:1330:A:P	2.73	0.44
36:5:2101:C:H2'	36:5:2102:U:H6	1.82	0.44
36:5:3063:C:H2'	36:5:3064:U:H6	1.82	0.44
36:5:381:U:H2'	36:5:382:U:C6	2.52	0.44
1:6:1218:G:O4'	1:6:1444:A:N6	2.50	0.44
1:6:1371:A:H5'	1:6:1372:U:OP2	2.18	0.44
1:6:1552:U:H2'	1:6:1553:G:O4'	2.18	0.44
1:6:1660:A:H2'	1:6:1661:U:C6	2.52	0.44
1:6:463:U:OP1	86:6:2201:OHX:N1	2.51	0.44
1:6:552:G:C6	1:6:553:G:C6	3.05	0.44
1:6:628:G:N1	1:6:970:A:OP2	2.36	0.44
19:C7:41:ILE:O	19:C7:43:SER:N	3.20	0.44
21:C9:39:THR:O	21:C9:96:ALA:HB1	2.69	0.44
20:C8:41:ARG:CZ	21:C9:46:PRO:HG3	3.61	0.44
21:C9:93:HIS:O	21:C9:94:ILE:HD12	2.17	0.44
22:D0:105:GLN:HG3	22:D0:106:ILE:H	1.83	0.44
22:D0:96:PRO:HB2	22:D0:97:VAL:H	2.37	0.44
25:D3:128:SER:O	25:D3:143:PRO:HG2	2.18	0.44
27:D5:49:ARG:HD2	27:D5:53:GLU:OE1	3.06	0.44
40:L3:261:MET:O	40:L3:264:VAL:HG13	2.18	0.44
40:L3:67:PHE:HD1	40:L3:72:VAL:HG12	1.82	0.44
41:L4:177:ASP:O	41:L4:180:LYS:HB3	2.33	0.44
41:L4:212:ASP:OD1	41:L4:216:VAL:HG22	2.17	0.44
41:L4:210:ALA:HB2	41:L4:254:ALA:N	2.49	0.44
42:L5:131:LEU:H	42:L5:131:LEU:HD22	1.80	0.44
42:L5:76:ALA:CB	42:L5:109:THR:HG22	2.46	0.44
86:1:4197:OHX:N4	43:L6:129:GLU:HA	2.33	0.44
45:L8:91:PHE:CE2	45:L8:189:LEU:HD22	4.76	0.44
48:M1:142:LYS:HE2	36:5:2664:C:OP2	281.46	0.44
53:M7:123:PRO:O	53:M7:143:PRO:HG2	2.18	0.44
53:M7:67:ILE:N	53:M7:67:ILE:HD13	2.70	0.44
58:N2:23:THR:O	58:N2:26:GLY:N	3.28	0.44
58:N2:49:ASN:C	58:N2:51:GLY:H	2.20	0.44
58:N2:53:ALA:HB1	58:N2:68:THR:HG22	1.98	0.44
60:N4:39:LEU:HA	60:N4:39:LEU:HD12	1.80	0.44
65:N9:7:HIS:CG	65:N9:8:THR:N	3.02	0.44
72:O6:81:THR:O	72:O6:84:LYS:HB2	2.17	0.44
74:O8:41:THR:HG21	74:O8:62:ALA:HB2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Q3:56:THR:HA	79:Q3:63:THR:HA	1.98	0.44
3:S1:63:GLY:HA2	3:S1:88:VAL:O	2.17	0.44
4:S2:242:ILE:HA	4:S2:242:ILE:HD12	1.70	0.44
4:S2:61:LEU:HA	4:S2:62:PRO:HD2	1.83	0.44
6:S4:77:ARG:HD2	6:S4:82:TYR:CD1	5.21	0.44
7:S5:120:ILE:O	7:S5:124:LEU:HD13	3.19	0.44
10:S8:189:LEU:HG	10:S8:189:LEU:O	2.17	0.44
35:SM:79:SER:O	35:SM:82:THR:OG1	2.36	0.44
34:SR:161:LYS:HB3	34:SR:161:LYS:HE3	2.11	0.44
36:1:1634:G:N7	63:N7:17:ARG:NH2	2.65	0.44
36:1:2437:G:H22	36:1:2511:A:H1'	1.82	0.44
36:1:2560:C:O2	86:1:3927:OHX:N1	2.50	0.44
36:1:2635:A:H4'	36:1:2636:A:O5'	2.18	0.44
86:1:4034:OHX:N2	86:1:4047:OHX:N5	2.65	0.44
36:1:547:G:O2'	36:1:548:G:O4'	2.35	0.44
36:1:955:U:H2'	36:1:956:U:C6	2.52	0.44
36:1:959:C:H5'	36:1:960:U:O5'	2.18	0.44
1:2:501:U:O2'	1:2:502:U:H6	2.00	0.44
37:3:48:U:O4	42:L5:58:LYS:NZ	2.44	0.44
36:5:1454:A:OP1	86:5:4197:OHX:N6	2.51	0.44
36:5:1716:U:H3'	36:5:1716:U:P	2.58	0.44
36:5:1804:A:H2'	36:5:1805:C:H6	1.79	0.44
36:5:2709:C:H2'	36:5:2710:C:C6	2.53	0.44
36:5:2951:G:O2'	36:5:2952:G:H5'	2.18	0.44
36:5:3188:G:C2	36:5:3205:G:N1	2.84	0.44
36:5:401:U:H4'	36:5:403:C:C2	2.53	0.44
36:5:58:G:O2'	36:5:61:A:H5'	2.17	0.44
1:6:158:U:HO2'	1:6:159:U:H3'	1.81	0.44
1:6:1673:G:C6	1:6:1674:C:C4	3.05	0.44
1:6:1740:A:H2'	1:6:1741:U:C6	2.52	0.44
1:6:223:U:H2'	1:6:224:C:C6	2.53	0.44
38:8:15:G:C6	38:8:16:G:N1	2.85	0.44
13:C1:54:ILE:HG22	13:C1:55:ASP:N	2.31	0.44
13:C1:99:ARG:HB3	25:D3:9:LEU:O	2.17	0.44
14:C2:67:THR:C	14:C2:69:ALA:H	2.19	0.44
14:C2:60:VAL:HG23	14:C2:87:PRO:HG2	2.00	0.44
16:C4:16:VAL:O	16:C4:30:VAL:HA	2.31	0.44
18:C6:67:VAL:CG1	18:C6:81:ILE:HG22	3.10	0.44
21:C9:117:SER:HB2	21:C9:123:ARG:HE	3.15	0.44
27:D5:60:VAL:CG2	27:D5:101:TYR:HB2	2.48	0.44
30:D8:30:VAL:HG22	30:D8:40:ILE:O	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:E0:14:VAL:O	32:E0:17:GLN:HG2	2.68	0.44
40:L3:233:TRP:CD1	40:L3:265:ALA:HB1	2.64	0.44
40:L3:306:THR:HA	40:L3:307:PRO:HD3	1.85	0.44
41:L4:325:LEU:HD23	41:L4:325:LEU:HA	2.18	0.44
42:L5:105:ILE:HD13	42:L5:105:ILE:HA	1.77	0.44
44:L7:145:ARG:HA	44:L7:185:ILE:HD13	2.48	0.44
47:M0:9:TYR:CG	47:M0:97:LEU:HD13	2.52	0.44
48:M1:23:VAL:CG1	48:M1:29:ARG:HG2	2.63	0.44
49:M3:42:ARG:HH21	49:M3:51:LEU:HD22	5.70	0.44
50:M4:127:LYS:O	50:M4:131:VAL:HG23	3.01	0.44
51:M5:16:SER:O	51:M5:20:ARG:HG2	2.17	0.44
52:M6:65:ASN:C	52:M6:67:THR:H	2.50	0.44
53:M7:67:ILE:HA	53:M7:67:ILE:HD12	1.66	0.44
54:M8:64:VAL:HG22	54:M8:96:PHE:CE2	2.52	0.44
55:M9:182:ASP:O	55:M9:184:LEU:N	3.57	0.44
56:N0:91:TYR:OH	56:N0:93:GLU:OE2	2.19	0.44
57:N1:18:ASP:HB2	57:N1:21:LYS:HB2	2.67	0.44
59:N3:87:ARG:HH22	59:N3:137:VAL:CG2	2.37	0.44
62:N6:5:SER:HB3	62:N6:8:VAL:CG1	2.48	0.44
66:O0:50:VAL:HA	66:O0:53:LYS:HB3	1.99	0.44
69:O3:14:LEU:HD11	69:O3:31:LYS:CB	3.16	0.44
71:O5:119:LYS:HA	71:O5:119:LYS:HD2	1.97	0.44
2:S0:53:THR:HA	2:S0:161:PRO:HG2	2.30	0.44
3:S1:35:PRO:HB2	3:S1:36:SER:H	1.45	0.44
6:S4:125:LYS:O	6:S4:141:THR:HA	2.40	0.44
7:S5:121:ILE:H	7:S5:121:ILE:HG13	1.57	0.44
7:S5:131:GLN:O	7:S5:134:VAL:HB	2.17	0.44
7:S5:37:GLN:HG2	18:C6:53:LEU:HD13	2.04	0.44
7:S5:76:ARG:HD3	18:C6:122:ARG:NE	2.82	0.44
35:SM:76:VAL:HG11	1:6:1461:C:H1'	328.19	0.44
34:SR:305:TYR:HH	34:SR:313:TRP:HH2	2.68	0.44
35:SM:46:LYS:HD3	36:1:1018:G:H5''	1.99	0.44
36:1:1063:G:N7	36:1:1097:G:H2'	2.32	0.44
36:1:111:C:O2'	36:1:112:U:H5'	2.17	0.44
36:1:1840:U:OP2	86:1:3979:OHX:N5	2.51	0.44
36:1:2191:U:H2'	36:1:2192:C:O4'	2.17	0.44
36:1:428:A:H2'	36:1:429:U:C6	2.53	0.44
36:1:748:U:H2'	36:1:749:C:H6	1.82	0.44
36:1:952:A:N3	36:1:1114:U:O2'	2.47	0.44
1:2:1032:G:C6	1:2:1104:U:C4	3.06	0.44
1:2:1150:G:O2'	1:2:1151:A:P	2.75	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1217:A:H8	1:2:1217:A:H5'	1.82	0.44
1:2:434:G:N2	1:2:436:A:H3'	2.33	0.44
37:3:67:G:H2'	37:3:68:C:H6	1.82	0.44
36:5:1176:C:H2'	36:5:1177:G:N2	2.32	0.44
36:5:1813:A:OP1	36:5:1817:G:H4'	2.18	0.44
36:5:2103:U:H2'	36:5:2104:A:H8	1.82	0.44
36:5:2608:G:C2	36:5:2609:A:C8	3.06	0.44
55:M9:59:SER:N	36:5:3068:U:OP1	164.43	0.44
36:5:3078:U:H4'	36:5:3079:U:O5'	2.18	0.44
36:5:3285:C:H2'	36:5:3286:G:H5''	1.99	0.44
36:5:726:G:H1'	36:5:744:A:N6	2.31	0.44
32:E0:28:LYS:HZ1	1:6:542:A:H61	427.34	0.44
36:5:1196:C:O2	86:7:219:OHX:N1	2.51	0.44
12:C0:61:TRP:O	12:C0:62:GLN:HB2	2.17	0.44
18:C6:52:LEU:HD22	18:C6:60:PHE:CZ	2.53	0.44
20:C8:81:ILE:HG23	20:C8:82:PRO:HD2	1.99	0.44
24:D2:37:PHE:CD2	24:D2:103:ILE:HD12	2.53	0.44
28:D6:24:VAL:HG21	28:D6:71:LEU:HD13	1.99	0.44
1:2:1235:C:C2	33:E1:138:ARG:CZ	3.00	0.44
39:L2:62:VAL:HA	39:L2:73:GLU:HA	2.47	0.44
40:L3:159:ARG:HG2	40:L3:182:GLN:HA	2.09	0.44
40:L3:361:THR:HG22	40:L3:371:GLN:OE1	2.38	0.44
41:L4:209:TYR:O	41:L4:230:VAL:HG22	2.45	0.44
41:L4:99:MET:CE	41:L4:102:PRO:HA	2.62	0.44
47:M0:74:LYS:HB2	47:M0:74:LYS:HE3	1.75	0.44
50:M4:55:ARG:NH2	50:M4:77:ARG:HA	2.32	0.44
51:M5:147:ARG:HH12	36:5:151:A:P	78.85	0.44
51:M5:58:GLY:HA3	51:M5:142:ILE:CD1	2.47	0.44
54:M8:151:ARG:O	54:M8:161:LYS:O	2.35	0.44
63:N7:15:ARG:HH12	70:O4:86:LYS:HE3	4.71	0.44
63:N7:81:LEU:HD12	70:O4:93:PHE:CD2	2.98	0.44
65:N9:5:LYS:HE2	65:N9:8:THR:HB	1.99	0.44
66:O0:45:ALA:HB3	66:O0:48:THR:HG22	1.98	0.44
68:O2:61:LYS:HE3	36:5:1340:G:OP2	190.97	0.44
70:O4:97:GLU:O	70:O4:100:ILE:HB	2.50	0.44
2:S0:56:LYS:HZ1	2:S0:158:VAL:HA	1.81	0.44
6:S4:148:ARG:HG2	6:S4:148:ARG:H	2.34	0.44
7:S5:172:ILE:O	7:S5:176:THR:HG23	2.18	0.44
8:S6:7:TYR:CE1	8:S6:125:THR:HA	3.13	0.44
9:S7:166:LEU:HA	9:S7:166:LEU:HD12	1.77	0.44
9:S7:174:ASN:O	9:S7:178:GLY:N	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S8:25:ARG:HD3	1:6:400:A:O5'	312.14	0.44
35:SM:35:ALA:HB1	35:SM:37:VAL:HG23	2.02	0.44
17:C5:130:ARG:HD3	35:SM:74:LYS:HG2	1.98	0.44
36:1:1481:A:OP1	36:1:1481:A:C4'	2.64	0.44
36:1:2153:U:OP1	39:L2:246:LEU:HB2	2.17	0.44
36:1:3243:A:C8	52:M6:156:LEU:HD22	2.53	0.44
36:1:595:G:C8	36:1:609:G:C6	3.05	0.44
36:1:719:U:H5''	36:1:719:U:C6	2.53	0.44
1:2:1079:U:H2'	1:2:1080:U:C6	2.52	0.44
1:2:1313:A:H2'	1:2:1315:U:H5'	1.99	0.44
1:2:260:U:H3'	1:2:261:U:C5'	2.47	0.44
1:2:76:A:H5'	1:2:77:U:OP2	2.18	0.44
1:2:967:A:O2'	1:2:1034:C:H1'	2.17	0.44
36:5:1081:U:H6	36:5:1081:U:H3'	1.83	0.44
36:5:1265:U:O2	36:5:1277:C:H1'	2.17	0.44
36:5:1627:U:N3	36:5:1817:G:O6	2.50	0.44
36:5:2209:U:C2	36:5:2210:G:C8	3.05	0.44
36:5:2436:U:C2'	36:5:2437:G:H5''	2.45	0.44
36:5:2840:C:OP1	86:5:4139:OHX:N3	2.49	0.44
36:5:2908:G:C2'	36:5:2909:U:H5'	2.48	0.44
36:5:3269:U:H5'	36:5:3271:G:O4'	2.17	0.44
36:5:547:G:H2'	36:5:548:G:O4'	2.17	0.44
36:5:795:G:O2'	36:5:796:U:H5'	2.18	0.44
1:6:1003:A:O2'	1:6:1005:A:N6	2.41	0.44
1:6:63:G:H4'	1:6:170:U:C5	2.52	0.44
1:6:485:A:C6	1:6:486:G:H1'	2.52	0.44
38:8:16:G:O6	86:8:215:OHX:N6	2.50	0.44
12:C0:76:LEU:HA	12:C0:79:TYR:HB3	2.60	0.44
20:C8:83:ALA:O	20:C8:86:LEU:HB2	2.18	0.44
20:C8:8:GLN:HB3	20:C8:9:GLY:H	2.97	0.44
21:C9:126:GLU:HG2	21:C9:127:ASN:N	2.84	0.44
25:D3:17:VAL:HG23	25:D3:20:ARG:NH2	3.98	0.44
28:D6:6:ALA:N	1:6:1796:C:C5	343.71	0.44
30:D8:64:ARG:HA	30:D8:64:ARG:HD2	1.53	0.44
39:L2:204:MET:HB2	39:L2:208:ASP:HB2	2.14	0.44
40:L3:119:TYR:HD2	40:L3:122:TRP:CE3	2.35	0.44
40:L3:205:VAL:C	40:L3:207:SER:H	2.50	0.44
43:L6:23:LYS:HD2	36:5:611:A:O4'	236.03	0.44
43:L6:53:VAL:H	43:L6:67:GLY:H	5.00	0.44
43:L6:92:SER:HB3	43:L6:148:GLU:HG2	2.63	0.44
49:M3:6:ASN:O	54:M8:164:ARG:HD2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:M5:187:ARG:O	51:M5:190:THR:HG23	2.35	0.44
51:M5:38:ARG:HG2	51:M5:62:TYR:CE2	2.52	0.44
54:M8:103:ALA:HB3	54:M8:106:PHE:CE2	3.04	0.44
54:M8:54:LEU:HD22	54:M8:58:ASN:CB	2.47	0.44
58:N2:90:ARG:HH11	58:N2:90:ARG:HB3	4.64	0.44
59:N3:17:LEU:HD21	59:N3:98:ASN:ND2	2.32	0.44
60:N4:9:SER:O	60:N4:53:VAL:HG23	2.92	0.44
61:N5:103:TYR:HB3	61:N5:135:ILE:HD11	2.82	0.44
61:N5:76:VAL:HG12	61:N5:133:LEU:HA	1.98	0.44
61:N5:24:LEU:HB3	61:N5:25:LYS:H	2.26	0.44
63:N7:41:ALA:HB2	63:N7:77:TYR:CE2	5.01	0.44
66:O0:27:TYR:O	66:O0:31:VAL:HG23	2.17	0.44
67:O1:10:ARG:HH12	67:O1:44:MET:CG	4.38	0.44
67:O1:41:LYS:O	67:O1:45:GLY:HA2	2.94	0.44
70:O4:20:ILE:HD11	70:O4:34:HIS:CE1	2.52	0.44
36:1:1821:U:N3	70:O4:67:LYS:HD2	2.32	0.44
79:Q3:56:THR:HG22	79:Q3:63:THR:CG2	2.47	0.44
2:S0:63:ILE:O	2:S0:66:ALA:HB3	2.17	0.44
3:S1:103:MET:N	3:S1:215:VAL:HG13	3.16	0.44
5:S3:21:LEU:HD23	5:S3:21:LEU:HA	1.88	0.44
6:S4:10:LYS:HD3	1:6:381:C:OP1	357.80	0.44
6:S4:37:LYS:HB2	6:S4:40:GLU:HG2	1.99	0.44
6:S4:45:ILE:HG22	6:S4:80:THR:O	2.17	0.44
9:S7:61:PHE:HA	9:S7:93:LEU:O	2.38	0.44
34:SR:216:LYS:C	34:SR:218:GLY:H	2.21	0.44
34:SR:21:THR:HG23	34:SR:37:SER:HA	2.24	0.44
36:1:1047:A:N3	36:1:2633:U:O2'	2.44	0.44
36:1:1131:G:N2	36:1:2372:A:OP2	2.50	0.44
36:1:1191:U:C2	52:M6:48:PHE:CE1	3.06	0.44
36:1:1597:C:H2'	36:1:1598:G:C8	2.49	0.44
36:1:1658:G:H2'	36:1:1659:U:C6	2.53	0.44
36:1:1661:G:H2'	36:1:1662:G:C8	2.52	0.44
36:1:199:A:H4'	36:1:200:C:OP1	2.18	0.44
36:1:21:G:C8	38:4:37:A:C6	3.05	0.44
36:1:2830:G:H1'	36:1:2861:U:C2	2.53	0.44
36:1:3160:U:H2'	36:1:3161:C:C6	2.53	0.44
86:1:4057:OHX:N4	86:1:4166:OHX:N3	2.65	0.44
86:1:4057:OHX:N6	86:1:4166:OHX:N5	2.65	0.44
36:1:550:A:N6	36:1:551:A:H62	2.16	0.44
1:2:1057:U:H1'	1:2:1058:U:H2'	2.00	0.44
1:2:144:U:O2'	1:2:145:A:H8	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:200:A:H2'	1:2:201:G:C8	2.53	0.44
1:2:252:U:H5'	6:S4:131:LEU:O	2.18	0.44
1:2:632:U:OP2	13:C1:102:LYS:NZ	2.36	0.44
1:2:649:U:O2'	1:2:650:U:H6	2.01	0.44
1:2:699:U:H2'	1:2:700:C:C6	2.53	0.44
1:2:714:G:H2'	1:2:715:U:O4'	2.17	0.44
1:2:831:U:H2'	1:2:831:U:O2	2.17	0.44
1:2:901:G:C6	1:2:902:G:C6	3.06	0.44
38:4:151:C:C4	61:N5:24:LEU:HD11	2.52	0.44
36:5:1831:U:H2'	36:5:1832:C:H6	1.82	0.44
36:5:2213:A:N1	36:5:2429:G:H1'	2.32	0.44
36:5:2628:A:C2	36:5:2629:U:H1'	2.52	0.44
36:5:2926:A:H2'	36:5:2927:C:C6	2.51	0.44
69:O3:56:SER:OG	36:5:3170:A:OP2	202.83	0.44
36:5:35:A:H2'	36:5:36:C:C6	2.53	0.44
36:5:1817:G:OP1	86:5:4182:OHX:N1	2.49	0.44
36:5:696:C:HO2'	36:5:697:A:H8	1.63	0.44
1:6:1393:C:H2'	1:6:1394:G:C8	2.52	0.44
1:6:697:C:OP2	86:6:2072:OHX:N5	2.51	0.44
1:6:884:A:O2'	1:6:885:G:H5'	2.18	0.44
1:6:957:G:C6	1:6:958:U:C4	3.05	0.44
1:6:9:U:O4	86:6:2143:OHX:N3	2.51	0.44
14:C2:45:LEU:O	14:C2:49:THR:HG23	2.24	0.44
15:C3:99:ARG:O	15:C3:103:GLU:HG2	2.18	0.44
16:C4:71:CYS:O	16:C4:75:GLY:N	3.15	0.44
1:2:1550:A:P	17:C5:42:ARG:HH22	2.41	0.44
19:C7:48:ASN:ND2	1:6:1388:A:H5''	428.99	0.44
19:C7:71:PHE:CD1	19:C7:73:LEU:HB3	2.52	0.44
21:C9:115:GLU:OE1	21:C9:123:ARG:HD3	5.79	0.44
24:D2:86:ILE:HD11	24:D2:122:SER:OG	6.43	0.44
28:D6:87:ARG:NH1	1:6:1797:A:C5	342.92	0.44
31:D9:19:ARG:HD3	31:D9:32:ARG:CD	3.62	0.44
39:L2:193:ARG:CZ	36:5:2181:C:H5''	194.55	0.44
36:1:911:C:H42	39:L2:3:ARG:HD3	1.83	0.44
40:L3:123:TYR:CZ	40:L3:124:LYS:HG3	2.52	0.44
40:L3:169:THR:CG2	40:L3:171:LEU:HG	2.94	0.44
36:1:364:G:O3'	41:L4:84:ARG:HG2	2.18	0.44
42:L5:109:THR:O	42:L5:112:LYS:HG3	2.17	0.44
42:L5:261:THR:H	42:L5:264:GLN:CD	2.71	0.44
42:L5:45:ASN:OD1	57:N1:33:VAL:HG21	2.40	0.44
43:L6:22:ARG:O	43:L6:23:LYS:HD3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:19:SER:C	46:L9:20:ILE:HG12	2.35	0.44
46:L9:52:LEU:HD22	46:L9:53:ILE:N	2.33	0.44
49:M3:159:VAL:HB	64:N8:96:LYS:HG2	1.98	0.44
50:M4:129:TYR:HE1	36:5:3229:G:C2	287.81	0.44
53:M7:50:GLN:OE1	53:M7:56:ARG:NH2	2.49	0.44
54:M8:100:THR:HB	54:M8:120:GLU:HB3	4.49	0.44
54:M8:175:ALA:HB3	64:N8:53:PHE:O	2.18	0.44
54:M8:44:PHE:HZ	54:M8:82:VAL:HG21	2.02	0.44
62:N6:74:TYR:CE1	62:N6:77:LYS:HG3	2.52	0.44
69:O3:44:TYR:HA	69:O3:47:LYS:HG3	2.22	0.44
36:1:3173:G:C2	69:O3:96:ALA:HB2	2.53	0.44
70:O4:99:LYS:HB3	70:O4:103:LYS:HZ1	1.81	0.44
71:O5:20:GLN:O	71:O5:23:ASP:HB2	2.17	0.44
71:O5:57:VAL:HA	71:O5:60:GLU:HB2	2.00	0.44
5:S3:137:VAL:CG2	5:S3:151:LYS:HE2	2.47	0.44
5:S3:217:ILE:HB	5:S3:218:LEU:H	1.86	0.44
6:S4:34:GLY:HA3	6:S4:83:PRO:CG	2.68	0.44
7:S5:27:THR:HA	7:S5:28:PRO:HD2	2.35	0.44
8:S6:48:TYR:CE2	8:S6:121:LEU:HD22	4.18	0.44
11:S9:30:LEU:HD23	11:S9:30:LEU:HA	1.80	0.44
11:S9:33:GLU:O	11:S9:122:VAL:HG11	2.17	0.44
34:SR:48:THR:HB	34:SR:50:ASP:OD1	2.17	0.44
36:1:1908:A:O5'	36:1:1908:A:H8	2.00	0.44
36:1:1950:U:H2'	36:1:1951:C:C6	2.52	0.44
36:1:2097:U:H2'	36:1:2098:C:C6	2.53	0.44
36:1:2652:U:C5	36:1:2653:C:C5	3.05	0.44
36:1:2862:U:H2'	36:1:2863:G:O4'	2.17	0.44
36:1:31:C:H2'	36:1:32:U:O4'	2.18	0.44
86:1:4134:OHX:N1	86:1:4167:OHX:N4	2.66	0.44
36:1:612:U:OP1	43:L6:21:THR:HB	2.18	0.44
1:2:1339:C:OP1	1:2:1339:C:H4'	2.17	0.44
1:2:1553:G:N2	1:2:1555:A:H3'	2.33	0.44
1:2:1570:A:H2'	1:2:1571:C:O4'	2.17	0.44
1:2:1796:C:C5	28:D6:6:ALA:N	2.80	0.44
1:2:800:U:O4	86:2:2053:OHX:N5	2.51	0.44
1:2:93:A:H4'	1:2:94:U:OP2	2.18	0.44
45:L8:108:ARG:NH1	36:5:121:A:C4	95.51	0.44
68:O2:33:ARG:HH22	36:5:1408:G:P	159.42	0.44
36:5:1576:G:H5'	36:5:1577:G:OP2	2.18	0.44
55:M9:46:LYS:NZ	36:5:1766:G:H8	101.64	0.44
36:5:1783:U:H2'	36:5:1784:G:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1947:G:H5''	36:5:1948:G:OP2	2.18	0.44
36:5:2945:G:O2'	36:5:2948:C:OP2	2.18	0.44
36:5:3207:U:H5'	36:5:3209:A:H2	1.83	0.44
36:5:3362:A:H2'	36:5:3363:U:O4'	2.18	0.44
36:5:51:A:H2'	36:5:52:A:O4'	2.18	0.44
15:C3:65:VAL:C	15:C3:67:THR:H	2.86	0.44
19:C7:27:ASP:OD2	19:C7:30:THR:HG22	2.17	0.44
23:D1:78:LEU:HD12	23:D1:78:LEU:HA	4.14	0.44
25:D3:59:ILE:HD13	32:E0:4:VAL:HG13	1.98	0.44
26:D4:111:LYS:NZ	26:D4:115:ASP:OD2	7.15	0.44
27:D5:61:SER:HG	27:D5:63:SER:HG	4.22	0.44
28:D6:80:HIS:C	28:D6:82:ARG:H	4.19	0.44
30:D8:19:THR:HB	30:D8:20:GLY:H	2.17	0.44
40:L3:46:PHE:HD1	40:L3:208:VAL:HG21	2.96	0.44
40:L3:86:VAL:HG13	40:L3:160:VAL:HG13	2.00	0.44
41:L4:237:GLN:O	41:L4:246:ARG:HG3	2.18	0.44
42:L5:150:LEU:HD23	42:L5:150:LEU:HA	1.77	0.44
42:L5:177:GLU:O	42:L5:179:ARG:N	2.56	0.44
42:L5:41:LYS:HA	42:L5:41:LYS:HD3	3.29	0.44
46:L9:41:ILE:O	46:L9:41:ILE:HD13	2.18	0.44
51:M5:156:HIS:O	51:M5:159:ARG:HG2	2.18	0.44
52:M6:12:LYS:O	56:N0:167:ARG:NH2	2.45	0.44
52:M6:18:ARG:O	52:M6:22:VAL:HG13	2.18	0.44
53:M7:95:LEU:HD23	53:M7:95:LEU:HA	2.40	0.44
54:M8:166:LEU:HD23	54:M8:166:LEU:HA	1.54	0.44
55:M9:95:TRP:CZ2	55:M9:99:LEU:HG	2.52	0.44
57:N1:7:TYR:CZ	57:N1:54:HIS:HB2	2.71	0.44
59:N3:120:LYS:H	59:N3:137:VAL:HG23	2.58	0.44
61:N5:86:VAL:HG11	61:N5:95:ILE:CD1	2.48	0.44
62:N6:45:ILE:HD11	62:N6:122:LYS:HD3	2.51	0.44
63:N7:46:ILE:HD11	63:N7:49:TYR:CD2	3.24	0.44
64:N8:74:ASN:HB3	64:N8:115:LYS:HB2	1.99	0.44
64:N8:75:LEU:O	64:N8:77:LYS:N	2.50	0.44
68:O2:11:LYS:HD3	68:O2:11:LYS:HA	2.04	0.44
71:O5:88:LEU:HA	71:O5:88:LEU:HD23	1.69	0.44
36:1:20:A:P	71:O5:90:ARG:HH11	2.41	0.44
71:O5:95:PHE:O	71:O5:97:ALA:N	2.47	0.44
73:O7:88:ALA:O	86:O7:103:OHX:N1	2.51	0.44
3:S1:142:PHE:HD2	3:S1:209:ASN:HB2	1.83	0.44
3:S1:184:LEU:HD13	3:S1:188:LEU:HG	1.99	0.44
3:S1:58:SER:O	3:S1:60:ALA:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:141:ARG:HB2	4:S2:153:SER:O	2.18	0.44
4:S2:157:LYS:HD2	4:S2:168:ARG:HH21	1.82	0.44
5:S3:118:ALA:O	5:S3:122:VAL:HG23	2.90	0.44
6:S4:163:ASP:O	6:S4:164:LEU:HB2	2.35	0.44
6:S4:103:TYR:HE2	6:S4:184:THR:HG22	2.71	0.44
7:S5:225:ARG:HE	30:D8:61:ARG:HD3	5.18	0.44
7:S5:92:ARG:NH1	7:S5:92:ARG:HG2	3.01	0.44
8:S6:71:THR:HG22	8:S6:72:ARG:H	4.36	0.44
10:S8:151:LYS:HA	10:S8:151:LYS:HD2	4.00	0.44
10:S8:152:ILE:HB	10:S8:153:GLU:H	1.49	0.44
11:S9:163:PRO:HB3	11:S9:169:PRO:HA	2.52	0.44
1:2:511:A:P	11:S9:176:ASN:HD22	2.40	0.44
36:1:1212:A:H2'	36:1:1213:G:H5''	2.00	0.44
36:1:1230:G:H1	36:1:1279:C:N4	2.13	0.44
36:1:1691:U:H2'	36:1:1692:U:H6	1.83	0.44
36:1:2242:A:H5'	39:L2:243:THR:O	2.17	0.44
36:1:2519:A:H2'	36:1:2520:A:O4'	2.18	0.44
36:1:2567:C:C2'	36:1:2568:C:H5'	2.48	0.44
36:1:3018:C:H2'	36:1:3019:U:O4'	2.18	0.44
36:1:3151:U:H4'	36:1:3294:A:O4'	2.17	0.44
36:1:3335:A:C2	36:1:3336:A:C4	3.06	0.44
1:2:1194:A:OP2	22:D0:75:GLY:N	2.47	0.44
37:3:62:U:O3'	42:L5:285:ARG:NH1	2.51	0.44
36:5:171:G:N2	36:5:248:U:O2	2.51	0.44
36:5:253:A:HO2'	36:5:254:A:H8	1.66	0.44
36:5:2660:G:O3'	36:5:2749:G:N2	2.50	0.44
36:5:2989:U:H2'	36:5:2990:G:O4'	2.18	0.44
36:5:3198:U:H4'	36:5:3199:G:OP2	2.18	0.44
36:5:3379:C:H2'	36:5:3380:U:O4'	2.17	0.44
36:5:3384:U:H2'	36:5:3385:U:C6	2.53	0.44
36:5:2308:C:O2	86:5:4241:OHX:N1	2.51	0.44
50:M4:77:ARG:NH1	36:5:562:C:OP2	346.86	0.44
36:5:718:G:N7	36:5:721:G:H1'	2.33	0.44
36:5:741:U:H2'	36:5:742:G:O4'	2.18	0.44
36:5:959:C:N4	36:5:2801:A:C8	2.86	0.44
1:6:1469:A:H2'	1:6:1470:C:C6	2.53	0.44
1:6:1491:U:H4'	1:6:1492:A:C5'	2.42	0.44
1:6:1553:G:N2	1:6:1555:A:H3'	2.33	0.44
1:6:340:U:H2'	1:6:341:A:C8	2.53	0.44
26:D4:105:ARG:NH2	1:6:444:C:H5	364.86	0.44
16:C4:91:THR:O	16:C4:93:THR:N	2.93	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:C6:113:ASP:OD2	18:C6:115:THR:N	2.51	0.44
20:C8:28:ILE:H	20:C8:28:ILE:HG13	4.40	0.44
28:D6:45:VAL:O	28:D6:46:GLU:HG2	3.37	0.44
29:D7:8:LEU:HD23	29:D7:8:LEU:HA	1.79	0.44
32:E0:55:ARG:CB	32:E0:58:PRO:HG3	2.42	0.44
1:2:1253:U:O4	33:E1:97:LYS:HE3	2.17	0.44
36:1:1794:G:C6	39:L2:187:HIS:CD2	3.06	0.44
40:L3:37:ARG:CB	40:L3:186:GLY:HA2	2.82	0.44
40:L3:296:THR:HG21	40:L3:357:LYS:HA	4.47	0.44
41:L4:126:ILE:HG13	41:L4:238:LEU:HD13	1.99	0.44
42:L5:140:ARG:NH2	36:5:1080:A:OP2	228.55	0.44
42:L5:197:SER:OG	42:L5:202:GLY:HA3	2.56	0.44
44:L7:89:ILE:HA	44:L7:89:ILE:HD13	1.64	0.44
45:L8:133:LYS:HB2	45:L8:199:ALA:O	3.31	0.44
45:L8:236:GLY:O	45:L8:237:ILE:HB	4.67	0.44
45:L8:25:PRO:HG2	45:L8:27:THR:HB	2.00	0.44
49:M3:56:PRO:HG2	49:M3:72:GLY:HA3	2.19	0.44
54:M8:26:LEU:O	54:M8:26:LEU:HD22	2.60	0.44
54:M8:71:LEU:HD23	54:M8:71:LEU:HA	1.76	0.44
55:M9:122:VAL:O	55:M9:126:GLU:HB2	2.17	0.44
55:M9:99:LEU:HD22	55:M9:99:LEU:O	2.19	0.44
63:N7:34:LYS:HA	63:N7:34:LYS:HD2	1.60	0.44
63:N7:5:LEU:HD22	63:N7:77:TYR:CZ	5.68	0.44
63:N7:78:ASN:O	63:N7:79:HIS:HD2	2.01	0.44
64:N8:71:PRO:O	64:N8:110:GLY:N	2.83	0.44
78:Q2:10:THR:HG22	78:Q2:23:HIS:ND1	2.33	0.44
64:N8:59:ARG:NH2	78:Q2:38:GLN:OE1	2.83	0.44
2:S0:58:VAL:O	2:S0:62:ARG:HB2	2.43	0.44
3:S1:211:HIS:CD2	3:S1:211:HIS:N	3.05	0.44
5:S3:107:PHE:O	5:S3:111:ASN:N	2.97	0.44
5:S3:124:ARG:NH2	35:SM:128:ALA:HB2	9.86	0.44
5:S3:142:LEU:H	5:S3:142:LEU:HD22	3.13	0.44
5:S3:133:GLY:HA3	5:S3:156:PHE:O	2.18	0.44
5:S3:164:VAL:HG12	5:S3:165:ASN:N	2.32	0.44
34:SR:79:TYR:HE1	34:SR:100:TYR:HE1	3.22	0.44
36:1:1181:U:O4	52:M6:18:ARG:HG2	2.18	0.44
36:1:1221:A:H3'	36:1:1222:G:H5''	1.99	0.44
36:1:2278:C:O2'	36:1:2279:A:H5''	2.18	0.44
36:1:2284:C:H5''	36:1:2285:C:OP2	2.18	0.44
36:1:2514:U:H5'	45:L8:68:ARG:HG3	1.99	0.44
36:1:2738:A:C6	36:1:2739:A:C6	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:2842:U:C5	36:1:2843:U:C4	3.06	0.44
36:1:3121:U:C2	36:1:3122:A:N7	2.86	0.44
36:1:3216:G:O6	36:1:3259:U:H2'	2.18	0.44
36:1:3224:G:O6	86:1:3894:OHX:N4	2.51	0.44
1:2:821:U:C5	1:2:853:G:N2	2.86	0.44
1:2:948:G:H2'	1:2:949:C:O4'	2.18	0.44
36:5:1272:C:H2'	36:5:1273:A:H5'	1.99	0.44
41:L4:183:LYS:HE3	36:5:1386:A:N7	119.95	0.44
36:5:1567:U:H2'	36:5:1568:U:C4'	2.47	0.44
36:5:856:G:H4'	36:5:1723:A:O2'	2.18	0.44
36:5:2111:G:H4'	36:5:2112:U:OP2	2.18	0.44
36:5:2655:U:C2	36:5:2656:A:C6	3.06	0.44
73:O7:13:ASN:O	36:5:817:A:C4	139.57	0.44
1:6:1212:G:C2	1:6:1213:G:C8	3.05	0.44
1:6:1623:C:H2'	1:6:1624:C:C6	2.53	0.44
1:6:1700:C:O2	1:6:1700:C:H2'	2.16	0.44
6:S4:133:LYS:NZ	1:6:206:A:OP1	312.84	0.44
12:C0:46:LEU:HA	12:C0:46:LEU:HD13	1.88	0.44
18:C6:12:LYS:HD2	18:C6:17:THR:HG22	2.00	0.44
20:C8:12:GLN:O	20:C8:12:GLN:NE2	4.23	0.44
22:D0:58:LEU:CD1	22:D0:88:LYS:HD2	2.48	0.44
23:D1:64:GLU:OE2	29:D7:2:VAL:HG13	3.12	0.44
31:D9:5:ASN:CG	31:D9:7:TRP:NE1	2.72	0.44
39:L2:130:SER:HA	39:L2:169:ILE:CG2	2.47	0.44
39:L2:21:ARG:NH2	39:L2:22:LEU:HD11	2.76	0.44
40:L3:46:PHE:CD1	40:L3:208:VAL:HG21	3.69	0.44
40:L3:284:ARG:HH12	40:L3:296:THR:CG2	2.29	0.44
41:L4:32:PRO:HD2	54:M8:24:VAL:HG21	1.99	0.44
42:L5:269:SER:O	42:L5:270:LYS:HB2	4.57	0.44
42:L5:63:GLN:HB2	42:L5:65:ILE:HD11	1.99	0.44
44:L7:239:LEU:O	44:L7:242:SER:N	2.42	0.44
46:L9:31:ARG:HB3	46:L9:149:ASN:OD1	3.35	0.44
49:M3:180:ARG:HH11	49:M3:180:ARG:HB3	4.27	0.44
49:M3:59:ARG:O	49:M3:60:ALA:HB3	4.59	0.44
36:1:670:C:P	54:M8:147:ARG:HH21	2.40	0.44
55:M9:90:PRO:HG2	55:M9:93:VAL:HG23	2.70	0.44
56:N0:104:GLU:O	56:N0:108:GLN:HG2	2.18	0.44
49:M3:3:ILE:HG12	64:N8:34:MET:HE2	2.00	0.44
68:O2:17:PHE:CD1	68:O2:53:PRO:HD3	2.53	0.44
36:1:316:U:O2'	72:O6:30:LYS:HD2	2.18	0.44
46:L9:95:ALA:O	76:Q0:77:ILE:HG12	8.02	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:69:ASN:HB3	2:S0:71:GLU:OE2	2.17	0.44
3:S1:109:LYS:HA	3:S1:109:LYS:HD2	1.73	0.44
3:S1:109:LYS:HE3	3:S1:113:MET:HE2	2.00	0.44
4:S2:237:VAL:HB	4:S2:242:ILE:CD1	3.91	0.44
11:S9:97:LEU:HA	11:S9:97:LEU:HD23	1.87	0.44
34:SR:267:PRO:HD2	34:SR:269:TYR:CE1	3.59	0.44
34:SR:299:GLN:HE21	34:SR:314:GLN:HE21	6.72	0.44
36:1:1285:G:HO2'	36:1:1286:A:P	2.41	0.43
36:1:1591:G:H2'	36:1:1592:G:H5'	1.98	0.43
36:1:1679:A:N3	36:1:1679:A:H2'	2.32	0.43
36:1:2689:A:C8	36:1:2702:A:C6	3.06	0.43
86:1:4086:OHX:N2	86:1:4157:OHX:N4	2.66	0.43
86:1:4057:OHX:N2	86:1:4166:OHX:N1	2.66	0.43
36:1:683:U:O5'	36:1:683:U:H6	2.01	0.43
1:2:1619:C:H2'	1:2:1620:C:H6	1.83	0.43
1:2:196:G:O2'	1:2:197:A:P	2.75	0.43
1:2:477:A:N7	1:2:538:A:N1	2.66	0.43
37:3:101:G:H8	37:3:101:G:O5'	2.00	0.43
36:5:1165:A:H2'	36:5:1166:G:O4'	2.19	0.43
36:5:2581:U:O2'	36:5:2582:C:H5'	2.18	0.43
57:N1:47:SER:HA	36:5:2700:G:O2'	258.79	0.43
36:5:2726:C:O2	36:5:2726:C:O5'	2.36	0.43
36:5:2771:U:H2'	36:5:2772:C:C6	2.53	0.43
36:5:320:G:C2	36:5:321:C:C5	3.06	0.43
36:5:845:G:O6	86:5:4039:OHX:N6	2.51	0.43
36:5:835:G:O2'	36:5:857:G:N2	2.35	0.43
1:6:1001:A:H2'	1:6:1002:G:O4'	2.17	0.43
1:6:470:A:C8	1:6:470:A:H5''	2.50	0.43
1:6:805:U:H2'	1:6:806:A:H5'	2.00	0.43
1:6:876:G:H1'	1:6:944:A:O4'	2.18	0.43
38:8:104:A:C8	38:8:105:A:C8	3.05	0.43
13:C1:2:SER:N	13:C1:82:ARG:HG2	2.33	0.43
16:C4:32:ASP:C	16:C4:34:SER:H	2.21	0.43
18:C6:50:GLU:OE2	18:C6:82:ARG:NH2	2.86	0.43
20:C8:41:ARG:NE	21:C9:46:PRO:HD3	2.33	0.43
24:D2:111:MET:HE3	24:D2:116:ALA:HA	1.99	0.43
26:D4:112:LYS:HE2	26:D4:112:LYS:HB3	1.87	0.43
26:D4:62:THR:HA	26:D4:69:SER:HA	2.01	0.43
28:D6:38:ARG:NH2	28:D6:83:ILE:HG21	2.32	0.43
16:C4:115:ILE:CG2	28:D6:44:ILE:HG21	6.89	0.43
30:D8:13:ILE:HG13	30:D8:29:ARG:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:77:ILE:CD1	39:L2:128:ARG:HB3	2.48	0.43
40:L3:255:TRP:CD1	40:L3:256:HIS:CE1	3.06	0.43
42:L5:279:LYS:HD3	42:L5:282:ARG:HH22	4.37	0.43
43:L6:54:TYR:HA	43:L6:65:ILE:CD1	5.97	0.43
49:M3:47:ALA:HB1	49:M3:48:PRO:CD	2.49	0.43
50:M4:133:LYS:HE2	50:M4:133:LYS:HB3	2.43	0.43
51:M5:35:VAL:HG23	36:5:1543:G:OP1	140.12	0.43
56:N0:134:ASP:O	56:N0:136:LYS:HG2	2.34	0.43
60:N4:86:SER:O	60:N4:88:ASP:N	2.50	0.43
61:N5:81:ILE:HA	61:N5:124:VAL:O	2.17	0.43
64:N8:73:LEU:HD23	64:N8:112:ILE:HD12	2.00	0.43
67:O1:108:VAL:HG12	67:O1:110:GLU:OE1	3.48	0.43
67:O1:71:LEU:HA	67:O1:71:LEU:HD23	1.61	0.43
69:O3:18:ARG:HG3	69:O3:18:ARG:O	2.67	0.43
74:O8:54:LEU:HD12	74:O8:55:VAL:H	2.70	0.43
3:S1:171:ILE:HD13	3:S1:196:GLU:HG2	2.37	0.43
3:S1:164:ILE:HD13	3:S1:207:LEU:HD21	1.99	0.43
3:S1:220:GLN:H	3:S1:220:GLN:HG3	1.47	0.43
4:S2:36:VAL:HA	4:S2:37:PRO:HD2	2.28	0.43
4:S2:53:ILE:CD1	4:S2:53:ILE:H	3.78	0.43
5:S3:64:ARG:O	5:S3:66:ILE:N	2.51	0.43
7:S5:141:GLY:HA2	7:S5:142:PRO:HD3	1.93	0.43
8:S6:32:ILE:HA	8:S6:52:ILE:HG22	1.99	0.43
10:S8:22:ARG:NH2	10:S8:25:ARG:HG3	2.31	0.43
10:S8:87:ASN:ND2	10:S8:89:GLU:HG2	4.03	0.43
36:1:2209:U:C6	36:1:2209:U:OP2	2.71	0.43
36:1:2623:G:C4	36:1:2624:G:C8	3.06	0.43
86:1:3962:OHX:N1	86:1:4142:OHX:N3	2.66	0.43
36:1:763:G:HO2'	36:1:764:U:P	2.41	0.43
1:2:1166:A:H2'	1:2:1167:G:O4'	2.18	0.43
1:2:119:A:H1'	1:2:397:A:C4	2.53	0.43
1:2:830:U:O2	1:2:830:U:H2'	2.18	0.43
1:2:844:A:H2'	1:2:845:G:H8	1.83	0.43
36:1:2585:G:C2	38:4:151:C:H5	2.36	0.43
36:5:1024:G:H2'	36:5:1026:A:H8	1.82	0.43
36:5:2816:G:C8	36:5:2869:U:H3'	2.53	0.43
36:5:553:U:O4	86:5:3999:OHX:N3	2.51	0.43
36:5:1078:U:O4	86:5:4001:OHX:N5	2.51	0.43
36:5:54:C:O2'	36:5:1547:G:H1'	2.17	0.43
1:6:1081:A:H1'	1:6:1082:C:H5	1.82	0.43
1:6:1344:A:O2'	1:6:1345:A:OP1	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1372:U:H2'	1:6:1373:C:C6	2.53	0.43
1:6:1586:A:H2'	1:6:1587:A:C8	2.53	0.43
1:6:27:U:OP1	86:6:2106:OHX:N3	2.51	0.43
37:7:95:A:OP2	86:7:226:OHX:N1	2.52	0.43
12:C0:32:HIS:HD2	12:C0:33:GLU:H	5.24	0.43
12:C0:34:GLU:O	12:C0:35:ILE:HB	4.62	0.43
12:C0:73:VAL:O	12:C0:77:ARG:HG3	4.80	0.43
17:C5:90:ILE:HD11	17:C5:112:LEU:HD21	2.00	0.43
18:C6:114:ARG:O	18:C6:115:THR:HB	3.90	0.43
21:C9:116:ILE:H	21:C9:116:ILE:HG13	1.37	0.43
22:D0:50:LEU:HB3	22:D0:51:VAL:H	1.41	0.43
2:S0:52:LYS:HB3	23:D1:82:VAL:HG22	1.99	0.43
27:D5:81:ARG:HB2	27:D5:81:ARG:HH11	4.44	0.43
32:E0:4:VAL:O	32:E0:4:VAL:HG12	2.18	0.43
39:L2:2:GLY:HA2	39:L2:207:VAL:HG12	2.00	0.43
40:L3:56:ILE:HD11	40:L3:359:ILE:HG12	1.99	0.43
42:L5:211:LEU:HB3	42:L5:219:PHE:HD2	1.83	0.43
44:L7:184:LEU:HD23	44:L7:184:LEU:HA	1.53	0.43
45:L8:99:PRO:HG2	45:L8:190:VAL:HG13	4.91	0.43
46:L9:47:LYS:HB2	50:M4:7:VAL:HB	2.00	0.43
47:M0:170:LYS:HD3	47:M0:170:LYS:HA	2.19	0.43
47:M0:92:HIS:HB2	47:M0:94:PHE:CE2	2.52	0.43
48:M1:8:PRO:HD2	48:M1:10:ARG:HG3	2.59	0.43
49:M3:46:ILE:HG23	49:M3:46:ILE:HD12	1.69	0.43
51:M5:159:ARG:HB2	51:M5:164:LEU:HB2	2.68	0.43
51:M5:99:ARG:NH1	51:M5:167:THR:HB	3.67	0.43
51:M5:22:LEU:O	51:M5:26:ARG:HG3	2.18	0.43
52:M6:22:VAL:HG11	52:M6:120:VAL:HG11	2.07	0.43
53:M7:169:THR:HG23	69:O3:60:ARG:HH11	1.83	0.43
54:M8:153:PHE:O	54:M8:161:LYS:HG2	4.14	0.43
44:L7:80:GLN:HG3	57:N1:136:ARG:HB3	4.60	0.43
57:N1:27:LEU:HD22	57:N1:27:LEU:HA	1.76	0.43
57:N1:76:ILE:O	57:N1:87:LYS:N	2.91	0.43
59:N3:32:ARG:HB3	59:N3:64:LYS:O	2.18	0.43
61:N5:67:ILE:CD1	61:N5:121:LYS:HG3	2.47	0.43
63:N7:80:LEU:HD23	63:N7:80:LEU:HA	2.42	0.43
71:O5:68:GLN:C	71:O5:70:TYR:H	2.21	0.43
73:O7:22:CYS:SG	73:O7:24:ARG:HG3	4.26	0.43
74:O8:22:THR:HG22	74:O8:74:LYS:HB3	4.61	0.43
2:S0:179:ARG:HD3	2:S0:183:ARG:HD2	2.00	0.43
2:S0:31:VAL:HG12	2:S0:33:GLN:H	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:116:LYS:HB3	3:S1:117:TRP:CD1	4.98	0.43
6:S4:42:LEU:CD2	6:S4:47:PHE:HB2	2.48	0.43
7:S5:37:GLN:OE1	18:C6:53:LEU:HD22	2.25	0.43
7:S5:57:SER:CB	30:D8:53:ILE:HB	2.92	0.43
8:S6:206:ALA:O	8:S6:210:GLN:HG3	2.90	0.43
8:S6:63:MET:HA	8:S6:98:ARG:O	2.27	0.43
10:S8:97:THR:O	10:S8:100:ALA:HB2	2.82	0.43
10:S8:35:ASN:O	10:S8:37:LYS:HD3	2.18	0.43
10:S8:61:GLU:HG3	10:S8:77:ARG:HE	7.45	0.43
11:S9:29:LYS:HA	32:E0:40:TYR:CE2	2.94	0.43
36:1:1120:A:H2'	36:1:1121:U:C6	2.54	0.43
36:1:1273:A:O2'	36:1:1274:A:OP1	2.32	0.43
36:1:1321:G:C5	36:1:1322:U:C5	3.07	0.43
36:1:1429:G:OP2	41:L4:107:ARG:NH2	2.39	0.43
36:1:1559:A:H4'	36:1:1560:G:OP2	2.17	0.43
36:1:2435:G:N7	36:1:2593:A:H2'	2.33	0.43
36:1:2723:U:H2'	36:1:2724:U:C6	2.53	0.43
36:1:2808:A:N7	36:1:2955:U:H4'	2.33	0.43
36:1:2534:G:O6	86:1:3998:OHX:N6	2.52	0.43
36:1:269:G:O6	86:1:4081:OHX:N3	2.51	0.43
86:1:3962:OHX:N5	86:1:4142:OHX:N6	2.65	0.43
1:2:119:A:H2'	1:2:120:U:O4'	2.18	0.43
1:2:1388:A:HO2'	1:2:1411:A:H2	1.64	0.43
1:2:1483:A:C6	1:2:1484:G:C6	3.06	0.43
1:2:190:C:O2'	1:2:191:C:H5'	2.18	0.43
1:2:27:U:H2'	1:2:28:A:O4'	2.18	0.43
1:2:906:A:H2	1:2:998:A:HO2'	1.64	0.43
37:3:73:C:C2	56:N0:13:ARG:NH1	2.87	0.43
42:L5:140:ARG:HD3	36:5:1080:A:OP1	226.31	0.43
36:5:2794:G:H1'	36:5:2795:U:C6	2.53	0.43
36:5:537:A:H2'	36:5:538:G:O4'	2.17	0.43
36:5:787:G:H2'	36:5:788:C:C6	2.53	0.43
1:6:1762:A:C1'	1:6:1783:C:H5'	2.48	0.43
38:8:145:U:H2'	38:8:146:U:O4'	2.18	0.43
13:C1:65:SER:OG	1:6:114:C:O2'	315.91	0.43
14:C2:129:GLU:O	14:C2:133:LEU:HD13	2.18	0.43
15:C3:102:LEU:HA	15:C3:102:LEU:HD23	2.11	0.43
15:C3:114:ARG:HD3	15:C3:114:ARG:HA	1.73	0.43
16:C4:83:ILE:HG13	16:C4:84:ARG:H	1.82	0.43
21:C9:28:LEU:O	21:C9:107:ALA:HB1	2.17	0.43
25:D3:50:LYS:HA	25:D3:102:VAL:O	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D3:23:ARG:HH11	25:D3:23:ARG:HG3	2.04	0.43
27:D5:57:TYR:OH	27:D5:68:ARG:HG3	2.19	0.43
28:D6:44:ILE:HG22	28:D6:45:VAL:HG13	5.70	0.43
33:E1:136:LYS:HA	33:E1:136:LYS:HD3	2.92	0.43
41:L4:178:LEU:HA	41:L4:178:LEU:HD23	2.11	0.43
41:L4:338:LYS:HD2	41:L4:338:LYS:HA	1.76	0.43
41:L4:64:SER:HA	41:L4:75:PRO:HA	2.00	0.43
42:L5:286:VAL:O	42:L5:289:LYS:N	2.52	0.43
42:L5:46:THR:HA	42:L5:47:PRO:HD2	1.90	0.43
44:L7:25:GLN:HA	44:L7:29:GLU:H	1.83	0.43
45:L8:118:GLU:O	45:L8:120:LYS:N	2.51	0.43
45:L8:97:TYR:O	45:L8:132:VAL:HG12	2.18	0.43
46:L9:101:VAL:HG11	46:L9:144:ILE:HD12	1.99	0.43
46:L9:90:MET:HG2	46:L9:181:VAL:HA	2.00	0.43
47:M0:89:VAL:HG22	47:M0:136:PHE:CE1	2.71	0.43
48:M1:46:VAL:HG22	48:M1:68:HIS:NE2	2.34	0.43
56:N0:171:PHE:CD2	56:N0:172:TYR:N	2.86	0.43
57:N1:101:CYS:SG	57:N1:102:ARG:N	3.80	0.43
58:N2:50:LEU:HG	58:N2:50:LEU:H	2.08	0.43
59:N3:83:LYS:HA	59:N3:83:LYS:HD2	1.70	0.43
59:N3:94:TYR:HE2	60:N4:19:THR:OG1	2.01	0.43
59:N3:135:VAL:HG11	60:N4:26:SER:HB3	2.00	0.43
61:N5:57:LEU:HD21	61:N5:90:ALA:HB2	2.00	0.43
63:N7:2:ALA:N	66:O0:63:SER:HA	2.33	0.43
63:N7:21:LYS:HD3	63:N7:47:GLU:HA	2.16	0.43
63:N7:99:GLU:HG3	63:N7:100:THR:HG23	5.86	0.43
64:N8:128:ARG:O	64:N8:129:PHE:CD2	3.71	0.43
66:O0:16:LEU:HB3	66:O0:98:SER:HB2	2.00	0.43
69:O3:89:LEU:HA	69:O3:90:PRO:HD3	1.90	0.43
2:S0:179:ARG:HD3	2:S0:183:ARG:NE	3.44	0.43
2:S0:92:HIS:HB3	2:S0:182:LEU:HD11	2.31	0.43
2:S0:28:ASN:O	2:S0:30:GLN:HB2	2.17	0.43
2:S0:41:ARG:HE	2:S0:45:VAL:CB	2.31	0.43
2:S0:41:ARG:HH11	2:S0:45:VAL:HG21	2.14	0.43
3:S1:101:HIS:C	3:S1:217:LEU:HD13	2.39	0.43
6:S4:126:VAL:CG2	6:S4:156:VAL:HA	2.63	0.43
7:S5:165:LEU:HA	7:S5:165:LEU:HD12	2.10	0.43
34:SR:37:SER:HB3	34:SR:39:ASP:OD1	2.59	0.43
34:SR:79:TYR:HE1	34:SR:100:TYR:CE1	3.56	0.43
36:1:1129:A:OP1	47:M0:13:LYS:NZ	2.36	0.43
36:1:1563:C:O2	36:1:1577:G:N2	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:156:G:OP2	72:O6:27:SER:OG	2.30	0.43
36:1:2337:C:H2'	36:1:2338:C:C6	2.54	0.43
36:1:2508:U:O5'	36:1:2508:U:H6	2.01	0.43
36:1:250:U:H5''	36:1:251:G:H5''	2.00	0.43
36:1:2653:C:OP1	78:Q2:89:LYS:HB2	2.18	0.43
36:1:874:U:H3	36:1:2978:U:H5''	1.82	0.43
36:1:3095:U:H2'	36:1:3096:C:C6	2.52	0.43
36:1:412:G:C6	36:1:413:U:C4	3.06	0.43
86:1:4086:OHX:N6	86:1:4157:OHX:N4	2.66	0.43
36:1:509:U:O4	86:1:4009:OHX:N5	2.51	0.43
36:1:879:U:O2	36:1:2357:A:H1'	2.18	0.43
36:1:92:G:OP1	78:Q2:46:LYS:HE3	2.19	0.43
1:2:363:G:OP1	86:2:2077:OHX:N2	2.51	0.43
1:2:330:G:H2'	1:2:331:A:H8	1.82	0.43
1:2:395:U:H2'	1:2:396:G:O4'	2.19	0.43
36:5:1049:C:H2'	36:5:1050:U:C6	2.54	0.43
36:5:1243:G:C6	36:5:1244:A:N7	2.86	0.43
36:5:1845:G:C6	36:5:1849:C:C6	3.06	0.43
36:5:2572:C:HO2'	36:5:2573:G:P	2.38	0.43
36:5:2590:A:C6	36:5:2591:A:C5	3.06	0.43
36:5:3060:C:H1'	36:5:3332:U:H1'	1.99	0.43
36:5:3163:A:C6	36:5:3164:C:N4	2.86	0.43
36:5:352:A:H61	36:5:365:A:H5''	1.82	0.43
1:6:1161:C:H2'	1:6:1162:C:C6	2.51	0.43
1:6:116:U:O2	1:6:333:A:H2	2.02	0.43
1:6:1363:U:O2'	1:6:1364:G:H5'	2.18	0.43
1:6:1526:A:C8	1:6:1527:C:C6	3.07	0.43
17:C5:90:ILE:HG21	17:C5:109:PRO:HG3	3.09	0.43
17:C5:110:GLU:HG2	17:C5:110:GLU:H	1.52	0.43
20:C8:116:LEU:O	20:C8:124:GLY:HA3	3.47	0.43
20:C8:91:ASP:O	20:C8:92:ILE:HB	2.18	0.43
22:D0:16:GLN:HB3	22:D0:17:GLN:H	1.55	0.43
23:D1:13:VAL:HA	23:D1:14:PRO:HD3	1.84	0.43
23:D1:56:SER:OG	23:D1:59:VAL:HG23	2.22	0.43
23:D1:71:ARG:HG3	23:D1:83:TRP:CH2	2.54	0.43
20:C8:5:VAL:O	27:D5:42:LEU:HB2	3.02	0.43
39:L2:200:ARG:HH21	39:L2:200:ARG:HD2	1.72	0.43
39:L2:80:GLU:HG2	79:Q3:76:ALA:HB1	3.22	0.43
41:L4:63:GLU:O	41:L4:75:PRO:HA	2.19	0.43
42:L5:215:ASP:OD1	42:L5:218:ARG:HG3	2.18	0.43
37:3:1:G:N2	42:L5:269:SER:OG	2.28	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:43:LYS:O	42:L5:46:THR:OG1	2.78	0.43
44:L7:51:TYR:CD1	44:L7:186:HIS:CD2	3.06	0.43
45:L8:134:TYR:CD2	45:L8:190:VAL:HG11	4.93	0.43
45:L8:248:LYS:HA	45:L8:251:LYS:HB3	1.99	0.43
45:L8:47:SER:HA	45:L8:50:VAL:HG12	2.43	0.43
47:M0:48:LEU:HB2	47:M0:142:ASP:OD1	2.95	0.43
47:M0:185:ARG:C	47:M0:187:ALA:H	2.37	0.43
48:M1:82:ARG:O	48:M1:86:VAL:HG23	3.12	0.43
43:L6:176:PHE:H	50:M4:117:ARG:HH22	4.85	0.43
52:M6:113:ASP:OD2	52:M6:113:ASP:N	2.52	0.43
53:M7:74:LYS:NZ	36:5:3298:C:OP1	184.31	0.43
42:L5:40:HIS:CE1	57:N1:69:LYS:HA	3.01	0.43
62:N6:3:LYS:HG3	62:N6:8:VAL:HG22	1.99	0.43
63:N7:123:GLN:HG2	63:N7:123:GLN:H	1.43	0.43
65:N9:52:LYS:HE3	65:N9:52:LYS:HB2	1.71	0.43
36:1:3325:G:H5'	67:O1:104:LEU:O	2.18	0.43
70:O4:41:ARG:O	70:O4:43:LYS:NZ	3.03	0.43
72:O6:4:LYS:HD2	72:O6:13:LYS:O	2.29	0.43
76:Q0:124:LYS:O	76:Q0:126:LYS:NZ	2.59	0.43
78:Q2:3:ASN:O	36:5:2655:U:H2'	238.03	0.43
78:Q2:99:GLN:HE22	78:Q2:102:GLN:HE21	1.66	0.43
2:S0:188:LEU:HD12	2:S0:189:VAL:HG12	2.00	0.43
2:S0:69:ASN:HB3	2:S0:71:GLU:CD	2.39	0.43
3:S1:48:VAL:HG13	3:S1:61:LEU:HD21	2.00	0.43
7:S5:81:ARG:HD3	7:S5:82:PHE:CE2	2.91	0.43
8:S6:52:ILE:HG23	8:S6:109:LEU:HD21	2.58	0.43
9:S7:30:SER:CB	9:S7:34:LEU:HD12	3.07	0.43
9:S7:89:HIS:ND1	9:S7:165:LYS:HA	2.66	0.43
9:S7:97:ARG:HA	9:S7:97:ARG:HD3	3.30	0.43
10:S8:146:ARG:HG3	10:S8:146:ARG:H	1.68	0.43
11:S9:49:LEU:HD11	11:S9:100:LYS:HA	3.69	0.43
11:S9:38:ASN:HB2	11:S9:41:GLU:H	1.83	0.43
36:1:1262:G:C6	36:1:1278:A:N6	2.87	0.43
36:1:1352:A:H4'	36:1:1353:U:OP1	2.19	0.43
36:1:156:G:C5	49:M3:99:HIS:CD2	3.07	0.43
36:1:1595:U:C2	36:1:1596:C:C5	3.06	0.43
36:1:1618:G:H2'	36:1:1619:A:O4'	2.18	0.43
36:1:1807:G:C6	36:1:1808:G:C6	3.07	0.43
36:1:1882:G:O2'	36:1:1883:A:H5'	2.18	0.43
36:1:2226:U:O2'	36:1:2227:C:H5'	2.18	0.43
36:1:3194:C:O2'	36:1:3195:U:H2'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3060:C:H1'	36:1:3332:U:H1'	1.99	0.43
36:1:501:A:H2'	36:1:502:U:C6	2.53	0.43
1:2:1541:G:C5	1:2:1542:G:C6	3.07	0.43
1:2:1765:A:OP1	86:2:2091:OHX:N3	2.52	0.43
1:2:209:U:H2'	1:2:210:A:C8	2.53	0.43
1:2:333:A:H2'	1:2:334:G:C8	2.54	0.43
1:2:432:G:H2'	1:2:433:C:O4'	2.18	0.43
1:2:693:U:H5'	1:2:694:U:C5'	2.48	0.43
1:2:734:A:O2'	1:2:735:C:H5'	2.19	0.43
36:5:1037:C:H2'	36:5:1038:C:H6	1.83	0.43
36:5:1728:G:H4'	36:5:1729:A:H5''	2.00	0.43
36:5:1890:U:C2	36:5:1891:A:C8	3.06	0.43
36:5:2314:U:O4	86:5:3980:OHX:N5	2.51	0.43
36:5:3182:G:H2'	36:5:3183:A:O4'	2.18	0.43
36:5:3364:C:H2'	36:5:3365:U:C6	2.53	0.43
36:5:493:G:C2	36:5:494:G:H1'	2.53	0.43
36:5:523:A:N6	36:5:570:A:C2	2.87	0.43
1:6:1761:U:OP1	87:6:2202:EDE:O42	2.29	0.43
1:6:199:G:O2'	1:6:200:A:H8	2.02	0.43
1:6:271:A:H5'	1:6:272:U:OP2	2.19	0.43
10:S8:33:PRO:HA	1:6:331:A:H5'	276.46	0.43
1:6:20:G:H5'	1:6:571:G:C5	2.54	0.43
37:7:23:A:H2'	37:7:24:A:C8	2.54	0.43
38:8:70:G:O2'	38:8:87:G:N2	2.51	0.43
15:C3:150:VAL:HG12	15:C3:151:ASN:CG	2.38	0.43
17:C5:16:SER:HA	17:C5:20:VAL:O	2.19	0.43
20:C8:23:ASP:O	20:C8:26:ILE:HG23	2.18	0.43
23:D1:55:LEU:HD11	23:D1:69:LEU:HG	2.01	0.43
27:D5:58:ARG:HA	27:D5:103:ARG:HB2	6.24	0.43
11:S9:28:LEU:HD12	32:E0:43:ARG:HE	2.48	0.43
41:L4:158:SER:HA	41:L4:213:ASN:HB2	2.00	0.43
42:L5:166:ALA:HB1	42:L5:171:LEU:HD12	1.99	0.43
42:L5:277:LEU:HA	42:L5:277:LEU:HD12	1.78	0.43
42:L5:49:TYR:HA	42:L5:65:ILE:O	2.19	0.43
44:L7:188:ILE:HA	44:L7:188:ILE:HD13	1.68	0.43
44:L7:53:LYS:O	44:L7:56:GLU:N	3.27	0.43
49:M3:59:ARG:NH1	36:5:73:C:N3	95.10	0.43
52:M6:78:ARG:HH11	52:M6:78:ARG:CG	2.39	0.43
53:M7:27:LYS:HG2	53:M7:63:PHE:CD1	3.24	0.43
54:M8:179:ARG:NH2	64:N8:56:VAL:HG21	3.77	0.43
55:M9:151:ARG:O	55:M9:155:LEU:HG	4.68	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M9:161:ALA:O	55:M9:165:LYS:HB2	2.18	0.43
58:N2:97:SER:HB2	58:N2:103:TYR:CE1	3.03	0.43
59:N3:54:LEU:HD13	59:N3:54:LEU:HA	1.71	0.43
62:N6:125:LYS:O	62:N6:126:LEU:HG	2.17	0.43
62:N6:43:TYR:CE2	62:N6:109:LEU:HD12	2.75	0.43
63:N7:81:LEU:HA	63:N7:82:PRO:HD3	2.74	0.43
73:O7:25:ARG:NH1	73:O7:25:ARG:HB3	4.10	0.43
73:O7:64:MET:O	73:O7:68:LYS:HD2	3.65	0.43
75:O9:10:LYS:HA	75:O9:13:MET:HE3	2.00	0.43
78:Q2:54:THR:O	78:Q2:55:LYS:HG2	2.49	0.43
2:S0:187:ALA:O	2:S0:188:LEU:HD22	2.18	0.43
3:S1:131:ASP:HB3	3:S1:180:THR:OG1	2.18	0.43
4:S2:90:THR:C	4:S2:92:ALA:H	2.21	0.43
5:S3:195:SER:OG	5:S3:200:LYS:HA	4.14	0.43
7:S5:126:ASP:HB3	7:S5:127:GLN:H	1.48	0.43
7:S5:45:LYS:HD3	7:S5:45:LYS:HA	1.80	0.43
11:S9:129:ILE:HA	11:S9:134:ILE:CD1	2.76	0.43
34:SR:13:LEU:HB2	34:SR:310:ILE:HB	2.01	0.43
36:1:208:C:O2'	36:1:209:A:H5'	2.19	0.43
36:1:2197:C:C2	36:1:2241:U:C4	3.07	0.43
36:1:2633:U:H2'	36:1:2634:U:O4'	2.18	0.43
36:1:3305:A:H2'	36:1:3306:U:O2	2.19	0.43
36:1:349:A:H4'	36:1:350:C:OP2	2.18	0.43
36:1:355:A:H2'	36:1:356:C:O4'	2.19	0.43
36:1:643:U:OP1	36:1:1116:G:O2'	2.20	0.43
1:2:400:A:C4	10:S8:26:LYS:HB2	2.53	0.43
36:5:982:C:H42	36:5:1101:G:H1	1.65	0.43
36:5:1263:A:N3	36:5:1263:A:H2'	2.33	0.43
36:5:1661:G:N7	86:5:3921:OHX:N5	2.67	0.43
36:5:2546:C:H2'	36:5:2547:A:C8	2.53	0.43
39:L2:69:TYR:OH	36:5:2557:A:OP1	190.89	0.43
36:5:2926:A:H2'	36:5:2927:C:H6	1.84	0.43
36:5:356:C:H42	36:5:363:G:H1	1.66	0.43
1:6:1122:G:O6	86:6:2159:OHX:N6	2.52	0.43
1:6:585:A:H2'	1:6:586:G:C8	2.53	0.43
1:6:74:U:H5''	1:6:75:U:OP2	2.18	0.43
1:6:841:U:H2'	1:6:842:C:C6	2.54	0.43
38:8:68:G:OP1	86:8:216:OHX:N3	2.52	0.43
12:C0:77:ARG:HA	12:C0:82:LEU:CD1	2.49	0.43
13:C1:87:ARG:NH2	13:C1:104:HIS:CE1	2.86	0.43
14:C2:91:VAL:HG22	14:C2:92:ALA:H	4.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:72:MET:HB3	15:C3:72:MET:HE2	4.66	0.43
18:C6:24:ALA:HB2	18:C6:92:TYR:OH	2.18	0.43
19:C7:5:ARG:HD3	19:C7:5:ARG:N	2.33	0.43
21:C9:25:GLN:HG3	21:C9:27:LYS:H	1.83	0.43
25:D3:86:PHE:HB2	25:D3:120:VAL:HG11	2.28	0.43
39:L2:119:LYS:HE2	39:L2:119:LYS:HB2	4.47	0.43
39:L2:150:LEU:HB3	39:L2:151:PRO:CD	2.49	0.43
39:L2:96:LEU:O	79:Q3:87:ARG:HD3	2.60	0.43
40:L3:110:LEU:HA	40:L3:110:LEU:HD12	1.75	0.43
40:L3:10:ARG:HD3	40:L3:11:HIS:O	3.79	0.43
40:L3:76:VAL:HG11	40:L3:323:MET:HE3	2.01	0.43
43:L6:52:VAL:HG13	43:L6:65:ILE:HG23	4.55	0.43
44:L7:168:ILE:O	44:L7:172:ASN:ND2	2.52	0.43
44:L7:43:ILE:O	44:L7:47:ARG:HG3	2.39	0.43
36:1:121:A:C2	45:L8:129:PRO:HB3	2.54	0.43
45:L8:91:PHE:CE1	45:L8:185:ARG:HD2	2.54	0.43
46:L9:189:GLU:C	46:L9:191:LEU:N	2.72	0.43
47:M0:3:ARG:NH2	36:5:2853:A:H5"	292.82	0.43
48:M1:110:ILE:HG22	48:M1:115:LYS:O	2.18	0.43
49:M3:189:GLU:O	49:M3:192:GLU:HG2	2.19	0.43
49:M3:54:LEU:HD23	49:M3:54:LEU:HA	1.78	0.43
52:M6:18:ARG:HA	36:5:1181:U:O4	267.02	0.43
53:M7:78:VAL:HG13	53:M7:79:THR:N	2.89	0.43
57:N1:83:ARG:HE	57:N1:83:ARG:HB3	1.56	0.43
61:N5:115:ARG:HD3	61:N5:121:LYS:HE3	2.77	0.43
62:N6:89:LYS:HB3	62:N6:89:LYS:HE3	2.77	0.43
64:N8:27:LYS:HG2	36:5:936:A:OP2	162.60	0.43
65:N9:55:ALA:O	65:N9:58:LYS:HB2	3.87	0.43
71:O5:43:LYS:O	71:O5:46:THR:HG23	2.18	0.43
75:O9:7:PHE:O	75:O9:11:GLN:HB2	2.48	0.43
77:Q1:18:ARG:HE	77:Q1:18:ARG:HB3	3.40	0.43
36:1:2554:A:N6	79:Q3:62:LYS:HD3	2.33	0.43
2:S0:172:LEU:HD22	2:S0:176:LEU:HG	2.21	0.43
2:S0:41:ARG:HH11	2:S0:45:VAL:HG11	1.84	0.43
6:S4:108:ARG:H	6:S4:108:ARG:HG3	1.83	0.43
8:S6:153:VAL:O	8:S6:156:PHE:N	2.28	0.43
8:S6:78:THR:HG23	8:S6:92:ARG:HG2	2.04	0.43
9:S7:31:SER:HA	9:S7:35:LYS:HB3	3.50	0.43
11:S9:133:HIS:O	11:S9:134:ILE:HD13	2.18	0.43
11:S9:40:LYS:HA	11:S9:43:TYR:HB2	2.01	0.43
20:C8:145:ARG:CB	35:SM:68:ARG:HH12	3.91	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:146:U:H5''	36:1:148:G:O4'	2.18	0.43
36:1:2561:A:HO2'	36:1:2562:A:H8	1.66	0.43
36:1:3298:C:C2	36:1:3299:A:C8	3.06	0.43
36:1:563:U:OP1	56:N0:71:LYS:NZ	2.33	0.43
36:1:749:C:H5''	65:N9:32:LEU:HG	2.00	0.43
1:2:1291:G:H2'	1:2:1292:G:C8	2.52	0.43
1:2:269:G:C6	1:2:287:G:C6	3.06	0.43
1:2:36:C:H2'	1:2:37:U:O4'	2.17	0.43
1:2:386:G:C6	1:2:387:A:N6	2.87	0.43
1:2:67:A:O3'	1:2:68:A:H3'	2.18	0.43
36:1:409:A:H61	38:4:15:G:H1'	1.84	0.43
36:5:1611:G:H2'	36:5:1612:A:C8	2.53	0.43
70:O4:59:PRO:HD3	36:5:1654:A:O2'	167.16	0.43
79:Q3:51:ALA:HA	36:5:1795:U:C4	207.67	0.43
36:5:189:G:H2'	36:5:224:C:OP1	2.19	0.43
36:5:1944:U:H2'	36:5:1945:A:C8	2.54	0.43
36:5:2709:C:H2'	36:5:2710:C:H6	1.84	0.43
36:5:2943:G:H2'	36:5:2944:U:O4'	2.19	0.43
40:L3:30:LYS:NZ	36:5:3139:A:OP2	235.16	0.43
36:5:1674:G:N7	86:5:3972:OHX:N4	2.67	0.43
86:5:4095:OHX:N3	86:5:4203:OHX:N1	2.67	0.43
36:5:423:A:C6	36:5:424:G:C6	3.07	0.43
36:5:916:G:H5'	36:5:917:A:OP1	2.18	0.43
1:6:1042:G:H22	1:6:1076:A:H2	1.67	0.43
1:6:1362:U:H1'	1:6:1363:U:C4	2.54	0.43
1:6:329:G:H2'	1:6:330:G:H8	1.83	0.43
1:6:422:G:OP1	86:6:2055:OHX:N3	2.52	0.43
1:6:478:A:C2	1:6:479:C:C2	3.07	0.43
17:C5:18:ARG:O	17:C5:20:VAL:HG23	2.18	0.43
19:C7:12:ALA:O	19:C7:15:ALA:HB3	3.02	0.43
19:C7:32:LYS:HE2	19:C7:32:LYS:HB3	1.80	0.43
17:C5:18:ARG:HG2	20:C8:92:ILE:HA	2.01	0.43
23:D1:3:ASN:HD21	23:D1:7:GLN:CB	3.58	0.43
24:D2:28:ARG:HG3	24:D2:29:PRO:HA	2.00	0.43
26:D4:3:ASP:O	26:D4:5:VAL:N	2.45	0.43
27:D5:38:HIS:CG	27:D5:70:LYS:HG2	7.35	0.43
39:L2:107:VAL:HG11	39:L2:111:THR:HG21	2.57	0.43
39:L2:43:GLY:O	39:L2:88:ILE:N	2.81	0.43
40:L3:24:SER:HB2	86:L3:403:OHX:N2	2.34	0.43
40:L3:53:MET:HE2	40:L3:77:THR:CG2	2.49	0.43
41:L4:255:PHE:O	41:L4:258:LEU:HB2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:L5:270:LYS:HG3	42:L5:273:ARG:CB	5.83	0.43
43:L6:65:ILE:O	43:L6:76:LEU:HA	2.49	0.43
41:L4:316:ASN:ND2	44:L7:150:LYS:HG3	2.34	0.43
45:L8:88:ALA:O	45:L8:92:LYS:HB2	2.27	0.43
46:L9:67:ALA:HA	46:L9:70:THR:HG23	2.00	0.43
46:L9:77:ASN:HB3	46:L9:151:VAL:HG21	2.01	0.43
47:M0:159:PHE:HB2	47:M0:163:GLN:OE1	2.19	0.43
48:M1:173:ASP:HB3	48:M1:174:LYS:H	1.69	0.43
51:M5:38:ARG:HG3	51:M5:38:ARG:NH1	2.34	0.43
52:M6:36:VAL:HB	52:M6:108:ILE:HG12	1.99	0.43
36:1:3178:A:C6	52:M6:6:VAL:HG21	2.53	0.43
53:M7:3:ARG:NH2	36:5:398:A:C8	127.32	0.43
53:M7:84:PRO:O	53:M7:88:VAL:HG23	2.60	0.43
54:M8:19:PRO:HD3	54:M8:30:VAL:HG21	2.16	0.43
59:N3:32:ARG:O	59:N3:32:ARG:NH1	7.70	0.43
63:N7:121:ARG:HA	63:N7:121:ARG:HD3	1.90	0.43
63:N7:135:ARG:HB3	63:N7:135:ARG:NH2	3.70	0.43
64:N8:70:LYS:HB2	64:N8:70:LYS:HE3	3.14	0.43
65:N9:25:LYS:HD3	65:N9:27:TYR:OH	6.11	0.43
36:1:2617:U:H3'	65:N9:3:LYS:HD3	2.00	0.43
68:O2:20:HIS:CG	68:O2:42:VAL:HG21	2.54	0.43
71:O5:77:PRO:HD2	71:O5:80:LEU:HD12	2.22	0.43
78:Q2:99:GLN:OE1	78:Q2:102:GLN:HG3	2.18	0.43
2:S0:163:ASN:HB3	2:S0:169:SER:CB	2.93	0.43
3:S1:62:LYS:C	3:S1:64:ARG:H	2.15	0.43
5:S3:162:GLN:NE2	5:S3:166:ASP:OD1	2.48	0.43
6:S4:240:LYS:HA	6:S4:242:LYS:NZ	2.33	0.43
9:S7:173:TYR:HE1	9:S7:179:LYS:HB2	2.18	0.43
9:S7:25:VAL:O	9:S7:28:GLU:HB2	2.19	0.43
11:S9:119:ALA:HA	11:S9:124:HIS:ND1	4.94	0.43
35:SM:45:SER:O	35:SM:46:LYS:HD3	4.82	0.43
36:1:1175:C:O2'	52:M6:87:MET:HB3	2.17	0.43
36:1:1544:G:O6	86:1:4059:OHX:N4	2.51	0.43
36:1:884:A:N7	36:1:2139:A:C4	2.87	0.43
36:1:3046:A:H2'	36:1:3047:U:O4'	2.19	0.43
36:1:3324:C:N4	36:1:3325:G:C6	2.86	0.43
36:1:343:U:C4'	41:L4:95:ARG:HE	2.32	0.43
36:1:975:C:H2'	36:1:976:U:H6	1.79	0.43
1:2:1215:C:N3	1:2:1216:C:N4	2.66	0.43
1:2:1399:C:H4'	1:2:1399:C:OP1	2.19	0.43
1:2:158:U:O2'	1:2:159:U:H3'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1796:C:OP2	28:D6:5:ARG:NH1	2.47	0.43
86:2:2074:OHX:N6	86:2:2161:OHX:N2	2.66	0.43
1:2:694:U:H2'	1:2:694:U:O2	2.18	0.43
1:2:792:U:C2'	1:2:793:A:H5'	2.48	0.43
1:2:809:A:C6	1:2:810:G:C6	3.06	0.43
36:5:1064:A:N6	36:5:1096:U:H3	2.15	0.43
36:5:1691:U:H2'	36:5:1692:U:C6	2.54	0.43
51:M5:90:ASN:ND2	36:5:2425:G:OP2	167.43	0.43
36:5:243:G:O2'	36:5:244:G:H5'	2.18	0.43
36:5:2927:C:H2'	36:5:2928:C:C6	2.53	0.43
36:5:2992:U:H5'	36:5:3310:A:O2'	2.18	0.43
69:O3:68:TRP:NE1	36:5:3275:U:OP2	228.13	0.43
86:5:4025:OHX:N2	86:5:4218:OHX:N5	2.67	0.43
86:5:4215:OHX:N4	86:5:4225:OHX:N3	2.66	0.43
1:6:1275:A:H8	1:6:1275:A:OP2	2.01	0.43
1:6:1623:C:H2'	1:6:1624:C:H6	1.84	0.43
1:6:1799:U:H4'	1:6:1800:A:H2'	2.01	0.43
10:S8:175:GLN:NE2	1:6:332:U:OP2	286.23	0.43
1:6:75:U:C5	1:6:76:A:H8	2.37	0.43
37:7:57:G:H3'	37:7:58:C:H6	1.83	0.43
13:C1:58:CYS:HA	13:C1:59:PRO:HD2	1.70	0.43
13:C1:86:ILE:HD13	13:C1:86:ILE:HG21	2.30	0.43
16:C4:66:ASP:O	16:C4:69:ALA:N	3.23	0.43
18:C6:6:SER:HA	18:C6:23:LYS:HA	2.35	0.43
20:C8:109:LEU:HG	20:C8:113:LEU:HD12	2.01	0.43
22:D0:96:PRO:O	22:D0:100:VAL:HG23	2.28	0.43
23:D1:72:LEU:HA	23:D1:75:ASN:ND2	2.34	0.43
25:D3:10:ASN:O	25:D3:12:ALA:N	2.52	0.43
13:C1:101:GLU:HG3	25:D3:13:ARG:NH2	2.33	0.43
26:D4:36:SER:HA	1:6:521:A:O3'	424.46	0.43
30:D8:22:ARG:HA	30:D8:22:ARG:HD3	1.57	0.43
30:D8:19:THR:OG1	30:D8:27:GLN:HG3	2.19	0.43
30:D8:60:GLU:O	30:D8:62:GLU:N	5.24	0.43
31:D9:19:ARG:NH2	1:6:1597:A:P	406.06	0.43
1:2:1235:C:C2	33:E1:138:ARG:NH2	2.87	0.43
40:L3:84:VAL:HG13	40:L3:162:VAL:HB	2.01	0.43
40:L3:232:ARG:HD2	40:L3:269:GLN:O	2.19	0.43
36:1:3312:U:C5'	40:L3:25:ILE:HD12	2.46	0.43
41:L4:39:PHE:CE1	41:L4:236:LEU:HD23	2.83	0.43
44:L7:151:ARG:NH1	44:L7:244:ASN:O	3.04	0.43
45:L8:136:LEU:HD11	45:L8:162:LEU:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:45:ASN:HD22	61:N5:26:VAL:HG22	6.20	0.43
46:L9:26:LYS:HG3	46:L9:35:THR:HG22	2.30	0.43
47:M0:68:ALA:HB1	47:M0:155:ALA:HB1	2.00	0.43
47:M0:35:ASP:OD1	47:M0:86:HIS:NE2	2.49	0.43
52:M6:15:LEU:O	52:M6:18:ARG:N	2.47	0.43
52:M6:195:ALA:O	52:M6:198:GLY:N	2.45	0.43
54:M8:96:PHE:CG	54:M8:97:PRO:HD2	2.73	0.43
55:M9:136:ARG:HG2	55:M9:140:GLU:OE2	2.19	0.43
55:M9:47:ASN:HB3	55:M9:49:THR:CG2	7.85	0.43
59:N3:48:ARG:NH1	59:N3:48:ARG:HG3	2.40	0.43
59:N3:86:ARG:HB2	59:N3:92:PHE:CD1	2.54	0.43
63:N7:124:ALA:O	63:N7:126:LYS:N	2.51	0.43
66:O0:19:LYS:HG2	66:O0:19:LYS:H	2.55	0.43
71:O5:28:LEU:HA	71:O5:31:LEU:HD13	3.26	0.43
71:O5:55:LEU:HA	71:O5:55:LEU:HD23	2.29	0.43
73:O7:18:LEU:HD11	75:O9:51:ILE:HG22	2.51	0.43
74:O8:23:ALA:CB	74:O8:73:LEU:HD21	2.49	0.43
76:Q0:95:VAL:N	76:Q0:122:ARG:O	2.60	0.43
78:Q2:98:LYS:HD2	36:5:2656:A:H4'	251.05	0.43
79:Q3:33:GLN:HB3	79:Q3:69:TYR:HB3	2.01	0.43
2:S0:142:PRO:HG3	23:D1:32:VAL:HG13	2.00	0.43
2:S0:179:ARG:HD3	2:S0:183:ARG:NH1	2.19	0.43
4:S2:99:LYS:HA	4:S2:117:THR:HA	2.31	0.43
4:S2:163:GLY:O	4:S2:164:SER:HB3	3.82	0.43
4:S2:245:ASP:C	4:S2:247:ALA:H	2.59	0.43
6:S4:73:ASP:OD2	6:S4:122:LYS:NZ	2.61	0.43
7:S5:133:VAL:HA	7:S5:198:LEU:HD22	2.00	0.43
7:S5:43:PHE:CG	7:S5:44:ASN:N	3.04	0.43
7:S5:52:GLU:H	7:S5:131:GLN:HE22	1.66	0.43
7:S5:77:TYR:CD1	7:S5:87:CYS:HB2	2.54	0.43
8:S6:28:PHE:C	8:S6:30:LYS:H	2.22	0.43
9:S7:60:ILE:HD12	9:S7:92:PHE:CE2	2.53	0.43
10:S8:138:ASN:HA	10:S8:141:ARG:CD	3.29	0.43
1:2:333:A:OP1	10:S8:31:ARG:NH2	2.52	0.43
34:SR:52:GLN:HG2	34:SR:53:LYS:H	2.50	0.43
36:1:1371:G:H2'	36:1:1372:C:O4'	2.19	0.43
36:1:1311:G:O2'	36:1:2381:G:H4'	2.19	0.43
36:1:2585:G:C2	38:4:151:C:C5	3.07	0.43
36:1:2657:A:C2	36:1:2694:A:C8	3.06	0.43
36:1:2688:U:OP1	42:L5:12:TYR:OH	2.31	0.43
36:1:282:G:C8	36:1:282:G:H3'	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:289:A:C2	51:M5:93:LYS:HG3	2.53	0.43
36:1:1110:U:O4	86:1:3980:OHX:N5	2.51	0.43
36:1:299:G:O6	86:1:4082:OHX:N2	2.51	0.43
36:1:636:C:O2'	36:1:637:C:H3'	2.19	0.43
36:1:795:G:O2'	36:1:796:U:H5'	2.19	0.43
36:1:916:G:H5'	36:1:917:A:OP1	2.19	0.43
1:2:1165:G:O6	1:2:1166:A:N6	2.51	0.43
1:2:1317:C:H2'	1:2:1318:G:O4'	2.18	0.43
1:2:328:A:H2'	1:2:329:G:O4'	2.18	0.43
1:2:811:A:C2	1:2:858:G:H1'	2.54	0.43
36:5:1502:C:N3	36:5:1513:G:O6	2.52	0.43
36:5:1817:G:O2'	36:5:1818:U:P	2.77	0.43
36:5:2213:A:H2'	36:5:2214:A:C8	2.53	0.43
47:M0:7:ARG:NH1	36:5:2828:G:OP2	269.95	0.43
50:M4:109:ARG:NH1	36:5:3210:A:OP1	291.43	0.43
86:5:4096:OHX:N5	86:5:4237:OHX:N6	2.67	0.43
1:6:137:U:H2'	1:6:137:U:H6	1.50	0.43
86:6:2103:OHX:N1	86:6:2187:OHX:N4	2.66	0.43
1:6:647:G:O5'	1:6:647:G:H8	2.01	0.43
12:C0:2:LEU:HD22	12:C0:2:LEU:HA	4.19	0.43
13:C1:94:ILE:HG12	25:D3:16:ARG:HD2	2.01	0.43
20:C8:91:ASP:HB3	20:C8:95:GLY:H	1.88	0.43
22:D0:77:LYS:HG2	22:D0:77:LYS:H	1.66	0.43
25:D3:59:ILE:HG12	32:E0:4:VAL:HG22	5.13	0.43
25:D3:72:VAL:HG11	25:D3:96:VAL:HG21	2.71	0.43
28:D6:36:ILE:N	28:D6:36:ILE:HD12	5.04	0.43
28:D6:4:LYS:HE2	28:D6:5:ARG:NH2	2.57	0.43
31:D9:24:CYS:O	31:D9:25:SER:OG	2.30	0.43
39:L2:103:PRO:HA	39:L2:163:ARG:HA	2.11	0.43
39:L2:202:VAL:HG23	39:L2:211:HIS:HB3	2.01	0.43
40:L3:122:TRP:CE2	40:L3:127:LYS:HE2	2.53	0.43
40:L3:332:ARG:HG2	40:L3:332:ARG:O	2.19	0.43
41:L4:119:ARG:O	41:L4:120:TYR:C	2.71	0.43
41:L4:152:VAL:CG2	41:L4:172:VAL:HG21	2.49	0.43
42:L5:188:GLU:O	42:L5:188:GLU:HG3	2.18	0.43
42:L5:211:LEU:O	42:L5:215:ASP:N	3.96	0.43
43:L6:131:LYS:HD3	43:L6:131:LYS:HA	4.55	0.43
43:L6:98:VAL:HA	43:L6:101:PHE:CD2	2.54	0.43
44:L7:236:ILE:HA	44:L7:236:ILE:HD12	1.75	0.43
45:L8:123:GLN:C	45:L8:125:ALA:H	3.17	0.43
46:L9:124:ARG:HD3	46:L9:164:ILE:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:L9:92:TYR:HB2	46:L9:142:ASP:HB3	2.00	0.43
46:L9:161:LEU:HD22	46:L9:179:ILE:HD12	2.01	0.43
47:M0:16:PRO:O	47:M0:18:PRO:HD3	2.19	0.43
47:M0:210:ILE:HD13	47:M0:217:PHE:CE2	4.39	0.43
47:M0:33:ILE:HD11	47:M0:69:ARG:NH1	2.34	0.43
48:M1:133:ARG:HB3	48:M1:134:PRO:CD	2.81	0.43
51:M5:175:ASN:O	51:M5:184:LYS:HG3	2.19	0.43
54:M8:64:VAL:O	54:M8:96:PHE:HE2	2.01	0.43
55:M9:44:LEU:HA	55:M9:44:LEU:HD12	1.81	0.43
36:1:2917:G:OP1	59:N3:46:LEU:HD12	2.19	0.43
75:O9:48:LYS:HD2	75:O9:48:LYS:HA	2.36	0.43
76:Q0:127:LEU:HD22	76:Q0:128:LYS:HG3	4.43	0.43
79:Q3:23:ARG:HH11	79:Q3:23:ARG:HD2	1.95	0.43
79:Q3:46:THR:HB	79:Q3:58:SER:HB2	2.00	0.43
2:S0:162:CYS:HB2	2:S0:163:ASN:H	1.41	0.43
2:S0:61:ALA:O	2:S0:63:ILE:N	2.78	0.43
3:S1:110:LEU:CD1	3:S1:213:ARG:HD2	2.71	0.43
3:S1:45:LYS:HD2	16:C4:13:VAL:HG12	6.31	0.43
5:S3:135:GLU:HG3	5:S3:153:ALA:HB2	2.75	0.43
5:S3:209:ILE:HD12	5:S3:210:GLU:H	3.64	0.43
6:S4:12:LEU:HD23	6:S4:12:LEU:HA	2.56	0.43
6:S4:248:ILE:HG13	6:S4:249:ALA:N	2.96	0.43
6:S4:25:GLY:HA3	1:6:447:U:O2'	374.33	0.43
7:S5:117:THR:HG22	7:S5:121:ILE:HD12	3.12	0.43
7:S5:117:THR:OG1	7:S5:191:ALA:HA	3.19	0.43
9:S7:35:LYS:HB3	9:S7:35:LYS:HE3	2.19	0.43
11:S9:112:GLN:HA	11:S9:115:LYS:HB2	2.25	0.43
35:SM:23:LYS:HG3	35:SM:24:GLU:N	4.78	0.43
35:SM:70:ASN:O	35:SM:74:LYS:HD3	2.19	0.43
34:SR:114:ASP:OD1	34:SR:115:ILE:N	2.79	0.43
36:1:1094:U:O2	36:1:1096:U:O2'	2.20	0.43
36:1:1355:A:H1'	36:1:1356:U:OP2	2.19	0.43
36:1:1432:C:O2'	36:1:1433:A:H3'	2.19	0.43
36:1:1556:C:H5''	36:1:2169:G:N2	2.34	0.43
36:1:199:A:C4	36:1:201:A:C8	3.07	0.43
36:1:2146:C:OP1	39:L2:200:ARG:NH1	2.52	0.43
36:1:2144:A:C4	36:1:2281:A:N6	2.86	0.43
36:1:2663:G:H5'	42:L5:152:ARG:HD3	2.01	0.43
36:1:2897:A:H2'	36:1:2899:C:C5'	2.48	0.43
86:1:4021:OHX:N3	86:1:4059:OHX:N1	2.67	0.43
36:1:603:A:H2'	36:1:604:G:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:979:U:C2	36:1:980:A:C4	3.06	0.43
1:2:1158:C:H2'	1:2:1158:C:H6	1.71	0.43
1:2:86:A:N3	1:2:147:A:H2	2.17	0.43
1:2:1572:G:H8	7:S5:185:ARG:HH12	1.66	0.43
1:2:1718:G:H2'	1:2:1719:A:O4'	2.19	0.43
1:2:1773:C:H2'	1:2:1774:G:C8	2.54	0.43
38:4:109:A:C2'	38:4:110:C:H5'	2.49	0.43
36:5:1595:U:C2	36:5:1596:C:C4	3.07	0.43
39:L2:222:ALA:HA	36:5:2245:C:O4'	221.26	0.43
45:L8:248:LYS:HE2	36:5:2529:A:OP1	208.09	0.43
36:5:2733:A:OP1	86:5:4135:OHX:N1	2.52	0.43
36:5:3165:A:H61	36:5:3285:C:N4	2.17	0.43
86:5:4068:OHX:N1	86:5:4144:OHX:N4	2.67	0.43
36:5:736:A:H2'	36:5:737:G:O4'	2.18	0.43
36:5:841:A:H2'	36:5:842:G:C8	2.54	0.43
1:6:1568:C:H2'	1:6:1568:C:H6	1.53	0.43
1:6:1715:G:C6	1:6:1716:C:N4	2.87	0.43
1:6:761:G:O6	86:6:2082:OHX:N1	2.52	0.43
1:6:755:A:C2	1:6:756:A:C4	3.06	0.43
38:8:157:U:C6	38:8:158:U:H5	2.37	0.43
13:C1:128:CYS:O	13:C1:129:ARG:CB	4.28	0.43
13:C1:20:PHE:CD2	13:C1:21:ASN:N	2.87	0.43
14:C2:119:SER:OG	14:C2:120:VAL:N	2.52	0.43
21:C9:118:PRO:O	21:C9:119:LYS:HB2	2.19	0.43
22:D0:72:ASN:HD22	22:D0:73:GLY:N	3.86	0.43
29:D7:3:LEU:HA	29:D7:3:LEU:HD22	1.80	0.43
40:L3:4:ARG:HG3	40:L3:4:ARG:NH1	3.33	0.43
41:L4:26:PHE:HE2	41:L4:258:LEU:HD23	2.23	0.43
41:L4:316:ASN:HA	41:L4:317:PRO:HD3	2.28	0.43
41:L4:74:ILE:HA	41:L4:74:ILE:HD12	3.73	0.43
48:M1:80:LEU:HD23	48:M1:80:LEU:HA	1.89	0.43
51:M5:101:THR:O	51:M5:105:ARG:HG3	2.30	0.43
54:M8:49:LEU:O	54:M8:52:LEU:HB2	2.99	0.43
55:M9:154:ALA:O	55:M9:158:GLU:HG2	2.38	0.43
56:N0:67:ALA:O	56:N0:69:PRO:HD3	2.34	0.43
86:N1:201:OHX:N6	36:5:993:G:OP1	261.29	0.43
62:N6:36:SER:HB3	62:N6:106:ILE:O	2.23	0.43
62:N6:111:LEU:HD23	62:N6:116:LYS:HG3	2.00	0.43
64:N8:2:PRO:HG2	64:N8:5:PHE:CD2	2.54	0.43
64:N8:7:LYS:HA	64:N8:7:LYS:HD3	1.68	0.43
70:O4:47:CYS:HG	70:O4:81:CYS:HG	3.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:O5:73:LYS:HA	71:O5:73:LYS:HD2	5.28	0.43
51:M5:143:ARG:HH21	71:O5:92:LEU:HD23	1.84	0.43
73:O7:39:TYR:CG	73:O7:40:PRO:HA	2.54	0.43
74:O8:69:LEU:HA	74:O8:69:LEU:HD13	1.88	0.43
3:S1:137:ILE:HG22	3:S1:215:VAL:HG23	2.00	0.43
5:S3:162:GLN:O	5:S3:164:VAL:N	2.87	0.43
6:S4:136:VAL:HG11	6:S4:148:ARG:NH2	2.58	0.43
6:S4:208:VAL:HG11	6:S4:225:VAL:HG21	2.01	0.43
1:2:142:G:P	8:S6:139:ASN:HD21	2.42	0.43
8:S6:178:LEU:HD12	8:S6:178:LEU:HA	2.34	0.43
9:S7:86:GLN:HG2	9:S7:87:ASP:H	1.84	0.43
11:S9:127:VAL:HG12	11:S9:131:GLN:OE1	2.19	0.43
11:S9:109:LEU:CB	11:S9:146:PHE:HB3	2.40	0.43
34:SR:220:ILE:HB	34:SR:234:LEU:HB2	2.27	0.43
36:1:1233:G:H22	36:1:1255:C:H42	1.66	0.42
36:1:123:A:C6	36:1:150:A:C5	3.07	0.42
36:1:1818:U:H2'	36:1:1819:U:O4'	2.19	0.42
36:1:22:G:C2'	36:1:23:A:H5'	2.49	0.42
36:1:3326:G:H2'	36:1:3327:G:H8	1.84	0.42
1:2:1253:U:O2'	33:E1:143:LYS:HA	2.19	0.42
1:2:1344:A:H2'	1:2:1345:A:C8	2.54	0.42
1:2:1366:U:O2'	21:C9:7:ARG:HD2	2.18	0.42
1:2:1476:C:H2'	1:2:1477:G:H8	1.84	0.42
1:2:1492:A:O2'	1:2:1493:A:H8	2.02	0.42
87:2:2180:EDE:H122	87:2:2180:EDE:H151	1.61	0.42
1:2:289:U:H2'	1:2:290:G:O4'	2.18	0.42
1:2:392:G:OP2	10:S8:24:LYS:HD2	2.19	0.42
1:2:446:A:O2'	1:2:447:U:H5'	2.19	0.42
1:2:733:A:H4'	1:2:734:A:C5	2.54	0.42
1:2:760:A:H2'	1:2:761:G:O4'	2.18	0.42
1:2:767:U:C5	11:S9:142:ASN:OD1	2.72	0.42
37:3:28:C:N4	37:3:29:C:N3	2.67	0.42
36:5:1564:U:H2'	36:5:1565:G:H8	1.80	0.42
36:5:2107:A:C2	36:5:2108:C:C2	3.06	0.42
36:5:2360:C:H5''	36:5:2361:A:P	2.59	0.42
36:5:2442:G:N1	36:5:2443:A:N7	2.67	0.42
36:5:2790:A:O2'	86:5:4070:OHX:N4	2.52	0.42
36:5:2762:A:H1'	36:5:2800:G:O6	2.19	0.42
36:5:2398:A:OP1	36:5:2873:U:H4'	2.19	0.42
36:5:2971:A:H5''	36:5:2972:G:C5'	2.48	0.42
36:5:3225:C:O2'	36:5:3226:A:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:48:A:O4'	36:5:50:U:C6	2.72	0.42
36:5:528:U:H2'	36:5:529:A:H8	1.83	0.42
49:M3:59:ARG:HG2	36:5:73:C:O2'	94.20	0.42
14:C2:46:ARG:NH2	1:6:1253:U:OP2	453.27	0.42
1:6:1404:C:O2'	1:6:1405:G:H5'	2.19	0.42
21:C9:78:LYS:HE2	1:6:1523:G:OP1	407.06	0.42
1:6:1535:U:O2'	1:6:1536:G:O5'	2.37	0.42
1:6:433:C:H5''	1:6:434:G:OP2	2.19	0.42
1:6:654:C:H2'	1:6:655:G:C8	2.54	0.42
1:6:648:G:C4	1:6:687:G:N2	2.87	0.42
42:L5:265:TYR:CE1	37:7:121:U:H5''	315.13	0.42
38:8:59:A:H4'	38:8:60:U:H5''	2.00	0.42
12:C0:29:GLN:O	12:C0:30:ALA:HB3	2.18	0.42
13:C1:112:SER:HA	13:C1:113:PRO:HD2	1.73	0.42
15:C3:151:ASN:O	86:C3:201:OHX:N6	3.22	0.42
15:C3:27:LYS:HB2	15:C3:28:LEU:H	1.64	0.42
15:C3:46:THR:OG1	15:C3:49:GLN:HG2	4.36	0.42
16:C4:112:ILE:H	28:D6:57:SER:HA	1.84	0.42
18:C6:46:PHE:HA	18:C6:49:TYR:HB2	2.11	0.42
19:C7:71:PHE:C	19:C7:73:LEU:H	2.23	0.42
23:D1:1:MET:HG2	23:D1:10:GLU:HB3	4.29	0.42
24:D2:17:ALA:HB2	24:D2:25:VAL:HG13	2.01	0.42
25:D3:96:VAL:HG12	25:D3:127:VAL:HG11	2.01	0.42
25:D3:53:VAL:HG13	25:D3:72:VAL:HB	2.01	0.42
25:D3:63:GLN:HB3	25:D3:64:PRO:HA	2.00	0.42
25:D3:92:CYS:SG	25:D3:132:LEU:HD12	2.59	0.42
27:D5:58:ARG:O	27:D5:102:THR:HA	2.96	0.42
32:E0:36:LYS:HA	32:E0:36:LYS:HD2	1.92	0.42
39:L2:188:LYS:HD2	39:L2:189:TYR:CZ	4.41	0.42
39:L2:204:MET:HG2	39:L2:204:MET:H	2.26	0.42
39:L2:39:GLY:O	39:L2:91:GLY:HA3	2.19	0.42
40:L3:77:THR:CG2	40:L3:327:CYS:HA	2.80	0.42
40:L3:66:LYS:HB3	40:L3:66:LYS:HE2	1.84	0.42
40:L3:51:ALA:HB3	40:L3:78:VAL:O	2.84	0.42
41:L4:107:ARG:HG2	41:L4:108:LYS:N	2.33	0.42
43:L6:96:VAL:HG12	43:L6:98:VAL:HG23	1.99	0.42
45:L8:211:LEU:HD12	45:L8:215:VAL:HG23	2.01	0.42
45:L8:29:SER:O	45:L8:31:PRO:HD3	3.46	0.42
46:L9:2:LYS:HA	46:L9:60:GLY:O	2.18	0.42
37:3:92:A:H4'	47:M0:11:TYR:CE1	2.54	0.42
47:M0:98:ARG:HA	47:M0:121:LYS:O	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:31:ILE:HG13	47:M0:32:ARG:N	2.33	0.42
50:M4:20:VAL:HG22	50:M4:66:THR:OG1	2.19	0.42
36:1:3178:A:C2	52:M6:115:LYS:HG2	2.53	0.42
52:M6:42:ASN:OD1	52:M6:125:ARG:HD3	2.19	0.42
52:M6:85:ARG:HD3	52:M6:90:HIS:ND1	3.05	0.42
36:1:2763:U:H5'	54:M8:176:ARG:HG3	2.01	0.42
54:M8:44:PHE:CD2	54:M8:134:GLY:HA3	2.54	0.42
55:M9:154:ALA:C	55:M9:156:ASN:H	3.37	0.42
59:N3:46:LEU:HD12	59:N3:46:LEU:HA	1.68	0.42
63:N7:103:GLN:HA	63:N7:104:PRO:HD2	2.59	0.42
68:O2:82:LEU:HD11	68:O2:112:ALA:HA	2.00	0.42
69:O3:19:SER:OG	69:O3:20:LYS:N	4.12	0.42
79:Q3:84:ARG:HA	79:Q3:87:ARG:NH2	2.68	0.42
2:S0:124:THR:HG22	2:S0:174:TRP:NE1	2.42	0.42
3:S1:189:ILE:HB	3:S1:190:PRO:HD3	2.01	0.42
3:S1:138:PHE:CD2	3:S1:214:LYS:HB3	2.63	0.42
3:S1:103:MET:HB3	3:S1:215:VAL:CG1	2.59	0.42
4:S2:165:VAL:HA	4:S2:202:GLY:HA3	2.44	0.42
4:S2:178:ILE:HD12	4:S2:178:ILE:H	4.72	0.42
4:S2:57:PHE:CZ	4:S2:138:PRO:HD3	2.73	0.42
5:S3:64:ARG:NH2	5:S3:65:ARG:HB2	7.21	0.42
6:S4:102:VAL:HG22	6:S4:182:TYR:OH	2.19	0.42
6:S4:21:ASP:HB2	1:6:773:C:OP1	387.61	0.42
9:S7:14:THR:OG1	9:S7:15:GLU:N	2.51	0.42
9:S7:173:TYR:CE2	9:S7:177:THR:HG21	2.54	0.42
10:S8:138:ASN:O	10:S8:142:LYS:HG2	2.19	0.42
35:SM:102:THR:O	35:SM:106:VAL:HG23	2.19	0.42
34:SR:112:SER:OG	34:SR:153:GLN:NE2	2.49	0.42
36:1:1573:G:C2	36:1:1574:C:H1'	2.54	0.42
36:1:1680:G:H2'	36:1:1681:U:C6	2.53	0.42
36:1:1713:G:C4	36:1:1730:G:N2	2.87	0.42
36:1:3112:G:O2'	46:L9:70:THR:HB	2.19	0.42
86:1:4021:OHX:N6	86:1:4059:OHX:N2	2.66	0.42
1:2:1086:A:C6	1:2:1087:A:C6	3.08	0.42
1:2:1122:G:N2	1:2:1125:A:OP2	2.52	0.42
1:2:1519:U:H3'	1:2:1520:U:H2'	2.01	0.42
1:2:1523:G:N7	21:C9:64:HIS:NE2	2.65	0.42
1:2:1793:G:H1'	1:2:1794:A:H2'	2.02	0.42
1:2:61:A:H8	1:2:269:G:HO2'	1.49	0.42
1:2:502:U:H2'	1:2:503:G:O4'	2.19	0.42
1:2:73:U:O2	1:2:74:U:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:3:28:C:C4	37:3:29:C:C2	3.07	0.42
36:5:1064:A:H5''	36:5:1066:G:O4'	2.19	0.42
36:5:1093:A:OP1	36:5:1093:A:H4'	2.19	0.42
36:5:1461:A:H2'	36:5:1462:A:O4'	2.19	0.42
36:5:1657:C:C5	36:5:1797:A:H5''	2.54	0.42
36:5:2249:G:C8	36:5:2249:G:H3'	2.54	0.42
36:5:2353:G:C2'	36:5:2354:C:H5'	2.49	0.42
36:5:2611:U:H2'	36:5:2612:U:H6	1.84	0.42
36:5:2754:G:O2'	36:5:2755:C:OP1	2.36	0.42
78:Q2:66:LYS:HG2	36:5:2793:G:H5''	210.02	0.42
86:5:4013:OHX:N6	86:5:4202:OHX:N5	2.66	0.42
1:6:1039:A:O2'	1:6:1040:G:P	2.78	0.42
20:C8:133:VAL:HG21	1:6:1546:G:OP1	354.95	0.42
1:6:352:A:H8	1:6:352:A:OP2	2.02	0.42
1:6:509:G:H2'	1:6:510:G:C8	2.54	0.42
9:S7:148:LYS:NZ	1:6:641:G:H5'	385.37	0.42
14:C2:50:LYS:O	14:C2:54:ARG:HG2	2.33	0.42
16:C4:129:LYS:HE2	86:6:2168:OHX:N6	279.62	0.42
23:D1:74:GLN:HB2	23:D1:79:LEU:HB2	2.01	0.42
23:D1:5:LYS:O	23:D1:7:GLN:N	2.82	0.42
25:D3:103:LEU:HA	25:D3:103:LEU:HD23	2.20	0.42
26:D4:127:LYS:O	26:D4:131:ARG:N	3.45	0.42
28:D6:20:PRO:HA	28:D6:31:PRO:HA	2.11	0.42
30:D8:22:ARG:HD2	1:6:1619:C:O2	341.92	0.42
40:L3:218:ILE:N	40:L3:218:ILE:HD12	4.22	0.42
40:L3:286:GLY:N	40:L3:321:PHE:O	2.59	0.42
41:L4:22:LEU:HA	41:L4:23:PRO:HD3	1.96	0.42
42:L5:106:ALA:HA	42:L5:171:LEU:HD11	2.00	0.42
42:L5:178:ASN:N	42:L5:178:ASN:OD1	2.51	0.42
42:L5:187:THR:HG23	42:L5:189:GLU:HB2	2.01	0.42
42:L5:208:MET:O	42:L5:219:PHE:HE2	2.01	0.42
45:L8:108:ARG:O	45:L8:111:LYS:HB2	2.18	0.42
45:L8:134:TYR:CG	45:L8:190:VAL:HG11	4.28	0.42
45:L8:32:LYS:HA	45:L8:32:LYS:HD3	4.29	0.42
46:L9:37:ASN:OD1	46:L9:39:LYS:HG3	2.18	0.42
48:M1:107:ASP:N	48:M1:107:ASP:OD1	2.52	0.42
51:M5:51:LEU:HD23	51:M5:51:LEU:HA	1.88	0.42
52:M6:188:SER:O	52:M6:191:ALA:HB3	2.91	0.42
53:M7:129:THR:HG23	53:M7:139:TYR:CD2	2.54	0.42
54:M8:57:ILE:HG21	54:M8:57:ILE:HD13	1.73	0.42
58:N2:43:VAL:C	58:N2:45:GLY:H	2.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:34:LEU:HA	59:N3:34:LEU:HD23	2.18	0.42
59:N3:45:ARG:HB3	59:N3:48:ARG:HB2	2.69	0.42
61:N5:74:LYS:O	61:N5:78:ASP:HB2	3.11	0.42
62:N6:100:HIS:HA	62:N6:101:PRO:HD2	1.80	0.42
62:N6:27:ARG:HD3	62:N6:75:ARG:O	2.64	0.42
63:N7:29:HIS:HB2	63:N7:40:HIS:NE2	2.34	0.42
64:N8:86:LYS:O	64:N8:89:GLN:HG3	3.42	0.42
65:N9:23:LYS:CD	65:N9:24:PRO:HD3	2.49	0.42
73:O7:4:GLY:O	73:O7:7:SER:N	3.24	0.42
78:Q2:104:LEU:HD12	78:Q2:104:LEU:HA	1.70	0.42
2:S0:10:THR:HB	2:S0:11:PRO:HD2	2.01	0.42
2:S0:184:LEU:O	2:S0:185:ARG:C	2.58	0.42
3:S1:148:ASN:ND2	3:S1:148:ASN:H	4.93	0.42
5:S3:70:THR:HG23	5:S3:86:LEU:HB2	2.46	0.42
6:S4:250:GLU:O	6:S4:254:ARG:HG2	3.96	0.42
7:S5:203:LYS:O	7:S5:205:SER:N	3.45	0.42
7:S5:159:ALA:HB3	7:S5:225:ARG:HB3	3.66	0.42
9:S7:9:LEU:HB3	9:S7:10:SER:H	2.96	0.42
35:SM:25:ILE:HG12	37:3:39:C:H5'	2.00	0.42
35:SM:27:LYS:HD2	48:M1:68:HIS:HE1	5.69	0.42
35:SM:39:PRO:HD3	48:M1:52:TYR:CE1	2.85	0.42
35:SM:68:ARG:O	35:SM:69:ARG:C	2.58	0.42
36:1:1109:U:H2'	36:1:1110:U:C6	2.53	0.42
36:1:1144:U:H1'	36:1:1145:G:C8	2.54	0.42
36:1:1411:C:O2'	36:1:1412:G:H5'	2.20	0.42
36:1:2369:G:H2'	36:1:2370:G:O4'	2.19	0.42
36:1:2407:C:H2'	36:1:2408:U:C6	2.53	0.42
36:1:281:G:C6	36:1:282:G:C6	3.08	0.42
36:1:3004:C:O2'	36:1:3005:A:H5'	2.19	0.42
36:1:3295:A:OP2	40:L3:126:LYS:N	2.52	0.42
36:1:1298:C:OP2	86:1:3965:OHX:N2	2.51	0.42
1:2:1278:G:H2'	1:2:1279:C:O4'	2.20	0.42
1:2:246:G:C6	1:2:247:A:C6	3.07	0.42
1:2:534:A:H5'	1:2:535:A:OP2	2.20	0.42
1:2:636:A:C5	1:2:637:C:C5	3.06	0.42
1:2:715:U:H3	1:2:723:G:H1	1.66	0.42
56:N0:90:MET:CG	36:5:1213:G:H4'	317.46	0.42
36:5:2594:C:H2'	36:5:2595:A:O4'	2.20	0.42
36:5:3086:A:OP2	36:5:3086:A:C8	2.72	0.42
36:5:3289:G:H2'	36:5:3290:G:C8	2.53	0.42
73:O7:45:ARG:NH2	36:5:361:A:O3'	123.62	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1002:G:C6	1:6:1003:A:N7	2.87	0.42
1:6:1025:A:H2'	1:6:1027:A:O5'	2.18	0.42
1:6:412:A:H8	1:6:412:A:O5'	2.02	0.42
1:6:46:A:N6	1:6:433:C:H4'	2.34	0.42
1:6:752:A:O2'	1:6:753:A:H5'	2.20	0.42
1:6:793:A:OP2	1:6:793:A:C8	2.72	0.42
16:C4:83:ILE:HG13	16:C4:84:ARG:N	2.34	0.42
17:C5:67:ALA:HB2	17:C5:73:PRO:HA	2.30	0.42
21:C9:113:ILE:O	21:C9:124:ILE:HD12	2.18	0.42
21:C9:64:HIS:CE1	1:6:1523:G:N7	408.97	0.42
4:S2:54:GLU:OE1	23:D1:11:LEU:HB2	3.65	0.42
24:D2:103:ILE:HD11	24:D2:126:LEU:HD12	2.02	0.42
25:D3:95:PHE:HE2	25:D3:136:TRP:HA	2.38	0.42
25:D3:23:ARG:HD3	1:6:609:U:O2'	342.96	0.42
1:2:1795:U:O4	28:D6:9:GLY:HA2	2.20	0.42
29:D7:17:ARG:HD3	1:6:1070:C:H4'	368.49	0.42
33:E1:103:LEU:HD23	33:E1:105:TYR:HB2	2.94	0.42
39:L2:233:GLN:O	39:L2:235:ALA:N	2.51	0.42
43:L6:108:LYS:O	43:L6:109:GLU:HG2	2.19	0.42
44:L7:192:GLY:O	44:L7:194:HIS:N	2.93	0.42
45:L8:161:GLU:HA	45:L8:164:VAL:CG2	2.49	0.42
45:L8:195:SER:O	45:L8:197:VAL:N	3.14	0.42
46:L9:84:LYS:O	46:L9:187:ILE:HB	2.19	0.42
48:M1:12:LEU:HD12	48:M1:131:MET:HE2	2.01	0.42
48:M1:160:VAL:HG12	48:M1:161:SER:N	2.80	0.42
49:M3:9:ILE:HD13	64:N8:52:TYR:CE1	2.54	0.42
51:M5:153:ASP:OD2	51:M5:154:PRO:HD2	2.23	0.42
52:M6:108:ILE:HD13	52:M6:108:ILE:HG21	2.14	0.42
52:M6:121:PRO:HA	52:M6:124:LEU:CD2	3.12	0.42
53:M7:119:VAL:HA	53:M7:145:HIS:O	2.49	0.42
55:M9:40:ALA:O	55:M9:44:LEU:HG	4.71	0.42
58:N2:36:TYR:OH	58:N2:82:LYS:HG2	2.19	0.42
59:N3:13:ILE:HD13	59:N3:54:LEU:HB2	2.00	0.42
62:N6:23:PRO:O	62:N6:24:SER:C	2.58	0.42
62:N6:31:LEU:HB3	62:N6:101:PRO:HG3	2.48	0.42
65:N9:22:LYS:H	65:N9:22:LYS:HG2	1.52	0.42
70:O4:99:LYS:O	70:O4:102:LYS:N	2.86	0.42
70:O4:56:THR:HA	70:O4:62:TYR:OH	2.20	0.42
73:O7:43:LYS:HE3	36:5:55:G:OP1	116.20	0.42
2:S0:167:LYS:HB3	2:S0:168:HIS:CD2	4.45	0.42
2:S0:56:LYS:HZ3	2:S0:158:VAL:HG23	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S1:171:ILE:HD12	3:S1:197:ILE:HD13	2.01	0.42
3:S1:70:LEU:HD21	3:S1:79:HIS:CG	2.54	0.42
5:S3:107:PHE:O	5:S3:111:ASN:HB2	2.24	0.42
6:S4:141:THR:OG1	6:S4:145:ARG:HB2	2.60	0.42
6:S4:136:VAL:HG13	6:S4:149:TYR:CE1	2.54	0.42
6:S4:160:VAL:HG12	6:S4:162:ILE:HD12	3.23	0.42
6:S4:187:ARG:O	6:S4:187:ARG:HD3	2.19	0.42
6:S4:45:ILE:HA	6:S4:61:VAL:HG11	2.01	0.42
7:S5:164:PRO:HA	7:S5:167:ARG:HB2	2.01	0.42
8:S6:163:THR:HG22	8:S6:168:THR:HG23	3.13	0.42
8:S6:56:ASN:HB3	8:S6:60:GLY:HA2	2.01	0.42
9:S7:122:HIS:HD2	9:S7:179:LYS:NZ	6.60	0.42
9:S7:164:TYR:OH	9:S7:165:LYS:HE3	2.19	0.42
9:S7:42:GLN:HG2	9:S7:43:PHE:H	1.84	0.42
9:S7:56:LYS:HB2	9:S7:88:ARG:CZ	2.50	0.42
10:S8:65:PHE:HA	10:S8:181:GLY:O	2.34	0.42
11:S9:105:LEU:HD12	11:S9:105:LEU:HA	2.29	0.42
34:SR:81:LEU:HD23	34:SR:91:LEU:HA	3.66	0.42
36:1:1017:C:O2'	36:1:1018:G:P	2.76	0.42
36:1:1073:U:H2'	36:1:1074:U:C6	2.55	0.42
36:1:1277:C:HO2'	36:1:1278:A:H8	1.60	0.42
36:1:1819:U:O4	86:1:4043:OHX:N6	2.52	0.42
36:1:621:A:O2'	86:1:4167:OHX:N1	2.52	0.42
36:1:600:G:N7	86:1:4098:OHX:N1	2.67	0.42
36:1:698:U:H2'	36:1:699:A:O4'	2.19	0.42
36:1:996:A:C2	36:1:1054:A:C4	3.06	0.42
1:2:1003:A:C4	1:2:1005:A:C6	3.07	0.42
1:2:503:G:O2'	1:2:504:U:OP1	2.29	0.42
1:2:757:A:H4'	6:S4:22:LYS:HD3	2.00	0.42
1:2:775:G:H2'	1:2:776:G:O4'	2.19	0.42
37:3:65:G:O3'	47:M0:204:GLY:HA2	2.20	0.42
36:5:1464:G:N2	36:5:1466:G:H3'	2.34	0.42
36:5:2664:C:O2'	36:5:2665:U:H5'	2.20	0.42
36:5:2946:A:H5''	36:5:2947:G:H5'	2.01	0.42
36:5:3237:U:H2'	36:5:3238:G:O4'	2.18	0.42
36:5:783:A:OP2	86:5:4195:OHX:N6	2.52	0.42
36:5:978:G:N2	36:5:1104:G:C4	2.87	0.42
1:6:1742:U:H2'	1:6:1743:U:H6	1.84	0.42
1:6:188:A:H3'	1:6:189:C:C6	2.54	0.42
1:6:230:C:N4	1:6:235:G:H1	2.10	0.42
1:6:586:G:C6	1:6:587:C:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:C2:58:LEU:HG	14:C2:126:TRP:CZ3	5.19	0.42
15:C3:150:VAL:HG12	15:C3:151:ASN:OD1	2.20	0.42
16:C4:81:VAL:HG13	16:C4:115:ILE:CG2	2.48	0.42
1:2:1555:A:OP1	17:C5:47:ARG:HD3	2.20	0.42
18:C6:39:VAL:HG21	18:C6:48:VAL:HG11	2.01	0.42
19:C7:117:LEU:HA	19:C7:118:PRO:HD2	1.85	0.42
25:D3:22:ASN:OD1	1:6:1108:G:N1	333.11	0.42
27:D5:47:TYR:OH	27:D5:51:LEU:HD21	3.34	0.42
29:D7:72:LYS:HB2	29:D7:72:LYS:NZ	3.91	0.42
30:D8:50:GLU:O	30:D8:51:ASN:HB2	2.51	0.42
40:L3:261:MET:HE2	52:M6:63:ALA:C	2.39	0.42
40:L3:56:ILE:HG23	40:L3:57:VAL:N	2.65	0.42
41:L4:23:PRO:O	41:L4:24:ALA:HB3	2.22	0.42
41:L4:72:ALA:O	41:L4:76:ARG:NH1	3.31	0.42
42:L5:198:TYR:CE1	42:L5:203:HIS:CD2	3.24	0.42
42:L5:56:THR:C	42:L5:58:LYS:N	2.73	0.42
42:L5:58:LYS:HD2	42:L5:93:THR:OG1	2.19	0.42
42:L5:68:THR:HG22	42:L5:71:GLY:N	2.77	0.42
43:L6:97:ASN:O	43:L6:98:VAL:HG12	3.67	0.42
44:L7:80:GLN:HE21	57:N1:136:ARG:HB2	6.29	0.42
46:L9:162:GLN:HB2	46:L9:179:ILE:O	2.44	0.42
47:M0:72:ALA:HB2	47:M0:155:ALA:HB2	2.88	0.42
48:M1:131:MET:HB3	48:M1:131:MET:HE3	1.82	0.42
49:M3:190:LYS:HE2	49:M3:190:LYS:HB2	1.64	0.42
36:1:3199:G:H5''	50:M4:6:ILE:HG21	2.02	0.42
52:M6:117:ARG:HG2	52:M6:117:ARG:H	1.72	0.42
53:M7:57:ALA:HB2	53:M7:83:TRP:CE2	2.98	0.42
55:M9:5:ARG:HB2	55:M9:5:ARG:NH1	3.64	0.42
56:N0:1:MET:HB3	56:N0:1:MET:HE2	1.85	0.42
64:N8:91:LEU:HD13	64:N8:91:LEU:HA	1.80	0.42
68:O2:11:LYS:O	68:O2:12:LYS:CB	2.76	0.42
68:O2:66:LEU:HD21	68:O2:72:LYS:HE2	3.22	0.42
43:L6:31:ARG:HH12	69:O3:107:ILE:HG22	5.95	0.42
77:Q1:4:LYS:HG2	77:Q1:5:TRP:CE3	2.92	0.42
3:S1:120:LEU:CD2	3:S1:122:GLU:HG3	2.49	0.42
4:S2:38:VAL:HG22	4:S2:65:GLU:OE1	5.97	0.42
7:S5:104:ASN:HD22	1:6:1587:A:H1'	365.82	0.42
8:S6:154:ARG:O	8:S6:157:VAL:HG12	2.99	0.42
10:S8:196:LEU:O	10:S8:200:LYS:HB3	3.92	0.42
10:S8:66:SER:HA	10:S8:73:SER:HA	2.02	0.42
11:S9:31:ALA:HA	11:S9:36:LEU:HD12	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:SM:131:ILE:O	35:SM:134:ASP:N	3.45	0.42
36:1:1638:A:C2	36:1:1736:G:N3	2.88	0.42
36:1:1879:A:HO2'	36:1:1879:A:H8	1.65	0.42
36:1:2144:A:C5	36:1:2281:A:C6	3.08	0.42
36:1:2269:U:C2	36:1:2272:G:C2	3.07	0.42
36:1:242:C:O2'	36:1:243:G:H8	2.02	0.42
36:1:993:G:N3	36:1:2637:A:H2'	2.34	0.42
36:1:334:A:C2	36:1:335:G:C5	3.08	0.42
36:1:2278:C:OP1	86:1:3959:OHX:N3	2.53	0.42
36:1:777:U:O4	86:1:4007:OHX:N2	2.52	0.42
1:2:1138:A:H2'	1:2:1139:A:H8	1.84	0.42
1:2:1248:C:H2'	1:2:1249:U:H6	1.84	0.42
1:2:1268:G:C2	1:2:1270:G:N7	2.88	0.42
1:2:1270:G:N2	1:2:1271:G:C4	2.88	0.42
1:2:1291:G:N2	1:2:1324:G:H1	2.18	0.42
1:2:186:C:H3'	1:2:187:G:C8	2.55	0.42
86:2:2082:OHX:N3	86:2:2084:OHX:N1	2.67	0.42
1:2:452:A:H3'	1:2:453:U:C5	2.55	0.42
1:2:542:A:O2'	1:2:543:C:O5'	2.36	0.42
73:O7:9:GLY:HA2	36:5:1844:C:O2	148.46	0.42
45:L8:37:GLY:HA3	36:5:2550:U:C6	211.17	0.42
36:5:3164:C:O2'	36:5:3165:A:P	2.77	0.42
36:5:378:A:H3'	36:5:379:C:H6	1.85	0.42
1:6:1209:C:H6	1:6:1209:C:O5'	2.01	0.42
1:6:151:G:N2	1:6:163:G:H22	2.18	0.42
1:6:1535:U:H1'	1:6:1536:G:C2	2.54	0.42
1:6:1720:G:O6	86:6:2092:OHX:N4	2.53	0.42
10:S8:51:GLY:N	1:6:397:A:H5''	312.18	0.42
9:S7:119:THR:HG23	1:6:639:U:OP2	367.77	0.42
1:6:714:G:N2	1:6:724:C:O2	2.46	0.42
1:6:955:A:H2'	1:6:956:C:O4'	2.19	0.42
48:M1:137:ARG:NH1	37:7:28:C:OP1	300.53	0.42
12:C0:57:THR:HG23	12:C0:66:TYR:CE1	2.54	0.42
15:C3:102:LEU:HD12	15:C3:115:LEU:HD12	3.99	0.42
15:C3:53:LEU:HA	15:C3:53:LEU:HD12	1.85	0.42
15:C3:54:LEU:HD23	15:C3:54:LEU:HA	2.24	0.42
17:C5:52:LYS:HB2	17:C5:52:LYS:HE2	1.87	0.42
18:C6:13:LYS:HE3	18:C6:14:LYS:HE3	3.76	0.42
19:C7:115:LEU:HD13	19:C7:116:LYS:H	1.85	0.42
2:S0:198:MET:SD	19:C7:85:VAL:HG11	2.58	0.42
20:C8:126:ARG:NH2	20:C8:131:LEU:HB3	2.94	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:C9:111:ILE:HG23	21:C9:113:ILE:HG12	2.02	0.42
22:D0:58:LEU:HD23	22:D0:59:PRO:HD2	4.08	0.42
22:D0:67:THR:HB	1:6:1199:G:O6	401.65	0.42
22:D0:95:ALA:HB1	22:D0:99:ILE:HG21	2.01	0.42
24:D2:18:GLU:HG3	24:D2:69:LEU:HD23	2.83	0.42
27:D5:66:VAL:HA	27:D5:71:ILE:HG22	6.16	0.42
29:D7:6:ASP:OD1	29:D7:9:HIS:HB2	2.50	0.42
31:D9:39:CYS:O	31:D9:43:PHE:N	2.75	0.42
33:E1:109:ASP:O	33:E1:111:GLU:N	2.53	0.42
40:L3:258:ALA:O	40:L3:259:HIS:CG	2.81	0.42
40:L3:67:PHE:CD1	40:L3:72:VAL:HG12	2.54	0.42
41:L4:232:SER:O	36:5:694:C:H4'	100.62	0.42
42:L5:143:LYS:HE3	42:L5:145:PHE:CZ	3.54	0.42
42:L5:178:ASN:HA	42:L5:183:TRP:CG	2.63	0.42
42:L5:279:LYS:HG2	42:L5:282:ARG:CZ	2.49	0.42
43:L6:18:LEU:N	43:L6:18:LEU:HD22	2.34	0.42
44:L7:147:LEU:HA	44:L7:147:LEU:HD23	1.56	0.42
44:L7:25:GLN:CG	44:L7:29:GLU:HB2	2.44	0.42
45:L8:73:PRO:HD3	45:L8:233:TRP:CD2	2.55	0.42
46:L9:86:TYR:CD1	46:L9:151:VAL:HG13	2.54	0.42
48:M1:8:PRO:HD2	48:M1:10:ARG:HG2	2.02	0.42
49:M3:180:ARG:NH1	49:M3:180:ARG:HB3	4.92	0.42
50:M4:116:GLU:O	50:M4:120:VAL:HG23	2.20	0.42
50:M4:99:TRP:O	50:M4:103:ILE:HG13	2.19	0.42
51:M5:53:TYR:CG	51:M5:54:LYS:N	2.86	0.42
52:M6:84:LEU:HD13	52:M6:102:LEU:HD21	2.01	0.42
53:M7:24:VAL:HB	53:M7:29:THR:HG21	2.52	0.42
53:M7:46:LYS:O	53:M7:50:GLN:HG3	2.19	0.42
54:M8:79:LYS:HG3	54:M8:136:ASN:OD1	3.67	0.42
44:L7:80:GLN:HG3	57:N1:136:ARG:H	1.84	0.42
59:N3:119:GLY:HA2	59:N3:137:VAL:HG23	2.01	0.42
59:N3:32:ARG:HH11	59:N3:32:ARG:HG3	5.71	0.42
62:N6:100:HIS:CG	62:N6:101:PRO:HD2	2.94	0.42
62:N6:37:LYS:HG2	62:N6:38:GLU:N	2.71	0.42
62:N6:37:LYS:HG2	62:N6:38:GLU:H	2.10	0.42
62:N6:24:SER:OG	62:N6:75:ARG:HD2	2.58	0.42
63:N7:5:LEU:HD22	63:N7:77:TYR:CE2	5.97	0.42
68:O2:105:ARG:NE	68:O2:124:GLY:HA3	2.67	0.42
70:O4:41:ARG:HG2	70:O4:56:THR:HG21	2.16	0.42
73:O7:28:HIS:CG	73:O7:31:LYS:HB2	2.54	0.42
3:S1:232:HIS:HB3	3:S1:233:GLY:H	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S3:162:GLN:N	5:S3:163:PRO:HD2	2.65	0.42
5:S3:220:PRO:O	5:S3:221:SER:OG	2.27	0.42
6:S4:42:LEU:HA	6:S4:43:PRO:HD3	1.74	0.42
6:S4:95:THR:O	6:S4:97:GLU:N	2.53	0.42
7:S5:144:GLU:OE1	7:S5:225:ARG:NH2	2.47	0.42
9:S7:83:LYS:C	9:S7:85:PHE:H	2.23	0.42
10:S8:70:GLU:HG3	10:S8:112:TRP:CZ3	2.54	0.42
35:SM:58:GLU:OE2	35:SM:62:ARG:HD2	6.12	0.42
34:SR:283:LYS:O	34:SR:286:GLU:HG3	2.19	0.42
36:1:1094:U:H6	36:1:1094:U:H3'	1.83	0.42
36:1:1794:G:O2'	36:1:1795:U:H5'	2.20	0.42
36:1:2249:G:H3'	36:1:2249:G:C8	2.54	0.42
36:1:2400:G:OP1	86:1:4090:OHX:N2	2.53	0.42
86:1:3977:OHX:N5	86:1:4158:OHX:N2	2.67	0.42
36:1:668:G:OP1	86:1:4122:OHX:N2	2.52	0.42
86:1:4063:OHX:N3	86:1:4177:OHX:N1	2.67	0.42
36:1:883:A:C5	36:1:921:A:C6	3.07	0.42
1:2:1126:G:OP1	77:Q1:15:ARG:NH1	2.52	0.42
1:2:1383:G:OP1	22:D0:89:ARG:NH1	2.42	0.42
1:2:1476:C:H2'	1:2:1477:G:C8	2.55	0.42
1:2:292:U:H2'	1:2:293:U:C6	2.54	0.42
36:5:1566:A:C2'	36:5:1567:U:H5'	2.48	0.42
57:N1:17:ARG:HG3	36:5:2700:G:H5''	265.71	0.42
36:5:2962:U:OP1	86:5:3980:OHX:N4	2.53	0.42
36:5:3305:A:H2'	36:5:3306:U:H6	1.83	0.42
36:5:2687:G:N7	86:5:3920:OHX:N1	2.66	0.42
86:5:3980:OHX:N4	86:5:4200:OHX:N1	2.68	0.42
36:5:508:U:H2'	36:5:509:U:C6	2.55	0.42
36:5:513:G:C5	36:5:579:G:C6	3.07	0.42
36:5:650:C:H2'	36:5:651:G:C8	2.55	0.42
54:M8:185:LYS:NZ	36:5:779:G:OP1	179.03	0.42
1:6:1237:G:H2'	1:6:1238:A:C8	2.55	0.42
1:6:193:U:C4	1:6:195:G:C8	3.07	0.42
61:N5:38:LEU:HD12	38:8:147:U:H5'	120.87	0.42
13:C1:67:ARG:O	13:C1:127:GLN:HB3	2.54	0.42
13:C1:37:ASN:O	1:6:247:A:H4'	320.28	0.42
18:C6:116:LEU:H	18:C6:116:LEU:HD22	1.84	0.42
18:C6:63:ILE:HD12	18:C6:65:ILE:HD11	3.10	0.42
20:C8:50:ALA:O	20:C8:52:VAL:HG23	3.23	0.42
21:C9:124:ILE:HD11	21:C9:128:GLY:HA3	2.02	0.42
27:D5:62:VAL:O	27:D5:66:VAL:HG23	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:39:ALA:N	27:D5:70:LYS:O	5.66	0.42
29:D7:44:THR:HB	29:D7:63:LEU:HD11	4.34	0.42
32:E0:48:THR:OG1	32:E0:49:LEU:HD22	4.22	0.42
32:E0:50:VAL:O	32:E0:51:ASN:HB2	4.59	0.42
33:E1:97:LYS:HA	33:E1:97:LYS:HD2	1.98	0.42
39:L2:48:ILE:HG13	39:L2:48:ILE:O	2.20	0.42
39:L2:70:ARG:NH1	39:L2:72:ARG:HE	4.10	0.42
40:L3:194:TRP:CE2	40:L3:198:HIS:CE1	3.07	0.42
40:L3:56:ILE:HD12	40:L3:56:ILE:HA	2.04	0.42
41:L4:140:HIS:HA	41:L4:177:ASP:OD1	2.20	0.42
41:L4:77:VAL:HG21	41:L4:84:ARG:CZ	2.49	0.42
42:L5:122:VAL:C	42:L5:124:GLU:H	2.85	0.42
42:L5:278:SER:O	42:L5:280:GLU:N	3.11	0.42
46:L9:31:ARG:HG2	46:L9:149:ASN:OD1	2.19	0.42
51:M5:129:TYR:N	51:M5:129:TYR:CD2	2.87	0.42
52:M6:98:ALA:HA	52:M6:101:ARG:NH1	2.34	0.42
53:M7:138:LYS:HD2	53:M7:140:GLU:CD	2.38	0.42
54:M8:94:PHE:CE2	64:N8:119:PRO:HD3	3.06	0.42
55:M9:143:ILE:HG22	55:M9:144:GLN:N	2.59	0.42
36:1:1295:G:O2'	56:N0:115:ARG:HD3	2.20	0.42
56:N0:141:LYS:HA	56:N0:144:LEU:HD12	2.25	0.42
61:N5:108:LEU:HD23	61:N5:108:LEU:HA	1.82	0.42
61:N5:132:ALA:HA	61:N5:135:ILE:HG22	2.11	0.42
62:N6:34:PRO:HA	62:N6:47:ALA:HB2	2.02	0.42
63:N7:22:LYS:HE2	63:N7:129:TRP:CH2	3.09	0.42
64:N8:4:ARG:HB3	64:N8:4:ARG:HE	1.53	0.42
66:O0:48:THR:HG21	66:O0:88:GLY:O	2.55	0.42
68:O2:75:LEU:HA	68:O2:75:LEU:HD23	1.64	0.42
69:O3:73:ARG:HH21	69:O3:82:ARG:CZ	2.33	0.42
70:O4:22:VAL:CG2	70:O4:30:LEU:HD13	4.88	0.42
71:O5:86:ARG:HG3	71:O5:90:ARG:CZ	2.86	0.42
2:S0:84:ARG:HD3	2:S0:203:PHE:O	3.80	0.42
2:S0:88:LYS:HB3	2:S0:202:TYR:CZ	2.59	0.42
3:S1:120:LEU:HG	3:S1:142:PHE:CE1	3.47	0.42
3:S1:128:LYS:HE3	3:S1:132:ASP:CB	2.46	0.42
3:S1:176:VAL:C	3:S1:178:GLY:H	2.22	0.42
3:S1:196:GLU:HA	3:S1:199:ASN:HB2	2.02	0.42
3:S1:58:SER:HB2	3:S1:59:ASP:H	1.57	0.42
4:S2:186:LYS:HA	4:S2:186:LYS:HD2	2.86	0.42
4:S2:60:SER:O	23:D1:29:HIS:ND1	2.52	0.42
6:S4:88:ASP:HA	6:S4:122:LYS:NZ	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:212:ASP:C	6:S4:214:LEU:H	2.58	0.42
9:S7:42:GLN:HG2	9:S7:43:PHE:N	2.35	0.42
11:S9:52:ILE:HG12	11:S9:76:LEU:HD11	3.23	0.42
34:SR:203:THR:OG1	34:SR:204:ALA:N	2.52	0.42
34:SR:278:PHE:CE1	34:SR:287:PRO:HD2	2.55	0.42
36:1:1247:U:H2'	36:1:1268:G:O6	2.19	0.42
36:1:1496:C:C2	36:1:1521:G:N2	2.88	0.42
36:1:1611:G:H2'	36:1:1612:A:O4'	2.20	0.42
36:1:1638:A:H2	36:1:1736:G:N3	2.16	0.42
36:1:1826:C:H2'	36:1:1827:C:C6	2.53	0.42
36:1:2383:C:H5'	52:M6:71:PHE:CE2	2.55	0.42
36:1:420:G:N2	36:1:2385:G:OP2	2.35	0.42
36:1:2524:A:N1	45:L8:44:ARG:HD2	2.34	0.42
36:1:295:A:H1'	72:O6:82:ARG:HH11	1.85	0.42
36:1:3311:C:C4	36:1:3312:U:C4	3.07	0.42
36:1:35:A:O2'	36:1:36:C:H5'	2.19	0.42
36:1:564:G:H2'	36:1:565:U:H6	1.84	0.42
36:1:59:G:H2'	38:4:33:A:O2'	2.19	0.42
36:1:92:G:O2'	78:Q2:56:PRO:HD3	2.19	0.42
1:2:1364:G:N2	21:C9:3:GLY:HA3	2.35	0.42
1:2:1392:U:H2'	1:2:1393:C:O4'	2.19	0.42
1:2:1616:G:H2'	1:2:1617:U:O4'	2.20	0.42
1:2:1628:U:H2'	1:2:1629:G:C8	2.55	0.42
86:2:2082:OHX:N3	86:2:2084:OHX:N5	2.67	0.42
1:2:318:U:O4	86:2:2125:OHX:N5	2.53	0.42
1:2:372:G:H1'	1:2:612:U:O2	2.19	0.42
1:2:386:G:O2'	1:2:387:A:H5'	2.19	0.42
36:5:1054:A:OP1	86:7:224:OHX:N4	2.52	0.42
36:5:1273:A:H2'	36:5:1274:A:O4'	2.19	0.42
36:5:123:A:C6	36:5:150:A:C5	3.08	0.42
36:5:2335:G:N2	36:5:2339:C:O2	2.45	0.42
53:M7:139:TYR:CZ	36:5:2355:G:H4'	146.55	0.42
36:5:2439:A:H62	36:5:2508:U:H3	1.67	0.42
36:5:2842:U:H2'	36:5:2843:U:H6	1.84	0.42
36:5:2948:C:H6	36:5:2948:C:O5'	2.02	0.42
36:5:3167:A:H2'	36:5:3168:A:O4'	2.19	0.42
36:5:3287:U:H2'	36:5:3288:G:C5'	2.49	0.42
36:5:599:C:H2'	36:5:600:G:O4'	2.20	0.42
36:5:842:G:H1	36:5:851:C:H42	1.68	0.42
1:6:1429:G:H2'	1:6:1430:U:C6	2.55	0.42
1:6:1585:U:H2'	1:6:1586:A:H8	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:1671:A:H2'	1:6:1672:G:O4'	2.20	0.42
1:6:486:G:O2'	1:6:487:G:H5'	2.20	0.42
32:E0:31:LYS:HE3	1:6:545:A:OP1	418.12	0.42
15:C3:11:ILE:O	15:C3:13:SER:N	5.02	0.42
15:C3:91:LEU:HD23	15:C3:91:LEU:HA	2.38	0.42
17:C5:26:LEU:HD21	17:C5:90:ILE:HD12	5.17	0.42
18:C6:113:ASP:HA	18:C6:116:LEU:HD23	2.01	0.42
18:C6:97:VAL:HG12	18:C6:98:ASP:N	2.46	0.42
20:C8:8:GLN:HB2	20:C8:9:GLY:H	1.53	0.42
21:C9:30:VAL:HA	21:C9:31:PRO:HD2	1.86	0.42
23:D1:64:GLU:O	23:D1:68:SER:HB2	2.20	0.42
24:D2:30:SER:HB3	24:D2:59:GLY:HA3	3.20	0.42
24:D2:90:THR:O	24:D2:94:LEU:HB2	2.26	0.42
27:D5:94:LYS:HE3	27:D5:94:LYS:HB2	4.10	0.42
28:D6:5:ARG:HD2	28:D6:8:ASN:O	2.19	0.42
33:E1:98:VAL:HG12	33:E1:99:LYS:N	3.51	0.42
39:L2:95:SER:O	39:L2:97:ASN:N	2.88	0.42
40:L3:101:SER:OG	40:L3:101:SER:O	2.38	0.42
41:L4:341:SER:O	41:L4:342:LYS:HB3	4.58	0.42
42:L5:118:THR:O	42:L5:119:TYR:HB2	2.33	0.42
42:L5:20:PHE:HA	42:L5:20:PHE:HD2	1.65	0.42
42:L5:40:HIS:HB3	42:L5:43:LYS:HG3	2.00	0.42
43:L6:4:GLN:HG2	68:O2:74:PHE:CE1	2.54	0.42
43:L6:58:LEU:O	43:L6:61:ASN:N	2.52	0.42
45:L8:151:VAL:HA	45:L8:199:ALA:HB2	2.97	0.42
46:L9:103:ILE:HG13	46:L9:136:PHE:CZ	2.54	0.42
47:M0:216:TYR:CD2	47:M0:217:PHE:N	2.87	0.42
47:M0:77:THR:HG23	47:M0:85:PHE:HZ	2.23	0.42
48:M1:109:HIS:O	48:M1:112:LEU:HD23	2.65	0.42
48:M1:91:LEU:N	48:M1:170:ASP:O	3.15	0.42
48:M1:28:ASP:O	48:M1:32:ARG:HB2	2.86	0.42
48:M1:48:SER:N	48:M1:66:ALA:O	2.74	0.42
52:M6:105:PHE:CD1	52:M6:109:PRO:HG3	3.09	0.42
56:N0:171:PHE:O	56:N0:172:TYR:C	4.24	0.42
59:N3:120:LYS:HB2	59:N3:137:VAL:HG23	4.67	0.42
67:O1:84:ASP:N	67:O1:84:ASP:OD1	2.75	0.42
68:O2:123:LYS:HA	68:O2:126:LEU:HB2	2.00	0.42
70:O4:85:VAL:HA	70:O4:88:ARG:HB2	4.96	0.42
70:O4:80:ARG:NH1	70:O4:88:ARG:HH22	2.18	0.42
71:O5:31:LEU:HD21	71:O5:43:LYS:HG3	4.98	0.42
79:Q3:2:ALA:HB2	36:5:853:G:N7	250.11	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:49:ASN:HA	19:C7:109:LEU:HD21	3.00	0.42
2:S0:56:LYS:HA	2:S0:56:LYS:HD2	1.69	0.42
2:S0:6:THR:C	2:S0:8:ASP:H	2.22	0.42
4:S2:218:ILE:HG13	4:S2:218:ILE:H	1.67	0.42
4:S2:79:GLU:OE2	4:S2:79:GLU:HA	2.19	0.42
6:S4:235:TYR:N	6:S4:235:TYR:CD2	3.22	0.42
6:S4:11:ARG:HB3	6:S4:27:TYR:C	4.70	0.42
7:S5:43:PHE:HB3	7:S5:46:TRP:CD1	5.27	0.42
9:S7:110:GLN:HB3	9:S7:110:GLN:HE21	4.03	0.42
9:S7:14:THR:HG22	9:S7:17:GLU:HB2	2.01	0.42
9:S7:153:LEU:HD22	9:S7:184:GLU:HB2	2.02	0.42
11:S9:105:LEU:O	11:S9:108:ARG:HG3	2.60	0.42
11:S9:173:ALA:HA	1:6:511:A:H5'	461.36	0.42
36:1:1112:A:H2'	36:1:1113:G:O4'	2.20	0.42
36:1:143:G:H4'	38:4:145:U:OP1	2.19	0.42
36:1:1639:C:C2'	36:1:1640:G:H5'	2.50	0.42
36:1:1908:A:H2'	36:1:1909:A:O4'	2.20	0.42
36:1:2255:A:OP2	36:1:2261:G:N1	2.44	0.42
36:1:2337:C:H2'	36:1:2338:C:H6	1.85	0.42
36:1:3284:G:H8	36:1:3284:G:O5'	2.03	0.42
36:1:3321:C:H2'	36:1:3322:A:O4'	2.20	0.42
86:1:4063:OHX:N3	86:1:4177:OHX:N5	2.68	0.42
36:1:651:G:O5'	36:1:651:G:H8	2.02	0.42
1:2:1181:U:H2'	1:2:1182:U:O4'	2.19	0.42
1:2:1370:U:H1'	1:2:1371:A:OP2	2.19	0.42
1:2:1207:C:N4	1:2:1456:C:H5	2.16	0.42
1:2:1535:U:H1'	1:2:1536:G:C2	2.55	0.42
86:2:2089:OHX:N3	86:2:2131:OHX:N4	2.68	0.42
1:2:358:U:O2'	1:2:360:A:H5''	2.20	0.42
1:2:391:A:C2	1:2:407:A:C2	3.08	0.42
1:2:602:U:H2'	1:2:603:U:H6	1.84	0.42
1:2:657:U:O2	1:2:677:G:N2	2.50	0.42
1:2:711:U:H4'	1:2:712:G:OP1	2.20	0.42
1:2:81:G:C6	1:2:82:U:N3	2.88	0.42
36:5:112:U:HO2'	36:5:113:C:P	2.39	0.42
36:5:1137:C:H2'	36:5:1138:U:O4'	2.20	0.42
36:5:2437:G:H8	36:5:2437:G:H5'	1.85	0.42
36:5:2717:U:OP1	86:5:4070:OHX:N3	2.52	0.42
36:5:3112:G:N7	86:5:3919:OHX:N6	2.67	0.42
36:5:3203:U:H2'	36:5:3204:C:H6	1.84	0.42
86:5:4013:OHX:N3	86:5:4202:OHX:N1	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:637:C:C2	36:5:638:C:C5	3.08	0.42
36:5:848:A:C4	36:5:849:C:H1'	2.55	0.42
1:6:1014:G:H2'	1:6:1015:U:O4'	2.20	0.42
1:6:1096:C:H2'	1:6:1096:C:H6	1.58	0.42
1:6:1213:G:O2'	1:6:1244:A:N6	2.52	0.42
5:S3:176:LEU:HD23	1:6:1437:U:H5''	411.28	0.42
10:S8:58:LEU:HD21	1:6:1676:U:H5''	271.07	0.42
1:6:1756:A:O5'	1:6:1756:A:H8	2.03	0.42
1:6:880:C:OP2	86:6:2107:OHX:N2	2.52	0.42
86:6:2123:OHX:N2	86:6:2147:OHX:N4	2.68	0.42
26:D4:66:GLY:N	1:6:532:U:H5''	430.66	0.42
11:S9:149:ARG:NH1	1:6:765:G:C6	427.89	0.42
1:6:901:G:N1	1:6:902:G:C6	2.87	0.42
1:6:95:G:H5''	1:6:96:G:OP2	2.20	0.42
37:7:16:U:H2'	37:7:17:A:O4'	2.18	0.42
37:7:1:G:C2	37:7:2:G:C8	3.08	0.42
38:8:27:U:H2'	38:8:28:C:H6	1.85	0.42
12:C0:23:ALA:O	12:C0:24:LYS:HB3	4.63	0.42
13:C1:71:LEU:HB3	13:C1:88:ARG:NH1	2.44	0.42
16:C4:20:TYR:HA	16:C4:84:ARG:O	2.40	0.42
17:C5:98:ASN:HB3	17:C5:120:SER:OG	2.19	0.42
18:C6:54:LEU:HD22	18:C6:54:LEU:HA	1.79	0.42
18:C6:47:LYS:HZ2	18:C6:82:ARG:NH2	2.17	0.42
22:D0:16:GLN:HG3	22:D0:17:GLN:H	3.91	0.42
26:D4:86:GLU:OE1	26:D4:90:ARG:HD2	2.40	0.42
1:2:1796:C:P	28:D6:5:ARG:HH12	2.42	0.42
30:D8:19:THR:HG21	30:D8:66:LEU:H	1.84	0.42
33:E1:97:LYS:HE2	1:6:1231:U:C4	438.71	0.42
40:L3:114:VAL:HG13	40:L3:163:HIS:CG	2.62	0.42
40:L3:86:VAL:HB	40:L3:198:HIS:O	2.20	0.42
40:L3:293:ASN:HB2	40:L3:305:ILE:H	2.74	0.42
40:L3:380:MET:O	36:5:3369:G:N1	227.75	0.42
40:L3:53:MET:HE2	40:L3:77:THR:HG22	2.01	0.42
40:L3:57:VAL:HG23	40:L3:358:TRP:CE3	2.54	0.42
42:L5:158:ARG:H	42:L5:158:ARG:HG2	1.69	0.42
44:L7:219:LYS:O	44:L7:228:SER:HB2	2.70	0.42
44:L7:87:VAL:O	44:L7:89:ILE:HG23	6.10	0.42
45:L8:139:VAL:HG21	45:L8:197:VAL:HG23	2.02	0.42
47:M0:76:MET:HE3	47:M0:148:VAL:HG13	2.01	0.42
49:M3:139:LEU:HD23	49:M3:139:LEU:HA	1.89	0.42
51:M5:120:TRP:CZ2	51:M5:122:ASN:HA	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:120:ASN:HB2	53:M7:121:GLN:H	1.64	0.42
54:M8:99:THR:HB	54:M8:100:THR:H	1.38	0.42
72:O6:43:LEU:O	72:O6:47:ILE:HG13	2.46	0.42
73:O7:53:ALA:HA	73:O7:56:ARG:HH11	2.01	0.42
74:O8:11:PHE:O	74:O8:15:THR:HG23	2.44	0.42
75:O9:23:LEU:HD22	75:O9:23:LEU:HA	1.84	0.42
75:O9:7:PHE:CE2	38:8:113:U:C4	98.26	0.42
3:S1:173:THR:O	3:S1:177:GLN:NE2	2.51	0.42
6:S4:207:LEU:HD23	6:S4:207:LEU:HA	2.03	0.42
7:S5:63:GLN:HB3	7:S5:64:VAL:H	1.60	0.42
8:S6:10:ASN:HB2	8:S6:12:SER:OG	2.20	0.42
9:S7:185:ILE:HG22	9:S7:186:PRO:HD3	2.02	0.42
10:S8:138:ASN:O	10:S8:141:ARG:HB2	2.20	0.42
11:S9:117:GLY:O	11:S9:119:ALA:N	2.63	0.42
11:S9:129:ILE:HG12	11:S9:134:ILE:HD12	2.02	0.42
19:C7:33:ARG:NH2	34:SR:109:ASP:OD2	3.20	0.42
36:1:1719:G:H4'	36:1:1732:U:H4'	2.00	0.42
36:1:1769:G:N3	36:1:1769:G:H2'	2.35	0.42
36:1:2254:U:H2'	36:1:2261:G:N2	2.35	0.42
36:1:2355:G:H4'	53:M7:139:TYR:CZ	2.55	0.42
36:1:255:A:H2'	36:1:256:G:C8	2.55	0.42
36:1:2822:U:H2'	36:1:2823:G:O4'	2.20	0.42
36:1:2943:G:H2'	36:1:2944:U:O4'	2.20	0.42
36:1:2986:U:H2'	36:1:2987:A:C8	2.55	0.42
36:1:3159:C:H2'	36:1:3160:U:C6	2.55	0.42
36:1:743:C:O2	54:M8:141:ARG:HD3	2.20	0.42
1:2:223:U:H2'	1:2:224:C:C6	2.55	0.42
1:2:241:U:H5'	1:2:242:U:OP2	2.20	0.42
1:2:282:C:H2'	1:2:283:U:O4'	2.19	0.42
1:2:542:A:O2'	1:2:543:C:P	2.78	0.42
36:5:1573:G:C6	36:5:1574:C:H1'	2.55	0.42
36:5:1640:G:C2'	36:5:1641:U:H5'	2.49	0.42
63:N7:133:LYS:HE3	36:5:1807:G:OP1	197.39	0.42
36:5:2871:G:C5'	36:5:2872:A:H5''	2.49	0.42
51:M5:179:LYS:O	36:5:287:G:H5'	124.48	0.42
36:5:293:C:H2'	36:5:294:U:O4'	2.20	0.42
36:5:2953:U:O5'	36:5:2953:U:H6	2.03	0.42
36:5:2969:A:OP2	86:5:3913:OHX:N6	2.53	0.42
36:5:3011:A:N3	36:5:3012:A:H1'	2.35	0.42
40:L3:62:ARG:NH1	36:5:3039:C:OP1	275.77	0.42
69:O3:2:ALA:HB2	36:5:3216:G:OP2	265.74	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3242:G:N2	36:5:3245:A:H5''	2.35	0.42
36:5:3237:U:C2	36:5:3251:U:C2	3.08	0.42
36:5:3232:G:N2	36:5:3255:U:O2	2.48	0.42
43:L6:130:ILE:HG12	36:5:3269:U:C5	248.68	0.42
36:5:1662:G:O6	86:5:3921:OHX:N1	2.52	0.42
1:6:1573:A:H4'	1:6:1574:G:H5'	2.01	0.42
1:6:1696:G:H5''	1:6:1696:G:C8	2.52	0.42
1:6:699:U:O4	86:6:2072:OHX:N1	2.52	0.42
6:S4:23:LEU:HD21	1:6:772:G:H5''	387.91	0.42
1:6:909:U:O2'	1:6:910:C:H5'	2.19	0.42
37:7:74:C:H1'	37:7:106:U:O2	2.20	0.42
12:C0:21:VAL:HG21	12:C0:46:LEU:HD11	3.72	0.42
13:C1:33:ARG:HH21	13:C1:33:ARG:HG3	2.44	0.42
13:C1:59:PRO:HB3	13:C1:66:ILE:CD1	2.50	0.42
15:C3:37:ILE:HD12	15:C3:74:ILE:HG21	2.02	0.42
16:C4:81:VAL:HG11	16:C4:102:LEU:HD21	2.01	0.42
17:C5:111:MET:HG2	20:C8:119:ILE:HG23	2.01	0.42
18:C6:82:ARG:NH2	18:C6:114:ARG:HB3	2.34	0.42
20:C8:145:ARG:HB3	20:C8:146:ALA:H	1.49	0.42
23:D1:27:ASP:O	23:D1:29:HIS:N	2.52	0.42
2:S0:157:ASP:OD2	23:D1:60:ARG:NH2	2.52	0.42
24:D2:12:ASN:O	24:D2:16:ASN:N	2.86	0.42
24:D2:77:PRO:HG3	25:D3:7:ARG:O	2.20	0.42
25:D3:41:SER:HA	25:D3:42:PRO:HD3	1.82	0.42
26:D4:84:LYS:HD3	26:D4:85:PHE:CE2	3.51	0.42
27:D5:88:ILE:HD13	27:D5:88:ILE:HA	4.17	0.42
33:E1:91:ILE:HD13	33:E1:92:LYS:N	2.35	0.42
40:L3:183:LEU:HA	40:L3:183:LEU:HD12	2.16	0.42
40:L3:232:ARG:HG2	40:L3:233:TRP:CD1	2.59	0.42
36:1:3138:U:OP2	40:L3:30:LYS:HD3	2.20	0.42
41:L4:299:ILE:HG23	41:L4:299:ILE:HD12	1.86	0.42
41:L4:34:ILE:O	41:L4:38:VAL:HG23	2.19	0.42
42:L5:11:ALA:O	42:L5:15:ARG:HG3	2.20	0.42
45:L8:139:VAL:O	45:L8:143:ILE:HG13	2.99	0.42
45:L8:99:PRO:HG2	45:L8:190:VAL:HG23	2.02	0.42
45:L8:213:LYS:HB2	45:L8:213:LYS:HE3	4.57	0.42
46:L9:70:THR:O	46:L9:74:LEU:HG	2.19	0.42
47:M0:169:LYS:H	47:M0:169:LYS:HD2	3.01	0.42
48:M1:54:VAL:O	48:M1:56:THR:N	2.49	0.42
51:M5:31:ARG:HG3	51:M5:129:TYR:OH	3.01	0.42
51:M5:91:GLU:HG2	36:5:2600:C:OP1	160.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:23:VAL:HG12	52:M6:84:LEU:HD21	2.01	0.42
54:M8:159:LYS:HD2	54:M8:159:LYS:HA	2.24	0.42
59:N3:15:LEU:HD13	59:N3:51:ALA:HB3	2.02	0.42
59:N3:61:THR:HG22	59:N3:73:VAL:HA	2.53	0.42
61:N5:109:LYS:HB2	61:N5:109:LYS:HE2	1.47	0.42
62:N6:12:ARG:HG2	36:5:215:G:OP1	87.32	0.42
36:1:392:G:O2'	62:N6:90:VAL:HG11	2.20	0.42
63:N7:4:PHE:CE1	63:N7:82:PRO:HG3	2.54	0.42
66:O0:34:LEU:HA	66:O0:34:LEU:HD12	1.90	0.42
67:O1:32:ALA:O	67:O1:36:ILE:N	2.98	0.42
67:O1:70:ARG:O	67:O1:71:LEU:HD23	2.54	0.42
70:O4:97:GLU:O	70:O4:100:ILE:N	2.53	0.42
71:O5:31:LEU:O	71:O5:35:LYS:N	2.42	0.42
71:O5:45:LYS:O	71:O5:48:ARG:HB2	4.78	0.42
72:O6:21:THR:OG1	72:O6:21:THR:O	2.36	0.42
72:O6:53:TYR:CE1	72:O6:77:LEU:HD21	3.18	0.42
74:O8:41:THR:HG21	74:O8:62:ALA:CB	2.50	0.42
39:L2:83:HIS:HB3	79:Q3:64:VAL:HG22	2.01	0.42
2:S0:202:TYR:CD2	2:S0:202:TYR:N	2.88	0.42
3:S1:223:PHE:O	3:S1:224:ASP:HB3	2.70	0.42
4:S2:69:ILE:HD12	4:S2:73:LEU:HB3	3.78	0.42
6:S4:31:PRO:HG2	6:S4:38:LEU:HD13	2.01	0.42
6:S4:35:PRO:HB2	6:S4:36:HIS:CD2	2.55	0.42
6:S4:37:LYS:NZ	6:S4:40:GLU:OE2	5.72	0.42
7:S5:25:LEU:HB2	7:S5:26:ALA:H	1.62	0.42
7:S5:73:THR:C	7:S5:75:GLY:N	3.20	0.42
11:S9:110:GLN:HE21	11:S9:144:PRO:HB3	4.47	0.42
11:S9:3:ARG:HH21	11:S9:3:ARG:CG	3.70	0.42
36:1:1211:U:H2'	36:1:1212:A:C8	2.55	0.42
36:1:1273:A:HO2'	36:1:1274:A:P	2.43	0.42
36:1:1266:G:N2	36:1:1276:U:H1'	2.34	0.42
36:1:1662:G:C6	36:1:1663:C:C4	3.08	0.42
36:1:2244:A:OP1	39:L2:243:THR:OG1	2.37	0.42
36:1:2534:G:C2	36:1:2535:A:N7	2.88	0.42
36:1:2770:G:O2'	36:1:2771:U:H5'	2.19	0.42
36:1:3096:C:H1'	40:L3:327:CYS:SG	2.60	0.42
1:2:1166:A:H5''	7:S5:101:GLY:N	2.30	0.42
1:2:1184:A:H2	1:2:1454:G:N3	2.17	0.42
1:2:1407:U:H2'	1:2:1408:G:O4'	2.20	0.42
1:2:1474:G:P	7:S5:109:LYS:HE2	2.60	0.42
1:2:692:C:H2'	1:2:693:U:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:735:C:OP2	1:2:735:C:H2'	2.20	0.42
1:2:224:C:C2	1:2:838:G:C2	3.08	0.42
1:2:992:A:H2'	1:2:993:A:H5'	2.01	0.42
36:1:21:G:C8	38:4:37:A:N6	2.88	0.42
36:5:1940:G:N2	36:5:3362:A:C8	2.88	0.42
36:5:183:G:N2	36:5:233:C:O2	2.49	0.42
36:5:243:G:H2'	36:5:244:G:C8	2.54	0.42
36:5:3045:G:H2'	36:5:3046:A:O4'	2.20	0.42
60:N4:38:SER:OG	36:5:3084:C:OP1	227.45	0.42
36:5:678:G:H2'	36:5:679:U:O4'	2.20	0.42
36:5:759:U:C2'	36:5:760:G:H5'	2.50	0.42
36:5:361:A:N3	36:5:814:U:H1'	2.34	0.42
36:5:920:A:OP1	36:5:922:U:C5	2.73	0.42
1:6:1176:G:C6	1:6:1464:G:C6	3.08	0.42
1:6:1483:A:C6	1:6:1484:G:C6	3.08	0.42
1:6:1533:C:H4'	1:6:1539:G:C6	2.55	0.42
1:6:5:U:H2'	1:6:6:G:H8	1.84	0.42
1:6:774:A:C5	1:6:775:G:H1'	2.55	0.42
1:6:886:U:H2'	1:6:887:A:H8	1.85	0.42
16:C4:126:THR:HG21	1:6:888:U:H1'	273.45	0.42
1:2:1217:A:H5''	12:C0:1:MET:HG3	2.02	0.42
13:C1:3:THR:O	13:C1:4:GLU:HB3	2.20	0.42
7:S5:69:PHE:HE2	18:C6:53:LEU:HD12	1.84	0.42
14:C2:46:ARG:HB2	33:E1:103:LEU:HD12	2.02	0.42
33:E1:83:LYS:O	33:E1:84:VAL:HG12	2.20	0.42
39:L2:188:LYS:HD2	39:L2:189:TYR:CE2	5.27	0.42
39:L2:36:GLU:OE1	39:L2:163:ARG:HD2	2.20	0.42
36:1:2176:U:H5''	39:L2:54:ARG:NH2	2.34	0.42
40:L3:331:ASN:O	40:L3:334:ARG:HB3	3.29	0.42
40:L3:332:ARG:NH1	40:L3:333:LYS:HD3	2.35	0.42
41:L4:99:MET:HE2	41:L4:103:THR:H	2.94	0.42
42:L5:148:ILE:HG23	42:L5:151:GLN:CB	2.50	0.42
42:L5:184:ASP:OD2	42:L5:187:THR:OG1	5.32	0.42
44:L7:107:ARG:HH11	44:L7:107:ARG:HD2	1.63	0.42
47:M0:87:LEU:HD23	47:M0:138:VAL:HG22	3.73	0.42
50:M4:19:ARG:NH2	50:M4:69:THR:HG23	3.08	0.42
51:M5:164:LEU:HA	51:M5:164:LEU:HD23	2.33	0.42
52:M6:73:PHE:HB3	52:M6:78:ARG:HB3	2.02	0.42
56:N0:45:LEU:HA	56:N0:45:LEU:HD22	1.68	0.42
57:N1:160:ILE:HD12	57:N1:160:ILE:HA	2.29	0.42
62:N6:90:VAL:HG11	36:5:392:G:O2'	88.81	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:40:HIS:HB2	63:N7:41:ALA:H	2.70	0.42
63:N7:46:ILE:HD11	63:N7:49:TYR:N	2.35	0.42
65:N9:36:ASP:OD1	36:5:2738:A:H5'	214.08	0.42
74:O8:12:LEU:HD21	74:O8:65:LEU:HD21	2.75	0.42
76:Q0:96:CYS:C	76:Q0:98:LYS:H	2.23	0.42
79:Q3:38:ASP:OD1	79:Q3:45:LYS:HB3	2.20	0.42
2:S0:183:ARG:NH2	2:S0:191:ARG:O	2.53	0.42
3:S1:30:PHE:CD1	3:S1:94:LYS:HA	3.40	0.42
4:S2:109:GLY:O	4:S2:139:ILE:HG22	4.89	0.42
6:S4:182:TYR:HB2	6:S4:228:ILE:HD13	2.01	0.42
9:S7:133:THR:OG1	9:S7:134:GLU:N	2.45	0.42
10:S8:188:GLU:HA	13:C1:13:PHE:CE1	3.62	0.42
11:S9:53:ARG:O	11:S9:57:ARG:HG3	3.03	0.42
11:S9:6:ARG:HA	11:S9:6:ARG:HD2	1.56	0.42
11:S9:96:VAL:O	11:S9:99:LEU:HB3	3.98	0.42
5:S3:117:ARG:HH21	35:SM:126:ASP:CB	7.28	0.42
34:SR:70:ASP:HB3	34:SR:113:VAL:HG12	2.63	0.42
36:1:2223:A:H8	36:1:2223:A:OP2	2.02	0.41
36:1:2284:C:H3'	36:1:2285:C:C6	2.55	0.41
36:1:2767:U:O5'	36:1:2767:U:H6	2.03	0.41
36:1:3242:G:N2	36:1:3245:A:OP2	2.53	0.41
36:1:438:A:H8	36:1:438:A:OP2	2.03	0.41
36:1:717:C:N4	36:1:718:G:N1	2.68	0.41
1:2:1053:G:C2	1:2:1067:C:C2	3.07	0.41
1:2:1172:G:H21	21:C9:88:VAL:CG2	2.33	0.41
1:2:1347:U:C2	1:2:1517:U:C5	3.08	0.41
1:2:1762:A:O4'	1:2:1783:C:H5'	2.20	0.41
1:2:190:C:N4	1:2:196:G:C6	2.86	0.41
1:2:205:U:O4	86:2:2066:OHX:N3	2.53	0.41
1:2:477:A:H2'	1:2:478:A:H8	1.85	0.41
1:2:720:G:H1'	1:2:721:U:H5''	2.02	0.41
1:2:817:A:C6	1:2:818:C:C4	3.07	0.41
52:M6:83:ALA:HB1	36:5:1313:G:H5'	258.92	0.41
36:5:1497:C:H2'	36:5:1498:A:C8	2.55	0.41
36:5:1658:G:C4	36:5:1796:G:C5	3.08	0.41
55:M9:85:ARG:NH2	36:5:1916:U:O3'	230.71	0.41
36:5:2297:U:C2	36:5:2299:A:C6	3.08	0.41
36:5:244:G:OP2	36:5:244:G:H8	2.02	0.41
52:M6:115:LYS:HG2	36:5:3178:A:C2	259.23	0.41
86:5:4013:OHX:N4	86:5:4202:OHX:N2	2.68	0.41
86:5:4002:OHX:N2	86:5:4194:OHX:N1	2.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:536:U:H1'	36:5:559:A:C8	2.54	0.41
54:M8:151:ARG:HD2	36:5:781:G:OP1	160.29	0.41
36:5:848:A:C5	36:5:849:C:H1'	2.55	0.41
1:6:1354:G:H5'	1:6:1355:C:OP2	2.19	0.41
1:6:179:A:H2'	1:6:180:A:O4'	2.20	0.41
26:D4:61:ARG:NH2	1:6:530:C:O2	409.03	0.41
1:6:543:C:O4'	1:6:543:C:O2	2.37	0.41
25:D3:23:ARG:HD3	1:6:609:U:HO2'	342.26	0.41
1:6:913:G:O4'	1:6:913:G:N3	2.53	0.41
38:8:88:A:H2'	38:8:89:A:O4'	2.19	0.41
5:S3:72:LEU:HD22	12:C0:65:TYR:HB3	2.02	0.41
13:C1:129:ARG:HG3	13:C1:129:ARG:O	2.20	0.41
3:S1:69:CYS:SG	16:C4:114:ARG:HD3	2.60	0.41
17:C5:98:ASN:HD22	17:C5:103:ASN:HD21	1.67	0.41
17:C5:116:LEU:HD23	17:C5:116:LEU:HA	1.88	0.41
17:C5:69:GLU:OE1	86:C5:201:OHX:N2	2.53	0.41
18:C6:82:ARG:NH1	18:C6:114:ARG:HB3	2.34	0.41
20:C8:88:ARG:CZ	20:C8:108:LYS:HE2	2.50	0.41
20:C8:48:LYS:HD3	21:C9:35:ASP:HB2	2.62	0.41
21:C9:86:ARG:NH1	21:C9:90:PRO:O	2.53	0.41
22:D0:99:ILE:O	22:D0:103:ILE:HB	2.33	0.41
22:D0:18:GLN:O	22:D0:96:PRO:HG3	5.72	0.41
23:D1:42:GLU:O	23:D1:44:ARG:HD3	2.74	0.41
24:D2:36:LYS:O	24:D2:40:VAL:HG23	2.20	0.41
1:2:778:G:H22	26:D4:10:ARG:NH2	2.18	0.41
28:D6:96:ALA:HA	28:D6:97:PRO:HD3	1.77	0.41
30:D8:32:PHE:CZ	30:D8:38:ARG:HB3	2.55	0.41
32:E0:13:LYS:HB2	1:6:567:A:H4'	369.87	0.41
40:L3:169:THR:HG23	40:L3:171:LEU:HG	2.48	0.41
40:L3:383:LEU:HD23	40:L3:383:LEU:HA	2.19	0.41
41:L4:174:ALA:O	41:L4:175:HIS:C	2.57	0.41
42:L5:146:LEU:HD13	42:L5:148:ILE:CD1	4.01	0.41
42:L5:158:ARG:HD3	37:7:46:A:OP1	281.32	0.41
43:L6:51:ARG:HD3	43:L6:51:ARG:HH11	1.79	0.41
36:1:2562:A:C2	45:L8:31:PRO:HD3	2.55	0.41
47:M0:206:LEU:O	47:M0:210:ILE:HG12	3.46	0.41
48:M1:155:THR:OG1	48:M1:158:ASP:HB2	2.20	0.41
51:M5:24:ARG:O	51:M5:27:VAL:HG12	2.20	0.41
52:M6:57:PHE:CE1	52:M6:82:LYS:HE3	2.55	0.41
57:N1:14:MET:HE1	57:N1:58:GLN:HB2	2.01	0.41
58:N2:81:LYS:HE3	58:N2:81:LYS:HB2	1.95	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:N3:39:VAL:O	59:N3:42:SER:OG	3.57	0.41
61:N5:139:ILE:HG13	61:N5:139:ILE:O	2.20	0.41
62:N6:39:LEU:HD23	62:N6:39:LEU:HA	1.72	0.41
66:O0:15:ALA:O	66:O0:19:LYS:HG2	2.81	0.41
66:O0:47:ASN:HD21	66:O0:74:ASN:ND2	2.18	0.41
73:O7:14:LYS:HZ3	75:O9:51:ILE:HD11	1.85	0.41
73:O7:48:ASN:HA	73:O7:54:LYS:NZ	2.41	0.41
2:S0:178:ALA:HA	2:S0:181:VAL:HG22	2.29	0.41
5:S3:42:THR:O	5:S3:44:THR:N	3.99	0.41
5:S3:60:GLY:HA3	5:S3:65:ARG:CB	3.47	0.41
6:S4:106:LYS:HG3	6:S4:108:ARG:NH1	2.39	0.41
6:S4:114:ILE:HB	6:S4:118:GLU:OE2	2.21	0.41
7:S5:93:LEU:HD23	7:S5:93:LEU:HA	1.83	0.41
8:S6:153:VAL:H	8:S6:153:VAL:HG22	3.54	0.41
8:S6:76:LEU:HA	8:S6:76:LEU:HD23	1.67	0.41
9:S7:140:VAL:O	24:D2:51:GLU:HG3	2.20	0.41
10:S8:137:LYS:O	10:S8:140:GLU:N	3.27	0.41
34:SR:106:HIS:HA	34:SR:132:LYS:HE3	2.76	0.41
34:SR:69:GLN:HG2	34:SR:111:MET:SD	2.59	0.41
34:SR:129:LYS:HG2	34:SR:149:ASP:O	2.25	0.41
34:SR:182:ASN:ND2	34:SR:184:ASN:OD1	4.53	0.41
34:SR:222:LEU:HD23	34:SR:234:LEU:HD13	2.02	0.41
36:1:1093:A:N3	36:1:1096:U:N3	2.67	0.41
36:1:2443:A:O2'	36:1:2444:C:OP2	2.26	0.41
36:1:2558:U:O2'	36:1:2559:U:H5'	2.20	0.41
86:1:4063:OHX:N4	86:1:4177:OHX:N2	2.68	0.41
86:1:4086:OHX:N6	86:1:4157:OHX:N3	2.68	0.41
36:1:425:G:C5	36:1:635:G:C2	3.08	0.41
36:1:511:G:H2'	36:1:512:U:O4'	2.20	0.41
36:1:830:A:O2'	36:1:1866:C:H2'	2.21	0.41
1:2:997:G:C2	1:2:1008:G:C4	3.07	0.41
1:2:1497:U:C4	1:2:1511:U:O2	2.73	0.41
1:2:1651:A:N1	1:2:1749:A:H2	2.18	0.41
1:2:565:C:C2	86:2:2038:OHX:N5	2.88	0.41
1:2:45:U:O2	1:2:434:G:H1'	2.21	0.41
1:2:429:G:OP1	1:2:439:U:H5''	2.20	0.41
1:2:526:A:C6	1:2:527:A:C5	3.08	0.41
1:2:946:U:H2'	1:2:947:U:O4'	2.20	0.41
1:2:974:A:H2'	1:2:975:C:O4'	2.19	0.41
1:2:976:G:C6	1:2:1023:A:C4	3.08	0.41
37:3:33:U:C6	42:L5:207:TYR:CE2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:93:U:H2'	38:4:94:C:O4'	2.20	0.41
36:5:1108:U:H2'	36:5:1109:U:C6	2.56	0.41
55:M9:9:ARG:NH2	36:5:1602:A:O3'	107.75	0.41
36:5:2624:G:O2'	36:5:2625:C:H5'	2.19	0.41
36:5:287:G:H2'	36:5:288:C:H6	1.85	0.41
76:Q0:125:LYS:HD2	36:5:2897:A:H5''	325.33	0.41
36:5:378:A:H3'	36:5:379:C:C6	2.55	0.41
86:5:4035:OHX:N1	86:5:4083:OHX:N2	2.67	0.41
36:5:897:U:H2'	36:5:898:U:C6	2.55	0.41
1:6:1054:U:H2'	1:6:1055:U:H6	1.85	0.41
1:6:516:G:C5	1:6:517:U:C5	3.07	0.41
24:D2:107:SER:HB3	1:6:802:G:H21	365.27	0.41
1:6:845:G:H2'	1:6:846:G:H8	1.85	0.41
1:6:882:U:H2'	1:6:883:C:H6	1.84	0.41
13:C1:21:ASN:HB3	13:C1:32:LYS:HD3	5.35	0.41
14:C2:42:ALA:HB1	14:C2:47:GLU:HB3	2.81	0.41
18:C6:10:PHE:HA	18:C6:18:ALA:O	2.20	0.41
20:C8:70:VAL:O	20:C8:74:GLN:HG2	2.84	0.41
21:C9:23:GLN:HG2	21:C9:55:TYR:CG	2.55	0.41
5:S3:11:LEU:HD13	22:D0:29:THR:HG23	2.84	0.41
29:D7:13:ALA:O	29:D7:16:ALA:HB3	2.20	0.41
29:D7:31:TYR:CD1	29:D7:31:TYR:N	3.17	0.41
40:L3:153:LYS:HE2	40:L3:154:TYR:CZ	4.10	0.41
40:L3:214:MET:SD	40:L3:281:LYS:HB2	2.73	0.41
41:L4:144:LYS:CG	41:L4:145:ILE:H	4.77	0.41
41:L4:271:LYS:O	41:L4:272:VAL:C	2.75	0.41
43:L6:82:ARG:HA	43:L6:82:ARG:HD2	2.67	0.41
45:L8:156:ASP:HB2	45:L8:157:VAL:H	1.57	0.41
47:M0:171:TRP:O	47:M0:174:THR:HG22	2.20	0.41
47:M0:48:LEU:HD23	47:M0:178:ARG:HH12	1.85	0.41
48:M1:54:VAL:HG11	48:M1:57:PHE:CG	2.55	0.41
49:M3:93:ILE:HG23	49:M3:93:ILE:HD12	1.79	0.41
51:M5:165:THR:O	51:M5:169:LYS:HG3	2.20	0.41
53:M7:86:LYS:O	53:M7:90:PHE:HD1	2.34	0.41
55:M9:148:ASP:OD1	55:M9:151:ARG:NH2	2.52	0.41
55:M9:70:LYS:C	55:M9:72:GLU:H	2.23	0.41
55:M9:80:LYS:HE2	36:5:1940:G:OP1	207.03	0.41
59:N3:102:ILE:HG13	59:N3:110:LYS:HB3	2.01	0.41
36:1:2916:U:C1'	59:N3:44:SER:HB2	2.43	0.41
59:N3:17:LEU:HD21	59:N3:98:ASN:CG	2.41	0.41
60:N4:54:LEU:HD13	60:N4:54:LEU:HA	4.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:N6:3:LYS:HE2	62:N6:8:VAL:O	2.20	0.41
63:N7:128:GLN:O	63:N7:131:PHE:N	2.74	0.41
67:O1:20:LEU:HD11	67:O1:32:ALA:HB2	2.54	0.41
68:O2:38:ILE:HG13	68:O2:39:ASP:N	2.35	0.41
69:O3:53:TYR:CZ	69:O3:65:ARG:HB2	2.55	0.41
71:O5:24:LEU:HA	71:O5:27:GLU:HB2	2.02	0.41
72:O6:26:ILE:HD12	36:5:155:G:H1'	87.77	0.41
2:S0:179:ARG:O	2:S0:183:ARG:HG3	2.20	0.41
3:S1:125:VAL:HG11	3:S1:173:THR:HG23	3.15	0.41
3:S1:59:ASP:C	3:S1:61:LEU:H	4.02	0.41
3:S1:32:ILE:HA	3:S1:96:LEU:HD23	2.02	0.41
4:S2:88:LYS:HG2	4:S2:89:GLN:H	3.55	0.41
6:S4:173:ILE:HD11	6:S4:235:TYR:CE1	2.54	0.41
6:S4:245:LYS:HG3	6:S4:246:LEU:N	3.04	0.41
6:S4:49:ARG:HB3	6:S4:55:ALA:HB3	3.87	0.41
7:S5:114:ILE:HD13	7:S5:114:ILE:HA	2.37	0.41
7:S5:79:ASN:N	7:S5:79:ASN:ND2	2.69	0.41
7:S5:79:ASN:OD1	7:S5:83:ARG:NH2	2.53	0.41
7:S5:89:ILE:HG13	7:S5:89:ILE:H	1.57	0.41
7:S5:90:ILE:HD11	7:S5:130:ILE:HG13	2.35	0.41
9:S7:41:LEU:HB3	9:S7:70:PHE:HE1	1.85	0.41
9:S7:70:PHE:O	9:S7:74:GLN:HB2	2.20	0.41
11:S9:60:LEU:HA	11:S9:60:LEU:HD23	3.16	0.41
35:SM:123:ALA:O	35:SM:127:ALA:N	3.19	0.41
20:C8:145:ARG:HB2	35:SM:68:ARG:NH2	2.35	0.41
1:2:1274:C:N4	35:SM:95:SER:HA	2.35	0.41
34:SR:12:THR:HG22	34:SR:311:ARG:HG2	2.85	0.41
34:SR:226:ALA:O	34:SR:228:LYS:HE2	3.56	0.41
36:1:1742:U:H2'	36:1:1743:G:O4'	2.20	0.41
36:1:196:G:C2	36:1:199:A:C8	3.08	0.41
36:1:2252:A:C6	36:1:2253:G:N7	2.88	0.41
36:1:2763:U:O5'	36:1:2763:U:H6	2.03	0.41
36:1:372:A:H2'	36:1:373:A:O4'	2.20	0.41
86:1:3977:OHX:N1	86:1:4158:OHX:N4	2.68	0.41
36:1:850:U:H2'	36:1:851:C:H6	1.85	0.41
1:2:1183:A:C5	1:2:1184:A:C6	3.08	0.41
1:2:1474:G:H2'	1:2:1475:A:H8	1.84	0.41
1:2:1617:U:O2'	1:2:1618:C:H5'	2.20	0.41
1:2:47:A:N1	1:2:386:G:H1'	2.35	0.41
1:2:396:G:N2	1:2:398:G:H3'	2.36	0.41
1:2:552:G:C6	1:2:553:G:N1	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:778:G:H1	26:D4:10:ARG:NH1	2.18	0.41
1:2:109:G:O2'	1:2:796:A:N1	2.51	0.41
38:4:107:G:C2	38:4:116:G:C5	3.08	0.41
38:4:125:U:H2'	38:4:125:U:O2	2.20	0.41
68:O2:57:TYR:CD1	36:5:1162:U:H4'	197.24	0.41
36:5:1204:A:H2'	36:5:1205:A:H5'	2.02	0.41
36:5:1348:U:O4'	36:5:1355:A:N6	2.53	0.41
36:5:165:A:H2'	36:5:166:C:O4'	2.21	0.41
3:S1:226:GLY:HA2	36:5:2536:A:H5'	257.33	0.41
36:5:2872:A:H5'	36:5:2872:A:H8	1.86	0.41
36:5:2946:A:C5'	36:5:2947:G:H5'	2.50	0.41
53:M7:69:ARG:NH2	36:5:2991:A:C2	194.08	0.41
36:5:3096:C:H2'	36:5:3097:C:H6	1.85	0.41
36:5:3288:G:O2'	36:5:3289:G:P	2.78	0.41
36:5:92:G:H5'	36:5:93:C:C5'	2.47	0.41
36:5:948:C:H2'	36:5:949:C:H6	1.85	0.41
1:6:1026:A:C2	1:6:1792:G:C4	3.09	0.41
1:6:1147:A:C5	1:6:1148:C:C5	3.09	0.41
1:6:46:A:N1	1:6:432:G:O2'	2.45	0.41
1:6:486:G:N7	1:6:488:G:C2	2.88	0.41
1:6:52:U:H2'	1:6:53:G:C8	2.55	0.41
38:8:43:A:H2'	38:8:44:A:H8	1.84	0.41
38:8:83:C:H4'	38:8:85:G:N2	2.36	0.41
12:C0:3:MET:HA	12:C0:4:PRO:HD2	1.98	0.41
17:C5:75:PRO:HA	17:C5:93:VAL:HB	3.27	0.41
18:C6:47:LYS:HE2	18:C6:114:ARG:NH2	2.34	0.41
18:C6:37:THR:O	18:C6:45:ARG:NH1	2.58	0.41
18:C6:86:ALA:O	18:C6:90:VAL:HG13	2.20	0.41
18:C6:92:TYR:CE1	18:C6:96:TYR:HD2	2.68	0.41
20:C8:136:GLN:H	20:C8:136:GLN:HG2	1.75	0.41
21:C9:28:LEU:HD23	21:C9:111:ILE:HD11	8.41	0.41
9:S7:139:ARG:HD3	24:D2:53:ILE:HA	2.03	0.41
27:D5:57:TYR:HE2	27:D5:68:ARG:NH1	2.18	0.41
7:S5:123:VAL:O	27:D5:58:ARG:HD2	2.21	0.41
27:D5:97:LYS:HG3	27:D5:98:GLN:H	1.85	0.41
33:E1:109:ASP:HB2	33:E1:113:LYS:HG2	2.01	0.41
39:L2:199:THR:HG21	36:5:914:A:C5	194.67	0.41
41:L4:258:LEU:O	41:L4:262:TRP:HD1	3.27	0.41
41:L4:291:ASN:O	41:L4:296:GLN:HG2	2.21	0.41
42:L5:164:LYS:O	42:L5:164:LYS:HD3	2.21	0.41
43:L6:5:LYS:O	43:L6:6:ALA:CB	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:166:LEU:HD23	45:L8:166:LEU:HA	2.11	0.41
45:L8:230:LYS:HG3	45:L8:230:LYS:O	2.69	0.41
46:L9:34:LEU:HD21	46:L9:149:ASN:CB	2.50	0.41
47:M0:93:PRO:HA	47:M0:127:ALA:HB2	2.32	0.41
50:M4:36:VAL:HG11	50:M4:55:ARG:NH2	2.55	0.41
52:M6:48:PHE:CE1	36:5:1191:U:C2	286.36	0.41
53:M7:46:LYS:HE3	53:M7:46:LYS:HB2	2.90	0.41
53:M7:28:ASN:HD22	53:M7:84:PRO:HB3	4.03	0.41
56:N0:73:LYS:HE3	56:N0:97:VAL:O	2.21	0.41
40:L3:70:ARG:HH22	59:N3:120:LYS:HE3	1.85	0.41
36:1:3038:U:O2	59:N3:9:THR:HG21	2.20	0.41
60:N4:14:TYR:O	60:N4:17:ARG:HB3	2.21	0.41
61:N5:100:LYS:HG3	61:N5:105:VAL:O	2.20	0.41
63:N7:136:PHE:O	36:5:2556:C:H5'	202.55	0.41
63:N7:81:LEU:HA	63:N7:81:LEU:HD23	1.87	0.41
67:O1:53:PRO:O	67:O1:57:GLN:HG3	2.20	0.41
36:1:634:C:H5'	69:O3:21:ARG:O	2.20	0.41
70:O4:46:ASP:OD2	70:O4:80:ARG:HD2	2.88	0.41
71:O5:85:THR:HB	71:O5:88:LEU:HB2	2.03	0.41
73:O7:25:ARG:HG3	75:O9:51:ILE:HB	2.63	0.41
75:O9:50:ASN:O	75:O9:51:ILE:HB	2.20	0.41
2:S0:107:PHE:HE2	2:S0:116:LYS:HB2	3.21	0.41
3:S1:130:SER:OG	3:S1:131:ASP:N	2.51	0.41
3:S1:205:PHE:HA	3:S1:206:PRO:HD2	1.76	0.41
3:S1:61:LEU:HD23	3:S1:62:LYS:H	1.85	0.41
4:S2:166:THR:HG23	4:S2:201:ASN:HB3	2.02	0.41
4:S2:63:VAL:HG12	4:S2:134:LEU:HD12	2.02	0.41
5:S3:134:CYS:SG	5:S3:135:GLU:N	3.07	0.41
5:S3:66:ILE:HA	5:S3:69:LEU:HB2	2.94	0.41
5:S3:77:PHE:HB2	5:S3:79:TYR:CE2	3.05	0.41
5:S3:70:THR:HG22	5:S3:86:LEU:HB2	2.02	0.41
6:S4:192:ILE:HD12	6:S4:238:LEU:HD13	2.02	0.41
7:S5:99:MET:HB2	7:S5:100:ASN:H	1.86	0.41
7:S5:94:THR:O	7:S5:97:LEU:N	2.44	0.41
9:S7:20:VAL:O	9:S7:24:PHE:N	3.16	0.41
9:S7:7:LYS:O	9:S7:9:LEU:N	3.39	0.41
10:S8:115:ALA:O	10:S8:143:TRP:NE1	3.31	0.41
10:S8:9:HIS:CD2	10:S8:10:LYS:N	2.87	0.41
11:S9:143:ILE:HA	11:S9:144:PRO:HD3	2.16	0.41
11:S9:161:THR:HG22	11:S9:162:SER:H	1.84	0.41
11:S9:53:ARG:CZ	11:S9:53:ARG:HB3	3.00	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S9:63:ASP:O	11:S9:66:ASP:N	3.04	0.41
11:S9:78:ARG:HG3	11:S9:79:ARG:N	2.41	0.41
34:SR:127:ARG:HG2	34:SR:150:TRP:CG	2.96	0.41
34:SR:24:ALA:O	34:SR:33:LEU:HD12	2.38	0.41
36:1:1506:A:C2	36:1:1513:G:C2	3.09	0.41
36:1:2534:G:H2'	36:1:2535:A:C8	2.51	0.41
36:1:3228:C:H4'	36:1:3229:G:O5'	2.20	0.41
36:1:3267:A:H2'	43:L6:69:PHE:CZ	2.55	0.41
36:1:3329:U:OP1	40:L3:376:LYS:NZ	2.39	0.41
86:1:4005:OHX:N4	86:1:4175:OHX:N1	2.68	0.41
36:1:561:C:H2'	36:1:562:C:C6	2.55	0.41
36:1:666:A:H2'	36:1:667:C:C5'	2.51	0.41
36:1:69:C:N4	36:1:314:U:H4'	2.35	0.41
1:2:1138:A:H2'	1:2:1139:A:C8	2.55	0.41
1:2:1169:G:N1	1:2:1575:G:OP2	2.44	0.41
1:2:1681:A:H2'	1:2:1682:U:H5'	2.03	0.41
86:2:2082:OHX:N6	86:2:2084:OHX:N2	2.68	0.41
1:2:213:A:OP2	86:2:2115:OHX:N2	2.54	0.41
1:2:237:C:H4'	1:2:238:U:H5'	2.03	0.41
36:5:2158:A:H5'	36:5:2160:G:O4'	2.21	0.41
36:5:2404:A:H2'	36:5:2405:C:O5'	2.20	0.41
36:5:2584:G:H5'	36:5:2585:G:OP2	2.21	0.41
36:5:2590:A:C5	36:5:2591:A:N7	2.89	0.41
36:5:2827:U:H1'	36:5:2828:G:N7	2.35	0.41
36:5:3119:U:OP2	86:5:3919:OHX:N3	2.53	0.41
36:5:501:A:H2'	36:5:502:U:C6	2.56	0.41
36:5:768:C:N4	36:5:769:G:C6	2.89	0.41
36:5:948:C:H2'	36:5:949:C:C6	2.55	0.41
1:6:1159:C:H5''	1:6:1160:A:H5''	2.02	0.41
2:S0:138:TYR:OH	1:6:1296:A:OP1	396.88	0.41
1:6:1664:C:H2'	1:6:1665:U:O4'	2.19	0.41
8:S6:94:ARG:NH2	1:6:407:A:H5'	288.41	0.41
1:6:918:U:H2'	1:6:919:A:C8	2.54	0.41
38:8:2:A:H3'	38:8:3:A:H8	1.85	0.41
38:8:42:G:O6	38:8:103:G:C2	2.73	0.41
1:2:939:A:C5	15:C3:113:PHE:CE2	3.07	0.41
15:C3:16:ILE:HD12	15:C3:16:ILE:HA	4.33	0.41
1:2:887:A:C1'	16:C4:122:PRO:HB3	2.48	0.41
21:C9:53:TRP:O	21:C9:56:LYS:HB2	2.58	0.41
5:S3:8:LYS:HG2	22:D0:63:LEU:HD21	2.97	0.41
24:D2:66:ASN:OD1	24:D2:68:ARG:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:D2:94:LEU:HD23	24:D2:94:LEU:HA	1.83	0.41
27:D5:38:HIS:ND1	27:D5:70:LYS:HG2	6.82	0.41
39:L2:143:GLU:O	39:L2:145:LYS:HG3	3.63	0.41
39:L2:70:ARG:NH1	39:L2:72:ARG:NE	4.25	0.41
40:L3:173:GLN:O	40:L3:173:GLN:HG3	2.18	0.41
41:L4:136:LEU:HA	41:L4:136:LEU:HD23	1.81	0.41
41:L4:140:HIS:NE2	41:L4:246:ARG:HG2	3.21	0.41
41:L4:162:THR:HA	41:L4:218:ALA:O	2.21	0.41
41:L4:4:PRO:O	41:L4:5:GLN:HB2	2.21	0.41
41:L4:59:GLN:OE1	73:O7:55:ARG:NH2	2.85	0.41
41:L4:74:ILE:HG22	41:L4:75:PRO:HD2	2.02	0.41
42:L5:178:ASN:HA	42:L5:183:TRP:CD2	2.55	0.41
42:L5:184:ASP:OD2	42:L5:187:THR:HG22	2.19	0.41
43:L6:109:GLU:H	43:L6:109:GLU:CD	5.05	0.41
43:L6:48:ARG:H	43:L6:48:ARG:HG2	2.53	0.41
45:L8:95:ASN:ND2	45:L8:98:ARG:HH12	4.88	0.41
46:L9:106:LYS:O	46:L9:109:ALA:HB2	2.20	0.41
47:M0:213:PHE:N	47:M0:214:PRO:HD3	2.35	0.41
35:SM:26:VAL:HG11	48:M1:49:LYS:HE2	3.85	0.41
50:M4:113:THR:HB	50:M4:116:GLU:CG	2.45	0.41
51:M5:19:LEU:HD12	51:M5:19:LEU:HA	1.81	0.41
51:M5:37:HIS:NE2	51:M5:63:ARG:HD2	2.34	0.41
51:M5:73:ARG:HA	51:M5:74:PRO:HD2	2.34	0.41
52:M6:81:TYR:OH	52:M6:99:LEU:HD13	2.20	0.41
53:M7:41:LEU:O	53:M7:45:GLN:HG3	2.20	0.41
55:M9:17:VAL:HG13	55:M9:18:GLY:O	4.75	0.41
55:M9:41:ILE:HD13	55:M9:41:ILE:HA	3.44	0.41
55:M9:66:HIS:O	55:M9:69:SER:HB3	3.99	0.41
55:M9:99:LEU:O	55:M9:103:ARG:HG3	4.82	0.41
56:N0:154:HIS:CE1	56:N0:170:THR:HG21	2.55	0.41
57:N1:120:LYS:C	57:N1:122:GLN:H	3.19	0.41
57:N1:68:THR:HG23	57:N1:69:LYS:N	3.44	0.41
58:N2:31:ALA:C	58:N2:33:TYR:N	2.73	0.41
60:N4:1:MET:HG3	60:N4:1:MET:O	3.77	0.41
61:N5:108:LEU:HB2	61:N5:125:ARG:O	2.81	0.41
61:N5:86:VAL:HG21	61:N5:95:ILE:HG12	2.76	0.41
63:N7:23:VAL:HG12	63:N7:45:GLY:HA3	2.01	0.41
64:N8:70:LYS:HE2	64:N8:129:PHE:CE2	2.54	0.41
36:1:958:C:H1'	64:N8:40:HIS:HA	2.02	0.41
66:O0:13:LYS:HB3	66:O0:100:ILE:CG2	3.11	0.41
70:O4:60:ARG:HH21	36:5:1616:U:H5''	142.13	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:O6:15:LYS:HG2	36:5:73:C:C2	95.90	0.41
78:Q2:70:LEU:N	78:Q2:83:LEU:O	2.75	0.41
2:S0:139:VAL:HG13	2:S0:141:ILE:HG13	2.50	0.41
3:S1:226:GLY:HA2	36:5:2536:A:H4'	256.12	0.41
5:S3:116:ARG:HG2	5:S3:120:TYR:CE2	4.86	0.41
5:S3:137:VAL:HG22	5:S3:151:LYS:HG3	3.35	0.41
6:S4:88:ASP:HA	6:S4:122:LYS:HZ1	1.85	0.41
6:S4:179:LYS:HE3	6:S4:230:GLU:OE2	2.20	0.41
7:S5:96:SER:O	7:S5:180:ARG:NH2	3.65	0.41
7:S5:28:PRO:O	7:S5:29:ILE:HB	4.35	0.41
9:S7:73:VAL:O	9:S7:75:THR:N	2.72	0.41
34:SR:150:TRP:HE3	34:SR:174:ASN:HD22	1.67	0.41
36:1:1111:U:H5''	49:M3:5:LYS:HE3	2.02	0.41
36:1:1607:U:H6	36:1:1607:U:H5'	1.86	0.41
36:1:1802:C:H2'	36:1:1803:C:C6	2.55	0.41
36:1:1932:A:H5'	36:1:1933:A:OP2	2.20	0.41
36:1:2247:G:OP1	86:1:3883:OHX:N1	2.53	0.41
36:1:2697:A:C2	36:1:2698:G:C5	3.08	0.41
36:1:2922:G:H5''	36:1:2923:U:OP2	2.20	0.41
36:1:3273:A:O2'	36:1:3274:A:H5'	2.21	0.41
36:1:3276:G:H1	69:O3:60:ARG:NH1	2.14	0.41
36:1:2258:U:OP1	86:1:3934:OHX:N5	2.53	0.41
86:1:4021:OHX:N6	86:1:4059:OHX:N5	2.69	0.41
36:1:3340:G:O6	86:1:4054:OHX:N4	2.54	0.41
36:1:621:A:H8	36:1:623:U:O4	2.03	0.41
36:1:677:A:C8	36:1:786:A:C6	3.09	0.41
1:2:1360:A:N3	1:2:1361:U:H1'	2.36	0.41
1:2:1511:U:H2'	1:2:1512:G:C8	2.56	0.41
1:2:1520:U:OP1	1:2:1520:U:H6	2.04	0.41
1:2:1781:A:H2'	1:2:1782:A:O4'	2.21	0.41
1:2:208:U:H2'	1:2:209:U:H6	1.85	0.41
1:2:72:A:C2	1:2:73:U:C4	3.08	0.41
1:2:755:A:H2'	1:2:756:A:O4'	2.21	0.41
1:2:776:G:N2	1:2:785:U:H1'	2.36	0.41
36:5:1017:C:H2'	36:5:1017:C:P	2.61	0.41
36:5:130:A:C2	36:5:139:G:C2	3.08	0.41
36:5:1419:A:H5'	38:8:20:U:O3'	2.20	0.41
36:5:1706:C:H2'	36:5:1707:A:O4'	2.21	0.41
36:5:2910:A:H5''	36:5:2910:A:H8	1.85	0.41
36:5:3063:C:H2'	36:5:3064:U:C6	2.56	0.41
36:5:3236:U:H1'	36:5:3252:G:N2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:M7:55:GLN:NE2	36:5:3299:A:O2'	163.89	0.41
40:L3:123:TYR:CD1	36:5:3315:G:H2'	181.50	0.41
1:6:1003:A:H1'	1:6:1005:A:N7	2.35	0.41
1:6:1572:G:N3	1:6:1572:G:H2'	2.36	0.41
1:6:1576:A:H2'	1:6:1577:A:O4'	2.20	0.41
1:6:1789:G:H5''	1:6:1789:G:H8	1.84	0.41
1:6:227:U:O2'	1:6:228:G:OP2	2.35	0.41
1:6:386:G:H2'	1:6:387:A:C8	2.55	0.41
1:6:570:A:H5''	1:6:571:G:OP2	2.20	0.41
37:7:24:A:H8	37:7:24:A:O5'	2.04	0.41
37:7:27:A:C2	37:7:28:C:C2	3.09	0.41
48:M1:9:MET:HG2	37:7:55:A:C4	327.43	0.41
15:C3:23:PRO:HD2	15:C3:26:PHE:HB2	2.56	0.41
16:C4:29:HIS:CD2	16:C4:41:ARG:HB2	4.30	0.41
17:C5:124:THR:HA	17:C5:125:PRO:HD2	2.10	0.41
18:C6:10:PHE:O	18:C6:87:LYS:HD3	2.72	0.41
2:S0:50:VAL:HG23	19:C7:109:LEU:HD21	3.26	0.41
21:C9:28:LEU:HD22	21:C9:30:VAL:HG13	2.01	0.41
23:D1:73:ALA:HB1	23:D1:78:LEU:HG	2.02	0.41
25:D3:102:VAL:HG12	25:D3:127:VAL:HG12	2.02	0.41
28:D6:10:ARG:CB	28:D6:34:LYS:HA	2.49	0.41
28:D6:61:GLU:O	28:D6:62:TYR:HB3	2.20	0.41
28:D6:85:ARG:O	28:D6:86:VAL:HB	2.20	0.41
28:D6:97:PRO:HA	28:D6:98:PRO:HD2	3.66	0.41
29:D7:29:ARG:HG3	29:D7:29:ARG:HH11	2.00	0.41
39:L2:5:ILE:HG12	39:L2:8:GLN:CG	2.51	0.41
40:L3:47:LEU:HD23	40:L3:164:THR:HG23	2.57	0.41
40:L3:117:ARG:CZ	40:L3:175:LYS:HG2	3.26	0.41
42:L5:290:ILE:HG12	42:L5:290:ILE:H	1.61	0.41
43:L6:165:LEU:HD23	43:L6:165:LEU:HA	1.86	0.41
43:L6:60:ASP:O	43:L6:61:ASN:HB2	2.22	0.41
36:1:1103:A:C8	44:L7:158:LYS:HD3	2.56	0.41
44:L7:203:TRP:CD1	44:L7:204:PRO:HD2	2.55	0.41
36:1:119:U:C2	45:L8:138:HIS:CE1	3.09	0.41
45:L8:24:ASN:N	45:L8:27:THR:HG1	5.56	0.41
45:L8:54:GLU:OE1	36:5:1557:A:H5''	150.00	0.41
46:L9:67:ALA:O	46:L9:71:VAL:HG23	2.20	0.41
36:1:3229:G:P	50:M4:137:LYS:HZ1	2.43	0.41
51:M5:11:GLN:HG2	51:M5:44:ARG:HH21	1.86	0.41
36:1:2383:C:H5'	52:M6:71:PHE:HE2	1.85	0.41
52:M6:57:PHE:CE2	52:M6:72:HIS:CD2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:89:SER:O	52:M6:95:GLY:HA3	2.20	0.41
54:M8:176:ARG:O	64:N8:51:GLY:N	2.73	0.41
54:M8:49:LEU:O	54:M8:49:LEU:HD22	2.19	0.41
36:1:1941:C:OP2	55:M9:74:ARG:HG2	2.21	0.41
56:N0:14:LEU:HD23	56:N0:14:LEU:HA	2.14	0.41
59:N3:80:ARG:HD3	59:N3:117:PRO:O	2.73	0.41
61:N5:105:VAL:HG12	61:N5:106:ASP:N	2.35	0.41
63:N7:115:LYS:NZ	63:N7:119:GLU:OE2	2.53	0.41
65:N9:49:GLY:HA3	36:5:1073:U:O2'	201.12	0.41
36:1:1407:A:O3'	68:O2:33:ARG:NH2	2.52	0.41
66:O0:51:LEU:HD11	70:O4:90:ILE:HG22	3.35	0.41
74:O8:65:LEU:O	74:O8:68:SER:HB2	2.21	0.41
75:O9:10:LYS:HD3	36:5:1833:G:OP1	104.80	0.41
78:Q2:32:LYS:O	78:Q2:33:ALA:HB3	4.14	0.41
3:S1:133:TYR:CZ	3:S1:181:LEU:HD12	5.08	0.41
3:S1:67:GLU:OE1	3:S1:83:LYS:HE2	4.44	0.41
3:S1:68:VAL:HB	3:S1:73:LEU:HD22	5.61	0.41
4:S2:42:GLY:HA3	4:S2:65:GLU:OE2	2.21	0.41
5:S3:31:GLU:HA	5:S3:107:PHE:CE2	2.55	0.41
5:S3:45:LYS:HE2	5:S3:45:LYS:HB2	1.81	0.41
5:S3:90:ARG:HB3	5:S3:91:VAL:H	2.66	0.41
6:S4:133:LYS:O	6:S4:134:LYS:HB2	2.21	0.41
10:S8:66:SER:HB3	10:S8:73:SER:OG	2.20	0.41
11:S9:124:HIS:CE1	11:S9:128:LEU:HD11	3.81	0.41
35:SM:57:ASN:O	35:SM:61:ILE:HG22	5.64	0.41
34:SR:158:PRO:HG2	34:SR:208:GLY:CA	4.23	0.41
34:SR:167:VAL:HG23	34:SR:183:LEU:HB2	4.69	0.41
34:SR:274:LEU:O	34:SR:276:PRO:HD3	3.90	0.41
36:1:1554:U:H4'	36:1:1555:U:O5'	2.20	0.41
36:1:1823:A:C6	36:1:1824:U:C4	3.09	0.41
36:1:1826:C:OP1	74:O8:48:SER:OG	2.36	0.41
36:1:1899:G:N7	86:1:3932:OHX:N3	2.68	0.41
36:1:2444:C:H3'	36:1:2445:A:C5'	2.50	0.41
36:1:2374:C:N4	36:1:2941:A:C4	2.89	0.41
36:1:2983:C:O2'	36:1:2984:C:H5'	2.21	0.41
36:1:3268:A:OP1	43:L6:46:ARG:NH2	2.54	0.41
36:1:3369:G:C2	60:N4:56:ARG:NH2	2.89	0.41
36:1:1650:G:O6	86:1:4140:OHX:N2	2.53	0.41
36:1:971:G:H2'	36:1:972:A:O4'	2.20	0.41
1:2:1435:G:H4'	1:2:1436:A:H5'	2.02	0.41
1:2:1533:C:H5'	20:C8:27:LYS:HD2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1585:U:H4'	18:C6:135:ARG:HG2	2.02	0.41
1:2:159:U:O4	26:D4:116:LYS:HE2	2.21	0.41
1:2:1450:U:OP2	86:2:2061:OHX:N5	2.54	0.41
1:2:252:U:H2'	1:2:253:A:H8	1.84	0.41
1:2:876:G:H2'	1:2:936:G:N2	2.35	0.41
38:4:81:U:O2	38:4:82:U:C6	2.74	0.41
36:5:1052:U:O2	37:7:103:A:O2'	2.39	0.41
36:5:1103:A:H3'	36:5:1104:G:C5'	2.47	0.41
36:5:1355:A:H4'	36:5:1356:U:O5'	2.19	0.41
36:5:1694:U:N3	36:5:1695:U:C4	2.88	0.41
36:5:1740:U:H1'	36:5:1741:A:N7	2.36	0.41
36:5:2513:U:H3	36:5:2593:A:H62	1.68	0.41
36:5:372:A:O5'	36:5:372:A:H8	2.04	0.41
36:5:561:C:H2'	36:5:562:C:H6	1.86	0.41
1:6:1079:U:H2'	1:6:1080:U:O4'	2.21	0.41
35:SM:83:LYS:CE	1:6:1178:G:H4'	338.32	0.41
1:6:1273:G:H4'	1:6:1274:C:H5''	2.02	0.41
1:6:1275:A:C5	1:6:1438:G:C2	3.09	0.41
1:6:731:C:O5'	1:6:731:C:H6	2.04	0.41
9:S7:107:ARG:HH22	1:6:741:C:H2'	345.31	0.41
36:5:997:A:H4'	37:7:80:G:H5'	2.03	0.41
13:C1:19:ILE:HD13	86:6:2123:OHX:N3	294.32	0.41
14:C2:132:GLU:O	14:C2:136:ILE:HD13	3.64	0.41
14:C2:27:ALA:O	14:C2:31:VAL:HG23	2.19	0.41
17:C5:129:GLY:O	17:C5:130:ARG:HB2	2.43	0.41
17:C5:15:HIS:H	17:C5:22:LEU:HD22	5.15	0.41
18:C6:25:GLY:H	18:C6:63:ILE:HA	1.86	0.41
18:C6:47:LYS:NZ	18:C6:82:ARG:NH2	2.69	0.41
21:C9:53:TRP:CH2	21:C9:100:ILE:HD12	2.55	0.41
1:2:1476:C:H5''	21:C9:44:GLU:OE1	2.21	0.41
22:D0:27:THR:O	22:D0:113:ASP:HB3	2.84	0.41
22:D0:72:ASN:OD1	22:D0:72:ASN:N	2.51	0.41
25:D3:102:VAL:HB	25:D3:124:VAL:HG13	2.02	0.41
27:D5:44:GLN:HA	27:D5:47:TYR:HB3	3.03	0.41
28:D6:41:ILE:O	28:D6:42:ARG:HG3	2.39	0.41
32:E0:18:THR:HA	32:E0:19:PRO:HD2	1.72	0.41
41:L4:49:ALA:HA	41:L4:109:TRP:CZ2	2.56	0.41
42:L5:33:ARG:HD2	37:7:7:G:OP1	270.97	0.41
43:L6:166:LYS:N	43:L6:169:ASP:OD2	2.62	0.41
44:L7:89:ILE:HD12	44:L7:89:ILE:HG23	1.85	0.41
46:L9:20:ILE:CG2	46:L9:25:VAL:HG22	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:M0:9:TYR:HB3	47:M0:97:LEU:HD13	2.40	0.41
51:M5:178:HIS:HD1	51:M5:178:HIS:H	2.16	0.41
51:M5:35:VAL:O	51:M5:64:VAL:HA	2.21	0.41
40:L3:261:MET:HG2	52:M6:64:PHE:CB	2.83	0.41
56:N0:132:THR:O	56:N0:133:ALA:HB3	2.23	0.41
59:N3:54:LEU:HD11	59:N3:79:VAL:O	2.20	0.41
63:N7:122:HIS:O	63:N7:125:GLY:HA2	2.20	0.41
64:N8:128:ARG:O	64:N8:129:PHE:CG	3.30	0.41
68:O2:4:LEU:HD12	68:O2:4:LEU:HA	1.85	0.41
70:O4:25:THR:OG1	70:O4:29:ILE:HD13	2.21	0.41
72:O6:11:LEU:HA	72:O6:11:LEU:HD13	1.72	0.41
75:O9:9:ILE:HA	75:O9:9:ILE:HD13	1.77	0.41
76:Q0:89:TYR:N	76:Q0:89:TYR:CD2	3.25	0.41
79:Q3:13:LYS:HE3	79:Q3:14:TYR:CE2	2.56	0.41
2:S0:53:THR:OG1	2:S0:161:PRO:HG2	2.20	0.41
3:S1:145:LYS:HG2	3:S1:149:GLN:HB3	3.88	0.41
3:S1:32:ILE:HB	3:S1:43:VAL:HB	2.63	0.41
3:S1:81:PHE:HB2	3:S1:82:ARG:H	1.71	0.41
4:S2:114:GLY:HA3	4:S2:132:ALA:HB2	2.02	0.41
4:S2:68:ILE:HG23	4:S2:72:LEU:HD22	2.01	0.41
4:S2:76:LEU:HD12	4:S2:76:LEU:HA	1.83	0.41
8:S6:55:GLY:N	8:S6:63:MET:HG3	2.34	0.41
9:S7:91:ILE:HD12	9:S7:91:ILE:HA	1.91	0.41
10:S8:73:SER:O	10:S8:74:LYS:HD2	2.58	0.41
11:S9:172:VAL:HG13	1:6:512:A:OP2	453.87	0.41
34:SR:134:TRP:CZ3	34:SR:140:CYS:HB2	2.60	0.41
34:SR:201:THR:CB	34:SR:242:SER:HA	2.51	0.41
36:1:147:U:OP2	45:L8:136:LEU:N	2.52	0.41
36:1:1501:U:O2'	36:1:1502:C:H5'	2.21	0.41
36:1:237:G:H2'	36:1:238:A:O4'	2.20	0.41
36:1:2713:U:H3'	78:Q2:9:LYS:O	2.21	0.41
36:1:2771:U:O2'	36:1:2772:C:O4'	2.37	0.41
36:1:304:G:N3	36:1:304:G:H2'	2.35	0.41
36:1:3393:U:H2'	36:1:3394:U:H6	1.83	0.41
86:1:4030:OHX:N6	86:1:4149:OHX:N5	2.68	0.41
86:1:3962:OHX:N5	86:1:4142:OHX:N3	2.69	0.41
36:1:439:C:C4	36:1:440:A:C6	3.09	0.41
36:1:726:G:H1'	36:1:744:A:N6	2.36	0.41
1:2:1277:G:O6	1:2:1278:G:C2	2.74	0.41
1:2:1144:U:O2'	1:2:1301:U:H4'	2.20	0.41
1:2:1635:A:O5'	1:2:1635:A:H8	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1657:U:C4	86:2:2088:OHX:N4	2.89	0.41
1:2:53:G:H2'	1:2:54:C:O4'	2.21	0.41
37:3:63:A:C2	37:3:65:G:C5	3.09	0.41
37:3:92:A:C5	37:3:93:C:H1'	2.55	0.41
42:L5:15:ARG:NH1	36:5:1003:A:H1'	289.44	0.41
36:5:1578:C:H2'	36:5:1579:C:C6	2.55	0.41
70:O4:59:PRO:HB3	36:5:1654:A:N3	165.19	0.41
55:M9:60:LYS:NZ	36:5:1671:C:OP1	168.54	0.41
36:5:1690:C:H2'	36:5:1691:U:O4'	2.21	0.41
36:5:2390:A:C2	36:5:2990:G:C2	3.09	0.41
36:5:2590:A:C5	36:5:2591:A:C8	3.09	0.41
36:5:2686:A:H2'	36:5:2687:G:O4'	2.20	0.41
36:5:3034:C:H2'	36:5:3035:A:H8	1.85	0.41
36:5:766:U:H4'	36:5:767:U:O5'	2.21	0.41
36:5:913:A:H2	36:5:2134:G:N3	2.18	0.41
1:6:1076:A:H2'	1:6:1077:C:O4'	2.21	0.41
1:6:1390:U:HO2'	1:6:1391:A:H8	1.62	0.41
1:6:1394:G:O2'	1:6:1395:G:H5'	2.20	0.41
1:6:15:U:C4	1:6:16:G:C5	3.08	0.41
1:6:1684:U:H2'	1:6:1685:G:C8	2.56	0.41
1:6:192:U:HO2'	1:6:193:U:P	2.43	0.41
87:6:2202:EDE:H36	87:6:2202:EDE:H151	2.02	0.41
1:6:142:G:C4	1:6:266:A:C6	3.09	0.41
1:6:542:A:H1'	1:6:543:C:P	2.59	0.41
1:6:909:U:H6	1:6:909:U:O5'	2.04	0.41
37:7:27:A:H2'	37:7:28:C:O4'	2.20	0.41
13:C1:34:TRP:CH2	13:C1:36:LYS:HD3	2.61	0.41
15:C3:28:LEU:HB3	15:C3:29:SER:H	1.54	0.41
16:C4:56:SER:HA	16:C4:57:PRO:HD3	2.00	0.41
18:C6:95:LYS:HE3	18:C6:96:TYR:CZ	2.61	0.41
19:C7:23:LYS:O	19:C7:24:LEU:HB2	2.21	0.41
21:C9:105:LEU:HD23	21:C9:105:LEU:HA	1.91	0.41
21:C9:6:VAL:HB	21:C9:14:PHE:CE1	2.56	0.41
22:D0:104:THR:CG2	22:D0:116:VAL:HG21	2.50	0.41
22:D0:104:THR:HG21	22:D0:116:VAL:HG21	2.02	0.41
22:D0:63:LEU:HD13	31:D9:34:TYR:CE1	3.65	0.41
22:D0:18:GLN:O	22:D0:96:PRO:HA	2.21	0.41
24:D2:126:LEU:HA	24:D2:126:LEU:HD23	1.89	0.41
28:D6:64:LEU:HA	28:D6:65:PRO:HD2	2.62	0.41
28:D6:81:ALA:HB3	28:D6:83:ILE:HG12	8.68	0.41
28:D6:84:VAL:HG22	28:D6:85:ARG:C	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:L2:129:ALA:O	39:L2:130:SER:C	2.78	0.41
39:L2:112:ILE:HG12	39:L2:135:ILE:HG12	2.03	0.41
39:L2:23:ARG:C	39:L2:24:GLN:O	3.99	0.41
40:L3:10:ARG:NH2	40:L3:14:LEU:HD21	2.79	0.41
40:L3:332:ARG:NH1	40:L3:332:ARG:HG2	2.30	0.41
40:L3:36:ASP:OD1	40:L3:38:SER:OG	2.40	0.41
40:L3:37:ARG:HG2	40:L3:187:SER:N	2.35	0.41
43:L6:100:LYS:HE2	43:L6:105:TYR:HE2	2.58	0.41
44:L7:116:PHE:HB2	44:L7:199:ASN:OD1	2.26	0.41
44:L7:24:GLU:HB2	44:L7:25:GLN:H	1.69	0.41
45:L8:133:LYS:HD2	45:L8:138:HIS:HE1	1.84	0.41
46:L9:170:LYS:HD3	46:L9:170:LYS:HA	1.83	0.41
47:M0:173:PHE:O	47:M0:174:THR:C	3.41	0.41
50:M4:59:ASN:O	50:M4:62:GLN:HG2	4.59	0.41
52:M6:102:LEU:HD12	52:M6:103:LYS:N	2.36	0.41
52:M6:68:ARG:HG2	52:M6:68:ARG:H	1.52	0.41
53:M7:178:ALA:O	53:M7:182:ILE:N	2.44	0.41
53:M7:27:LYS:HG2	53:M7:63:PHE:CG	3.02	0.41
54:M8:23:ASN:O	54:M8:26:LEU:N	2.53	0.41
56:N0:101:ALA:O	56:N0:105:THR:HG23	2.21	0.41
56:N0:138:GLN:C	56:N0:140:VAL:N	2.74	0.41
56:N0:18:SER:OG	56:N0:19:VAL:HG23	2.21	0.41
58:N2:79:LEU:O	58:N2:82:LYS:HB3	2.20	0.41
61:N5:82:LEU:HD12	61:N5:126:LEU:HD21	2.02	0.41
62:N6:33:ALA:N	62:N6:48:LEU:O	2.75	0.41
62:N6:83:ASP:O	62:N6:84:LYS:CB	2.75	0.41
66:O0:53:LYS:NZ	66:O0:69:TYR:HE2	4.30	0.41
69:O3:15:SER:HB3	69:O3:29:LEU:HD12	2.14	0.41
61:N5:50:ALA:HB1	71:O5:66:VAL:HG11	2.79	0.41
71:O5:84:LYS:HB3	71:O5:85:THR:H	1.47	0.41
2:S0:103:THR:HA	2:S0:104:PRO:HD3	1.73	0.41
2:S0:13:ASP:OD1	2:S0:179:ARG:NH2	2.94	0.41
2:S0:50:VAL:HG23	2:S0:50:VAL:H	2.55	0.41
3:S1:126:THR:HA	3:S1:136:ARG:HA	2.51	0.41
5:S3:192:PRO:O	5:S3:195:SER:HB2	2.21	0.41
7:S5:135:ASP:O	7:S5:138:THR:OG1	2.35	0.41
8:S6:207:GLU:HA	8:S6:210:GLN:OE1	2.20	0.41
9:S7:17:GLU:HG2	9:S7:43:PHE:HE1	2.59	0.41
9:S7:36:ALA:O	9:S7:40:PRO:HD3	2.20	0.41
9:S7:51:VAL:HG23	9:S7:53:GLY:H	2.33	0.41
34:SR:112:SER:CB	34:SR:153:GLN:HA	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:SR:187:GLN:HG2	34:SR:188:ILE:N	4.19	0.41
36:1:1369:A:H2'	36:1:1370:G:O4'	2.20	0.41
36:1:1408:G:OP2	68:O2:31:ASN:ND2	2.52	0.41
36:1:1576:G:N7	36:1:1577:G:C5	2.89	0.41
36:1:1668:G:C5	36:1:1669:C:C5	3.08	0.41
36:1:1751:G:OP1	74:O8:26:LYS:NZ	2.41	0.41
36:1:2206:G:N2	36:1:2207:A:C8	2.89	0.41
36:1:224:C:O2	62:N6:103:LYS:NZ	2.54	0.41
36:1:420:G:O2'	36:1:2384:A:N3	2.41	0.41
36:1:2653:C:O2'	36:1:2654:C:H5'	2.20	0.41
36:1:283:G:O6	36:1:304:G:H1'	2.20	0.41
36:1:3027:A:H2'	36:1:3028:G:O4'	2.21	0.41
36:1:371:G:H4'	36:1:396:A:N1	2.36	0.41
86:1:4086:OHX:N2	86:1:4157:OHX:N1	2.69	0.41
36:1:727:G:H2'	36:1:728:G:O4'	2.21	0.41
36:1:810:A:H2'	36:1:811:U:C6	2.56	0.41
36:1:915:A:H8	36:1:2136:C:HO2'	1.69	0.41
1:2:1049:U:H2'	1:2:1050:G:C8	2.55	0.41
1:2:1165:G:C6	1:2:1166:A:N6	2.89	0.41
1:2:1362:U:H2'	1:2:1362:U:H6	1.74	0.41
1:2:1354:G:C2	1:2:1372:U:C4	3.08	0.41
1:2:1541:G:C6	1:2:1542:G:N1	2.89	0.41
1:2:1657:U:C5	86:2:2088:OHX:N2	2.89	0.41
1:2:179:A:H2'	1:2:180:A:O4'	2.20	0.41
1:2:647:G:N2	1:2:688:G:C4	2.89	0.41
37:3:90:U:C4	37:3:91:G:C5	3.08	0.41
36:5:1251:A:H2'	36:5:1252:A:O4'	2.21	0.41
36:5:1202:A:N6	36:5:1301:A:C4	2.89	0.41
36:5:1396:C:H2'	36:5:1397:C:C6	2.56	0.41
36:5:1497:C:H2'	36:5:1498:A:H8	1.86	0.41
36:5:2665:U:H4'	36:5:2666:C:OP1	2.21	0.41
36:5:2949:U:C5	36:5:2950:G:C6	3.09	0.41
36:5:340:C:C4	36:5:341:G:C6	3.09	0.41
36:5:2560:C:O2	86:5:4033:OHX:N2	2.53	0.41
36:5:535:G:C2	36:5:555:U:C2	3.09	0.41
36:5:721:G:C2	36:5:722:G:C8	3.08	0.41
1:6:1474:G:H2'	1:6:1475:A:C8	2.56	0.41
1:6:149:C:H2'	1:6:150:U:C6	2.55	0.41
1:6:1561:U:H2'	1:6:1562:G:H8	1.86	0.41
1:6:1773:C:H2'	1:6:1774:G:H8	1.86	0.41
8:S6:96:SER:OG	1:6:420:A:OP1	295.82	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:515:A:H2'	1:6:516:G:O4'	2.20	0.41
38:8:104:A:H3'	38:8:105:A:H5''	2.02	0.41
13:C1:38:ALA:HB2	13:C1:60:PHE:CD1	3.71	0.41
15:C3:127:ARG:HH11	15:C3:127:ARG:HG2	1.85	0.41
15:C3:33:VAL:HG21	15:C3:66:ILE:HG12	2.01	0.41
16:C4:13:VAL:HG21	16:C4:75:GLY:O	3.09	0.41
18:C6:55:VAL:HG11	18:C6:89:LEU:CD2	3.01	0.41
25:D3:132:LEU:HD23	25:D3:132:LEU:HA	3.87	0.41
16:C4:128:LYS:HD3	28:D6:27:SER:OG	3.85	0.41
28:D6:46:GLU:HG3	28:D6:47:ALA:N	2.67	0.41
30:D8:20:GLY:O	30:D8:23:GLY:N	2.53	0.41
30:D8:15:VAL:HA	30:D8:28:VAL:HG22	2.03	0.41
32:E0:47:VAL:HG13	32:E0:48:THR:N	2.35	0.41
33:E1:108:VAL:HA	33:E1:113:LYS:O	2.20	0.41
33:E1:126:CYS:CB	33:E1:130:VAL:HG21	3.32	0.41
39:L2:126:LEU:HD13	39:L2:150:LEU:HD21	2.03	0.41
41:L4:184:SER:HB2	41:L4:202:ARG:HG2	2.21	0.41
42:L5:258:LYS:O	42:L5:258:LYS:HG2	4.69	0.41
43:L6:40:LEU:HB3	43:L6:84:VAL:CG1	3.61	0.41
41:L4:328:ASN:HB2	44:L7:182:ASP:OD1	2.46	0.41
45:L8:202:GLU:OE1	45:L8:202:GLU:HA	2.21	0.41
46:L9:25:VAL:O	46:L9:35:THR:HA	2.20	0.41
46:L9:5:GLN:C	46:L9:6:THR:HG22	2.86	0.41
47:M0:150:GLU:OE2	47:M0:150:GLU:HA	2.20	0.41
47:M0:208:ASN:CB	47:M0:211:ARG:HD2	2.51	0.41
36:1:685:G:P	49:M3:35:ARG:NH1	2.94	0.41
49:M3:80:VAL:HG12	49:M3:85:LEU:O	2.26	0.41
53:M7:116:HIS:O	53:M7:148:LEU:HA	2.20	0.41
44:L7:110:ARG:NH2	54:M8:3:ILE:HD11	2.35	0.41
54:M8:51:ALA:HA	54:M8:54:LEU:HD12	2.01	0.41
55:M9:104:ARG:HE	55:M9:105:LEU:N	2.19	0.41
56:N0:87:THR:C	56:N0:88:HIS:CG	2.94	0.41
36:1:2722:U:O2'	57:N1:88:ARG:O	2.37	0.41
58:N2:74:LYS:HA	58:N2:74:LYS:HD2	4.56	0.41
63:N7:12:VAL:HB	63:N7:81:LEU:HB3	3.52	0.41
64:N8:82:ILE:HA	64:N8:83:PRO:HD3	2.15	0.41
66:O0:50:VAL:HB	36:5:2553:U:O4'	229.80	0.41
71:O5:73:LYS:HB3	71:O5:73:LYS:HE2	1.79	0.41
79:Q3:27:LYS:HG2	79:Q3:31:ILE:HD11	2.03	0.41
2:S0:101:ARG:HG3	2:S0:102:PHE:N	2.38	0.41
3:S1:83:LYS:N	3:S1:104:ASP:O	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:S2:41:LEU:HA	4:S2:41:LEU:HD22	1.70	0.41
6:S4:130:GLN:HB3	6:S4:138:TYR:CZ	4.20	0.41
6:S4:163:ASP:HB3	6:S4:166:SER:O	2.20	0.41
6:S4:89:VAL:O	6:S4:99:PHE:O	4.75	0.41
8:S6:176:GLN:HG3	8:S6:177:ARG:H	1.97	0.41
8:S6:216:LEU:HD23	8:S6:216:LEU:HA	2.37	0.41
9:S7:14:THR:HG23	9:S7:17:GLU:H	1.86	0.41
10:S8:106:ALA:HB2	10:S8:165:LEU:HG	2.12	0.41
10:S8:2:GLY:O	10:S8:24:LYS:NZ	3.11	0.41
10:S8:35:ASN:HB3	10:S8:37:LYS:NZ	4.85	0.41
34:SR:171:SER:CB	34:SR:181:TRP:HE1	3.31	0.41
34:SR:269:TYR:HE2	34:SR:271:VAL:HG22	3.25	0.41
36:1:1308:A:H8	36:1:1308:A:OP2	2.01	0.41
36:1:1317:A:C2	36:1:1319:G:C6	3.09	0.41
36:1:1321:G:C6	36:1:1322:U:C4	3.09	0.41
36:1:1426:C:H4'	41:L4:40:THR:HB	2.03	0.41
36:1:1939:G:C6	36:1:1940:G:C5	3.09	0.41
36:1:2808:A:C5	36:1:2955:U:H4'	2.56	0.41
36:1:2913:C:H2'	36:1:2914:G:C8	2.54	0.41
36:1:3075:G:H5''	67:O1:62:ARG:O	2.20	0.41
36:1:3159:C:H2'	36:1:3160:U:H6	1.85	0.41
36:1:270:U:O2'	36:1:318:A:H1'	2.21	0.41
86:1:4086:OHX:N5	86:1:4157:OHX:N1	2.69	0.41
36:1:619:A:H4'	36:1:620:U:O4'	2.20	0.41
1:2:1297:G:N2	1:2:1300:A:OP2	2.49	0.41
1:2:577:G:O6	35:SM:100:THR:O	2.38	0.41
36:5:1034:U:H2'	36:5:1035:G:O4'	2.21	0.41
36:5:1867:A:H2'	36:5:1868:G:C8	2.56	0.41
36:5:2733:A:H2'	36:5:2734:A:O4'	2.21	0.41
36:5:3165:A:H61	36:5:3285:C:H42	1.69	0.41
36:5:3336:A:H2'	36:5:3337:G:C8	2.56	0.41
1:6:1029:U:O2'	1:6:1030:A:H5'	2.21	0.41
1:6:1282:U:OP1	86:6:2135:OHX:N4	2.54	0.41
1:6:1357:A:H2'	1:6:1358:G:H8	1.86	0.41
1:6:328:A:H2'	1:6:329:G:C8	2.55	0.41
1:6:330:G:C6	1:6:331:A:C5	3.09	0.41
1:6:373:G:N7	86:6:2183:OHX:N3	2.68	0.41
1:6:658:C:N4	1:6:674:C:C2	2.89	0.41
1:6:729:G:O2'	1:6:730:G:O5'	2.34	0.41
1:6:819:G:O2'	1:6:821:U:OP2	2.39	0.41
12:C0:46:LEU:O	12:C0:50:THR:N	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C3:17:PRO:HG3	1:6:959:U:C2	354.10	0.41
15:C3:3:ARG:HB2	15:C3:6:SER:O	4.40	0.41
16:C4:136:ARG:H	16:C4:136:ARG:HG2	1.68	0.41
17:C5:60:LEU:HA	17:C5:60:LEU:HD23	3.26	0.41
18:C6:57:LEU:H	18:C6:57:LEU:HD12	4.38	0.41
19:C7:20:TYR:CG	19:C7:38:ILE:HD11	2.56	0.41
23:D1:2:GLU:HG3	23:D1:2:GLU:H	1.70	0.41
24:D2:103:ILE:HB	24:D2:112:ASP:HA	2.86	0.41
26:D4:52:LYS:O	26:D4:55:VAL:HG13	5.36	0.41
30:D8:32:PHE:HZ	30:D8:38:ARG:CZ	2.34	0.41
39:L2:136:ILE:HA	39:L2:148:VAL:HG12	2.02	0.41
39:L2:182:ALA:HB2	36:5:2148:U:O2'	211.26	0.41
39:L2:18:SER:O	39:L2:20:THR:HG23	6.23	0.41
40:L3:169:THR:HG23	40:L3:170:PRO:HD2	2.02	0.41
40:L3:188:ILE:O	40:L3:191:LYS:HB2	2.21	0.41
41:L4:219:LEU:O	41:L4:222:VAL:HG13	2.21	0.41
41:L4:232:SER:OG	41:L4:233:LEU:N	2.51	0.41
41:L4:23:PRO:O	41:L4:25:VAL:N	2.51	0.41
42:L5:102:GLY:O	42:L5:105:ILE:HG22	2.28	0.41
42:L5:118:THR:HG22	42:L5:118:THR:H	1.74	0.41
43:L6:130:ILE:CG2	43:L6:135:VAL:HG23	2.51	0.41
44:L7:126:LEU:HA	44:L7:126:LEU:HD23	1.91	0.41
44:L7:131:GLU:HG3	44:L7:230:GLY:HA2	4.09	0.41
44:L7:118:LYS:HG3	44:L7:191:VAL:HG11	2.01	0.41
44:L7:132:PRO:HA	44:L7:229:PHE:CG	2.56	0.41
44:L7:95:ILE:HA	44:L7:96:PRO:HD3	1.90	0.41
46:L9:176:LEU:CD1	76:Q0:83:LYS:HG3	3.46	0.41
48:M1:21:ILE:HG21	48:M1:33:ALA:HB1	2.02	0.41
49:M3:46:ILE:HA	49:M3:46:ILE:HD13	1.84	0.41
49:M3:57:VAL:HG13	49:M3:147:ILE:HG23	2.03	0.41
50:M4:37:GLU:CG	50:M4:38:ILE:H	2.34	0.41
51:M5:144:ARG:O	51:M5:145:ASP:C	2.57	0.41
51:M5:6:TYR:O	51:M5:10:LEU:HB2	2.48	0.41
52:M6:23:VAL:HG11	52:M6:84:LEU:HD11	2.19	0.41
55:M9:32:ILE:HA	55:M9:44:LEU:HD21	2.03	0.41
56:N0:7:TYR:CE1	56:N0:34:GLU:HG2	2.57	0.41
42:L5:17:GLN:HE22	57:N1:22:HIS:H	3.56	0.41
58:N2:29:ASP:HA	58:N2:30:PRO:HD3	1.89	0.41
60:N4:6:ASP:HB3	60:N4:11:ALA:H	2.01	0.41
61:N5:105:VAL:CG1	61:N5:126:LEU:HD22	2.55	0.41
63:N7:4:PHE:HB2	63:N7:9:LYS:NZ	3.31	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:N8:28:HIS:CD2	64:N8:32:ARG:HG2	2.56	0.41
68:O2:21:HIS:CE1	68:O2:24:ARG:HD2	2.61	0.41
70:O4:10:ARG:O	36:5:1488:G:O2'	138.96	0.41
74:O8:33:LYS:HD3	74:O8:33:LYS:HA	1.80	0.41
76:Q0:114:LYS:HG2	76:Q0:115:CYS:N	2.53	0.41
76:Q0:77:ILE:HG22	76:Q0:78:ILE:H	1.85	0.41
79:Q3:10:ILE:HD13	79:Q3:30:GLU:OE1	2.20	0.41
79:Q3:27:LYS:O	79:Q3:31:ILE:HG13	2.27	0.41
2:S0:125:ASP:HA	2:S0:126:PRO:HD2	1.97	0.41
3:S1:125:VAL:HG21	3:S1:173:THR:HG22	2.02	0.41
4:S2:188:LEU:HA	4:S2:188:LEU:HD23	1.87	0.41
4:S2:69:ILE:HD11	4:S2:133:LYS:HB3	2.02	0.41
5:S3:72:LEU:HD22	12:C0:65:TYR:CD1	2.86	0.41
7:S5:128:ASN:O	7:S5:132:VAL:HG23	3.68	0.41
7:S5:163:SER:HB2	30:D8:48:VAL:CG2	2.94	0.41
9:S7:16:LEU:HD11	9:S7:48:GLU:OE2	3.85	0.41
11:S9:110:GLN:CD	11:S9:126:ARG:HG2	2.59	0.41
35:SM:58:GLU:O	35:SM:62:ARG:HB2	2.54	0.41
34:SR:195:HIS:CD2	34:SR:199:ILE:HD13	2.56	0.41
34:SR:245:PHE:CD1	34:SR:252:LEU:HD13	2.55	0.41
36:1:1391:C:N1	68:O2:103:LYS:HD3	2.36	0.41
36:1:1510:G:O5'	36:1:1510:G:H8	2.04	0.41
36:1:1533:U:C2'	36:1:1534:A:H5'	2.50	0.41
36:1:1682:U:H4'	36:1:1684:U:O4	2.20	0.41
36:1:1721:U:O4	55:M9:128:LYS:HD2	2.21	0.41
36:1:2105:G:O2'	36:1:2106:A:H5'	2.21	0.41
36:1:2118:C:H2'	36:1:2119:A:O4'	2.21	0.41
36:1:2185:G:H2'	36:1:2186:U:H6	1.85	0.41
36:1:2419:A:H2'	36:1:2420:C:C6	2.55	0.41
36:1:2718:U:H2'	36:1:2719:U:C6	2.56	0.41
36:1:3049:A:N3	40:L3:55:THR:HG23	2.36	0.41
36:1:3139:A:C5'	36:1:3139:A:H8	2.32	0.41
36:1:317:A:C2	36:1:318:A:C4	3.09	0.41
36:1:3310:A:H2'	36:1:3311:C:H5'	2.03	0.41
36:1:409:A:OP2	86:1:4058:OHX:N5	2.53	0.41
36:1:505:G:H2'	36:1:506:U:O4'	2.21	0.41
36:1:539:C:H2'	36:1:540:U:H6	1.86	0.41
36:1:629:U:H2'	36:1:630:A:C8	2.55	0.41
1:2:1244:A:HO2'	1:2:1245:G:P	2.43	0.41
1:2:1250:U:O2'	1:2:1251:U:OP1	2.35	0.41
1:2:1285:U:H5	86:2:2114:OHX:N4	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:1346:A:O2'	1:2:1371:A:N6	2.54	0.41
1:2:1657:U:C2	86:2:2088:OHX:N1	2.88	0.41
86:2:2074:OHX:N6	86:2:2161:OHX:N5	2.68	0.41
38:4:127:U:C2'	38:4:128:U:H5'	2.50	0.41
38:4:140:G:H2'	38:4:141:C:O4'	2.20	0.41
36:5:1270:A:C6	36:5:1271:A:C6	3.09	0.41
36:5:1812:G:H5''	36:5:1813:A:OP2	2.21	0.41
36:5:2265:C:H2'	36:5:2266:U:O4'	2.21	0.41
36:5:2770:G:N7	86:5:4157:OHX:N5	2.69	0.41
36:5:2829:U:H5''	36:5:2830:G:OP2	2.21	0.41
36:5:2960:C:H2'	36:5:2961:G:H8	1.84	0.41
36:5:3351:U:H3'	36:5:3351:U:O2	2.19	0.41
1:6:1230:A:H2'	1:6:1258:U:C5	2.56	0.41
1:6:1376:C:O2'	1:6:1377:U:H5'	2.21	0.41
17:C5:39:ALA:HB2	1:6:1549:C:O5'	384.07	0.41
28:D6:5:ARG:NH1	1:6:1795:U:H3'	337.86	0.41
86:6:2123:OHX:N6	86:6:2147:OHX:N3	2.69	0.41
1:6:507:U:H2'	1:6:508:U:O4'	2.20	0.41
1:6:625:C:H2'	1:6:626:U:C6	2.55	0.41
12:C0:12:HIS:NE2	12:C0:49:LEU:HD21	2.36	0.41
14:C2:74:LEU:HD11	33:E1:106:TYR:CD1	2.56	0.41
15:C3:54:LEU:HB3	15:C3:60:VAL:HG21	2.02	0.41
18:C6:30:LYS:HZ1	1:6:1366:U:H5'	423.56	0.41
18:C6:39:VAL:HB	18:C6:45:ARG:HD3	2.02	0.41
20:C8:108:LYS:HA	20:C8:108:LYS:HD2	1.68	0.41
20:C8:113:LEU:O	20:C8:117:LYS:HG3	2.21	0.41
21:C9:61:VAL:O	21:C9:65:ILE:HG13	2.21	0.41
1:2:687:G:H5'	24:D2:119:LYS:HG2	2.02	0.41
24:D2:31:SER:O	24:D2:34:ILE:HB	2.70	0.41
25:D3:133:LEU:HA	25:D3:133:LEU:HD23	3.16	0.41
26:D4:60:PHE:HB2	1:6:522:U:O3'	414.83	0.41
27:D5:69:LEU:HA	27:D5:69:LEU:HD22	1.87	0.41
28:D6:35:ALA:O	28:D6:36:ILE:HG22	2.21	0.41
28:D6:41:ILE:H	28:D6:41:ILE:HG12	1.75	0.41
33:E1:144:CYS:HB3	33:E1:147:VAL:CG1	2.48	0.41
39:L2:45:VAL:CG2	39:L2:84:THR:HA	2.46	0.41
41:L4:182:LEU:C	41:L4:184:SER:H	2.24	0.41
36:1:933:A:C6	41:L4:98:ARG:HD2	2.56	0.41
42:L5:113:LEU:HD12	42:L5:113:LEU:HA	1.82	0.41
42:L5:279:LYS:HG2	42:L5:282:ARG:NH1	2.36	0.41
36:1:3215:A:H1'	43:L6:161:ALA:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:L8:78:PHE:O	45:L8:79:GLN:HB3	2.38	0.41
47:M0:140:THR:OG1	47:M0:148:VAL:HG21	2.76	0.41
47:M0:15:LYS:HG3	47:M0:15:LYS:H	1.73	0.41
47:M0:88:ARG:NH1	47:M0:173:PHE:CD2	3.33	0.41
50:M4:47:ASP:O	50:M4:49:PRO:HD3	3.47	0.41
52:M6:108:ILE:HA	52:M6:109:PRO:HD2	2.27	0.41
52:M6:88:VAL:CG1	52:M6:89:SER:H	3.21	0.41
53:M7:116:HIS:NE2	53:M7:147:GLU:OE2	2.41	0.41
55:M9:55:VAL:HG22	55:M9:55:VAL:H	1.54	0.41
56:N0:14:LEU:HA	56:N0:15:PRO:HD3	1.97	0.41
62:N6:109:LEU:HA	62:N6:109:LEU:HD23	1.96	0.41
62:N6:45:ILE:HD13	62:N6:45:ILE:HG21	1.92	0.41
62:N6:76:LEU:HD22	62:N6:76:LEU:O	2.56	0.41
63:N7:25:ILE:HG13	63:N7:43:VAL:HG12	2.02	0.41
64:N8:74:ASN:OD1	64:N8:113:LEU:HB2	2.20	0.41
65:N9:51:ALA:O	65:N9:54:LEU:N	2.82	0.41
68:O2:8:LYS:HE3	68:O2:8:LYS:HB2	1.59	0.41
70:O4:22:VAL:HG22	70:O4:30:LEU:HD13	4.71	0.41
70:O4:43:LYS:O	36:5:1653:G:H4'	185.39	0.41
70:O4:81:CYS:O	70:O4:82:ALA:HB3	2.21	0.41
78:Q2:73:GLU:CD	78:Q2:80:ARG:HH21	2.17	0.41
2:S0:27:ARG:HG3	2:S0:44:GLY:O	2.20	0.41
2:S0:32:HIS:O	2:S0:32:HIS:ND1	2.52	0.41
2:S0:41:ARG:NE	2:S0:45:VAL:HB	2.33	0.41
3:S1:109:LYS:O	3:S1:113:MET:HG3	2.21	0.41
4:S2:177:GLY:O	4:S2:195:ASP:HA	2.21	0.41
6:S4:244:ILE:HA	6:S4:244:ILE:HD12	2.90	0.41
7:S5:136:ALA:HB3	7:S5:198:LEU:HD23	2.03	0.41
8:S6:122:GLU:O	8:S6:126:ASP:HB3	2.35	0.41
8:S6:137:ARG:HD3	8:S6:177:ARG:NE	3.04	0.41
9:S7:149:ILE:HG12	9:S7:180:GLN:HB3	2.02	0.41
9:S7:39:ARG:HH22	55:M9:185:LEU:CA	2.32	0.41
10:S8:196:LEU:HD23	10:S8:196:LEU:HA	4.33	0.41
34:SR:109:ASP:OD2	34:SR:127:ARG:NH1	2.55	0.41
36:1:1004:U:C4	36:1:1005:G:N7	2.89	0.41
36:1:1716:U:O2'	36:1:1717:U:O5'	2.38	0.41
36:1:1769:G:H5'	36:1:1770:G:P	2.61	0.41
36:1:1823:A:H2'	36:1:1824:U:C6	2.56	0.41
36:1:2367:A:H2'	36:1:2368:A:O4'	2.21	0.41
36:1:239:G:HO2'	36:1:240:U:P	2.42	0.41
36:1:2710:C:H2'	36:1:2711:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:3055:U:H1'	36:1:3057:U:OP2	2.20	0.41
36:1:3174:A:H2'	36:1:3175:U:H5'	2.03	0.41
86:1:3977:OHX:N1	86:1:4158:OHX:N2	2.69	0.41
36:1:661:G:OP2	64:N8:12:ARG:NH2	2.54	0.41
36:1:799:G:H2'	36:1:801:A:N7	2.35	0.41
36:1:802:C:O2'	36:1:803:C:H5'	2.20	0.41
36:1:915:A:H8	36:1:2136:C:O2'	2.04	0.41
1:2:1146:G:C6	1:2:1147:A:C6	3.09	0.41
1:2:1180:C:HO2'	17:C5:128:HIS:CE1	2.38	0.41
1:2:142:G:C5	1:2:266:A:C6	3.09	0.41
1:2:1552:U:H2'	1:2:1553:G:O4'	2.21	0.41
86:2:2082:OHX:N6	86:2:2084:OHX:N5	2.69	0.41
86:2:2095:OHX:N1	86:2:2115:OHX:N2	2.68	0.41
1:2:285:G:N2	1:2:286:C:C2	2.90	0.41
1:2:558:U:HO2'	1:2:559:C:P	2.44	0.41
1:2:726:C:H2'	1:2:727:U:C5	2.56	0.41
1:2:768:C:C6	11:S9:143:ILE:HD13	2.56	0.41
37:3:5:G:OP1	48:M1:143:ARG:NH2	2.31	0.41
36:5:1095:U:H4'	36:5:1096:U:H5''	2.02	0.41
36:5:1336:U:H2'	36:5:1337:A:C8	2.56	0.41
36:5:2124:G:O2'	36:5:2125:A:H5'	2.21	0.41
36:5:378:A:OP2	86:5:4204:OHX:N6	2.54	0.41
36:5:561:C:H2'	36:5:562:C:C6	2.56	0.41
36:5:577:C:H2'	36:5:579:G:H5''	2.03	0.41
36:5:601:U:H2'	36:5:602:A:O4'	2.21	0.41
1:6:738:G:O6	86:6:2072:OHX:N4	2.54	0.41
1:6:221:A:O2'	1:6:222:A:H5'	2.21	0.41
10:S8:98:LYS:HB3	1:6:329:G:H5''	274.13	0.41
1:6:763:G:H2'	1:6:764:U:C6	2.55	0.41
1:6:919:A:H2'	1:6:920:U:C6	2.56	0.41
1:6:978:A:H2'	1:6:979:A:O4'	2.20	0.41
38:8:80:A:H2'	38:8:82:U:C5	2.56	0.41
13:C1:55:ASP:OD2	13:C1:58:CYS:HB2	2.36	0.41
14:C2:31:VAL:HG21	14:C2:136:ILE:HD12	3.43	0.41
15:C3:38:VAL:H	15:C3:38:VAL:HG23	2.14	0.41
15:C3:26:PHE:HE2	15:C3:66:ILE:HD13	1.85	0.41
16:C4:26:THR:HG21	16:C4:97:GLY:CA	2.51	0.41
18:C6:79:TYR:O	18:C6:82:ARG:HG2	2.20	0.41
19:C7:71:PHE:CE1	19:C7:74:GLN:HB2	5.15	0.41
20:C8:58:ALA:O	20:C8:61:LEU:HB2	3.16	0.41
21:C9:30:VAL:O	21:C9:32:GLY:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:66:SER:OG	22:D0:81:THR:HB	3.33	0.41
26:D4:14:SER:O	26:D4:16:PRO:HD3	2.21	0.41
27:D5:70:LYS:HA	27:D5:70:LYS:HD3	1.75	0.41
39:L2:200:ARG:HG3	39:L2:200:ARG:H	2.27	0.41
40:L3:257:PRO:O	40:L3:259:HIS:N	2.59	0.41
40:L3:53:MET:HE1	40:L3:327:CYS:CB	2.51	0.41
40:L3:97:ARG:NH1	36:5:3244:A:C2	244.06	0.41
41:L4:324:LEU:O	41:L4:327:LEU:O	2.60	0.41
42:L5:8:LYS:HE2	36:5:2687:G:OP1	309.69	0.41
43:L6:59:GLU:OE2	43:L6:59:GLU:HA	2.21	0.41
46:L9:106:LYS:HG3	46:L9:107:ASP:OD1	3.50	0.41
47:M0:129:VAL:HA	47:M0:133:GLN:OE1	3.85	0.41
47:M0:169:LYS:O	47:M0:177:ASP:HA	2.21	0.41
47:M0:200:LEU:HB2	47:M0:213:PHE:CD2	2.95	0.41
49:M3:99:HIS:ND1	49:M3:100:ARG:HG2	2.36	0.41
49:M3:76:THR:HG23	49:M3:101:ARG:NH1	2.36	0.41
50:M4:89:ALA:O	50:M4:93:LYS:HG3	4.49	0.41
51:M5:127:TYR:HB2	51:M5:129:TYR:CE2	2.56	0.41
51:M5:6:TYR:CD2	72:O6:40:VAL:HG13	3.04	0.41
52:M6:41:LEU:HD12	52:M6:41:LEU:HA	1.85	0.41
53:M7:178:ALA:O	53:M7:182:ILE:HB	2.20	0.41
55:M9:88:ARG:H	55:M9:88:ARG:HG2	3.17	0.41
36:1:1864:A:OP1	55:M9:88:ARG:NH1	2.54	0.41
57:N1:57:TYR:OH	57:N1:87:LYS:HD2	2.20	0.41
59:N3:45:ARG:HD2	59:N3:45:ARG:HH11	1.78	0.41
59:N3:46:LEU:HG	59:N3:47:ASN:ND2	2.35	0.41
59:N3:96:GLU:O	59:N3:96:GLU:HG3	2.21	0.41
61:N5:141:TYR:O	61:N5:142:ILE:HG13	4.03	0.41
62:N6:114:ASP:OD1	86:8:224:OHX:N2	21.84	0.41
63:N7:72:ILE:HD13	63:N7:111:LYS:HG3	2.02	0.41
65:N9:43:HIS:NE2	65:N9:47:LEU:HD11	2.71	0.41
36:1:1433:A:P	68:O2:19:ARG:HH22	2.43	0.41
68:O2:30:GLU:O	68:O2:31:ASN:C	2.75	0.41
68:O2:41:VAL:HG22	68:O2:41:VAL:H	1.65	0.41
68:O2:12:LYS:HD2	68:O2:57:TYR:O	2.21	0.41
36:1:155:G:O2'	72:O6:27:SER:HB3	2.21	0.41
73:O7:14:LYS:HE2	73:O7:25:ARG:HH21	1.86	0.41
86:4:228:OHX:N6	73:O7:60:GLY:O	2.54	0.41
74:O8:14:LEU:O	74:O8:20:VAL:HG21	2.26	0.41
77:Q1:1:MET:HE2	77:Q1:1:MET:HB2	1.97	0.41
1:2:13:C:OP1	4:S2:84:LYS:NZ	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S4:118:GLU:HA	6:S4:121:TYR:CE1	3.02	0.41
6:S4:85:GLY:O	6:S4:88:ASP:HB2	2.69	0.41
7:S5:187:ILE:H	7:S5:187:ILE:HD12	1.86	0.41
7:S5:57:SER:OG	7:S5:58:LEU:N	3.03	0.41
9:S7:14:THR:HG23	9:S7:15:GLU:N	2.56	0.41
10:S8:142:LYS:O	10:S8:145:ALA:N	2.92	0.41
11:S9:99:LEU:O	11:S9:100:LYS:HB3	2.21	0.41
36:1:1057:A:C5	36:1:1058:U:C5	3.08	0.40
36:1:1094:U:H1'	36:1:1096:U:H2'	2.03	0.40
36:1:209:A:H4'	36:1:211:A:N7	2.36	0.40
36:1:2168:A:C6	36:1:2170:U:H1'	2.56	0.40
36:1:2261:G:H21	36:1:2262:A:N6	2.19	0.40
36:1:2338:C:H4'	59:N3:47:ASN:O	2.20	0.40
36:1:2529:A:C2	36:1:2582:C:C2	3.09	0.40
36:1:3008:A:OP1	52:M6:72:HIS:ND1	2.45	0.40
36:1:3022:G:O2'	86:1:4075:OHX:N2	2.54	0.40
36:1:1744:G:O6	86:1:4096:OHX:N2	2.54	0.40
36:1:810:A:H2'	36:1:811:U:H6	1.86	0.40
36:1:915:A:H2'	36:1:915:A:N3	2.36	0.40
36:1:953:G:C8	36:1:1117:G:C8	3.09	0.40
1:2:1042:G:C6	1:2:1043:A:N7	2.89	0.40
1:2:1172:G:C5	1:2:1173:C:C4	3.09	0.40
1:2:1199:G:O6	22:D0:67:THR:HG23	2.21	0.40
1:2:1299:G:H2'	1:2:1300:A:C8	2.56	0.40
1:2:1396:U:H2'	1:2:1397:U:O4'	2.20	0.40
1:2:1458:G:H2'	1:2:1458:G:N3	2.35	0.40
1:2:1530:C:C2	1:2:1531:G:C8	3.08	0.40
1:2:1615:C:H4'	1:2:1616:G:O5'	2.21	0.40
1:2:587:C:H2'	1:2:588:U:O4'	2.21	0.40
1:2:61:A:C6	1:2:62:A:C6	3.09	0.40
1:2:710:U:H2'	1:2:711:U:H5'	2.04	0.40
1:2:927:C:H1'	16:C4:125:SER:HB2	2.04	0.40
36:5:100:A:O5'	36:5:100:A:H8	2.04	0.40
52:M6:25:LYS:HE3	36:5:1176:C:OP1	246.84	0.40
36:5:1253:U:O2	36:5:1263:A:H5'	2.21	0.40
36:5:1658:G:C2	36:5:1796:G:C6	3.10	0.40
36:5:241:G:H2'	36:5:242:C:C6	2.56	0.40
36:5:2822:U:H2'	36:5:2823:G:O4'	2.21	0.40
36:5:2919:A:N1	36:5:2927:C:O2	2.54	0.40
36:5:3025:C:H2'	36:5:3026:G:O4'	2.22	0.40
36:5:3162:C:O5'	36:5:3162:C:H6	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:3194:C:O2'	36:5:3195:U:H5'	2.21	0.40
36:5:3218:A:H5''	36:5:3219:G:C5	2.56	0.40
36:5:359:U:H2'	36:5:360:G:O4'	2.21	0.40
36:5:3:U:H3	38:8:156:U:H3	1.69	0.40
86:5:4096:OHX:N5	86:5:4237:OHX:N2	2.69	0.40
36:5:709:A:O5'	36:5:709:A:H8	2.04	0.40
1:6:1410:A:C6	1:6:1411:A:C2	3.09	0.40
1:6:215:A:C2	1:6:216:U:C2	3.08	0.40
1:6:703:G:H2'	1:6:704:C:C6	2.56	0.40
16:C4:35:GLY:HA3	1:6:919:A:H5'	269.23	0.40
38:8:78:G:H2'	38:8:79:A:O4'	2.21	0.40
14:C2:40:GLY:HA3	14:C2:125:ASN:HB3	2.04	0.40
14:C2:63:VAL:HG13	14:C2:119:SER:O	2.21	0.40
15:C3:70:LYS:HG2	15:C3:70:LYS:H	2.73	0.40
20:C8:82:PRO:O	20:C8:83:ALA:HB3	2.21	0.40
1:2:153:G:P	26:D4:131:ARG:HH12	2.44	0.40
26:D4:8:ARG:CZ	26:D4:28:LEU:HD11	3.91	0.40
26:D4:35:VAL:HG13	26:D4:36:SER:N	2.35	0.40
39:L2:14:SER:OG	39:L2:15:ILE:N	2.81	0.40
40:L3:135:ALA:O	40:L3:137:TYR:N	2.54	0.40
40:L3:243:HIS:C	40:L3:244:ARG:HG3	2.40	0.40
40:L3:53:MET:HE2	40:L3:327:CYS:CB	3.68	0.40
41:L4:280:ILE:HD11	54:M8:26:LEU:N	2.36	0.40
41:L4:90:PHE:O	41:L4:94:CYS:HB2	4.39	0.40
41:L4:91:GLY:O	41:L4:94:CYS:HB2	2.47	0.40
42:L5:143:LYS:HG3	42:L5:172:TYR:HD2	2.24	0.40
44:L7:141:TYR:CE1	44:L7:145:ARG:HD2	3.16	0.40
44:L7:24:GLU:C	44:L7:26:VAL:H	2.23	0.40
45:L8:45:ASN:OD1	61:N5:26:VAL:HA	2.21	0.40
46:L9:97:PHE:HA	46:L9:98:PRO:HD3	1.95	0.40
48:M1:34:SER:HA	48:M1:67:VAL:HG21	2.02	0.40
49:M3:47:ALA:O	49:M3:137:GLN:NE2	4.69	0.40
49:M3:61:PRO:C	49:M3:62:THR:HG23	2.46	0.40
54:M8:133:LYS:HB2	54:M8:135:GLN:NE2	3.02	0.40
54:M8:21:SER:OG	54:M8:22:ASP:N	2.79	0.40
54:M8:44:PHE:CZ	54:M8:82:VAL:HG21	2.66	0.40
55:M9:70:LYS:C	55:M9:72:GLU:N	2.74	0.40
57:N1:41:ASP:HB2	57:N1:97:LYS:HD2	3.84	0.40
57:N1:34:TYR:CD1	57:N1:98:HIS:CE1	3.41	0.40
63:N7:121:ARG:HH11	63:N7:121:ARG:HG3	3.50	0.40
63:N7:25:ILE:HG13	63:N7:25:ILE:H	3.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:N7:136:PHE:CD2	70:O4:76:TYR:HE2	2.39	0.40
71:O5:74:LYS:NZ	36:5:128:G:OP2	79.10	0.40
75:O9:20:ASN:O	75:O9:41:ARG:NE	2.53	0.40
76:Q0:106:ARG:HB2	76:Q0:106:ARG:HE	1.49	0.40
79:Q3:22:LEU:N	79:Q3:22:LEU:HD23	2.77	0.40
2:S0:167:LYS:HB3	2:S0:168:HIS:H	1.33	0.40
4:S2:44:LEU:HD23	4:S2:44:LEU:HA	2.04	0.40
1:2:1276:U:OP1	5:S3:146:ARG:HD2	2.21	0.40
5:S3:69:LEU:O	5:S3:72:LEU:HB2	2.21	0.40
7:S5:162:VAL:HG22	7:S5:167:ARG:HG2	2.43	0.40
7:S5:177:ILE:HA	7:S5:180:ARG:NH1	2.36	0.40
7:S5:187:ILE:HD13	27:D5:66:VAL:HG11	3.92	0.40
7:S5:25:LEU:HD23	7:S5:27:THR:O	2.78	0.40
9:S7:101:LYS:HA	9:S7:112:ARG:CZ	3.08	0.40
9:S7:117:THR:HG22	9:S7:120:ALA:CB	2.87	0.40
9:S7:154:LEU:HD21	9:S7:183:PHE:CD1	2.57	0.40
11:S9:59:LEU:HA	11:S9:59:LEU:HD23	2.01	0.40
35:SM:37:VAL:HA	35:SM:38:PRO:HD2	2.18	0.40
34:SR:90:ARG:HD3	34:SR:99:THR:OG1	2.32	0.40
36:1:105:C:O2'	36:1:684:G:O2'	2.18	0.40
36:1:1781:C:H2'	36:1:1782:U:H6	1.86	0.40
36:1:1815:U:HO2'	36:1:1816:A:P	2.42	0.40
36:1:197:G:N2	36:1:372:A:C8	2.89	0.40
36:1:2358:A:H2'	36:1:2359:C:O4'	2.20	0.40
36:1:2373:A:OP2	36:1:2373:A:H3'	2.21	0.40
36:1:246:U:H2'	36:1:247:C:H6	1.84	0.40
36:1:2656:A:C4	36:1:2658:G:N7	2.89	0.40
36:1:2882:U:H2'	36:1:2883:U:O4'	2.21	0.40
36:1:3322:A:H2'	36:1:3323:A:C8	2.56	0.40
36:1:3349:C:O5'	36:1:3349:C:H6	2.04	0.40
1:2:1058:U:O3'	1:2:1059:U:H3'	2.21	0.40
1:2:1796:C:O5'	28:D6:5:ARG:NH1	2.55	0.40
1:2:531:C:OP2	86:2:2069:OHX:N4	2.54	0.40
1:2:25:C:O2	86:2:2083:OHX:N3	2.54	0.40
1:2:1285:U:OP1	86:2:2114:OHX:N4	2.55	0.40
1:2:230:C:H2'	1:2:231:U:H5''	2.03	0.40
1:2:240:U:H4'	1:2:240:U:OP1	2.21	0.40
1:2:836:U:H2'	1:2:837:G:H8	1.85	0.40
36:5:1025:A:H5'	36:5:1026:A:OP2	2.21	0.40
36:5:139:G:C6	36:5:140:C:C4	3.10	0.40
36:5:172:G:C6	36:5:247:C:N4	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:5:1591:G:O2'	36:5:1799:A:N1	2.45	0.40
36:5:2781:U:C4	36:5:2782:U:C4	3.09	0.40
36:5:278:U:H2'	36:5:279:U:C6	2.56	0.40
36:5:2826:U:O4	86:5:3904:OHX:N6	2.55	0.40
36:5:3110:C:C4	36:5:3111:U:C4	3.09	0.40
36:5:2993:G:C6	36:5:3142:A:C4	3.09	0.40
36:5:3288:G:O2'	36:5:3289:G:OP2	2.33	0.40
36:5:2288:G:OP1	86:5:3962:OHX:N3	2.55	0.40
36:5:2846:U:O2'	86:5:4054:OHX:N1	2.54	0.40
36:5:1192:C:C5	86:5:4092:OHX:N6	2.89	0.40
55:M9:92:GLN:NE2	36:5:856:G:OP1	218.60	0.40
1:6:1699:G:N2	1:6:1702:A:H5''	2.37	0.40
77:Q1:16:LYS:NZ	1:6:1749:A:O3'	285.57	0.40
87:6:2202:EDE:O41	87:6:2202:EDE:N33	2.53	0.40
13:C1:36:LYS:HD2	1:6:248:U:H4'	311.57	0.40
1:6:909:U:H2'	1:6:910:C:C6	2.56	0.40
37:7:110:G:C6	37:7:111:U:C4	3.09	0.40
37:7:119:U:H2'	37:7:120:C:H6	1.86	0.40
38:8:91:C:H2'	38:8:92:A:H8	1.87	0.40
12:C0:56:LYS:HB3	12:C0:67:THR:HG23	6.22	0.40
13:C1:63:LEU:HG	13:C1:63:LEU:H	1.71	0.40
17:C5:68:PRO:HG2	17:C5:71:GLU:OE2	2.29	0.40
20:C8:17:LEU:O	20:C8:20:THR:N	2.89	0.40
21:C9:111:ILE:HG13	21:C9:111:ILE:H	4.36	0.40
22:D0:22:ILE:CG2	22:D0:93:LEU:HB2	2.49	0.40
24:D2:93:LEU:O	24:D2:94:LEU:HD23	3.18	0.40
27:D5:47:TYR:CE1	27:D5:51:LEU:HD11	3.27	0.40
27:D5:46:LYS:HE2	27:D5:70:LYS:HD2	2.03	0.40
28:D6:24:VAL:HG12	28:D6:72:HIS:O	2.21	0.40
30:D8:17:GLY:O	30:D8:27:GLN:N	2.40	0.40
1:2:1594:G:H5'	31:D9:33:LYS:HE3	2.03	0.40
33:E1:143:LYS:N	1:6:1253:U:H4'	449.37	0.40
39:L2:201:GLY:HA2	39:L2:204:MET:HG3	2.03	0.40
39:L2:227:ARG:HG2	39:L2:239:ALA:HB2	2.02	0.40
39:L2:49:VAL:HG22	39:L2:50:HIS:N	2.50	0.40
40:L3:347:SER:O	40:L3:348:ARG:CB	2.72	0.40
41:L4:10:SER:C	41:L4:12:THR:H	2.24	0.40
41:L4:346:LYS:HA	41:L4:346:LYS:HD2	4.61	0.40
44:L7:89:ILE:HD12	44:L7:214:TRP:CH2	2.56	0.40
46:L9:112:ILE:N	46:L9:126:VAL:O	2.46	0.40
46:L9:48:VAL:HG13	46:L9:52:LEU:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:M4:47:ASP:CG	50:M4:55:ARG:HB2	2.85	0.40
52:M6:138:LEU:HA	52:M6:138:LEU:HD12	1.58	0.40
54:M8:50:LYS:HG2	54:M8:50:LYS:HZ2	1.60	0.40
57:N1:44:ALA:HB2	57:N1:53:PRO:HG2	2.02	0.40
58:N2:17:VAL:HB	58:N2:63:VAL:HG23	3.59	0.40
60:N4:54:LEU:H	60:N4:54:LEU:HD12	1.85	0.40
61:N5:86:VAL:O	61:N5:120:LYS:HB3	2.21	0.40
61:N5:130:TYR:CD1	61:N5:130:TYR:N	2.89	0.40
63:N7:64:LYS:O	63:N7:67:LYS:HG2	2.21	0.40
43:L6:13:GLU:OE1	68:O2:90:LYS:HB2	2.94	0.40
69:O3:35:VAL:HG11	69:O3:41:ALA:HB2	2.09	0.40
71:O5:18:ALA:O	71:O5:22:VAL:HG23	2.21	0.40
71:O5:30:GLU:O	71:O5:34:GLN:HG3	2.71	0.40
2:S0:105:GLY:O	2:S0:109:ASN:HB3	2.66	0.40
2:S0:149:LEU:HA	2:S0:149:LEU:HD23	2.24	0.40
2:S0:80:THR:HA	2:S0:83:GLN:OE1	2.58	0.40
3:S1:97:LEU:HD13	3:S1:98:THR:H	1.86	0.40
4:S2:230:TRP:NE1	24:D2:68:ARG:HB3	2.36	0.40
4:S2:235:LEU:HA	4:S2:236:PRO:HD3	2.23	0.40
6:S4:127:LYS:N	6:S4:140:VAL:O	2.87	0.40
7:S5:33:VAL:HG12	7:S5:34:GLN:N	2.74	0.40
9:S7:9:LEU:O	9:S7:9:LEU:HD23	2.21	0.40
10:S8:162:ALA:HA	36:1:3353:G:C5'	2.51	0.40
11:S9:168:ARG:HD2	11:S9:174:ARG:HD2	5.01	0.40
11:S9:4:ALA:HA	11:S9:5:PRO:HD3	1.95	0.40
11:S9:66:ASP:HA	11:S9:67:PRO:HD2	2.24	0.40
34:SR:35:SER:O	34:SR:42:LEU:HA	2.21	0.40
36:1:941:G:O4'	36:1:1435:A:H1'	2.22	0.40
36:1:1577:G:C5	36:1:1578:C:C5	3.09	0.40
36:1:1902:G:C6	36:1:1903:U:C2	3.10	0.40
36:1:2281:A:N3	36:1:2974:U:O2'	2.41	0.40
36:1:2623:G:C5	36:1:2624:G:N7	2.89	0.40
36:1:2881:C:H2'	36:1:2882:U:H6	1.86	0.40
36:1:3041:U:H2'	36:1:3042:U:C6	2.57	0.40
36:1:3362:A:H2'	36:1:3363:U:O4'	2.22	0.40
36:1:381:U:O4	86:1:4063:OHX:N4	2.53	0.40
86:1:4005:OHX:N6	86:1:4175:OHX:N2	2.70	0.40
36:1:873:C:H5''	36:1:874:U:H4'	2.04	0.40
1:2:1175:U:H2'	1:2:1176:G:H8	1.85	0.40
1:2:1226:A:C2	14:C2:116:VAL:HG11	2.56	0.40
1:2:174:U:H2'	1:2:175:G:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:208:U:H2'	1:2:209:U:C6	2.57	0.40
1:2:234:G:N1	1:2:235:G:H1'	2.37	0.40
1:2:442:C:H2'	1:2:443:C:C6	2.57	0.40
1:2:701:U:H3	1:2:737:A:N6	2.19	0.40
1:2:704:C:H4'	1:2:705:U:OP1	2.22	0.40
1:2:717:C:N4	1:2:720:G:H22	2.17	0.40
36:5:1049:C:H2'	36:5:1050:U:H6	1.84	0.40
36:5:1096:U:H4'	36:5:1097:G:O5'	2.22	0.40
36:5:1152:G:C8	36:5:1152:G:P	3.14	0.40
45:L8:54:GLU:CD	36:5:1557:A:H5''	149.03	0.40
36:5:1604:G:H3'	36:5:1604:G:N3	2.37	0.40
36:5:1631:C:H5''	36:5:1632:A:H5'	2.04	0.40
36:5:188:U:H1'	36:5:208:C:H1'	2.02	0.40
36:5:2440:G:N2	36:5:2508:U:C2	2.90	0.40
36:5:2599:U:H2'	36:5:2600:C:H6	1.86	0.40
36:5:2702:A:H5'	36:5:2704:A:O4'	2.22	0.40
36:5:3049:A:C8	36:5:3049:A:H5'	2.47	0.40
36:5:3287:U:N3	36:5:3288:G:C8	2.90	0.40
36:5:3389:U:OP2	36:5:3389:U:H2'	2.22	0.40
86:5:4078:OHX:N1	86:5:4138:OHX:N2	2.70	0.40
36:5:2718:U:O4	86:5:4233:OHX:N6	2.54	0.40
1:6:1076:A:C2	1:6:1077:C:C2	3.09	0.40
1:6:151:G:H22	1:6:163:G:N2	2.17	0.40
1:6:1627:U:C4	1:6:1628:U:C4	3.10	0.40
28:D6:5:ARG:NH1	1:6:1796:C:OP2	340.11	0.40
1:6:201:G:H2'	1:6:202:A:H8	1.84	0.40
1:6:711:U:C2	1:6:728:U:C2	3.09	0.40
1:6:875:G:H2'	1:6:877:G:OP1	2.21	0.40
71:O5:82:ALA:O	38:8:38:U:C5	65.37	0.40
12:C0:55:VAL:HB	12:C0:68:LEU:HA	2.58	0.40
13:C1:123:VAL:HG21	13:C1:139:VAL:HG22	2.03	0.40
14:C2:69:ALA:HA	14:C2:71:ILE:HG23	2.92	0.40
17:C5:56:PHE:HE2	17:C5:78:THR:HB	1.87	0.40
17:C5:72:LYS:HA	17:C5:73:PRO:HD3	1.92	0.40
18:C6:115:THR:O	18:C6:118:ILE:N	2.54	0.40
18:C6:41:PRO:O	18:C6:42:GLU:HB3	2.22	0.40
18:C6:87:LYS:HA	18:C6:90:VAL:HG22	2.04	0.40
19:C7:63:LYS:HE3	34:SR:284:ALA:HB2	2.02	0.40
20:C8:54:LEU:C	20:C8:56:LYS:H	2.66	0.40
21:C9:33:TYR:HD1	21:C9:34:VAL:N	2.55	0.40
21:C9:63:ARG:O	21:C9:67:MET:HE3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D5:73:GLY:HA2	27:D5:76:ALA:CB	2.88	0.40
29:D7:61:THR:HG23	29:D7:62:ILE:N	2.36	0.40
39:L2:90:ALA:HB2	39:L2:101:VAL:HG13	2.34	0.40
36:1:2180:G:P	39:L2:174:ARG:HH22	2.43	0.40
36:1:3309:G:O6	40:L3:21:ARG:NH2	2.54	0.40
41:L4:300:ARG:O	41:L4:300:ARG:HG2	3.64	0.40
41:L4:301:PRO:O	41:L4:302:ALA:HB2	4.30	0.40
42:L5:148:ILE:HG13	42:L5:159:VAL:HG11	3.82	0.40
42:L5:90:HIS:CE1	42:L5:229:ASP:OD2	2.82	0.40
43:L6:135:VAL:O	43:L6:139:LYS:HG3	2.21	0.40
43:L6:171:PRO:C	43:L6:173:MET:H	2.23	0.40
43:L6:176:PHE:H	50:M4:117:ARG:NH2	5.42	0.40
44:L7:110:ARG:CZ	54:M8:3:ILE:CD1	3.52	0.40
44:L7:132:PRO:HA	44:L7:229:PHE:CD1	2.56	0.40
46:L9:119:GLY:O	46:L9:120:ASP:C	2.60	0.40
47:M0:35:ASP:OD1	47:M0:88:ARG:HG3	3.30	0.40
49:M3:108:ILE:HD13	49:M3:108:ILE:HA	1.86	0.40
50:M4:45:LEU:HD12	50:M4:56:GLN:O	2.21	0.40
51:M5:28:TRP:O	51:M5:32:GLN:HG2	2.21	0.40
36:1:784:A:C6	54:M8:93:ILE:HG23	2.56	0.40
54:M8:93:ILE:HG13	54:M8:93:ILE:H	1.83	0.40
55:M9:35:ALA:HB1	55:M9:41:ILE:HD12	2.03	0.40
55:M9:38:ARG:HH21	36:5:1603:A:P	111.08	0.40
55:M9:70:LYS:O	55:M9:72:GLU:N	2.54	0.40
56:N0:41:TYR:O	56:N0:45:LEU:HB2	2.71	0.40
57:N1:83:ARG:HD2	57:N1:85:LEU:HD21	2.02	0.40
61:N5:92:LYS:HD3	61:N5:110:VAL:HG12	5.07	0.40
62:N6:32:SER:O	62:N6:101:PRO:HB2	2.21	0.40
66:O0:76:GLU:O	66:O0:80:ALA:N	2.38	0.40
68:O2:66:LEU:HD23	68:O2:72:LYS:HG3	3.38	0.40
69:O3:73:ARG:HD3	69:O3:82:ARG:CZ	4.65	0.40
71:O5:24:LEU:HD23	71:O5:24:LEU:HA	1.91	0.40
71:O5:78:LYS:HA	71:O5:81:ARG:HB2	2.87	0.40
72:O6:98:ARG:HB3	72:O6:99:ARG:H	4.32	0.40
2:S0:101:ARG:NH1	2:S0:101:ARG:HG2	3.76	0.40
5:S3:64:ARG:O	5:S3:67:ASN:HB2	2.21	0.40
5:S3:65:ARG:HA	5:S3:68:GLU:HG3	2.03	0.40
8:S6:175:ILE:HG12	1:6:78:A:H1'	337.67	0.40
11:S9:169:PRO:HB2	11:S9:173:ALA:HB3	2.64	0.40
35:SM:47:ALA:O	35:SM:48:ARG:HB2	4.58	0.40
36:1:1035:G:C6	36:1:1036:A:C6	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1:1121:U:H2'	36:1:1122:U:C6	2.55	0.40
36:1:1440:G:H2'	36:1:1441:G:C8	2.55	0.40
36:1:1637:A:OP2	63:N7:73:LYS:NZ	2.50	0.40
36:1:1845:G:H5'	36:1:1845:G:H8	1.86	0.40
36:1:2131:A:H2'	36:1:2132:C:H5'	2.03	0.40
36:1:2434:U:O4'	36:1:2434:U:O2	2.37	0.40
36:1:2680:A:C2	48:M1:57:PHE:HB3	2.55	0.40
36:1:2116:G:C2	36:1:3064:U:H5'	2.56	0.40
36:1:3091:A:C4	36:1:3094:A:C8	3.09	0.40
36:1:439:C:H5''	36:1:440:A:N7	2.36	0.40
36:1:855:U:H2'	36:1:856:G:O4'	2.21	0.40
1:2:969:C:P	1:2:1032:G:H21	2.45	0.40
1:2:1337:A:H5'	1:2:1338:C:OP2	2.21	0.40
1:2:763:G:C6	1:2:764:U:C4	3.09	0.40
1:2:836:U:H2'	1:2:837:G:C8	2.56	0.40
36:5:1027:A:N7	36:5:1029:G:C2	2.89	0.40
36:5:1494:U:H4'	36:5:1495:U:O5'	2.22	0.40
36:5:1658:G:C2	36:5:1796:G:N1	2.90	0.40
36:5:647:A:C2	36:5:2372:A:H2'	2.56	0.40
36:5:2712:U:H2'	36:5:2713:U:C6	2.56	0.40
36:5:2619:G:N7	86:5:4245:OHX:N2	2.70	0.40
36:5:716:A:O3'	36:5:718:G:N2	2.55	0.40
36:5:702:C:O2	36:5:788:C:H4'	2.22	0.40
36:5:831:G:O6	86:5:3925:OHX:N2	2.54	0.40
1:6:1174:C:H42	1:6:1465:C:N4	2.19	0.40
1:6:1541:G:C6	1:6:1542:G:C6	3.09	0.40
1:6:1779:U:H2'	1:6:1781:A:OP2	2.21	0.40
1:6:390:G:H2'	1:6:391:A:O4'	2.21	0.40
1:6:75:U:O2'	1:6:76:A:O4'	2.38	0.40
1:6:909:U:H2'	1:6:910:C:H6	1.85	0.40
1:6:990:C:H2'	1:6:991:G:O4'	2.22	0.40
37:7:58:C:OP1	86:7:217:OHX:N3	2.55	0.40
12:C0:40:LEU:HD22	12:C0:40:LEU:O	3.15	0.40
13:C1:80:MET:HB2	13:C1:83:THR:CG2	2.51	0.40
15:C3:113:PHE:HD1	15:C3:114:ARG:HH11	2.13	0.40
15:C3:18:TYR:O	24:D2:56:HIS:CD2	2.75	0.40
15:C3:70:LYS:HE2	15:C3:70:LYS:HB3	4.45	0.40
17:C5:51:SER:OG	17:C5:53:PRO:HD2	6.17	0.40
18:C6:113:ASP:CG	18:C6:114:ARG:N	2.75	0.40
20:C8:28:ILE:HB	20:C8:58:ALA:HA	2.03	0.40
20:C8:68:ARG:HH11	20:C8:68:ARG:HG3	3.68	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:D0:34:LEU:HD23	22:D0:35:GLU:HG2	8.93	0.40
24:D2:108:ALA:HB3	24:D2:121:VAL:HG21	2.02	0.40
24:D2:105:THR:OG1	24:D2:126:LEU:HG	2.21	0.40
24:D2:75:ILE:HA	24:D2:75:ILE:HD13	1.93	0.40
26:D4:23:PHE:CZ	26:D4:44:LEU:HD22	2.56	0.40
26:D4:29:HIS:CE1	26:D4:34:ASN:H	2.39	0.40
29:D7:36:LYS:HG2	29:D7:43:ILE:HG22	2.02	0.40
33:E1:89:LYS:N	33:E1:89:LYS:HD2	2.36	0.40
39:L2:169:ILE:HG22	39:L2:170:ALA:O	2.38	0.40
40:L3:358:TRP:CZ2	40:L3:360:ASP:HA	2.69	0.40
41:L4:191:LYS:HG3	41:L4:194:TYR:CE2	4.38	0.40
37:3:22:A:H1'	42:L5:272:TYR:CZ	2.56	0.40
43:L6:175:LYS:HA	43:L6:175:LYS:HD2	4.65	0.40
44:L7:159:GLN:HG2	44:L7:159:GLN:H	2.67	0.40
44:L7:173:LEU:O	44:L7:178:ILE:HB	2.47	0.40
45:L8:108:ARG:O	45:L8:112:GLU:HG2	2.21	0.40
45:L8:83:ASP:OD1	45:L8:83:ASP:N	4.36	0.40
46:L9:90:MET:HB3	46:L9:90:MET:HE2	1.86	0.40
47:M0:99:ILE:HD12	47:M0:99:ILE:O	5.42	0.40
49:M3:59:ARG:HA	49:M3:69:VAL:HG23	2.34	0.40
52:M6:112:TYR:HA	52:M6:115:LYS:HB2	2.15	0.40
36:1:3185:U:C6	52:M6:126:VAL:HG21	2.56	0.40
36:1:1316:C:N4	52:M6:131:PRO:HD3	2.36	0.40
52:M6:16:VAL:CG2	52:M6:43:ILE:HG12	2.72	0.40
53:M7:153:LYS:HG3	53:M7:154:GLU:N	3.60	0.40
54:M8:115:VAL:O	54:M8:118:GLY:N	2.62	0.40
56:N0:101:ALA:O	56:N0:104:GLU:HB3	2.51	0.40
58:N2:84:LEU:HA	58:N2:84:LEU:HD23	1.85	0.40
60:N4:27:LYS:HD3	60:N4:29:PHE:CZ	3.31	0.40
60:N4:8:PHE:CD2	60:N4:46:PRO:HG3	2.56	0.40
63:N7:17:ARG:HG3	36:5:1639:C:N4	197.31	0.40
63:N7:29:HIS:HB3	63:N7:40:HIS:CD2	4.04	0.40
64:N8:10:LYS:HD2	64:N8:10:LYS:HA	1.82	0.40
64:N8:47:LYS:O	64:N8:48:TYR:HB2	2.21	0.40
65:N9:23:LYS:HB3	65:N9:24:PRO:HD3	3.14	0.40
70:O4:2:ALA:O	70:O4:3:GLN:C	2.59	0.40
63:N7:17:ARG:CG	70:O4:73:SER:HB3	2.51	0.40
71:O5:90:ARG:H	71:O5:90:ARG:HG2	1.82	0.40
64:N8:128:ARG:HG2	72:O6:8:ALA:HB2	2.03	0.40
74:O8:62:ALA:O	74:O8:66:ILE:HG13	2.22	0.40
79:Q3:35:ALA:HB3	79:Q3:37:TYR:CE2	3.44	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:S0:74:VAL:CG2	2:S0:118:PRO:HB3	2.68	0.40
3:S1:169:SER:O	3:S1:173:THR:HG23	2.22	0.40
3:S1:46:THR:OG1	3:S1:47:LEU:N	4.10	0.40
5:S3:202:LEU:C	5:S3:204:ASP:N	2.91	0.40
6:S4:117:GLU:C	6:S4:119:ALA:H	2.61	0.40
6:S4:29:PRO:O	1:6:449:C:OP1	362.38	0.40
6:S4:35:PRO:HD2	6:S4:83:PRO:HG2	2.04	0.40
7:S5:118:LEU:HA	7:S5:121:ILE:HD12	2.02	0.40
7:S5:197:GLU:OE1	7:S5:208:SER:HB2	2.65	0.40
8:S6:9:VAL:HG12	8:S6:10:ASN:OD1	2.22	0.40
35:SM:52:PRO:C	35:SM:54:PRO:HD3	4.29	0.40
35:SM:96:ARG:O	35:SM:98:GLY:N	2.54	0.40
35:SM:99:LYS:O	35:SM:100:THR:HB	2.20	0.40
34:SR:240:VAL:HG13	34:SR:254:ALA:HB1	2.43	0.40
34:SR:71:CYS:HA	34:SR:81:LEU:O	2.20	0.40
36:1:1135:A:C2'	36:1:1136:A:H5'	2.51	0.40
36:1:1460:A:H2'	36:1:1461:A:H8	1.86	0.40
36:1:1576:G:O6	36:1:1577:G:N1	2.54	0.40
36:1:1615:C:H2'	36:1:1616:U:H6	1.87	0.40
36:1:1947:G:N2	36:1:2102:U:C2	2.89	0.40
36:1:2221:G:N2	36:1:2223:A:H3'	2.37	0.40
36:1:2675:C:N4	48:M1:22:SER:HB2	2.37	0.40
36:1:2993:G:H2'	36:1:3142:A:N6	2.37	0.40
36:1:3056:U:H1'	36:1:3058:U:O5'	2.22	0.40
36:1:3070:A:C5	36:1:3071:U:C5	3.10	0.40
36:1:313:A:H2'	36:1:314:U:O4'	2.21	0.40
36:1:3364:C:H2'	36:1:3365:U:H6	1.83	0.40
36:1:2834:G:OP1	86:1:4191:OHX:N3	2.55	0.40
36:1:565:U:H2'	36:1:566:G:H8	1.85	0.40
36:1:968:G:H2'	36:1:969:C:C6	2.56	0.40
1:2:1271:G:C6	1:2:1272:U:C4	3.08	0.40
1:2:1610:G:OP1	7:S5:72:HIS:NE2	2.46	0.40
1:2:1656:U:H6	1:2:1656:U:O5'	2.04	0.40
1:2:1657:U:N3	86:2:2088:OHX:N4	2.69	0.40
1:2:1765:A:H5'	1:2:1767:G:N7	2.36	0.40
86:2:2074:OHX:N4	86:2:2161:OHX:N1	2.69	0.40
1:2:248:U:OP1	86:2:2092:OHX:N6	2.54	0.40
1:2:463:U:C4	1:2:464:A:N7	2.90	0.40
1:2:772:G:C5	1:2:773:C:C4	3.09	0.40
1:2:789:A:O2'	6:S4:106:LYS:NZ	2.47	0.40
1:2:946:U:H2'	1:2:947:U:C6	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:4:152:G:H2'	38:4:153:U:O4'	2.22	0.40
36:5:1072:G:O2'	36:5:1073:U:H5'	2.22	0.40
36:5:978:G:N2	36:5:1104:G:C5	2.89	0.40
36:5:123:A:H5'	36:5:124:U:OP2	2.22	0.40
36:5:1256:G:C2	36:5:1257:C:C2	3.09	0.40
36:5:1724:U:O2	36:5:1725:C:C2	2.74	0.40
36:5:2419:A:H1'	36:5:2804:A:O4'	2.22	0.40
36:5:2875:U:H2'	36:5:2876:C:O5'	2.22	0.40
5:S3:141:LYS:NZ	1:6:1275:A:N3	390.11	0.40
1:6:281:G:C6	1:6:282:C:C4	3.10	0.40
1:6:291:G:C2	1:6:292:U:O4	2.75	0.40
1:6:626:U:H2'	1:6:627:C:C6	2.55	0.40
38:8:69:U:H2'	38:8:70:G:O4'	2.21	0.40
12:C0:12:HIS:CE1	12:C0:49:LEU:HD21	2.57	0.40
13:C1:92:HIS:HB2	13:C1:103:ARG:HD2	2.11	0.40
18:C6:45:ARG:O	18:C6:48:VAL:HG12	2.22	0.40
19:C7:36:ASP:N	19:C7:36:ASP:OD2	2.55	0.40
20:C8:101:LEU:O	20:C8:104:ASN:HB3	2.60	0.40
21:C9:10:ALA:HB3	21:C9:13:ASP:OD2	2.21	0.40
22:D0:108:ILE:HD12	22:D0:108:ILE:HA	3.98	0.40
24:D2:86:ILE:H	24:D2:86:ILE:HG13	1.70	0.40
25:D3:100:ASP:O	25:D3:101:GLU:HB3	4.83	0.40
25:D3:17:VAL:HG23	25:D3:20:ARG:CZ	4.76	0.40
27:D5:85:LYS:CG	27:D5:86:GLU:H	3.00	0.40
32:E0:20:LYS:HG3	32:E0:21:VAL:N	2.35	0.40
32:E0:46:ASN:HD21	32:E0:48:THR:HG22	5.15	0.40
39:L2:5:ILE:HG12	39:L2:8:GLN:OE1	4.12	0.40
40:L3:61:ASP:OD1	40:L3:68:HIS:HE1	3.34	0.40
36:1:1382:G:P	41:L4:188:ARG:HH12	2.44	0.40
42:L5:109:THR:OG1	42:L5:110:LEU:N	2.53	0.40
42:L5:270:LYS:C	42:L5:272:TYR:H	3.06	0.40
43:L6:130:ILE:HG21	43:L6:135:VAL:HG23	2.03	0.40
44:L7:101:LYS:HG3	44:L7:105:LEU:HD12	2.02	0.40
44:L7:59:GLU:O	44:L7:63:ILE:HG13	2.21	0.40
45:L8:164:VAL:O	45:L8:167:PRO:HD2	2.52	0.40
46:L9:173:ARG:HD3	76:Q0:127:LEU:HG	2.03	0.40
47:M0:140:THR:HB	47:M0:141:LYS:H	1.55	0.40
48:M1:96:PHE:CD2	48:M1:96:PHE:N	3.23	0.40
49:M3:64:LYS:HA	64:N8:69:TRP:CE3	2.98	0.40
50:M4:108:ARG:HD2	50:M4:108:ARG:HA	1.82	0.40
36:1:269:G:P	51:M5:44:ARG:HH22	2.44	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M6:88:VAL:CG1	52:M6:89:SER:N	3.23	0.40
54:M8:83:VAL:O	54:M8:103:ALA:HA	2.20	0.40
55:M9:172:ARG:O	55:M9:176:ARG:HG2	2.21	0.40
56:N0:42:TRP:NE1	56:N0:58:ILE:HD11	2.36	0.40
58:N2:18:ASP:H	58:N2:104:ARG:HA	1.85	0.40
36:1:952:A:OP1	65:N9:14:ARG:NH2	2.55	0.40
69:O3:73:ARG:NH2	69:O3:82:ARG:CZ	2.85	0.40
74:O8:9:LYS:O	74:O8:13:GLU:HG3	2.21	0.40
2:S0:122:ILE:HG23	2:S0:144:ILE:HB	2.46	0.40
2:S0:160:ILE:HA	2:S0:161:PRO:HD2	2.03	0.40
2:S0:168:HIS:HA	2:S0:203:PHE:CE2	2.74	0.40
6:S4:105:VAL:HG11	6:S4:245:LYS:H	2.43	0.40
6:S4:104:ASP:HB3	6:S4:105:VAL:H	1.62	0.40
7:S5:89:ILE:HD12	7:S5:90:ILE:H	1.87	0.40
8:S6:13:GLN:HE22	1:6:151:G:N2	312.66	0.40
9:S7:67:LEU:HD13	9:S7:71:HIS:CE1	2.56	0.40
1:2:380:U:H5	11:S9:5:PRO:HA	1.87	0.40
11:S9:92:LYS:HA	11:S9:92:LYS:HE3	2.04	0.40
35:SM:84:LYS:HD2	35:SM:85:SER:N	2.36	0.40
34:SR:90:ARG:NH2	1:6:1341:A:H4'	455.09	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%)	148 (72%)	34 (17%)	22 (11%)	0	3
2	s0	204/251 (81%)	144 (71%)	37 (18%)	23 (11%)	0	2
3	S1	212/254 (84%)	153 (72%)	30 (14%)	29 (14%)	0	1
3	s1	214/254 (84%)	173 (81%)	32 (15%)	9 (4%)	3	19

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	S2	215/253 (85%)	187 (87%)	20 (9%)	8 (4%)	4	22
4	s2	215/253 (85%)	177 (82%)	24 (11%)	14 (6%)	1	9
5	S3	221/239 (92%)	182 (82%)	27 (12%)	12 (5%)	2	14
5	s3	221/239 (92%)	173 (78%)	27 (12%)	21 (10%)	1	4
6	S4	258/260 (99%)	200 (78%)	45 (17%)	13 (5%)	2	16
6	s4	258/260 (99%)	215 (83%)	26 (10%)	17 (7%)	1	9
7	S5	204/224 (91%)	161 (79%)	25 (12%)	18 (9%)	1	5
7	s5	204/224 (91%)	158 (78%)	30 (15%)	16 (8%)	1	6
8	S6	224/236 (95%)	188 (84%)	27 (12%)	9 (4%)	3	20
8	s6	216/236 (92%)	189 (88%)	16 (7%)	11 (5%)	2	15
9	S7	182/189 (96%)	135 (74%)	27 (15%)	20 (11%)	0	3
9	s7	184/189 (97%)	145 (79%)	26 (14%)	13 (7%)	1	8
10	S8	184/200 (92%)	150 (82%)	24 (13%)	10 (5%)	2	14
10	s8	184/200 (92%)	159 (86%)	19 (10%)	6 (3%)	4	25
11	S9	183/196 (93%)	144 (79%)	27 (15%)	12 (7%)	1	9
11	s9	183/196 (93%)	144 (79%)	33 (18%)	6 (3%)	4	25
12	C0	94/105 (90%)	66 (70%)	19 (20%)	9 (10%)	1	4
12	c0	92/105 (88%)	66 (72%)	13 (14%)	13 (14%)	0	1
13	C1	153/155 (99%)	127 (83%)	14 (9%)	12 (8%)	1	6
13	c1	144/155 (93%)	123 (85%)	14 (10%)	7 (5%)	2	16
14	C2	122/142 (86%)	73 (60%)	25 (20%)	24 (20%)	0	0
14	c2	122/142 (86%)	71 (58%)	28 (23%)	23 (19%)	0	0
15	C3	148/150 (99%)	127 (86%)	14 (10%)	7 (5%)	3	17
15	c3	148/150 (99%)	117 (79%)	20 (14%)	11 (7%)	1	7
16	C4	125/136 (92%)	88 (70%)	22 (18%)	15 (12%)	0	2
16	c4	126/136 (93%)	103 (82%)	13 (10%)	10 (8%)	1	6
17	C5	122/141 (86%)	87 (71%)	24 (20%)	11 (9%)	1	5
17	c5	133/141 (94%)	92 (69%)	22 (16%)	19 (14%)	0	1
18	C6	139/142 (98%)	116 (84%)	11 (8%)	12 (9%)	1	5
18	c6	140/142 (99%)	115 (82%)	18 (13%)	7 (5%)	2	16
19	C7	116/136 (85%)	87 (75%)	19 (16%)	10 (9%)	1	5

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
19	c7	113/136 (83%)	84 (74%)	19 (17%)	10 (9%)	1	5
20	C8	143/145 (99%)	112 (78%)	20 (14%)	11 (8%)	1	6
20	c8	143/145 (99%)	116 (81%)	18 (13%)	9 (6%)	1	10
21	C9	141/143 (99%)	119 (84%)	16 (11%)	6 (4%)	3	18
21	c9	141/143 (99%)	118 (84%)	18 (13%)	5 (4%)	4	23
22	D0	105/120 (88%)	85 (81%)	15 (14%)	5 (5%)	2	16
22	d0	108/120 (90%)	82 (76%)	16 (15%)	10 (9%)	1	4
23	D1	85/87 (98%)	67 (79%)	9 (11%)	9 (11%)	0	3
23	d1	85/87 (98%)	67 (79%)	14 (16%)	4 (5%)	3	17
24	D2	127/129 (98%)	104 (82%)	20 (16%)	3 (2%)	7	32
24	d2	127/129 (98%)	116 (91%)	11 (9%)	0	100	100
25	D3	142/144 (99%)	111 (78%)	18 (13%)	13 (9%)	1	4
25	d3	142/144 (99%)	121 (85%)	17 (12%)	4 (3%)	6	29
26	D4	132/134 (98%)	108 (82%)	13 (10%)	11 (8%)	1	6
26	d4	132/134 (98%)	101 (76%)	16 (12%)	15 (11%)	0	2
27	D5	68/107 (64%)	46 (68%)	12 (18%)	10 (15%)	0	1
27	d5	67/107 (63%)	54 (81%)	8 (12%)	5 (8%)	1	7
28	D6	95/97 (98%)	56 (59%)	20 (21%)	19 (20%)	0	0
28	d6	95/97 (98%)	71 (75%)	15 (16%)	9 (10%)	1	4
29	D7	79/81 (98%)	67 (85%)	8 (10%)	4 (5%)	2	15
29	d7	79/81 (98%)	60 (76%)	13 (16%)	6 (8%)	1	6
30	D8	61/66 (92%)	51 (84%)	7 (12%)	3 (5%)	2	16
30	d8	61/66 (92%)	41 (67%)	16 (26%)	4 (7%)	1	9
31	D9	51/55 (93%)	43 (84%)	5 (10%)	3 (6%)	2	12
31	d9	51/55 (93%)	39 (76%)	7 (14%)	5 (10%)	1	4
32	E0	58/60 (97%)	45 (78%)	10 (17%)	3 (5%)	2	14
33	E1	69/76 (91%)	33 (48%)	14 (20%)	22 (32%)	0	0
33	e1	74/76 (97%)	36 (49%)	16 (22%)	22 (30%)	0	0
34	SR	316/318 (99%)	270 (85%)	32 (10%)	14 (4%)	3	18
34	sR	316/318 (99%)	271 (86%)	38 (12%)	7 (2%)	8	35
35	SM	155/273 (57%)	107 (69%)	28 (18%)	20 (13%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
35	sM	98/273 (36%)	65 (66%)	17 (17%)	16 (16%)	0	0
39	L2	250/253 (99%)	223 (89%)	18 (7%)	9 (4%)	4	23
39	l2	250/253 (99%)	200 (80%)	35 (14%)	15 (6%)	2	11
40	L3	384/386 (100%)	332 (86%)	38 (10%)	14 (4%)	4	23
40	l3	384/386 (100%)	337 (88%)	35 (9%)	12 (3%)	5	26
41	L4	359/361 (99%)	292 (81%)	45 (12%)	22 (6%)	2	11
41	l4	359/361 (99%)	298 (83%)	42 (12%)	19 (5%)	2	14
42	L5	294/296 (99%)	233 (79%)	39 (13%)	22 (8%)	1	7
42	l5	292/296 (99%)	251 (86%)	34 (12%)	7 (2%)	7	32
43	L6	152/175 (87%)	127 (84%)	21 (14%)	4 (3%)	6	31
43	l6	153/175 (87%)	121 (79%)	28 (18%)	4 (3%)	6	31
44	L7	220/243 (90%)	193 (88%)	18 (8%)	9 (4%)	3	19
44	l7	221/243 (91%)	189 (86%)	23 (10%)	9 (4%)	3	19
45	L8	231/255 (91%)	189 (82%)	31 (13%)	11 (5%)	2	16
45	l8	229/255 (90%)	176 (77%)	33 (14%)	20 (9%)	1	5
46	L9	189/191 (99%)	164 (87%)	19 (10%)	6 (3%)	5	25
46	l9	189/191 (99%)	162 (86%)	24 (13%)	3 (2%)	11	43
47	M0	207/220 (94%)	171 (83%)	29 (14%)	7 (3%)	4	24
47	m0	209/220 (95%)	168 (80%)	31 (15%)	10 (5%)	2	16
48	M1	167/173 (96%)	123 (74%)	25 (15%)	19 (11%)	0	2
48	m1	167/173 (96%)	138 (83%)	17 (10%)	12 (7%)	1	7
49	M3	191/198 (96%)	159 (83%)	21 (11%)	11 (6%)	2	12
49	m3	192/198 (97%)	156 (81%)	23 (12%)	13 (7%)	1	8
50	M4	134/137 (98%)	118 (88%)	8 (6%)	8 (6%)	2	11
50	m4	135/137 (98%)	120 (89%)	12 (9%)	3 (2%)	8	35
51	M5	201/203 (99%)	182 (90%)	14 (7%)	5 (2%)	6	31
51	m5	201/203 (99%)	182 (90%)	12 (6%)	7 (4%)	4	23
52	M6	195/198 (98%)	179 (92%)	11 (6%)	5 (3%)	6	31
52	m6	195/198 (98%)	178 (91%)	10 (5%)	7 (4%)	4	23
53	M7	181/183 (99%)	152 (84%)	19 (10%)	10 (6%)	2	13
53	m7	153/183 (84%)	135 (88%)	13 (8%)	5 (3%)	4	25

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
54	M8	183/185 (99%)	158 (86%)	20 (11%)	5 (3%)	6	30
54	m8	183/185 (99%)	152 (83%)	27 (15%)	4 (2%)	8	35
55	M9	186/188 (99%)	167 (90%)	16 (9%)	3 (2%)	11	43
55	m9	186/188 (99%)	163 (88%)	17 (9%)	6 (3%)	5	25
56	N0	170/172 (99%)	147 (86%)	18 (11%)	5 (3%)	5	28
56	n0	170/172 (99%)	155 (91%)	13 (8%)	2 (1%)	15	51
57	N1	157/159 (99%)	136 (87%)	16 (10%)	5 (3%)	5	25
57	n1	157/159 (99%)	142 (90%)	12 (8%)	3 (2%)	9	39
58	N2	98/120 (82%)	70 (71%)	19 (19%)	9 (9%)	1	4
58	n2	96/120 (80%)	78 (81%)	12 (12%)	6 (6%)	1	10
59	N3	134/136 (98%)	124 (92%)	7 (5%)	3 (2%)	8	35
59	n3	134/136 (98%)	123 (92%)	9 (7%)	2 (2%)	12	45
60	N4	96/155 (62%)	70 (73%)	16 (17%)	10 (10%)	0	3
60	n4	133/155 (86%)	108 (81%)	13 (10%)	12 (9%)	1	5
61	N5	119/141 (84%)	107 (90%)	10 (8%)	2 (2%)	11	42
61	n5	118/141 (84%)	99 (84%)	11 (9%)	8 (7%)	1	8
62	N6	124/126 (98%)	108 (87%)	11 (9%)	5 (4%)	3	20
62	n6	124/126 (98%)	112 (90%)	8 (6%)	4 (3%)	5	25
63	N7	133/135 (98%)	111 (84%)	12 (9%)	10 (8%)	1	7
63	n7	133/135 (98%)	97 (73%)	26 (20%)	10 (8%)	1	7
64	N8	146/148 (99%)	119 (82%)	19 (13%)	8 (6%)	2	13
64	n8	146/148 (99%)	117 (80%)	19 (13%)	10 (7%)	1	8
65	N9	56/58 (97%)	47 (84%)	6 (11%)	3 (5%)	2	14
65	n9	56/58 (97%)	42 (75%)	7 (12%)	7 (12%)	0	1
66	O0	95/104 (91%)	83 (87%)	9 (10%)	3 (3%)	5	25
66	o0	98/104 (94%)	86 (88%)	9 (9%)	3 (3%)	5	26
67	O1	107/112 (96%)	92 (86%)	9 (8%)	6 (6%)	2	12
67	o1	107/112 (96%)	87 (81%)	10 (9%)	10 (9%)	1	4
68	O2	125/129 (97%)	112 (90%)	9 (7%)	4 (3%)	5	25
68	o2	125/129 (97%)	101 (81%)	17 (14%)	7 (6%)	2	12
69	O3	104/106 (98%)	96 (92%)	8 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
69	o3	104/106 (98%)	94 (90%)	7 (7%)	3 (3%)	5	28
70	O4	110/119 (92%)	93 (84%)	16 (14%)	1 (1%)	20	60
70	o4	110/119 (92%)	92 (84%)	14 (13%)	4 (4%)	4	23
71	O5	117/119 (98%)	97 (83%)	18 (15%)	2 (2%)	11	42
71	o5	117/119 (98%)	96 (82%)	15 (13%)	6 (5%)	2	15
72	O6	97/99 (98%)	72 (74%)	16 (16%)	9 (9%)	1	4
72	o6	97/99 (98%)	78 (80%)	13 (13%)	6 (6%)	2	10
73	O7	85/87 (98%)	74 (87%)	7 (8%)	4 (5%)	3	17
73	o7	85/87 (98%)	76 (89%)	5 (6%)	4 (5%)	3	17
74	O8	75/77 (97%)	62 (83%)	10 (13%)	3 (4%)	3	20
74	o8	75/77 (97%)	60 (80%)	11 (15%)	4 (5%)	2	14
75	O9	48/50 (96%)	44 (92%)	4 (8%)	0	100	100
75	o9	48/50 (96%)	44 (92%)	2 (4%)	2 (4%)	3	19
76	Q0	50/52 (96%)	46 (92%)	2 (4%)	2 (4%)	3	20
76	q0	50/52 (96%)	47 (94%)	2 (4%)	1 (2%)	9	37
77	Q1	23/25 (92%)	20 (87%)	3 (13%)	0	100	100
77	q1	23/25 (92%)	18 (78%)	5 (22%)	0	100	100
78	Q2	103/105 (98%)	86 (84%)	12 (12%)	5 (5%)	2	16
78	q2	103/105 (98%)	94 (91%)	9 (9%)	0	100	100
79	Q3	89/91 (98%)	72 (81%)	13 (15%)	4 (4%)	3	17
79	q3	89/91 (98%)	77 (86%)	9 (10%)	3 (3%)	4	24
80	e0	60/62 (97%)	45 (75%)	8 (13%)	7 (12%)	0	2
82	p0	139/311 (45%)	120 (86%)	13 (9%)	6 (4%)	3	18
All	All	22333/24141 (92%)	18313 (82%)	2695 (12%)	1325 (6%)	2	12

All (1325) 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	158	VAL
2	S0	191	ARG

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Mol	Chain	Res	Type
3	S1	49	ASN
3	S1	58	SER
3	S1	79	HIS
3	S1	148	ASN
3	S1	177	GLN
3	S1	179	SER
3	S1	206	PRO
4	S2	148	LEU
5	S3	62	ASN
5	S3	65	ARG
5	S3	93	ASP
5	S3	211	PRO
5	S3	216	PRO
5	S3	220	PRO
6	S4	96	ASN
6	S4	104	ASP
6	S4	242	LYS
7	S5	26	ALA
7	S5	35	GLN
7	S5	39	GLU
7	S5	63	GLN
7	S5	101	GLY
8	S6	20	ASP
8	S6	173	PRO
8	S6	174	LYS
9	S7	31	SER
9	S7	32	PRO
9	S7	64	VAL
9	S7	111	LYS
9	S7	112	ARG
9	S7	116	ARG
9	S7	131	PHE
9	S7	133	THR
9	S7	134	GLU
9	S7	155	ASP
10	S8	22	ARG
11	S9	134	ILE
12	C0	54	TYR
12	C0	60	SER
12	C0	81	ASN
12	C0	88	PRO
13	C1	7	VAL

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Mol	Chain	Res	Type
13	C1	30	ARG
13	C1	147	ALA
14	C2	83	GLU
14	C2	89	ILE
14	C2	90	LYS
14	C2	93	ASP
15	C3	22	ALA
15	C3	68	GLY
16	C4	38	THR
16	C4	39	ILE
16	C4	50	ALA
16	C4	51	ASP
16	C4	124	ASP
16	C4	125	SER
16	C4	126	THR
17	C5	54	ALA
17	C5	80	MET
17	C5	125	PRO
17	C5	126	VAL
18	C6	39	VAL
18	C6	40	GLU
18	C6	41	PRO
18	C6	58	ASP
18	C6	59	LYS
18	C6	113	ASP
18	C6	114	ARG
18	C6	116	LEU
18	C6	138	PHE
19	C7	85	VAL
19	C7	86	PRO
19	C7	88	VAL
19	C7	123	ASN
19	C7	124	VAL
20	C8	14	ILE
20	C8	25	ASN
20	C8	60	GLU
20	C8	91	ASP
20	C8	92	ILE
20	C8	125	ILE
20	C8	144	ARG
21	C9	31	PRO
21	C9	53	TRP

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Mol	Chain	Res	Type
23	D1	7	GLN
23	D1	44	ARG
23	D1	82	VAL
24	D2	66	ASN
24	D2	83	ILE
25	D3	11	SER
25	D3	92	CYS
25	D3	128	SER
25	D3	137	LYS
25	D3	138	GLU
25	D3	144	ARG
26	D4	36	SER
27	D5	39	ALA
27	D5	43	ASP
27	D5	44	GLN
27	D5	56	THR
27	D5	71	ILE
27	D5	97	LYS
28	D6	18	VAL
28	D6	45	VAL
28	D6	47	ALA
28	D6	61	GLU
28	D6	65	PRO
28	D6	82	ARG
28	D6	84	VAL
28	D6	85	ARG
28	D6	86	VAL
29	D7	38	PRO
29	D7	62	ILE
30	D8	36	THR
32	E0	13	LYS
32	E0	47	VAL
33	E1	84	VAL
33	E1	102	VAL
33	E1	103	LEU
33	E1	106	TYR
33	E1	127	GLY
34	SR	51	ASP
34	SR	160	GLU
34	SR	161	LYS
35	SM	17	VAL
35	SM	52	PRO

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Mol	Chain	Res	Type
35	SM	87	THR
35	SM	140	ASP
35	SM	166	VAL
35	SM	167	PRO
39	L2	47	GLN
40	L3	140	ASP
40	L3	142	ALA
40	L3	187	SER
40	L3	188	ILE
40	L3	300	ARG
40	L3	347	SER
41	L4	4	PRO
41	L4	130	ALA
41	L4	131	VAL
41	L4	146	PRO
41	L4	291	ASN
41	L4	317	PRO
41	L4	338	LYS
42	L5	20	PHE
42	L5	58	LYS
42	L5	215	ASP
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	31	PRO
45	L8	39	ALA
46	L9	50	ASN
47	M0	145	LYS
47	M0	189	GLU
47	M0	218	ALA
48	M1	8	PRO
48	M1	9	MET
48	M1	11	ASP
48	M1	12	LEU
48	M1	74	PRO
48	M1	140	ARG
48	M1	165	GLN
49	M3	47	ALA
49	M3	129	ASN

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Mol	Chain	Res	Type
49	M3	131	LYS
49	M3	141	ALA
50	M4	8	LYS
50	M4	9	ALA
50	M4	29	ALA
51	M5	144	ARG
51	M5	184	LYS
52	M6	111	PRO
53	M7	157	VAL
54	M8	24	VAL
54	M8	99	THR
56	N0	142	GLN
57	N1	124	VAL
57	N1	159	PHE
60	N4	64	THR
60	N4	81	PRO
61	N5	44	PRO
62	N6	52	ARG
62	N6	84	LYS
62	N6	126	LEU
63	N7	17	ARG
63	N7	35	SER
63	N7	125	GLY
63	N7	129	TRP
64	N8	76	ASP
64	N8	117	ARG
67	O1	5	LYS
67	O1	6	ASP
68	O2	27	ARG
71	O5	119	LYS
72	O6	28	TYR
72	O6	33	ALA
76	Q0	78	ILE
78	Q2	33	ALA
2	s0	4	PRO
2	s0	8	ASP
2	s0	62	ARG
2	s0	95	ALA
2	s0	103	THR
2	s0	164	ASN
2	s0	186	GLY
2	s0	189	VAL

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Mol	Chain	Res	Type
2	s0	206	ASP
3	s1	179	SER
3	s1	206	PRO
3	s1	223	PHE
3	s1	232	HIS
4	s2	40	LYS
4	s2	91	ARG
4	s2	92	ALA
4	s2	163	GLY
5	s3	61	GLU
5	s3	211	PRO
5	s3	216	PRO
5	s3	217	ILE
5	s3	220	PRO
5	s3	221	SER
6	s4	80	THR
6	s4	95	THR
6	s4	104	ASP
6	s4	163	ASP
6	s4	195	ILE
6	s4	196	VAL
7	s5	28	PRO
7	s5	39	GLU
7	s5	184	PHE
7	s5	204	GLY
7	s5	209	TYR
8	s6	70	PRO
8	s6	153	VAL
8	s6	173	PRO
8	s6	174	LYS
9	s7	10	SER
9	s7	64	VAL
9	s7	67	LEU
9	s7	131	PHE
9	s7	185	ILE
10	s8	199	LYS
11	s9	65	LYS
11	s9	134	ILE
12	c0	32	HIS
12	c0	82	LEU
12	c0	83	PRO
12	c0	88	PRO

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Mol	Chain	Res	Type
12	c0	94	GLU
12	c0	97	PRO
13	c1	8	GLN
13	c1	121	ASP
13	c1	144	ALA
14	c2	22	VAL
14	c2	82	PRO
14	c2	89	ILE
14	c2	93	ASP
15	c3	12	SER
15	c3	19	SER
15	c3	60	VAL
15	c3	66	ILE
15	c3	87	ASP
15	c3	139	TRP
15	c3	140	LYS
16	c4	124	ASP
16	c4	132	ARG
17	c5	11	VAL
17	c5	51	SER
17	c5	68	PRO
17	c5	125	PRO
17	c5	126	VAL
17	c5	127	ARG
18	c6	39	VAL
18	c6	42	GLU
18	c6	116	LEU
19	c7	88	VAL
19	c7	99	VAL
20	c8	91	ASP
20	c8	92	ILE
21	c9	28	LEU
21	c9	34	VAL
22	d0	15	GLN
22	d0	49	ASN
22	d0	96	PRO
22	d0	97	VAL
22	d0	118	VAL
26	d4	30	PRO
26	d4	33	ALA
26	d4	35	VAL
26	d4	121	THR

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Mol	Chain	Res	Type
26	d4	123	LYS
26	d4	132	ARG
27	d5	85	LYS
27	d5	104	ALA
28	d6	47	ALA
28	d6	63	ALA
29	d7	38	PRO
29	d7	60	SER
30	d8	57	MET
31	d9	6	VAL
80	e0	51	ASN
80	e0	60	PRO
33	e1	79	LYS
33	e1	83	LYS
33	e1	87	THR
33	e1	92	LYS
33	e1	98	VAL
33	e1	100	LEU
33	e1	103	LEU
33	e1	106	TYR
33	e1	136	LYS
34	sR	4	ASN
34	sR	163	ASP
34	sR	165	ASP
34	sR	318	ALA
35	sM	50	ASN
35	sM	66	ALA
39	l2	96	LEU
39	l2	194	ASN
40	l3	140	ASP
40	l3	155	ALA
40	l3	347	SER
41	l4	14	GLU
41	l4	120	TYR
41	l4	145	ILE
41	l4	301	PRO
41	l4	329	PRO
41	l4	330	TYR
41	l4	339	LEU
42	l5	260	PHE
43	l6	30	LEU
43	l6	98	VAL

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Mol	Chain	Res	Type
44	l7	54	GLU
44	l7	159	GLN
44	l7	178	ILE
45	l8	25	PRO
45	l8	26	LEU
45	l8	34	PHE
45	l8	81	THR
45	l8	121	SER
45	l8	122	LYS
47	m0	82	ARG
47	m0	101	LYS
47	m0	175	ASN
48	m1	8	PRO
48	m1	9	MET
48	m1	10	ARG
48	m1	39	GLN
48	m1	94	ARG
48	m1	95	ASN
48	m1	108	GLU
49	m3	47	ALA
49	m3	93	ILE
49	m3	134	GLU
49	m3	141	ALA
50	m4	136	ALA
51	m5	183	THR
51	m5	184	LYS
52	m6	12	LYS
52	m6	13	GLY
52	m6	16	VAL
52	m6	110	PRO
53	m7	75	GLU
54	m8	99	THR
59	n3	42	SER
60	n4	26	SER
60	n4	63	ILE
60	n4	76	VAL
60	n4	134	GLN
61	n5	24	LEU
61	n5	44	PRO
62	n6	83	ASP
62	n6	84	LYS
62	n6	125	LYS

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Mol	Chain	Res	Type
62	n6	126	LEU
64	n8	76	ASP
64	n8	120	ASN
65	n9	5	LYS
65	n9	21	ILE
65	n9	25	LYS
65	n9	39	PHE
66	o0	100	ILE
67	o1	7	VAL
67	o1	64	VAL
67	o1	83	GLU
67	o1	99	ALA
68	o2	4	LEU
68	o2	5	PRO
68	o2	27	ARG
69	o3	88	ASN
70	o4	46	ASP
70	o4	79	SER
71	o5	70	TYR
71	o5	119	LYS
72	o6	64	SER
72	o6	98	ARG
74	o8	18	ALA
82	p0	93	LEU
82	p0	198	PRO
2	S0	5	ALA
2	S0	26	ALA
2	S0	49	ASN
2	S0	94	GLY
2	S0	95	ALA
2	S0	189	VAL
2	S0	203	PHE
3	S1	35	PRO
3	S1	51	SER
3	S1	59	ASP
3	S1	60	ALA
3	S1	63	GLY
3	S1	93	GLY
3	S1	221	PRO
4	S2	91	ARG
4	S2	248	SER
5	S3	195	SER

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Mol	Chain	Res	Type
6	S4	3	ARG
6	S4	77	ARG
6	S4	164	LEU
7	S5	43	PHE
7	S5	51	VAL
7	S5	127	GLN
7	S5	153	GLY
7	S5	154	ALA
8	S6	39	GLU
8	S6	154	ARG
9	S7	85	PHE
9	S7	156	SER
10	S8	40	ALA
10	S8	120	THR
10	S8	149	SER
11	S9	98	ALA
11	S9	117	GLY
11	S9	121	SER
12	C0	64	TYR
12	C0	94	GLU
13	C1	29	LYS
13	C1	55	ASP
13	C1	146	ALA
14	C2	91	VAL
14	C2	101	ALA
14	C2	125	ASN
14	C2	127	GLY
15	C3	27	LYS
15	C3	138	ASN
16	C4	33	LEU
16	C4	42	VAL
17	C5	51	SER
19	C7	72	LYS
19	C7	87	GLU
19	C7	113	LEU
20	C8	61	LEU
21	C9	69	LYS
23	D1	2	GLU
23	D1	12	TYR
23	D1	15	ARG
25	D3	3	LYS
25	D3	70	LYS

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Mol	Chain	Res	Type
26	D4	5	VAL
26	D4	34	ASN
26	D4	51	GLU
28	D6	3	LYS
28	D6	5	ARG
28	D6	63	ALA
29	D7	63	LEU
31	D9	6	VAL
31	D9	8	PHE
33	E1	98	VAL
33	E1	110	ALA
33	E1	111	GLU
33	E1	128	ALA
33	E1	138	ARG
33	E1	145	HIS
34	SR	217	ASP
34	SR	318	ALA
35	SM	86	ASN
35	SM	88	ARG
35	SM	89	ARG
35	SM	102	THR
35	SM	116	GLU
35	SM	139	GLU
35	SM	153	ASP
35	SM	172	VAL
39	L2	143	GLU
39	L2	144	ASN
40	L3	4	ARG
40	L3	5	LYS
40	L3	333	LYS
40	L3	351	LEU
40	L3	385	LYS
41	L4	15	ALA
41	L4	190	GLY
41	L4	268	ALA
41	L4	270	SER
41	L4	311	HIS
41	L4	318	LEU
42	L5	137	ASP
42	L5	253	PHE
42	L5	260	PHE
42	L5	295	GLY

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Mol	Chain	Res	Type
44	L7	91	GLY
44	L7	160	ARG
44	L7	163	LEU
45	L8	115	ALA
45	L8	116	VAL
45	L8	156	ASP
45	L8	254	ASP
46	L9	2	LYS
46	L9	164	ILE
47	M0	117	GLY
47	M0	211	ARG
48	M1	94	ARG
48	M1	115	LYS
48	M1	151	SER
48	M1	167	TYR
50	M4	36	VAL
50	M4	135	LEU
50	M4	136	ALA
51	M5	81	TYR
51	M5	145	ASP
52	M6	16	VAL
52	M6	196	ALA
53	M7	161	ALA
53	M7	164	LYS
55	M9	133	LYS
56	N0	167	ARG
57	N1	114	ALA
58	N2	44	GLU
58	N2	51	GLY
58	N2	60	GLY
59	N3	82	ALA
60	N4	16	GLY
60	N4	86	SER
62	N6	53	ASP
62	N6	92	GLY
63	N7	102	GLU
63	N7	128	GLN
64	N8	66	ALA
64	N8	78	LEU
67	O1	84	ASP
68	O2	127	ALA
70	O4	77	GLY

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Mol	Chain	Res	Type
71	O5	97	ALA
72	O6	3	VAL
72	O6	34	SER
73	O7	12	HIS
73	O7	86	ALA
74	O8	18	ALA
78	Q2	94	GLY
78	Q2	100	LYS
79	Q3	21	SER
2	s0	44	GLY
2	s0	66	ALA
2	s0	92	HIS
2	s0	111	ILE
2	s0	185	ARG
3	s1	93	GLY
3	s1	147	ALA
3	s1	154	SER
4	s2	93	GLY
4	s2	107	SER
5	s3	4	LEU
5	s3	59	LEU
5	s3	115	ILE
5	s3	180	GLY
6	s4	12	LEU
6	s4	24	SER
6	s4	164	LEU
7	s5	43	PHE
7	s5	153	GLY
7	s5	171	ALA
7	s5	172	ILE
8	s6	68	LEU
8	s6	126	ASP
8	s6	154	ARG
9	s7	8	ILE
9	s7	66	SER
9	s7	74	GLN
10	s8	101	ILE
11	s9	64	GLU
11	s9	147	MET
12	c0	23	ALA
12	c0	92	ILE
13	c1	114	ALA

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Mol	Chain	Res	Type
14	c2	45	LEU
14	c2	58	LEU
14	c2	101	ALA
14	c2	110	ALA
14	c2	119	SER
14	c2	131	ASP
17	c5	14	THR
17	c5	17	TYR
17	c5	131	ALA
17	c5	132	GLY
18	c6	113	ASP
19	c7	42	GLN
19	c7	67	ARG
19	c7	98	GLY
20	c8	14	ILE
20	c8	18	LEU
20	c8	55	HIS
20	c8	60	GLU
20	c8	61	LEU
21	c9	33	TYR
22	d0	17	GLN
22	d0	51	VAL
22	d0	52	LYS
23	d1	10	GLU
23	d1	44	ARG
25	d3	37	ALA
26	d4	50	ALA
26	d4	51	GLU
26	d4	84	LYS
27	d5	38	HIS
27	d5	44	GLN
28	d6	13	LYS
29	d7	20	LYS
29	d7	62	ILE
30	d8	61	ARG
31	d9	11	PRO
80	e0	47	VAL
33	e1	84	VAL
33	e1	102	VAL
33	e1	112	GLY
33	e1	127	GLY
33	e1	146	SER

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Mol	Chain	Res	Type
34	sR	160	GLU
34	sR	186	PHE
35	sM	48	ARG
35	sM	63	ASP
35	sM	65	THR
35	sM	67	GLY
35	sM	78	ASP
39	l2	13	GLY
39	l2	24	GLN
39	l2	56	ALA
39	l2	213	GLY
39	l2	215	ASN
39	l2	238	ILE
40	l3	22	ALA
40	l3	235	THR
41	l4	90	PHE
41	l4	144	LYS
41	l4	233	LEU
41	l4	302	ALA
41	l4	311	HIS
41	l4	338	LYS
41	l4	342	LYS
42	l5	178	ASN
42	l5	258	LYS
42	l5	270	LYS
43	l6	93	VAL
45	l8	39	ALA
45	l8	82	LEU
45	l8	117	ALA
45	l8	203	VAL
45	l8	239	GLY
45	l8	240	ASN
46	l9	144	ILE
47	m0	176	LEU
49	m3	51	LEU
49	m3	101	ARG
49	m3	129	ASN
49	m3	140	SER
49	m3	152	THR
49	m3	162	ASN
50	m4	135	LEU
51	m5	81	TYR

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Mol	Chain	Res	Type
52	m6	183	ALA
54	m8	41	ASP
55	m9	77	GLY
55	m9	183	ALA
58	n2	49	ASN
58	n2	91	ASP
59	n3	41	GLY
60	n4	98	PRO
61	n5	25	LYS
61	n5	40	LEU
61	n5	45	LYS
63	n7	7	ALA
63	n7	16	GLY
63	n7	129	TRP
64	n8	129	PHE
67	o1	5	LYS
67	o1	45	GLY
67	o1	84	ASP
68	o2	6	HIS
68	o2	12	LYS
68	o2	124	GLY
71	o5	82	ALA
72	o6	4	LYS
72	o6	33	ALA
73	o7	86	ALA
76	q0	78	ILE
79	q3	20	SER
79	q3	51	ALA
82	p0	47	GLY
2	S0	103	THR
2	S0	139	VAL
2	S0	164	ASN
2	S0	195	TRP
4	S2	107	SER
5	S3	59	LEU
6	S4	26	CYS
6	S4	38	LEU
6	S4	153	ASN
6	S4	195	ILE
7	S5	45	LYS
7	S5	81	ARG
7	S5	156	ARG

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Mol	Chain	Res	Type
8	S6	70	PRO
8	S6	152	ASP
9	S7	5	GLN
9	S7	30	SER
9	S7	36	ALA
9	S7	73	VAL
9	S7	98	ILE
10	S8	52	ASN
10	S8	105	ASP
10	S8	152	ILE
11	S9	118	LEU
11	S9	120	LYS
11	S9	163	PRO
11	S9	164	PHE
11	S9	169	PRO
13	C1	6	THR
13	C1	113	PRO
14	C2	21	GLU
14	C2	25	GLU
14	C2	66	VAL
14	C2	119	SER
14	C2	128	ALA
14	C2	130	THR
15	C3	12	SER
15	C3	28	LEU
16	C4	40	ALA
16	C4	91	THR
17	C5	29	SER
17	C5	52	LYS
17	C5	69	GLU
18	C6	32	ASN
19	C7	115	LEU
20	C8	142	GLY
21	C9	39	THR
21	C9	50	ALA
22	D0	118	VAL
23	D1	28	ASP
25	D3	112	LYS
26	D4	4	ALA
26	D4	6	THR
26	D4	53	ASP
26	D4	104	SER

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Mol	Chain	Res	Type
27	D5	54	VAL
27	D5	55	PRO
27	D5	74	SER
28	D6	10	ARG
28	D6	46	GLU
28	D6	62	TYR
32	E0	51	ASN
33	E1	86	THR
33	E1	87	THR
33	E1	90	LYS
33	E1	124	PRO
34	SR	3	SER
34	SR	117	LYS
34	SR	194	GLY
35	SM	53	ARG
35	SM	111	GLY
35	SM	173	GLU
40	L3	155	ALA
40	L3	386	ASP
41	L4	90	PHE
41	L4	107	ARG
42	L5	21	ARG
42	L5	187	THR
42	L5	221	GLU
42	L5	223	PHE
42	L5	259	LYS
43	L6	97	ASN
43	L6	108	LYS
44	L7	157	ASN
48	M1	108	GLU
48	M1	114	ILE
49	M3	130	GLY
49	M3	136	GLU
53	M7	160	ALA
55	M9	53	LYS
56	N0	2	ALA
57	N1	18	ASP
57	N1	123	GLY
58	N2	31	ALA
58	N2	32	SER
58	N2	38	ILE
58	N2	50	LEU

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Mol	Chain	Res	Type
60	N4	17	ARG
60	N4	97	LYS
61	N5	45	LYS
63	N7	130	PHE
64	N8	24	LYS
65	N9	25	LYS
66	O0	96	GLY
67	O1	60	TRP
67	O1	82	GLU
68	O2	31	ASN
72	O6	27	SER
78	Q2	30	ALA
2	s0	5	ALA
2	s0	14	ALA
4	s2	229	LEU
5	s3	93	ASP
5	s3	196	ARG
6	s4	245	LYS
7	s5	60	ASP
7	s5	100	ASN
8	s6	25	ARG
10	s8	148	ALA
11	s9	22	SER
12	c0	31	LYS
13	c1	7	VAL
13	c1	129	ARG
14	c2	66	VAL
14	c2	90	LYS
14	c2	108	ARG
15	c3	43	LYS
16	c4	92	LYS
17	c5	52	LYS
17	c5	69	GLU
20	c8	33	THR
25	d3	70	LYS
26	d4	58	PHE
28	d6	62	TYR
29	d7	59	CYS
31	d9	7	TRP
80	e0	54	ARG
33	e1	81	LYS
33	e1	131	PHE

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Mol	Chain	Res	Type
33	e1	145	HIS
35	sM	47	ALA
35	sM	64	LYS
35	sM	167	PRO
39	l2	80	GLU
39	l2	127	ALA
39	l2	240	ALA
39	l2	249	SER
40	l3	142	ALA
40	l3	348	ARG
40	l3	386	ASP
41	l4	15	ALA
41	l4	272	VAL
44	l7	32	ALA
44	l7	53	LYS
44	l7	193	PRO
44	l7	229	PHE
45	l8	54	GLU
45	l8	120	LYS
45	l8	123	GLN
45	l8	133	LYS
45	l8	196	ALA
46	l9	2	LYS
47	m0	207	GLU
48	m1	114	ILE
48	m1	115	LYS
49	m3	135	ALA
53	m7	6	ALA
53	m7	66	SER
54	m8	98	LYS
56	n0	2	ALA
56	n0	139	TYR
57	n1	122	GLN
57	n1	136	ARG
60	n4	77	LYS
60	n4	95	SER
60	n4	133	THR
61	n5	47	ALA
61	n5	55	ASN
63	n7	34	LYS
64	n8	17	ALA
64	n8	24	LYS

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Mol	Chain	Res	Type
65	n9	23	LYS
67	o1	47	ASP
69	o3	60	ARG
70	o4	82	ALA
71	o5	40	SER
71	o5	84	LYS
73	o7	85	LYS
73	o7	87	SER
2	S0	102	PHE
2	S0	190	ASP
2	S0	194	PRO
3	S1	54	LEU
3	S1	62	LYS
3	S1	81	PHE
3	S1	132	ASP
3	S1	158	SER
3	S1	207	LEU
3	S1	209	ASN
3	S1	223	PHE
4	S2	150	GLN
5	S3	217	ILE
6	S4	12	LEU
7	S5	64	VAL
8	S6	148	SER
9	S7	110	GLN
9	S7	173	TYR
10	S8	10	LYS
12	C0	34	GLU
13	C1	4	GLU
13	C1	145	ALA
14	C2	106	ILE
14	C2	107	ASP
14	C2	131	ASP
17	C5	46	ALA
17	C5	101	ALA
20	C8	82	PRO
21	C9	28	LEU
22	D0	17	GLN
23	D1	10	GLU
23	D1	11	LEU
25	D3	41	SER
25	D3	89	ASN

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Mol	Chain	Res	Type
26	D4	58	PHE
27	D5	41	ILE
28	D6	36	ILE
28	D6	64	LEU
29	D7	75	GLU
30	D8	20	GLY
30	D8	61	ARG
31	D9	11	PRO
33	E1	83	LYS
33	E1	85	TYR
33	E1	93	HIS
33	E1	118	ARG
34	SR	237	GLN
35	SM	100	THR
39	L2	130	SER
41	L4	5	GLN
41	L4	16	THR
41	L4	232	SER
41	L4	233	LEU
41	L4	292	SER
42	L5	57	ASN
42	L5	107	ARG
42	L5	178	ASN
42	L5	228	ALA
42	L5	239	ILE
43	L6	98	VAL
44	L7	32	ALA
45	L8	36	ILE
45	L8	119	GLY
46	L9	110	LYS
46	L9	190	ASP
47	M0	143	SER
47	M0	220	GLN
48	M1	95	ASN
48	M1	117	ASP
49	M3	13	HIS
52	M6	195	ALA
53	M7	75	GLU
53	M7	110	THR
53	M7	156	ALA
53	M7	159	LYS
54	M8	41	ASP

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Mol	Chain	Res	Type
54	M8	162	ALA
58	N2	11	ILE
59	N3	46	LEU
60	N4	69	LYS
60	N4	87	LEU
60	N4	96	LEU
63	N7	103	GLN
68	O2	12	LYS
72	O6	21	THR
73	O7	84	SER
2	s0	10	THR
2	s0	203	PHE
4	s2	106	ASP
4	s2	150	GLN
4	s2	217	ALA
4	s2	228	ASN
4	s2	235	LEU
4	s2	238	SER
5	s3	43	PRO
5	s3	44	THR
5	s3	45	LYS
5	s3	90	ARG
6	s4	168	LYS
6	s4	242	LYS
7	s5	29	ILE
7	s5	45	LYS
7	s5	74	ALA
8	s6	83	CYS
9	s7	11	GLN
9	s7	83	LYS
9	s7	133	THR
11	s9	162	SER
12	c0	3	MET
12	c0	30	ALA
13	c1	80	MET
14	c2	39	ASP
14	c2	103	LEU
14	c2	106	ILE
14	c2	107	ASP
15	c3	3	ARG
16	c4	12	GLN
17	c5	8	LYS

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Mol	Chain	Res	Type
17	c5	10	ARG
18	c6	13	LYS
19	c7	86	PRO
19	c7	105	GLN
19	c7	120	SER
21	c9	29	GLU
21	c9	100	ILE
25	d3	61	SER
26	d4	4	ALA
26	d4	77	ASN
28	d6	34	LYS
30	d8	6	PRO
31	d9	12	ARG
80	e0	61	SER
33	e1	85	TYR
33	e1	128	ALA
34	sR	149	ASP
35	sM	121	LYS
39	l2	130	SER
40	l3	378	ALA
41	l4	146	PRO
42	l5	119	TYR
42	l5	279	LYS
44	l7	191	VAL
45	l8	150	LEU
45	l8	237	ILE
46	l9	167	VAL
47	m0	170	LYS
47	m0	186	GLU
47	m0	193	ASP
48	m1	167	TYR
49	m3	60	ALA
51	m5	49	ARG
52	m6	68	ARG
55	m9	55	VAL
58	n2	23	THR
58	n2	45	GLY
58	n2	50	LEU
60	n4	72	SER
60	n4	132	GLY
63	n7	125	GLY
63	n7	127	ASN

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Mol	Chain	Res	Type
65	n9	52	LYS
67	o1	82	GLU
69	o3	59	VAL
70	o4	100	ILE
71	o5	79	ASP
73	o7	67	LEU
75	o9	3	ALA
75	o9	39	ALA
82	p0	33	VAL
3	S1	78	ASP
4	S2	235	LEU
5	S3	196	ARG
6	S4	39	ARG
6	S4	245	LYS
7	S5	21	THR
7	S5	100	ASN
11	S9	162	SER
12	C0	30	ALA
13	C1	154	ALA
14	C2	87	PRO
14	C2	129	GLU
16	C4	24	ASN
16	C4	123	SER
16	C4	131	GLY
22	D0	21	LYS
25	D3	5	LYS
25	D3	131	SER
26	D4	60	PHE
26	D4	133	ASN
28	D6	97	PRO
33	E1	100	LEU
33	E1	137	ASP
33	E1	146	SER
34	SR	4	ASN
34	SR	98	GLU
39	L2	70	ARG
39	L2	127	ALA
39	L2	234	LYS
39	L2	246	LEU
39	L2	251	LYS
40	L3	317	ILE
41	L4	14	GLU

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Mol	Chain	Res	Type
42	L5	125	VAL
44	L7	158	LYS
44	L7	178	ILE
48	M1	64	LYS
48	M1	80	LEU
49	M3	76	THR
49	M3	153	ASP
50	M4	10	SER
51	M5	94	TYR
53	M7	66	SER
54	M8	183	GLY
56	N0	13	ARG
56	N0	50	LYS
63	N7	3	LYS
64	N8	47	LYS
65	N9	21	ILE
66	O0	20	SER
67	O1	7	VAL
73	O7	87	SER
74	O8	33	LYS
76	Q0	79	GLU
78	Q2	34	SER
79	Q3	20	SER
79	Q3	51	ALA
2	s0	30	GLN
2	s0	109	ASN
2	s0	139	VAL
2	s0	158	VAL
2	s0	167	LYS
3	s1	94	LYS
5	s3	142	LEU
6	s4	78	THR
6	s4	90	ILE
7	s5	42	LEU
7	s5	127	GLN
8	s6	156	PHE
10	s8	62	THR
10	s8	78	ILE
10	s8	94	ASN
12	c0	35	ILE
12	c0	95	ARG
14	c2	54	ARG

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Mol	Chain	Res	Type
14	c2	87	PRO
15	c3	6	SER
16	c4	32	ASP
16	c4	37	GLU
16	c4	51	ASP
17	c5	7	ALA
17	c5	75	PRO
17	c5	130	ARG
18	c6	4	VAL
19	c7	50	ILE
19	c7	113	LEU
22	d0	72	ASN
23	d1	43	GLY
26	d4	36	SER
28	d6	15	ARG
28	d6	35	ALA
29	d7	53	ALA
30	d8	33	LEU
35	sM	42	ALA
35	sM	43	ASP
35	sM	51	ARG
35	sM	84	LYS
35	sM	122	GLU
39	l2	133	TYR
39	l2	247	ARG
40	l3	3	HIS
43	l6	10	TYR
45	l8	126	SER
47	m0	74	LYS
47	m0	174	THR
48	m1	153	LYS
51	m5	68	ARG
53	m7	88	VAL
54	m8	112	ALA
55	m9	36	ASN
55	m9	155	LEU
61	n5	108	LEU
63	n7	28	PRO
63	n7	104	PRO
63	n7	134	LEU
64	n8	47	LYS
64	n8	78	LEU

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Mol	Chain	Res	Type
72	o6	8	ALA
82	p0	206	ASP
2	S0	205	ARG
3	S1	180	THR
3	S1	210	ILE
4	S2	36	VAL
7	S5	54	LYS
10	S8	9	HIS
10	S8	59	ARG
14	C2	22	VAL
14	C2	112	ALA
15	C3	3	ARG
17	C5	11	VAL
18	C6	42	GLU
19	C7	6	THR
22	D0	106	ILE
35	SM	12	VAL
35	SM	174	LEU
42	L5	6	ASP
43	L6	6	ALA
45	L8	80	TYR
45	L8	157	VAL
46	L9	59	ASN
48	M1	39	GLN
48	M1	152	HIS
52	M6	110	PRO
55	M9	129	GLY
63	N7	16	GLY
64	N8	96	LYS
65	N9	7	HIS
66	O0	27	TYR
72	O6	64	SER
72	O6	97	SER
74	O8	35	GLY
5	s3	219	ALA
6	s4	135	GLY
8	s6	152	ASP
14	c2	40	GLY
14	c2	63	VAL
14	c2	91	VAL
16	c4	50	ALA
16	c4	58	TYR

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Mol	Chain	Res	Type
17	c5	133	ALA
22	d0	59	PRO
26	d4	68	LYS
80	e0	38	LEU
33	e1	148	TYR
40	l3	141	GLY
40	l3	362	ALA
41	l4	328	ASN
42	l5	125	VAL
44	l7	28	ALA
50	m4	3	THR
51	m5	74	PRO
51	m5	76	PRO
52	m6	111	PRO
60	n4	71	ARG
60	n4	74	LYS
63	n7	103	GLN
67	o1	86	LYS
68	o2	31	ASN
74	o8	19	ASP
74	o8	60	GLY
82	p0	197	PHE
3	S1	176	VAL
4	S2	145	GLY
5	S3	199	PRO
9	S7	132	PRO
11	S9	168	ARG
13	C1	130	PRO
14	C2	81	ASP
14	C2	115	VAL
16	C4	79	VAL
20	C8	124	GLY
24	D2	100	GLY
28	D6	75	VAL
41	L4	181	VAL
31	d9	29	GLY
49	m3	50	PRO
58	n2	48	GLY
64	n8	138	ILE
66	o0	10	ILE
5	S3	112	GLY
11	S9	127	VAL

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Mol	Chain	Res	Type
12	C0	86	ILE
34	SR	15	GLY
34	SR	105	GLY
58	N2	22	PRO
60	N4	76	VAL
79	Q3	50	GLY
5	s3	163	PRO
6	s4	30	ARG
6	s4	260	GLY
9	s7	73	VAL
15	c3	22	ALA
20	c8	9	GLY
25	d3	130	VAL
80	e0	50	VAL
33	e1	124	PRO
41	l4	91	GLY
66	o0	96	GLY
72	o6	9	ILE
3	S1	21	VAL
3	S1	48	VAL
7	S5	121	ILE
8	S6	69	LEU
50	M4	6	ILE
53	M7	36	ILE
64	N8	70	LYS
72	O6	52	PRO
3	s1	22	ASP
5	s3	161	GLY
16	c4	131	GLY
17	c5	117	GLY
26	d4	29	HIS
27	d5	87	GLY
33	e1	129	GLY
74	o8	35	GLY
14	C2	55	GLY
18	C6	33	GLY
22	D0	117	VAL
34	SR	28	GLY
49	M3	163	GLY
4	s2	83	ILE
5	s3	203	PRO
9	s7	13	PRO

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Mol	Chain	Res	Type
14	c2	115	VAL
23	d1	77	GLY
28	d6	59	TYR
53	m7	67	ILE
55	m9	25	ASP
57	n1	148	PRO
64	n8	15	VAL
64	n8	148	ILE
65	n9	24	PRO
79	q3	10	ILE
2	S0	117	GLU
3	S1	22	ASP
49	M3	133	PRO
59	N3	58	VAL
18	c6	40	GLU
28	d6	58	VAL
48	m1	7	ASN

5.3.2 Protein sidechains [i](#)

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%)	126 (77%)	38 (23%)	1	4
2	s0	165/209 (79%)	137 (83%)	28 (17%)	2	11
3	S1	191/223 (86%)	150 (78%)	41 (22%)	1	5
3	s1	192/223 (86%)	153 (80%)	39 (20%)	1	6
4	S2	176/204 (86%)	138 (78%)	38 (22%)	1	5
4	s2	176/204 (86%)	133 (76%)	43 (24%)	1	3
5	S3	182/194 (94%)	141 (78%)	41 (22%)	1	4
5	s3	182/194 (94%)	144 (79%)	38 (21%)	1	6
6	S4	221/221 (100%)	166 (75%)	55 (25%)	1	2
6	s4	221/221 (100%)	177 (80%)	44 (20%)	1	6
7	S5	173/190 (91%)	144 (83%)	29 (17%)	2	11

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
7	s5	173/190 (91%)	134 (78%)	39 (22%)	1	4
8	S6	188/201 (94%)	154 (82%)	34 (18%)	2	9
8	s6	187/201 (93%)	148 (79%)	39 (21%)	1	6
9	S7	165/169 (98%)	136 (82%)	29 (18%)	2	10
9	s7	165/169 (98%)	131 (79%)	34 (21%)	1	6
10	S8	150/161 (93%)	130 (87%)	20 (13%)	4	20
10	s8	150/161 (93%)	123 (82%)	27 (18%)	2	9
11	S9	158/165 (96%)	121 (77%)	37 (23%)	1	3
11	s9	158/165 (96%)	127 (80%)	31 (20%)	1	7
12	C0	77/98 (79%)	65 (84%)	12 (16%)	3	13
12	c0	73/98 (74%)	66 (90%)	7 (10%)	10	36
13	C1	129/136 (95%)	108 (84%)	21 (16%)	3	12
13	c1	129/136 (95%)	101 (78%)	28 (22%)	1	5
14	C2	88/118 (75%)	63 (72%)	25 (28%)	0	1
14	c2	88/118 (75%)	68 (77%)	20 (23%)	1	4
15	C3	127/127 (100%)	99 (78%)	28 (22%)	1	5
15	c3	127/127 (100%)	108 (85%)	19 (15%)	3	15
16	C4	81/104 (78%)	61 (75%)	20 (25%)	1	2
16	c4	97/104 (93%)	76 (78%)	21 (22%)	1	5
17	C5	101/117 (86%)	87 (86%)	14 (14%)	4	18
17	c5	103/117 (88%)	83 (81%)	20 (19%)	1	7
18	C6	117/118 (99%)	99 (85%)	18 (15%)	3	14
18	c6	118/118 (100%)	92 (78%)	26 (22%)	1	5
19	C7	94/124 (76%)	75 (80%)	19 (20%)	1	6
19	c7	92/124 (74%)	74 (80%)	18 (20%)	1	7
20	C8	128/128 (100%)	103 (80%)	25 (20%)	1	7
20	c8	128/128 (100%)	106 (83%)	22 (17%)	2	11
21	C9	115/115 (100%)	91 (79%)	24 (21%)	1	6
21	c9	115/115 (100%)	91 (79%)	24 (21%)	1	6
22	D0	100/113 (88%)	77 (77%)	23 (23%)	1	4
22	d0	103/113 (91%)	77 (75%)	26 (25%)	0	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
23	D1	74/74 (100%)	57 (77%)	17 (23%)	1	4
23	d1	74/74 (100%)	57 (77%)	17 (23%)	1	4
24	D2	110/110 (100%)	89 (81%)	21 (19%)	2	7
24	d2	110/110 (100%)	94 (86%)	16 (14%)	4	16
25	D3	119/119 (100%)	103 (87%)	16 (13%)	4	19
25	d3	119/119 (100%)	96 (81%)	23 (19%)	1	7
26	D4	112/112 (100%)	88 (79%)	24 (21%)	1	5
26	d4	112/112 (100%)	91 (81%)	21 (19%)	2	8
27	D5	61/88 (69%)	45 (74%)	16 (26%)	0	1
27	d5	61/88 (69%)	52 (85%)	9 (15%)	3	15
28	D6	83/83 (100%)	62 (75%)	21 (25%)	0	2
28	d6	83/83 (100%)	67 (81%)	16 (19%)	1	7
29	D7	70/70 (100%)	60 (86%)	10 (14%)	4	17
29	d7	70/70 (100%)	56 (80%)	14 (20%)	1	6
30	D8	56/59 (95%)	42 (75%)	14 (25%)	1	2
30	d8	56/59 (95%)	41 (73%)	15 (27%)	0	1
31	D9	47/48 (98%)	35 (74%)	12 (26%)	0	2
31	d9	47/48 (98%)	37 (79%)	10 (21%)	1	5
32	E0	51/51 (100%)	40 (78%)	11 (22%)	1	5
33	E1	62/66 (94%)	47 (76%)	15 (24%)	1	3
33	e1	66/66 (100%)	53 (80%)	13 (20%)	1	6
34	SR	260/261 (100%)	225 (86%)	35 (14%)	4	19
34	sR	260/261 (100%)	236 (91%)	24 (9%)	11	39
35	SM	97/228 (42%)	78 (80%)	19 (20%)	1	7
35	sM	54/228 (24%)	40 (74%)	14 (26%)	0	2
39	L2	193/195 (99%)	160 (83%)	33 (17%)	2	11
39	l2	192/195 (98%)	148 (77%)	44 (23%)	1	4
40	L3	320/322 (99%)	247 (77%)	73 (23%)	1	4
40	l3	321/322 (100%)	258 (80%)	63 (20%)	1	7
41	L4	288/288 (100%)	236 (82%)	52 (18%)	2	9
41	l4	288/288 (100%)	224 (78%)	64 (22%)	1	4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
42	L5	244/244 (100%)	197 (81%)	47 (19%)	1	7
42	l5	243/244 (100%)	196 (81%)	47 (19%)	1	7
43	L6	134/152 (88%)	114 (85%)	20 (15%)	3	15
43	l6	135/152 (89%)	108 (80%)	27 (20%)	1	6
44	L7	186/204 (91%)	161 (87%)	25 (13%)	4	19
44	l7	187/204 (92%)	159 (85%)	28 (15%)	3	15
45	L8	187/207 (90%)	152 (81%)	35 (19%)	2	8
45	l8	177/207 (86%)	145 (82%)	32 (18%)	2	9
46	L9	171/171 (100%)	133 (78%)	38 (22%)	1	4
46	l9	171/171 (100%)	133 (78%)	38 (22%)	1	4
47	M0	177/186 (95%)	143 (81%)	34 (19%)	1	7
47	m0	179/186 (96%)	142 (79%)	37 (21%)	1	6
48	M1	147/150 (98%)	115 (78%)	32 (22%)	1	5
48	m1	147/150 (98%)	113 (77%)	34 (23%)	1	4
49	M3	154/158 (98%)	127 (82%)	27 (18%)	2	10
49	m3	154/158 (98%)	119 (77%)	35 (23%)	1	4
50	M4	107/108 (99%)	86 (80%)	21 (20%)	1	7
50	m4	108/108 (100%)	88 (82%)	20 (18%)	2	8
51	M5	175/175 (100%)	142 (81%)	33 (19%)	2	7
51	m5	175/175 (100%)	144 (82%)	31 (18%)	2	10
52	M6	160/161 (99%)	138 (86%)	22 (14%)	4	19
52	m6	160/161 (99%)	129 (81%)	31 (19%)	1	7
53	M7	140/145 (97%)	112 (80%)	28 (20%)	1	6
53	m7	125/145 (86%)	94 (75%)	31 (25%)	1	2
54	M8	150/150 (100%)	119 (79%)	31 (21%)	1	6
54	m8	150/150 (100%)	120 (80%)	30 (20%)	1	6
55	M9	153/153 (100%)	129 (84%)	24 (16%)	3	13
55	m9	153/153 (100%)	121 (79%)	32 (21%)	1	6
56	N0	156/156 (100%)	126 (81%)	30 (19%)	1	7
56	n0	156/156 (100%)	121 (78%)	35 (22%)	1	4
57	N1	136/136 (100%)	104 (76%)	32 (24%)	1	3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
57	n1	136/136 (100%)	111 (82%)	25 (18%)	2	9
58	N2	87/106 (82%)	74 (85%)	13 (15%)	3	15
58	n2	85/106 (80%)	69 (81%)	16 (19%)	2	8
59	N3	104/104 (100%)	85 (82%)	19 (18%)	2	9
59	n3	104/104 (100%)	93 (89%)	11 (11%)	8	30
60	N4	57/129 (44%)	50 (88%)	7 (12%)	5	23
60	n4	100/129 (78%)	83 (83%)	17 (17%)	2	11
61	N5	104/117 (89%)	79 (76%)	25 (24%)	1	3
61	n5	104/117 (89%)	89 (86%)	15 (14%)	4	16
62	N6	109/109 (100%)	84 (77%)	25 (23%)	1	4
62	n6	109/109 (100%)	84 (77%)	25 (23%)	1	4
63	N7	115/115 (100%)	91 (79%)	24 (21%)	1	6
63	n7	115/115 (100%)	84 (73%)	31 (27%)	0	1
64	N8	118/118 (100%)	92 (78%)	26 (22%)	1	5
64	n8	118/118 (100%)	94 (80%)	24 (20%)	1	6
65	N9	46/46 (100%)	36 (78%)	10 (22%)	1	5
65	n9	46/46 (100%)	34 (74%)	12 (26%)	0	2
66	O0	81/87 (93%)	64 (79%)	17 (21%)	1	5
66	o0	84/87 (97%)	67 (80%)	17 (20%)	1	6
67	O1	92/96 (96%)	69 (75%)	23 (25%)	1	2
67	o1	94/96 (98%)	81 (86%)	13 (14%)	4	19
68	O2	109/110 (99%)	90 (83%)	19 (17%)	2	10
68	o2	109/110 (99%)	88 (81%)	21 (19%)	1	7
69	O3	90/90 (100%)	77 (86%)	13 (14%)	4	16
69	o3	90/90 (100%)	77 (86%)	13 (14%)	4	16
70	O4	95/101 (94%)	78 (82%)	17 (18%)	2	9
70	o4	95/101 (94%)	71 (75%)	24 (25%)	0	2
71	O5	104/104 (100%)	80 (77%)	24 (23%)	1	4
71	o5	103/104 (99%)	79 (77%)	24 (23%)	1	4
72	O6	81/81 (100%)	60 (74%)	21 (26%)	0	2
72	o6	80/81 (99%)	59 (74%)	21 (26%)	0	1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
73	O7	70/70 (100%)	57 (81%)	13 (19%)	2	8
73	o7	70/70 (100%)	55 (79%)	15 (21%)	1	5
74	O8	68/68 (100%)	52 (76%)	16 (24%)	1	3
74	o8	67/68 (98%)	55 (82%)	12 (18%)	2	9
75	O9	45/45 (100%)	39 (87%)	6 (13%)	4	20
75	o9	45/45 (100%)	36 (80%)	9 (20%)	1	6
76	Q0	47/47 (100%)	38 (81%)	9 (19%)	2	7
76	q0	47/47 (100%)	37 (79%)	10 (21%)	1	5
77	Q1	23/23 (100%)	14 (61%)	9 (39%)	0	0
77	q1	23/23 (100%)	17 (74%)	6 (26%)	0	2
78	Q2	90/90 (100%)	70 (78%)	20 (22%)	1	4
78	q2	90/90 (100%)	69 (77%)	21 (23%)	1	4
79	Q3	71/71 (100%)	58 (82%)	13 (18%)	2	9
79	q3	71/71 (100%)	57 (80%)	14 (20%)	1	6
80	e0	53/53 (100%)	38 (72%)	15 (28%)	0	1
82	p0	105/253 (42%)	84 (80%)	21 (20%)	1	6
All	All	18729/20239 (92%)	15025 (80%)	3704 (20%)	1	6

All (3704) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	S0	7	PHE
2	S0	27	ARG
2	S0	29	VAL
2	S0	30	GLN
2	S0	32	HIS
2	S0	34	GLU
2	S0	37	VAL
2	S0	43	ASP
2	S0	49	ASN
2	S0	56	LYS
2	S0	59	LEU
2	S0	62	ARG
2	S0	76	ILE
2	S0	84	ARG
2	S0	86	VAL

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Mol	Chain	Res	Type
2	S0	87	LEU
2	S0	88	LYS
2	S0	96	THR
2	S0	101	ARG
2	S0	103	THR
2	S0	110	TYR
2	S0	111	ILE
2	S0	119	ARG
2	S0	153	SER
2	S0	156	VAL
2	S0	157	ASP
2	S0	162	CYS
2	S0	165	ARG
2	S0	172	LEU
2	S0	177	LEU
2	S0	184	LEU
2	S0	185	ARG
2	S0	188	LEU
2	S0	189	VAL
2	S0	196	SER
2	S0	198	MET
2	S0	200	ASP
2	S0	202	TYR
3	S1	21	VAL
3	S1	22	ASP
3	S1	25	THR
3	S1	29	TRP
3	S1	30	PHE
3	S1	46	THR
3	S1	47	LEU
3	S1	51	SER
3	S1	55	LYS
3	S1	58	SER
3	S1	61	LEU
3	S1	70	LEU
3	S1	77	GLU
3	S1	78	ASP
3	S1	81	PHE
3	S1	85	LYS
3	S1	89	ASP
3	S1	96	LEU
3	S1	97	LEU

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Mol	Chain	Res	Type
3	S1	105	PHE
3	S1	110	LEU
3	S1	111	ARG
3	S1	112	SER
3	S1	117	TRP
3	S1	135	LEU
3	S1	149	GLN
3	S1	154	SER
3	S1	170	GLU
3	S1	177	GLN
3	S1	180	THR
3	S1	181	LEU
3	S1	193	ILE
3	S1	198	GLU
3	S1	202	LYS
3	S1	212	VAL
3	S1	214	LYS
3	S1	215	VAL
3	S1	218	LEU
3	S1	219	LYS
3	S1	220	GLN
3	S1	223	PHE
4	S2	41	LEU
4	S2	50	ILE
4	S2	53	ILE
4	S2	58	LEU
4	S2	72	LEU
4	S2	73	LEU
4	S2	76	LEU
4	S2	77	GLN
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	111	VAL
4	S2	117	THR
4	S2	119	LYS
4	S2	130	ILE
4	S2	134	LEU

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Mol	Chain	Res	Type
4	S2	137	ILE
4	S2	140	ARG
4	S2	141	ARG
4	S2	148	LEU
4	S2	159	THR
4	S2	166	THR
4	S2	174	ARG
4	S2	207	LEU
4	S2	221	THR
4	S2	222	TYR
4	S2	225	LEU
4	S2	226	THR
4	S2	235	LEU
4	S2	237	VAL
4	S2	240	LEU
4	S2	242	ILE
4	S2	244	SER
4	S2	245	ASP
5	S3	4	LEU
5	S3	7	LYS
5	S3	9	ARG
5	S3	23	GLU
5	S3	41	VAL
5	S3	64	ARG
5	S3	65	ARG
5	S3	66	ILE
5	S3	67	ASN
5	S3	76	ARG
5	S3	84	ILE
5	S3	89	GLU
5	S3	91	VAL
5	S3	92	GLN
5	S3	93	ASP
5	S3	103	GLU
5	S3	105	MET
5	S3	111	ASN
5	S3	117	ARG
5	S3	120	TYR
5	S3	127	MET
5	S3	134	CYS
5	S3	137	VAL
5	S3	139	SER

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Mol	Chain	Res	Type
5	S3	142	LEU
5	S3	143	ARG
5	S3	146	ARG
5	S3	151	LYS
5	S3	158	ILE
5	S3	172	THR
5	S3	175	VAL
5	S3	176	LEU
5	S3	178	ARG
5	S3	181	VAL
5	S3	182	LEU
5	S3	195	SER
5	S3	202	LEU
5	S3	207	THR
5	S3	210	GLU
5	S3	217	ILE
5	S3	222	VAL
6	S4	6	LYS
6	S4	7	LYS
6	S4	9	LEU
6	S4	11	ARG
6	S4	12	LEU
6	S4	23	LEU
6	S4	26	CYS
6	S4	38	LEU
6	S4	45	ILE
6	S4	48	LEU
6	S4	54	TYR
6	S4	62	LYS
6	S4	65	LEU
6	S4	68	ARG
6	S4	70	VAL
6	S4	77	ARG
6	S4	92	LEU
6	S4	95	THR
6	S4	96	ASN
6	S4	108	ARG
6	S4	113	ARG
6	S4	123	LEU
6	S4	126	VAL
6	S4	129	VAL
6	S4	131	LEU

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Mol	Chain	Res	Type
6	S4	133	LYS
6	S4	138	TYR
6	S4	151	ASP
6	S4	155	LYS
6	S4	160	VAL
6	S4	164	LEU
6	S4	166	SER
6	S4	180	LEU
6	S4	181	VAL
6	S4	182	TYR
6	S4	187	ARG
6	S4	192	ILE
6	S4	197	HIS
6	S4	198	LYS
6	S4	206	ASP
6	S4	214	LEU
6	S4	221	ARG
6	S4	222	LEU
6	S4	226	PHE
6	S4	227	VAL
6	S4	231	GLN
6	S4	233	LYS
6	S4	236	ILE
6	S4	240	LYS
6	S4	242	LYS
6	S4	246	LEU
6	S4	247	SER
6	S4	248	ILE
6	S4	258	GLN
6	S4	259	GLN
7	S5	23	VAL
7	S5	24	VAL
7	S5	25	LEU
7	S5	38	THR
7	S5	42	LEU
7	S5	43	PHE
7	S5	45	LYS
7	S5	48	PHE
7	S5	49	GLU
7	S5	65	ARG
7	S5	76	ARG
7	S5	79	ASN

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Mol	Chain	Res	Type
7	S5	84	LYS
7	S5	89	ILE
7	S5	92	ARG
7	S5	93	LEU
7	S5	94	THR
7	S5	122	ASN
7	S5	146	THR
7	S5	147	THR
7	S5	149	VAL
7	S5	156	ARG
7	S5	157	ARG
7	S5	160	VAL
7	S5	162	VAL
7	S5	170	GLN
7	S5	194	LEU
7	S5	203	LYS
7	S5	225	ARG
8	S6	6	SER
8	S6	19	ASP
8	S6	21	GLU
8	S6	25	ARG
8	S6	45	PHE
8	S6	58	LYS
8	S6	67	VAL
8	S6	74	LYS
8	S6	76	LEU
8	S6	78	THR
8	S6	79	LYS
8	S6	82	SER
8	S6	89	ASP
8	S6	94	ARG
8	S6	98	ARG
8	S6	109	LEU
8	S6	120	GLU
8	S6	126	ASP
8	S6	127	THR
8	S6	128	THR
8	S6	129	VAL
8	S6	132	ARG
8	S6	133	LEU
8	S6	143	LYS
8	S6	154	ARG

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Mol	Chain	Res	Type
8	S6	155	ASP
8	S6	169	TYR
8	S6	170	THR
8	S6	175	ILE
8	S6	177	ARG
8	S6	178	LEU
8	S6	212	LEU
8	S6	217	SER
8	S6	223	LYS
9	S7	38	LEU
9	S7	46	ILE
9	S7	50	ASP
9	S7	60	ILE
9	S7	67	LEU
9	S7	70	PHE
9	S7	72	LYS
9	S7	77	LEU
9	S7	79	ARG
9	S7	85	PHE
9	S7	87	ASP
9	S7	95	GLU
9	S7	97	ARG
9	S7	104	ARG
9	S7	105	THR
9	S7	107	ARG
9	S7	114	ARG
9	S7	116	ARG
9	S7	123	ASP
9	S7	126	LEU
9	S7	130	VAL
9	S7	131	PHE
9	S7	134	GLU
9	S7	141	ARG
9	S7	147	ASN
9	S7	158	ASP
9	S7	166	LEU
9	S7	167	GLU
9	S7	185	ILE
10	S8	8	ARG
10	S8	10	LYS
10	S8	21	PHE
10	S8	36	THR

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Mol	Chain	Res	Type
10	S8	58	LEU
10	S8	62	THR
10	S8	66	SER
10	S8	70	GLU
10	S8	81	VAL
10	S8	103	GLN
10	S8	107	THR
10	S8	138	ASN
10	S8	149	SER
10	S8	151	LYS
10	S8	152	ILE
10	S8	155	SER
10	S8	158	SER
10	S8	164	ARG
10	S8	184	LEU
10	S8	196	LEU
11	S9	3	ARG
11	S9	7	THR
11	S9	9	SER
11	S9	14	THR
11	S9	28	LEU
11	S9	39	LYS
11	S9	40	LYS
11	S9	46	SER
11	S9	49	LEU
11	S9	60	LEU
11	S9	78	ARG
11	S9	79	ARG
11	S9	82	ARG
11	S9	83	VAL
11	S9	89	ASP
11	S9	92	LYS
11	S9	93	LEU
11	S9	94	ASP
11	S9	97	LEU
11	S9	99	LEU
11	S9	101	VAL
11	S9	109	LEU
11	S9	110	GLN
11	S9	118	LEU
11	S9	121	SER
11	S9	130	THR

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Mol	Chain	Res	Type
11	S9	132	ARG
11	S9	134	ILE
11	S9	138	LYS
11	S9	140	ILE
11	S9	145	SER
11	S9	149	ARG
11	S9	161	THR
11	S9	162	SER
11	S9	171	ARG
11	S9	172	VAL
11	S9	182	GLU
12	C0	8	ARG
12	C0	20	VAL
12	C0	27	PHE
12	C0	32	HIS
12	C0	46	LEU
12	C0	55	VAL
12	C0	56	LYS
12	C0	71	GLU
12	C0	76	LEU
12	C0	78	GLU
12	C0	81	ASN
12	C0	82	LEU
13	C1	21	ASN
13	C1	27	THR
13	C1	29	LYS
13	C1	40	LEU
13	C1	43	LYS
13	C1	44	THR
13	C1	63	LEU
13	C1	67	ARG
13	C1	69	LYS
13	C1	72	THR
13	C1	74	THR
13	C1	80	MET
13	C1	99	ARG
13	C1	101	GLU
13	C1	109	VAL
13	C1	112	SER
13	C1	118	GLN
13	C1	119	VAL
13	C1	127	GLN

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Mol	Chain	Res	Type
13	C1	129	ARG
13	C1	131	ILE
14	C2	28	LEU
14	C2	33	ARG
14	C2	37	VAL
14	C2	43	ARG
14	C2	45	LEU
14	C2	46	ARG
14	C2	50	LYS
14	C2	52	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	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	138	GLU
14	C2	139	HIS
14	C2	140	PHE
15	C3	3	ARG
15	C3	6	SER
15	C3	9	LYS
15	C3	12	SER
15	C3	13	SER
15	C3	16	ILE
15	C3	27	LYS
15	C3	39	LYS
15	C3	45	LEU
15	C3	46	THR
15	C3	64	ARG
15	C3	66	ILE
15	C3	76	LYS
15	C3	83	GLU
15	C3	88	LEU

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Mol	Chain	Res	Type
15	C3	97	SER
15	C3	102	LEU
15	C3	105	ASN
15	C3	110	ASP
15	C3	115	LEU
15	C3	125	LEU
15	C3	127	ARG
15	C3	134	VAL
15	C3	142	GLU
15	C3	143	SER
15	C3	145	THR
15	C3	149	LEU
15	C3	151	ASN
16	C4	14	PHE
16	C4	16	VAL
16	C4	20	TYR
16	C4	29	HIS
16	C4	30	VAL
16	C4	31	THR
16	C4	39	ILE
16	C4	42	VAL
16	C4	43	THR
16	C4	48	VAL
16	C4	51	ASP
16	C4	83	ILE
16	C4	92	LYS
16	C4	102	LEU
16	C4	123	SER
16	C4	125	SER
16	C4	126	THR
16	C4	132	ARG
16	C4	136	ARG
16	C4	137	LEU
17	C5	11	VAL
17	C5	22	LEU
17	C5	31	GLU
17	C5	35	LYS
17	C5	36	LEU
17	C5	44	ARG
17	C5	47	ARG
17	C5	52	LYS
17	C5	60	LEU

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Mol	Chain	Res	Type
17	C5	89	MET
17	C5	100	LYS
17	C5	110	GLU
17	C5	121	ILE
17	C5	125	PRO
18	C6	4	VAL
18	C6	43	ILE
18	C6	52	LEU
18	C6	53	LEU
18	C6	54	LEU
18	C6	57	LEU
18	C6	58	ASP
18	C6	66	ARG
18	C6	68	ARG
18	C6	69	VAL
18	C6	98	ASP
18	C6	103	ASN
18	C6	114	ARG
18	C6	116	LEU
18	C6	123	ARG
18	C6	127	LYS
18	C6	137	ARG
18	C6	138	PHE
19	C7	6	THR
19	C7	25	THR
19	C7	26	LEU
19	C7	29	GLN
19	C7	34	LEU
19	C7	38	ILE
19	C7	40	THR
19	C7	45	ARG
19	C7	48	ASN
19	C7	49	LYS
19	C7	62	GLN
19	C7	69	ILE
19	C7	72	LYS
19	C7	78	ARG
19	C7	84	TYR
19	C7	105	GLN
19	C7	113	LEU
19	C7	115	LEU
19	C7	119	LEU

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Mol	Chain	Res	Type
20	C8	3	LEU
20	C8	8	GLN
20	C8	11	PHE
20	C8	12	GLN
20	C8	13	HIS
20	C8	14	ILE
20	C8	17	LEU
20	C8	25	ASN
20	C8	26	ILE
20	C8	28	ILE
20	C8	34	THR
20	C8	54	LEU
20	C8	60	GLU
20	C8	61	LEU
20	C8	71	GLN
20	C8	77	THR
20	C8	80	LYS
20	C8	86	LEU
20	C8	92	ILE
20	C8	97	ASP
20	C8	107	SER
20	C8	116	LEU
20	C8	132	ARG
20	C8	136	GLN
20	C8	143	ARG
21	C9	4	VAL
21	C9	6	VAL
21	C9	18	TYR
21	C9	20	SER
21	C9	22	LEU
21	C9	28	LEU
21	C9	30	VAL
21	C9	33	TYR
21	C9	35	ASP
21	C9	36	ILE
21	C9	37	VAL
21	C9	41	SER
21	C9	57	ARG
21	C9	63	ARG
21	C9	67	MET
21	C9	70	GLN
21	C9	84	LYS

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Mol	Chain	Res	Type
21	C9	94	ILE
21	C9	110	LYS
21	C9	116	ILE
21	C9	130	ARG
21	C9	131	ASP
21	C9	139	THR
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	39	SER
22	D0	42	VAL
22	D0	47	GLN
22	D0	48	HIS
22	D0	51	VAL
22	D0	57	ARG
22	D0	58	LEU
22	D0	60	THR
22	D0	61	LYS
22	D0	70	THR
22	D0	74	GLU
22	D0	76	SER
22	D0	81	THR
22	D0	88	LYS
22	D0	89	ARG
22	D0	99	ILE
22	D0	103	ILE
22	D0	108	ILE
23	D1	1	MET
23	D1	5	LYS
23	D1	7	GLN
23	D1	11	LEU
23	D1	18	SER
23	D1	27	ASP
23	D1	41	GLU
23	D1	49	GLU
23	D1	52	THR
23	D1	61	SER
23	D1	62	ARG
23	D1	69	LEU

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Mol	Chain	Res	Type
23	D1	76	ASP
23	D1	78	LEU
23	D1	80	LYS
23	D1	82	VAL
23	D1	84	SER
24	D2	2	THR
24	D2	7	LEU
24	D2	22	LYS
24	D2	23	ARG
24	D2	24	GLN
24	D2	25	VAL
24	D2	26	LEU
24	D2	27	ILE
24	D2	30	SER
24	D2	47	ILE
24	D2	53	ILE
24	D2	56	HIS
24	D2	65	LEU
24	D2	82	LYS
24	D2	93	LEU
24	D2	98	GLN
24	D2	103	ILE
24	D2	104	LEU
24	D2	105	THR
24	D2	121	VAL
24	D2	122	SER
25	D3	7	ARG
25	D3	9	LEU
25	D3	18	HIS
25	D3	19	ARG
25	D3	26	GLU
25	D3	28	ASN
25	D3	33	LEU
25	D3	41	SER
25	D3	73	ARG
25	D3	84	THR
25	D3	103	LEU
25	D3	107	PHE
25	D3	110	LYS
25	D3	114	LYS
25	D3	131	SER
25	D3	138	GLU

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Mol	Chain	Res	Type
26	D4	2	SER
26	D4	10	ARG
26	D4	14	SER
26	D4	17	LEU
26	D4	21	LYS
26	D4	28	LEU
26	D4	32	ARG
26	D4	34	ASN
26	D4	36	SER
26	D4	46	GLU
26	D4	47	VAL
26	D4	51	GLU
26	D4	52	LYS
26	D4	57	VAL
26	D4	61	ARG
26	D4	84	LYS
26	D4	96	LEU
26	D4	98	GLU
26	D4	99	LYS
26	D4	102	LYS
26	D4	105	ARG
26	D4	127	LYS
26	D4	128	LYS
26	D4	129	VAL
27	D5	37	GLN
27	D5	38	HIS
27	D5	42	LEU
27	D5	50	ILE
27	D5	58	ARG
27	D5	59	TYR
27	D5	63	SER
27	D5	67	ASP
27	D5	69	LEU
27	D5	71	ILE
27	D5	75	LEU
27	D5	85	LYS
27	D5	92	ILE
27	D5	93	SER
27	D5	95	HIS
27	D5	100	ILE
28	D6	12	LYS
28	D6	15	ARG

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Mol	Chain	Res	Type
28	D6	36	ILE
28	D6	38	ARG
28	D6	41	ILE
28	D6	44	ILE
28	D6	45	VAL
28	D6	58	VAL
28	D6	61	GLU
28	D6	64	LEU
28	D6	66	LYS
28	D6	68	TYR
28	D6	69	ASN
28	D6	70	LYS
28	D6	76	SER
28	D6	82	ARG
28	D6	83	ILE
28	D6	85	ARG
28	D6	86	VAL
28	D6	88	SER
28	D6	90	GLU
29	D7	3	LEU
29	D7	20	LYS
29	D7	33	LEU
29	D7	34	ASP
29	D7	38	PRO
29	D7	55	THR
29	D7	60	SER
29	D7	63	LEU
29	D7	67	THR
29	D7	72	LYS
30	D8	5	THR
30	D8	13	ILE
30	D8	15	VAL
30	D8	19	THR
30	D8	32	PHE
30	D8	33	LEU
30	D8	36	THR
30	D8	39	THR
30	D8	49	ARG
30	D8	51	ASN
30	D8	57	MET
30	D8	58	GLU
30	D8	62	GLU

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Mol	Chain	Res	Type
30	D8	64	ARG
31	D9	5	ASN
31	D9	6	VAL
31	D9	7	TRP
31	D9	9	SER
31	D9	10	HIS
31	D9	12	ARG
31	D9	19	ARG
31	D9	22	ARG
31	D9	30	LEU
31	D9	32	ARG
31	D9	36	LEU
31	D9	49	ASP
32	E0	3	LYS
32	E0	20	LYS
32	E0	21	VAL
32	E0	25	GLU
32	E0	28	LYS
32	E0	36	LYS
32	E0	39	LEU
32	E0	42	ARG
32	E0	48	THR
32	E0	49	LEU
32	E0	61	SER
33	E1	89	LYS
33	E1	90	LYS
33	E1	91	ILE
33	E1	97	LYS
33	E1	108	VAL
33	E1	113	LYS
33	E1	118	ARG
33	E1	120	GLU
33	E1	130	VAL
33	E1	137	ASP
33	E1	139	LEU
33	E1	140	TYR
33	E1	146	SER
33	E1	147	VAL
33	E1	151	ASN
34	SR	6	VAL
34	SR	7	LEU
34	SR	48	THR

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Mol	Chain	Res	Type
34	SR	52	GLN
34	SR	59	ARG
34	SR	60	SER
34	SR	62	LYS
34	SR	66	HIS
34	SR	76	ASP
34	SR	81	LEU
34	SR	94	VAL
34	SR	96	THR
34	SR	109	ASP
34	SR	112	SER
34	SR	117	LYS
34	SR	133	VAL
34	SR	136	ILE
34	SR	141	LEU
34	SR	143	THR
34	SR	153	GLN
34	SR	165	ASP
34	SR	166	SER
34	SR	191	ASP
34	SR	195	HIS
34	SR	196	ASN
34	SR	202	LEU
34	SR	238	ASP
34	SR	265	LEU
34	SR	266	ASP
34	SR	268	GLN
34	SR	277	GLU
34	SR	300	THR
34	SR	308	ASN
34	SR	316	MET
34	SR	317	THR
35	SM	24	GLU
35	SM	27	LYS
35	SM	28	SER
35	SM	46	LYS
35	SM	49	LYS
35	SM	51	ARG
35	SM	53	ARG
35	SM	61	ILE
35	SM	64	LYS
35	SM	69	ARG

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Mol	Chain	Res	Type
35	SM	72	ARG
35	SM	82	THR
35	SM	84	LYS
35	SM	89	ARG
35	SM	91	THR
35	SM	97	THR
35	SM	100	THR
35	SM	103	LYS
35	SM	139	GLU
39	L2	8	GLN
39	L2	18	SER
39	L2	20	THR
39	L2	32	LEU
39	L2	44	ILE
39	L2	45	VAL
39	L2	48	ILE
39	L2	62	VAL
39	L2	64	ARG
39	L2	70	ARG
39	L2	73	GLU
39	L2	74	GLU
39	L2	96	LEU
39	L2	104	LEU
39	L2	109	GLU
39	L2	114	SER
39	L2	118	GLU
39	L2	134	VAL
39	L2	137	ILE
39	L2	139	HIS
39	L2	143	GLU
39	L2	157	VAL
39	L2	165	VAL
39	L2	169	ILE
39	L2	177	LYS
39	L2	179	LEU
39	L2	181	LYS
39	L2	190	ARG
39	L2	193	ARG
39	L2	202	VAL
39	L2	204	MET
39	L2	207	VAL
39	L2	227	ARG

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Mol	Chain	Res	Type
40	L3	7	GLU
40	L3	10	ARG
40	L3	17	LEU
40	L3	19	ARG
40	L3	20	LYS
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	50	LYS
40	L3	55	THR
40	L3	56	ILE
40	L3	67	PHE
40	L3	69	LYS
40	L3	70	ARG
40	L3	73	VAL
40	L3	79	VAL
40	L3	84	VAL
40	L3	85	VAL
40	L3	93	VAL
40	L3	94	GLU
40	L3	100	ARG
40	L3	102	LEU
40	L3	103	THR
40	L3	104	THR
40	L3	112	ASP
40	L3	114	VAL
40	L3	116	ARG
40	L3	134	SER
40	L3	139	GLN
40	L3	146	ARG
40	L3	148	LEU
40	L3	156	SER
40	L3	157	VAL
40	L3	169	THR
40	L3	173	GLN
40	L3	188	ILE
40	L3	192	VAL
40	L3	196	ARG
40	L3	200	GLU

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Mol	Chain	Res	Type
40	L3	202	THR
40	L3	207	SER
40	L3	210	GLU
40	L3	212	ASN
40	L3	216	ASP
40	L3	232	ARG
40	L3	235	THR
40	L3	236	LYS
40	L3	238	LEU
40	L3	241	LYS
40	L3	244	ARG
40	L3	252	ILE
40	L3	264	VAL
40	L3	270	ARG
40	L3	274	SER
40	L3	277	SER
40	L3	296	THR
40	L3	304	THR
40	L3	305	ILE
40	L3	308	MET
40	L3	320	ASP
40	L3	324	VAL
40	L3	328	ILE
40	L3	332	ARG
40	L3	338	LEU
40	L3	347	SER
40	L3	355	SER
40	L3	361	THR
40	L3	365	PHE
40	L3	382	THR
40	L3	385	LYS
41	L4	3	ARG
41	L4	4	PRO
41	L4	16	THR
41	L4	22	LEU
41	L4	47	ARG
41	L4	60	THR
41	L4	71	VAL
41	L4	74	ILE
41	L4	93	MET
41	L4	102	PRO
41	L4	120	TYR

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Mol	Chain	Res	Type
41	L4	124	SER
41	L4	133	SER
41	L4	145	ILE
41	L4	150	LEU
41	L4	152	VAL
41	L4	153	SER
41	L4	156	LEU
41	L4	170	LYS
41	L4	172	VAL
41	L4	176	SER
41	L4	177	ASP
41	L4	179	LEU
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	230	VAL
41	L4	246	ARG
41	L4	258	LEU
41	L4	280	ILE
41	L4	283	THR
41	L4	287	THR
41	L4	289	ILE
41	L4	292	SER
41	L4	297	SER
41	L4	306	THR
41	L4	307	GLN
41	L4	310	THR
41	L4	311	HIS
41	L4	323	VAL
41	L4	332	LYS
41	L4	333	VAL
41	L4	339	LEU
41	L4	343	LYS
41	L4	346	LYS
41	L4	349	THR
41	L4	354	VAL
41	L4	359	LEU
42	L5	4	GLN

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Mol	Chain	Res	Type
42	L5	5	LYS
42	L5	17	GLN
42	L5	22	ARG
42	L5	23	ARG
42	L5	41	LYS
42	L5	48	LYS
42	L5	50	ARG
42	L5	58	LYS
42	L5	66	SER
42	L5	67	SER
42	L5	69	ILE
42	L5	80	SER
42	L5	81	HIS
42	L5	89	THR
42	L5	92	LEU
42	L5	101	THR
42	L5	105	ILE
42	L5	109	THR
42	L5	112	LYS
42	L5	115	LEU
42	L5	118	THR
42	L5	131	LEU
42	L5	137	ASP
42	L5	140	ARG
42	L5	146	LEU
42	L5	148	ILE
42	L5	152	ARG
42	L5	154	THR
42	L5	155	THR
42	L5	158	ARG
42	L5	163	LEU
42	L5	185	PHE
42	L5	205	SER
42	L5	206	GLN
42	L5	216	GLU
42	L5	222	LEU
42	L5	227	LEU
42	L5	234	ASP
42	L5	242	SER
42	L5	257	GLU
42	L5	259	LYS
42	L5	263	GLU

Continued on next page...

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Mol	Chain	Res	Type
42	L5	273	ARG
42	L5	277	LEU
42	L5	290	ILE
42	L5	293	LEU
43	L6	5	LYS
43	L6	21	THR
43	L6	31	ARG
43	L6	35	VAL
43	L6	41	ILE
43	L6	52	VAL
43	L6	64	LEU
43	L6	65	ILE
43	L6	84	VAL
43	L6	89	THR
43	L6	90	LYS
43	L6	93	VAL
43	L6	99	GLU
43	L6	129	GLU
43	L6	134	ARG
43	L6	146	ILE
43	L6	152	THR
43	L6	155	LEU
43	L6	160	SER
43	L6	164	SER
44	L7	24	GLU
44	L7	25	GLN
44	L7	26	VAL
44	L7	40	LYS
44	L7	45	LEU
44	L7	53	LYS
44	L7	54	GLU
44	L7	77	VAL
44	L7	80	GLN
44	L7	82	LYS
44	L7	88	ARG
44	L7	93	ASN
44	L7	98	LYS
44	L7	110	ARG
44	L7	118	LYS
44	L7	124	LEU
44	L7	128	LYS
44	L7	143	THR

Continued on next page...

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Mol	Chain	Res	Type
44	L7	157	ASN
44	L7	158	LYS
44	L7	164	SER
44	L7	175	LYS
44	L7	179	LEU
44	L7	184	LEU
44	L7	239	LEU
45	L8	26	LEU
45	L8	27	THR
45	L8	31	PRO
45	L8	41	GLN
45	L8	63	LYS
45	L8	66	SER
45	L8	71	VAL
45	L8	74	THR
45	L8	79	GLN
45	L8	81	THR
45	L8	82	LEU
45	L8	84	ARG
45	L8	92	LYS
45	L8	95	ASN
45	L8	101	THR
45	L8	118	GLU
45	L8	132	VAL
45	L8	136	LEU
45	L8	149	LYS
45	L8	150	LEU
45	L8	155	ASN
45	L8	156	ASP
45	L8	164	VAL
45	L8	169	LEU
45	L8	173	MET
45	L8	185	ARG
45	L8	203	VAL
45	L8	206	GLU
45	L8	208	GLU
45	L8	211	LEU
45	L8	221	ASN
45	L8	238	LEU
45	L8	241	LYS
45	L8	246	MET
45	L8	251	LYS

Continued on next page...

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Mol	Chain	Res	Type
46	L9	5	GLN
46	L9	6	THR
46	L9	9	GLN
46	L9	12	VAL
46	L9	14	GLU
46	L9	18	VAL
46	L9	19	SER
46	L9	20	ILE
46	L9	22	SER
46	L9	33	THR
46	L9	34	LEU
46	L9	36	LYS
46	L9	41	ILE
46	L9	48	VAL
46	L9	52	LEU
46	L9	68	LEU
46	L9	69	ARG
46	L9	70	THR
46	L9	73	SER
46	L9	82	VAL
46	L9	91	ARG
46	L9	113	GLU
46	L9	124	ARG
46	L9	133	THR
46	L9	135	GLU
46	L9	139	ASN
46	L9	141	LYS
46	L9	151	VAL
46	L9	152	GLU
46	L9	157	ASN
46	L9	161	LEU
46	L9	162	GLN
46	L9	164	ILE
46	L9	172	ILE
46	L9	173	ARG
46	L9	189	GLU
46	L9	190	ASP
46	L9	191	LEU
47	M0	3	ARG
47	M0	7	ARG
47	M0	15	LYS
47	M0	24	ARG

Continued on next page...

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Mol	Chain	Res	Type
47	M0	26	VAL
47	M0	30	LYS
47	M0	31	ILE
47	M0	32	ARG
47	M0	33	ILE
47	M0	39	LYS
47	M0	42	THR
47	M0	48	LEU
47	M0	52	LEU
47	M0	63	GLU
47	M0	74	LYS
47	M0	78	THR
47	M0	87	LEU
47	M0	91	VAL
47	M0	130	ASP
47	M0	138	VAL
47	M0	139	ARG
47	M0	145	LYS
47	M0	156	ARG
47	M0	163	GLN
47	M0	164	LYS
47	M0	165	ILE
47	M0	166	ILE
47	M0	167	LEU
47	M0	169	LYS
47	M0	177	ASP
47	M0	178	ARG
47	M0	184	LYS
47	M0	185	ARG
47	M0	203	LYS
48	M1	6	GLN
48	M1	9	MET
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	44	THR
48	M1	46	VAL
48	M1	51	ARG
48	M1	53	THR

Continued on next page...

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Mol	Chain	Res	Type
48	M1	65	ILE
48	M1	70	THR
48	M1	71	VAL
48	M1	80	LEU
48	M1	82	ARG
48	M1	85	LYS
48	M1	94	ARG
48	M1	106	ILE
48	M1	107	ASP
48	M1	112	LEU
48	M1	115	LYS
48	M1	119	SER
48	M1	130	VAL
48	M1	138	VAL
48	M1	140	ARG
48	M1	142	LYS
48	M1	145	LYS
48	M1	147	THR
48	M1	158	ASP
48	M1	166	LYS
49	M3	23	LYS
49	M3	24	VAL
49	M3	28	GLN
49	M3	35	ARG
49	M3	41	THR
49	M3	45	LYS
49	M3	54	LEU
49	M3	55	ARG
49	M3	57	VAL
49	M3	58	VAL
49	M3	59	ARG
49	M3	62	THR
49	M3	67	ARG
49	M3	70	ARG
49	M3	73	ARG
49	M3	81	LYS
49	M3	85	LEU
49	M3	104	ARG
49	M3	107	GLU
49	M3	114	GLN
49	M3	115	ARG
49	M3	124	ILE

Continued on next page...

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Mol	Chain	Res	Type
49	M3	131	LYS
49	M3	164	GLU
49	M3	171	ARG
49	M3	175	SER
49	M3	190	LYS
50	M4	5	SER
50	M4	8	LYS
50	M4	19	ARG
50	M4	25	LYS
50	M4	27	GLN
50	M4	37	GLU
50	M4	50	LYS
50	M4	53	VAL
50	M4	55	ARG
50	M4	58	ILE
50	M4	63	VAL
50	M4	66	THR
50	M4	72	LEU
50	M4	90	VAL
50	M4	91	CYS
50	M4	93	LYS
50	M4	102	LYS
50	M4	119	GLN
50	M4	126	GLN
50	M4	128	ARG
50	M4	135	LEU
51	M5	5	LYS
51	M5	10	LEU
51	M5	18	VAL
51	M5	20	ARG
51	M5	22	LEU
51	M5	33	LYS
51	M5	38	ARG
51	M5	68	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

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Mol	Chain	Res	Type
51	M5	133	ILE
51	M5	138	GLN
51	M5	142	ILE
51	M5	151	ILE
51	M5	153	ASP
51	M5	155	VAL
51	M5	157	LYS
51	M5	159	ARG
51	M5	167	THR
51	M5	170	LYS
51	M5	183	THR
51	M5	187	ARG
51	M5	188	ARG
51	M5	190	THR
51	M5	194	GLN
51	M5	196	THR
51	M5	204	LYS
52	M6	33	ILE
52	M6	34	VAL
52	M6	58	LEU
52	M6	68	ARG
52	M6	78	ARG
52	M6	84	LEU
52	M6	85	ARG
52	M6	94	ARG
52	M6	106	GLU
52	M6	116	LYS
52	M6	117	ARG
52	M6	122	GLN
52	M6	128	ARG
52	M6	134	LYS
52	M6	137	THR
52	M6	143	THR
52	M6	144	SER
52	M6	160	ARG
52	M6	175	THR
52	M6	184	THR
52	M6	190	VAL
52	M6	194	LEU
53	M7	3	ARG
53	M7	7	THR
53	M7	9	THR

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Mol	Chain	Res	Type
53	M7	23	ARG
53	M7	24	VAL
53	M7	29	THR
53	M7	32	THR
53	M7	36	ILE
53	M7	41	LEU
53	M7	42	THR
53	M7	56	ARG
53	M7	67	ILE
53	M7	79	THR
53	M7	91	VAL
53	M7	112	LEU
53	M7	114	VAL
53	M7	117	ILE
53	M7	119	VAL
53	M7	120	ASN
53	M7	126	ARG
53	M7	127	ARG
53	M7	128	ARG
53	M7	142	SER
53	M7	144	SER
53	M7	157	VAL
53	M7	168	LEU
53	M7	180	LYS
53	M7	181	ARG
54	M8	6	THR
54	M8	11	LYS
54	M8	17	THR
54	M8	21	SER
54	M8	22	ASP
54	M8	24	VAL
54	M8	26	LEU
54	M8	32	LEU
54	M8	34	THR
54	M8	41	ASP
54	M8	63	SER
54	M8	64	VAL
54	M8	67	ILE
54	M8	69	ARG
54	M8	74	GLU
54	M8	80	THR
54	M8	81	VAL

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Mol	Chain	Res	Type
54	M8	93	ILE
54	M8	95	GLU
54	M8	100	THR
54	M8	105	ARG
54	M8	111	ARG
54	M8	113	LYS
54	M8	135	GLN
54	M8	138	LEU
54	M8	141	ARG
54	M8	144	ARG
54	M8	147	ARG
54	M8	150	VAL
54	M8	168	THR
54	M8	180	ARG
55	M9	10	LEU
55	M9	22	VAL
55	M9	25	ASP
55	M9	42	ARG
55	M9	43	LYS
55	M9	44	LEU
55	M9	49	THR
55	M9	55	VAL
55	M9	60	LYS
55	M9	61	SER
55	M9	71	ARG
55	M9	74	ARG
55	M9	81	ARG
55	M9	89	LEU
55	M9	99	LEU
55	M9	103	ARG
55	M9	104	ARG
55	M9	106	LEU
55	M9	110	ARG
55	M9	116	ASP
55	M9	134	HIS
55	M9	138	LEU
55	M9	165	LYS
55	M9	182	ASP
56	N0	1	MET
56	N0	12	ARG
56	N0	17	GLU
56	N0	21	GLU

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Mol	Chain	Res	Type
56	N0	45	LEU
56	N0	51	VAL
56	N0	52	LYS
56	N0	57	GLU
56	N0	61	ILE
56	N0	80	ARG
56	N0	85	SER
56	N0	87	THR
56	N0	105	THR
56	N0	115	ARG
56	N0	117	ARG
56	N0	125	LYS
56	N0	130	GLU
56	N0	132	THR
56	N0	137	ARG
56	N0	138	GLN
56	N0	142	GLN
56	N0	145	THR
56	N0	149	LYS
56	N0	155	ARG
56	N0	156	VAL
56	N0	157	GLN
56	N0	160	THR
56	N0	167	ARG
56	N0	171	PHE
56	N0	172	TYR
57	N1	9	SER
57	N1	12	ARG
57	N1	16	GLN
57	N1	25	VAL
57	N1	26	HIS
57	N1	27	LEU
57	N1	32	LYS
57	N1	55	LYS
57	N1	68	THR
57	N1	75	ILE
57	N1	78	LYS
57	N1	79	MET
57	N1	83	ARG
57	N1	87	LYS
57	N1	88	ARG
57	N1	89	LEU

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Mol	Chain	Res	Type
57	N1	93	VAL
57	N1	102	ARG
57	N1	103	GLN
57	N1	104	GLU
57	N1	106	LEU
57	N1	118	GLU
57	N1	124	VAL
57	N1	126	VAL
57	N1	127	GLN
57	N1	128	LEU
57	N1	136	ARG
57	N1	139	ARG
57	N1	143	THR
57	N1	144	GLU
57	N1	149	GLN
57	N1	158	THR
58	N2	10	LYS
58	N2	29	ASP
58	N2	38	ILE
58	N2	43	VAL
58	N2	52	ASN
58	N2	54	VAL
58	N2	58	GLU
58	N2	66	VAL
58	N2	72	SER
58	N2	87	ASN
58	N2	88	GLN
58	N2	93	ILE
58	N2	100	THR
59	N3	2	SER
59	N3	13	ILE
59	N3	14	SER
59	N3	32	ARG
59	N3	37	ILE
59	N3	45	ARG
59	N3	48	ARG
59	N3	54	LEU
59	N3	63	LYS
59	N3	64	LYS
59	N3	72	LYS
59	N3	79	VAL
59	N3	84	SER

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Mol	Chain	Res	Type
59	N3	91	VAL
59	N3	96	GLU
59	N3	102	ILE
59	N3	110	LYS
59	N3	115	THR
59	N3	137	VAL
60	N4	4	GLU
60	N4	5	ILE
60	N4	7	SER
60	N4	19	THR
60	N4	39	LEU
60	N4	43	ARG
60	N4	64	THR
61	N5	27	ARG
61	N5	34	LEU
61	N5	36	LYS
61	N5	38	LEU
61	N5	39	LYS
61	N5	45	LYS
61	N5	49	LYS
61	N5	57	LEU
61	N5	59	SER
61	N5	63	ILE
61	N5	69	SER
61	N5	71	THR
61	N5	74	LYS
61	N5	86	VAL
61	N5	102	LEU
61	N5	108	LEU
61	N5	109	LYS
61	N5	113	LEU
61	N5	115	ARG
61	N5	125	ARG
61	N5	127	THR
61	N5	135	ILE
61	N5	138	ARG
61	N5	139	ILE
61	N5	142	ILE
62	N6	8	VAL
62	N6	9	SER
62	N6	10	SER
62	N6	13	ARG

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Mol	Chain	Res	Type
62	N6	17	LYS
62	N6	25	SER
62	N6	36	SER
62	N6	37	LYS
62	N6	42	GLN
62	N6	45	ILE
62	N6	50	ILE
62	N6	51	ARG
62	N6	56	VAL
62	N6	57	LEU
62	N6	60	ARG
62	N6	74	TYR
62	N6	76	LEU
62	N6	80	VAL
62	N6	88	GLU
62	N6	94	SER
62	N6	97	ILE
62	N6	105	VAL
62	N6	115	ARG
62	N6	122	LYS
62	N6	127	GLU
63	N7	17	ARG
63	N7	24	VAL
63	N7	25	ILE
63	N7	26	VAL
63	N7	46	ILE
63	N7	52	LYS
63	N7	54	THR
63	N7	64	LYS
63	N7	66	THR
63	N7	72	ILE
63	N7	75	VAL
63	N7	81	LEU
63	N7	83	THR
63	N7	86	THR
63	N7	89	VAL
63	N7	99	GLU
63	N7	102	GLU
63	N7	107	ARG
63	N7	108	GLU
63	N7	109	GLU
63	N7	122	HIS

Continued on next page...

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Mol	Chain	Res	Type
63	N7	123	GLN
63	N7	127	ASN
63	N7	134	LEU
64	N8	4	ARG
64	N8	6	THR
64	N8	8	THR
64	N8	10	LYS
64	N8	29	PRO
64	N8	34	MET
64	N8	42	ARG
64	N8	46	ASP
64	N8	47	LYS
64	N8	56	VAL
64	N8	60	TYR
64	N8	64	GLN
64	N8	65	GLN
64	N8	68	PHE
64	N8	73	LEU
64	N8	76	ASP
64	N8	78	LEU
64	N8	84	GLU
64	N8	88	ASP
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
65	N9	13	THR
65	N9	18	ARG
65	N9	21	ILE
65	N9	23	LYS
65	N9	25	LYS
65	N9	28	LYS
65	N9	38	LYS
65	N9	44	LYS
65	N9	50	THR
65	N9	59	LYS
66	O0	13	LYS
66	O0	14	LEU
66	O0	16	LEU

Continued on next page...

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Mol	Chain	Res	Type
66	O0	24	THR
66	O0	30	THR
66	O0	34	LEU
66	O0	40	LYS
66	O0	41	LEU
66	O0	48	THR
66	O0	50	VAL
66	O0	61	MET
66	O0	66	LYS
66	O0	76	GLU
66	O0	83	LYS
66	O0	87	VAL
66	O0	100	ILE
66	O0	101	LEU
67	O1	6	ASP
67	O1	13	THR
67	O1	16	LEU
67	O1	26	LYS
67	O1	30	PRO
67	O1	31	ARG
67	O1	47	ASP
67	O1	64	VAL
67	O1	68	GLU
67	O1	75	ILE
67	O1	76	SER
67	O1	79	ARG
67	O1	82	GLU
67	O1	83	GLU
67	O1	84	ASP
67	O1	86	LYS
67	O1	96	VAL
67	O1	102	LYS
67	O1	104	LEU
67	O1	105	GLN
67	O1	106	THR
67	O1	107	VAL
67	O1	110	GLU
68	O2	4	LEU
68	O2	14	THR
68	O2	18	LYS
68	O2	19	ARG
68	O2	21	HIS

Continued on next page...

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Mol	Chain	Res	Type
68	O2	30	GLU
68	O2	33	ARG
68	O2	34	LYS
68	O2	41	VAL
68	O2	53	PRO
68	O2	61	LYS
68	O2	67	SER
68	O2	73	THR
68	O2	75	LEU
68	O2	76	VAL
68	O2	82	LEU
68	O2	109	LEU
68	O2	126	LEU
68	O2	128	LEU
69	O3	15	SER
69	O3	20	LYS
69	O3	28	SER
69	O3	45	LEU
69	O3	49	ILE
69	O3	56	SER
69	O3	59	VAL
69	O3	70	LYS
69	O3	80	VAL
69	O3	93	THR
69	O3	98	VAL
69	O3	106	ASN
69	O3	107	ILE
70	O4	3	GLN
70	O4	5	VAL
70	O4	8	ARG
70	O4	20	ILE
70	O4	23	VAL
70	O4	24	LYS
70	O4	29	ILE
70	O4	51	LEU
70	O4	58	ARG
70	O4	65	VAL
70	O4	66	SER
70	O4	71	THR
70	O4	74	ARG
70	O4	81	CYS
70	O4	86	LYS

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Mol	Chain	Res	Type
70	O4	102	LYS
70	O4	104	VAL
71	O5	4	VAL
71	O5	15	GLU
71	O5	20	GLN
71	O5	21	LEU
71	O5	27	GLU
71	O5	30	GLU
71	O5	36	LEU
71	O5	46	THR
71	O5	49	LYS
71	O5	50	SER
71	O5	60	GLU
71	O5	71	LYS
71	O5	74	LYS
71	O5	85	THR
71	O5	89	ARG
71	O5	90	ARG
71	O5	94	LYS
71	O5	101	THR
71	O5	102	GLU
71	O5	104	GLN
71	O5	105	ARG
71	O5	107	LYS
71	O5	115	LYS
71	O5	119	LYS
72	O6	11	LEU
72	O6	18	THR
72	O6	21	THR
72	O6	26	ILE
72	O6	28	TYR
72	O6	34	SER
72	O6	36	ARG
72	O6	43	LEU
72	O6	45	ARG
72	O6	52	PRO
72	O6	57	LEU
72	O6	58	ILE
72	O6	60	LEU
72	O6	62	ARG
72	O6	68	ARG
72	O6	71	LYS

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Mol	Chain	Res	Type
72	O6	76	ARG
72	O6	81	THR
72	O6	88	GLU
72	O6	98	ARG
72	O6	99	ARG
73	O7	5	THR
73	O7	17	THR
73	O7	24	ARG
73	O7	25	ARG
73	O7	26	SER
73	O7	31	LYS
73	O7	33	THR
73	O7	36	SER
73	O7	55	ARG
73	O7	58	THR
73	O7	65	ARG
73	O7	67	LEU
73	O7	82	SER
74	O8	5	ILE
74	O8	12	LEU
74	O8	22	THR
74	O8	24	THR
74	O8	32	ASN
74	O8	41	THR
74	O8	45	VAL
74	O8	48	SER
74	O8	50	SER
74	O8	53	THR
74	O8	61	LYS
74	O8	64	LYS
74	O8	65	LEU
74	O8	67	GLN
74	O8	72	THR
74	O8	77	ARG
75	O9	21	ARG
75	O9	23	LEU
75	O9	25	GLN
75	O9	29	LEU
75	O9	33	ASN
75	O9	51	ILE
76	Q0	77	ILE
76	Q0	78	ILE

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Mol	Chain	Res	Type
76	Q0	83	LYS
76	Q0	98	LYS
76	Q0	106	ARG
76	Q0	112	LYS
76	Q0	113	ARG
76	Q0	114	LYS
76	Q0	127	LEU
77	Q1	2	ARG
77	Q1	4	LYS
77	Q1	5	TRP
77	Q1	6	ARG
77	Q1	9	ARG
77	Q1	11	ARG
77	Q1	16	LYS
77	Q1	19	LYS
77	Q1	21	ARG
78	Q2	2	VAL
78	Q2	8	ARG
78	Q2	13	LYS
78	Q2	21	THR
78	Q2	26	THR
78	Q2	35	LEU
78	Q2	45	ARG
78	Q2	48	SER
78	Q2	55	LYS
78	Q2	60	LYS
78	Q2	76	LYS
78	Q2	78	LYS
78	Q2	80	ARG
78	Q2	83	LEU
78	Q2	84	THR
78	Q2	85	LEU
78	Q2	92	GLU
78	Q2	93	LEU
78	Q2	100	LYS
78	Q2	104	LEU
79	Q3	11	THR
79	Q3	16	VAL
79	Q3	20	SER
79	Q3	45	LYS
79	Q3	46	THR
79	Q3	49	ARG

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Mol	Chain	Res	Type
79	Q3	60	CYS
79	Q3	70	THR
79	Q3	73	THR
79	Q3	82	THR
79	Q3	89	MET
79	Q3	90	VAL
79	Q3	91	GLU
2	s0	10	THR
2	s0	12	GLU
2	s0	29	VAL
2	s0	30	GLN
2	s0	31	VAL
2	s0	41	ARG
2	s0	45	VAL
2	s0	50	VAL
2	s0	59	LEU
2	s0	62	ARG
2	s0	72	ASP
2	s0	87	LEU
2	s0	88	LYS
2	s0	93	THR
2	s0	96	THR
2	s0	106	SER
2	s0	110	TYR
2	s0	119	ARG
2	s0	144	ILE
2	s0	151	SER
2	s0	154	GLU
2	s0	172	LEU
2	s0	183	ARG
2	s0	184	LEU
2	s0	185	ARG
2	s0	189	VAL
2	s0	197	ILE
2	s0	202	TYR
3	s1	21	VAL
3	s1	25	THR
3	s1	36	SER
3	s1	37	THR
3	s1	40	ASN
3	s1	47	LEU
3	s1	51	SER

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Mol	Chain	Res	Type
3	s1	55	LYS
3	s1	62	LYS
3	s1	70	LEU
3	s1	73	LEU
3	s1	74	GLN
3	s1	78	ASP
3	s1	81	PHE
3	s1	83	LYS
3	s1	89	ASP
3	s1	90	GLU
3	s1	97	LEU
3	s1	105	PHE
3	s1	116	LYS
3	s1	119	THR
3	s1	125	VAL
3	s1	126	THR
3	s1	129	THR
3	s1	144	ARG
3	s1	173	THR
3	s1	179	SER
3	s1	180	THR
3	s1	181	LEU
3	s1	184	LEU
3	s1	193	ILE
3	s1	197	ILE
3	s1	202	LYS
3	s1	203	ASP
3	s1	211	HIS
3	s1	214	LYS
3	s1	219	LYS
3	s1	223	PHE
3	s1	225	VAL
4	s2	39	THR
4	s2	41	LEU
4	s2	53	ILE
4	s2	55	GLU
4	s2	58	LEU
4	s2	69	ILE
4	s2	70	ASP
4	s2	72	LEU
4	s2	73	LEU
4	s2	77	GLN

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Mol	Chain	Res	Type
4	s2	79	GLU
4	s2	80	VAL
4	s2	83	ILE
4	s2	87	GLN
4	s2	89	GLN
4	s2	90	THR
4	s2	91	ARG
4	s2	97	ARG
4	s2	106	ASP
4	s2	111	VAL
4	s2	113	LEU
4	s2	117	THR
4	s2	125	ILE
4	s2	137	ILE
4	s2	141	ARG
4	s2	148	LEU
4	s2	150	GLN
4	s2	159	THR
4	s2	164	SER
4	s2	166	THR
4	s2	170	ILE
4	s2	181	SER
4	s2	194	GLU
4	s2	201	ASN
4	s2	206	THR
4	s2	222	TYR
4	s2	229	LEU
4	s2	233	GLN
4	s2	237	VAL
4	s2	238	SER
4	s2	240	LEU
4	s2	245	ASP
4	s2	248	SER
5	s3	4	LEU
5	s3	10	LYS
5	s3	21	LEU
5	s3	39	VAL
5	s3	41	VAL
5	s3	44	THR
5	s3	56	GLN
5	s3	59	LEU
5	s3	69	LEU

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Mol	Chain	Res	Type
5	s3	83	THR
5	s3	84	ILE
5	s3	89	GLU
5	s3	90	ARG
5	s3	93	ASP
5	s3	111	ASN
5	s3	115	ILE
5	s3	116	ARG
5	s3	124	ARG
5	s3	125	TYR
5	s3	127	MET
5	s3	128	GLU
5	s3	132	LYS
5	s3	134	CYS
5	s3	143	ARG
5	s3	150	MET
5	s3	158	ILE
5	s3	164	VAL
5	s3	168	ILE
5	s3	169	ASP
5	s3	172	THR
5	s3	176	LEU
5	s3	181	VAL
5	s3	185	LYS
5	s3	202	LEU
5	s3	212	LYS
5	s3	213	GLU
5	s3	223	LYS
5	s3	224	ASP
6	s4	6	LYS
6	s4	7	LYS
6	s4	9	LEU
6	s4	11	ARG
6	s4	23	LEU
6	s4	38	LEU
6	s4	42	LEU
6	s4	49	ARG
6	s4	51	ARG
6	s4	67	GLN
6	s4	68	ARG
6	s4	69	HIS
6	s4	70	VAL

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Mol	Chain	Res	Type
6	s4	72	VAL
6	s4	77	ARG
6	s4	78	THR
6	s4	81	THR
6	s4	96	ASN
6	s4	104	ASP
6	s4	108	ARG
6	s4	113	ARG
6	s4	116	ASP
6	s4	123	LEU
6	s4	126	VAL
6	s4	127	LYS
6	s4	131	LEU
6	s4	146	THR
6	s4	147	ILE
6	s4	148	ARG
6	s4	159	THR
6	s4	160	VAL
6	s4	176	ASP
6	s4	180	LEU
6	s4	182	TYR
6	s4	184	THR
6	s4	208	VAL
6	s4	214	LEU
6	s4	219	VAL
6	s4	221	ARG
6	s4	227	VAL
6	s4	236	ILE
6	s4	245	LYS
6	s4	246	LEU
6	s4	247	SER
7	s5	24	VAL
7	s5	25	LEU
7	s5	27	THR
7	s5	32	GLU
7	s5	38	THR
7	s5	39	GLU
7	s5	41	LYS
7	s5	45	LYS
7	s5	47	SER
7	s5	58	LEU
7	s5	59	VAL

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Mol	Chain	Res	Type
7	s5	60	ASP
7	s5	63	GLN
7	s5	64	VAL
7	s5	68	ILE
7	s5	76	ARG
7	s5	79	ASN
7	s5	83	ARG
7	s5	86	GLN
7	s5	93	LEU
7	s5	102	ARG
7	s5	109	LYS
7	s5	112	ARG
7	s5	114	ILE
7	s5	119	ASP
7	s5	125	THR
7	s5	128	ASN
7	s5	143	ARG
7	s5	147	THR
7	s5	148	ARG
7	s5	157	ARG
7	s5	160	VAL
7	s5	166	ARG
7	s5	167	ARG
7	s5	192	GLU
7	s5	194	LEU
7	s5	203	LYS
7	s5	213	LYS
7	s5	216	GLU
8	s6	21	GLU
8	s6	31	ARG
8	s6	39	GLU
8	s6	57	ASP
8	s6	65	GLN
8	s6	69	LEU
8	s6	71	THR
8	s6	73	ILE
8	s6	76	LEU
8	s6	78	THR
8	s6	79	LYS
8	s6	93	LYS
8	s6	97	VAL
8	s6	108	VAL

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Mol	Chain	Res	Type
8	s6	109	LEU
8	s6	111	LEU
8	s6	115	LYS
8	s6	120	GLU
8	s6	121	LEU
8	s6	126	ASP
8	s6	127	THR
8	s6	128	THR
8	s6	129	VAL
8	s6	137	ARG
8	s6	143	LYS
8	s6	148	SER
8	s6	150	GLU
8	s6	151	ASP
8	s6	153	VAL
8	s6	154	ARG
8	s6	155	ASP
8	s6	168	THR
8	s6	169	TYR
8	s6	182	GLN
8	s6	193	LEU
8	s6	201	GLN
8	s6	212	LEU
8	s6	215	ARG
8	s6	217	SER
9	s7	10	SER
9	s7	11	GLN
9	s7	14	THR
9	s7	16	LEU
9	s7	22	GLN
9	s7	33	GLU
9	s7	35	LYS
9	s7	41	LEU
9	s7	42	GLN
9	s7	49	ILE
9	s7	50	ASP
9	s7	55	LYS
9	s7	67	LEU
9	s7	77	LEU
9	s7	79	ARG
9	s7	81	LEU
9	s7	97	ARG

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Mol	Chain	Res	Type
9	s7	99	LEU
9	s7	101	LYS
9	s7	103	SER
9	s7	105	THR
9	s7	108	GLN
9	s7	110	GLN
9	s7	114	ARG
9	s7	116	ARG
9	s7	117	THR
9	s7	118	LEU
9	s7	122	HIS
9	s7	126	LEU
9	s7	139	ARG
9	s7	144	VAL
9	s7	149	ILE
9	s7	166	LEU
9	s7	185	ILE
10	s8	7	SER
10	s8	10	LYS
10	s8	18	ARG
10	s8	29	LEU
10	s8	36	THR
10	s8	46	VAL
10	s8	48	THR
10	s8	61	GLU
10	s8	62	THR
10	s8	64	ASN
10	s8	74	LYS
10	s8	76	THR
10	s8	77	ARG
10	s8	82	VAL
10	s8	95	THR
10	s8	111	GLN
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	168	CYS
10	s8	176	SER

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Mol	Chain	Res	Type
10	s8	178	ARG
10	s8	183	ILE
11	s9	3	ARG
11	s9	7	THR
11	s9	9	SER
11	s9	16	LYS
11	s9	21	SER
11	s9	28	LEU
11	s9	37	LYS
11	s9	40	LYS
11	s9	45	ILE
11	s9	46	SER
11	s9	49	LEU
11	s9	78	ARG
11	s9	82	ARG
11	s9	83	VAL
11	s9	87	SER
11	s9	90	LYS
11	s9	93	LEU
11	s9	101	VAL
11	s9	109	LEU
11	s9	111	THR
11	s9	120	LYS
11	s9	130	THR
11	s9	133	HIS
11	s9	134	ILE
11	s9	142	ASN
11	s9	149	ARG
11	s9	161	THR
11	s9	168	ARG
11	s9	172	VAL
11	s9	180	LYS
11	s9	182	GLU
12	c0	5	LYS
12	c0	15	LEU
12	c0	20	VAL
12	c0	36	ASP
12	c0	55	VAL
12	c0	57	THR
12	c0	71	GLU
13	c1	2	SER
13	c1	3	THR

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Mol	Chain	Res	Type
13	c1	5	LEU
13	c1	9	SER
13	c1	10	GLU
13	c1	21	ASN
13	c1	22	ASN
13	c1	26	LYS
13	c1	30	ARG
13	c1	32	LYS
13	c1	33	ARG
13	c1	40	LEU
13	c1	44	THR
13	c1	46	LYS
13	c1	47	THR
13	c1	56	LYS
13	c1	60	PHE
13	c1	63	LEU
13	c1	67	ARG
13	c1	72	THR
13	c1	74	THR
13	c1	80	MET
13	c1	83	THR
13	c1	94	ILE
13	c1	99	ARG
13	c1	107	VAL
13	c1	131	ILE
13	c1	140	VAL
14	c2	28	LEU
14	c2	36	LEU
14	c2	39	ASP
14	c2	43	ARG
14	c2	45	LEU
14	c2	59	LEU
14	c2	61	VAL
14	c2	62	LEU
14	c2	71	ILE
14	c2	74	LEU
14	c2	85	LYS
14	c2	89	ILE
14	c2	97	LEU
14	c2	103	LEU
14	c2	116	VAL
14	c2	121	VAL

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Mol	Chain	Res	Type
14	c2	129	GLU
14	c2	132	GLU
14	c2	136	ILE
14	c2	140	PHE
15	c3	12	SER
15	c3	16	ILE
15	c3	20	ARG
15	c3	21	ASN
15	c3	27	LYS
15	c3	35	GLU
15	c3	39	LYS
15	c3	46	THR
15	c3	62	GLN
15	c3	64	ARG
15	c3	66	ILE
15	c3	70	LYS
15	c3	80	LEU
15	c3	88	LEU
15	c3	115	LEU
15	c3	125	LEU
15	c3	134	VAL
15	c3	138	ASN
15	c3	150	VAL
16	c4	16	VAL
16	c4	18	ARG
16	c4	20	TYR
16	c4	31	THR
16	c4	33	LEU
16	c4	51	ASP
16	c4	52	ARG
16	c4	66	ASP
16	c4	76	ILE
16	c4	79	VAL
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	119	THR
16	c4	125	SER
16	c4	133	ARG

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Mol	Chain	Res	Type
16	c4	136	ARG
16	c4	137	LEU
17	c5	10	ARG
17	c5	12	PHE
17	c5	20	VAL
17	c5	24	LYS
17	c5	27	GLU
17	c5	28	MET
17	c5	36	LEU
17	c5	40	ARG
17	c5	43	ARG
17	c5	51	SER
17	c5	69	GLU
17	c5	71	GLU
17	c5	72	LYS
17	c5	92	SER
17	c5	97	TYR
17	c5	107	ILE
17	c5	110	GLU
17	c5	121	ILE
17	c5	127	ARG
17	c5	134	THR
18	c6	7	VAL
18	c6	23	LYS
18	c6	28	LEU
18	c6	36	ILE
18	c6	37	THR
18	c6	43	ILE
18	c6	47	LYS
18	c6	48	VAL
18	c6	53	LEU
18	c6	54	LEU
18	c6	55	VAL
18	c6	57	LEU
18	c6	68	ARG
18	c6	69	VAL
18	c6	81	ILE
18	c6	83	GLN
18	c6	94	GLN
18	c6	101	SER
18	c6	105	LEU
18	c6	107	LYS

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Mol	Chain	Res	Type
18	c6	110	THR
18	c6	111	SER
18	c6	114	ARG
18	c6	115	THR
18	c6	128	LYS
18	c6	137	ARG
19	c7	3	ARG
19	c7	5	ARG
19	c7	8	THR
19	c7	29	GLN
19	c7	34	LEU
19	c7	38	ILE
19	c7	40	THR
19	c7	46	LEU
19	c7	47	ARG
19	c7	49	LYS
19	c7	61	ILE
19	c7	67	ARG
19	c7	69	ILE
19	c7	85	VAL
19	c7	88	VAL
19	c7	105	GLN
19	c7	110	VAL
19	c7	113	LEU
20	c8	3	LEU
20	c8	4	VAL
20	c8	6	GLN
20	c8	12	GLN
20	c8	13	HIS
20	c8	15	LEU
20	c8	20	THR
20	c8	25	ASN
20	c8	28	ILE
20	c8	36	LYS
20	c8	40	ARG
20	c8	55	HIS
20	c8	57	ARG
20	c8	61	LEU
20	c8	63	GLN
20	c8	77	THR
20	c8	93	THR
20	c8	116	LEU

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Mol	Chain	Res	Type
20	c8	119	ILE
20	c8	136	GLN
20	c8	138	THR
20	c8	144	ARG
21	c9	6	VAL
21	c9	20	SER
21	c9	25	GLN
21	c9	27	LYS
21	c9	28	LEU
21	c9	34	VAL
21	c9	68	ARG
21	c9	70	GLN
21	c9	71	VAL
21	c9	75	LYS
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	135	ILE
21	c9	139	THR
21	c9	140	LEU
21	c9	141	GLU
21	c9	142	GLU
21	c9	144	GLU
22	d0	13	GLU
22	d0	22	ILE
22	d0	23	ARG
22	d0	27	THR
22	d0	31	VAL
22	d0	34	LEU
22	d0	39	SER
22	d0	44	ASN
22	d0	57	ARG
22	d0	59	PRO
22	d0	60	THR
22	d0	61	LYS
22	d0	63	LEU
22	d0	67	THR

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Mol	Chain	Res	Type
22	d0	70	THR
22	d0	72	ASN
22	d0	74	GLU
22	d0	77	LYS
22	d0	81	THR
22	d0	88	LYS
22	d0	99	ILE
22	d0	102	ARG
22	d0	103	ILE
22	d0	105	GLN
22	d0	108	ILE
22	d0	115	GLU
23	d1	1	MET
23	d1	2	GLU
23	d1	5	LYS
23	d1	8	LEU
23	d1	10	GLU
23	d1	11	LEU
23	d1	12	TYR
23	d1	24	ILE
23	d1	25	LYS
23	d1	32	VAL
23	d1	41	GLU
23	d1	49	GLU
23	d1	52	THR
23	d1	68	SER
23	d1	69	LEU
23	d1	78	LEU
23	d1	86	SER
24	d2	6	VAL
24	d2	7	LEU
24	d2	15	ASN
24	d2	20	THR
24	d2	23	ARG
24	d2	25	VAL
24	d2	26	LEU
24	d2	43	LYS
24	d2	65	LEU
24	d2	93	LEU
24	d2	98	GLN
24	d2	103	ILE
24	d2	117	ARG

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Mol	Chain	Res	Type
24	d2	121	VAL
24	d2	124	LYS
24	d2	129	VAL
25	d3	3	LYS
25	d3	9	LEU
25	d3	15	LEU
25	d3	19	ARG
25	d3	28	ASN
25	d3	40	SER
25	d3	72	VAL
25	d3	73	ARG
25	d3	78	LYS
25	d3	82	LYS
25	d3	83	VAL
25	d3	84	THR
25	d3	96	VAL
25	d3	100	ASP
25	d3	103	LEU
25	d3	107	PHE
25	d3	109	ARG
25	d3	117	ILE
25	d3	121	ARG
25	d3	128	SER
25	d3	133	LEU
25	d3	139	LYS
25	d3	140	LYS
26	d4	5	VAL
26	d4	10	ARG
26	d4	13	ILE
26	d4	14	SER
26	d4	21	LYS
26	d4	26	ASP
26	d4	29	HIS
26	d4	34	ASN
26	d4	43	LYS
26	d4	49	LYS
26	d4	51	GLU
26	d4	62	THR
26	d4	74	LEU
26	d4	78	SER
26	d4	83	LYS
26	d4	88	THR

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Mol	Chain	Res	Type
26	d4	105	ARG
26	d4	107	GLN
26	d4	116	LYS
26	d4	128	LYS
26	d4	133	ASN
27	d5	46	LYS
27	d5	51	LEU
27	d5	53	GLU
27	d5	57	TYR
27	d5	60	VAL
27	d5	61	SER
27	d5	68	ARG
27	d5	81	ARG
27	d5	88	ILE
28	d6	8	ASN
28	d6	11	ASN
28	d6	18	VAL
28	d6	24	VAL
28	d6	28	LYS
28	d6	29	SER
28	d6	41	ILE
28	d6	44	ILE
28	d6	51	ARG
28	d6	53	LEU
28	d6	55	GLU
28	d6	67	THR
28	d6	82	ARG
28	d6	85	ARG
28	d6	86	VAL
28	d6	90	GLU
29	d7	3	LEU
29	d7	4	VAL
29	d7	11	THR
29	d7	14	SER
29	d7	15	GLU
29	d7	24	LEU
29	d7	26	GLN
29	d7	31	TYR
29	d7	34	ASP
29	d7	43	ILE
29	d7	52	THR
29	d7	55	THR

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Mol	Chain	Res	Type
29	d7	72	LYS
29	d7	81	ARG
30	d8	7	VAL
30	d8	11	LYS
30	d8	16	LEU
30	d8	21	SER
30	d8	22	ARG
30	d8	30	VAL
30	d8	32	PHE
30	d8	33	LEU
30	d8	37	SER
30	d8	38	ARG
30	d8	40	ILE
30	d8	49	ARG
30	d8	54	LEU
30	d8	64	ARG
30	d8	65	ARG
31	d9	10	HIS
31	d9	21	CYS
31	d9	22	ARG
31	d9	28	THR
31	d9	30	LEU
31	d9	36	LEU
31	d9	39	CYS
31	d9	42	CYS
31	d9	49	ASP
31	d9	54	LYS
80	e0	4	VAL
80	e0	21	VAL
80	e0	22	GLU
80	e0	23	LYS
80	e0	24	THR
80	e0	26	LYS
80	e0	29	LYS
80	e0	31	LYS
80	e0	38	LEU
80	e0	41	THR
80	e0	42	ARG
80	e0	44	PHE
80	e0	45	VAL
80	e0	47	VAL
80	e0	49	LEU

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Mol	Chain	Res	Type
33	e1	78	LYS
33	e1	90	LYS
33	e1	93	HIS
33	e1	96	LYS
33	e1	97	LYS
33	e1	100	LEU
33	e1	102	VAL
33	e1	106	TYR
33	e1	107	LYS
33	e1	113	LYS
33	e1	115	THR
33	e1	119	ARG
33	e1	120	GLU
34	sR	25	THR
34	sR	29	GLN
34	sR	48	THR
34	sR	52	GLN
34	sR	53	LYS
34	sR	58	VAL
34	sR	59	ARG
34	sR	64	HIS
34	sR	65	SER
34	sR	66	HIS
34	sR	76	ASP
34	sR	96	THR
34	sR	98	GLU
34	sR	145	LEU
34	sR	159	ASN
34	sR	168	THR
34	sR	176	LYS
34	sR	199	ILE
34	sR	228	LYS
34	sR	232	TYR
34	sR	275	ARG
34	sR	286	GLU
34	sR	297	ASP
34	sR	319	ASN
35	sM	23	LYS
35	sM	28	SER
35	sM	30	THR
35	sM	41	SER
35	sM	43	ASP

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Mol	Chain	Res	Type
35	sM	45	SER
35	sM	48	ARG
35	sM	50	ASN
35	sM	61	ILE
35	sM	68	ARG
35	sM	71	ASN
35	sM	74	LYS
35	sM	75	ASP
35	sM	77	THR
39	l2	15	ILE
39	l2	17	THR
39	l2	23	ARG
39	l2	32	LEU
39	l2	44	ILE
39	l2	45	VAL
39	l2	46	LYS
39	l2	48	ILE
39	l2	62	VAL
39	l2	70	ARG
39	l2	71	LEU
39	l2	74	GLU
39	l2	79	ASN
39	l2	80	GLU
39	l2	82	VAL
39	l2	101	VAL
39	l2	104	LEU
39	l2	107	VAL
39	l2	114	SER
39	l2	116	VAL
39	l2	119	LYS
39	l2	128	ARG
39	l2	137	ILE
39	l2	142	ASP
39	l2	147	ARG
39	l2	148	VAL
39	l2	155	LYS
39	l2	158	ILE
39	l2	165	VAL
39	l2	169	ILE
39	l2	179	LEU
39	l2	181	LYS
39	l2	188	LYS

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Mol	Chain	Res	Type
39	l2	193	ARG
39	l2	200	ARG
39	l2	204	MET
39	l2	206	PRO
39	l2	207	VAL
39	l2	227	ARG
39	l2	230	VAL
39	l2	238	ILE
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	10	ARG
40	l3	17	LEU
40	l3	19	ARG
40	l3	20	LYS
40	l3	34	LYS
40	l3	43	LEU
40	l3	50	LYS
40	l3	56	ILE
40	l3	67	PHE
40	l3	69	LYS
40	l3	85	VAL
40	l3	103	THR
40	l3	114	VAL
40	l3	116	ARG
40	l3	139	GLN
40	l3	145	GLU
40	l3	146	ARG
40	l3	148	LEU
40	l3	150	ARG
40	l3	153	LYS
40	l3	157	VAL
40	l3	160	VAL
40	l3	167	ARG
40	l3	169	THR
40	l3	188	ILE
40	l3	192	VAL
40	l3	196	ARG
40	l3	197	GLU

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Mol	Chain	Res	Type
40	l3	201	LYS
40	l3	202	THR
40	l3	205	VAL
40	l3	208	VAL
40	l3	229	VAL
40	l3	232	ARG
40	l3	235	THR
40	l3	238	LEU
40	l3	249	VAL
40	l3	252	ILE
40	l3	266	ARG
40	l3	274	SER
40	l3	276	THR
40	l3	287	LYS
40	l3	296	THR
40	l3	304	THR
40	l3	308	MET
40	l3	317	ILE
40	l3	324	VAL
40	l3	328	ILE
40	l3	332	ARG
40	l3	334	ARG
40	l3	338	LEU
40	l3	340	LYS
40	l3	346	THR
40	l3	347	SER
40	l3	348	ARG
40	l3	359	ILE
40	l3	363	SER
40	l3	367	LYS
40	l3	380	MET
40	l3	386	ASP
41	l4	3	ARG
41	l4	16	THR
41	l4	18	ASN
41	l4	20	LEU
41	l4	25	VAL
41	l4	27	SER
41	l4	41	SER
41	l4	48	GLN
41	l4	52	VAL
41	l4	67	THR

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Mol	Chain	Res	Type
41	l4	71	VAL
41	l4	73	ARG
41	l4	90	PHE
41	l4	93	MET
41	l4	112	LYS
41	l4	118	LYS
41	l4	120	TYR
41	l4	144	LYS
41	l4	145	ILE
41	l4	148	ILE
41	l4	150	LEU
41	l4	156	LEU
41	l4	158	SER
41	l4	170	LYS
41	l4	172	VAL
41	l4	177	ASP
41	l4	179	LEU
41	l4	182	LEU
41	l4	186	LYS
41	l4	187	LEU
41	l4	197	ARG
41	l4	200	THR
41	l4	201	GLN
41	l4	203	ARG
41	l4	206	LEU
41	l4	217	LYS
41	l4	220	ARG
41	l4	222	VAL
41	l4	226	GLU
41	l4	230	VAL
41	l4	246	ARG
41	l4	258	LEU
41	l4	265	GLU
41	l4	266	THR
41	l4	275	THR
41	l4	284	SER
41	l4	292	SER
41	l4	300	ARG
41	l4	301	PRO
41	l4	306	THR
41	l4	307	GLN
41	l4	310	THR

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Mol	Chain	Res	Type
41	14	313	LEU
41	14	316	ASN
41	14	319	LYS
41	14	321	LYS
41	14	327	LEU
41	14	333	VAL
41	14	338	LYS
41	14	342	LYS
41	14	345	GLU
41	14	347	THR
41	14	356	THR
41	14	359	LEU
42	15	4	GLN
42	15	5	LYS
42	15	10	SER
42	15	13	SER
42	15	34	LYS
42	15	51	LEU
42	15	58	LYS
42	15	68	THR
42	15	70	THR
42	15	75	LEU
42	15	89	THR
42	15	93	THR
42	15	109	THR
42	15	110	LEU
42	15	112	LYS
42	15	113	LEU
42	15	118	THR
42	15	120	LYS
42	15	132	THR
42	15	133	GLU
42	15	135	VAL
42	15	140	ARG
42	15	144	VAL
42	15	146	LEU
42	15	148	ILE
42	15	155	THR
42	15	158	ARG
42	15	185	PHE
42	15	186	GLU
42	15	187	THR

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Mol	Chain	Res	Type
42	15	190	ILE
42	15	194	LEU
42	15	211	LEU
42	15	218	ARG
42	15	227	LEU
42	15	232	ASP
42	15	254	LYS
42	15	258	LYS
42	15	259	LYS
42	15	262	LYS
42	15	268	GLU
42	15	273	ARG
42	15	275	THR
42	15	279	LYS
42	15	282	ARG
42	15	293	LEU
42	15	297	GLN
43	16	8	LYS
43	16	12	SER
43	16	14	ASP
43	16	15	VAL
43	16	21	THR
43	16	23	LYS
43	16	50	LYS
43	16	52	VAL
43	16	64	LEU
43	16	65	ILE
43	16	78	ARG
43	16	79	VAL
43	16	89	THR
43	16	91	VAL
43	16	98	VAL
43	16	102	ASN
43	16	109	GLU
43	16	128	LYS
43	16	129	GLU
43	16	146	ILE
43	16	151	LYS
43	16	152	THR
43	16	155	LEU
43	16	160	SER
43	16	162	SER

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Mol	Chain	Res	Type
43	16	166	LYS
43	16	175	LYS
44	17	22	THR
44	17	24	GLU
44	17	26	VAL
44	17	40	LYS
44	17	41	ARG
44	17	45	LEU
44	17	54	GLU
44	17	56	GLU
44	17	60	ARG
44	17	62	ILE
44	17	77	VAL
44	17	83	LEU
44	17	94	LYS
44	17	98	LYS
44	17	111	ILE
44	17	127	LEU
44	17	130	ILE
44	17	158	LYS
44	17	159	GLN
44	17	173	LEU
44	17	175	LYS
44	17	176	TYR
44	17	179	LEU
44	17	184	LEU
44	17	193	PRO
44	17	219	LYS
44	17	229	PHE
44	17	239	LEU
45	18	26	LEU
45	18	41	GLN
45	18	46	LEU
45	18	50	VAL
45	18	65	LEU
45	18	68	ARG
45	18	70	LYS
45	18	74	THR
45	18	79	GLN
45	18	81	THR
45	18	82	LEU
45	18	89	GLU

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Mol	Chain	Res	Type
45	18	95	ASN
45	18	101	THR
45	18	109	LEU
45	18	136	LEU
45	18	146	LYS
45	18	149	LYS
45	18	160	ILE
45	18	164	VAL
45	18	169	LEU
45	18	172	LYS
45	18	185	ARG
45	18	191	ASN
45	18	200	LEU
45	18	208	GLU
45	18	214	LEU
45	18	217	THR
45	18	230	LYS
45	18	241	LYS
45	18	245	LYS
45	18	248	LYS
46	19	1	MET
46	19	5	GLN
46	19	6	THR
46	19	18	VAL
46	19	31	ARG
46	19	33	THR
46	19	34	LEU
46	19	39	LYS
46	19	44	THR
46	19	55	VAL
46	19	62	ARG
46	19	68	LEU
46	19	69	ARG
46	19	70	THR
46	19	80	THR
46	19	82	VAL
46	19	92	TYR
46	19	105	GLU
46	19	106	LYS
46	19	107	ASP
46	19	118	LEU
46	19	121	LYS

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Mol	Chain	Res	Type
46	l9	122	LYS
46	l9	129	ARG
46	l9	133	THR
46	l9	138	THR
46	l9	144	ILE
46	l9	151	VAL
46	l9	157	ASN
46	l9	161	LEU
46	l9	162	GLN
46	l9	163	GLN
46	l9	166	ARG
46	l9	170	LYS
46	l9	173	ARG
46	l9	177	ASP
46	l9	179	ILE
46	l9	191	LEU
47	m0	8	CYS
47	m0	24	ARG
47	m0	36	LEU
47	m0	39	LYS
47	m0	42	THR
47	m0	45	GLU
47	m0	52	LEU
47	m0	58	GLU
47	m0	74	LYS
47	m0	76	MET
47	m0	77	THR
47	m0	78	THR
47	m0	83	ASP
47	m0	87	LEU
47	m0	91	VAL
47	m0	99	ILE
47	m0	101	LYS
47	m0	121	LYS
47	m0	139	ARG
47	m0	140	THR
47	m0	144	ASN
47	m0	162	GLN
47	m0	163	GLN
47	m0	166	ILE
47	m0	169	LYS
47	m0	170	LYS

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Mol	Chain	Res	Type
47	m0	174	THR
47	m0	176	LEU
47	m0	177	ASP
47	m0	182	LEU
47	m0	193	ASP
47	m0	197	VAL
47	m0	200	LEU
47	m0	205	SER
47	m0	206	LEU
47	m0	211	ARG
47	m0	217	PHE
48	m1	6	GLN
48	m1	10	ARG
48	m1	11	ASP
48	m1	12	LEU
48	m1	13	LYS
48	m1	16	LYS
48	m1	29	ARG
48	m1	31	THR
48	m1	37	LEU
48	m1	44	THR
48	m1	46	VAL
48	m1	49	LYS
48	m1	53	THR
48	m1	54	VAL
48	m1	56	THR
48	m1	65	ILE
48	m1	71	VAL
48	m1	78	GLU
48	m1	80	LEU
48	m1	92	ARG
48	m1	101	ASN
48	m1	106	ILE
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	152	HIS
48	m1	158	ASP

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Mol	Chain	Res	Type
48	m1	159	THR
48	m1	160	VAL
48	m1	174	LYS
49	m3	9	ILE
49	m3	13	HIS
49	m3	36	ARG
49	m3	45	LYS
49	m3	52	ASP
49	m3	54	LEU
49	m3	55	ARG
49	m3	58	VAL
49	m3	59	ARG
49	m3	62	THR
49	m3	63	VAL
49	m3	67	ARG
49	m3	69	VAL
49	m3	73	ARG
49	m3	81	LYS
49	m3	85	LEU
49	m3	86	THR
49	m3	107	GLU
49	m3	114	GLN
49	m3	118	GLU
49	m3	122	LYS
49	m3	123	ILE
49	m3	124	ILE
49	m3	128	ARG
49	m3	131	LYS
49	m3	149	GLN
49	m3	152	THR
49	m3	157	ARG
49	m3	164	GLU
49	m3	165	SER
49	m3	171	ARG
49	m3	176	GLU
49	m3	184	GLU
49	m3	189	GLU
49	m3	194	GLU
50	m4	3	THR
50	m4	20	VAL
50	m4	27	GLN
50	m4	41	GLN

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Mol	Chain	Res	Type
50	m4	53	VAL
50	m4	55	ARG
50	m4	62	GLN
50	m4	64	VAL
50	m4	72	LEU
50	m4	74	ARG
50	m4	80	THR
50	m4	82	SER
50	m4	92	GLU
50	m4	105	GLN
50	m4	106	ARG
50	m4	107	GLU
50	m4	108	ARG
50	m4	109	ARG
50	m4	130	THR
50	m4	135	LEU
51	m5	5	LYS
51	m5	8	GLU
51	m5	10	LEU
51	m5	12	ARG
51	m5	15	GLN
51	m5	22	LEU
51	m5	24	ARG
51	m5	49	ARG
51	m5	60	VAL
51	m5	66	VAL
51	m5	68	ARG
51	m5	71	ARG
51	m5	76	PRO
51	m5	80	THR
51	m5	85	THR
51	m5	92	LEU
51	m5	93	LYS
51	m5	98	LEU
51	m5	106	VAL
51	m5	138	GLN
51	m5	153	ASP
51	m5	165	THR
51	m5	171	SER
51	m5	183	THR
51	m5	187	ARG
51	m5	188	ARG

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Mol	Chain	Res	Type
51	m5	190	THR
51	m5	194	GLN
51	m5	198	SER
51	m5	201	ARG
51	m5	204	LYS
52	m6	22	VAL
52	m6	25	LYS
52	m6	34	VAL
52	m6	41	LEU
52	m6	58	LEU
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	110	PRO
52	m6	115	LYS
52	m6	117	ARG
52	m6	124	LEU
52	m6	126	VAL
52	m6	129	LEU
52	m6	130	LYS
52	m6	134	LYS
52	m6	142	SER
52	m6	152	VAL
52	m6	160	ARG
52	m6	166	GLU
52	m6	171	LYS
52	m6	175	THR
52	m6	182	ASN
52	m6	184	THR
52	m6	197	LEU
53	m7	3	ARG
53	m7	7	THR
53	m7	9	THR
53	m7	16	SER
53	m7	24	VAL
53	m7	32	THR

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Mol	Chain	Res	Type
53	m7	36	ILE
53	m7	41	LEU
53	m7	50	GLN
53	m7	51	VAL
53	m7	52	LEU
53	m7	56	ARG
53	m7	78	VAL
53	m7	79	THR
53	m7	80	LYS
53	m7	89	LYS
53	m7	94	LEU
53	m7	103	GLU
53	m7	107	LEU
53	m7	112	LEU
53	m7	114	VAL
53	m7	116	HIS
53	m7	119	VAL
53	m7	120	ASN
53	m7	126	ARG
53	m7	127	ARG
53	m7	136	ILE
53	m7	142	SER
53	m7	144	SER
53	m7	153	LYS
53	m7	155	GLU
54	m8	7	SER
54	m8	8	LYS
54	m8	12	ARG
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	41	ASP
54	m8	57	ILE
54	m8	63	SER
54	m8	64	VAL
54	m8	69	ARG
54	m8	80	THR
54	m8	81	VAL
54	m8	86	THR

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Mol	Chain	Res	Type
54	m8	93	ILE
54	m8	127	LEU
54	m8	135	GLN
54	m8	137	THR
54	m8	138	LEU
54	m8	147	ARG
54	m8	161	LYS
54	m8	165	ILE
54	m8	166	LEU
54	m8	167	SER
54	m8	170	ARG
54	m8	178	ARG
54	m8	180	ARG
55	m9	7	GLN
55	m9	8	LYS
55	m9	9	ARG
55	m9	10	LEU
55	m9	17	VAL
55	m9	20	ARG
55	m9	29	THR
55	m9	31	GLU
55	m9	36	ASN
55	m9	43	LYS
55	m9	47	ASN
55	m9	49	THR
55	m9	52	LYS
55	m9	62	ARG
55	m9	63	THR
55	m9	70	LYS
55	m9	71	ARG
55	m9	74	ARG
55	m9	88	ARG
55	m9	91	SER
55	m9	99	LEU
55	m9	126	GLU
55	m9	127	SER
55	m9	128	LYS
55	m9	138	LEU
55	m9	152	GLU
55	m9	153	LYS
55	m9	156	ASN
55	m9	158	GLU

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Mol	Chain	Res	Type
55	m9	164	LEU
55	m9	167	ARG
55	m9	173	ARG
56	n0	1	MET
56	n0	13	ARG
56	n0	17	GLU
56	n0	21	GLU
56	n0	22	PRO
56	n0	23	LYS
56	n0	45	LEU
56	n0	51	VAL
56	n0	52	LYS
56	n0	60	SER
56	n0	63	GLN
56	n0	70	THR
56	n0	72	VAL
56	n0	73	LYS
56	n0	80	ARG
56	n0	87	THR
56	n0	97	VAL
56	n0	100	VAL
56	n0	104	GLU
56	n0	105	THR
56	n0	115	ARG
56	n0	117	ARG
56	n0	130	GLU
56	n0	136	LYS
56	n0	137	ARG
56	n0	148	LEU
56	n0	149	LYS
56	n0	155	ARG
56	n0	157	GLN
56	n0	160	THR
56	n0	161	LYS
56	n0	162	THR
56	n0	167	ARG
56	n0	169	SER
56	n0	172	TYR
57	n1	9	SER
57	n1	12	ARG
57	n1	25	VAL
57	n1	26	HIS

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Mol	Chain	Res	Type
57	n1	27	LEU
57	n1	55	LYS
57	n1	78	LYS
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	97	LYS
57	n1	102	ARG
57	n1	104	GLU
57	n1	126	VAL
57	n1	135	PRO
57	n1	139	ARG
57	n1	143	THR
57	n1	149	GLN
57	n1	150	THR
57	n1	151	LEU
57	n1	154	VAL
57	n1	160	ILE
58	n2	13	LYS
58	n2	16	THR
58	n2	27	VAL
58	n2	28	PHE
58	n2	37	LEU
58	n2	38	ILE
58	n2	39	ASP
58	n2	43	VAL
58	n2	50	LEU
58	n2	54	VAL
58	n2	55	THR
58	n2	63	VAL
58	n2	66	VAL
58	n2	90	ARG
58	n2	98	THR
58	n2	100	THR
59	n3	2	SER
59	n3	7	GLN
59	n3	13	ILE
59	n3	40	LYS
59	n3	42	SER

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Mol	Chain	Res	Type
59	n3	45	ARG
59	n3	48	ARG
59	n3	57	MET
59	n3	84	SER
59	n3	88	ARG
59	n3	115	THR
60	n4	1	MET
60	n4	5	ILE
60	n4	19	THR
60	n4	39	LEU
60	n4	54	LEU
60	n4	57	LYS
60	n4	63	ILE
60	n4	89	LEU
60	n4	96	LEU
60	n4	97	LYS
60	n4	98	PRO
60	n4	100	VAL
60	n4	105	ARG
60	n4	107	GLU
60	n4	126	GLU
60	n4	127	LYS
60	n4	135	SER
61	n5	24	LEU
61	n5	37	THR
61	n5	38	LEU
61	n5	45	LYS
61	n5	56	ARG
61	n5	57	LEU
61	n5	63	ILE
61	n5	74	LYS
61	n5	86	VAL
61	n5	104	GLU
61	n5	115	ARG
61	n5	125	ARG
61	n5	135	ILE
61	n5	137	ASN
61	n5	142	ILE
62	n6	3	LYS
62	n6	9	SER
62	n6	12	ARG
62	n6	13	ARG

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Mol	Chain	Res	Type
62	n6	14	LYS
62	n6	17	LYS
62	n6	36	SER
62	n6	37	LYS
62	n6	40	ARG
62	n6	50	ILE
62	n6	51	ARG
62	n6	55	GLU
62	n6	56	VAL
62	n6	57	LEU
62	n6	66	GLN
62	n6	74	TYR
62	n6	76	LEU
62	n6	83	ASP
62	n6	94	SER
62	n6	103	LYS
62	n6	105	VAL
62	n6	108	LYS
62	n6	111	LEU
62	n6	115	ARG
62	n6	120	GLN
63	n7	3	LYS
63	n7	5	LEU
63	n7	14	VAL
63	n7	17	ARG
63	n7	24	VAL
63	n7	34	LYS
63	n7	36	HIS
63	n7	46	ILE
63	n7	47	GLU
63	n7	52	LYS
63	n7	65	ARG
63	n7	72	ILE
63	n7	73	LYS
63	n7	81	LEU
63	n7	83	THR
63	n7	86	THR
63	n7	90	GLU
63	n7	93	LYS
63	n7	94	SER
63	n7	95	VAL
63	n7	98	THR

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Mol	Chain	Res	Type
63	n7	99	GLU
63	n7	102	GLU
63	n7	103	GLN
63	n7	119	GLU
63	n7	121	ARG
63	n7	126	LYS
63	n7	127	ASN
63	n7	132	SER
63	n7	134	LEU
63	n7	135	ARG
64	n8	3	SER
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	27	LYS
64	n8	42	ARG
64	n8	46	ASP
64	n8	47	LYS
64	n8	56	VAL
64	n8	60	TYR
64	n8	73	LEU
64	n8	82	ILE
64	n8	85	ASP
64	n8	89	GLN
64	n8	91	LEU
64	n8	97	GLU
64	n8	98	THR
64	n8	117	ARG
64	n8	128	ARG
64	n8	132	LYS
64	n8	133	LEU
65	n9	3	LYS
65	n9	22	LYS
65	n9	23	LYS
65	n9	26	THR
65	n9	31	SER
65	n9	33	LYS
65	n9	38	LYS
65	n9	42	ASN

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Mol	Chain	Res	Type
65	n9	50	THR
65	n9	54	LEU
65	n9	58	LYS
65	n9	59	LYS
66	o0	7	GLN
66	o0	8	GLU
66	o0	14	LEU
66	o0	19	LYS
66	o0	28	LYS
66	o0	32	LYS
66	o0	41	LEU
66	o0	55	GLU
66	o0	61	MET
66	o0	64	LYS
66	o0	68	TYR
66	o0	81	VAL
66	o0	84	LEU
66	o0	86	ARG
66	o0	87	VAL
66	o0	99	ASP
66	o0	104	LEU
67	o1	13	THR
67	o1	16	LEU
67	o1	26	LYS
67	o1	31	ARG
67	o1	34	LYS
67	o1	44	MET
67	o1	70	ARG
67	o1	84	ASP
67	o1	89	LEU
67	o1	102	LYS
67	o1	104	LEU
67	o1	106	THR
67	o1	110	GLU
68	o2	11	LYS
68	o2	24	ARG
68	o2	27	ARG
68	o2	33	ARG
68	o2	34	LYS
68	o2	35	GLN
68	o2	41	VAL
68	o2	51	SER

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Mol	Chain	Res	Type
68	o2	61	LYS
68	o2	62	LYS
68	o2	71	HIS
68	o2	73	THR
68	o2	75	LEU
68	o2	76	VAL
68	o2	82	LEU
68	o2	87	MET
68	o2	89	THR
68	o2	91	THR
68	o2	109	LEU
68	o2	125	ARG
68	o2	126	LEU
69	o3	4	SER
69	o3	19	SER
69	o3	31	LYS
69	o3	49	ILE
69	o3	57	LYS
69	o3	58	GLU
69	o3	70	LYS
69	o3	72	THR
69	o3	74	THR
69	o3	81	VAL
69	o3	84	THR
69	o3	98	VAL
69	o3	107	ILE
70	o4	9	ARG
70	o4	16	ARG
70	o4	20	ILE
70	o4	22	VAL
70	o4	24	LYS
70	o4	29	ILE
70	o4	30	LEU
70	o4	31	ARG
70	o4	33	GLN
70	o4	37	LYS
70	o4	47	CYS
70	o4	58	ARG
70	o4	61	GLN
70	o4	65	VAL
70	o4	66	SER
70	o4	68	THR

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Mol	Chain	Res	Type
70	o4	71	THR
70	o4	79	SER
70	o4	83	ASN
70	o4	84	CYS
70	o4	86	LYS
70	o4	88	ARG
70	o4	98	GLN
70	o4	104	VAL
71	o5	20	GLN
71	o5	21	LEU
71	o5	27	GLU
71	o5	36	LEU
71	o5	37	SER
71	o5	38	ARG
71	o5	40	SER
71	o5	46	THR
71	o5	47	VAL
71	o5	48	ARG
71	o5	53	CYS
71	o5	57	VAL
71	o5	69	LEU
71	o5	73	LYS
71	o5	80	LEU
71	o5	81	ARG
71	o5	85	THR
71	o5	86	ARG
71	o5	89	ARG
71	o5	90	ARG
71	o5	100	VAL
71	o5	101	THR
71	o5	107	LYS
71	o5	119	LYS
72	o6	3	VAL
72	o6	7	ILE
72	o6	9	ILE
72	o6	11	LEU
72	o6	21	THR
72	o6	26	ILE
72	o6	29	LYS
72	o6	34	SER
72	o6	36	ARG
72	o6	37	THR

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Mol	Chain	Res	Type
72	o6	43	LEU
72	o6	45	ARG
72	o6	46	GLU
72	o6	57	LEU
72	o6	58	ILE
72	o6	60	LEU
72	o6	66	GLU
72	o6	76	ARG
72	o6	81	THR
72	o6	94	ILE
72	o6	98	ARG
73	o7	17	THR
73	o7	25	ARG
73	o7	33	THR
73	o7	44	THR
73	o7	46	SER
73	o7	55	ARG
73	o7	58	THR
73	o7	59	THR
73	o7	65	ARG
73	o7	67	LEU
73	o7	68	LYS
73	o7	70	VAL
73	o7	72	ARG
73	o7	75	LYS
73	o7	80	THR
74	o8	5	ILE
74	o8	8	ILE
74	o8	24	THR
74	o8	31	LEU
74	o8	41	THR
74	o8	45	VAL
74	o8	53	THR
74	o8	61	LYS
74	o8	63	LYS
74	o8	64	LYS
74	o8	65	LEU
74	o8	78	LEU
75	o9	4	GLN
75	o9	9	ILE
75	o9	11	GLN
75	o9	17	LYS

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Mol	Chain	Res	Type
75	o9	21	ARG
75	o9	23	LEU
75	o9	27	ILE
75	o9	45	ARG
75	o9	51	ILE
76	q0	79	GLU
76	q0	80	PRO
76	q0	85	LEU
76	q0	88	LYS
76	q0	94	SER
76	q0	106	ARG
76	q0	112	LYS
76	q0	113	ARG
76	q0	114	LYS
76	q0	127	LEU
77	q1	2	ARG
77	q1	6	ARG
77	q1	13	LEU
77	q1	19	LYS
77	q1	21	ARG
77	q1	23	ARG
78	q2	6	LYS
78	q2	7	THR
78	q2	8	ARG
78	q2	16	THR
78	q2	38	GLN
78	q2	45	ARG
78	q2	47	GLN
78	q2	48	SER
78	q2	61	LYS
78	q2	64	THR
78	q2	71	ARG
78	q2	73	GLU
78	q2	75	VAL
78	q2	78	LYS
78	q2	83	LEU
78	q2	84	THR
78	q2	85	LEU
78	q2	93	LEU
78	q2	100	LYS
78	q2	104	LEU
78	q2	105	GLN

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Mol	Chain	Res	Type
79	q3	3	LYS
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	59	CYS
79	q3	73	THR
79	q3	79	VAL
79	q3	81	SER
79	q3	89	MET
79	q3	90	VAL
82	p0	4	ILE
82	p0	5	ARG
82	p0	10	GLU
82	p0	25	LEU
82	p0	32	ASN
82	p0	42	ARG
82	p0	43	LYS
82	p0	44	GLU
82	p0	48	ARG
82	p0	51	VAL
82	p0	55	LYS
82	p0	57	THR
82	p0	70	LEU
82	p0	72	ASP
82	p0	76	LEU
82	p0	81	LYS
82	p0	84	VAL
82	p0	93	LEU
82	p0	97	LYS
82	p0	104	ARG
82	p0	196	VAL

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (49) such sidechains are listed below:

Mol	Chain	Res	Type
3	S1	79	HIS
3	S1	149	GLN
3	S1	177	GLN

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Mol	Chain	Res	Type
3	S1	209	ASN
5	S3	179	GLN
6	S4	36	HIS
7	S5	224	ASN
13	C1	110	HIS
17	C5	103	ASN
18	C6	21	HIS
18	C6	74	HIS
20	C8	25	ASN
20	C8	136	GLN
27	D5	95	HIS
39	L2	209	HIS
40	L3	256	HIS
41	L4	311	HIS
42	L5	40	HIS
44	L7	244	ASN
45	L8	240	ASN
48	M1	109	HIS
53	M7	10	ASN
59	N3	98	ASN
63	N7	36	HIS
63	N7	57	HIS
78	Q2	53	GLN
78	Q2	102	GLN
6	s4	157	ASN
8	s6	197	ASN
8	s6	201	GLN
9	s7	71	HIS
9	s7	122	HIS
11	s9	110	GLN
11	s9	142	ASN
12	c0	32	HIS
13	c1	18	HIS
20	c8	25	ASN
21	c9	64	HIS
26	d4	22	GLN
80	e0	17	GLN
34	sR	299	GLN
42	l5	264	GLN
44	l7	80	GLN
55	m9	7	GLN
61	n5	111	ASN

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Mol	Chain	Res	Type
62	n6	81	GLN
63	n7	127	ASN
64	n8	44	ASN
67	o1	57	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	2	1747/1800 (97%)	490 (28%)	0
1	6	1792/1800 (99%)	473 (26%)	0
36	1	3145/3396 (92%)	702 (22%)	0
36	5	3145/3396 (92%)	686 (21%)	0
37	3	120/121 (99%)	25 (20%)	0
37	7	120/121 (99%)	23 (19%)	0
38	4	157/158 (99%)	39 (24%)	0
38	8	157/158 (99%)	40 (25%)	0
All	All	10383/10950 (94%)	2478 (23%)	0

All (2478) 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	66	U
1	2	67	A
1	2	68	A
1	2	69	G
1	2	72	A
1	2	73	U

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Mol	Chain	Res	Type
1	2	74	U
1	2	75	U
1	2	77	U
1	2	100	A
1	2	104	A
1	2	114	C
1	2	118	U
1	2	121	U
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	153	G
1	2	158	U
1	2	159	U
1	2	161	U
1	2	167	U
1	2	169	A
1	2	178	U
1	2	179	A
1	2	185	U
1	2	186	C
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

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Mol	Chain	Res	Type
1	2	200	A
1	2	215	A
1	2	217	A
1	2	218	A
1	2	219	A
1	2	226	A
1	2	227	U
1	2	228	G
1	2	229	U
1	2	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	253	A
1	2	260	U
1	2	261	U
1	2	265	A
1	2	266	A
1	2	269	G
1	2	271	A
1	2	272	U
1	2	274	G
1	2	275	C
1	2	276	C
1	2	277	U
1	2	278	U
1	2	279	G
1	2	280	U
1	2	281	G
1	2	288	A
1	2	290	G
1	2	299	A
1	2	301	A
1	2	309	C
1	2	314	C
1	2	316	A

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Mol	Chain	Res	Type
1	2	319	U
1	2	321	C
1	2	322	G
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	390	G
1	2	397	A
1	2	399	A
1	2	400	A
1	2	401	A
1	2	402	C
1	2	403	G
1	2	404	G
1	2	416	A
1	2	418	G
1	2	419	G
1	2	424	C
1	2	425	A
1	2	426	G
1	2	428	A
1	2	434	G
1	2	437	A
1	2	439	U
1	2	444	C
1	2	448	C
1	2	450	U
1	2	468	A
1	2	471	A
1	2	477	A
1	2	484	C
1	2	485	A
1	2	486	G
1	2	488	G
1	2	493	U

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Mol	Chain	Res	Type
1	2	494	U
1	2	495	C
1	2	496	G
1	2	497	G
1	2	498	G
1	2	499	U
1	2	500	C
1	2	502	U
1	2	503	G
1	2	504	U
1	2	505	A
1	2	506	A
1	2	507	U
1	2	508	U
1	2	510	G
1	2	511	A
1	2	512	A
1	2	513	U
1	2	514	G
1	2	515	A
1	2	516	G
1	2	519	C
1	2	527	A
1	2	532	U
1	2	536	C
1	2	538	A
1	2	539	G
1	2	540	G
1	2	541	A
1	2	542	A
1	2	543	C
1	2	544	A
1	2	546	U
1	2	547	U
1	2	548	G
1	2	551	G
1	2	555	A
1	2	556	A
1	2	557	G
1	2	558	U
1	2	559	C
1	2	565	C

Continued on next page...

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Mol	Chain	Res	Type
1	2	566	C
1	2	579	A
1	2	580	A
1	2	582	U
1	2	594	A
1	2	595	G
1	2	609	U
1	2	619	A
1	2	620	A
1	2	621	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	679	U
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
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

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Mol	Chain	Res	Type
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	743	U
1	2	745	U
1	2	753	A
1	2	754	A
1	2	755	A
1	2	756	A
1	2	765	G
1	2	766	U
1	2	774	A
1	2	775	G
1	2	778	G
1	2	779	U
1	2	781	U
1	2	782	U
1	2	783	G
1	2	784	C
1	2	793	A
1	2	794	U
1	2	795	U
1	2	811	A
1	2	812	A

Continued on next page...

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Mol	Chain	Res	Type
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	837	G
1	2	840	U
1	2	846	G
1	2	848	C
1	2	854	U
1	2	856	A
1	2	860	U
1	2	862	A
1	2	863	A
1	2	864	U
1	2	876	G
1	2	886	U
1	2	898	A
1	2	912	U
1	2	913	G
1	2	914	G
1	2	915	A
1	2	916	U
1	2	926	A
1	2	933	A
1	2	935	U
1	2	942	G
1	2	951	A
1	2	960	U
1	2	966	A
1	2	982	U
1	2	988	A
1	2	991	G
1	2	992	A

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Mol	Chain	Res	Type
1	2	993	A
1	2	997	G
1	2	1000	C
1	2	1002	G
1	2	1003	A
1	2	1004	U
1	2	1005	A
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	1066	C
1	2	1073	G
1	2	1080	U
1	2	1082	C
1	2	1083	G
1	2	1086	A
1	2	1091	A
1	2	1092	A
1	2	1096	C
1	2	1097	U
1	2	1100	G
1	2	1101	G
1	2	1138	A
1	2	1139	A
1	2	1143	A
1	2	1146	G
1	2	1149	G
1	2	1150	G
1	2	1151	A
1	2	1157	A
1	2	1158	C
1	2	1160	A
1	2	1164	G

Continued on next page...

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Mol	Chain	Res	Type
1	2	1167	G
1	2	1176	G
1	2	1185	U
1	2	1191	U
1	2	1194	A
1	2	1196	A
1	2	1197	C
1	2	1199	G
1	2	1200	G
1	2	1202	A
1	2	1207	C
1	2	1208	A
1	2	1217	A
1	2	1218	G
1	2	1226	A
1	2	1227	A
1	2	1228	G
1	2	1229	G
1	2	1243	G
1	2	1244	A
1	2	1245	G
1	2	1250	U
1	2	1251	U
1	2	1256	A
1	2	1257	U
1	2	1258	U
1	2	1259	U
1	2	1276	U
1	2	1286	U
1	2	1288	G
1	2	1301	U
1	2	1307	U
1	2	1314	U
1	2	1315	U
1	2	1320	U
1	2	1321	A
1	2	1337	A
1	2	1339	C
1	2	1340	U
1	2	1344	A
1	2	1345	A
1	2	1354	G

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Mol	Chain	Res	Type
1	2	1355	C
1	2	1361	U
1	2	1362	U
1	2	1363	U
1	2	1364	G
1	2	1370	U
1	2	1371	A
1	2	1372	U
1	2	1390	U
1	2	1398	U
1	2	1399	C
1	2	1400	A
1	2	1412	G
1	2	1413	U
1	2	1414	U
1	2	1427	A
1	2	1428	G
1	2	1432	U
1	2	1433	G
1	2	1435	G
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	1475	A
1	2	1482	C
1	2	1486	G
1	2	1489	U
1	2	1490	C
1	2	1491	U
1	2	1492	A
1	2	1493	A
1	2	1499	G
1	2	1506	G
1	2	1514	U
1	2	1516	A

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Mol	Chain	Res	Type
1	2	1517	U
1	2	1521	G
1	2	1523	G
1	2	1524	A
1	2	1526	A
1	2	1535	U
1	2	1536	G
1	2	1537	C
1	2	1538	U
1	2	1539	G
1	2	1540	G
1	2	1550	A
1	2	1557	U
1	2	1559	A
1	2	1569	A
1	2	1574	G
1	2	1584	G
1	2	1590	G
1	2	1591	C
1	2	1601	G
1	2	1604	U
1	2	1614	A
1	2	1616	G
1	2	1619	C
1	2	1624	C
1	2	1631	A
1	2	1634	C
1	2	1639	C
1	2	1657	U
1	2	1658	G
1	2	1680	G
1	2	1683	C
1	2	1684	U
1	2	1731	A
1	2	1756	A
1	2	1757	G
1	2	1760	G
1	2	1761	U
1	2	1762	A
1	2	1766	A
1	2	1769	U
1	2	1770	U

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Mol	Chain	Res	Type
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	16	A
36	1	26	A
36	1	40	A
36	1	43	A
36	1	49	A
36	1	57	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
36	1	83	U
36	1	85	A
36	1	92	G
36	1	93	C
36	1	99	A
36	1	109	A
36	1	110	G
36	1	111	C
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	156	G
36	1	157	A
36	1	166	C
36	1	172	G
36	1	182	U
36	1	187	A
36	1	190	U
36	1	191	U

Continued on next page...

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Mol	Chain	Res	Type
36	1	192	C
36	1	193	C
36	1	210	U
36	1	218	G
36	1	219	A
36	1	224	C
36	1	235	A
36	1	240	U
36	1	243	G
36	1	245	U
36	1	247	C
36	1	249	U
36	1	250	U
36	1	251	G
36	1	252	U
36	1	265	A
36	1	266	A
36	1	269	G
36	1	270	U
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	315	C
36	1	323	A
36	1	329	U
36	1	339	C
36	1	347	G
36	1	349	A
36	1	350	C
36	1	351	A
36	1	352	A
36	1	374	A
36	1	376	G
36	1	398	A
36	1	401	U
36	1	402	A
36	1	403	C
36	1	417	A
36	1	421	G

Continued on next page...

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Mol	Chain	Res	Type
36	1	422	A
36	1	438	A
36	1	440	A
36	1	495	G
36	1	520	U
36	1	521	A
36	1	533	A
36	1	535	G
36	1	541	U
36	1	544	C
36	1	546	C
36	1	547	G
36	1	548	G
36	1	551	A
36	1	552	G
36	1	553	U
36	1	555	U
36	1	557	A
36	1	559	A
36	1	569	A
36	1	578	A
36	1	579	G
36	1	592	A
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	625	G
36	1	636	C
36	1	638	C
36	1	643	U
36	1	644	G
36	1	648	C
36	1	649	A
36	1	658	G
36	1	660	A
36	1	667	C
36	1	677	A
36	1	681	U
36	1	682	U

Continued on next page...

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Mol	Chain	Res	Type
36	1	691	A
36	1	705	A
36	1	708	G
36	1	712	G
36	1	715	A
36	1	716	A
36	1	719	U
36	1	725	G
36	1	726	G
36	1	764	U
36	1	766	U
36	1	767	U
36	1	768	C
36	1	776	U
36	1	777	U
36	1	780	A
36	1	781	G
36	1	785	G
36	1	786	A
36	1	806	A
36	1	817	A
36	1	826	G
36	1	830	A
36	1	849	C
36	1	861	C
36	1	874	U
36	1	879	U
36	1	890	C
36	1	896	A
36	1	897	U
36	1	907	G
36	1	908	G
36	1	914	A
36	1	916	G
36	1	917	A
36	1	920	A
36	1	921	A
36	1	923	C
36	1	924	G
36	1	937	G
36	1	944	C
36	1	953	G

Continued on next page...

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Mol	Chain	Res	Type
36	1	959	C
36	1	960	U
36	1	961	C
36	1	979	U
36	1	981	U
36	1	982	C
36	1	993	G
36	1	994	G
36	1	1000	C
36	1	1001	G
36	1	1002	A
36	1	1006	A
36	1	1010	G
36	1	1014	U
36	1	1017	C
36	1	1018	G
36	1	1020	G
36	1	1021	G
36	1	1024	G
36	1	1025	A
36	1	1029	G
36	1	1036	A
36	1	1037	C
36	1	1041	U
36	1	1042	U
36	1	1045	C
36	1	1047	A
36	1	1049	C
36	1	1051	U
36	1	1057	A
36	1	1064	A
36	1	1065	A
36	1	1072	G
36	1	1081	U
36	1	1082	U
36	1	1083	G
36	1	1087	G
36	1	1093	A
36	1	1094	U
36	1	1095	U
36	1	1096	U
36	1	1097	G

Continued on next page...

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Mol	Chain	Res	Type
36	1	1098	A
36	1	1103	A
36	1	1104	G
36	1	1111	U
36	1	1117	G
36	1	1128	U
36	1	1131	G
36	1	1138	U
36	1	1144	U
36	1	1153	A
36	1	1159	A
36	1	1160	C
36	1	1168	U
36	1	1179	A
36	1	1180	A
36	1	1181	U
36	1	1182	A
36	1	1186	G
36	1	1190	A
36	1	1191	U
36	1	1192	C
36	1	1196	C
36	1	1197	A
36	1	1201	C
36	1	1209	G
36	1	1213	G
36	1	1216	C
36	1	1217	A
36	1	1218	U
36	1	1222	G
36	1	1226	G
36	1	1227	C
36	1	1232	C
36	1	1233	G
36	1	1235	U
36	1	1236	G
36	1	1237	G
36	1	1238	C
36	1	1241	U
36	1	1242	G
36	1	1243	G
36	1	1245	A

Continued on next page...

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Mol	Chain	Res	Type
36	1	1246	G
36	1	1248	C
36	1	1249	G
36	1	1251	A
36	1	1253	U
36	1	1258	U
36	1	1259	A
36	1	1262	G
36	1	1263	A
36	1	1264	G
36	1	1265	U
36	1	1266	G
36	1	1267	U
36	1	1269	U
36	1	1270	A
36	1	1271	A
36	1	1272	C
36	1	1274	A
36	1	1277	C
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	1298	C
36	1	1307	G
36	1	1308	A
36	1	1309	U
36	1	1313	G
36	1	1323	G
36	1	1330	A
36	1	1331	U
36	1	1348	U
36	1	1349	G
36	1	1351	U
36	1	1352	A
36	1	1353	U
36	1	1355	A
36	1	1356	U
36	1	1357	G

Continued on next page...

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Mol	Chain	Res	Type
36	1	1379	G
36	1	1386	A
36	1	1392	G
36	1	1399	A
36	1	1400	G
36	1	1406	A
36	1	1418	A
36	1	1419	A
36	1	1422	G
36	1	1429	G
36	1	1434	G
36	1	1437	C
36	1	1446	A
36	1	1448	U
36	1	1450	G
36	1	1455	U
36	1	1465	A
36	1	1481	A
36	1	1482	A
36	1	1485	G
36	1	1488	G
36	1	1490	A
36	1	1508	C
36	1	1525	G
36	1	1526	U
36	1	1527	C
36	1	1528	G
36	1	1533	U
36	1	1534	A
36	1	1554	U
36	1	1555	U
36	1	1556	C
36	1	1560	G
36	1	1561	G
36	1	1562	C
36	1	1563	C
36	1	1564	U
36	1	1566	A
36	1	1567	U
36	1	1568	U
36	1	1569	U
36	1	1570	U

Continued on next page...

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Mol	Chain	Res	Type
36	1	1572	U
36	1	1575	A
36	1	1576	G
36	1	1579	C
36	1	1580	A
36	1	1581	C
36	1	1582	C
36	1	1583	A
36	1	1587	A
36	1	1589	A
36	1	1593	A
36	1	1607	U
36	1	1619	A
36	1	1620	U
36	1	1629	U
36	1	1639	C
36	1	1640	G
36	1	1643	A
36	1	1645	U
36	1	1657	C
36	1	1679	A
36	1	1683	A
36	1	1695	U
36	1	1705	U
36	1	1714	A
36	1	1716	U
36	1	1717	U
36	1	1724	U
36	1	1725	C
36	1	1729	A
36	1	1736	G
36	1	1741	A
36	1	1745	C
36	1	1750	A
36	1	1751	G
36	1	1752	A
36	1	1760	A
36	1	1761	C
36	1	1762	C
36	1	1765	U
36	1	1766	G
36	1	1767	C

Continued on next page...

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Mol	Chain	Res	Type
36	1	1768	U
36	1	1770	G
36	1	1775	G
36	1	1779	C
36	1	1780	G
36	1	1797	A
36	1	1810	A
36	1	1812	G
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	1841	A
36	1	1842	A
36	1	1845	G
36	1	1846	C
36	1	1849	C
36	1	1850	A
36	1	1855	U
36	1	1864	A
36	1	1866	C
36	1	1871	U
36	1	1878	G
36	1	1879	A
36	1	1880	U
36	1	1886	A
36	1	1906	G
36	1	1937	U
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	2111	G
36	1	2112	U
36	1	2113	A
36	1	2114	C

Continued on next page...

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Mol	Chain	Res	Type
36	1	2121	G
36	1	2122	G
36	1	2130	G
36	1	2131	A
36	1	2134	G
36	1	2137	U
36	1	2139	A
36	1	2140	U
36	1	2144	A
36	1	2145	A
36	1	2158	A
36	1	2169	G
36	1	2170	U
36	1	2177	G
36	1	2186	U
36	1	2187	G
36	1	2193	U
36	1	2194	G
36	1	2201	G
36	1	2205	U
36	1	2208	A
36	1	2209	U
36	1	2210	G
36	1	2223	A
36	1	2228	A
36	1	2229	A
36	1	2242	A
36	1	2244	A
36	1	2249	G
36	1	2250	G
36	1	2253	G
36	1	2255	A
36	1	2256	A
36	1	2268	U
36	1	2272	G
36	1	2273	G
36	1	2281	A
36	1	2282	U
36	1	2283	G
36	1	2284	C
36	1	2288	G
36	1	2298	U

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Mol	Chain	Res	Type
36	1	2301	U
36	1	2307	G
36	1	2310	U
36	1	2313	A
36	1	2314	U
36	1	2315	G
36	1	2320	A
36	1	2324	A
36	1	2334	U
36	1	2335	G
36	1	2336	U
36	1	2372	A
36	1	2374	C
36	1	2375	G
36	1	2385	G
36	1	2388	U
36	1	2393	G
36	1	2394	G
36	1	2397	A
36	1	2401	A
36	1	2402	A
36	1	2403	G
36	1	2405	C
36	1	2406	C
36	1	2411	U
36	1	2418	G
36	1	2419	A
36	1	2422	C
36	1	2424	A
36	1	2435	G
36	1	2437	G
36	1	2444	C
36	1	2445	A
36	1	2502	A
36	1	2503	G
36	1	2504	U
36	1	2514	U
36	1	2515	A
36	1	2522	G
36	1	2523	A
36	1	2532	U
36	1	2533	G

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Mol	Chain	Res	Type
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	2548	C
36	1	2549	G
36	1	2552	C
36	1	2554	A
36	1	2555	G
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	2576	G
36	1	2585	G
36	1	2586	G
36	1	2593	A
36	1	2594	C
36	1	2606	G
36	1	2607	G
36	1	2614	G
36	1	2618	G
36	1	2628	A
36	1	2637	A
36	1	2638	C
36	1	2652	U
36	1	2655	U
36	1	2656	A
36	1	2664	C
36	1	2672	G
36	1	2674	A
36	1	2677	G
36	1	2681	U
36	1	2689	A

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Mol	Chain	Res	Type
36	1	2691	A
36	1	2693	C
36	1	2694	A
36	1	2696	A
36	1	2705	A
36	1	2709	C
36	1	2714	G
36	1	2728	G
36	1	2729	U
36	1	2737	C
36	1	2752	U
36	1	2753	G
36	1	2762	A
36	1	2772	C
36	1	2773	C
36	1	2777	G
36	1	2778	G
36	1	2796	G
36	1	2799	A
36	1	2800	G
36	1	2801	A
36	1	2802	A
36	1	2810	C
36	1	2817	A
36	1	2818	U
36	1	2829	U
36	1	2838	A
36	1	2842	U
36	1	2843	U
36	1	2845	A
36	1	2847	A
36	1	2849	C
36	1	2853	A
36	1	2860	U
36	1	2869	U
36	1	2871	G
36	1	2872	A
36	1	2875	U
36	1	2886	U
36	1	2887	A
36	1	2889	C
36	1	2893	C

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Mol	Chain	Res	Type
36	1	2898	G
36	1	2899	C
36	1	2914	G
36	1	2923	U
36	1	2935	U
36	1	2936	A
36	1	2942	C
36	1	2945	G
36	1	2947	G
36	1	2971	A
36	1	2974	U
36	1	2979	U
36	1	2980	U
36	1	2983	C
36	1	2990	G
36	1	2992	U
36	1	2996	U
36	1	2997	G
36	1	3006	A
36	1	3012	A
36	1	3030	G
36	1	3056	U
36	1	3057	U
36	1	3058	U
36	1	3059	G
36	1	3070	A
36	1	3078	U
36	1	3079	U
36	1	3080	G
36	1	3085	G
36	1	3086	A
36	1	3087	A
36	1	3088	G
36	1	3092	C
36	1	3104	U
36	1	3113	A
36	1	3115	C
36	1	3119	U
36	1	3130	A
36	1	3131	U
36	1	3139	A
36	1	3142	A

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Mol	Chain	Res	Type
36	1	3143	C
36	1	3151	U
36	1	3154	C
36	1	3155	U
36	1	3156	U
36	1	3157	U
36	1	3158	G
36	1	3164	C
36	1	3165	A
36	1	3168	A
36	1	3169	U
36	1	3170	A
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	3207	U
36	1	3210	A
36	1	3217	C
36	1	3218	A
36	1	3219	G
36	1	3228	C
36	1	3229	G
36	1	3235	C
36	1	3238	G
36	1	3243	A
36	1	3244	A
36	1	3245	A
36	1	3246	G
36	1	3247	G
36	1	3253	G
36	1	3259	U
36	1	3265	C
36	1	3269	U
36	1	3270	U
36	1	3273	A
36	1	3274	A

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Mol	Chain	Res	Type
36	1	3276	G
36	1	3281	U
36	1	3286	G
36	1	3287	U
36	1	3288	G
36	1	3289	G
36	1	3294	A
36	1	3295	A
36	1	3304	U
36	1	3313	U
36	1	3316	A
36	1	3317	U
36	1	3318	G
36	1	3319	U
36	1	3320	A
36	1	3335	A
36	1	3341	U
36	1	3342	A
36	1	3345	G
36	1	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	3357	U
36	1	3363	U
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	3386	G
36	1	3389	U
36	1	3390	G
37	3	4	U
37	3	7	G
37	3	8	G
37	3	9	C

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Mol	Chain	Res	Type
37	3	13	A
37	3	14	U
37	3	18	C
37	3	21	G
37	3	22	A
37	3	26	C
37	3	29	C
37	3	42	A
37	3	47	C
37	3	54	U
37	3	59	U
37	3	60	G
37	3	65	G
37	3	76	A
37	3	91	G
37	3	101	G
37	3	102	A
37	3	110	G
37	3	112	G
37	3	114	U
37	3	121	U
38	4	2	A
38	4	20	U
38	4	26	U
38	4	34	U
38	4	35	C
38	4	48	A
38	4	52	A
38	4	53	A
38	4	59	A
38	4	60	U
38	4	62	C
38	4	63	G
38	4	70	G
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

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Mol	Chain	Res	Type
38	4	90	U
38	4	95	G
38	4	96	A
38	4	97	A
38	4	102	U
38	4	104	A
38	4	105	A
38	4	106	C
38	4	111	A
38	4	113	U
38	4	116	G
38	4	125	U
38	4	126	A
38	4	127	U
38	4	128	U
38	4	138	A
38	4	152	G
38	4	158	U
1	6	2	A
1	6	4	C
1	6	17	C
1	6	25	C
1	6	26	A
1	6	27	U
1	6	34	G
1	6	47	A
1	6	57	G
1	6	60	U
1	6	61	A
1	6	66	U
1	6	67	A
1	6	68	A
1	6	69	G
1	6	72	A
1	6	73	U
1	6	75	U
1	6	76	A
1	6	77	U
1	6	95	G
1	6	103	A
1	6	104	A
1	6	114	C

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Mol	Chain	Res	Type
1	6	115	G
1	6	126	A
1	6	127	G
1	6	130	C
1	6	132	U
1	6	137	U
1	6	138	A
1	6	140	A
1	6	141	U
1	6	144	U
1	6	145	A
1	6	146	U
1	6	158	U
1	6	159	U
1	6	161	U
1	6	167	U
1	6	178	U
1	6	185	U
1	6	188	A
1	6	190	C
1	6	191	C
1	6	192	U
1	6	193	U
1	6	194	U
1	6	195	G
1	6	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	222	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

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Mol	Chain	Res	Type
1	6	240	U
1	6	241	U
1	6	249	U
1	6	250	C
1	6	260	U
1	6	261	U
1	6	265	A
1	6	270	C
1	6	271	A
1	6	272	U
1	6	273	G
1	6	277	U
1	6	278	U
1	6	280	U
1	6	287	G
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	320	U
1	6	321	C
1	6	322	G
1	6	333	A
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	381	C
1	6	396	G
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	424	C
1	6	425	A

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Mol	Chain	Res	Type
1	6	426	G
1	6	434	G
1	6	437	A
1	6	439	U
1	6	444	C
1	6	448	C
1	6	454	U
1	6	470	A
1	6	475	A
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	495	C
1	6	496	G
1	6	497	G
1	6	500	C
1	6	501	U
1	6	504	U
1	6	505	A
1	6	506	A
1	6	507	U
1	6	508	U
1	6	510	G
1	6	511	A
1	6	512	A
1	6	513	U
1	6	514	G
1	6	515	A
1	6	519	C
1	6	527	A
1	6	536	C
1	6	538	A
1	6	539	G
1	6	540	G
1	6	541	A
1	6	542	A

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Mol	Chain	Res	Type
1	6	543	C
1	6	544	A
1	6	548	G
1	6	555	A
1	6	556	A
1	6	557	G
1	6	558	U
1	6	559	C
1	6	565	C
1	6	566	C
1	6	570	A
1	6	574	G
1	6	578	U
1	6	579	A
1	6	580	A
1	6	582	U
1	6	594	A
1	6	595	G
1	6	597	G
1	6	606	A
1	6	609	U
1	6	611	U
1	6	619	A
1	6	620	A
1	6	622	A
1	6	623	A
1	6	624	G
1	6	637	C
1	6	639	U
1	6	640	U
1	6	645	C
1	6	648	G
1	6	650	U
1	6	651	G
1	6	652	G
1	6	653	C
1	6	654	C
1	6	658	C
1	6	661	A
1	6	662	U
1	6	665	U
1	6	667	U

Continued on next page...

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Mol	Chain	Res	Type
1	6	668	C
1	6	669	G
1	6	670	U
1	6	676	G
1	6	678	A
1	6	679	U
1	6	681	U
1	6	682	C
1	6	683	C
1	6	684	A
1	6	685	A
1	6	687	G
1	6	691	C
1	6	695	U
1	6	696	C
1	6	697	C
1	6	698	U
1	6	709	C
1	6	710	U
1	6	711	U
1	6	714	G
1	6	718	U
1	6	719	U
1	6	720	G
1	6	721	U
1	6	722	G
1	6	723	G
1	6	730	G
1	6	742	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	774	A
1	6	775	G
1	6	780	A
1	6	781	U
1	6	782	U
1	6	783	G
1	6	789	A

Continued on next page...

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Mol	Chain	Res	Type
1	6	792	U
1	6	793	A
1	6	794	U
1	6	803	A
1	6	806	A
1	6	811	A
1	6	812	A
1	6	815	G
1	6	816	G
1	6	821	U
1	6	822	U
1	6	823	G
1	6	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	856	A
1	6	863	A
1	6	864	U
1	6	873	U
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	942	G
1	6	959	U
1	6	960	U
1	6	966	A
1	6	970	A
1	6	971	A
1	6	985	G
1	6	989	U
1	6	991	G

Continued on next page...

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Mol	Chain	Res	Type
1	6	992	A
1	6	993	A
1	6	997	G
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	1039	A
1	6	1040	G
1	6	1043	A
1	6	1045	C
1	6	1046	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	1061	A
1	6	1063	U
1	6	1066	C
1	6	1067	C
1	6	1070	C
1	6	1073	G
1	6	1075	C
1	6	1082	C
1	6	1087	A
1	6	1092	A
1	6	1093	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	1137	A
1	6	1138	A
1	6	1146	G
1	6	1151	A

Continued on next page...

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Mol	Chain	Res	Type
1	6	1155	G
1	6	1158	C
1	6	1159	C
1	6	1160	A
1	6	1167	G
1	6	1185	U
1	6	1194	A
1	6	1196	A
1	6	1199	G
1	6	1200	G
1	6	1202	A
1	6	1217	A
1	6	1218	G
1	6	1220	C
1	6	1221	A
1	6	1226	A
1	6	1228	G
1	6	1229	G
1	6	1230	A
1	6	1239	U
1	6	1241	G
1	6	1242	A
1	6	1243	G
1	6	1244	A
1	6	1245	G
1	6	1246	C
1	6	1255	G
1	6	1256	A
1	6	1257	U
1	6	1258	U
1	6	1262	U
1	6	1285	U
1	6	1286	U
1	6	1288	G
1	6	1291	G
1	6	1297	G
1	6	1305	U
1	6	1314	U
1	6	1315	U
1	6	1316	G
1	6	1321	A
1	6	1331	A

Continued on next page...

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Mol	Chain	Res	Type
1	6	1338	C
1	6	1341	A
1	6	1343	U
1	6	1344	A
1	6	1345	A
1	6	1346	A
1	6	1348	A
1	6	1354	G
1	6	1361	U
1	6	1363	U
1	6	1364	G
1	6	1371	A
1	6	1372	U
1	6	1383	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	1415	U
1	6	1425	A
1	6	1427	A
1	6	1428	G
1	6	1429	G
1	6	1433	G
1	6	1445	G
1	6	1446	A
1	6	1447	C
1	6	1448	G
1	6	1458	G
1	6	1459	C
1	6	1460	A
1	6	1461	C
1	6	1471	A
1	6	1481	C
1	6	1482	C
1	6	1490	C
1	6	1491	U
1	6	1492	A
1	6	1493	A

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Mol	Chain	Res	Type
1	6	1494	C
1	6	1496	U
1	6	1506	G
1	6	1510	U
1	6	1514	U
1	6	1516	A
1	6	1517	U
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	1542	G
1	6	1554	U
1	6	1557	U
1	6	1559	A
1	6	1568	C
1	6	1569	A
1	6	1573	A
1	6	1574	G
1	6	1575	G
1	6	1577	A
1	6	1584	G
1	6	1590	G
1	6	1601	G
1	6	1616	G
1	6	1618	C
1	6	1621	U
1	6	1634	C
1	6	1635	A
1	6	1637	C
1	6	1639	C
1	6	1656	U
1	6	1657	U
1	6	1658	G
1	6	1696	G
1	6	1697	G
1	6	1698	G
1	6	1699	G

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Mol	Chain	Res	Type
1	6	1700	C
1	6	1701	A
1	6	1702	A
1	6	1710	U
1	6	1712	A
1	6	1715	G
1	6	1716	C
1	6	1717	G
1	6	1725	U
1	6	1731	A
1	6	1736	G
1	6	1755	A
1	6	1760	G
1	6	1762	A
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	1783	C
1	6	1789	G
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	26	A
36	5	38	U
36	5	40	A
36	5	43	A
36	5	49	A
36	5	58	G
36	5	60	A
36	5	62	A
36	5	65	A
36	5	66	A
36	5	73	C
36	5	76	G

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Mol	Chain	Res	Type
36	5	92	G
36	5	93	C
36	5	96	G
36	5	97	U
36	5	99	A
36	5	105	C
36	5	109	A
36	5	110	G
36	5	113	C
36	5	116	A
36	5	120	G
36	5	121	A
36	5	122	A
36	5	133	U
36	5	134	U
36	5	135	C
36	5	136	G
36	5	148	G
36	5	150	A
36	5	156	G
36	5	157	A
36	5	165	A
36	5	166	C
36	5	170	G
36	5	171	G
36	5	173	G
36	5	174	C
36	5	178	U
36	5	180	C
36	5	181	U
36	5	182	U
36	5	187	A
36	5	190	U
36	5	191	U
36	5	200	C
36	5	210	U
36	5	211	A
36	5	213	A
36	5	218	G
36	5	219	A
36	5	221	A
36	5	231	G

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Mol	Chain	Res	Type
36	5	234	G
36	5	236	G
36	5	237	G
36	5	238	A
36	5	239	G
36	5	240	U
36	5	244	G
36	5	247	C
36	5	248	U
36	5	249	U
36	5	250	U
36	5	251	G
36	5	252	U
36	5	253	A
36	5	254	A
36	5	257	U
36	5	258	G
36	5	269	G
36	5	284	A
36	5	286	U
36	5	295	A
36	5	298	U
36	5	322	U
36	5	323	A
36	5	329	U
36	5	339	C
36	5	349	A
36	5	350	C
36	5	370	U
36	5	376	G
36	5	397	A
36	5	398	A
36	5	399	A
36	5	401	U
36	5	402	A
36	5	403	C
36	5	421	G
36	5	422	A
36	5	426	G
36	5	436	A
36	5	437	G
36	5	439	C

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Mol	Chain	Res	Type
36	5	441	U
36	5	442	G
36	5	443	G
36	5	492	U
36	5	495	G
36	5	519	A
36	5	521	A
36	5	535	G
36	5	542	G
36	5	546	C
36	5	547	G
36	5	548	G
36	5	551	A
36	5	552	G
36	5	553	U
36	5	555	U
36	5	557	A
36	5	559	A
36	5	570	A
36	5	578	A
36	5	579	G
36	5	588	G
36	5	589	A
36	5	592	A
36	5	600	G
36	5	604	G
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	656	A
36	5	660	A
36	5	675	C
36	5	677	A
36	5	681	U
36	5	683	U
36	5	705	A

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Mol	Chain	Res	Type
36	5	712	G
36	5	715	A
36	5	716	A
36	5	719	U
36	5	725	G
36	5	726	G
36	5	766	U
36	5	767	U
36	5	776	U
36	5	777	U
36	5	781	G
36	5	785	G
36	5	786	A
36	5	806	A
36	5	807	A
36	5	817	A
36	5	830	A
36	5	851	C
36	5	861	C
36	5	874	U
36	5	875	G
36	5	879	U
36	5	896	A
36	5	897	U
36	5	907	G
36	5	908	G
36	5	910	G
36	5	914	A
36	5	916	G
36	5	917	A
36	5	921	A
36	5	923	C
36	5	924	G
36	5	937	G
36	5	944	C
36	5	959	C
36	5	960	U
36	5	963	G
36	5	964	G
36	5	979	U
36	5	981	U
36	5	994	G

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Mol	Chain	Res	Type
36	5	1000	C
36	5	1001	G
36	5	1002	A
36	5	1003	A
36	5	1006	A
36	5	1010	G
36	5	1014	U
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	1071	U
36	5	1072	G
36	5	1079	A
36	5	1081	U
36	5	1082	U
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

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Mol	Chain	Res	Type
36	5	1152	G
36	5	1153	A
36	5	1159	A
36	5	1161	G
36	5	1180	A
36	5	1181	U
36	5	1182	A
36	5	1190	A
36	5	1191	U
36	5	1192	C
36	5	1193	A
36	5	1196	C
36	5	1201	C
36	5	1202	A
36	5	1206	G
36	5	1209	G
36	5	1222	G
36	5	1232	C
36	5	1236	G
36	5	1237	G
36	5	1239	C
36	5	1241	U
36	5	1242	G
36	5	1243	G
36	5	1245	A
36	5	1246	G
36	5	1254	C
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	1285	G
36	5	1301	A
36	5	1303	A
36	5	1307	G
36	5	1308	A
36	5	1309	U
36	5	1313	G
36	5	1330	A
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	1363	A
36	5	1385	C
36	5	1386	A
36	5	1387	G
36	5	1399	A
36	5	1400	G
36	5	1418	A
36	5	1419	A
36	5	1421	G
36	5	1428	A
36	5	1431	G
36	5	1433	A
36	5	1434	G
36	5	1437	C
36	5	1443	G
36	5	1445	U
36	5	1446	A
36	5	1450	G
36	5	1465	A
36	5	1467	A
36	5	1481	A
36	5	1482	A
36	5	1488	G
36	5	1490	A
36	5	1495	U
36	5	1500	G
36	5	1503	A
36	5	1508	C
36	5	1514	G
36	5	1519	G
36	5	1522	U
36	5	1526	U
36	5	1533	U
36	5	1536	G

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Mol	Chain	Res	Type
36	5	1541	G
36	5	1542	G
36	5	1549	U
36	5	1553	U
36	5	1554	U
36	5	1555	U
36	5	1556	C
36	5	1557	A
36	5	1560	G
36	5	1561	G
36	5	1562	C
36	5	1563	C
36	5	1565	G
36	5	1566	A
36	5	1567	U
36	5	1569	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	1580	A
36	5	1581	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	1657	C
36	5	1658	G
36	5	1683	A

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Mol	Chain	Res	Type
36	5	1713	G
36	5	1716	U
36	5	1717	U
36	5	1721	U
36	5	1725	C
36	5	1736	G
36	5	1741	A
36	5	1750	A
36	5	1751	G
36	5	1762	C
36	5	1764	U
36	5	1765	U
36	5	1766	G
36	5	1770	G
36	5	1780	G
36	5	1795	U
36	5	1796	G
36	5	1797	A
36	5	1810	A
36	5	1812	G
36	5	1813	A
36	5	1814	A
36	5	1815	U
36	5	1816	A
36	5	1817	G
36	5	1818	U
36	5	1820	U
36	5	1821	U
36	5	1839	A
36	5	1841	A
36	5	1842	A
36	5	1846	C
36	5	1849	C
36	5	1850	A
36	5	1878	G
36	5	1879	A
36	5	1880	U
36	5	1893	A
36	5	1906	G
36	5	1908	A
36	5	1918	C
36	5	1935	G

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Mol	Chain	Res	Type
36	5	1947	G
36	5	1952	G
36	5	1953	G
36	5	2100	A
36	5	2101	C
36	5	2102	U
36	5	2112	U
36	5	2113	A
36	5	2121	G
36	5	2122	G
36	5	2131	A
36	5	2144	A
36	5	2158	A
36	5	2169	G
36	5	2177	G
36	5	2187	G
36	5	2188	A
36	5	2192	C
36	5	2198	A
36	5	2201	G
36	5	2205	U
36	5	2206	G
36	5	2210	G
36	5	2225	U
36	5	2228	A
36	5	2229	A
36	5	2234	G
36	5	2244	A
36	5	2246	G
36	5	2250	G
36	5	2251	G
36	5	2252	A
36	5	2253	G
36	5	2255	A
36	5	2256	A
36	5	2257	C
36	5	2258	U
36	5	2270	A
36	5	2273	G
36	5	2278	C
36	5	2279	A
36	5	2280	A

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Mol	Chain	Res	Type
36	5	2282	U
36	5	2288	G
36	5	2307	G
36	5	2310	U
36	5	2313	A
36	5	2315	G
36	5	2316	G
36	5	2318	U
36	5	2321	A
36	5	2324	A
36	5	2335	G
36	5	2336	U
36	5	2354	C
36	5	2360	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	2394	G
36	5	2397	A
36	5	2398	A
36	5	2401	A
36	5	2402	A
36	5	2403	G
36	5	2404	A
36	5	2405	C
36	5	2410	U
36	5	2411	U
36	5	2418	G
36	5	2419	A
36	5	2435	G
36	5	2437	G
36	5	2438	A
36	5	2439	A
36	5	2440	G
36	5	2441	A
36	5	2443	A
36	5	2504	U
36	5	2505	U
36	5	2506	U

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Mol	Chain	Res	Type
36	5	2507	C
36	5	2508	U
36	5	2509	U
36	5	2510	U
36	5	2511	A
36	5	2512	C
36	5	2514	U
36	5	2515	A
36	5	2518	C
36	5	2523	A
36	5	2526	C
36	5	2530	G
36	5	2532	U
36	5	2537	U
36	5	2538	U
36	5	2539	C
36	5	2540	A
36	5	2543	U
36	5	2549	G
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	2589	G
36	5	2593	A
36	5	2594	C
36	5	2598	G
36	5	2606	G
36	5	2607	G
36	5	2613	U
36	5	2614	G
36	5	2639	G

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Mol	Chain	Res	Type
36	5	2652	U
36	5	2656	A
36	5	2674	A
36	5	2677	G
36	5	2678	A
36	5	2681	U
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	2707	C
36	5	2714	G
36	5	2716	U
36	5	2728	G
36	5	2729	U
36	5	2752	U
36	5	2753	G
36	5	2755	C
36	5	2762	A
36	5	2771	U
36	5	2772	C
36	5	2773	C
36	5	2777	G
36	5	2778	G
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	2822	U
36	5	2824	G
36	5	2829	U
36	5	2839	G
36	5	2840	C

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Mol	Chain	Res	Type
36	5	2843	U
36	5	2845	A
36	5	2852	C
36	5	2853	A
36	5	2871	G
36	5	2872	A
36	5	2873	U
36	5	2875	U
36	5	2876	C
36	5	2887	A
36	5	2889	C
36	5	2896	A
36	5	2899	C
36	5	2902	A
36	5	2909	U
36	5	2914	G
36	5	2923	U
36	5	2924	U
36	5	2935	U
36	5	2936	A
36	5	2942	C
36	5	2947	G
36	5	2954	U
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	3028	G
36	5	3049	A
36	5	3056	U
36	5	3057	U
36	5	3059	G
36	5	3078	U
36	5	3079	U
36	5	3086	A
36	5	3087	A
36	5	3092	C

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Mol	Chain	Res	Type
36	5	3102	G
36	5	3104	U
36	5	3119	U
36	5	3122	A
36	5	3130	A
36	5	3131	U
36	5	3142	A
36	5	3143	C
36	5	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	3167	A
36	5	3168	A
36	5	3172	A
36	5	3173	G
36	5	3174	A
36	5	3175	U
36	5	3176	G
36	5	3178	A
36	5	3179	U
36	5	3181	C
36	5	3187	A
36	5	3195	U
36	5	3196	U
36	5	3198	U
36	5	3199	G
36	5	3207	U
36	5	3217	C
36	5	3218	A
36	5	3219	G
36	5	3224	G
36	5	3228	C
36	5	3229	G
36	5	3239	G
36	5	3242	G
36	5	3243	A
36	5	3244	A

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Mol	Chain	Res	Type
36	5	3245	A
36	5	3246	G
36	5	3247	G
36	5	3253	G
36	5	3259	U
36	5	3263	G
36	5	3270	U
36	5	3275	U
36	5	3276	G
36	5	3277	U
36	5	3279	A
36	5	3280	U
36	5	3281	U
36	5	3282	U
36	5	3285	C
36	5	3286	G
36	5	3288	G
36	5	3289	G
36	5	3290	G
36	5	3294	A
36	5	3304	U
36	5	3307	A
36	5	3313	U
36	5	3315	G
36	5	3316	A
36	5	3317	U
36	5	3318	G
36	5	3319	U
36	5	3320	A
36	5	3341	U
36	5	3342	A
36	5	3345	G
36	5	3351	U
36	5	3352	U
36	5	3354	U
36	5	3358	U
36	5	3369	G
36	5	3377	G
36	5	3378	C
36	5	3382	U
36	5	3383	G
36	5	3389	U

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Mol	Chain	Res	Type
36	5	3396	U
37	7	7	G
37	7	22	A
37	7	27	A
37	7	33	U
37	7	38	U
37	7	52	G
37	7	53	U
37	7	54	U
37	7	55	A
37	7	60	G
37	7	63	A
37	7	65	G
37	7	73	C
37	7	74	C
37	7	76	A
37	7	78	U
37	7	91	G
37	7	93	C
37	7	99	G
37	7	101	G
37	7	102	A
37	7	103	A
37	7	112	G
38	8	16	G
38	8	21	C
38	8	34	U
38	8	35	C
38	8	48	A
38	8	50	C
38	8	51	G
38	8	52	A
38	8	59	A
38	8	60	U
38	8	62	C
38	8	63	G
38	8	80	A
38	8	81	U
38	8	82	U
38	8	83	C
38	8	84	C
38	8	85	G

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Mol	Chain	Res	Type
38	8	86	U
38	8	87	G
38	8	95	G
38	8	96	A
38	8	97	A
38	8	104	A
38	8	105	A
38	8	106	C
38	8	110	C
38	8	111	A
38	8	113	U
38	8	116	G
38	8	122	U
38	8	125	U
38	8	126	A
38	8	127	U
38	8	136	G
38	8	138	A
38	8	152	G
38	8	156	U
38	8	157	U
38	8	158	U

There are no RNA pucker outliers to report.

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 2555 ligands modelled in this entry, 1422 are monoatomic - leaving 1133 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length

(or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
86	OHX	1	3867	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3868	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3869	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3870	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3871	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3872	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3873	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3874	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3875	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3876	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3877	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3878	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3879	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3880	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3881	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3882	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3883	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3884	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3885	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3886	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3887	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3888	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3889	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3890	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3891	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3892	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3893	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3894	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3895	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3896	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3897	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3898	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3899	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3900	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3901	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3905	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	1	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3919	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3948	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	1	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3962	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3983	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3991	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	1	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4005	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4034	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	1	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4077	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	1	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4120	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	1	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4163	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	1	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4206	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	1	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4212	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4213	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4214	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	1	4216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2022	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2040	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2054	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	2	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2097	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	2	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2140	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	2	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	2	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
87	EDE	2	2180	-	48,55,55	0.92	3 (6%)	55,70,70	1.19	5 (9%)
86	OHX	3	215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	217	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	3	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	3	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	232	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	233	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	234	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	235	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	236	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	237	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	238	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	4	239	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3902	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3903	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3904	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3905	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3906	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3907	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3908	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3909	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3910	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3911	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3912	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3913	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3914	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3915	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3916	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3917	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3918	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3919	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	5	3920	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3921	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3922	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3923	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3924	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3925	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3926	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3927	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3928	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3929	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3930	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3931	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3932	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3933	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3934	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3935	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3936	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3937	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3938	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3939	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3940	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3941	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3942	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3943	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3944	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3945	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3946	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3947	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3948	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3949	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3950	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3951	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3952	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3953	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3954	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3955	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3956	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3957	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3958	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3959	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3960	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3961	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3962	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	5	3963	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3964	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3965	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3966	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3967	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3968	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3969	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3970	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3971	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3972	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3973	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3974	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3975	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3976	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3977	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3978	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3979	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3980	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3981	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3982	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3983	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3984	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3985	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3986	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3987	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3988	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3989	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3990	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3991	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3992	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3993	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3994	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3995	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3996	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3997	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3998	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	3999	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4000	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4001	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4002	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4003	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4004	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4005	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	5	4006	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4007	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4008	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4009	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4010	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4011	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4012	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4013	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4014	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4015	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4016	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4017	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4018	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4019	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4020	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4021	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4022	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4023	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4024	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4025	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4026	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4027	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4028	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4029	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4030	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4031	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4032	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4033	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4034	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4035	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4036	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4037	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4038	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4039	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4040	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4041	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4042	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4043	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4044	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4048	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
86	OHX	5	4049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4053	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4091	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	5	4092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4096	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4134	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	5	4135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4139	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4177	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	5	4178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4182	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4207	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4208	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4209	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4210	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4211	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4212	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4213	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4214	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4220	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
86	OHX	5	4221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4230	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4231	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4232	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4233	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4234	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4235	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4236	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4237	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4238	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4239	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4240	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4241	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4242	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4243	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4244	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4245	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4246	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4247	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4248	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4249	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4250	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4251	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4252	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4253	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	5	4254	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2045	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2046	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2047	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2048	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2049	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2050	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2051	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2052	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2053	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	6	2054	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2055	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2056	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2057	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2058	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2059	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2060	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2061	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2062	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2063	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2064	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2065	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2066	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2067	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2068	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2069	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2070	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2071	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2072	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2073	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2074	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2075	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2076	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2077	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2078	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2079	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2080	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2081	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2082	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2083	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2084	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2085	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2086	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2087	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2088	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2089	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2090	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2091	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2092	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2093	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2094	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2095	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2096	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	6	2097	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2098	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2099	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2100	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2104	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2105	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2106	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2107	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2108	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2109	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2110	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2111	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2112	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2113	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2114	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2115	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2116	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2117	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2118	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2119	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2120	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2121	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2122	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2123	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2124	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2125	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2126	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2127	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2128	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2129	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2130	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2131	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2132	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2133	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2134	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2135	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2136	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2137	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2138	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2139	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	6	2140	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2141	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2142	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2143	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2144	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2145	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2146	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2147	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2148	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2149	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2150	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2151	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2152	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2153	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2154	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2155	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2156	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2157	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2158	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2159	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2160	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2161	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2162	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2163	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2164	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2165	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2166	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2167	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2168	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2169	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2170	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2171	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2172	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2173	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2174	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2175	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2176	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2177	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2178	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2179	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2180	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2181	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2182	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	6	2183	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2184	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2185	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2186	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2187	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2188	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2189	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2190	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2191	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2192	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2193	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2194	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2195	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2196	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2197	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2198	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2199	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2200	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	6	2201	-	0,6,6	0.00	-	0,15,15	0.00	-
87	EDE	6	2202	-	48,55,55	0.71	2 (4%)	55,70,70	1.33	5 (9%)
86	OHX	7	216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	224	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	7	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	214	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	215	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	216	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	217	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	218	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	219	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	220	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	221	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	222	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	223	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	224	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	8	225	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	226	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	227	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	228	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	8	229	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	C8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	D9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L3	405	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	L4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M0	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M5	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M7	205	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M7	206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M8	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	M9	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	N1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	N9	101	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	O7	103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	Q2	503	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	S8	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	SR	401	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c3	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c5	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	c8	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	d4	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	d9	102	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	404	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l3	405	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l4	402	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l4	403	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	304	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l5	305	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	l9	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m0	301	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m0	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m1	202	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
86	OHX	m4	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m5	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m6	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	m7	206	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n3	203	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n3	204	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	n9	103	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o2	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o3	202	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o7	502	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	o7	503	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	q2	502	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s1	302	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s1	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s4	301	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s8	303	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	s9	201	-	0,6,6	0.00	-	0,15,15	0.00	-
86	OHX	sR	401	-	0,6,6	0.00	-	0,15,15	0.00	-

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3867	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3868	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3869	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3870	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3871	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3872	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3873	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3874	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3875	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3876	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3877	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3878	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3879	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3880	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3881	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3882	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3883	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3884	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3885	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3886	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3887	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3888	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3889	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3890	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3891	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3892	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3893	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3894	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3895	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3896	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3897	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3898	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3899	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3900	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3901	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3902	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3903	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3904	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3905	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3906	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3907	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3908	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3909	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3910	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3911	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3912	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3913	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3914	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3915	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3916	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3917	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3918	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3919	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3920	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3921	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3922	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3923	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3924	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3925	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3926	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3927	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3928	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3929	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3930	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3931	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3932	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3933	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3934	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3935	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3936	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3937	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3938	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3939	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3940	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3941	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3942	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3943	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3944	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3945	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3946	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3947	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3948	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3949	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3950	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3951	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3952	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3953	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3954	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3955	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3956	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3957	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3958	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3959	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3960	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3961	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3962	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3963	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3964	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3965	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3966	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3967	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	3968	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3969	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3970	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3971	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3972	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3973	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3974	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3975	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3976	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3977	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3978	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3979	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3980	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3981	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3982	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3983	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3984	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3985	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3986	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3987	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3988	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3989	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3990	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3991	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3992	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3993	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3994	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3995	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3996	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3997	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3998	-	-	0/0/0/0	0/0/0/0
86	OHX	1	3999	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4000	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4001	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4002	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4003	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4004	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4005	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4006	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4007	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4008	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4009	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4010	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4011	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4012	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4013	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4014	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4015	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4016	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4017	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4018	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4019	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4020	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4021	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4022	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4023	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4024	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4025	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4026	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4027	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4028	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4029	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4030	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4031	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4032	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4033	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4034	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4035	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4036	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4037	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4038	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4039	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4040	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4041	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4042	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4043	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4044	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4045	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4046	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4047	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4048	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4049	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4050	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4051	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4052	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4053	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4054	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4055	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4056	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4057	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4058	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4059	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4060	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4061	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4062	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4063	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4064	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4065	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4066	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4067	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4068	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4069	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4070	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4071	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4072	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4073	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4074	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4075	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4076	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4077	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4078	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4079	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4080	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4081	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4082	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4083	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4084	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4085	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4086	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4087	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4088	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4089	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4090	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4091	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4092	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4093	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4094	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4095	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4096	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4097	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4098	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4099	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4100	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4101	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4102	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4103	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4104	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4105	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4106	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4107	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4108	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4109	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4110	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4111	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4112	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4113	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4114	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4115	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4116	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4117	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4118	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4119	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4120	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4121	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4122	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4123	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4124	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4125	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4126	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4127	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4128	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4129	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4130	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4131	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4132	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4133	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4134	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4135	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4136	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4137	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4138	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4139	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4140	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4141	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4142	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4143	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4144	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4145	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4146	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4147	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4148	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4149	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4150	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4151	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4152	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4153	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4154	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4155	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4156	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4157	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4158	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4159	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4160	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4161	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4162	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4163	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4164	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4165	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4166	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4167	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4168	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4169	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4170	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4171	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4172	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4173	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4174	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4175	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4176	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4177	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	1	4178	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4179	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4180	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4181	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4182	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4183	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4184	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4185	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4186	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4187	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4188	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4189	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4190	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4191	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4192	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4193	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4194	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4195	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4196	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4197	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4198	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4199	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4200	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4201	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4202	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4203	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4204	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4205	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4206	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4207	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4208	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4209	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4210	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4211	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4212	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4213	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4214	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4215	-	-	0/0/0/0	0/0/0/0
86	OHX	1	4216	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2022	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2023	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2024	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2025	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2026	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2027	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2028	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2029	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2030	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2031	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2032	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2033	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2034	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2035	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2036	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2037	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2038	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2039	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2040	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2041	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2042	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2043	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2044	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2045	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2046	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2047	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2048	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2049	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2050	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2051	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2052	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2053	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2054	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2055	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2056	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2057	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2058	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2059	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2060	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2061	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2062	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2063	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2064	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2065	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2066	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2067	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2068	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2069	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2070	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2071	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2072	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2073	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2074	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2075	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2076	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2077	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2078	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2079	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2080	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2081	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2082	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2083	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2084	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2085	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2086	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2087	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2088	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2089	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2090	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2091	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2092	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2093	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2094	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2095	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2096	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2097	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2098	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2099	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2100	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2101	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2102	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2103	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2104	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2105	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2106	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2107	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2108	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2109	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2110	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2111	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2112	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2113	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2114	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2115	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2116	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2117	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2118	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2119	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2120	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2121	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2122	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2123	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2124	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2125	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2126	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2127	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2128	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2129	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2130	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2131	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2132	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2133	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2134	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2135	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2136	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2137	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2138	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2139	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2140	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2141	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2142	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2143	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2144	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2145	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2146	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2147	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2148	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2149	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2150	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	2	2151	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2152	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2153	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2154	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2155	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2156	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2157	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2158	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2159	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2160	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2161	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2162	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2163	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2164	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2165	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2166	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2167	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2168	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2169	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2170	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2171	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2172	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2173	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2174	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2175	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2176	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2177	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2178	-	-	0/0/0/0	0/0/0/0
86	OHX	2	2179	-	-	0/0/0/0	0/0/0/0
87	EDE	2	2180	-	-	0/61/66/66	0/1/1/1
86	OHX	3	215	-	-	0/0/0/0	0/0/0/0
86	OHX	3	216	-	-	0/0/0/0	0/0/0/0
86	OHX	3	217	-	-	0/0/0/0	0/0/0/0
86	OHX	3	218	-	-	0/0/0/0	0/0/0/0
86	OHX	3	219	-	-	0/0/0/0	0/0/0/0
86	OHX	3	220	-	-	0/0/0/0	0/0/0/0
86	OHX	3	221	-	-	0/0/0/0	0/0/0/0
86	OHX	3	222	-	-	0/0/0/0	0/0/0/0
86	OHX	3	223	-	-	0/0/0/0	0/0/0/0
86	OHX	3	224	-	-	0/0/0/0	0/0/0/0
86	OHX	3	225	-	-	0/0/0/0	0/0/0/0
86	OHX	4	223	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	4	224	-	-	0/0/0/0	0/0/0/0
86	OHX	4	225	-	-	0/0/0/0	0/0/0/0
86	OHX	4	226	-	-	0/0/0/0	0/0/0/0
86	OHX	4	227	-	-	0/0/0/0	0/0/0/0
86	OHX	4	228	-	-	0/0/0/0	0/0/0/0
86	OHX	4	229	-	-	0/0/0/0	0/0/0/0
86	OHX	4	230	-	-	0/0/0/0	0/0/0/0
86	OHX	4	231	-	-	0/0/0/0	0/0/0/0
86	OHX	4	232	-	-	0/0/0/0	0/0/0/0
86	OHX	4	233	-	-	0/0/0/0	0/0/0/0
86	OHX	4	234	-	-	0/0/0/0	0/0/0/0
86	OHX	4	235	-	-	0/0/0/0	0/0/0/0
86	OHX	4	236	-	-	0/0/0/0	0/0/0/0
86	OHX	4	237	-	-	0/0/0/0	0/0/0/0
86	OHX	4	238	-	-	0/0/0/0	0/0/0/0
86	OHX	4	239	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3902	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3903	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3904	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3905	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3906	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3907	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3908	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3909	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3910	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3911	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3912	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3913	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3914	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3915	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3916	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3917	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3918	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3919	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3920	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3921	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3922	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3923	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3924	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3925	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3926	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3927	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	3928	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3929	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3930	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3931	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3932	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3933	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3934	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3935	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3936	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3937	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3938	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3939	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3940	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3941	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3942	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3943	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3944	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3945	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3946	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3947	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3948	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3949	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3950	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3951	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3952	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3953	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3954	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3955	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3956	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3957	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3958	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3959	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3960	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3961	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3962	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3963	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3964	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3965	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3966	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3967	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3968	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3969	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	3970	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3971	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3972	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3973	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3974	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3975	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3976	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3977	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3978	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3979	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3980	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3981	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3982	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3983	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3984	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3985	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3986	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3987	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3988	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3989	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3990	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3991	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3992	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3993	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3994	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3995	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3996	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3997	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3998	-	-	0/0/0/0	0/0/0/0
86	OHX	5	3999	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4000	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4001	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4002	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4003	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4004	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4005	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4006	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4007	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4008	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4009	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4010	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4011	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4012	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4013	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4014	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4015	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4016	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4017	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4018	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4019	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4020	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4021	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4022	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4023	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4024	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4025	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4026	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4027	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4028	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4029	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4030	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4031	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4032	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4033	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4034	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4035	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4036	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4037	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4038	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4039	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4040	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4041	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4042	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4043	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4044	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4045	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4046	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4047	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4048	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4049	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4050	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4051	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4052	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4053	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4054	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4055	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4056	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4057	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4058	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4059	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4060	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4061	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4062	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4063	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4064	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4065	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4066	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4067	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4068	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4069	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4070	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4071	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4072	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4073	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4074	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4075	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4076	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4077	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4078	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4079	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4080	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4081	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4082	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4083	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4084	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4085	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4086	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4087	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4088	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4089	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4090	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4091	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4092	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4093	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4094	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4095	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4096	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4097	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4098	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4099	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4100	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4101	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4102	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4103	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4104	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4105	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4106	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4107	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4108	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4109	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4110	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4111	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4112	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4113	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4114	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4115	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4116	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4117	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4118	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4119	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4120	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4121	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4122	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4123	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4124	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4125	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4126	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4127	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4128	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4129	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4130	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4131	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4132	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4133	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4134	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4135	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4136	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4137	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4138	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4139	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4140	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4141	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4142	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4143	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4144	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4145	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4146	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4147	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4148	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4149	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4150	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4151	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4152	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4153	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4154	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4155	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4156	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4157	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4158	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4159	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4160	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4161	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4162	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4163	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4164	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4165	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4166	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4167	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4168	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4169	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4170	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4171	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4172	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4173	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4174	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4175	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4176	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4177	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4178	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4179	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4180	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4181	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4182	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4183	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4184	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4185	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4186	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4187	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4188	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4189	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4190	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4191	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4192	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4193	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4194	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4195	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4196	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4197	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4198	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4199	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4200	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4201	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4202	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4203	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4204	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4205	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4206	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4207	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4208	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4209	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4210	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4211	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4212	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4213	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4214	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4215	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4216	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4217	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4218	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4219	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4220	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4221	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	5	4222	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4223	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4224	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4225	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4226	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4227	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4228	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4229	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4230	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4231	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4232	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4233	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4234	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4235	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4236	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4237	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4238	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4239	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4240	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4241	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4242	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4243	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4244	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4245	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4246	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4247	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4248	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4249	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4250	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4251	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4252	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4253	-	-	0/0/0/0	0/0/0/0
86	OHX	5	4254	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2045	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2046	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2047	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2048	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2049	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2050	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2051	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2052	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2053	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2054	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2055	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2056	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2057	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2058	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2059	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2060	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2061	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2062	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2063	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2064	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2065	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2066	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2067	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2068	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2069	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2070	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2071	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2072	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2073	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2074	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2075	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2076	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2077	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2078	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2079	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2080	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2081	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2082	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2083	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2084	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2085	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2086	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2087	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2088	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2089	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2090	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2091	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2092	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2093	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2094	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2095	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2096	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2097	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2098	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2099	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2100	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2101	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2102	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2103	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2104	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2105	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2106	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2107	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2108	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2109	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2110	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2111	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2112	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2113	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2114	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2115	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2116	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2117	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2118	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2119	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2120	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2121	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2122	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2123	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2124	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2125	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2126	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2127	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2128	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2129	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2130	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2131	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2132	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2133	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2134	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2135	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2136	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2137	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2138	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2139	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2140	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2141	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2142	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2143	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2144	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2145	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2146	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2147	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2148	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2149	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2150	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2151	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2152	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2153	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2154	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2155	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2156	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2157	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2158	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2159	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2160	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2161	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2162	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2163	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2164	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2165	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2166	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2167	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2168	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2169	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2170	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2171	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2172	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2173	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2174	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2175	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2176	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2177	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2178	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2179	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	6	2180	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2181	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2182	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2183	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2184	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2185	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2186	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2187	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2188	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2189	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2190	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2191	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2192	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2193	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2194	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2195	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2196	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2197	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2198	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2199	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2200	-	-	0/0/0/0	0/0/0/0
86	OHX	6	2201	-	-	0/0/0/0	0/0/0/0
87	EDE	6	2202	-	-	0/61/66/66	0/1/1/1
86	OHX	7	216	-	-	0/0/0/0	0/0/0/0
86	OHX	7	217	-	-	0/0/0/0	0/0/0/0
86	OHX	7	218	-	-	0/0/0/0	0/0/0/0
86	OHX	7	219	-	-	0/0/0/0	0/0/0/0
86	OHX	7	220	-	-	0/0/0/0	0/0/0/0
86	OHX	7	221	-	-	0/0/0/0	0/0/0/0
86	OHX	7	222	-	-	0/0/0/0	0/0/0/0
86	OHX	7	223	-	-	0/0/0/0	0/0/0/0
86	OHX	7	224	-	-	0/0/0/0	0/0/0/0
86	OHX	7	225	-	-	0/0/0/0	0/0/0/0
86	OHX	7	226	-	-	0/0/0/0	0/0/0/0
86	OHX	7	227	-	-	0/0/0/0	0/0/0/0
86	OHX	8	214	-	-	0/0/0/0	0/0/0/0
86	OHX	8	215	-	-	0/0/0/0	0/0/0/0
86	OHX	8	216	-	-	0/0/0/0	0/0/0/0
86	OHX	8	217	-	-	0/0/0/0	0/0/0/0
86	OHX	8	218	-	-	0/0/0/0	0/0/0/0
86	OHX	8	219	-	-	0/0/0/0	0/0/0/0
86	OHX	8	220	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	8	221	-	-	0/0/0/0	0/0/0/0
86	OHX	8	222	-	-	0/0/0/0	0/0/0/0
86	OHX	8	223	-	-	0/0/0/0	0/0/0/0
86	OHX	8	224	-	-	0/0/0/0	0/0/0/0
86	OHX	8	225	-	-	0/0/0/0	0/0/0/0
86	OHX	8	226	-	-	0/0/0/0	0/0/0/0
86	OHX	8	227	-	-	0/0/0/0	0/0/0/0
86	OHX	8	228	-	-	0/0/0/0	0/0/0/0
86	OHX	8	229	-	-	0/0/0/0	0/0/0/0
86	OHX	C3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	C5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	C8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	D9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	403	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	404	-	-	0/0/0/0	0/0/0/0
86	OHX	L3	405	-	-	0/0/0/0	0/0/0/0
86	OHX	L4	403	-	-	0/0/0/0	0/0/0/0
86	OHX	M0	303	-	-	0/0/0/0	0/0/0/0
86	OHX	M5	302	-	-	0/0/0/0	0/0/0/0
86	OHX	M7	205	-	-	0/0/0/0	0/0/0/0
86	OHX	M7	206	-	-	0/0/0/0	0/0/0/0
86	OHX	M8	201	-	-	0/0/0/0	0/0/0/0
86	OHX	M9	201	-	-	0/0/0/0	0/0/0/0
86	OHX	N1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	N9	101	-	-	0/0/0/0	0/0/0/0
86	OHX	O3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	O7	103	-	-	0/0/0/0	0/0/0/0
86	OHX	Q2	503	-	-	0/0/0/0	0/0/0/0
86	OHX	S8	302	-	-	0/0/0/0	0/0/0/0
86	OHX	SR	401	-	-	0/0/0/0	0/0/0/0
86	OHX	c3	201	-	-	0/0/0/0	0/0/0/0
86	OHX	c5	201	-	-	0/0/0/0	0/0/0/0
86	OHX	c8	202	-	-	0/0/0/0	0/0/0/0
86	OHX	d4	202	-	-	0/0/0/0	0/0/0/0
86	OHX	d9	102	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	403	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	404	-	-	0/0/0/0	0/0/0/0
86	OHX	l3	405	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	402	-	-	0/0/0/0	0/0/0/0
86	OHX	l4	403	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	303	-	-	0/0/0/0	0/0/0/0
86	OHX	l5	304	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	OHX	l5	305	-	-	0/0/0/0	0/0/0/0
86	OHX	l9	202	-	-	0/0/0/0	0/0/0/0
86	OHX	m0	301	-	-	0/0/0/0	0/0/0/0
86	OHX	m0	302	-	-	0/0/0/0	0/0/0/0
86	OHX	m1	202	-	-	0/0/0/0	0/0/0/0
86	OHX	m4	201	-	-	0/0/0/0	0/0/0/0
86	OHX	m5	303	-	-	0/0/0/0	0/0/0/0
86	OHX	m6	202	-	-	0/0/0/0	0/0/0/0
86	OHX	m7	206	-	-	0/0/0/0	0/0/0/0
86	OHX	n1	201	-	-	0/0/0/0	0/0/0/0
86	OHX	n3	203	-	-	0/0/0/0	0/0/0/0
86	OHX	n3	204	-	-	0/0/0/0	0/0/0/0
86	OHX	n9	103	-	-	0/0/0/0	0/0/0/0
86	OHX	o2	201	-	-	0/0/0/0	0/0/0/0
86	OHX	o3	202	-	-	0/0/0/0	0/0/0/0
86	OHX	o7	502	-	-	0/0/0/0	0/0/0/0
86	OHX	o7	503	-	-	0/0/0/0	0/0/0/0
86	OHX	q2	502	-	-	0/0/0/0	0/0/0/0
86	OHX	s1	302	-	-	0/0/0/0	0/0/0/0
86	OHX	s1	303	-	-	0/0/0/0	0/0/0/0
86	OHX	s4	301	-	-	0/0/0/0	0/0/0/0
86	OHX	s8	303	-	-	0/0/0/0	0/0/0/0
86	OHX	s9	201	-	-	0/0/0/0	0/0/0/0
86	OHX	sR	401	-	-	0/0/0/0	0/0/0/0

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
87	2	2180	EDE	C29-N55	-3.33	1.27	1.33
87	6	2202	EDE	C29-N55	-3.14	1.27	1.33
87	2	2180	EDE	C34-C32	-2.09	1.49	1.51
87	6	2202	EDE	C29-N54	2.15	1.33	1.27
87	2	2180	EDE	C29-N54	2.38	1.33	1.27

All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
87	6	2202	EDE	C32-C31-C30	-4.81	98.00	112.84
87	6	2202	EDE	C2-N1-C30	-4.60	112.11	122.73
87	2	2180	EDE	C11-C10-C9	-3.56	102.64	113.98
87	2	2180	EDE	C9-N8-C7	-3.30	118.12	123.16
87	2	2180	EDE	C28-C29-N55	-2.53	114.34	117.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
87	6	2202	EDE	C35-C36-C37	-2.21	117.36	119.88
87	2	2180	EDE	C15-C14-C13	-2.12	109.45	112.68
87	6	2202	EDE	O43-C4-N5	2.02	126.70	122.90
87	2	2180	EDE	N55-C29-N54	2.11	127.62	121.67
87	6	2202	EDE	C2-C3-C4	4.57	116.73	111.16

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

497 monomers are involved in 796 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3867	OHX	1	0
86	1	3870	OHX	1	0
86	1	3872	OHX	1	0
86	1	3876	OHX	1	0
86	1	3879	OHX	1	0
86	1	3880	OHX	1	0
86	1	3881	OHX	1	0
86	1	3883	OHX	1	0
86	1	3885	OHX	2	0
86	1	3886	OHX	2	0
86	1	3888	OHX	1	0
86	1	3892	OHX	1	0
86	1	3893	OHX	1	0
86	1	3894	OHX	1	0
86	1	3897	OHX	1	0
86	1	3901	OHX	1	0
86	1	3902	OHX	1	0
86	1	3907	OHX	1	0
86	1	3909	OHX	1	0
86	1	3913	OHX	2	0
86	1	3926	OHX	1	0
86	1	3927	OHX	1	0
86	1	3928	OHX	2	0
86	1	3932	OHX	2	0
86	1	3934	OHX	3	0
86	1	3935	OHX	1	0
86	1	3940	OHX	7	0
86	1	3941	OHX	1	0
86	1	3942	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	3949	OHX	1	0
86	1	3956	OHX	1	0
86	1	3959	OHX	1	0
86	1	3960	OHX	4	0
86	1	3962	OHX	4	0
86	1	3964	OHX	1	0
86	1	3965	OHX	2	0
86	1	3966	OHX	2	0
86	1	3968	OHX	1	0
86	1	3969	OHX	1	0
86	1	3973	OHX	7	0
86	1	3974	OHX	1	0
86	1	3976	OHX	1	0
86	1	3977	OHX	3	0
86	1	3978	OHX	1	0
86	1	3979	OHX	1	0
86	1	3980	OHX	1	0
86	1	3982	OHX	1	0
86	1	3983	OHX	1	0
86	1	3984	OHX	2	0
86	1	3985	OHX	1	0
86	1	3987	OHX	2	0
86	1	3995	OHX	1	0
86	1	3998	OHX	1	0
86	1	3999	OHX	2	0
86	1	4003	OHX	1	0
86	1	4004	OHX	2	0
86	1	4005	OHX	8	0
86	1	4007	OHX	1	0
86	1	4008	OHX	2	0
86	1	4009	OHX	1	0
86	1	4010	OHX	1	0
86	1	4012	OHX	1	0
86	1	4019	OHX	1	0
86	1	4021	OHX	5	0
86	1	4025	OHX	1	0
86	1	4026	OHX	1	0
86	1	4029	OHX	1	0
86	1	4030	OHX	1	0
86	1	4032	OHX	1	0
86	1	4034	OHX	6	0
86	1	4040	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4041	OHX	2	0
86	1	4042	OHX	1	0
86	1	4043	OHX	3	0
86	1	4045	OHX	3	0
86	1	4046	OHX	3	0
86	1	4047	OHX	6	0
86	1	4049	OHX	2	0
86	1	4054	OHX	1	0
86	1	4057	OHX	6	0
86	1	4058	OHX	3	0
86	1	4059	OHX	6	0
86	1	4062	OHX	1	0
86	1	4063	OHX	4	0
86	1	4064	OHX	1	0
86	1	4065	OHX	1	0
86	1	4068	OHX	1	0
86	1	4072	OHX	1	0
86	1	4074	OHX	1	0
86	1	4075	OHX	2	0
86	1	4077	OHX	1	0
86	1	4081	OHX	1	0
86	1	4082	OHX	3	0
86	1	4084	OHX	1	0
86	1	4086	OHX	7	0
86	1	4087	OHX	3	0
86	1	4089	OHX	1	0
86	1	4090	OHX	1	0
86	1	4092	OHX	2	0
86	1	4096	OHX	1	0
86	1	4097	OHX	1	0
86	1	4098	OHX	1	0
86	1	4100	OHX	2	0
86	1	4101	OHX	1	0
86	1	4109	OHX	1	0
86	1	4111	OHX	1	0
86	1	4120	OHX	1	0
86	1	4122	OHX	1	0
86	1	4124	OHX	2	0
86	1	4127	OHX	1	0
86	1	4130	OHX	1	0
86	1	4134	OHX	3	0
86	1	4135	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	1	4137	OHX	1	0
86	1	4140	OHX	1	0
86	1	4141	OHX	3	0
86	1	4142	OHX	4	0
86	1	4143	OHX	1	0
86	1	4144	OHX	1	0
86	1	4146	OHX	2	0
86	1	4147	OHX	1	0
86	1	4149	OHX	2	0
86	1	4150	OHX	1	0
86	1	4153	OHX	2	0
86	1	4157	OHX	5	0
86	1	4158	OHX	3	0
86	1	4159	OHX	6	0
86	1	4163	OHX	1	0
86	1	4166	OHX	6	0
86	1	4167	OHX	3	0
86	1	4168	OHX	1	0
86	1	4170	OHX	1	0
86	1	4171	OHX	2	0
86	1	4174	OHX	1	0
86	1	4175	OHX	10	0
86	1	4177	OHX	3	0
86	1	4183	OHX	1	0
86	1	4184	OHX	3	0
86	1	4186	OHX	1	0
86	1	4187	OHX	1	0
86	1	4191	OHX	1	0
86	1	4192	OHX	1	0
86	1	4196	OHX	1	0
86	1	4197	OHX	1	0
86	1	4198	OHX	1	0
86	1	4199	OHX	1	0
86	1	4200	OHX	1	0
86	1	4201	OHX	6	0
86	1	4202	OHX	1	0
86	1	4204	OHX	1	0
86	1	4207	OHX	2	0
86	1	4210	OHX	1	0
86	1	4211	OHX	1	0
86	1	4212	OHX	1	0
86	2	2022	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2023	OHX	1	0
86	2	2025	OHX	2	0
86	2	2026	OHX	1	0
86	2	2030	OHX	8	0
86	2	2033	OHX	1	0
86	2	2034	OHX	1	0
86	2	2035	OHX	3	0
86	2	2037	OHX	1	0
86	2	2038	OHX	3	0
86	2	2040	OHX	1	0
86	2	2041	OHX	1	0
86	2	2043	OHX	6	0
86	2	2044	OHX	1	0
86	2	2046	OHX	2	0
86	2	2047	OHX	1	0
86	2	2050	OHX	1	0
86	2	2052	OHX	1	0
86	2	2053	OHX	1	0
86	2	2057	OHX	1	0
86	2	2061	OHX	1	0
86	2	2063	OHX	1	0
86	2	2064	OHX	1	0
86	2	2065	OHX	1	0
86	2	2066	OHX	1	0
86	2	2069	OHX	3	0
86	2	2070	OHX	1	0
86	2	2071	OHX	1	0
86	2	2072	OHX	2	0
86	2	2073	OHX	2	0
86	2	2074	OHX	6	0
86	2	2075	OHX	1	0
86	2	2077	OHX	2	0
86	2	2081	OHX	2	0
86	2	2082	OHX	4	0
86	2	2083	OHX	2	0
86	2	2084	OHX	4	0
86	2	2085	OHX	1	0
86	2	2088	OHX	4	0
86	2	2089	OHX	6	0
86	2	2090	OHX	1	0
86	2	2091	OHX	1	0
86	2	2092	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	2	2095	OHX	1	0
86	2	2098	OHX	6	0
86	2	2099	OHX	1	0
86	2	2103	OHX	1	0
86	2	2107	OHX	1	0
86	2	2109	OHX	1	0
86	2	2110	OHX	2	0
86	2	2114	OHX	3	0
86	2	2115	OHX	2	0
86	2	2116	OHX	1	0
86	2	2118	OHX	1	0
86	2	2120	OHX	2	0
86	2	2122	OHX	1	0
86	2	2125	OHX	2	0
86	2	2126	OHX	1	0
86	2	2127	OHX	1	0
86	2	2129	OHX	1	0
86	2	2130	OHX	1	0
86	2	2131	OHX	8	0
86	2	2132	OHX	1	0
86	2	2134	OHX	1	0
86	2	2136	OHX	1	0
86	2	2138	OHX	1	0
86	2	2144	OHX	1	0
86	2	2145	OHX	7	0
86	2	2147	OHX	1	0
86	2	2148	OHX	1	0
86	2	2151	OHX	1	0
86	2	2153	OHX	1	0
86	2	2154	OHX	1	0
86	2	2155	OHX	1	0
86	2	2156	OHX	2	0
86	2	2158	OHX	1	0
86	2	2161	OHX	6	0
86	2	2164	OHX	1	0
86	2	2168	OHX	1	0
86	2	2172	OHX	1	0
87	2	2180	EDE	7	0
86	3	216	OHX	1	0
86	3	220	OHX	1	0
86	3	225	OHX	1	0
86	4	226	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	4	227	OHX	1	0
86	4	228	OHX	1	0
86	4	229	OHX	1	0
86	4	231	OHX	1	0
86	4	232	OHX	1	0
86	4	234	OHX	1	0
86	4	236	OHX	3	0
86	5	3902	OHX	2	0
86	5	3904	OHX	3	0
86	5	3908	OHX	1	0
86	5	3909	OHX	3	0
86	5	3911	OHX	1	0
86	5	3912	OHX	1	0
86	5	3913	OHX	1	0
86	5	3914	OHX	1	0
86	5	3917	OHX	1	0
86	5	3918	OHX	2	0
86	5	3919	OHX	2	0
86	5	3920	OHX	1	0
86	5	3921	OHX	2	0
86	5	3924	OHX	2	0
86	5	3925	OHX	1	0
86	5	3926	OHX	3	0
86	5	3934	OHX	1	0
86	5	3941	OHX	1	0
86	5	3944	OHX	7	0
86	5	3947	OHX	1	0
86	5	3950	OHX	1	0
86	5	3951	OHX	1	0
86	5	3955	OHX	1	0
86	5	3956	OHX	1	0
86	5	3958	OHX	1	0
86	5	3959	OHX	2	0
86	5	3960	OHX	1	0
86	5	3961	OHX	1	0
86	5	3962	OHX	2	0
86	5	3964	OHX	4	0
86	5	3968	OHX	1	0
86	5	3971	OHX	1	0
86	5	3972	OHX	1	0
86	5	3974	OHX	2	0
86	5	3975	OHX	5	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	3978	OHX	1	0
86	5	3980	OHX	9	0
86	5	3983	OHX	1	0
86	5	3984	OHX	1	0
86	5	3988	OHX	1	0
86	5	3989	OHX	1	0
86	5	3993	OHX	3	0
86	5	3997	OHX	1	0
86	5	3999	OHX	1	0
86	5	4001	OHX	1	0
86	5	4002	OHX	1	0
86	5	4003	OHX	6	0
86	5	4004	OHX	5	0
86	5	4005	OHX	1	0
86	5	4009	OHX	2	0
86	5	4013	OHX	6	0
86	5	4015	OHX	2	0
86	5	4016	OHX	1	0
86	5	4017	OHX	1	0
86	5	4019	OHX	1	0
86	5	4021	OHX	1	0
86	5	4022	OHX	6	0
86	5	4025	OHX	3	0
86	5	4026	OHX	2	0
86	5	4029	OHX	1	0
86	5	4031	OHX	1	0
86	5	4032	OHX	1	0
86	5	4033	OHX	1	0
86	5	4035	OHX	1	0
86	5	4036	OHX	1	0
86	5	4039	OHX	1	0
86	5	4051	OHX	1	0
86	5	4053	OHX	1	0
86	5	4054	OHX	1	0
86	5	4057	OHX	6	0
86	5	4061	OHX	1	0
86	5	4064	OHX	1	0
86	5	4068	OHX	7	0
86	5	4070	OHX	3	0
86	5	4074	OHX	1	0
86	5	4076	OHX	1	0
86	5	4077	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4078	OHX	1	0
86	5	4080	OHX	1	0
86	5	4081	OHX	1	0
86	5	4082	OHX	1	0
86	5	4083	OHX	1	0
86	5	4086	OHX	1	0
86	5	4089	OHX	1	0
86	5	4090	OHX	1	0
86	5	4091	OHX	5	0
86	5	4092	OHX	2	0
86	5	4093	OHX	1	0
86	5	4095	OHX	2	0
86	5	4096	OHX	3	0
86	5	4098	OHX	1	0
86	5	4099	OHX	1	0
86	5	4101	OHX	1	0
86	5	4104	OHX	2	0
86	5	4107	OHX	2	0
86	5	4111	OHX	1	0
86	5	4112	OHX	1	0
86	5	4115	OHX	1	0
86	5	4117	OHX	1	0
86	5	4118	OHX	1	0
86	5	4120	OHX	1	0
86	5	4127	OHX	1	0
86	5	4132	OHX	2	0
86	5	4134	OHX	1	0
86	5	4135	OHX	1	0
86	5	4138	OHX	3	0
86	5	4139	OHX	2	0
86	5	4144	OHX	6	0
86	5	4145	OHX	1	0
86	5	4148	OHX	1	0
86	5	4154	OHX	1	0
86	5	4157	OHX	1	0
86	5	4161	OHX	1	0
86	5	4163	OHX	1	0
86	5	4169	OHX	1	0
86	5	4174	OHX	1	0
86	5	4182	OHX	1	0
86	5	4183	OHX	1	0
86	5	4184	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	5	4186	OHX	1	0
86	5	4187	OHX	1	0
86	5	4191	OHX	2	0
86	5	4192	OHX	1	0
86	5	4193	OHX	2	0
86	5	4194	OHX	2	0
86	5	4195	OHX	1	0
86	5	4196	OHX	1	0
86	5	4197	OHX	2	0
86	5	4199	OHX	1	0
86	5	4200	OHX	11	0
86	5	4201	OHX	7	0
86	5	4202	OHX	7	0
86	5	4203	OHX	2	0
86	5	4204	OHX	1	0
86	5	4205	OHX	1	0
86	5	4206	OHX	1	0
86	5	4209	OHX	1	0
86	5	4215	OHX	1	0
86	5	4218	OHX	8	0
86	5	4220	OHX	1	0
86	5	4225	OHX	2	0
86	5	4227	OHX	1	0
86	5	4229	OHX	1	0
86	5	4230	OHX	2	0
86	5	4233	OHX	1	0
86	5	4235	OHX	6	0
86	5	4237	OHX	4	0
86	5	4241	OHX	1	0
86	5	4245	OHX	7	0
86	5	4251	OHX	2	0
86	6	2045	OHX	1	0
86	6	2048	OHX	2	0
86	6	2052	OHX	1	0
86	6	2053	OHX	1	0
86	6	2055	OHX	1	0
86	6	2058	OHX	6	0
86	6	2060	OHX	2	0
86	6	2061	OHX	1	0
86	6	2064	OHX	1	0
86	6	2065	OHX	1	0
86	6	2067	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2069	OHX	1	0
86	6	2072	OHX	3	0
86	6	2073	OHX	1	0
86	6	2074	OHX	1	0
86	6	2076	OHX	1	0
86	6	2078	OHX	1	0
86	6	2082	OHX	1	0
86	6	2085	OHX	1	0
86	6	2087	OHX	1	0
86	6	2091	OHX	1	0
86	6	2092	OHX	1	0
86	6	2094	OHX	1	0
86	6	2095	OHX	1	0
86	6	2096	OHX	2	0
86	6	2097	OHX	1	0
86	6	2099	OHX	3	0
86	6	2101	OHX	1	0
86	6	2102	OHX	1	0
86	6	2103	OHX	2	0
86	6	2106	OHX	2	0
86	6	2107	OHX	1	0
86	6	2108	OHX	1	0
86	6	2110	OHX	1	0
86	6	2111	OHX	1	0
86	6	2113	OHX	1	0
86	6	2117	OHX	1	0
86	6	2118	OHX	8	0
86	6	2119	OHX	1	0
86	6	2121	OHX	2	0
86	6	2122	OHX	1	0
86	6	2123	OHX	5	0
86	6	2124	OHX	3	0
86	6	2126	OHX	1	0
86	6	2128	OHX	2	0
86	6	2134	OHX	1	0
86	6	2135	OHX	2	0
86	6	2136	OHX	1	0
86	6	2143	OHX	1	0
86	6	2144	OHX	8	0
86	6	2146	OHX	1	0
86	6	2147	OHX	4	0
86	6	2148	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	6	2151	OHX	2	0
86	6	2156	OHX	2	0
86	6	2159	OHX	1	0
86	6	2160	OHX	1	0
86	6	2165	OHX	1	0
86	6	2168	OHX	8	0
86	6	2172	OHX	1	0
86	6	2175	OHX	1	0
86	6	2176	OHX	1	0
86	6	2177	OHX	1	0
86	6	2179	OHX	1	0
86	6	2180	OHX	1	0
86	6	2183	OHX	1	0
86	6	2185	OHX	2	0
86	6	2186	OHX	2	0
86	6	2187	OHX	3	0
86	6	2189	OHX	2	0
86	6	2196	OHX	1	0
86	6	2199	OHX	1	0
86	6	2201	OHX	1	0
87	6	2202	EDE	3	0
86	7	217	OHX	1	0
86	7	218	OHX	7	0
86	7	219	OHX	2	0
86	7	221	OHX	1	0
86	7	224	OHX	1	0
86	7	226	OHX	7	0
86	8	214	OHX	2	0
86	8	215	OHX	1	0
86	8	216	OHX	7	0
86	8	219	OHX	1	0
86	8	220	OHX	1	0
86	8	221	OHX	1	0
86	8	222	OHX	1	0
86	8	224	OHX	7	0
86	8	225	OHX	1	0
86	8	226	OHX	1	0
86	C3	201	OHX	1	0
86	C5	201	OHX	6	0
86	L3	403	OHX	2	0
86	L3	404	OHX	1	0
86	L4	403	OHX	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	M7	205	OHX	1	0
86	M9	201	OHX	1	0
86	N1	201	OHX	2	0
86	O3	201	OHX	1	0
86	O7	103	OHX	5	0
86	Q2	503	OHX	3	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

6.2 Non-standard residues in protein, DNA, RNA chains

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

6.3 Carbohydrates

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

6.4 Ligands

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

6.5 Other polymers

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